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 FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moho 05000410
 AUTH. NAME AUTHOR AFFILIATION
 MANGAN, C.V. Niagara Mohawk Power Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 SCHWENCER, A. Licensing Branch 2

SUBJECT: Forwards package of updated seismic hydrodynamic ^{see} ^{ref}
 qualification master list & response spectra, Equipment
 qualification audit re seismic & pump & valve operability
 requested in May 1985. ^{7 VOLS}

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 TITLE: OR/Licensing Submittal: Equipment Qualification

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NY NIAGARA
NM MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

April 12, 1985
(NMP2L 0385)

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Schwencer:

Re: Nine Mile Point Unit 2
Docket No. 50-410

The attached copies of the Seismic Hydrodynamic Qualification Master List are an update to item #4 of the data package originally sent to you March 5, 1985. Also attached are copies of the required response spectra for Nine Mile Point Unit 2.

The information provided shows that approximately 85 percent of the required equipment is qualified, more than 85 percent will be qualified in May 1985. We request an equipment qualification audit in May 1985 to review seismic and pump and valve operability for Nine Mile Point Unit 2.

Very truly yours,

C. V. Mangan

C. V. Mangan
Vice President

Nuclear Engineering & Licensing

JM:ja

Attachment

xc: R. Gramm, NRC Resident Inspector
C. Hoffmeyer (w/attachment)
B. Miller (w/attachment)
Project File (2)

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PDR ADCK 05000410
A PDR

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)

Niagara Mohawk Power Corporation)

(Nine Mile Point Unit 2))

Docket No. 50-410

AFFIDAVIT

C. V. Mangan, being duly sworn, states that he is Vice President of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information and belief.

C. V. Mangan

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 12th day of April, 1985.

Christine Austin
Notary Public in and for
Onondaga County, New York

My Commission expires:

CHRISTINE AUSTIN
Notary Public in the State of New York
Qualified in Onondaga Co. No. 4787687
My Commission Expires March 30, 1987

CHAS. E. KATZ
1000 Park Ave. N.Y. 17
CHAS. E. KATZ
1000 Park Ave. N.Y. 17
CHAS. E. KATZ
1000 Park Ave. N.Y. 17

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
MANUFACTURER

2CMS*TS59A	A/D CONVERTER FOXBORO	CO71L	CB	288	RM	Y	NA	NA	MF	NA	17	A	Y
2CMS*TS59B											17	A	Y
2CMS*TSX135											17	A	Y
2CMS*TSX145											17	A	Y
2CMS*TSX151											17	A	Y
2CMS*TSX153	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	17	A	Y
8504180062													

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ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	-----EQUIPMENT----- DESCRIPTION MANUFACTURER	SPEC NO.	---LOCATION---	---LOADS---	-QUAL METH-	-NAT FREQ-	----RRS REF----
			BLDG ELEV HTG	SEIS HYDR ANLYS	TEST	LOWEST	---STATUS--- QUAL INST

.....

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ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

2HCS*FSL21A	A/D CONVERTER	COTIL	CB	288	RM	Y	NA	NA	MF	NA	17	A	Y
	FOXBORO												
2HCS*FSL21B											17	A	Y
2HCS*PSH19A											17	A	Y
2HCS*PSH19B											17	A	Y
2HCS*TSH13A											17	A	Y
2HCS*TSH13B											17	A	Y
2HCS*TSH14A											17	A	Y
2HCS*TSH14B											17	A	Y
2HCS*TSH15A											17	A	Y
2HCS*TSH15B											17	A	Y



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ENGINEER: STONE & WEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2HCS*TSH16A	A/D CONVERTER FOXBORO	C071L	CB	ZBB	RM	Y	NA	NA	MF	NA	17	A	Y
2HCS*TSH16B											17	A	Y
2HCS*TSH17A											17	A	Y
2HCS*TSH17B											17	A	Y
2HCS*TSH18A											17	A	Y
2HCS*TSH18B											17	A	Y
2HCS*TSH20A											17	A	Y
2HCS*TSH20B											17	A	Y



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ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---		-QUAL HETH-		-NAT FREQ-		----RRS REF----	
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOHEST	---	STATUS---
	MANUFACTURER											QUAL INST

[illegible]



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST INST

2HVC*PDSH50A	A/D CONVERTER	COTIL	CB	288	RM	Y	NA	NA	MF	N.A	17	A	Y
2HVC*PDSH50B	FOXBORO										17	A	Y
2HVC*TS34A											17	A	Y
2HVC*TS34B											17	A	Y
2HVC*TS37A											17	A	Y
2HVC*TS37B											17	A	Y
2HVC*TSH38A											17	A	Y
2HVC*TSH38B											17	A	Y
2HVC*TSH11											17	A	Y
2HVC*TSH155											17	A	Y
2HVC*TSH165											17	A	Y
2HVC*TSH174											17	A	Y

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EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ RRS REF STATUS QUAL INST

2HVC*TS4198	A/D CONVERTER FOXBORO	C071L	CB	288	RM	Y	NA	NA	MF	N/A	17	A	Y
2HVC*TS4H38A											17	A	Y
2HVC*TS4H38B											17	A	Y
2HVC*TS4H111											17	A	Y
2HVC*TS4H155											17	A	Y
2HVC*TS4H165											17	A	Y
2HVC*TS4H174											17	A	Y
2HVC*TS4H198											17	A	Y



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EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF-
MANUFACTURER STATUS--
QUAL INST

2HVC*TSHX32A	A/D CONVERTER FOXBORO	CD712	CB	288	RM	Y	NA	NA	MF	NA	17	A	Y
2HVC*TSHX34B											17	A	Y
2HVC*TSHX37A											17	A	Y
2HVC*TSHX37B											17	A	Y
2HVC*TSHY34A											17	A	Y
2HVC*TSHY34B											17	A	Y
2HVC*TSHY37A											17	A	Y
2HVC*TSHY37B											17	A	Y



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NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---		-QUAL METH-		-NAT FREQ-		----RRS REF----	
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOHEST	---STATUS---	QUAL INST

[illegible]



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2IAS*PSH181	A/D CONVERTER FOXBORO	COTIL	CB	288	RM	Y	NA	NA	MF	NA	17	A	Y
2IAS*PSH186											17	A	Y
2IAS*PSL181											17	A	Y
2IAS*PSL186											17	A	Y
2IAS*PSL230											17	A	Y
2IAS*PSL231											17	A	Y
2IAS*PSL232											17	A	Y
2IAS*PSL233											17	A	Y
2IAS*PSL234											17	A	Y
2IAS*PSL235											17	A	Y
2IAS*PSL236											17	A	Y



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ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible]

[illegible]

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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL HETH NAT FREQ RRS REF STATUS QUAL INST

25FC*FSL36A	A/D CONVERTER FOXBORO	COTIL	CB	288	RM	Y	NA	NA	MF	NA	17	A	Y
25FC*FSL36B											17	A	Y
25FC*FSL58A											17	A	Y
25FC*FSL58B											17	A	Y
25FC*FSL58A											17	A	Y
25FC*FSL58B											17	A	Y
25FC*LSH32A											17	A	Y
25FC*LSH32B											17	A	Y
25FC*LSL32A											17	A	Y
25FC*LSL32B											17	A	Y



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NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

25FC*PSL3A	A/D CONVERTER	C0712	CB	288	RM	Y	NA	NA	MF	N.A	17	
	FOXBORO										A	Y
25FC*PSL3B											17	
											A	Y
25FC*PSL30A											17	
											A	Y
25FC*PSL30B											17	
											A	Y
25FC*TSH8A											17	
											A	Y
25FC*TSH8B											17	
											A	Y
25FC*TSH31A											17	
											A	Y
25FC*TSH31B											17	
											A	Y



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ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL HETH NAT FREQ RRS REF STATUS QUAL INST

25WP*FSL29A	R/D CONVERTER FOXBORO	C0712	CB	288	RM	NA	NA	NA	NA	NA	NA	17	A	Y
25WP*FSL29B												17	A	Y
25WP*FSL76A												17	A	Y
25WP*FSL76B												17	A	Y
25WP*FSL96A												17	A	Y
25WP*FSL96B												17	A	Y
25WP*FSL96C												17	A	Y
25WP*FSL96D												17	A	Y
25WP*FSL96E												17	A	Y
25WP*FSL96F												17	A	Y



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ENGINEER: STONE & HEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

2SWP*FSL523	A/D CONVERTER FOXBORO	C0712	CB	288	RM	Y	NA	NA	MF	NA	17	A	Y
2SWP*FSL534											17	A	Y
2SWP*FSL535											17	A	Y
2SWP*PSL2A											17	A	Y
2SWP*PSL2B											17	A	Y
2SWP*PSL4A											17	A	Y
2SWP*PSL4B											17	A	Y
2SWP*PSL4C											17	A	Y
2SWP*PSL4D											17	A	Y
2SWP*PSL4E											17	A	Y
2SWP*PSL4F											17	A	Y



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible]

中国地质大学（北京）

[illegible]



JOB NAME NMP- UNIT 2
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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. ---LOCATION--- ---LOADS--- ---QUAL METH--- ---NAT FREQ--- ---RRS REF---
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
QUAL INST

2SWP*TS64A	A/D CONVERTER FOX BORO	GOTIL	CB	288	RM	Y	NA	NA	MF	NA	17	A	Y
2SWP*TS64B											17	A	Y
2SWP*TS65A											17	A	Y
2SWP*TS65B											17	A	Y
2SWP*TS691A											17	A	Y
2SWP*TS691B											17	A	Y



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ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ QUAL METH LOWEST STATUS RRS REF QUAL INST

2GTS*PDIK5A	CONTROL STATION FOX BORO	COTIL	CB	306	CM	Y	NA	NA	MF	NA	18	A	Y
2GTS*PDIK5B											18	A	Y
2HCS*TIK20A											18	A	Y
2HCS*TIK20B											18	A	N
2SWP*HIC54A											18	A	Y
2SWP*HIC54B											18	A	Y
2SWP*TIK35A											18	A	Y
2SWP*TIK35B	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18	A	Y



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[illegible][illegible][illegible]

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ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	EQUIPMENT		LOCATION		LOADS		QUAL	HETH	NAT FREQ	RRS REF	
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOHEST	STATUS
	MANUFACTURER										QUAL INST
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
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[illegible]



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NCSO SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2SWP*PDSHXIA	RELAY											17	
	FOX BORO	COTIL	CB	288	RM	Y	NA	NA	MF	NA		A	Y
2SWP*PDSHXIB												17	
												A	Y
2SWP*PDSHXIC												17	
												A	Y
2SWP*PDSHXID												17	
												A	Y
2SWP*PDSHXIE												17	
												A	Y
2SWP*PDSHXIF												17	
												A	Y
2SWP*PDSHXIA												17	
												A	Y
2SWP*PDSHXIB												17	
												A	Y
2SWP*PDSHXIC												17	
												A	Y
2SWP*PDSHXID												17	
												A	Y
2SWP*PDSHXIE												17	
												A	Y
2SWP*PDSHXIF												17	
												A	Y



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ENGINEER: STONE & WEBSTER
HSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL HETH- -NAT FREQ- ----RRS REF----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

2GTS*PDSLX5A	RELAY FOXBORO	C071L	CB	288	RM	Y	NA	NA	MF	NA	17	A Y
2GTS*PDSLX5B											17	A Y
2SFC*LSHX32A											17	A Y
2SFC*LSHX32B											17	A Y



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EQUIP. ID ----- EQUIPMENT ----- LOCATION ----- LOADS ----- QUAL METH ----- NAT FREQ ----- RRS REF -----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ----- STATUS -----
MANUFACTURER QUAL INST

2SWP*PDSH1A	A/D CONVERTER												17	
	FOXBORO		0071L	CB	288	RM	Y	NA	NA	MF	NA	A	Y	
2SWP*PDSH1B												17		
												A	Y	
2SWP*PDSH1C												17		
												A	Y	
2SWP*PDSH1D												17		
												A	Y	
2SWP*PDSH1E												17		
												A	Y	
2SWP*PDSH1F												17		
												A	Y	
2SWP*PDSH1A												17		
												A	Y	
2SWP*PDSH1B												17		
												A	Y	
2SWP*PDSH1C												17		
												A	Y	
2SWP*PDSH1D												17		
												A	Y	
2SWP*PDSH1E												17		
												A	Y	
2SWP*PDSH1F												17		
												A	Y	



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

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ENGINEER: STONE & HEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

2HCS*TS120A	A/D CONVERTER													17	
	FOX BORO	0071L	CB	288	RM	Y	N	N	MF	NA				A	Y
2HCS*TS120B														17	
														A	Y
2HVP*TS110A														17	
														A	Y
2HVP*TS110B														17	
														A	Y
2HVP*TS1107														17	
														A	Y
2HVP*TS110A														17	
														A	Y
2HVP*TS110B														17	
														A	Y
2HVP*TS1107														17	
														A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	EQUIPMENT		LOCATION		LOADS		QUAL	HETH	NAT	FREQ	RRS	REF
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOWEST	STATUS	QUAL

[illegible]



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST HATH FREQ LOWEST RRS REF STATUS QUAL INST

2CEC*JX828A	West Power Distrib. Mod.															17	
	Fox BORO		C071L	CB	288	RM	Y	NA	N	MF	NA					A	Y
2CEC*JX828B																17	
																A	Y
2CEC*JX828C																17	
																A	Y
2CEC*JX828D																17	
																A	Y
2CEC*JX828E																17	
																A	Y
2CEC*JX828F																17	
																A	Y
2CEC*JX829A																17	
																A	Y
2CEC*JX829B																17	
																A	Y
2CEC*JX829C																17	
																A	Y
2CEC*JX829D																17	
																A	Y
2CEC*JX829E																17	
																A	Y



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ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

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ENGINEER: STONE & WEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYD ANALYS TEST NAT FREQ- LOHEST RRS REF- STATUS-
MANUFACTURER QUAL INST

20EC*JX883A	Nest Power Distrib. Module																	17		
	Foxboro	CO71L	CB	288	RM	Y	NA	N	MF	NA								A		Y
20EC*JX883B																		17		
																		A		Y
20EC*JX890A																		17		
																		A		Y
20EC*JX890B																		17		
																		A		Y
20EC*JX890C																		17		
																		A		Y
20EC*JX890D																		17		
																		A		Y
20EC*JX890E																		17		
																		A		Y
20EC*JX890F																		17		
																		A		Y
20EC*JX891A																		17		
																		A		Y
20EC*JX891B																		17		
																		A		Y
20EC*JX891C																		17		
																		A		Y
20EC*JX891D																		17		
																		A		Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NCS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL MTH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
QUAL INST

2CEC*JX891E	Nest Power Distrib. Module															17		
	Foxboro	C071 L	CB	288	RM	Y	N	N	MF	NA						A		Y
2CEC*JX891F																17		
																A		Y
2CEC*JX894A																17		
																A		Y
2CEC*JX894B																17		
																A		Y
2CEC*JX894C																17		
																A		Y
2CEC*JX895A																17		
																A		N
2CEC*JX895B																17		
																A		N
2CEC*JX895C																17		
																A		N
2CEC*JX896A																17		
																A		Y
2CEC*JX896B																17		
																A		Y
2CEC*JX896C																17		
																A		Y
2CEC*JX896D																17		
																A		Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST --STATUS--
MANUFACTURER QUAL INST

2CEC*JX 896E	Nest Power Distrib. Module Foxboro	CO71L	CB	288	RM	Y	NA	N	MF	NA	17	A	Y
2CEC*JX 897A											17	A	Y
2CEC*JX 897B											17	A	Y
2CEC*JX 897C											17	A	Y
2CEC*JX 897D											17	A	Y
2CEC*JX 897E	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	17	A	Y
2HVC*FY10A	SQUARE ROOT CONVERTER Foxboro	CO71L	CB	288	RM	Y	NA	N	MF	NA	17	A	N
2HVC*FY10B	↓										17	A	N
2HVC*PWR510B	LOOP POWER SUPPLY FOX BORO										17	A	N
2HVC*PWR510A	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	17	A	N



ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2CCP*PT90A	PRESS IND.	COTIM	RB	261	RM	Y	NA	NA	MF	Z1	60	
	ROSEMOUNT										A	N
90B	PRESS IND.			290							41	
	ROSEMOUNT										A	N
2CMS*LT9A	SUPP POOL LEVEL			175							64	
	ROSEMOUNT										A	Y
9B				179							63	
											A	Y
2CMS*LT11A				175							64	
											A	Y
11B	↓			188							63	
											A	Y
2CMS*PT1A	CONT. DRYWELL PRESS.			289							59	
	ROSEMOUNT										A	N
1B				289							59	
											A	N
2CMS*PT2A				264							59	
											A	N
2B	↓			261							60	
											A	N
2CMS*PT7A	SUPPRESSION CHAMB PRESS.			255							60	
	ROSEMOUNT										A	N
7B	↓	Y	Y	261	Y	Y	Y	Y	Y	Y	60	
											A	N



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ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL MTH NAT FREQ RRS REF STATUS QUAL INST

2GTS* FT10A	2GTS*FNIA Disch Flow Rosemount	COTIM	SG	261	RM	Y	NA	NA	MF	Z1	3	A	N
10B	↓		SG	261							3	A	N
2GTS* PDT5A	RX Bldg in/out diff press Rosemount		SG	265							3	A	N
5B	↓		SG	265							3	A	N
2HVK* FT15A	2HVK*CHLIB disch flow Rosemount		CB	266							17	A	Y
15B	↓		CB	266							17	A	Y
2IAS* PT181	ADS Header Pressure Rosemount		RB	294							58	A	N
2IAS* PT186	↓			294							58	A	N
2IAS* PT230	ADS Accumulator Tank Rosemount			293							58	A	N
2IAS* PT231	↓			293							58	A	N
2IAS* PT232	↓			293							58	A	N
2IAS* PT233	↓	✓	Y	306	↓	✓	✓	✓	Y	Y	58	A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- SPEC NO. ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

21AS*PT234	ADS Accumulator Tank Rosemount	CO71M	RB	306	RM	Y	NA	NA	MF	Z1	58 A	N
235				306							58 A	N
236	↓			306							58 A	N
2RHS*FT60A	RHS Hx Disch Flow Rosemount			180							63 A	N
60B	↓			180							63 A	N
2RHS*PT99A	RHS Steam Supply Rm 1CS Rosemount			180							63 A	N
99B	↓			180							63 A	N
2RSS*FT106	RCIC Pump Disch Flow Rosemount			179							63 A	N
2RSS*LT105	Suppr. Pool Wtr Temp Rosemount			179							63 A	N
2RSS*PT108	ADS Accum Tank Press Rosemount			293							58 A	N
2RSS*PT109				293							58 A	N
2RSS*PT110	↓	√	√	311	√	√	√	√	√	√	58 A	N



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST --STATUS--
MANUFACTURER QUAL INST

2RSS*PT111	ADS Accum Tank Press. Rosemount	0071M	RB	311	RM	Y	NA	NA	MF	Z1	58 A	N
2SFC*FT36A	SF Pool Clg Sys Flow Rosemount			220							61 A	N
36B	↓			220							61 A	Y
58A	SFC Pump Disch Flow Rosemount			289							59 A	N
58B	↓			289							59 A	N
2SFC*LT32A	SF Pool Surge Tank Wtr Lev Rosemount			330							57 A	N
32B	↓			328							58 A	N
2SFC*PT3A	SF Pool Circ Pump S Press Rosemount			261							60 A	N
3B	↓			266							59 A	N
2SFC*PT30A	SF Pool Circ Pump D. Press Rosemount			261							59 A	Y
30B	↓			266	Y	Y	Y	Y	Y	Y	59 A	Y



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SEISHIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ---RRS, REF---
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

2SWP*FT29A	SWP Fr 2HVXCHLIA flow Rosemount	Co71M	CB	265	RM	Y	NA	NA	MF	21	17 A	Y
29B	↓		CB	266							17 A	Y
2SWP*FT76A	2EGS*EG1 Cool. Wtr. Flow Rosemount		DG	266							17 A	Y
76B	2EGS*EG3 " "		DG	266				L			17 A	Y
2SWP*FT96A	SWP Pump Disch Elctc Rosemount		SB	240							5 A	Y
96B				240							5 A	Y
96C				240							5 A	Y
96D				240							5 A	Y
96E				240							5 A	Y
96F				240							5 A	Y
2SWP*FT535	COOLING WATER FLOW ROSEMOUNT	Y	DG	265	Y	Y	Y	Y	Y	Y	17 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS INST

2SWP*FT200A	SWP Wtr Pump Disch Flow Rosemount	CO711M	SB	240	RM	Y	NA	NA	MF	Z1	5	A	Y
200B				240							5	A	Y
200C				240							5	A	Y
200D				240							5	A	Y
200E				240							5	A	Y
200F	↓		Y	240							5	A	Y
2SWP*FT201A	SWP Wtr Flow to RHS Hx Rosemount		ABN	215							62	A	Y
201B	↓		RB	187							62	A	Y
2SWP*FT523	SWP Loop B HDR FL to Lake Rosemount		SB	250							5	A	Y
2SWP*FT533	↓		SB	250							5	A	Y
2SWP*FT534	SWP Loop A HDR FL to Lake Rosemount		SB	250							5	A	Y
2SWP*FT567	↓	↓	DG	266	↓	↓	↓	↓	↓	↓	17	A	Y



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- SPEC NO. ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

2SWP*PT1A	2SWP*STRA Diff Press Rosemount	C071m	SB	257	RM	Y	NA	NA	MF	Z1	6	A	Y
IB				257							6	A	Y
IC				257							6	A	Y
ID				257							6	A	Y
IE				257							6	A	Y
IF	↓			257							6	A	Y
2SWP*PT2A	SWP Pump Disch Hdr Press Rosemount			266							6	A	Y
2B	↓			266							6	A	Y
2SWP*PT4A	SWP Pump Suct. Press. Rosemount			228							5	A	Y
4B				228							5	A	Y
4C				228							5	A	Y
4D	↓	↓	↓	228	↓	↓	↓	↓	↓	↓	5	A	Y



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2SWP * PT4E	SWP Pump Suct. Press. Rosemount	CD71M	SB	228	RM	Y	NA	NA	MF	Z1	5	A	Y
4F	↓			228							5	A	Y
2SWP * PT6A	SWP Pump Disch Press Rosemount			228							5	A	Y
6B				228							5	A	Y
6C				228							5	A	Y
6D				228							5	A	Y
6E				228							5	A	Y
6F	↓			228							5	A	Y
2SWP * PT267A	SWP Header Press Rosemount			250							5	A	Y
267B	↓		✓	250							5	A	Y
2SWP * PT66A	SWP to CLR 2 EGS * EGS Rosemount		DG	266							17	A	Y
66B	↓	✓	DG	266	✓	✓	✓	✓	✓	✓	17	A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALY TEST QUAL METH NAT FREQ RRS REF
MANUFACTURER STATUS QUAL INST

25WP* PT79A	To pump 25WP*P2A Rosemount	CO71M	CB	267	RM	Y	NA	NA	MF	Z1	17 A	Y
79B	To pump 25WP*P2B Rosemount		CB	266							17 A	Y
25WP*PT95A	Succ Wtr to Cir 2EGS*EG2 Rosemount		DG	266							12 A	Y
95B	↓		DG	266							17 A	Y
25WP*PT139A	Service Wtr to Tbelcw Rosemount		SB	261							6 A	Y
139B	↓		SB	261							6 A	Y
25WP*PT140A	SWP to CCP Ht Exchs R Rosemount		ABN	202							62 A	Y
140B	↓		ABN	202							62 A	Y
25WP*PT142A	To Circ Wtr Pump Press Rosemount		SB	250							5 A	Y
142B	↓	↓	SB	250	↓	↓	↓	↓	↓	↓	5 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST

2RH5*FT63A	FLOW TRANSMITTER	C071M	RB	261	RM	Y	NA	NA	MF	Z1	60	
	ROSEMOUNT										A	N
63B				261							60	
											A	N
64A				215							62	
											A	N
64B				215							62	
											A	N
2RSS*LT101	REACTOR VESSEL LEVEL			261							60	
	ROSEMOUNT										A	N
115				266							59	
											A	N
2RSS*PT102				261							60	
											A	N



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SEISHIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID -----EQUIPMENT----- SPEC NO. ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ----RRS REF----
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
QUAL INST

25VV*IPNL140	Relief Valve Pos. Mon. Pnl.											17		
	TEC	CO71W	CB	288	CF	Y	NA	NA	MF	37		A		N
25VV*NBE220	Sensor											NA		
	TEC		PC	297	LM	Y	Y	NA	MF	>1000		A		N
25VV*NBE221												NA		
												A		N
25VV*NBE222												NA		
												A		N
25VV*NBE223												NA		
												A		N
25VV*NBE224												NA		
												A		N
25VV*NBE225												NA		
												A		N
25VV*NBE226												NA		
												A		N
25VV*NBE227												NA		
												A		N
25VV*NBE228												NA		
												A		N
25VV*NBE229												NA		
												A		N
25VV*NBE230												NA		
												A		N



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID -----EQUIPMENT----- SPEC NO. ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST ---STATUS---
QUAL INST

2SVV*NBE231	Sensor TEC	COTIW	RB	297	LM	Y	Y	NA	MF	>1000	NA A	N
2SVV*NBE232				297							NA A	N
2SVV*NBE233				297							NA A	N
2SVV*NBE235				297							NA A	N
2SVV*NBE236				297							NA A	N
2SVV*NBE237	↓		↓	297	↓		↓			↓	NA A	N
2SVV*NBI220	Monitor TEC		CB	288	CM		NA			NA	17 A	N
2SVV*NBI221											17 A	Y
2SVV*NBI222											17 A	Y
2SVV*NBI223											17 A	N
2SVV*NBI224											17 A	N
2SVV*NBI225	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	17 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV MTG SEIS HYDR ANALYS TEST NAT FREQ QUAL METH LOWEST RRS REF STATUS QUAL INST

2SVV* NBI226	Monitor TEC	C071W	CB	289	CM	Y	NA	NA	MF	NA	17	A	Y
2SVV* NBI227				288							17	A	Y
2SVV* NBI228				288							17	A	Y
2SVV* NBI229				288							17	A	N
2SVV* NBI230				288							17	A	N
2SVV* NBI231				288							17	A	N
2SVV* NBI232				288							17	A	N
2SVV* NBI233				288							17	A	Y
2SVV* NBI234				288							17	A	Y
2SVV* NBI235				288							17	A	Y
2SVV* NBI236				288							17	A	Y
2SVV* NBI237		Y	Y	288	Y	Y	Y	Y	Y	Y	17	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION SPEC NO. BLOG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

25VV*NBV220	Pre-amplifier TEC	C071W	RB	240	DW	Y	Y	S	MF	NA	61 A	N
25VV*NBV221											61 A	N
25VV*NBV222											61 A	N
25VV*NBV223											61 A	N
25VV*NBV224											61 A	N
25VV*NBV225											61 A	N
25VV*NBV226											61 A	N
25VV*NBV227											61 A	N
25VV*NBV228											61 A	N
25VV*NBV229											61 A	N
25VV*NBV230											61 A	N
25VV*NBV231											61 A	N



JOB NAME NMP- UNIT 2
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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST NAT FREQ RRS REF STATUS QUAL INST

2SVV*NB/232	Pre-amplifier TEC	CD71W	RB	240	DW	Y	Y	S	MF	NA	61	A	N
2SVV*NB/233											61	A	N
2SW*NB/234											61	A	N
2SVV*NB/235											61	A	N
2SVV*NB/236											61	A	N
2SVV*NB/237	↓	↓	Y	Y	P	Y	Y	Y	Y	Y	61	A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2CMS*EFV1A	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	274	LM	Y	NA	NA	SF	>33	NA A N
2CMS*EFV1B				275							NA A N
2CMS*EFV3A				254							NA A Y
2CMS*EFV3B				255							NA A N
2CMS*EFV5A											NA A Y
2CMS*EFV5B											NA A Y
2CMS*EFV61											NA A Y
2CMS*EFV8A											NA A Y
2CMS*EFV8B											NA A Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST --STATUS--
MANUFACTURER QUAL INST

EQUIP. ID	EQUIPMENT		LOCATION		LOADS		QUAL METH		NAT FREQ		RRS REF	
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANALYS	TEST	LOHEST	STATUS	INST
2CMS*EFV9A	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	192	LM	Y	NA	NA	SF	>33	NA	Y
2CMS*EFV9B				192							NA	Y
2CMS*EFV10				274							NA	N
2CSH*EFV1	2"			215							NA	N
2CSH*EFV2	2"			175							NA	N
2CSH*EFV3	3/4"			240							NA	N
2CSL*EFV11				250							NA	N
2CSL*EFV31				289							NA	N
2DER*EFV31				240							NA	N



ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible]



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2IGS*EFV1	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	249	LM	Y	NA	NA	SF	>33	NA A N
2IGS*EFV2				249							NA A N
2IGS*EFV3				246							NA A N
2IGS*EFV4				296							NA A N
2ISC*EFV1				311							NA A N
2ISC*EFV2				311							NA A N
2ISC*EFV3				311							NA A N
2ISC*EFV4				300							NA A N
2ISC*EFV5				311							NA A N
2IAS*EFV6				308	Y	Y	Y	Y	Y	Y	NA A N



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
HSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

EQUIP. ID	EQUIPMENT		SPEC NO.	LOCATION		LOADS	QUAL	METH	NAT FREQ	RRS REF	STATUS	QUAL INST
	DESCRIPTION	MANUFACTURER		BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOHEST	
2ISC*EFV7	EXCESS FLOW CHECK VALVES		C151C	RB	300	LM	Y	NA	NA	SF	>33	NA
	3/4" DRAGON VALVES											A N
2ISC*EFV8					291							NA
												A N
2ISC*EFV9					254							NA
												A N
2ISC*EFV10					291							NA
												A N
2ISC*EFV11					268							NA
												A N
2ISC*EFV12					256							NA
												A N
2ISC*EFV13					270							NA
												A N
2ISC*EFV14					243							NA
												A N
2ISC*EFV15					291							NA
												A N



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ENGINEER: STONE & WEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2ISC*EFV16	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	251	LM	Y	NA	NA	SF	>33	NA A N
2ISC*EFV17				290							NA A N
2ISC*EFV18				270							NA A N
2ISC*EFV19				255							NA A N
2ISC*EFV20				270							NA A N
2ISC*EFV21				242							NA A N
2ISC*EFV22				243							NA A N
2ISC*EFV23				270							NA A N
2ISC*EFV24				271							NA A N
2ISC*EFV25				271							NA A N



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ENGINEER: STONE & HEDSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH NAT FREQ LOHEST RRS REF STATUS QUAL INST

EQUIP. ID	EQUIPMENT	SPEC NO.	LOCATION	BLDG	ELEV	HTG	SEIS	HYDR	ANALYS	TEST	QUAL METH	NAT FREQ	LOHEST	RRS REF	STATUS	QUAL INST
2ISC*EFV 26	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	271	LM	Y	NA	NA	SF	>33				NA	A	N
2ISC*EFV 27				270										NA	A	N
2ISC*EFV 28				271										NA	A	N
2ISC*EFV 29				271										NA	A	N
2ISC*EFV 30				271										NA	A	N
2ISC*EFV 31				270										NA	A	N
2ISC*EFV 32				270										NA	A	N
2ISC*EFV 33				271										NA	A	N
2ISC*EFV 34				271										NA	A	N
2ISC*EFV 35				270										NA	A	N



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
HSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL HETH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
QUAL INST

2ISC*EFV36	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	269	LN	Y	NA	NA	SF	>33	NA	A	N
2ISC*EFV37				270							NA	A	N
2ISC*EFV38				269							NA	A	N
2ISC*EFV39				268							NA	A	N
2ISC*EFV40				271							NA	A	N
2ISC*EFV41				268							NA	A	N
2ISC*EFV42				268							NA	A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV MTG SEIS HYDR ANALYS TEST LOHEST STATUS QUAL INST

2MSS*EFV1A	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	240	LM	Y	NA	NA	SF	>33	NA	A	N
2MSS*EFV1B											NA	A	N
2MSS*EFV1C											NA	A	N
2MSS*EFV1D											NA	A	N
2MSS*EFV2A											NA	A	N
2MSS*EFV2B											NA	A	N
2MSS*EFV2C											NA	A	N
2MSS*EFV2D											NA	A	N
2MSS*EFV3A											NA	A	N
2MSS*EFV3B											NA	A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLOG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2MSS*EFV3C	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	240	LM	Y	NA	NA	SF	>33	NA A	N
2MSS*EFV3D											NA A	N
2MSS*EFV4A											NA A	N
2MSS*EFV4B											NA A	N
2MSS*EFV4C											NA A	N
2MSS*EFV4D											NA A	N
2RCS*EFV43A				245							NA A	N
2RCS*EFV43B				243							NA A	N
2RCS*EFV44A				252							NA A	N
2RCS*EFV44B				250	Y	Y	Y	Y	Y	Y	NA A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ---RRS REF---
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

EQUIP. ID	EXCESS FLOW CHECK VALVES		SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANALYS	TEST	LOHEST	RRS REF	
	DESCRIPTION	MANUFACTURER										STATUS	INST
2RCS*EFV 45A	3/4" DRAGON VALVES	C151C	RB	244	LM	Y	NA	NA	SF	>33		NA	
2RCS*EFV 45B				243								A	N
2RCS*EFV 46A				244								NA	
2RCS*EFV 46B				243								A	N
2RCS*EFV 47A				243								NA	
2RCS*EFV 47B				245								A	N
2RCS*EFV 48A				243								NA	
2RCS*EFV 48B				245								A	N
2RCS*EFV 52A				245								NA	
2RCS*EFV 52B				243								A	N
2RCS*EFV 53A				245								NA	
2RCS*EFV 53B				245								A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSF SUPPLIER: GENERAL ELECTRIC

-----EQUIPMENT-----
EQUIP. ID DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ- ---RRS REF---
MANUFACTURER ---STATUS---
QUAL INST

2RCS*EFV62A	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	245	LM	Y	NA	NA	SF	>33	NA	A	N
2RCS*EFV62B				245								A	N
2RCS*EFV63A				243								A	N
2RCS*EFV63B				243								A	N
2RHS*EFV5				243								A	N
2RHS*EFV6				243								A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

2RHS*EFV 7	EXCESS FLOW CHECK VALVES 3/4" DRAGON VALVES	C151C	RB	245	LM	Y	NA	NA	SF	>33	NA A N
2SWP*EFV34A	EXCESS FLOW CHECK VALVES 1" DRAGON VALVES		SB	248							NA A N
2SWP*EFV34B	1"		SB	254							NA A N
2WCS*EFV221	3/4"		RB	245							NA A N
2WCS*EFV222				245							NA A N
2WCS*EFV223				244							NA A N
2WCS*EFV224				244							NA A N
2WCS*EFV300				244	P						NA A N

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SEISHIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2EJA * XD100A	30 KVA Transformer Square D Company	ED11T	ABN	240	DW	Y	NA	NA	MF	7	61	A	Y
2EJA * XD101A			CB	261							16	A	Y
2EJA * XD300B			ABS	240							61	A	Y
2EJA * XD301B			CB	261							16	A	Y
2LAC * XLE01				261							16	A	Y
2LAC * XLE02				261							16	A	Y
2LAC * XLE03				261							16	A	Y
2LAC * XLE04				261							16	A	Y
2LAC * XLE05				261							16	A	Y
2LAC * XLE06				261							16	A	Y
2LAC * XLE07				261							16	A	Y
1SCM * XD101A				288							17	A	Y



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UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID	DESCRIPTION MANUFACTURER	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LODEST	RRS REF	STATUS	QUAL INST

2SCM*XD102A	30 KVA Transformer Square D Company	EO11T	CB	288	DW	Y	NA	NA	MF	7	17	A	Y
2SCM*XD103A				288							17	A	Y
2SCM*XD104A				288							17	A	Y
2SCM*XD105A				288							17	A	Y
2SCM*XD301B				288							17	A	Y
2SCM*XD302B				288							17	A	Y
2SCM*XD303B				288							17	A	Y
2SCM*XD304B				288							17	A	Y
2SCM*XD305B			Y	288							17	A	Y
2SCV*XD101A			ABN	240							61	A	Y
2SCV*XD200P			CB	261							16	A	Y
2SCV*XD301B		↓	ABS	240	Y	Y	Y	Y	Y	Y	61	A	Y

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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ RRS REF STATUS QUAL INST

2BYS*PNL201A	PANEL 125V DC BROWN BOYER ELECTRIC	EO14T	CB	288	DW	Y	NA	NA	MF	17	17	A	Y
2BYS*PNL201B											17	A	Y
2BYS*PNL202A											17	A	Y
2BYS*PNL202B											17	A	Y
2BYS*PNL204A				DG	261						16	A	Y
2BYS*PNL204B				DG	261						16	A	Y
2EJA*PNL100A	HEATER PANEL 120V BROWN BOYER ELECTRIC			ABN	240						5	A	Y
2EJA*PNL101A				CB	261						16	A	Y
2EJA*PNL300B				ABS	240						5	A	Y
2EJA*PNL301B				CB	261						16	A	Y



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ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS QUAL INST

2EJS*PNL100A	EMERGENCY PANEL 600V BROWN BOVERI ELECTRIC	E014T	CB	261	DW	Y	NA	NA	MF	17	16	A	Y
2EJS*PNL101A			ABN	240							5	A	Y
2EJS*PNL102A			CB	261							16	A	Y
2EJS*PNL103A			ABN	240							5	A	Y
2EJS*PNL104A			ABN	240							5	A	Y
2EJS*PNL300B			CB	261							16	A	Y
2EJS*PNL301B			CB	261							16	A	Y
2EJS*PNL302B			ABS	240							5	A	Y
2EJS*PNL303B			ABS	240							5	A	Y
2EJS*PNL304B			ABS	240							5	A	Y



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ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION MANUFACTURER SPEC NO. LOCATION BLDG ELEV MTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF-
-----STATUS-----
QUAL INST

2LAC*PNL100A	EMERGENCY LIGHTING PANEL BROWN BOVERI ELECTRIC	E014T	C.B	261	DW	Y	NA	NA	MF	17	16	A	Y
2LAC*PNL300B			CB								16	A	Y
2LAC*PNLE01	LIGHTING PANEL BROWN BOVERI ELECTRIC		CB								16	A	Y
2LAC*PNLE02			CB								16	A	Y
2LAC*PNLE03			CB								16	A	N
2LAC*PNLE04			CB	288							17	A	N
2LAC*PNLE05			CB	288							17	A	Y
2LAC*PNLE06			CB	306							18	A	Y
2LAC*PNLE07			CB	306							18	A	N



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2RPM*PNLA100	PANEL 120V BROWN BOVERI ELECTRIC	EO14T	CB	237	DW	Y	NA	NA	MF	17	15 A	Y
2RPM*PNLB100			CB	237	DW						15 A	Y
2SCM*PNL101A			CB	288	DW						17 A	Y
2SCM*PNL102A					DW						17 A	Y
2SCM*PNL103A					DW						17 A	Y
2SCM*PNL104A					DW						17 A	Y
2SCM*PNL105A					DW						17 A	Y
2SCM*PNL200P			CB	261	DW						A	N
2SCM*PNL301B			CB	288	DW						17 A	Y
2SCM*PNL302B			CB	288	DW						17 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
HSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- ---QUAL METH--- ---NAT FREQ--- ---RRS REF---
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

25CM*PNL303B	PANEL 120V BROWN BOVERI ELECTRIC	EO14T	CB	288	DW	Y	NA	NA	MF	17	17	A	Y
25CM*PNL304B					DW						17	A	Y
25CM*PNL305B					DW						17	A	Y
25CV*PNL101A			ABN	240	DW						5	A	Y
25CV*PNL200P			C.B	261	DW						16	A	Y
25CV*PNL301B			ABS	240	DW						5	A	Y
2VBS*PNL101A			CB	288	DW						17	A	Y
2VBS*PNL102A			CB	288	DW						17	A	Y
2VBS*PNL301B			CB	288	DW						17	A	Y
2VBS*PNL302B			CB	288	DW						17	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS QUAL INST

2VBS*PNLA101	PANEL 120V BROWN BOVERI ELECTRIC	E014T	CB	237	DW	Y	NA	NA	MF	17	15 A	Y
2VBS*PNLA103	PANEL RPS & NS4D BROWN BOVERI ELECTRIC		CB	306							18 A	Y
2VBS*PNLA104	↓		CB	306							18 A	N
2VBS*PNLA105	PANEL MSLIV DIST. BROWN BOVERI ELECTRIC		ABN	240							5 A	Y
2VBS*PNLA106	↓		ABS	240							5 A	Y
2VBS*PNLB101	PANEL BREAKER BROWN BOVERI ELECTRIC		CB	237							15 A	Y
2VBS*PNLB103	PANEL BROWN BOVERI ELECTRIC		CB	306							18 A	N
2VBS*PNLB104	↓		CB	306							18 A	Y
2VBS*PNLB105	PANEL MSLIV DIST. BROWN BOVERI ELECTRIC		ABN	240							5 A	Y
2VBS*PNLB106	↓		ABS	240							5 A	Y
2VBS*PNLA110	PANEL BROWN BOVERI ELECT.		CB	237							15 A	N
2VBS*PNLB110	↓		CB	237		Y	Y	Y	Y	Y	15 A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---		QUAL METH-	NAT FREQ-	---RRS REF---	
	DESCRIPTION	SPEC NO.	BLOG	ELEV HTG	SEIS	HYDR	ANLYS TEST	LOWEST	---	STATUS---
	MANUFACTURER									QUAL INST

2ENS*SWG101	4160V Emer. Switchgear	ED15F	CB	261	CF	Y	NA	NA	MF	NA	16	
	General Electric										B	Y
2ENS*SWG103	4160V Emer. Switchgear	ED15F	CB	261	CF	Y	NA	NA	MF	NA	16	
	General Electric										B	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISHIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID EQUIPMENT----- LOCATION----- LOADS--- QUAL METH- NAT FREQ- RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV MTG SEIS HYDR ANLYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

2BYS*SWG002A	125V- DC Switchgear Brown - Boveri	ED15N	CB	261	CF	Y	NA	NA	MF	NA	16 A	Y
2BYS*SWG 002B	↓			261						NA	16 A	Y
2ETS*US1	600V Emer. Switchgear Brown - Boveri			261						9	16 A	Y
2ETS*US3	↓		Y	261						9	16 A	Y
2EPS*SWG001	13.8 kV Emer. Switchgear Brown - Boveri		ABN	240						NA	61 A	Y
2EPS*SWG 002			ABN	240						NA	61 A	Y
2EPS*SWG003			ABS	240						NA	61 A	Y
2EPS*SWG 004	↓	Y	ABS	240	Y	Y	Y	Y	Y	NA	61 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-450

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV MTG SEIS HYDR ANALYS TEST NAT FREQ RRS REF STATUS QUAL INST

2DMS*MCCA1	125V-DC MCC Gould	ED15Q	ABN	240	CF	Y	N	N	MF	7	61	B	Y
2DMS*MCCB1	↓		ABS	240							61	B	Y
2EHS*MCC101	Standby MCC Gould		SB	261							6	B	Y
2EHS*MCC102			ABN	240							61	B	Y
2EHS*MCC103	↓		CB	261							16	B	Y
2EHS*MCC301	Emergency MCC Gould		SB	261							6	B	N
2EHS*MCC302			ABS	240							61	B	Y
2EHS*MCC303	↓	✓	CB	261	✓	✓	✓	✓	✓	✓	16	B	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST --STATUS--
MANUFACTURER QUAL INST

2CES*Z01E	Electric Penetration Conax	E021P	PC	250	DW	Y	Y	S	MF	89	36, 37 A Y
2CES*Z02E				244							36, 37 A Y
2CES*Z05E				250							36, 37 A Y
2CES*Z06E				244							36, 37 A Y
2CES*Z07E				250							36, 37 A Y
2CES*Z08E				244							36, 37 A Y
2CES*Z09E				250							36, 37 A Y
2CES*Z10E				244							36, 37 A Y
2CES*Z11E				250							36, 37 A Y
2CES*Z12E				244							36, 37 A Y
2CES*Z17E				250							36, 37 A Y
2CES*Z18E	↓	↓	↓	244	↓	↓	↓	↓	↓	↓	36, 37 A Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST --STATUS--
MANUFACTURER QUAL INST

2CES * Z19E	Electric Penetration Conax	E021P	PC	250	DW	Y	Y	S	MF	89	36, 37 A	Y
2CES * Z20E				244							36, 37 A	Y
2CES * Z21E				250							36, 37 A	Y
2CES * Z22E				244							36, 37 A	Y
2CES * Z23E				250							36, 37 A	Y
2CES * Z24E				244							36, 37 A	Y
2CES * Z25E				250							36, 37 A	Y
2CES * Z26E				244							36, 37 A	Y
2CES * Z29E				250							36, 37 A	Y
2CES * Z30E				244							36, 37 A	Y
2CES * Z51E				244							36, 37 A	Y
2CES * Z52E	↓	↓	↓	250	↓	↓	↓	↓	↓	↓	36, 37 A	Y



ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-450

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS INST

2CES*1PNL406	DG-1 Control Panel	E031A	DG	261	CF	Y	NA	NA	MF	NA	16	A	Y
	Cooper												
2CES*1PNL407	DG-1 Control Panel		DG	261							16	A	Y
	Cooper												
2CES*1PNL408	DG-3 Control Panel		DG	261							16	A	Y
	Trane												
2CES*1PNL412	DG-3 Control Panel		DG	261				V	V	V	16	A	Y
	Trane												
2EGA*M1A	DG-1 Air Comp. Motor		DG	261				S	NA	>33	16	A	Y
	Cooper												
2EGA*M1B	DG-3 Air Comp. Motor		DG	261							16	A	Y
	Cooper												
2EGA*M2A	DG-1 Air Comp. Motor		DG	261							16	A	Y
	Cooper												
2EGA*M2B	DG-3 Air Comp. Motor		DG	261	Y	V	V	V	V	V	16	A	Y
	Cooper												
2EGS*EG1	Diesel Generator 1		DG	272	CF	Y	NA	S	MF	>33	17	A	Y
	Cooper												
2EGS*EG3	Diesel Generator 2		DG	272	CF	Y	NA	S	MF	>33	17	A	Y
	Cooper												
2EGS*PNL11	HV Gen Control	V	DG	261	CF	Y	NA	NA	NA	NA	16	A	Y
	Cooper												



ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID	EQUIPMENT		LOCATION		LOADS		QUAL	HETH	NAT	FREQ	RRS	REF
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOWEST	STATUS	INST
	MANUFACTURER											

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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JOB NAME - NMP- UNIT 2
UTILITY - NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER.
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

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ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEDSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID -----EQUIPMENT----- -----LOCATION----- -----LOADS----- -----QUAL METH----- -----NAT FREQ----- -----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST -----STATUS-----
MANUFACTURER QUAL INST

2SWP*PIA	Service Water Pump		PM2X	SW	224	CF	Y	NA	S	NA	34	5	
	Gould											B	Y
PIB					224							5	
												B	Y
PIC					224							5	
												B	Y
PID					224							5	
												B	Y
PIE					224							5	
												B	Y
PIF					224							5	
		↓									↓	B	Y
2SWP*MI A	Service Water Pump Motor				225						55	5	
	Gould											A	Y
IB					225							5	
												A	Y
IC					225							5	
												A	Y
ID					225							5	
												A	Y
IE					225							5	
												A	Y
IF			↓	↓	225	↓	↓	↓	↓		↓	5	
		↓										A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANLYS QUAL METH- NAT FREQ- RRS REF- STATUS-
MANUFACTURER LOHEST QUAL INST

2SFC*PIA	Fuel Pool CWC Pump											59	
	Gould	P222X	RB	290	CF	Y	NA	S	NA	45		A	Y
- PIB	↓			290						45		59	
												A	Y
2SFC*MIA	Fuel Pool CWC Pump Motor			290						67		59	
	Gould											A	N
MIB	↓			290						67		59	
												A	N
2HVK*PIA	Chilled Wtr Pump		CB	261						59		16	
	Gould											A	Y
PIB	↓			261						59		16	
												A	Y
2HVK*MIA	Chilled Wtr Pump Motor			261						140		16	
	Gould											A	Y
MIB	↓			261						140		16	
												A	Y
2SWP*P2A	↓			261						48		16	
												A	Y
P2B	↓			261						48		16	
												A	Y
2SWP*M2A	Condensing Wtr Pump Motor			261						140		16	
	Gould											A	Y
*M2B	↓			261						140		16	
												A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISHIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST STATUS INST

-----EQUIPMENT----- -----LOCATION----- -----LOADS----- -QUAL METH- -NAT FREQ- -----RRS REF-----

2ICS*P2	ICS Pressure Pump	P222X	RB	175	CF	Y	NA	S	NA	49	64	
	Gould										A	Y
2RHS*P2	RHS Pressure Pump		ABS	175						49	64	
	Gould										A	Y
2CSL*P2	CSL Pressure Pump		ABN	175						49	64	
	Gould										A	Y
2CSH*P2	CSH Pressure Pump		RB	176						49	64	
	Gould										A	Y
2ICS*M2	ICS Press. Pump Motor		RB	175						151	64	
	Gould										A	Y
2RHS*M2	RHS Press. Pump Motor		ABS	175						151	64	
	Gould										A	Y
2CSL*M2	CSL Press Pump Motor		ABN	175						151	64	
	Gould										A	Y
2CSH*M2	CSH Press Pump Motor	V	RB	175	V	V	V	V	V	151	64	
	Gould										A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

2EGF*PIA	Fuel Oil Transfer Pump											14	
	Crane Deming	P225E	DG	261	CF	Y	NA	S	NA	6		A	Y
*PIB												16	
												A	Y
*PIC												16	
												A	Y
*PID												16	
												A	Y
*P2A												16	
												A	Y
*P2B	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		16	
												A	Y

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2GTSXCH1A	Filter Trane A Heater											3		
	MINE SAFETY APPL.	P243UL	SG	261	EM	Y	NA					D		N
1B	Filter Trane B Heater											3		
	MINE SAFETY APPL.		SG	261	EM							D		N
2GTS*FLT1A	StdbY Gas Treat Flt Train											3		
	Mine Safety Appl		SG	261	CF			S	NA	NA		A		Y
1B	↓											3		
			SG	261	CF			S	NA	NA		A		Y
2GTS*PDIT2IA	DIFF. PRESS. INDICATOR											3		
	MINE SAFETY APPL		SG	261	EM			NA	MF	>40		A		Y
21B	↓											3		
			SG	261	EM				MF	>40		A		Y
2GTS*TEX26A	RTD (INLET)											3		
	MINE SAFETY APPL.		SG	261	EM				SF	24		A		Y
26B	RTD (INLET)											3		
	MINE SAFETY APPL.		SG	261	EM				SF	24		A		Y
2GTS*TEV26A	RTD (OUTLET)											3		
	MINE SAFETY APPL.		SG	261	EM				SF	24		A		Y
26B	RTD (OUTLET)											3		
	MINE SAFETY APPL.		SG	261	EM				SF	24		A		Y
2GTS*71S9A	TEMP. IND. SWITCH											3		
	MINE SAFETY APPL.		SG	261					MF	NA		A		Y
9B	TEMP. IND. SWITCH											3		
	MINE SAFETY APPL.	Y	SG	261		Y	Y	Y	MF	NA		A		Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSL SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-958

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH NAT FREQ RRS REF
MANUFACTURER LOWEST STATUS
QUAL INST

2GTS*TI523A	TEMP. IND. SWITCH Mine Safety Appl	P243LL	SG	265	CM	Y	NA	NA	MF	NA	3	A	Y
23B	P		SG	265	CM			NA	MF	NA	3	A	Y
2GTS*XDIA	TRANSFORMER MSA		SG	261	EM			NA	MF	7	3	A	N
1B	P		SG	261	EM			NA	MF	7	3	A	N
2HVC*CH7A	HEATER MSA		CB									D	Y
7B	HEATER MSA		CB									D	Y
2HVC*FLT1A	ODOR REMOVAL FILTER MSA		CB	288	CF			S	NA	22	17	A	N
1B	P		CB	306				S	NA	22	18	A	N
2HVC*FLT2A	CONT. RM EMER. FILTER MSA		CB	292				S	NA	27	18	A	N
2B	P		CB	310				S	NA	27	19	A	N
2HVC*FLT3A	CONT. BLDG VENT. MSA		CB	279				S	NA	39	17	A	Y
3B	P	Y	CB	279	Y	Y	Y	S	NA	39	17	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2HVC*PDT50A	PRESS. DIFF. TRANSMITTER											17
	Mine Safety Appl	P243UL	CB	277	EM	Y	NA	NA	MF	20	A	Y
50B												18
			CB	306	EM					20	A	Y
2HVC*TE41A	RTD											17
	MSA		CB	289						24	A	Y
41B												18
			CB	306						24	A	Y
2HVC*TE42A												17
			CB	289						24	A	Y
42B												18
			CB	306						24	A	Y
2HVC*TI520A	TEMP. IND. SWITCH											17
	MSA		CB	279						NA	A	Y
20B												17
			CB	288						NA	A	Y
2HVC*TI56AA												17
			CB	288						NA	A	Y
6AB												18
			CB	305						NA	A	Y
2HVC*XD2A	TRANSFORMER											17
	MSA		CB	288	CF					7	A	Y
2B												18
			CB	306	CF					7	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2CMS*REX10A	Radn Element Cont Rm Kaman	P281F	RB	289	EM	Y	NA	NA	MF	NA	59	C	N
10B				289							59	C	N
2CMS*REY10A				289							59	C	N
10B				289							59	C	N
				289							59	C	N
				289							59	C	N
2CMS*RUW10A	Local Microcomputer Kaman		ETN	215	RM						1	C	N
10B			ETS	215	RM						20	C	N
2CMS*RUZ 10A	Control Rm Microprocessor Kaman		CB	306	EM					NA	18	C	N
10B				306							18	C	N
2HVC*RE18A	Radn Element Cont Rm Kaman			306						NA	18	B	N
18B				306							18	B	N
18C				306							18	B	N
18D				306							18	B	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST --STATUS--
MANUFACTURER QUAL INST

PEN													
2 HVC*RR 18A	Radn Recorder Cont. Rm		P281F	CB	306	EM	Y	NA	NA	MF	NA	18	
	Kaman											B	N
18B					306							18	
												B	N
18C					306							18	
												B	N
18D					306							18	
	✓											B	N
2HVC*ROW 18A	Local Microcomputer				306							18	
	Kaman											B	N
18B					306							18	
												B	N
18C					306							18	
												B	N
18D					306							18	
	✓											B	N
2HVC*RUZ 18A	Control Rm Microprocessor				306							18	
	Kaman											A	N
18B					306							18	
												A	N
18C					306							18	
												A	N
18D			✓	✓	306	✓	✓	✓	✓	✓	✓	18	
	✓											A	N



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV MTG SEIS HYDR ANALYS TEST LOWEST --STATUS--
MANUFACTURER QUAL INST

2HVR*REX4A	Radn Element - Abv Refuel Kaman	P281F	RB	328	EM	Y	NA	NA	MF	NA	58 B	N
14B	↓			328							58 B	N
2HVR*REX32A	Radn Element - Blw Refuel Kaman			289							59 B	N
32B	↓			289							59 B	N
2HVR*REY4A	Radn Element - Abv Refuel Kaman			328							58 B	N
2HVR*REY32A	Radn Element - Below Refuel Kaman			289							58 B	N
2HVR*RRX14A	^{PEN} Radn Recorder - Abv Refuel Kaman		CB	306	EM	Y	NA	NA	MF	NA	18 B	N
14B	↓	↓	CB	306	EM	Y	NA	NA	MF	NA	18 B	N

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UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

2HVR*RRX32A	PEN Radn Recorder - Blw Refuel	P281F	CB	306	EM	Y	NA	NA	MF	NA	19	
	Kaman										B	N
32B	↓			306							18	
											B	N
2HVR*RRY14A	PEN Radn Recorder			306							18	
	Kaman										B	N
2HVR*RRY32A	↓		P	306	D					D	18	
											B	N
2HVR*RW14A	Local Microcomputer		ETN	215	RM					19	1	
	Kaman										B	N
14B			ETS	215		1				19	20	
											B	N
2HVR*RW32A			ETN	215						19	1	
											B	N
32B	↓		ETS	215	D					19	20	
											B	N
2HVR*RU214A	Control Rm Microprocessor		CB	306	EM					>100	18	
	Kaman										A	N
14B				306							18	
											A	N
32A				306							18	
											A	N
32B	↓	✓	↓	306	↓	↓	↓	↓	↓	↓	19	
											A	N



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UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS INST

2RMS*RE1A	Radn Element - DW Hatch	P281F	PC	261	RM	Y	Y	NA	MF		35,36	
	Kaman										C	N
- - 1B	↓		PC	261	RM		Y				35,36	
											C	N
2RMS*RR1A	Radn Recorder ^{JEN} - DW Hatch		CB	306	EM		NA			NA	16	
	Kaman										C	N
1B	↓		CB	306	EM					NA	16	
											C	N
2RMS*RW1A	Local Microcomputer		ETN	215	RM					19	1	
	Kaman										B	N
1B	↓		ETS	215	RM					19	20	
											B	N
2RMS*RO21A	Control Rm Microprocessor		CB	306	EM					19	16	
	Kaman										A	N
1B	↓		CB	306						>100	16	
											A	N
2SWP*RE23A	Rad Element - RHR H+ Exh		ETN	215						>100	1	
	Kaman										B	N
23B	↓		ETS	215						NA	20	
											B	N
2SWP*RE146A	Rad Element - to Lake		SB	245						NA	5	
	Kaman										B	N
146B	↓	✓	SB	245	✓	✓	✓	✓	✓	NA	5	
											B	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION LOADS QUAL METH- NAT FREQ- RRS REF-
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST STATUS-
QUAL INST

2SWP*RR23A	Radn Recorder PEN Kaman	P281F	CB	306	EM	Y	NA	NA	MF	NA	18	B	N
23B			CB	306						NA	18	B	N
2SWP*RR146A			CB	306						NA	18	B	N
146B	V		CB	306						NA	18	B	N
2SWP*RUW23A	Local Microcompressor Kaman		ETN	215						19	1	B	N
23B			ETS	215						19	20	B	N
2SWP*RUW146A			SB	245						19	5	B	N
146B	V		SB	245						19	5	B	N
2SWP*RUZ23A	Control Rm Microprocessor Kaman		CB	306						>100	18	A	N
23B				306						>100	18	A	N
2SWP*RUZ146A				306						>100	18	A	N
146B	V	V		306		Y	Y	Y	Y	>100	18	A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2CEC*PNL880A	CONTROL ROOM PANEL	P281F	CB	306	CF	Y	NA	D	NA	27	18	B	N
	KAMAN												
- - 880B											18	B	N
880C											18	B	N
880D											18	B	N
	↓		↓	↓	↓	↓	↓	↓	↓	↓			
2CMS*CAB10A	PARTIC./ GAS MONITOR		RB	289	CF	Y	NA				59	C	N
	KAMAN												
10B											59	C	N
	↓		↓	↓	↓	↓	NA						
2HVC*CAB18A	GAS MONITOR		CB	306	CF	Y	NA	S	ME	13.25	18	B	N
	KAMAN												
18B											18	B	N
18C											18	B	N
18D											18	B	N
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			

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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NCS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL MTH NAT FREQ RRS REF STATUS QUAL INST

DESCRIPTION SPEC NO. BLOG ELEV HTG SEIS HYDR ANALYS TEST LOWEST

MANUFACTURER

2HVC*SMPT18A	ISO-KINETIC NOZZLE	P281F	CB	299	LM	Y	NA	S	NA	592	18	
	KAMAN										B	N
18B										592	18	
											B	N
18C										469	18	
											B	N
18D										592	18	
	↓										B	N
2HVR*CAB 14A	PARTIC./GAS MONITOR		RB	329	CF	Y	NA	S	MF	13.25	58	
	KAMAN										B	N
14B				329							58	
											B	N
32A				289							59	
											B	N
32B				289							59	
	↓										B	N
2RMS*RAWIA	REMOTE INDICATOR		ETN	215	RM	Y	NA				1	
	KAMAN										C	N
1B			ETS								20	
											C	N
1C			ETN								1	
											C	N
1D			ETS								20	
	↓										C	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2RMS*REIC	ION CHAMBER DETECTOR	P281F	PC	261	RM	Y	Y	NA	MF		35	
	KAMAN										B	N
ID	↓		↓	↓							35	
											B	N
2RMS*RUWIC	MICROCOMPUTER		ETN	215						19	1	
	KAMAN										B	N
ID	↓		ETS	↓	↓	↓	↓	↓	↓	↓	20	
											B	N
2SWP*CAB23A	LIQUID MONITOR		ETN	215	CF	Y	NA	NA	MF	34	1	
	KAMAN										B	N
23B	↓		ETS	↓							20	
											B	N
146A	↓		SB	250							5	
											B	N
146B	↓		SB	↓	↓	↓	↓	↓	↓	↓	5	
											B	N
2RMS*RUZIC	CONTROL RM MICROPROCESSOR		CB	306	EM	Y	NA	NA	MF	>100	16	
	KAMAN										A	N
ID	↓	↓	CB	306	EM	Y	NA	NA	MF	>100	16	
											A	N

JOB NAME
UTILITY

NMP- UNIT 2
NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2CHS*RIC10A	LOCAL INDICATOR PANEL KAMAN	P281F	ETN	215	RM	Y	NA	NA	MF		1	C	N
10B			ETS								20	C	N
2HVR*RIC14A			ETN							NA	1	A	N
14B			ETS							NA	20	A	N
32A			ETN							NA	1	A	N
32B			ETS							NA	20	A	N
2HVR*SMPT14A	ISO-KINETIC NOZZLE KAMAN		RB	328	LM	Y	NA	S	NA	103	58	B	N
14B			RB	328						103	58	B	N
32A			RB	289						49	59	B	N
32B			RB	289						49	59	B	N



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UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---	---QUAL METH---	---NAT FREQ---	---RRS REF---
	DESCRIPTION	SPEC NO.	BLDG	ELEV HTG	SEIS	HYDR	ANLYS TEST	LOWEST
	MANUFACTURER							---STATUS---
								QUAL INST

[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST

2MSS XHV6A	24" 900# Ball Valve Fluid Systems	P303D	PC	252	LM	Y	Y	U	MF	5Z	B	N
6B			PC	252							B	N
6C			PC	252							B	N
6D			PC	252							B	N
2MSS XHY7A			MST	251							B	N
7B			MST	251							B	N
7C			MST	251							B	N
7D	↓		MST	251	↓			↓		↓	B	N
2MSS XIPN9M	Relay Logic Cabinet Fluid Systems		ABS	240	CF			NA		NA	61	
90B			ABS	240							A	Y
90C			ABS	240							A	Y
90D	↓	↓	ABS	240	↓	↓	↓	↓	↓	↓	A	Y

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

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JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL HETH NAT FREQ RRS REF STATUS INST

DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST QUAL INST

2ISC* RV33A	Vacuum Relief Valve											37, 48		
	GPE Controls	P303R	PC	240	LM	Y	Y	S	NA	>1000		A		N
33B												37, 48		
												A		N
34A												37, 48		
												A		N
34B												37, 48		
												A		N
35A												37, 48		
												A		N
35B												37, 48		
												A		N
36A												37, 48		
												A		N
36B	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	37, 48		
												A		N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible]

[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISHIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ----STATUS----
MANUFACTURER QUAL INST

2CSH*ADV108	12" 900# Check Valve Anchor-Darling	P303W	PC	308	LM	Y	Y	S	SF	46	NA C	N
2CSL*ADV101	12" 900# Check Valve Anchor-Darling	P303W	PC	308			Y			46	NA C	Y
2FWS*ADV23A	24" 900# Check Valve Anchor-Darling		RB	261			Y			36	NA C	Y
2FWS*ADV23B	↓		MST	257			Y			36	NA C	Y
2ICS*ADV156	6" 900# Check Valve Anchor-Darling		RB	291			Y			36	NA C	N
2ICS*ADV157	↓		PC	343			Y			36	NA C	N
2RHS*ADV16A	12" 900# Check Valve Anchor-Darling		PC	316			Y			46	NA C	Y
16B			PC	293			Y			46	NA C	Y
16C			PC	316			Y			46	NA C	Y
2RHS*ADV39A			PC	255			Y			46	NA C	Y
39B	↓	Y	PC	255	↓	↓	Y	↓	↓	46	NA C	Y



ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---		QUAL METH-	NAT FREQ-	----RRS, REF----	
	DESCRIPTION	SPEC NO.	BLDG	ELEV HTG	SEIS	HYDR	ANLYS TEST	LOWEST	---STATUS---	QUAL INST
MANUFACTURER										

[illegible]



JOB NAME NMP- UNIT 2
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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

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NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF-
MANUFACTURER LOWEST STATUS-
QUAL INST

2CPS * AOV 104	14"-150"	P304D	RB	294	LM	Y	Y	S	SF	85	NA	C	N
	Posi SEAL												
2CPS * AOV 105	12"-150"		RB	220						78	NA	C	Y
	Posi SEAL												
2CPS * AOV 106	14"-150"		PC	294						85	NA	C	Y
	Posi SEAL												
2CPS * AOV 107	12"-150"		PC	220						62	NA	C	N
	Posi SEAL												
2CPS * AOV 108	14"-150"		PC	300						85	NA	C	N
	Posi SEAL												
2CPS * AOV 109	12"-150"		PC	218						62	NA	C	N
	Posi SEAL												
2CPS * AOV 110	14"-150"		RB	294						85	NA	C	Y
	Posi SEAL												
2CPS * AOV 111	12"-150"		RB	221						78	NA	C	Y
	Posi SEAL												
2GTS * AOV 101	20"-150"		RB	319		Y	N			96	NA	B	N
	Posi SEAL												
2HVC * MOV 1A	18"-150" w/SMB-000-2/HIBC		CB	298		Y	N	S	SF	68	NA	A	N
	Posi SEAL												
2HVC * MOV 1B	18"-150" w/SMB-000-2/HIBC		CB	298		Y	N	S	SF	68	NA	A	N
	Posi SEAL												
2SFC * AOV 19A	8"-300"		RB	336		Y	N	S	SF	59	NA	A	Y
	Posi SEAL												



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH NAT FREQ RRS REF
MANUFACTURER STATUS
QUAL INST

2SFC * AOV19B	8"-300"	P304D	RB	310	LM	Y	N	S	SF	59	NA	A	Y
2SFC * AOV33A	4"-150"		RB	351				S	SF	44	NA	A	Y
2SFC * AOV33B	4"-150"		RB	351				S	SF	44	NA	A	Y
2SFC * AOV153	8"-300"		RB	298				S	SF	59	NA	A	Y
2SFC * AOV154	8"-300"		RB	298				S	SF	59	NA	A	Y
2SFC * HV6A	10"-150"		RB	300				S	SF	39	NA	A	Y
2SFC * HV6B	10"-150"		RB	300						39	NA	A	Y
2SFC * HV17A	8"-300"		RB	300						59	NA	A	Y
2SFC * HV17B	8"-300"		RB	298						59	NA	A	N
2SFC * HV18A	8"-300"		RB	298						59	NA	A	Y
2SFC * HV18B	8"-300"		RB	298						59	NA	A	Y
2SFC * HV35A	10"-150"		RB	345		Y	N	S		66	NA	A	Y

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYOR ANLYS TEST LOWEST STATUS QUAL INST
-----EQUIPMENT----- LOCATION----- LOADS----- QUAL METH- NAT FREQ-----RRS REF-----
MANUFACTURER

2SFC*HV35B	10"-150 [#] Posi SEAL	P 304D	RB	345	LM	Y	N	S	SF	66	NA	A	Y
2SFC*HV37A	8"-300 [#] Posi SEAL		RB	232						59	NA	A	Y
2SFC*HV37B	8"-300 [#] Posi SEAL		RB	232						59	NA	A	Y
2SFC*HV54A	10"-150 [#] Posi SEAL		RB	330						66	NA	A	Y
2SFC*HV54B	10"-150 [#] Posi SEAL		RB	331						66	NA	A	Y
2SFC*HV115	4"-150 [#] Posi SEAL		RB	345						44	NA	A	Y
2SFC*HV116	4"-150 [#] Posi SEAL		RB	350						44	NA	A	Y
2SFC*HV121	4"-150 [#] Posi SEAL		RB	352						44	NA	A	Y



ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	DESCRIPTION MANUFACTURER	SPEC NO.	BLDG	ELEV	MTG	SEIS	HYDR	ANLYS	TEST	NAT FREQ- LOWEST	RRS REF- STATUS- QUAL INST
*****EQUIPMENT-----LOCATION---LOADS---QUAL METH--NAT FREQ- ----RRS REF----											

[illegible]

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ LOMEST RRS REF STATUS QUAL INST

2CCP*ADV37A	1 1/2" 150# Plug Valve Xomox	P304K	ABN	183	LM	Y	NA	S	MF	32	NA	B	Y
37B	2" 150# PLUG VALVE XOMOS		ABS	177							NA	B	Y
2CCP*ADV38A	1 1/2" 150# Plug Valve Xomox		ABN	183							NA	B	Y
38B	2" 150# PLUG VALVE XOMOS		ABS	177							NA	B	Y
2SFC*HV114	2 1/2" 150# Plug Valve Xomox		RB	321							NA	C	Y
2SFC*HV148			RB	320							NA	C	Y
2SFC*HV149	✓		RB	320							NA	C	Y
2SWP*ADV20A	1 1/2" 150# Plug Valve Xomox		ABN	183							NA	B	Y
20B	2" 150# Plug Valve Xomox		ABS	179	✓	✓	✓				NA	B	N
2SWP*ADV581	1 1/2" 150# PLUG VALVE XOMOS	✓	CB	275	LM	Y	NA	✓	✓	✓	NA	B	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2SWP*ADV22A	1 1/2" 150# Plug Valve Xomox	P304K	ABN	186	LM	Y	NA	S	MF	32	NA B	Y
22B	2" 150# Plug Valve Xomox		ABS	179						32	NA B	Y
2SWP*ADV78A	2" 150# Plug Valve Xomox		CB	277						32	NA B	Y
78B	↓		CB	277						32	NA B	Y
2SWP*ADV97A	6" 150# Plug Valve Xomox		RB	292							NA C	Y
97B	↓		RB	291							NA C	Y
2SWP*ADV154A	1 1/2" 150# Plug Valve Xomox		CB	277						32	NA B	Y
154B	↓		CB	277						32	NA B	Y
2SWP*ADV571	1 1/2" 150# Plug Valve Xomox		ASB	238						32	NA B	Y
2SWP*ADV572	2 1/2" 150# Plug Valve Xomox		ASB	238							NA C	Y
2SWP*ADV573	2" 150# Plug Valve Xomox		CB	238						32	NA B	Y
2SWP*ADV574	2" 150# Plug Valve Xomox	↓	CB	238	↓	↓	↓	↓	↓	32	NA B	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST

2CCP*MOV14A	12"-150# Gate Valve Velan	P304R	RB	217	LM	Y	NA	S	SF	97	NA		
" 14B				217			Y	S		97	NA		
2CCP*MOV15A				263			Y	S		82	NA		
" 15B				262				S		82	NA		
2CCP*MOV16A			PC	263				S		82	NA		
" 16B	↓		PC	262				S		82	NA		
2CCP*MOV17A	Velan		RB	263				S		82	NA		
" 17B	Velan			262			Y	S		82	NA		
2CCP*MOV18A	12" 150# Gate Valve Velan			217			NA	S		97	NA		
" 18B	↓	Y	P	217	↓	↓	NA	S	↓	97	NA		



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
HSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS---
MANUFACTURER QUAL INST

2CCPXMOV32A	6" 150# Gate Valve Velan	P304R	RB	263	LM	Y	Y	S	SF	94	NA A	Y
22B				262			NA	S		102	NA A	Y
2CCPXMOV93A				263			Y	S		94	NA A	Y
" 93B	↓			263			Y	S		94	NA A	Y
2CCPXMOV94A	4" 150# Gate Valve Velan		PC	263			Y			82	NA A	Y
" 94B	↓		PC	262			Y			82	NA A	Y
2CCPXMOV122	8" 150# Gate Valve Velan		PC	243			Y	S		85	NA A	Y
" 124	↓		RB	243			Y	S		85	NA A	Y
2CCPXMOV265	8" 150# Gate Valve Velan		RB	253			Y	S		85	NA A	Y
2CCPXMOV273	↓		PC	253			Y	S		89	NA A	Y
2CSLXMOV104	12" 600# Gate Valve Velan		RB	295			Y	S		61	NA A	Y
2CSLXMOV107	4" 300# Gate Valve Velan	Y	ABN	178	Y	Y	NA	S	Y	71	NA A	Y

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH NAT FREQ RRS REF
MANUFACTURER STATUS
QUAL INST

2DER*MOV128	2" 1500# Globe Valve Velan	P304R	PC	242	LM	Y	Y	S	5F	84	NA A	N
" 129	↓		PC	242			Y	S		84	NA A	N
2FWS*MOV21A	24" 900# Gate Valve Velan		RB	257			Y	S		59	NA A	Y
" 21B	↓		RB	257			Y	S		59	NA A	Y
2GTS*MOV4A	8" 150# Gate Valve Velan		SG	266			NA	S		89	NA A	N
" 4B	↓		SG	266			NA	S		89	NA A	N
2ICS*MOV116	2" 1500# Globe Valve Velan		RB	188			NA	S		60	NA A	N
" 120	4" 900# Gate Valve Velan			184			NA	S		55	NA B	Y
" 121	10" 900# Gate Valve Velan			263			Y	S		60	NA B	Y
" 122	12" 150# Gate Valve Velan			203			Y			85	NA A	Y
" 124	4" 900# Gate Valve Velan			188			NA	S		53	NA A	Y
" 126	6" 900# Gate Valve Velan	↓	Y	292	↓	Y	Y	S	Y	62	NA A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
-----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
MANUFACTURER QUAL INST

2ICS*MOV128	10" 900# Gate Valve Velan	R304R	PC	264	LM	Y	Y	S	SF	54	NA B	Y
" 129	6" 150# Gate Valve Velan		ABN	241			NA	S		102	A	Y
" 136	↓		RB	199			Y	S		94	A	Y
" 143	2" 1500# Globe Valve Velan		RB	207			Y	S		67	A	Y
" 170	1" 1500# Globe Valve Velan		PC	263			Y	S		50	B	N
2MSS*MOV108	2" 1500# Globe Valve Velan		PC	318			Y	S		93	A	Y
" 111	6" 600# Globe Valve Velan		PC	249			Y	S		52	A	N
" 112	6" 600# Globe Valve Velan		MST	240			NA	S		35	A	N
" 118	2" 1500# Globe Valve Velan		PC	315			Y	S		84	A	Y
" 119	2" 1500# Globe Valve Velan		PC	315			Y	S		84	A	Y
" 189	↓		PC	264			Y	S		84	A	Y
" 207	6" 600# Globe Valve Velan	↓	PC	249	↓	↓	Y	S	Y	53	A	N

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2MSSXMOV208	2" 1500# Globe Valve Velan	P304R	MST	246	LM	Y	NA	S	SF	93	NA	A	N
2RHSXMOV4A	6" 300# Gate Valve Velan		RB	203				S		102	NA	A	Y
" 4B			ABS	184				S		102	NA	A	Y
" 4C	↓		ABS	184			Y	S		102	NA	A	Y
2RNSXMOV15A	16" 300# Gate Valve Velan		RB	294			Y	S		59	NA	A	Y
" 15B	↓			292			Y	S		59	NA	A	Y
2RNSXMOV22A	8" 900# Globe Valve Velan			234			NA	S		112	NA	B	Y
" 22B				234			NA	S		112	NA	B	Y
2RNSXMOV23A				190			NA	S		112	NA	B	Y
" 23B	↓			190			NA	S		112	NA	B	N
2RNSXMOV25A	16" 300# Gate Valve Velan			294			Y	S		59	NA	A	Y
" 25B	↓	↓	P.	292	↓	↓	Y	S	Y	59	NA	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST NAT FREQ RRS REF STATUS QUAL INST

2RHS*MOV24A	12" 900# Gate Valve Velan	P304R	RB	295	LM	Y	Y	S	SF	46	NA	B	Y
" 24B			RB	292			Y	S		46	NA	B	Y
" 24C	↓		RB	295			Y	S		46	NA	B	Y
2RHS*MOV26A	1" 1500# Globe Valve Velan		ABN	210			NA	S		50	NA	B	Y
" 26B			ABS	210				S		50	NA	B	N
2RHS*MOV27A			ABN	210				S		50	NA	B	Y
" 27B	↓		ABS	210				S		50	NA	B	Y
2RHS*MOV32A	4" 300# Gate Valve Velan		ABN	181				S		71	NA	A	Y
" 32B	↓		ABS	177			↓	S		71	NA	A	Y
2RHS*MOV33A	4" 300# Globe Valve Velan		RB	229			Y	S		80	NA	A	Y
" 33B	↓	↓	RB	229	↓	↓	Y	S	↓	80	NA	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISHIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ LOHEST RRS REF STATUS QUAL INST

2RHSXMOV37A	4" 300# Globe Valve Velan	P304R	ABN	181	LM	Y	NA	S	SF	86	NA	A	Y
" 37B	↓		ABS	177			NA	S		86	NA	A	Y
2RHSXMOV40A	12" 900# Globe Valve Velan		RB	250			Y	S		84	NA	A	N
" 40B	↓		RB	249			Y	S		84	NA	A	Y
2RHSXMOV67A	2" 1500# Globe Valve Velan		PC	255			Y	S		84	NA	A	Y
" 67B	↓		PC	255			Y	S		84	NA	A	N
2RHSXMOV80A	1" 1500# Globe Valve Velan		RB	234			Y				NA	C	N
" 80B	1" 1500# Globe Valve Velan		RB	234			Y				NA	C	N
2RHSXMOV104	6" 900# Globe Valve Velan		RB	292			Y	S		61	NA	A	Y
" 112	20" 900# Gate Valve Velan		PC	256			Y	S		56	NA	B	Y
" 113	↓		RB	247			Y	S		56	NA	B	N
" 115	16" 300# Gate Valve Velan	Y	ABS	181	Y	Y	NA	S	Y	65	NA	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2RH5X MOV 116	16" 150# Gate Valve Velan	P304R	ABS	181	LM	Y	NA	S	SF	65	NA A	Y
" 142	3" 300# Globe Valve		ABS	177				S		62	NA A	Y
" 149	↓		ABS	177				S		62	NA A	Y
2SWPX MOV 15A	2 1/2" 150# Gate Valve Velan		RB	197				S		72	NA A	Y
" 15B	↓			197				S		72	NA A	Y
2SWPX MOV 17A	12" 150# Gate Valve Velan			204				S		97	NA A	Y
" 17B	↓			183				S		97	NA A	Y
2SWPX MOV 18A	↓			204				S		97	NA A	Y
" 18B	↓			205				S		97	NA A	Y
2SWPX MOV 21A	3" 150# Gate Valve Velan			344				S		62	NA A	Y
" 21B	↓	↓	Y	330	↓	↓	↓	S	↓	62	NA A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL HETH NAT FREQ RRS REF
MANUFACTURER LOHEST STATUS
QUAL INST

25WPXMOV38A	6" 150# Gate Valve Velan	P304R	RB	263	LM	Y	NA	S	5F	102	NA	A	Y
38B				264			NA	S		102	NA	A	Y
25WPXMOV39A				263			Y	S		94	NA	A	Y
39B	↓			264			NA	S		102	NA	A	Y
25WPXMOV66A	8" 150# Gate Valve Velan		DG	269				S		89	NA	A	Y
66B	↓		DG	269				S		89	NA	A	Y
25WPXMOV67A	4" 150# Gate Valve Velan		CB	266				S			NA	C	Y
67B	↓		CB	266				S			NA	C	Y
25WPXMOV94A	8" 150# Gate Valve Velan		DG	268				S		89	NA	A	Y
94B			DG	269				S		89	NA	A	Y
25WPXMOV95A			DG	263				S		89	NA	A	Y
95B	↓	↓	DG	263	↓	↓	↓	S	↓	89	NA	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSF SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2WCS*MOV101	4" 600# Gate Valve Velan	P304R	PC	263	LM	Y	Y	S	SF	69	NA A	Y
" 102	8" 600# Globe Valve Velan		PC	245				S		181	NA B	Y
" 103	8" 600# Globe Valve Velan		PC	245				S		36	NA A	Y
" 104	4" 600# Gate Valve Velan		PC	244				S		6.9	NA A	N
" 105	4" 600# Gate Valve Velan		PC	243				S		69	NA A	Y
" 112	8" 600# Globe Valve Velan		RB	245				S		181	NA B	Y
" 200	8" 900# Globe Valve Velan		MST	263			Y	S		97	NA B	Y
" 106	6" 900# Gate Valve Velan		RB	316			NA	S		76	NA A	N
" 107	6" 900# Gate Valve Velan			314				S		76	NA A	Y
" 108	4" 900# Globe Valve Velan			318				S		47	NA A	Y
" 109	8" 900# Globe Valve Velan			319				S		112	NA A	Y
" 110	8" 900# Globe Valve Velan	Y	Y	309	Y	Y	Y	S	Y	112	NA B	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	EQUIPMENT		LOCATION		LOADS		QUAL METH	NAT FREQ	RRS REF
	DESCRIPTION MANUFACTURER	SPEC NO.	BLDG	ELEV HTG	SEIS	HYDR	ANLYS TEST	LOWEST	STATUS QUAL INST

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[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ----RRS REF----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALY TEST LOWEST ----STATUS---
MANUFACTURER QUAL INST

2DER*MOV119	4" 150# Gate	P3045	PC	217	LM	Y	Y	S	MF	83	NA	
	Velan										A	N
2DER*MOV120	↓		RB	217						83	NA	
											A	Y
2DER*MOV130	2" 1500# Globe		PC	243						85	NA	
	Velan										A	N
2DER*MOV131	↓		RB	243						85	NA	
											A	N
2DFR*MOV120	6" 150# Gate		RB	218						100	NA	
	Velan										A	Y
2DFR*MOV121	↓		PC	218						100	NA	
											A	N
2DFR*MOV139	3" 150# Gate		RB	241						59	NA	
	Velan										A	Y
2DFR*MOV140	↓		PC	257						59	NA	
											A	N
2HCS*MOV1A	3" 150# Globe		RB	218						55	NA	
	Velan										A	Y
1B				221						55	NA	
											A	Y
2HCS*MOV2A				229						55	NA	
											A	Y
2B	↓	↓	↓	221	↓	↓	↓	↓	↓	55	NA	
											A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---		-QUAL METH-		-NAT FREQ-		----RRS REF----	
	DESCRIPTION	SPEC NO.	BLDG	ELEV HTG	SEIS	HYDR	ANLYS	TEST	LOWEST	---	---	---
	MANUFACTURER											QUAL INST

[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-958

-----EQUIPMENT-----
EQUIP. ID DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF-
MANUFACTURER QUAL INST

2HCS*MOV3A	3" 150# Globe Valve												NA	
	Velan	P3045	RB	256	LM	Y	Y	S	MF	55			A	Y
3B			RB	256			Y						NA	
													A	Y
2HCS*MOV4A			PC	218			Y						NA	
													A	N
4B			PC	221			Y						NA	
													A	N
2HCS*MOV5A			PC	229			Y						NA	
													A	N
5B			PC	221			Y						NA	
													A	N
2HCS*MOV6A			PC	256			Y			7			NA	
													A	Y
6B			PC	256			Y			55			NA	
													A	Y
2ICS*MOV148	1 1/2" 1500# Globe Valve		RB	205			N			80			NA	
	Velan												A	N
2ICS*MOV164	1 1/2" 1500# Globe Valve		RB	205			N			80			NA	
	Velan	Y											A	N

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- -----RRS REF-----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

2CMS*SOV23A	3/4" 1500# Globe Valve Target Rock	P304X	PC	294	LM	Y	Y	S	MF	139	NA	B	N
23B			PC	299							NA	B	N
23C			PC	294							NA	B	Y
23D			PC	298							NA	B	N
23E			PC	294							NA	B	N
23F			PC	298							NA	B	N
2CMS*SOV24A			PC	295							NA	B	N
24B			PC	298							NA	B	N
24C			RB	295							NA	B	N
24D	Y		RB	298	Y	Y	Y	Y	Y	Y	NA	B	N
2RHS*SOV12.1	1500# GLOBE VALVE TARGET ROCK	Y	RB	209	LM	Y	NA	S	MF		NA	A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST

-----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ----RRS, REF-----
-----STATUS-----
QUAL INST

2CMS * SOV 25A	3/4" 1500# Globe Valve Target Rock	P304X	PC	219	LM	Y	Y	S	MF	139	NA	B	Y
25B			PC	220							NA	B	N
25C			PC	218							NA	B	Y
25D			PC	219							NA	B	N
2CMS * SOV 26A			PC	218							NA	B	Y
26B			PC	226							NA	B	N
26C			PC	218							NA	B	N
26D			RB	226							NA	B	N
2CMS * SOV 32A			RB	265							NA	B	N
32B			RB	295							NA	B	N
2CMS * SOV 33A			PC	295							NA	B	N
33B	✓	✓	PC	265	✓	✓	✓	✓	✓	✓	NA	B	N

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	DESCRIPTION MANUFACTURER	SPEC NO.	BLDG	ELEV	MTG	SEIS	HYDR	ANLYS	TEST	NAT FREQ- LOWEST	RRS REF- STATUS- QUAL INST
=====											

2CMS* 50V34A		3/4" 1500# Globe Valve Target Rock	P304X	PC	218	LM	Y	Y	S	MF	139	NA B Y	
34B				PC	225							NA B Y	
2CMS* 50V35A				RB	218							NA B N	
35B				RB	228							NA B N	
2CMS* 50V60A				RB	308							NA B N	
60B				RB	306							NA B N	
2CMS* 50V61A				PC	308							NA B N	
61B				PC	308							NA B N	
2CMS* 50V62A				RB	289							NA B N	
62B				RB	282							NA B N	
2CMS* 50V63A				PC	282							NA B N	
63B		↓	↓	PC	282	↓	↓	↓	↓	↓	↓	NA B N	



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL MATH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS QUAL INST

2CMS*50V64A	3/4" 1500# Globe Valve Target Rock	P304X	ABN	249	LM	Y	NA	U	MF	139	NA	A	N
64B			ABS	249						139	NA	A	N
2CMS*50V65A			ABN	249						139	NA	A	N
65B			ABS	249						139	NA	A	N
2CMS*50V74A			RB	256							NA	A	N
74B			RB	255							NA	A	N
2CMS*50V75A			RB	256							NA	A	N
75B	✓		RB	256				✓			NA	A	N
2CPS*50V119	2" 1500# Butterfly Valve Target Rock		RB	218			Y			150	NA	B	Y
" 120			RB	296			Y			150	NA	B	N
" 121			PC	218			Y			150	NA	B	Y
" 122	✓	✓	PC	296	✓	✓	Y	✓	✓	150	NA	B	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANLYS TEST QUAL METH- NAT FREQ- RRS, REF-
MANUFACTURER STATUS-
QUAL INST

2FRW* 50V218	2" 1500# Globe Valve Target Rock	P304X	RB	250	LM	Y	Y	S	MF	142	NA	B	N
219			PC	251			Y			142	NA	B	N
220			RB	251			Y			142	NA	B	N
221			PC	250			Y			142	NA	B	N
2GTS* 50V102	2" 1500# Globe Valve Target Rock		RB	319			Y			139	NA	B	Y
2HCS* 50V10A	1" 1500# Globe Valve Target Rock			242			NA			139	NA	A	Y
10B				242						139	NA	A	Y
2HCS* 50V11A				242						139	NA	A	Y
11B				242						139	NA	A	N
2HVK* 50V36A	3" 1500# Globe Valve Target Rock		CB	290						131	NA	A	Y
36B			CB	291						131	NA	A	Y
2HVR* 50V236	3/4" 1500# Globe Valve Target Rock		RB	314	Y	Y	Y	Y	Y		NA	A	N

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2IAS*50V164	1 1/2" 1500# Globe Valve Target Rock	P304X	RB	294	LM	Y	Y	S	MF	150	NA	
165				294						150	B	Y
166				294						150	NA	
167				243						150	B	N
168				294						150	B	Y
180			PC	294						150	NA	
184			PC	294						150	B	N
185	↓		PC	243						150	NA	
2IAS*50V181	3/4" 1500# Globe Valve Target Rock		RB	294						139	B	N
186				296						139	NA	
2IAS*50VY181				294						139	B	N
186	↓	√	↓	296	↓	↓	↓	↓	↓	139	NA	
											B	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

2IBC*SOV119	1/2" 1500# Globe Valve Target Rock	P304X	RB	240	LM	Y	NA	S	MF		NA	A	N
120				215			NA				NA	A	N
123				240			NA				NA	A	N
124			P	215			Y				NA	C	N
2LMS*SOV152	3/4" 1500# Globe Valve Target Rock		PC	299						139	NA	B	N
153			RB	299						139	NA	B	N
156			PC	221						139	NA	B	N
157	✓		RB	221						139	NA	B	N
2MSS*SOV97A	3/4" 1500# Globe Valve Target Rock		MST	247							NA	C	Y
97B			MST	247							NA	C	N
97C			MST	246							NA	C	Y
97D	✓	✓	MST	246	✓	✓	✓	✓	✓		NA	C	Y

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL HETH- NAT FREQ- RRS REF-
MANUFACTURER LOWEST STATUS-
QUAL INST

2RCS*SOV66A	2" 1500# Globe Valve Target Rock	P304X	RB	269	LM	Y	Y	U	MF	150	NA	B	Y
65B	↓			269						150	NA	B	Y
2RCS*SOV66A	1" 1500# Globe Valve Target Rock			269						139	NA	A	Y
66B	↓			269						139	NA	A	Y
2RCS*SOV67A	2" 1500# Globe Valve Target Rock			269						150	NA	B	Y
67B	↓			269						150	NA	B	Y
2RCS*SOV68A	1" 1500# Globe Valve Target Rock			269						139	NA	B	Y
68B	↓			269						139	NA	B	Y
2RCS*SOV79A	1" 1500# Globe Valve Target Rock		PC	269							NA	C	Y
79B	↓		PC	269							NA	C	Y
2RCS*SOV80A	1" 2500# Globe Valve Target Rock		PC	269							NA	C	Y
80B	↓	V	PC	269	V	V	V	V	V		NA	C	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST
MANUFACTURER

2RCS*SOV81A	2" 1500# Globe Valve Target Rock	P304X	PC	269	LM	Y	Y	S	MF		NA	C	Y
81B			PC	269							NA	C	Y
2RCS*SOV82A	3/4" 2500# Globe Valve Target Rock		PC	269							NA	C	Y
82B	↓		PC	269							NA	C	N
2RCS*SOV104	3/4" 1500# Globe Valve Target Rock		PC	262							NA	C	N
2RCS*SOV105	↓		RB	261			Y				NA	C	N
2RHS*SOV35A	3/4" 1500# Globe Valve Target Rock		ABN	184			NA			139	NA	A	N
35B			ABS	180						139	NA	A	Y
2RHS*SOV36A			ABN	177						139	NA	A	Y
36B	↓		ABS	180						139	NA	A	Y
2RHS*SOV70A	1" 1500# Globe Valve Target Rock		RB	189						139	NA	A	Y
70B	↓	✓	RB	189	✓	✓	✓	✓	✓	139	NA	A	Y



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UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST NAT FREQ- RRS REF-
MANUFACTURER STATUS-
QUAL INST

2RHS*SOV71A	1" 1500# Globe Valve Target Rock	P304X	RB.	189	LM	Y	NA	S	ME	139	NA	A	Y
71B				189						139	NA	A	Y
2RHS*SOV72A				175							NA	A	N
72B				175							NA	A	Y
2RHS*SOV73A				175							NA	A	N
73B	↓			175							NA	A	Y
2RHS*SOV120	3/4" 1500# Globe Valve Target Rock		17	209							NA	A	N
2RHS*SOV126	↓		ABS	181						139	NA	A	Y
2RHS*SOV76A	1500# GLOBE VALVE TARGET ROCK		RB	256							NA	A	N
76B			RB	255							NA	A	N
77A			RB	256							NA	A	N
77B		17	RB	255	Y	Y	Y	Y	Y		NA	A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2CSL*MOV112	20" 150# STOP VALVE											NA	
	CLOW CORP	P304Y	RB	195	LM	Y	Y	S	NA	59		B	Y
2GTS*MOV1A				319				NA		MF	49	NA	
												A	N
2GTS*MOV1B			P	319							49	NA	
												A	N
2GTS*MOV2A			SG	266							49	NA	
												C	N
2GTS*MOV2B			SG	266							49	NA	
												C	N
2GTS*MOV3A			SG	277							49	NA	
												C	N
2GTS*MOV3B			SG	277							49	NA	
												C	N
2GTS*MOV28A	8" 150# Stop Valve											NA	
	CLOW CORP		SG	261							59	C	N
2GTS*MOV28B												NA	
			SG	261							59	C	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
QUAL INST

2GTS*PV5A	14" 150# Stop Valve Clow Corp.	P304Y	SG	275	LM	Y	NA	S	NA	80	NA C	N
2GTS*PV5B	↓		SG	275			NA			80	NA C	N
2RHS*MOV1A	24" 300# Stop Valve Clow Corp.		RB	195			Y		↓	50	NA B	N
2RHS*MOV1B	↓			193			Y		MF	50	NA B	N
2RHS*MOV1C	↓			195			Y			50	NA B	N
2RHS*MOV2A	18" 300# Stop Valve Clow Corp.		ABN	183			Y			81	NA A	Y
2RHS*MOV2B	↓		RB	197			Y			81	NA A	Y
2RHS*MOV8A	↓		ABN	181			NA			57	NA B	Y
2RHS*MOV8B	↓		ABS	184	↓	↓	↓	↓	↓	57	NA B	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST

2RHS*MOV30A	18" 150# Stop Valve	P304Y	RB	206	LM	Y	Y	S	MF	43	NA		
	Clow Corp										C	Y	
2RHS*MOV30B	↓		RB	206			Y		↓	43	NA		
											C	Y	
2SWP*F.V.47A			SB	247			NA		NA		NA		
	Clow Corp										C	Y	
2SWP*F.V.47B			SB	247					NA		NA		
	Clow Corp										C	Y	
2SWP*MOV3A	30" 150# Stop Valve		SB	264					MF		NA		
	Clow Corp										C	Y	
2SWP*MOV3B	↓	↓	SB	264	↓	↓	↓	↓	↓		NA		
											C	Y	



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-450

EQUIP. ID DESCRIPTION SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2SWP*MOV19A	20" 150# Stop Valve Clow Corp.	P304Y	ABN	219	LM	Y	NA	S	MF	46	NA	C	Y
2SWP*MOV19B	↓		ABN	219						46	NA	C	Y
2SWP*MOV33A	18" 150# Check Valve Clow Corp		ABN	181						43	NA	A	Y
2SWP*MOV33B	↓		ABS	181						43	NA	A	Y
2SWP*MOV50A	36" 150# Stop Valve		SB	264						37	NA	A	Y
2SWP*MOV50B				264						37	NA	A	Y
2SWP*MOV74A	18" 150# Stop Valve Clow Corp.			264						51	NA	A	Y
2SWP*MOV74B				264						51	NA	A	Y
2SWP*MOV74C				264						51	NA	A	Y
2SWP*MOV74D				264						51	NA	A	Y
2SWP*MOV74E				264						51	NA	A	Y
2SWP*MOV74F	↓	↓	↓	264	↓	↓	↓	↓	↓	51	NA	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-958

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOREST STATUS QUAL INST

25WP*MOV90A	18" 150# Stop Valve Clow Corp.	P304Y	ABN	184	LM	Y	NA	S	MF		NA	C	Y
25WP*MOV90B	↓		ABS	181							NA	C	Y
25WP*MOV599	30" 150# Stop Valve Clow Corp		SB	255						70	NA	A	N
25WP*MOV93A	24" 150# Stop Valve Clow Corp.		SB	247						44	NA	A	Y
93B	↓		SB	247						66	NA	A	Y
25WP*FV54A	30" 150# Stop Valve Clow Corp.		SB	248							NA	C	Y
FV54B	↓		SB	248	↓	↓	↓	↓	↓		NA	C	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID DESCRIPTION SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS INST

2SWP*V202A	30" 150# Check Valve Clow Corp	P304Y	SB	247	LM	Y	NA	S	NA	39	NA A	N
2SWP*V202B			SB	247						34	NA A	N
2SWP*V1A	18" 150# Check Valve		SB	226						54	NA A	N
1B			SB	226						54	NA A	N
1C										54	NA A	N
1D										54	NA A	N
1E										54	NA A	N
1F										54	NA A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

DOCKET NO. 50-458

EQUIP. ID	DESCRIPTION MANUFACTURER	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	NAT FREQ- LOHEST	RRS REF- ---STATUS--- QUAL INST
=====EQUIPMENT----- --LOCATION-- --LOADS-- -QUAL METH- -NAT FREQ- ----RRS REF----											
=====											

[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF- STATUS- QUAL INST

2MSS*RV190	Reactor Head Vent Control															NA	
	GPE Controls	P305B	PC	238	LM	Y	Y	S	NA							D	N
25VV*RV101	10" 600# Check Valve			254												NA	
	GPE Controls														>1000	A	Y
" 102				254												NA	
																A	Y
" 103				254												NA	
																A	Y
" 104				254												NA	
																A	Y
" 105				254												NA	
																A	Y
" 106				254												NA	
																A	Y
" 107				254												NA	
																A	Y
" 108				254												NA	
																A	Y
" 109				254												NA	
																A	Y
" 110				254												NA	
																A	Y
" 111				254												NA	
																A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANLYS TEST NAT FREQ- RRS REF-
MANUFACTURER QUAL INST

2SVV*RVV112	10" 600# Check Valve GPE Controls	P305B	PC	254	LM	Y	Y	S	NA	>1000	NA A	Y
113											NA A	Y
114											NA A	Y
115											NA A	Y
116											NA A	Y
117											NA A	Y
118				✓							NA A	Y
2SVV*RVV201				251							NA A	Y
202											NA A	Y
203											NA A	Y
204											NA A	Y
205	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA A	Y

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- ---LOCATION--- ---LOADS--- -QUAL METH- -NAT FREQ- ----RRS REF----
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST ---STATUS---
MANUFACTURER QUAL INST

25VV * RVV 206	10" 600# Check Valve GPE Control	P305B	PC	251	LM	Y	Y	S	NA	>1000	NA	A	Y
207											NA	A	Y
208											NA	A	Y
209											NA	A	Y
210											NA	A	Y
211											NA	A	Y
212											NA	A	Y
213											NA	A	Y
214											NA	A	Y
215											NA	A	Y
216											NA	A	Y
217											NA	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYD ANLYS TEST QUAL METH- NAT FREQ- RRS REF-
MANUFACTURER STATUS-
QUAL INST

25VV*RV218	10" 600# Check Valve GPE Controls	P30SB	PC	251	LM	Y	Y	S	NA	>1000	NA A	Y
25VV*RVV301	2 1/2" 150# Check Valve GPE Controls			265						279	NA A	Y
302											NA A	Y
303											NA A	Y
304											NA A	Y
305											NA A	Y
306											NA A	Y
307											NA A	Y
308											NA A	Y
309											NA A	Y
310											NA A	Y
311											NA A	Y



MP2

CHUGGING
REQUIRED RESPONSE SPECTRA FOR THE
REACTOR BUILDING



Hydrodynamic - Chugging
Required Response Spectra (RRS)
for the Reactor Building

<u>Mass Point - Location</u>	<u>Elev (ft)</u>	<u>Reference No.*</u>
064 - Center of Mat	170.00	149
071 - Mat (R=29.81 ft)	170.00	150
077 - Mat (R=66.375 ft)	170.00	151
078 - Pedestal at Mat	176.00	152
079 - Primary Containment @ Mat	176.00	153
080 - Secondary Containment @ Mat	175.00	154
082 - Primary Containment	180.80	155
084 - Pedestal	185.60	156
085 - Primary Containment	185.60	157
088 - Primary Containment	190.40	158
091 - Primary Containment	195.20	159
092 - Secondary Containment	261.00	160
093 - Pedestal, W. L.	201.00	161
094 - Primary Containment, W. L.	201.00	162
095 - Secondary Containment	289.00	163
097 - Primary Containment	206.11	164
100 - Primary Containment	212.22	165
102 - Pedestal	217.50	166
103 - Primary Containment	218.33	167
104 - Top of Secondary Containment	386.83	168
106 - Primary Containment	224.88	169
107 - Primary Containment	231.44	170
108 - Pedestal	230.50	171
110 - Drywell Fl @ Center Line	230.50	172
111 - Drywell Fl/Primary Containment	238.00	173
114 - Drywell Floor	238.00	174
116 - Drywell Floor/Pedestal	238.00	175
117 - Primary Containment	243.33	176
119 - Primary Containment	248.66	177
121 - Primary Containment	254.00	178
122 - Pedestal	254.00	179
123 - Primary Containment	259.33	180
127 - Primary Containment	270.00	181
128 - Primary Containment	275.33	182
130 - Primary Containment	286.00	183
131 - Primary Containment	291.33	184
133 - Primary Containment	302.00	185
134 - Primary Containment	306.36	186
136 - Primary Containment	315.25	187
137 - Primary Containment Top	326.83	188
138 - Shield Wall Out	315.23	189



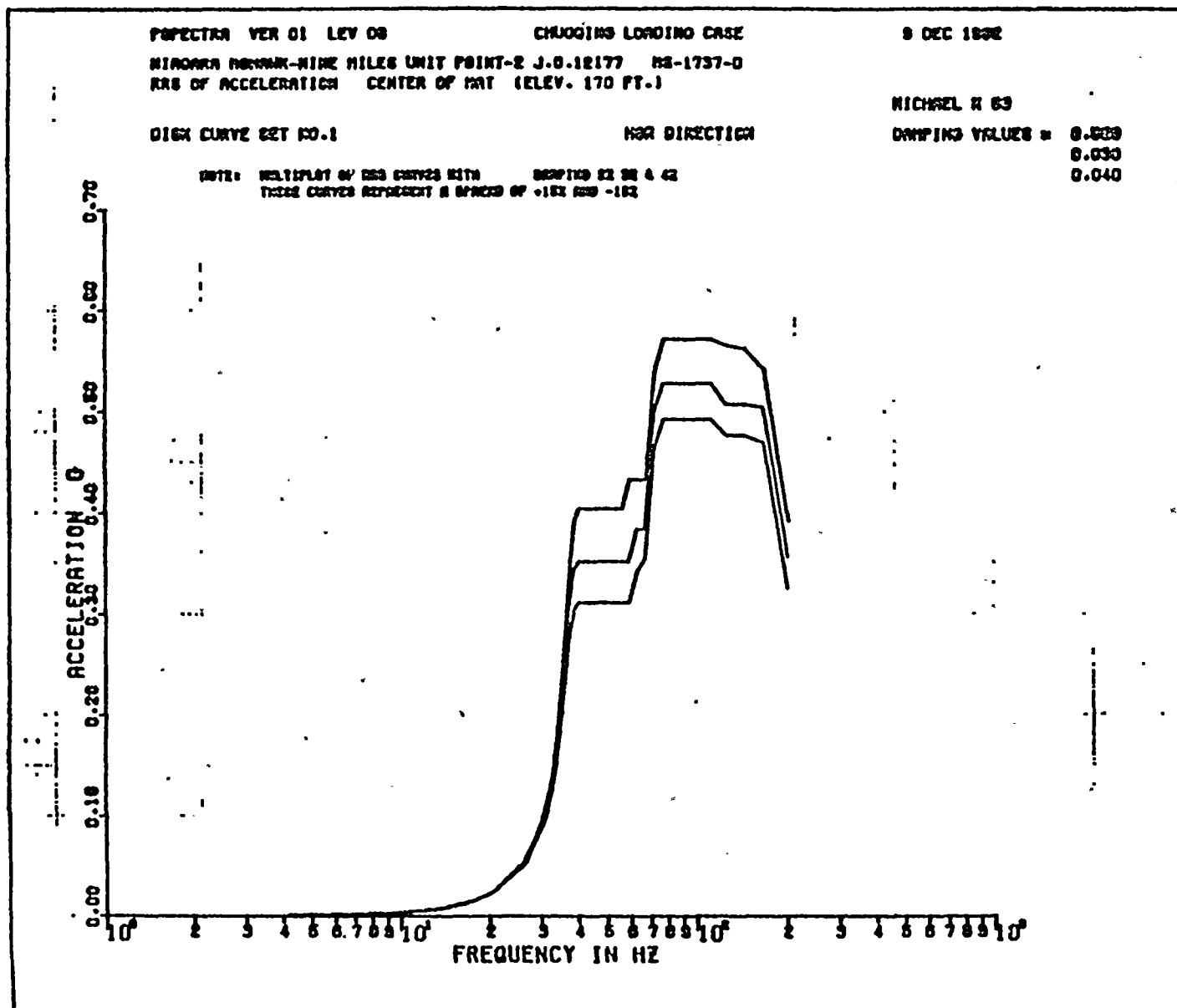
Hydrodynamic - Chugging

Required Response Spectra (RRS) for the Reactor Building

<u>Mass Point - Location</u>	<u>Elev (ft)</u>	<u>Reference No.*</u>
141 - Pedestal Top	266.54	190
145 - Shield Wall Out	276.28	191
151 - Shield Wall Out	290.89	192
156 - Shield Wall Out	300.62	193
161 - RPV Shell	315.08	194
163 - RPV Shell	291.74	195
164 - RPV Shell	278.11	196
165 - RPV Shell	266.54	197

*Each reference number includes chugging for horizontal and vertical direction at 2, 3, and 4 percent damping.





MS 1237

REF 149



SPECTRA VER 01 LEV 08 CHUGGING LOADING CASE
 NIAGARA NIAGARA-NINE MILES UNIT POINT-2 J.9.12177 NS-1737-0
 RRS OF ACCELERATION CENTER OF HAT (ELEV. 170 FT.)

9 DEC 1962

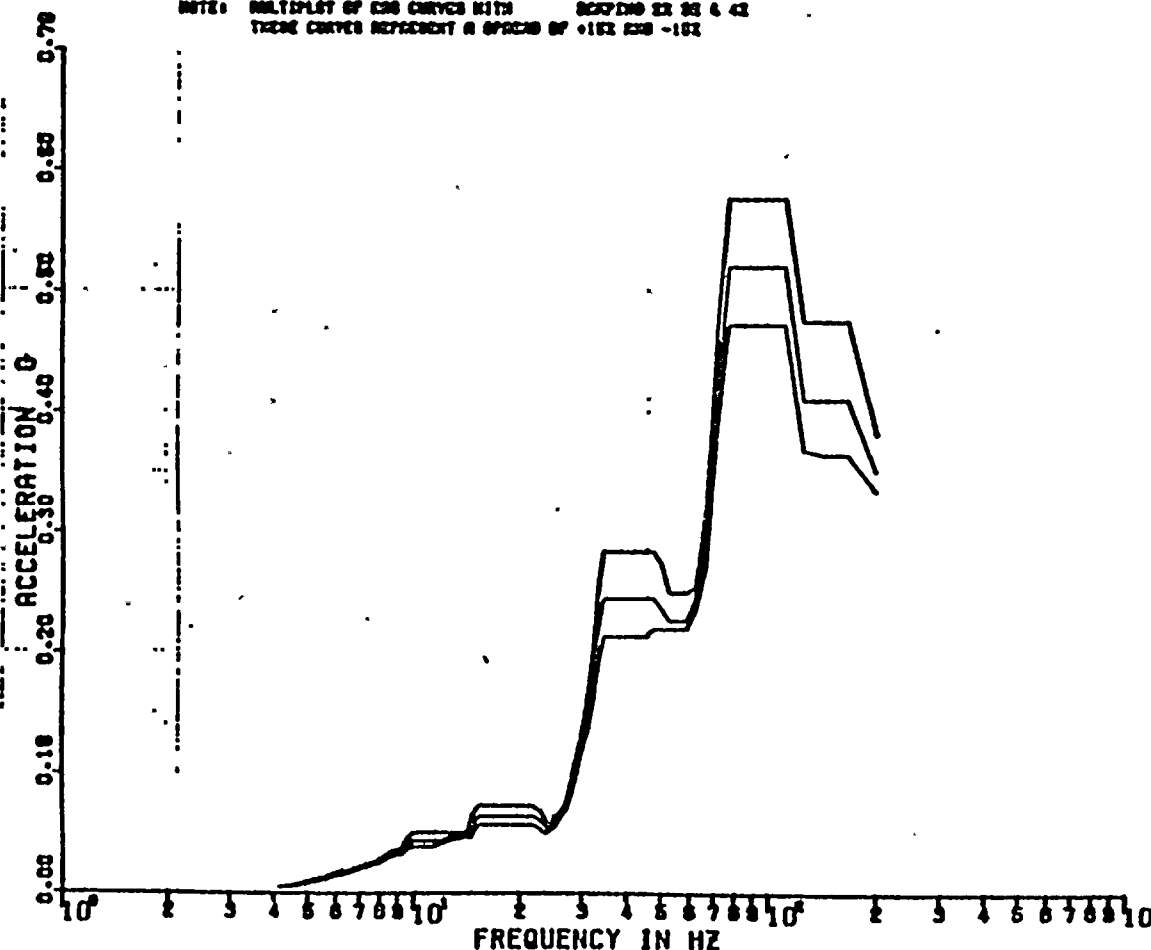
DIGIT CURVE SET NO.1

VER DIRECTION

NICHOL K 60

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLE OF 1000 CURVES WITH DAMPING 0.02 & 0.04
 THESE CURVES REPRESENT A SPECTRA OF 1000 0.02 - 0.04



MS 1737

REF 149



SPECTRA VER 01 LEV 03

CHUOTING LOADING CASE

8 DEC 1982

NIAOWA NCHANK-NINE MILES UNIT POINT-2 J.B.12177 MS-1737-0
RMS OF ACCELERATION MAT(R=28.81FT) (ELEV.170.0 FT)

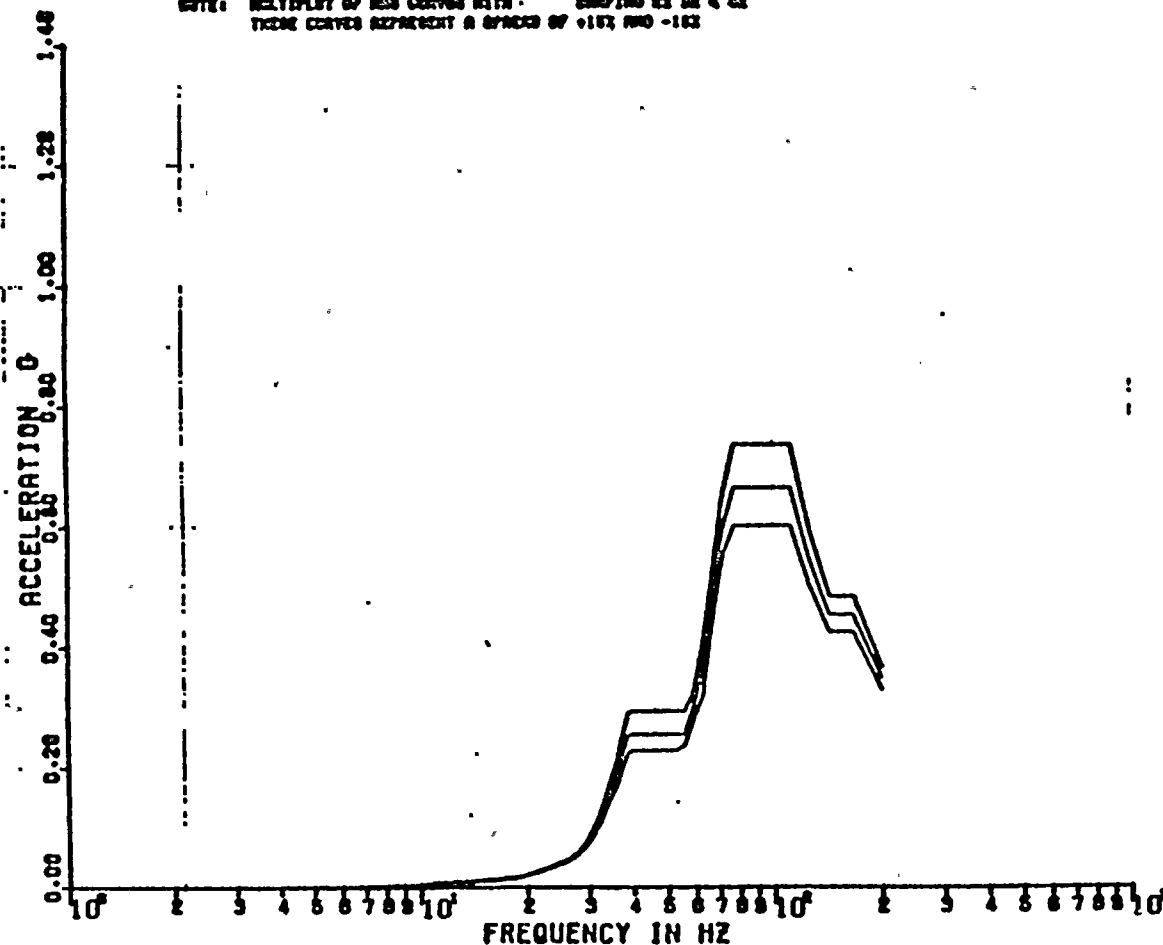
MICHAEL H 83

DIGI CURVE SET M3.2

MSR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RES CURVES WITH DAMPING 02 02 4 42
THREE CURVES REPRESENT A SPREAD OF +15% AND -15%



2821 SW MS 1737

05/132



SPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1982

MIRORA NONAM-HINE MILES UNIT POINT-2 J.B.12177 MS-1737-0

RMS OF ACCELERATION NAT(R=28.81FT) (ELEV.170.0 FT)

MICHAEL N GO

DIGI CURVE GET NO.2

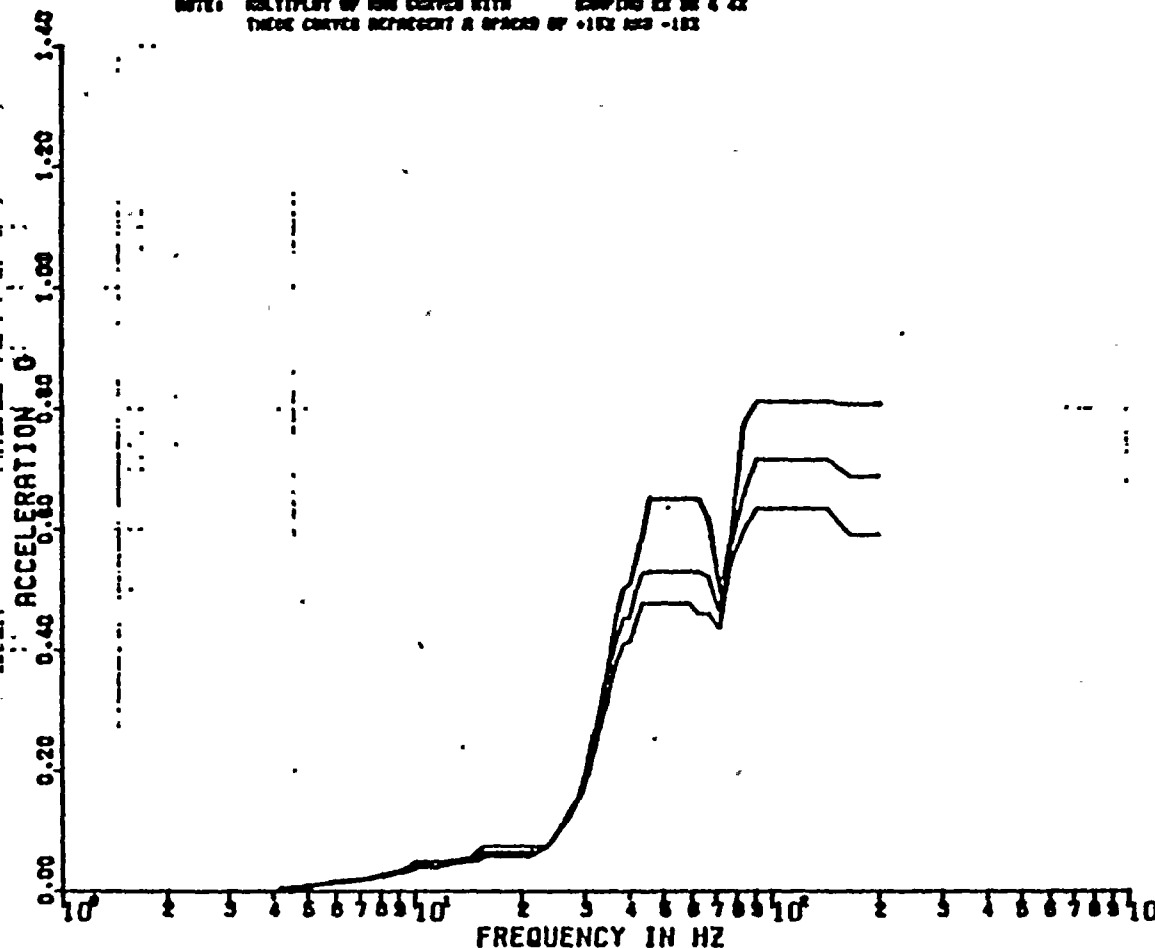
VER DIRECTION

DAMPING VALUES = 0.020

0.030

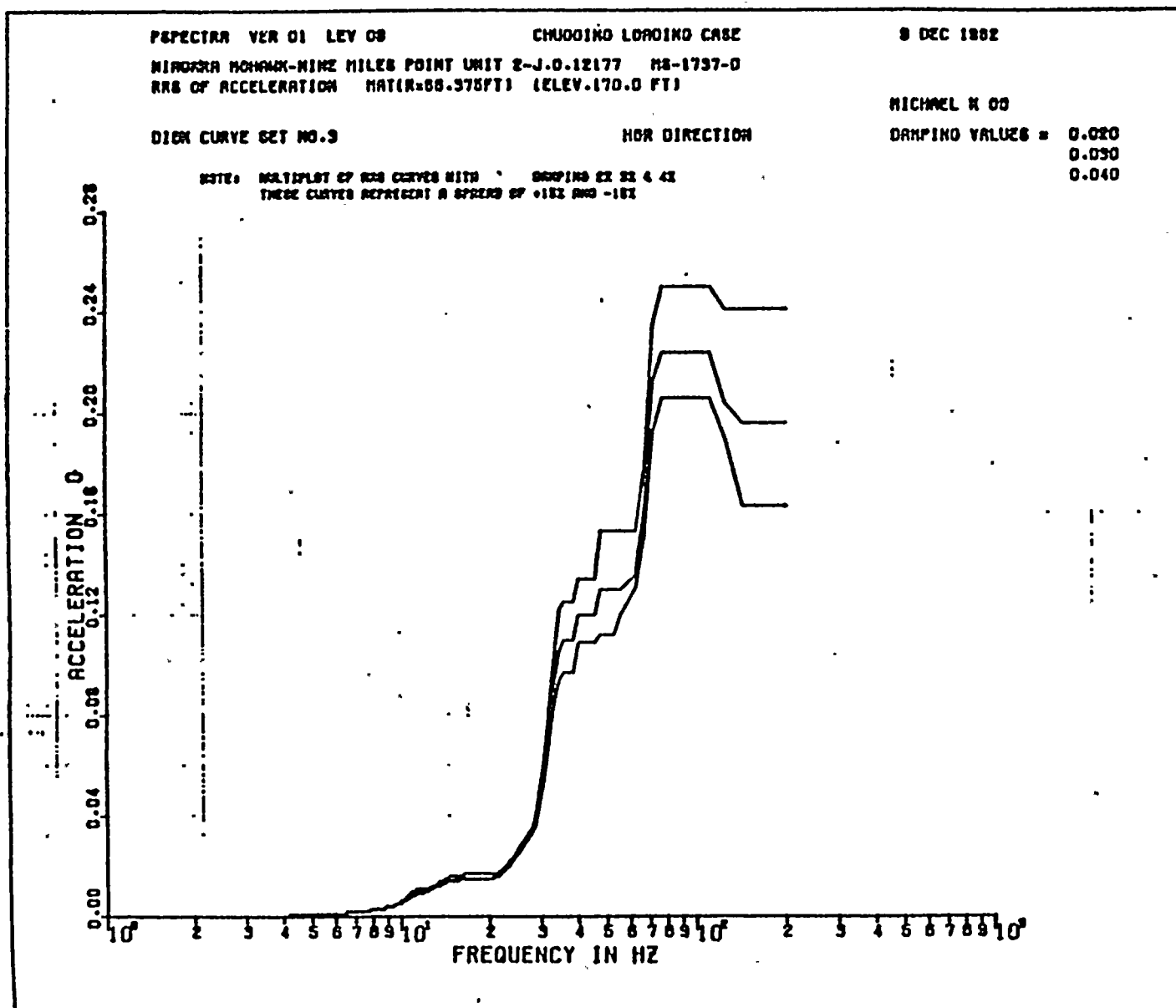
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 02 00 4 42
THESE CURVES REPRESENT A SPACING OF +152 123 -182



REF 150
MS 1237





REF 151
MS 1737



PSPECTRA VER 01 LEV 08

CHUOJING LOADING CASE

9 DEC 1982

NIPONKA NOMAN-NINE MILES POINT UNIT 2-J.O.12177 MS-1737-0
RAS OF ACCELERATION MAT(R=55.375FT) (ELEV.170.0 FT)

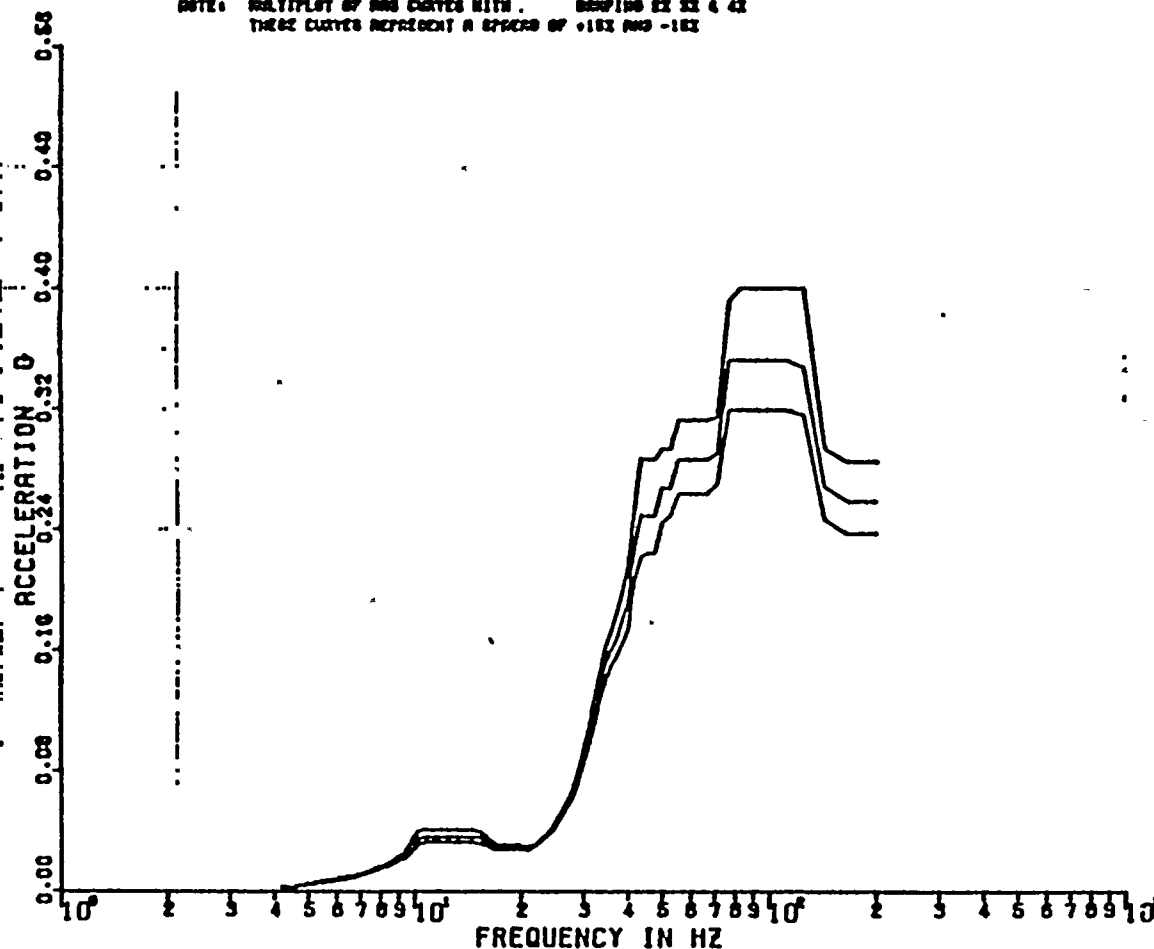
DISK CURVE SET NO.3

VER DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPECTRA OF +15% AND -15%



MS 1737

REF 151



PSPECTRA VER 01 LEV 08

CHUOING LOADING CASE

9 DEC 1982

NINORAN MONARK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAG OF ACCELERATION PEDESTAL AT MAT (ELEV 178.0 FT)

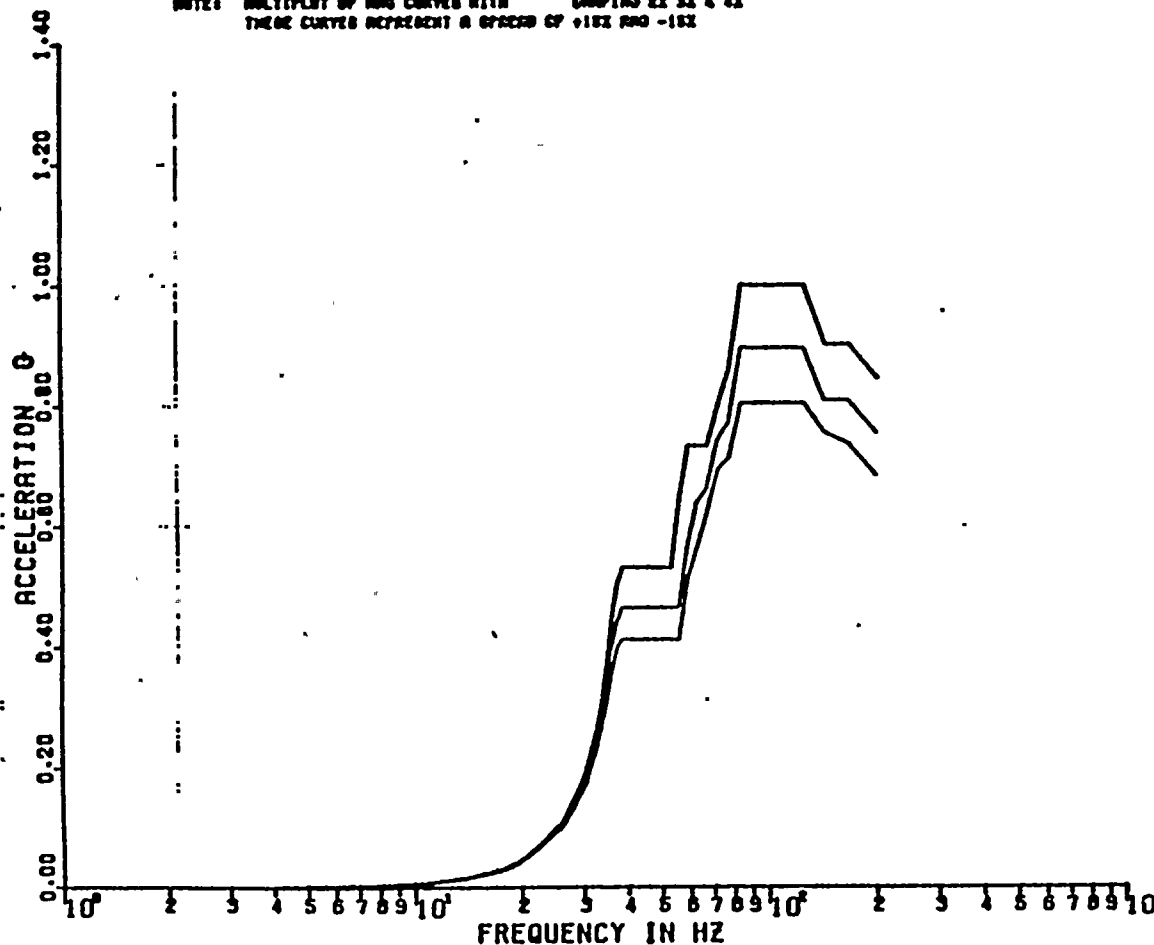
MICHAEL K 00

DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAG CURVES WITH DAMPING 22 33 & 43
THESE CURVES REPRESENT A SPEED OF +15% AND -15%



MS 1737

REF 152



PSPECTRA VER 01 LEV 08 CHUDDING LOADING CASE
 NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
 RMS OF ACCELERATION PEDESTAL AT MAT (ELEV 176.0 FT)

9 DEC 1962

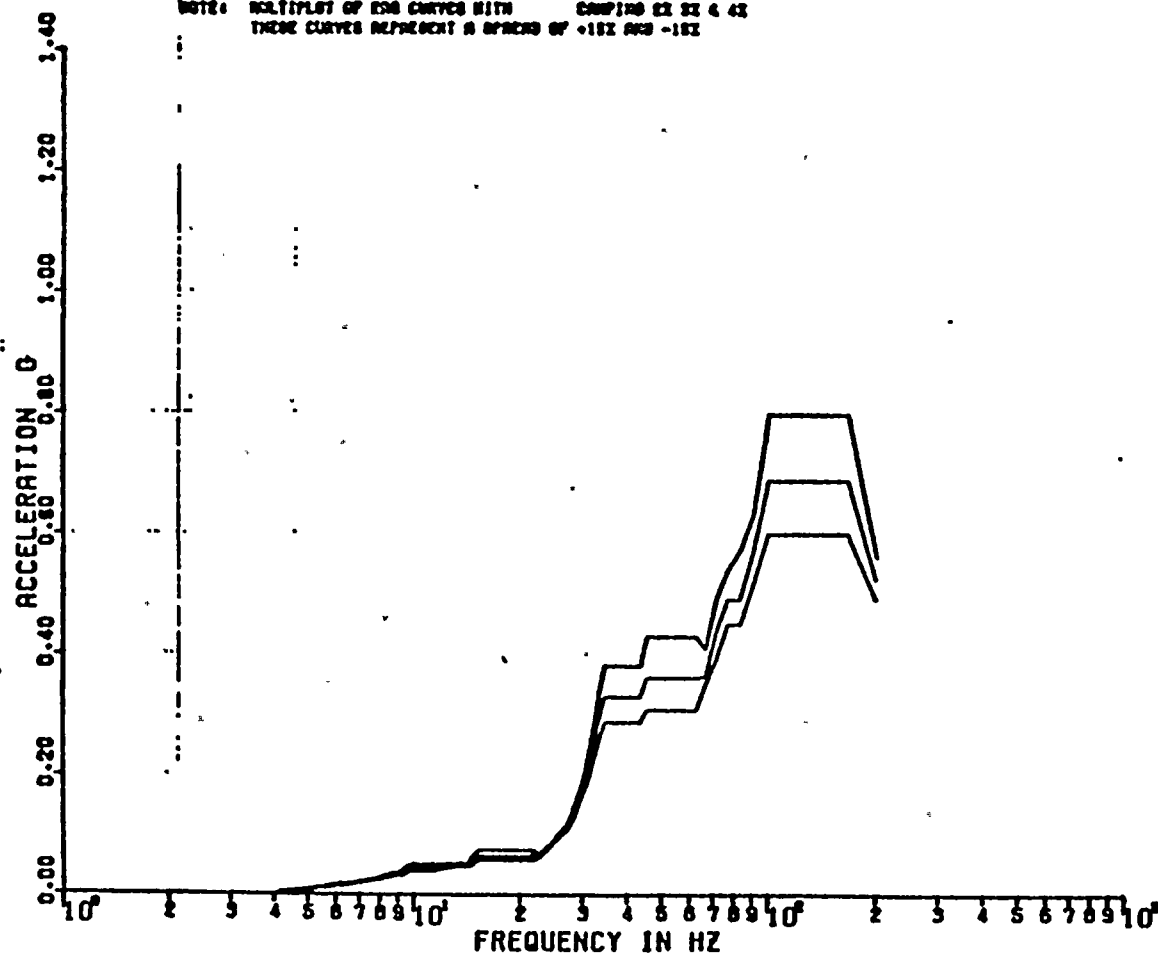
DIGI CURVE SET NO.4

VER DIRECTION

MICHAEL H 00

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 2% 3% & 4%
 THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



MS 1632

REF 152



SPECTRA VER 01 LEV 03

CHUODING LOADING CASE

8 DEC 1992

NINOWA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0

RAS OF ACCELERATION PRIMARY CONT. (ELEV 176.0FT) AT MAT

MICHAEL K 03

DIGX CURVE SET NO.8

HOR DIRECTION

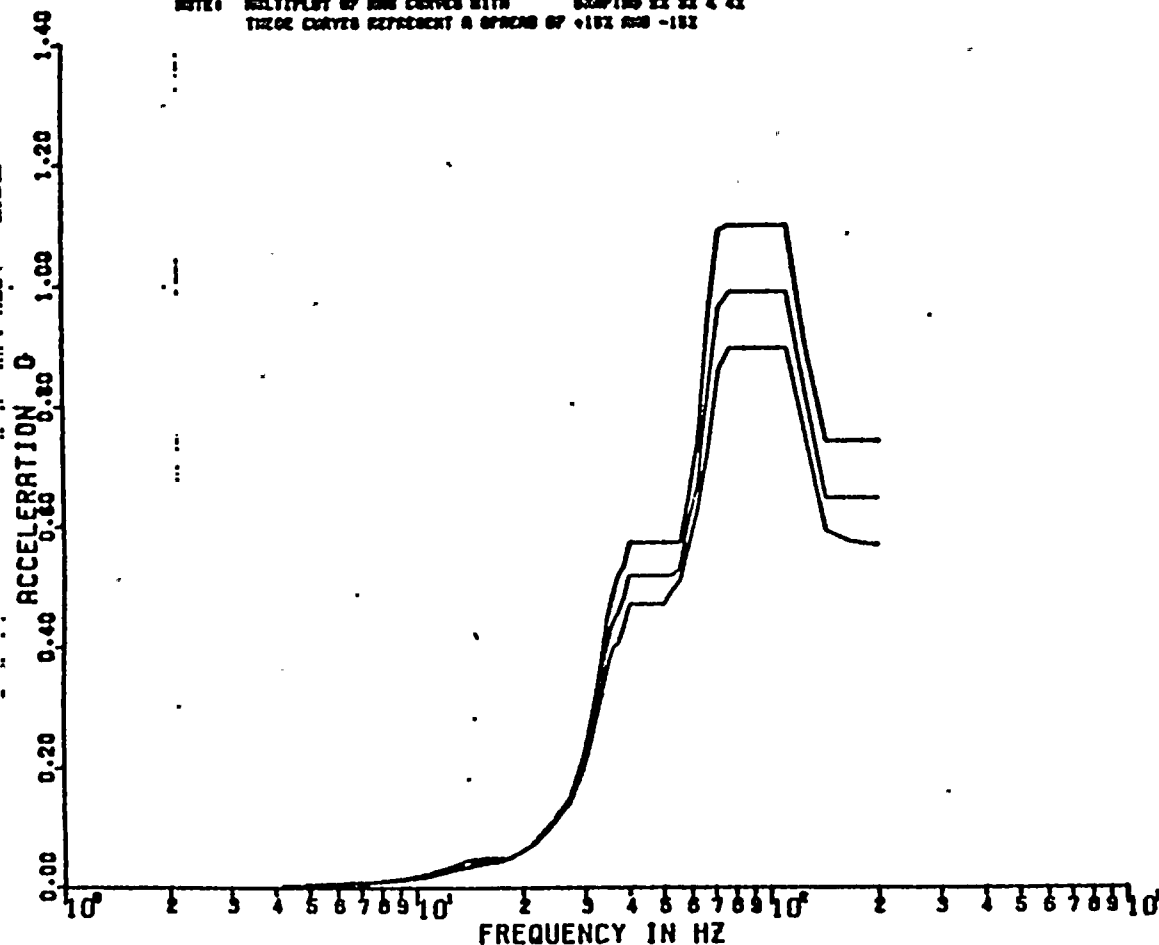
DAMPING VALUES =

0.020

0.030

0.040

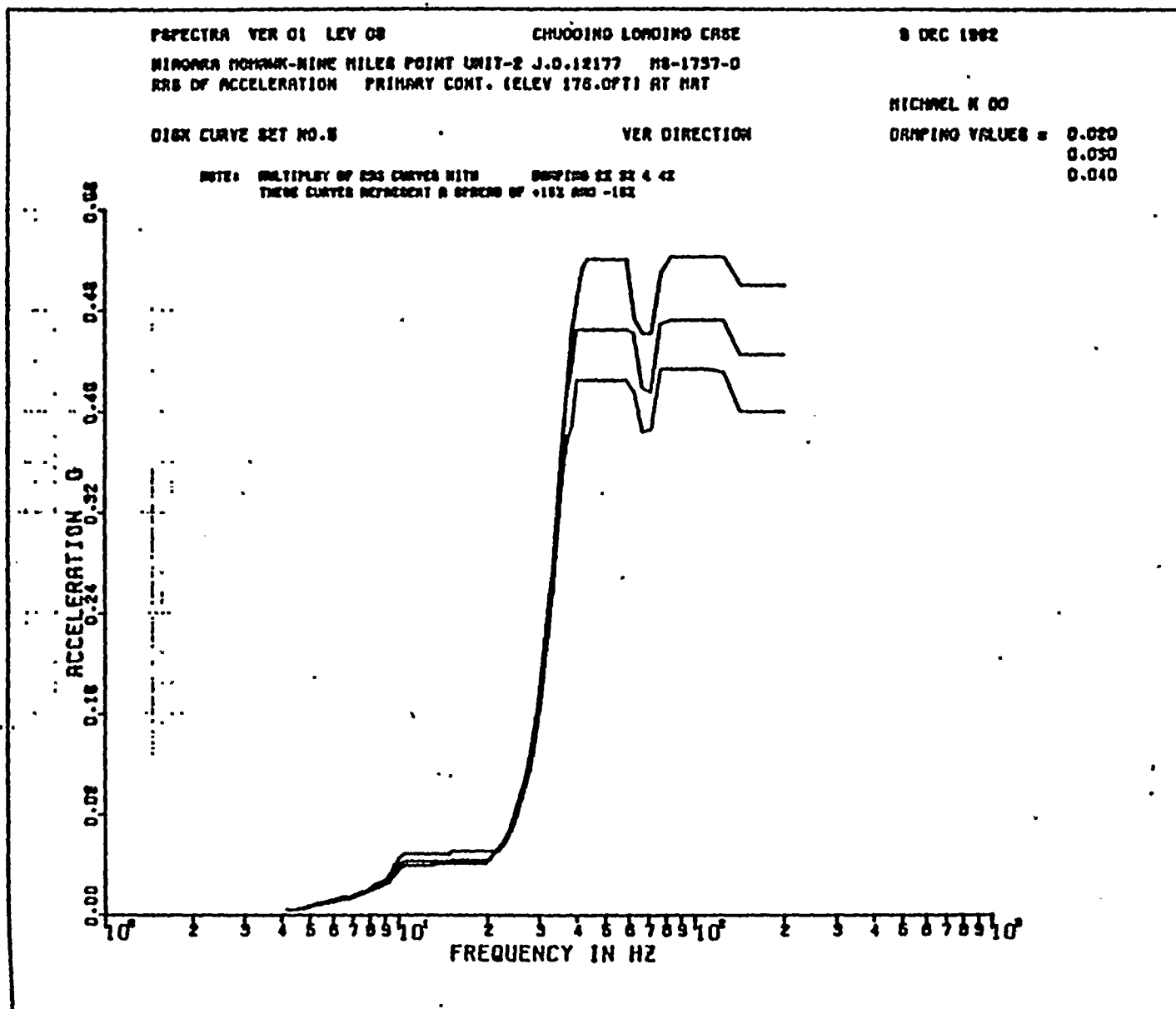
NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 22 22 & 42
THREE CURVES REPRESENT A SPACING OF +10% AND -10%



MS 1237

REF 153





REF 153
MS 1237



PERPECTRA VER 01 LEV 00

CHUGGING LOADING CASE

8 DEC 1982

NIGONDA MONARK-NINE MILES POINT UNIT-2 J.O.12177 MS-1757-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV 175) AT MAT

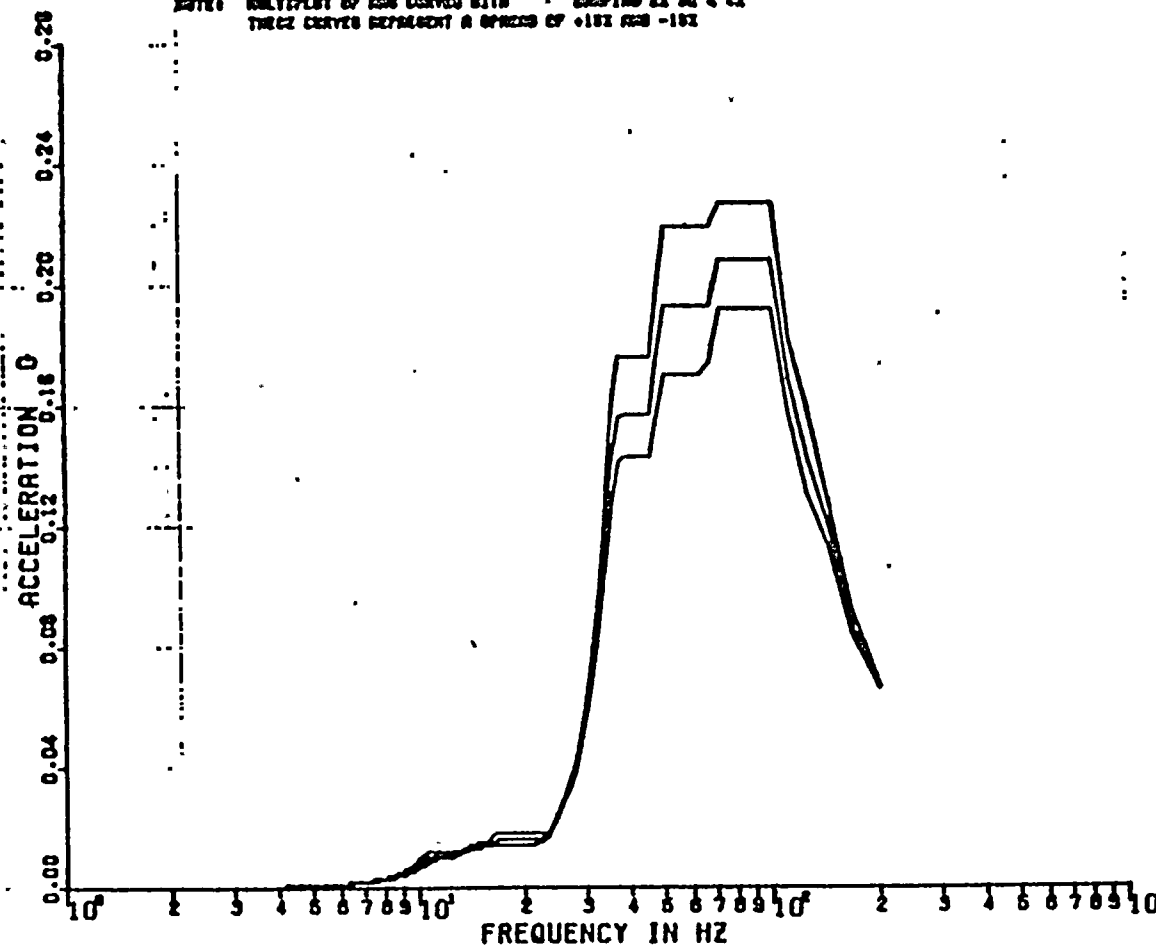
MICHAEL K CO

DIER CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 02 03 & 04
THESE CURVES REPRESENT A SPAN OF +10% RMS -10%



MS 1237
REF 154



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION BLDG ELEV INTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2SVV*RVV312	2 1/2" 150# Check Valve GPE Controls	P305B	PC	265	LM	Y	Y	S	NA	279	NA A	Y
" 313											NA A	Y
" 314											NA A	Y
" 315											NA A	Y
" 316											NA A	Y
" 317											NA A	Y
" 318	↓		↓	↓						↓	NA A	Y
2RHS*RVV36A	10" Double Vac Rel Valve GPE Controls		RB	205						402	NA A	N
36B										402	NA A	N
2RHS*RVV35A										402	NA A	N
35B	↓	↓	↓	↓	↓	↓	↓	↓	↓	402	NA A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	EQUIPMENT-----		---LOCATION---		---LOADS---		QUAL METH-	NAT FREQ-	---RRS, REF---
	DESCRIPTION	SPEC NO.	BLDG	ELEV HTG	SEIS	HYDR	ANLYS TEST	LOWEST	---STATUS---
	MANUFACTURER								QUAL INST

[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF-
DESCRIPTION MANUFACTURER STATUS--
QUAL INST

2CSH*STRI	Supp. Pool Strainer Zurn Industries	P311A	PC	195	LM	Y	Y	S	NA	385	NA	A	N
2CSL*STRI	↓		PC	188			Y			385	NA	A	N
2EGF*STRIA	Simplex Strainer Zurn Industries		DG	262			NA			NA	NA	A	Y
1B			DG	262			NA			NA	NA	A	Y
1C			DG	262			NA			NA	NA	A	Y
1D			DG	262			NA			NA	NA	A	Y
2EGF*STR2A			DG	262			NA			NA	NA	A	Y
2B	↓		DG	262			NA			NA	NA	A	Y
2RHS*STRIA	Supp. Pool Strainer Zurn Industries		PC	195			Y			385	NA	A	N
1B			PC	195			Y			385	NA	A	N
1C	↓		PC	195			Y			385	NA	A	N
2ICS*STRI	Supp. Pool Strainer Zurn Industries	✓	PC	191	✓	✓	Y	✓	✓	385	NA	A	N



ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible]

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[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT DESCRIPTION SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL HETH- NAT FREQ- RRS REF-
MANUFACTURER LOWEST STATUS-
QUAL INST

2HVC*ACU3A	Air Conditioning Unit American Air Filter	P412m/w	CB	275	CF	Y	NA	S	MF	18	17 A	Y
3B	↓		CB	275						18	17 A	Y
2HVC*UC101A	Unit Space Cooler American Air Filter		CB	275						32	17 A	Y
101B			CB	275						32	17 A	Y
2HVC*UC102			CB	275						38	17 A	Y
2HVC*UC103A			CB	270						39	17 A	Y
103B			CB	279						39	17 A	Y
2HVC*UC104			RB	240						32	61 A	Y
2HVC*UC105			RB	240						43	61 A	Y
2HVC*UC106			CB	238						733	16 A	Y
2HVC*UC107	↓	↓	CB	238	↓	↓	↓	↓	↓	733	16 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST

2HVC*UC108A	Unit Cooler American Air Filter	P412M/W	CB	275	CF	Y	NA	S	MF	733	17 A	Y
108B			CB	275						733	17 A	Y
2HVP*UC1A			DG	280						733	17 A	Y
1B			DG	280						733	17 A	Y
2HVP*UC2			DG	280						733	17 A	N
2HVR*UC401A			ABN	176						32	63 A	Y
401B			ABS	183						32	63 A	Y
401C			ABS	183						32	63 A	Y
401D			ABN	176						32	63 A	Y
401E			ABS	177						32	63 A	Y
401F	✓	✓	ABS	177	✓	✓	✓	✓	✓	32	63 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF-
DESCRIPTION MANUFACTURER STATUS--
QUAL INST

2HVR*UC402A	Unit Space Coolers American Air Filter	P412M/W	ABN	176	CF	Y	NA	S	MF	20	63 A	Y
402B			ABN	177						20	63 A	Y
2HVR*UC403A			RB	176						12	63 A	N
403B				203						12	62 A	Y
2HVR*UC404A				196						33	63 A	Y
404B				176						33	63 A	Y
404C				196						33	63 A	Y
404D			Y	206						33	62 A	Y
2HVR*UC405			ABN	206						43	62 A	N
2HVR*UC406			ABS	206						43	62 A	Y
2HVR*UC407A			RB	216						37	61 A	Y
407B		Y	RB	216	Y	Y	Y	Y	Y	37	61 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL MTH NAT FREQ RRS REF STATUS QUAL INST

2HVR*UC407C	Unit Cooler American Air Filter	P412m/w	RB	216	CF	Y	NA	S	MF	37	61 A	Y
407D			RB	229						37	61 A	Y
407E			RB	223						37	61 A	Y
2HVR*UC408A			ABN	250						16	60 A	Y
408B			ABN	250						16	60 A	Y
2HVR*UC409A			ABS	250						32	60 A	Y
409B			ABS	250						32	60 A	Y
2HVR*UC410A			RB	241						37	60 A	Y
410B			RB	249						37	60 A	Y
410C	↓	↓	RB	241	↓	↓	↓	↓	↓	37	60 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS INST

2HVR*UC411A	Unit Space Cooler American Air Filter	P412m/w	RB	273	CF	Y	NA	S	MF	33	59 A	Y
411B				273						33	59 A	Y
411C				278						33	59 A	Y
2HVR*UC412A				186						33	63 A	Y
412B				176						33	63 A	Y
2HVR*UC413A				290						8	58 A	Y
413B				290						8	58 A	Y
2HVR*UC414A				268						33	59 A	Y
414B			Y	279						33	59 A	Y
2HVR*UC415A			SG	277						37	59 A	Y
415B		Y	SG	277	Y	Y	Y	Y	Y	37	59 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	EQUIPMENT		LOCATION		LOADS		QUAL METH	NAT FREQ	RRS REF	
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS TEST	LOHEST	STATUS
	MANUFACTURER									QUAL INST
<div style="border: 1px solid black; height: 100px; width: 100%;"></div>										

[illegible]



SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---		-QUAL METH-		-HAT FREQ-		----RRS REF----	
	DESCRIPTION	SPEC NO.	BLDG	ELEV HTG	SEIS	HYDR	ANLYS	TEST	LOWEST	---	---STATUS---	QUAL INST

2HVC*ACU1A	CR Air Cond. Unit	P413E/V	CB	289	CF	Y	NA	S	NA	1Z	17	
	Carrier A.C.										A	Y
2HVC*ACU1B	CR Air Cond. Unit	P413E/V	CB	306		Y	NA	S	NA	1Z	18	
	Carrier A.C.										A	Y
2HVC*ACU2A	RR Air Cond. Unit	P413E/V	CB	289		Y	NA	S	NA	1Z	17	
	Carrier AC										A	Y
2HVC*ACU2B	RR Air Cond. Unit	P413E/V	CB	306	Y	Y	NA	S	NA	1Z	18	
	Carrier AC										A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible][illegible][illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL HETH NAT FREQ RRS REF STATUS QUAL INST

2HVC*CH11A	Eg. Room Heater Schneider Inc.	P413L	CB	318	CF	Y	NA	S	NA	40	19	A	Y
CH11B	Eg. Room Heater Schneider Inc.		CB	319							19	A	Y
2HVC*CH12A			CB	299	Y						18	A	Y
12B	↓		CB	300	CF						18	A	Y
2HVC*DMPV1	Balancing Damper Schneider Inc.		CB	315	HM						19	A	Y
V2			CB	318							19	A	Y
V4			CB	318							19	A	Y
V5			CB	318							19	A	Y
V6			CB	318							19	A	Y
V7			CB	318							19	A	Y
V8			CB	318							19	A	Y
V9	↓	↓	CB	318	Y	Y	Y	Y	Y	Y	19	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST --STATUS--
MANUFACTURER QUAL INST

2HVC*DMPV10	Balancing Damper Schneider Inc.	P413L	CB	318	HM	Y	NA	S	NA	40	19 A	Y
V11			CB	319						40	19 A	Y
V12			CB	318						40	19 A	Y
V13			CB	315						33	19 A	Y
V14			CB	315						40	19 A	Y
V16			CB	318							19 A	Y
V17			CB	318							19 A	Y
V20			CB	318							19 A	Y
V21			CB	318							19 A	Y
V22			CB	318							19 A	Y
V23			CB	318							19 A	Y
V24	✓	✓	CB	318	✓	✓	✓	✓	✓	✓	19 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---		QUAL METH-	NAT FREQ-	----RRS REF----	
	DESCRIPTION	SPEC NO.	BLDG	ELEV HTG	SEIS	HYDR	ANLYS TEST	LOWEST	---	STATUS---
	MANUFACTURER									QUAL INST

2HVCxDMPV25		Balancing Damper Schneider Inc.		P413L	CB	318	HM	Y	NA	S	NA	40	19	
V27					CB	318						40	A	Y
V29					CB	318						33	A	Y
V30					CB	319							A	Y
V31					CB	316							A	Y
V32					CB	319							A	Y
V33					CB	318							A	Y
V34					CB	320							A	Y
V35					CB	318							A	Y
V36					CB	318							A	Y
V37					CB	319							A	Y
V38					CB	316						40	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYD AMYS TEST LOWEST STATUS QUAL INST

2HVC*DMPV39	Balancing Damper Schneider Inc.	P413L	CB	316	HM	Y	NA	S	NA	40	19 A	Y
V40			CB	316						40	19 A	Y
V41			CB	300						33	18 A	Y
V42			CB	297						33	18 A	Y
V43			CB	297						40	18 A	Y
V47			CB	298						40	18 A	Y
V48			CB	297						33	18 A	Y
V49			CB	300						33	18 A	Y
V50			CB	300						40	18 A	Y
V52			CB	300						33	18 A	Y
V53			CB	298						33	18 A	Y
V54	✓	✓	CB	296	✓	✓	Y	✓	✓	33	18 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST ---STATUS---
MANUFACTURER QUAL INST

2HVC*DMPV55	Balancing Damper Schneider Inc.	P413L	CB	299	HM	Y	NA	S	NA	33	18 A	Y
V56			CB	299						40	18 A	Y
V57			CB	301						40	18 A	Y
V58			CB	302						33	18 A	Y
V59			CB	299						33	18 A	Y
V60			CB	298						33	18 A	Y
V61			CB	298						40	18 A	Y
V62			CB	297						33	18 A	Y
V63			CB	269						40	17 A	Y
V64			CB	269						40	17 A	Y
V65			CB	271						40	17 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	-----EQUIPMENT-----		---LOCATION---		---LOADS---	---QUAL METH---	---NAT FREQ---	---RRS REF---			
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOHEST	---STATUS---
	MANUFACTURER										QUAL INST

ZHVC*DMPV69	BALANCING DAMPER SCHNEIDER INC.	P413L	CB	256	HM	Y	NA	S	NA	33	16	A	Y
V70			CB	256						40	16	A	Y
V71			CB	256						33	16	A	Y
V72			CB	256						40	16	A	Y
V73			CB	257						40	16	A	Y
V75			CB	230						33	15	A	Y
V76			CB	228						33	15	A	Y
V77			CB	225						33	15	A	Y
V80			CB	315						40	19	A	Y
V81			CB	319						33	19	A	Y
V82	✓	✓	CBR	277	✓	✓	✓	✓	✓	40	17	A	Y



SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible][illegible]

2HVCx DMPV83		Balancing Damper Schneider Inc.		P413L	CB	316	HM	Y	NA	S	NA	40	19		
	V84				CB	298						33	18	A	Y
	V85				ASB	240						33	5	A	Y
	V86				ASB	242						40	5	A	Y
	V87				ASB	247						40	5	A	Y
	V88				ASB	252	↓					33	6	A	Y
	V90				ASB	244	HM					40	5	A	Y
	V91				ASB	247						40	5	A	Y
	V92				ETN	219						33	1	A	Y
	V93				ETN	219						33	1	A	Y
	V94		↓	↓	ETN	219	↓	↓	↓	↓	↓	40	1	A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2HVC*DMPV95	Balancing Damper Schneider Inc.	P413L	ETN	230	HM	Y	NA	S	NA	33	A	Y
V96			ETN	230						40	A	Y
V97			ETN	219							A	Y
V98			ETN	219							A	Y
V99			ETN	219							A	Y
V100			ETN	247						7	A	Y
VIII			CB	298						33	18 A	Y
2HVC*DMPV500				277						40	17 A	Y
V501				277							17 A	Y
V502				279							17 A	Y
V503	↓	↓	↓	278	↓	↓	↓	↓	↓	↓	17 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NASS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST STATUS
MANUFACTURER QUAL INST

2HVC*FE10A	Flow Element Schneider Inc.	P413L	CB.	295	HM	Y	NA	S	NA	25	18 A	Y
10B				309							19 A	Y
2HVC*FE110				277							17 A	Y
2HVC*FE132				277							17 A	Y
2HVC*FE135				306							18 A	Y
FE141				277	↓						17 A	Y
FE221	↓			277	HM			↓	↓	↓	17 A	Y
2HVC*PNLCH11A	Chiller Control Panel Schneider Inc			306	EM			NA	MF	39	18 A	Y
2HVC*PNLCH11B				306							18 A	N
2HVC*PNLCH12A				286	↓					↓	17 A	N
2HVC*PNLCH12B	↓			286	EM			↓	↓	39	17 A	N
2HVR*FE210	Flow Element SCHNEIDER INC.	↓	RB	289	HM	↓	↓	S	NA	25	59 A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANLYS TEST LOHEST STATUS QUAL INST

2HVR* DMPVI	Volume Damper Schneider, Inc.	P413L	RB	189	HM	Y	NA	S	NA	40	63 A	Y
V2				235						33	61 A	Y
V3				235						40	61 A	Y
V4				233						33	61 A	Y
V5				228						40	61 A	Y
V6				235						40	61 A	Y
V7				235						40	61 A	Y
V8				245						40	60 A	Y
V9				321						33	61 A	N
V10				255						40	60 A	Y
V11				302	↓					40	58 A	Y
V14	✓	✓	✓	323	HM	✓	✓	✓	✓	33	58 A	Y



JOB NAME NMP- UNIT 2
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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST QUAL INST

2HVR*DMPV15	Volume Damper		P413L	RB	348	HM	Y	NA	S	NA	40	57	A	Y
	Schneider, Inc.													
V16					348						33	57	A	Y
V17					348						40	57	A	Y
V18					348						40	57	A	Y
V19					348						40	57	A	Y
V20					189						33	63	A	Y
V21					302							58	A	Y
V22					302							58	A	Y
V24					322							58	A	Y
V25					322							38	A	Y
V26	Y		Y	D	308	Y	Y	Y	Y	Y	Y	58	A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS QUAL INST

2HVC*FN4A	Safety Related Axial Fan											18
	Joy Mfg. Co.	P413R	CB	298	CF	Y	N	S	NA	101	A	Y
4B			CB	316	DW					101	A	N
2HVC*FN11A			CB	279	CF					86	A	Y
11B			CB	279						86	A	Y
2HVP*FN1A			DG	275						48	A	Y
2HVP*FN1B			DG	275							A	Y
2HVP*FN1C			DG	275							A	Y
2HVP*FN1D			DG	275							A	Y
2HVP*FN1E			DG	261							A	N
2HVP*FN2A			DG	275							A	N
2HVP*FN2B			DG	275	CF					48	A	Y
2HVP*FN1A			SA	261	DW					57	A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYD ANLYS TEST LOHEST --STATUS--
MANUFACTURER QUAL INST

ZHVY*FN1B	SAFETY RELATED AXIAL FAN	P413R	SA	261	DW	Y	NA	S	NA	57	II	A	N
	JOY MFG. Co.												
ZHVY*FN1C		↓	SA	261	DW	Y	NA	S	NA	57	II	A	N
ZHVY*FN1D		↓	SA	261	DW	Y	NA	S	NA	57	II	A	N



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	EQUIPMENT		LOCATION		LOADS		QUAL	HETH	NAT	FREQ	RRS	REF
	DESCRIPTION	SPEC NO.	BLDG	ELEV	HTG	SEIS	HYDR	ANLYS	TEST	LOWEST	STATUS	QUAL
=====												

[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2GTS* DMP1A	Tornado Damper	P413T	SG	277	HM	Y	NA	S	SF	26	3	
	Pacific Air Products										A	N
IB			SG	277					SF	26	3	
											A	N
2GTS* DMP2A			SG	277					SF	26	3	
											A	N
2B	↓		SG	277					SF	26	3	
											A	N
2HVC* AOD6A	ACU Disch. Damper		CB	300					MF	53	18	
	Pacific Air Products										A	Y
6B				317					MF	53	19	
											A	Y
2HVC* AOD12A				294					MF	53	18	
											A	Y
12B	↓		2	311					MF	53	19	
											A	Y
2HVC* AOD54A	Suction Damper for fan			282					MF	53	17	
	Pacific Air Products										A	Y
54B	↓			282					MF	53	17	
											A	Y
2HVC* AOD61A	CB Air Isolation Damper			316					MF	53	19	
	Pacific Air Products										A	Y
61B	↓	↓	Y	298	↓	↓	↓	↓	MF	53	18	
											A	Y



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UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST QUAL METH- NAT FREQ- RRS REF-
MANUFACTURER LOHEST STATUS-
QUAL INST

2HVC*A0D117	Fan Disch. Damper Pacific Air Products	P413T	CB	308	HM	Y	NA	S	MF	53	19 A	Y
2HVC*A0D120	↓			308					MF	53	19 A	Y
2HVC*A0D142	Smk Rem Inlet Damper Pacific Air			324					MF	53	19 A	Y
145	↓			318					MF	53	19 A	Y
148	↓			300					MF	53	18 A	Y
169	Makeup Air Damper Pacific Air			279					MF	53	17 A	Y
170	UC Disch. Damper Pacific Air			239					MF	53	16 A	Y
171	Smk Rem Suct. Damper Pacific Air			247					MF	53	16 A	Y
177	↓			261					MF	53	16 A	Y
178	↓			239					MF	53	16 A	Y
179	↓			245					MF	53	16 A	Y
182	↓	↓	ASB	242	↓	↓	↓	↓	MF	53	16 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS INST

2HVC*ADD183	uc Disch Damper Pacific Air Products	P413 T	ASB	247	HM	Y	NA	S	MF	53	5 A	Y
192	Fan Suct. Damper. Pacific Air Products		ASB	241					MF	53	5 A	Y
193	uc Disch. Damper Pacific Air		ASB	239					MF	53	5 A	Y
212	Smk Rem. Damper Pacific Air		CB	249					MF	53	16 A	Y
213	Smoke Rem. Damper Pacific Air			253					MF	53	16 A	Y
214				249					MF	53	16 A	Y
215	↓			253					MF	53	16 A	Y
2HVC*DMP1A	Backdraft Damper Pacific Air			193					NA	33	14 A	N
16				193					NA	33	14 A	N
2HVC*DMP2A				293					NA	33	18 A	Y
2B	↓	↓	↓	311	↓	↓	↓	↓	NA	33	19 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION MANUFACTURER SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST NAT FREQ-RRS REF-----
-----STATUS-----
QUAL INST

2HVC*DMP3A	Backdraft Damper	P413T	CB	219	HM	Y	NA	S	NA	33	15		
	Pacific Air										A	Y	
3B	↓		CB	219						NA	33	15	
												A	Y
2HVC*DMP4	Tornado Damper		CB	316						SF	26	19	
	Pacific Air											A	Y
2HVC*DMP5	Manual Damper		CB	314						SF	31	19	
	Pacific Air											A	Y
2HVC*DMP6A			CB	292						SF	53	18	
												A	Y
6B	↓		CB	292						SF	53	18	
												A	Y
2HVC*DMP8A	Backdraft Damper		CB	279						NA	33	17	
	Pacific Air											A	Y
8B	↓		CB	279						NA	33	17	
												A	Y
2HVC*DMP9	Tornado Damper		CB	301						SF	26	18	
	Pacific Air											A	Y
2HVC*DMP12A	Backdraft Damper		CB	298						NA	33	18	
	Pacific Air											A	Y
12B	↓		CB	298						NA	33	18	
												A	Y
2HVC*DMPF100	TORNADO DAMPER	Y	CB	288	Y	Y	Y	Y	Y	NA	26	17	
	PACIFIC AIR											A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS INST

2HVC * DMP13A	Backdraft Damper Pacific Air	P413T	CB	298	HM	Y	NA	S	NA	33	18	A	Y
13B	↓		CB	298					NA	33	18	A	Y
2HVC * DMP22	Tornado Damper Pacific Air		CB	294					SF	26	18	A	Y
23			ASB	247					SF	26	6	A	N
24			ASB	247					SF	26	6	A	Y
25			CB	279					SF	26	17	A	Y
26	↓		CB	283					SF	26	17	A	Y
2HVC * DMP51A	Backdraft Damper Pacific Air		CB	261					NA	33	16	A	Y
51B			CB	261					NA	33	16	A	Y
2HVC * DMP63			CB	315					NA	33	19	A	Y
71			CB	319					NA	33	19	A	Y
72	↓	↓	CB	318	Y	Y	Y	Y	NA	33	19	A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOHEST STATUS
QUAL INST

2HVC*DMP73	Backdraft Damper Pacific Air	P413T	CB	320	HM	Y	NA	S	NA	33	19 A	Y
75	↓		CB	300						33	18 A	Y
2HVC*DMP76A	Manual Damper Pacific Air		CB	261						53	16 A	Y
76B	↓		CB	261						53	16 A	Y
2HVC*DMP80	Backdraft Damper Pacific Air		CB	317						33	19 A	Y
81			CB	315						33	19 A	N
82			CB	299						33	18 A	Y
83	↓		CB	297					Y	33	18 A	Y
88	Manual Damper Pacific Air		CB	283					SF	53	17 A	Y
90	Backdraft Damper Pacific Air		CB	262					NA	33	17 A	Y
91			CB	262					NA	33	17 A	Y
93	↓	↓	CB	288	Y	Y	Y	Y	NA	33	18 A	Y



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH NAT FREQ RRS REF
DESCRIPTION MANUFACTURER LOWEST STATUS
QUAL INST

2HVC*DMP94	Backdraft Damper Pacific Air	P413T	CB	301	HM	Y	NA	S	NA	33	18	A	Y
98			CB	306					SF	26	18	A	Y
99			CB	288					SF	26	18	A	Y
101	↓		CB	306					SF	26	18	A	Y
2HVC*DMPE1	Fire Damper Pacific Air		ASB	237					NA	17	5	A	Y
F2			ASB	237						17	5	A	Y
F3			ASB	250						17	5	A	Y
F4			ASB	237						17	5	A	Y
F7			CB	256						17	16	A	Y
F8			ASB	255						17	6	A	Y
F9			ASB	256						17	6	A	Y
F10	↓	↓	CB	256	↓	↓	↓	↓	↓	17	16	A	Y



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MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & HEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST QUAL METH- NAT FREQ- RRS REF-
DESCRIPTION MANUFACTURER STATUS-
QUAL INST

2HVCXDMPFII	Fire Damper Pacific Air	P413T	CB	256	HM	Y	NA	S	NA	17	6 A	Y
F12			CB	237							15 A	Y
F13			CB	237							15 A	Y
F15			CB	228							15 A	Y
F16			CB	228							15 A	Y
F17			CB	228							15 A	Y
F18			CB	256							16 A	Y
F22			CB	256							16 A	Y
F23			CB	256							16 A	Y
F24			CB	238							16 A	Y
F25			CB	257							16 A	Y
F26	↓	↓	CB	237	↓	↓	↓	↓	↓	↓	19 A	Y



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SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2HVC*DMPF29	Fire Damper Pacific Air	P413T	CB	228	HM	Y	NA	S	NA	17	15	A	Y
F30			CB	256							16	A	Y
F32			CB	318							19	A	Y
F33			CB	317							19	A	Y
F34			CB	319							19	A	N
F37			CB	316							19	A	Y
F39			CB	316							19	A	Y
F40			CB	318							19	A	Y
F41			CB	319							19	A	N
F42			CB	319							19	A	Y
F43			CB	319							19	A	Y
F44	✓	✓	CB	238	✓	✓	✓	✓	✓	✓	16	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST --STATUS--
MANUFACTURER QUAL INST

2HVCxDMPF45	Fire Damper Pacific Air	P413T	CB	319	HM	Y	NA	S	NA	17	19 A	Y
F46			CB	319							19 A	N
F47			CB	318							19 A	Y
F48			CB	320							19 A	Y
F49			CB	311							19 A	Y
F52			CB	306							18 A	Y
F53			CB	311							19 A	Y
F54			CB	315							19 A	Y
F55			CB	306							18 A	Y
F63			CB	315							19 A	N
F66		Y	CB	317	↓	↓	Y	↓	Y	↓	19 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID -----EQUIPMENT----- --LOCATION-- --LOADS-- --QUAL METH-- --NAT FREQ-- --RRS REF--
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST --STATUS--
MANUFACTURER QUAL INST

2HVC*DMPF73	Fire Damper Pacific Air	P413T	CB	300	HM	Y	NA	S	NA	17	18 A	Y
F74			CB	298							18 A	Y
F80			CB	300							18 A	Y
F81			CB	289							18 A	Y
F82			CB	238							16 A	Y
F86			CB	299							18 A	Y
F88	✓	✓	CB	299	✓	✓	✓	✓	✓	✓	18 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH NAT FREQ RRS REF STATUS QUAL INST

2HVC*DMPF89	Fire Damper Pacific Air	P413T	CB	292	HM	Y	NA	S	NA	17	18 A	Y
F90			CB	306							18 A	Y
F27			CB	224							15 A	
F92			CB	292							18 A	Y
F94			CB	301							18 A	Y
F95			CB	288							18 A	Y
F96			CB	297							18 A	Y
F97			CB	299							18 A	Y
F110			CB	288							18 A	Y
F112	V	↓	CB	261	Y	Y	Y	Y	Y	Y	16 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH- NAT FREQ- RRS REF-
DESCRIPTION BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS-
MANUFACTURER QUAL INST

2HVC*DMFF113	Fire Damper Pacific Air	P413T	CB	274	HM	Y	NA	S	NA	17	17 A	Y
F115			CB	262							17 A	Y
F117			CB	262							17 A	Y
F120			CB	262							17 A	Y
F132			CB	298							18 A	Y
F135			CB	224							15 A	Y
F137			CB	222							15 A	Y
F139			CB	275							17 A	Y
F140			CB	224							15 A	Y
F141	↓	↓	CB	275	↓	↓	↓	↓	↓	↓	17 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2HV2*DMPF167	Fire Damper Pacific Air	P413T	ET	230	HM	Y	NA	S	NA	17	1,20 A	Y
F169			CB	270							17 A	Y
F170			CB	283							17 A	Y
F171			CB	288							18 A	Y
F172			CB	283							17 A	Y
F179			CB	288							18 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID	DESCRIPTION MANUFACTURER	SPEC NO.	BLDG	ELEV	MTG	SEIS	HYDR	ANLYS	TEST	LOWEST	STATUS	QUAL INST
=====												

[illegible]

JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION LOADS QUAL METH- NAT FREQ- RRS REF-
MANUFACTURER BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS-
QUAL INST

2HVC*DMPF214	Fire Damper Pacific Air	P413T	ASB	237	HM	Y	NA	S	NA	17	5 A	Y
F215			ASB	232							5 A	Y
F220			CB	269							17 A	Y
F225			ASB	237							5 A	Y
F226			ET	237							1, 20 A	Y
F230			CB	297							18 A	Y
F231			CB	214							14 A	Y
F232			ET	237							1, 20 A	Y
F233	↓		CB	280					↓	↓	17 A	Y
2HVP*A0D4A	Engine Rm Inlet Damper Pacific Air		DG	284					MF	53	17 A	Y
4B	↓	↓	DG	284	↓	↓	↓	↓	MF	53	17 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANLYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2HVP*ADD4C	Engine Rm Inlet Damper Pacific Air	P413T	DG	284	HM	Y	NA	S	MF	53	17 A	Y
AD			DG	284					MF	53	17 A	Y
2HVP*ADD5A			DG	284					MF	53	17 A	Y
5B	V		DG	284					MF	53	17 A	Y
2HVP*DMP13	Tornado Damper Pacific Air		DG	277					SF	26	17 A	Y
2HVP*DMP15A			DG	279					SF	26	17 A	Y
15B			DG	279					SF	26	17 A	Y
15C			DG	279					SF	26	17 A	Y
15D			DG	279					SF	26	17 A	Y
2HVP*DMP16A			DG	279					SF	26	17 A	Y
16B	V	V	DG	279	V	V	V	V	SF	26	17 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2HVP*DMP17A	Tornado Damper Pacific Air	P413T	DG	282	HM	Y	NA	S	SF	26	17 A	Y
17B			DG	282					SF	26	17 A	Y
2HVP*DMP18			DG	282					SF	26	17 A	Y
2HVP*DMP19A			DG	284					SF	26	17 A	Y
19B			DG	284					SF	26	17 A	Y
19C			DG	284					SF	26	17 A	Y
19D			DG	284					SF	26	17 A	Y
2HVP* DMP20A			DG	284					SF	26	17 A	Y
20B			DG	284					SF	26	17 A	Y
2HVP*DMP21	↓	↓	DG	261	↓	↓	↓	↓	SF	26	16 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & NEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2HVP*MOD1A	Diesel Gen. Rm Exhaust Pacific Air	P413T	DG	279	HM	Y	NA	S	MF	53	17 A	Y
IB			DG	279					MF	53	17 A	Y
IC			DG	279					MF	53	17 A	Y
ID			DG	279					MF	53	17 A	Y
2HVP*MOD2A			DG	279					MF	53	17 A	Y
2B	↓		DG	279					MF	53	17 A	Y
2HVP*MOD6A	Diesel Gen Rm Recirc Pacific Air		DG	280					MF	53	17 A	Y
2HVP*MOD6B	Diesel Gen. Rm. Recirc. Pacific Air		DG	280					MF	53	17 A	Y
6C			DG	280					MF	53	17 A	Y
6D			DG	280					MF	53	17 A	Y
2HVP*MOD7A			DG	280					MF	53	17 A	Y
7B	↓	↓	DG	280	↓	↓	↓	↓	MF	53	17 A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT LOCATION LOADS QUAL METH NAT FREQ RRS REF
DESCRIPTION SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST LOWEST STATUS
MANUFACTURER QUAL INST

2HVR*A0D1A	Supply Air Isol. Damper Pacific Air	P413T	RB	301	HM	Y	NA	S	MF	41	58 A	Y
1B	↓			301					MF	41	58 A	Y
2HVR*ADD6A	U.C. Inlet Damper Pacific Air			296					MF	53	58 A	N
6B	↓			296					MF	53	58 A	N
2HVR*A0D9A	Exh Air Isol. Damper Pacific Air			320					MF	41	58 A	Y
9B				320					MF	41	58 A	Y
2HVR*A0D10A				416					MF	41	55 A	N
10B	↓			416					MF	41	55 A	N
2HVR*ADD34A	U.C. Test Damper Pacific Air			296					MF	53	58 A	N
34B	↓			296					MF	53	58 A	N
2HVR*A0D114	Filter Disch. Damper Pacific Air			309					MF	53	58 A	N
2HVR*A0D204	EVAC FLT3 DISCH DAMPER Pacific Air	✓	✓	309	✓	✓	✓	✓	MF	33	58 A	N



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID DESCRIPTION EQUIPMENT SPEC NO. LOCATION BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ- -RRS REF-
MANUFACTURER QUAL INST

2HVR*DMP8A	Backdraft Damper Pacific Air	P413T	ABN	253	HM	Y	NA	S	NA	33	60	A	Y
8B			ABN	253						33	60	A	Y
2HVR*DMP9A			ABS	253						33	60	A	Y
9B			ABS	253						33	60	A	Y
2HVR*DMP12			RB	305						33	58	A	Y
18				297						33	58	A	Y
19				297						33	58	A	Y
20				316						33	58	A	Y
21	↓			320						33	58	A	Y
2HVR*DMPF4	Fire Damper Pacific Air			261						17	60	A	Y
5				250						17	60	A	Y
6	↓	↓	↓	240	↓	↓	↓	↓	↓	17	61	A	Y



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible]

[illegible]



JOB NAME NMP- UNIT 2
UTILITY NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT
MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER
NSSS SUPPLIER: GENERAL ELECTRIC

EQUIP. ID EQUIPMENT SPEC NO. BLDG ELEV HTG SEIS HYDR ANALYS TEST NAT FREQ RRS REF STATUS QUAL INST

2HVC*DMPF234	FIRE DAMPERS	P4130	CB	302	DM	Y	NA	NA	MF	<15	18	A	N
235				318							19	A	Y
236				318							19	A	Y
237				318							19	A	Y
238				318							19	A	Y
239				307							18	A	Y
240				298							18	A	N
241				296							18	A	N
242				299							18	A	N
243				299							18	A	N
244				299							18	A	N
2HVC*DMPF245				291		Y	Y	Y	Y	Y	18	A	N



JOB NAME - NMP- UNIT 2
UTILITY - NIAGARA MOHAWK

SEISMIC AND DYNAMIC QUALIFICATION SUMMARY AND STATUS REPORT

MASTER LIST OF SAFETY RELATED EQUIPMENT

ENGINEER: STONE & WEBSTER - -
NSSS SUPPLIER: GENERAL ELECTRIC

[illegible][illegible][illegible]

SPECTRA VER 01 LEV 08

CHUDDING LOADING CASE

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV 178) AT NAT

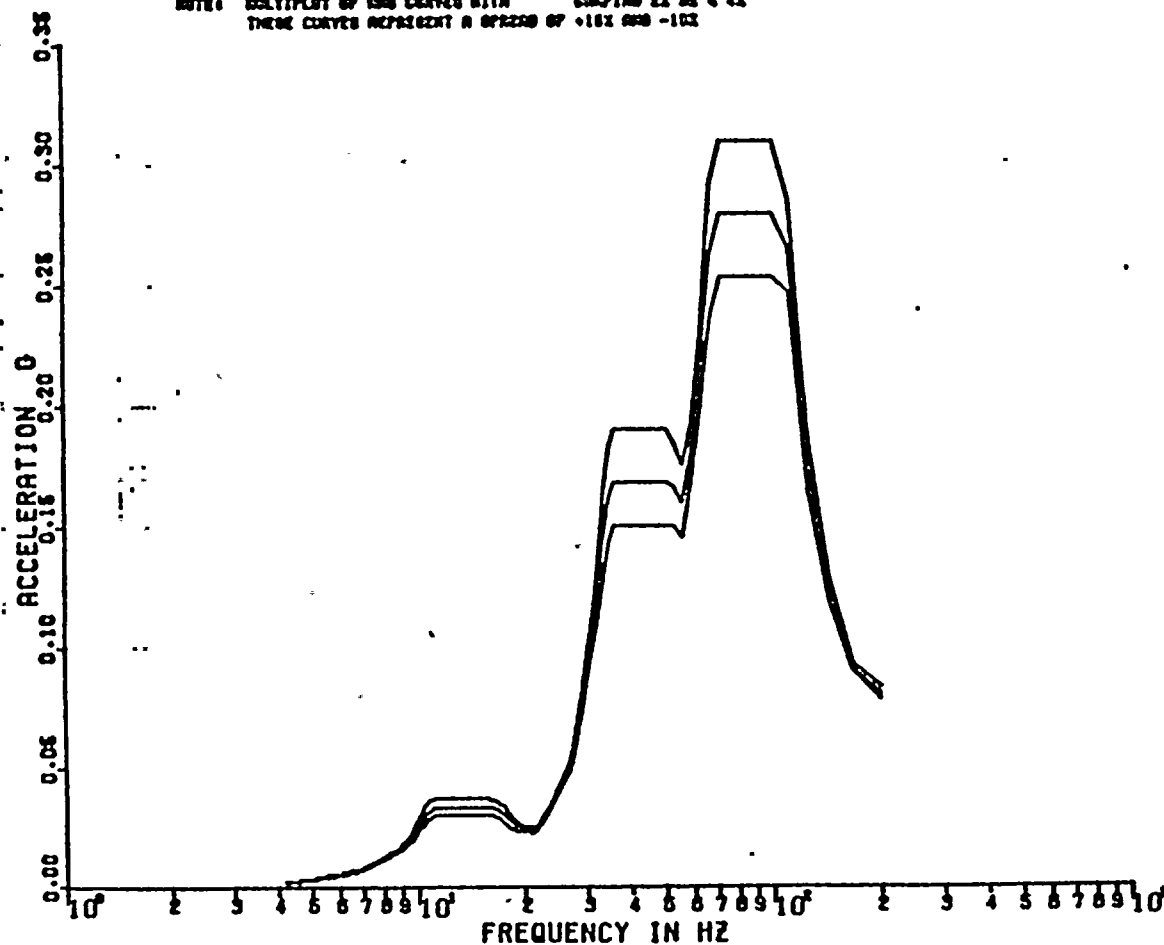
DISK CURVE SET NO.6

VER DIRECTION

MICHAEL H 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING XX BY 4 X
THESE CURVES REPRESENT A SPECTRUM OF +10% AND -10%



REF 154
MS 1737



SPECTRA VER 01 LEV 08

CHUOING LOADING CASE

9 DEC 1992

NIRARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAB OF ACCELERATION PRIMARY CONT. (ELEV 100.8 FT)

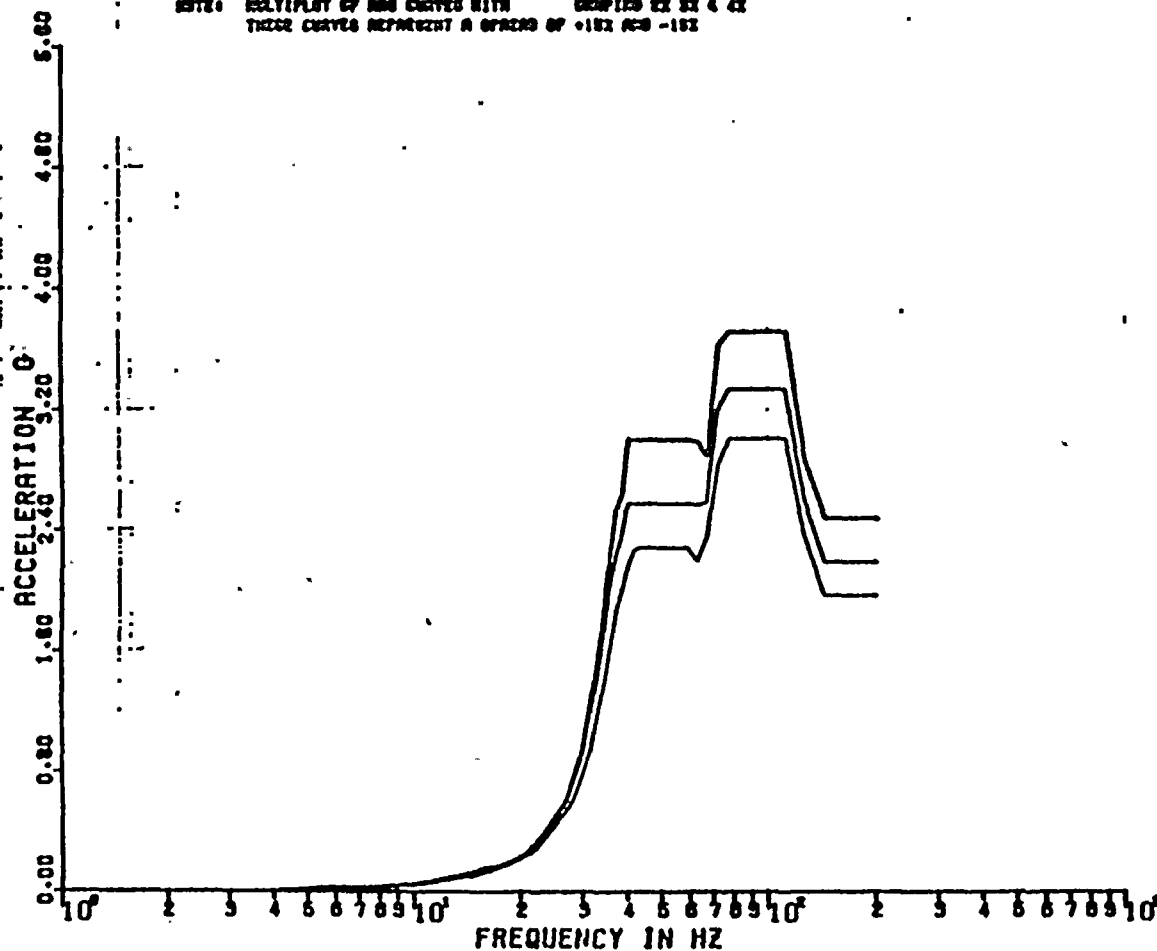
DISK CURVE SET NO.7

HOR DIRECTION

MICHAEL K GJ

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RAB CURVES WITH DRAWDING BY 2X & 4X
THESE CURVES REPRESENT A SPACING OF +15% AND -15%



REF 155
MS 1737



POPECTRA VER 01 LEV 00 CHUOING LOADING CASE
 NIAGARA NONWAK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
 RRS OF ACCELERATION PRIMARY CONT. (ELEV 180.0 FT)

9 DEC 1982

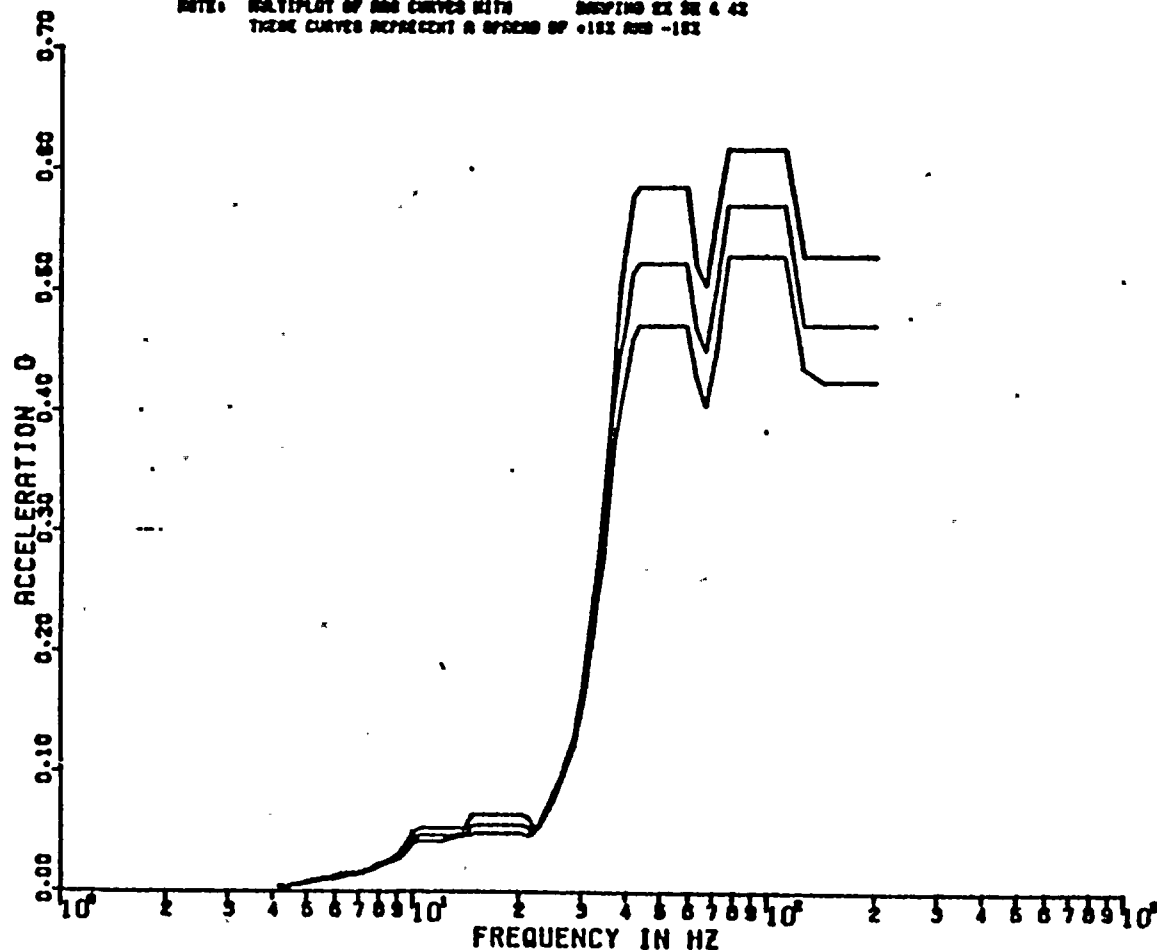
DISK CURVE SET NO.7

VER DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 0.02 0.03 0.04
 THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 155
 MS 1737



PERCEPTRA VER 01 LEV 00 CHUOING LONING CASE
 NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O-12177 MS-1737-0
 RRS OF ACCELERATION PEDestal (ELEV.105.0 FT)

9 DEC 1992

DISK CURVE SET NO.0

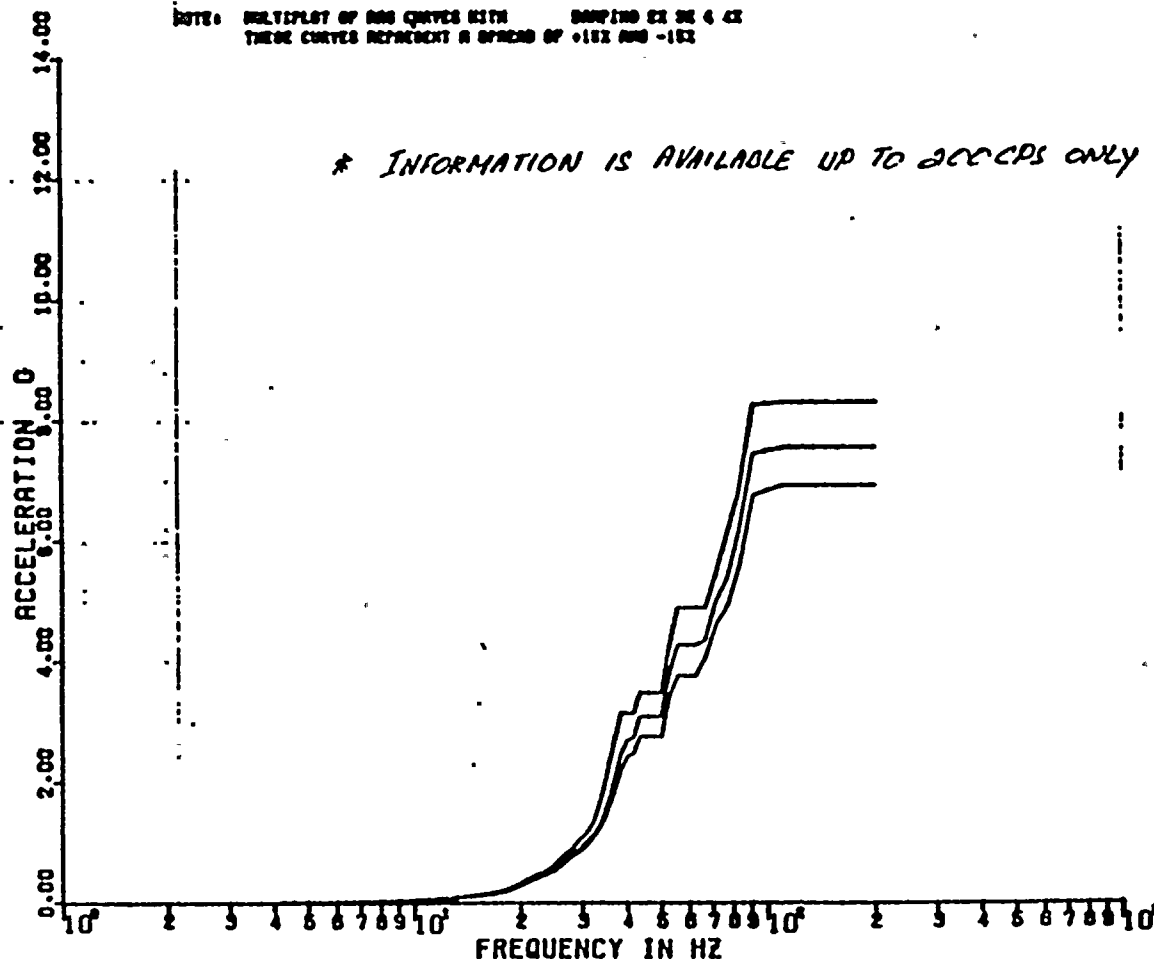
HOR DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 02 03 & 04
 THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

* INFORMATION IS AVAILABLE UP TO 2000 CPS ONLY



MS 1737

REF 156



PSPECTRA VER 01 LEV 00

CHUDDING LOADING CASE

9 DEC 1982

NIAORCA MICHAM-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION PEDESTAL (ELEV.185.8 FT)

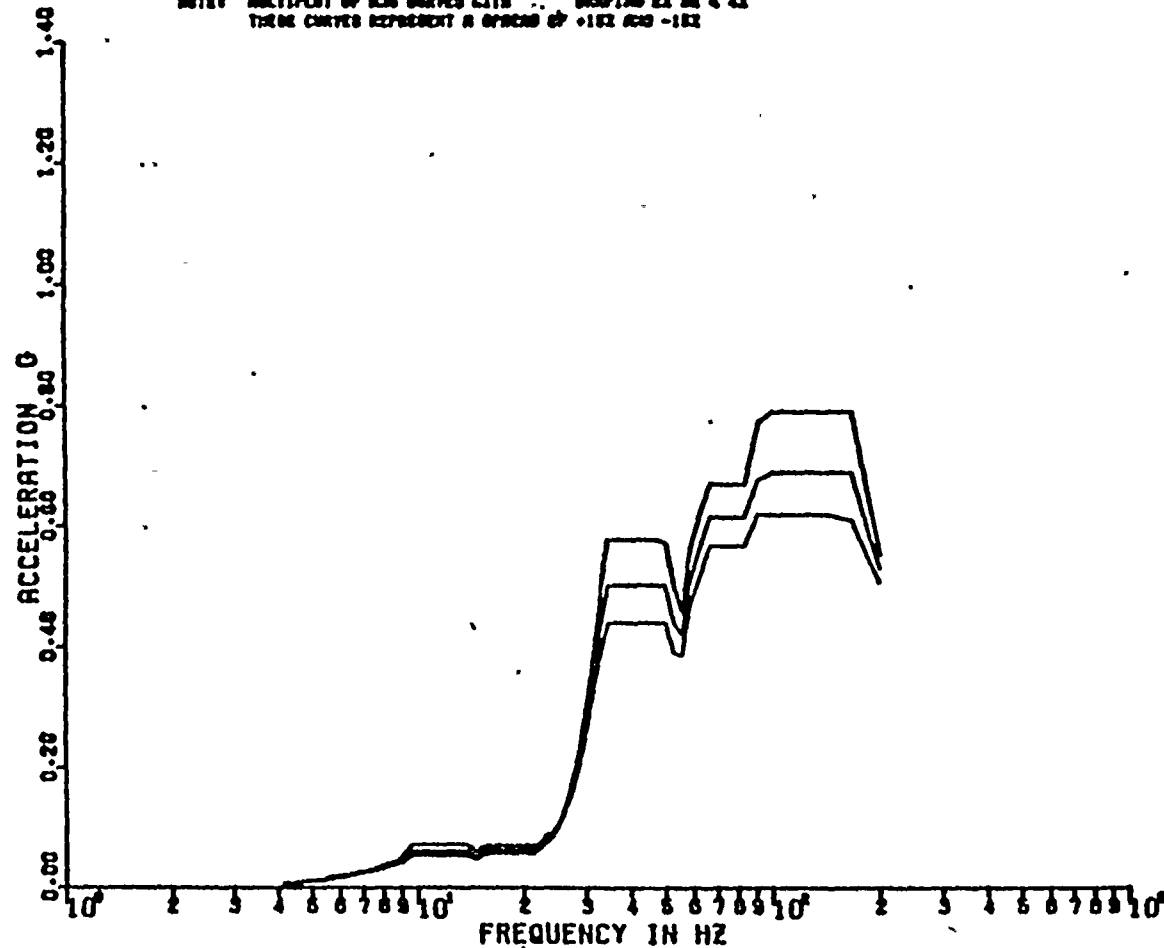
SIXX CURVE DET MS.0

VER DIRECTION

MICHAEL R 00

DRAWING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS VALUES WITH DOWNSIDE BY 4.42
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1737

REF 156



PEPECTRA VER 01 LEV 00

CHUDDING LORING CASE

9 DEC 1992

NIRORA MONROE-NINE MILES POINT UNIT-2 J.9.12177 MS-1737-0
RAS OF ACCELERATION PRIMARY CONT. (ELEV.185.8 FT)

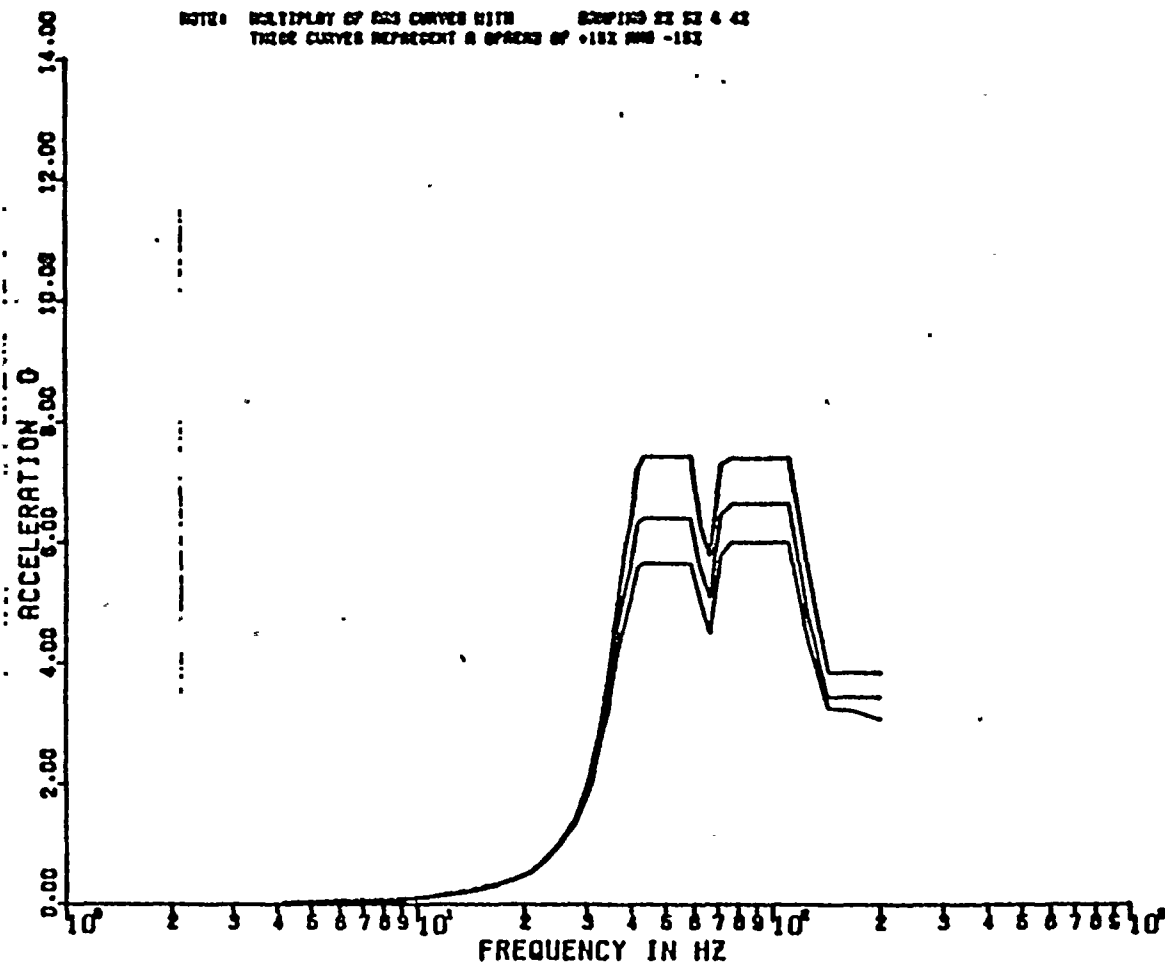
DIGI CURVE SET NO.9

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.028
0.030
0.040

NOTE: MULTIPLY OF 223 CURVES WITH SCALING BY 52 & 42
THREE CURVES REPRESENT A SPREAD OF +15% AND -15%



MS 1737

REF 157



PERPECTRA VER 01 LEV 00

CHUOJING LORONG CAGE

8 DEC 1992

NIAOJIAN NONGJIAN-NINE MILES POINT UNIT-2 J.0.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.105.8 FT)

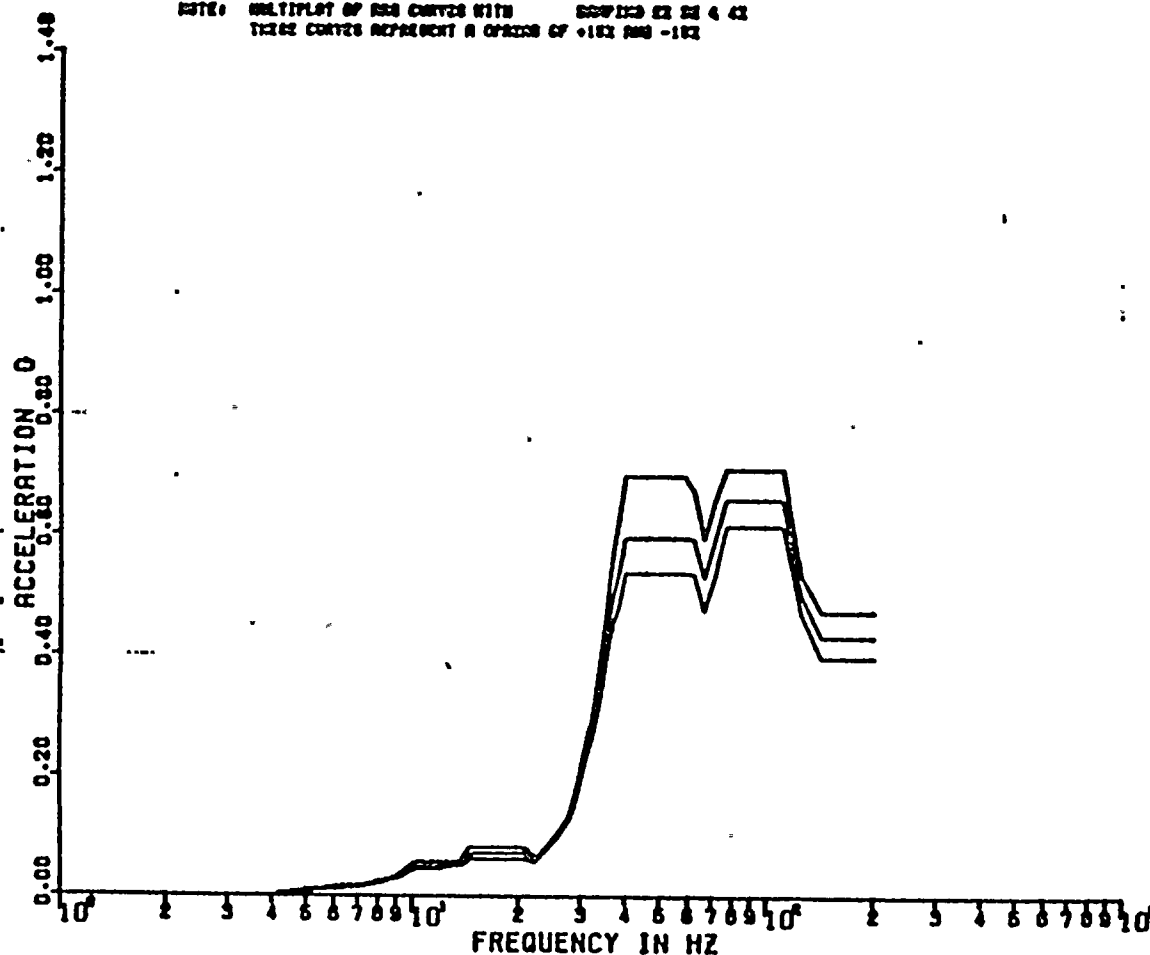
DISK CURVE SET NO.9

VER DIRECTION

MICHAEL H 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 0.02 0.03 & 0.04
THREE CURVES REPRESENT A COEFFICIENT OF +10% AND -10%



MS 1737

REF 157



SPECTRA VER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1982

NIAONIA NIAONIA-NINE MILES POINT UNIT-2 J.O.12177 NS-1757-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 180.4 FT)

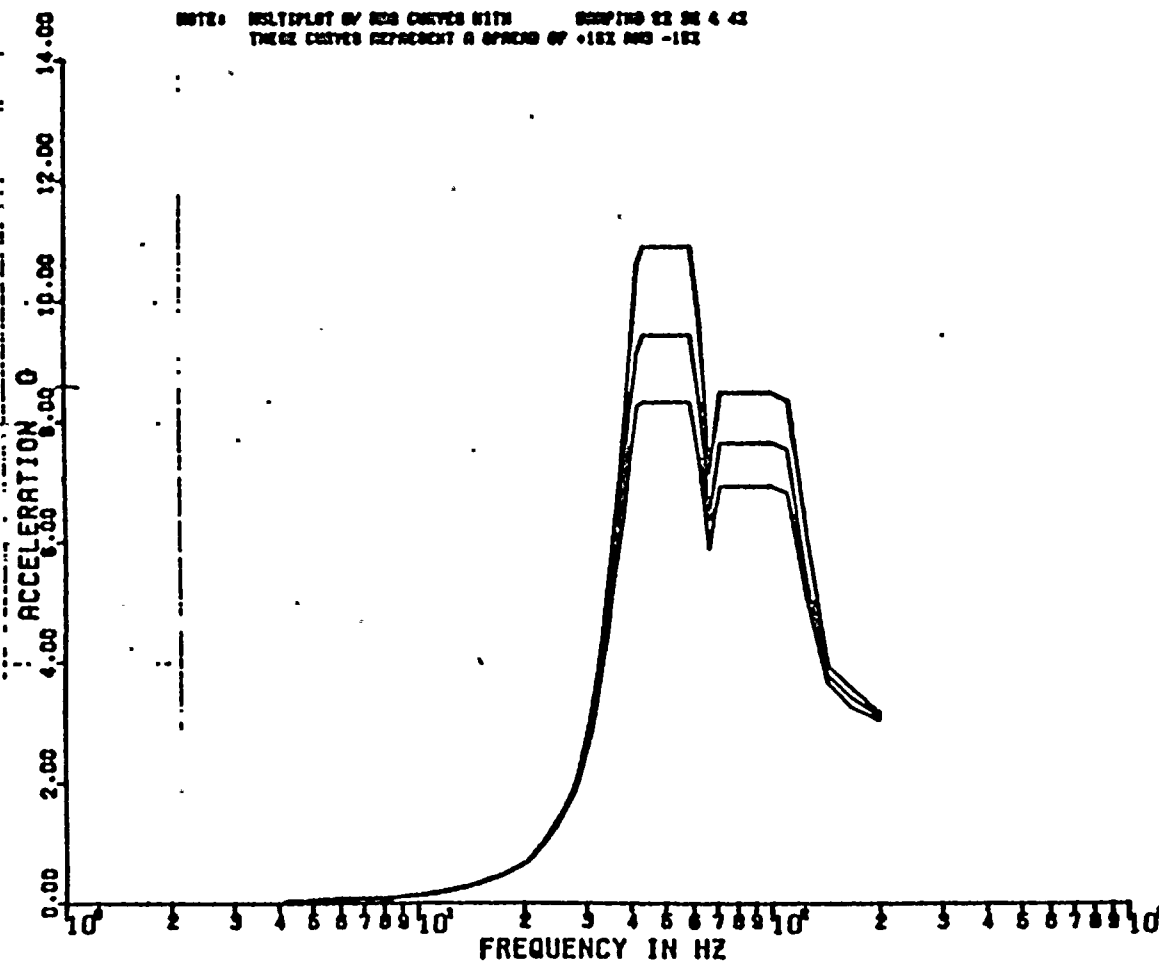
MICHAEL K 80

DISK CURVE SET NO.10

FOR DIRECTION

DAMPING VALUES = 0.000
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 0.00 0.03 0.04
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1237
REF 158



POPECTRA VER 01 LEV 00

CHUGGING LOADING CASE

9 DEC 1962

NIAONIA RIVER-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 180.4 FT)

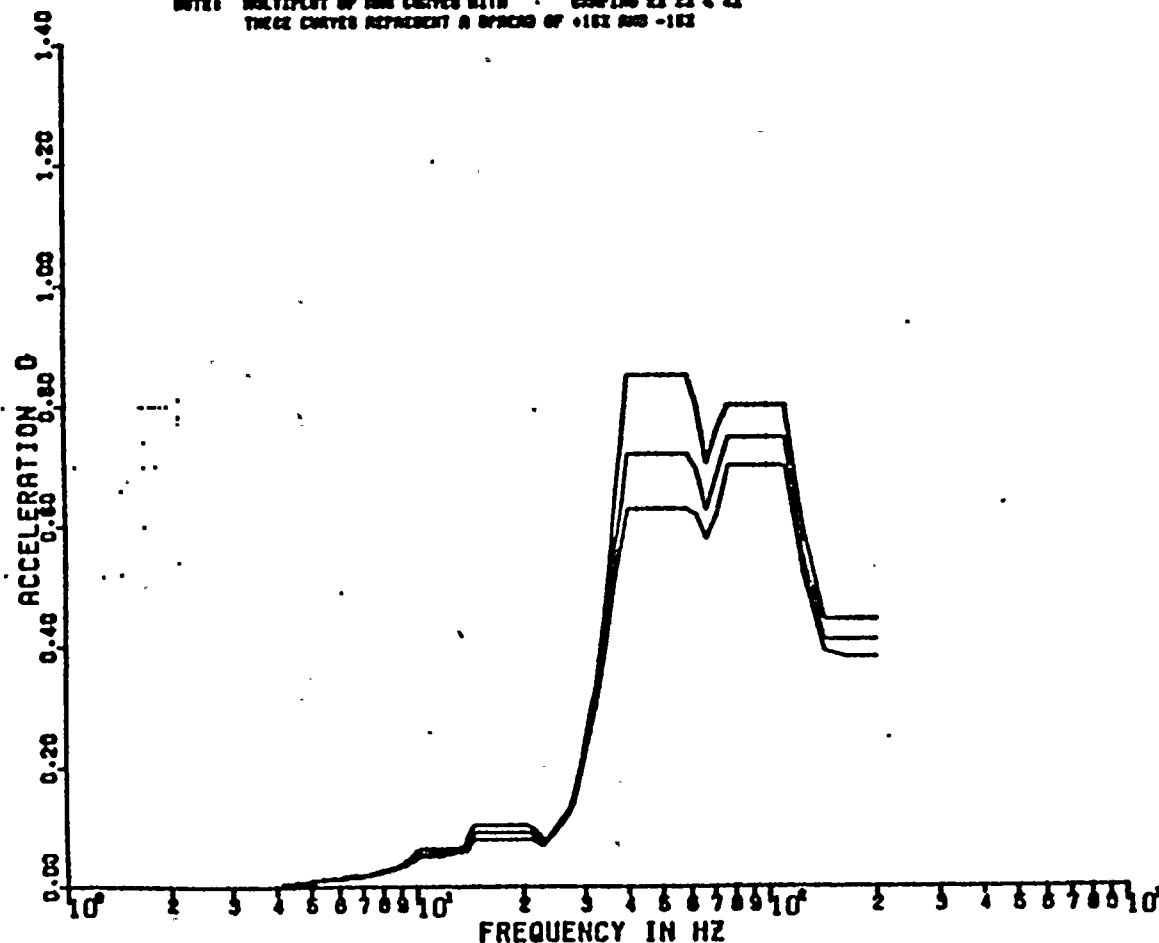
BICH CURVE SET NO.10

VER DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLIET OF RMS CURVES WITH DOWING 23 23 4 42
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 158
MS 1737



POPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1962

NIAGARA NIAGARA-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 106.2 FT)

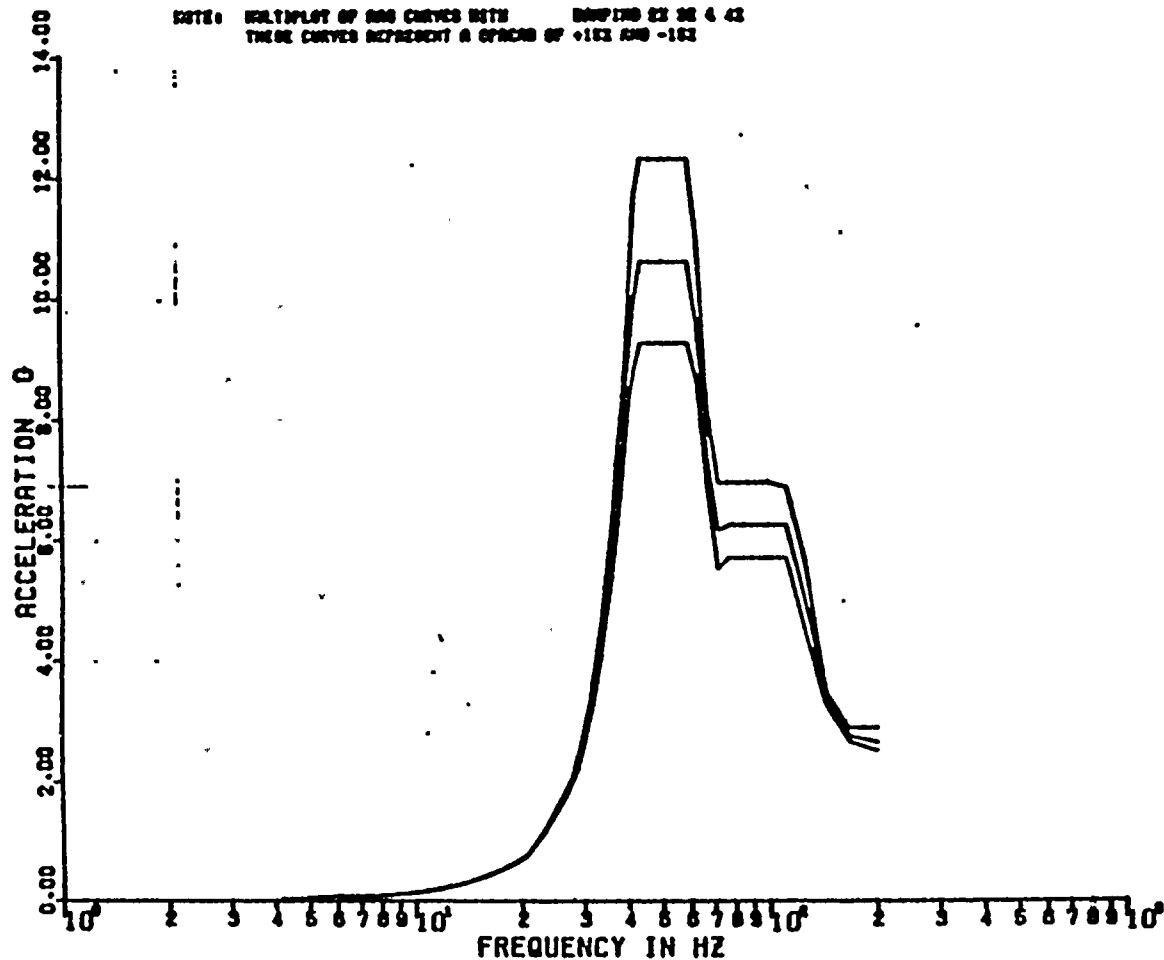
010N CURVE SET NO.11

MCB DIRECTION

NICHAEI N 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF TWO CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPECTRUM OF +10% AND -10%



MS 1737
REF 159



SPECTRA VER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1982

NIAGARA POWER-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 195.2 FT)

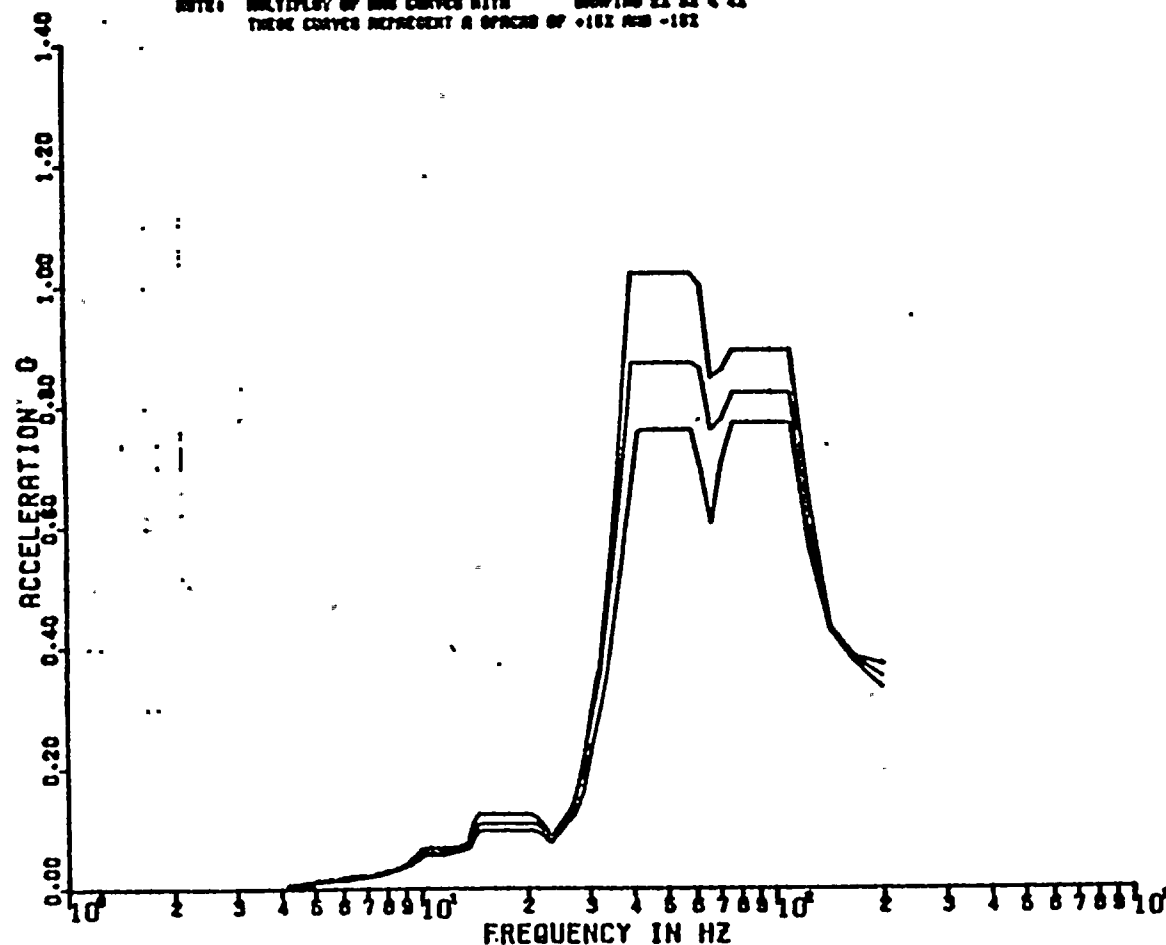
NICHAE L 00

DIGI CURVE SET NO.11

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 21 32 & 43
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 159
MS 1737



SPECTRA VER 01 LEV 00

CHUOING LONING CASE

9 DEC 1992

NIAOHA NIAOHA-MINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV 281.0 FT)

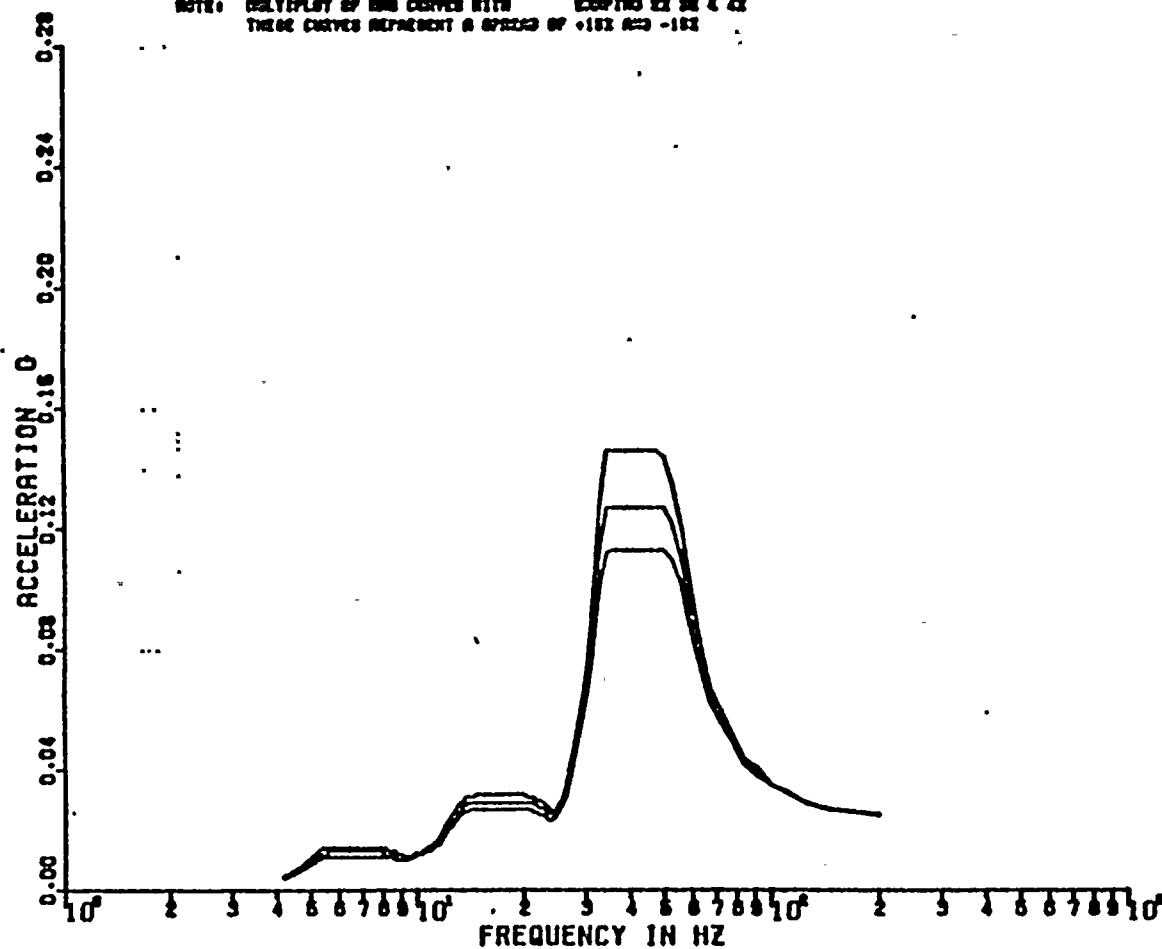
DIGR CURVE SET MS.12

VER DIRECTION

MICHAEL K CO

DRAWING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY BY RMS CURVES WITH SCALING BY 4.42
THESE CURVES REPRESENT A SPECTRA OF 10% ACC -10%



REF 160
MS 1737



PEPECTRA VER 01 LEV 08

CHUGGING LOADING CASE

8 DEC 1962

NIAGARA MONARK-NIKE MILES POINT UNIT-2 J.O.12177 NS-1737-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV 281.0 FT)

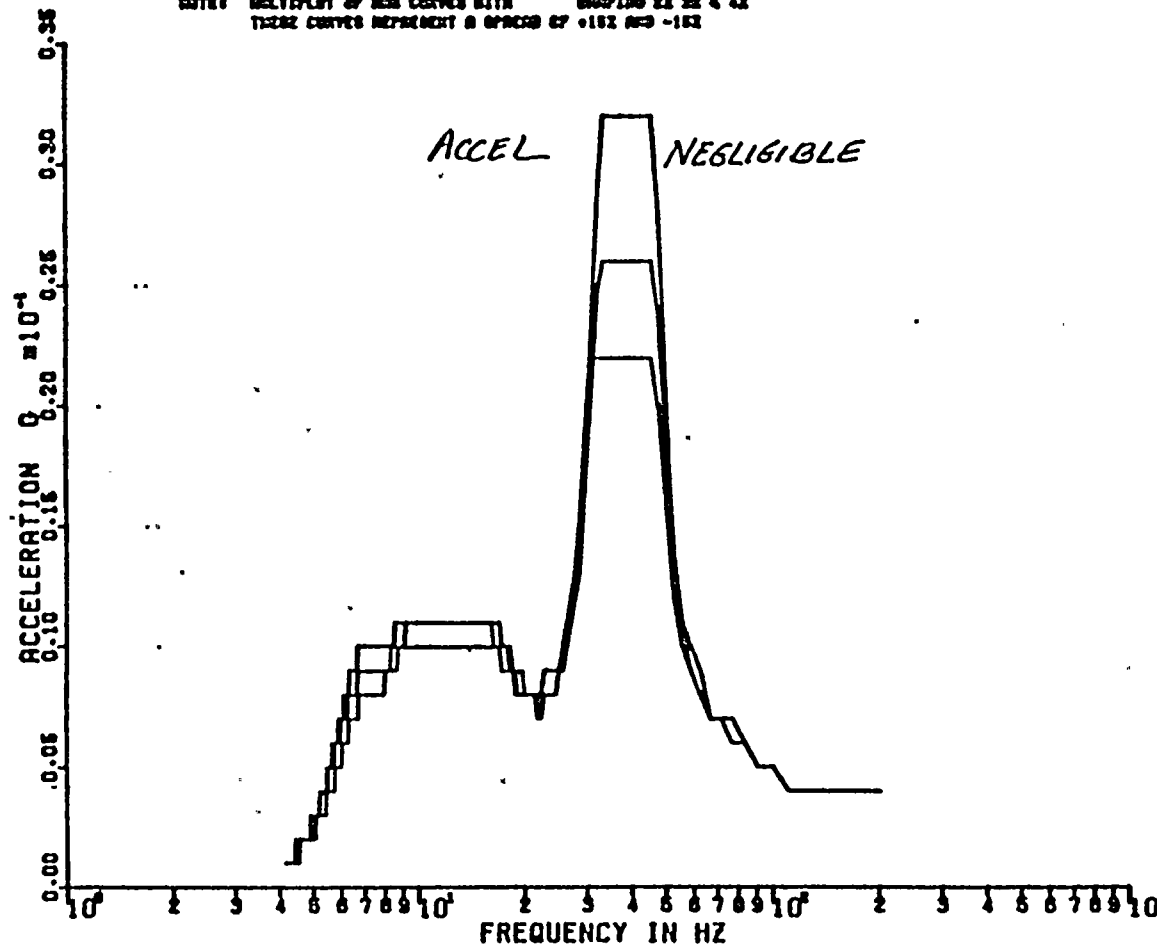
DISE CURVE SET NO.12

HOR DIRECTION

NICHASZ K 63

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 2% 3% 4% 5%
THREE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 160
MS 1232



POPECTAR VER 01 LEV 00

CHUGGING LOADING CASE

8 DEC 1992

NINOGARA NONNAN-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAS OF ACCELERATION PEDOTAL WATER LEVEL (ELEV. 201.0 FT)

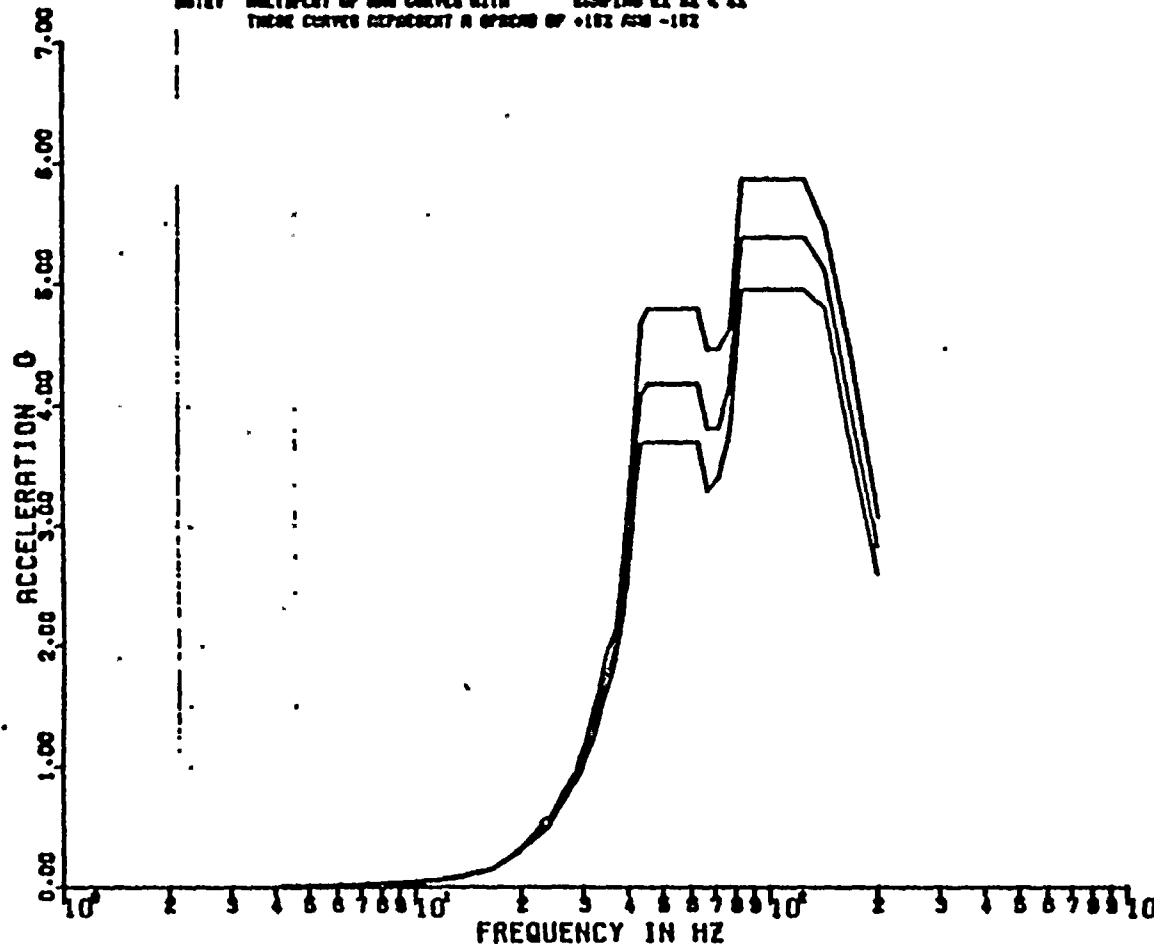
SIGK CURVE SET NO.13

NBR DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAS CURVES WITH SCALING BY 22 & 42
THESE CURVES REPRESENT A SPREAD OF +10% ASH -10%



MS 1737

REF 161



SPECTRA VER 01 LEV 00 CHUGGING LOADING CASE
 NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.B.12177 MS-1737-0
 RRS OF ACCELERATION PEDESTAL WATER LEVEL (ELEV. 201.0 FT)

9 DEC 1982

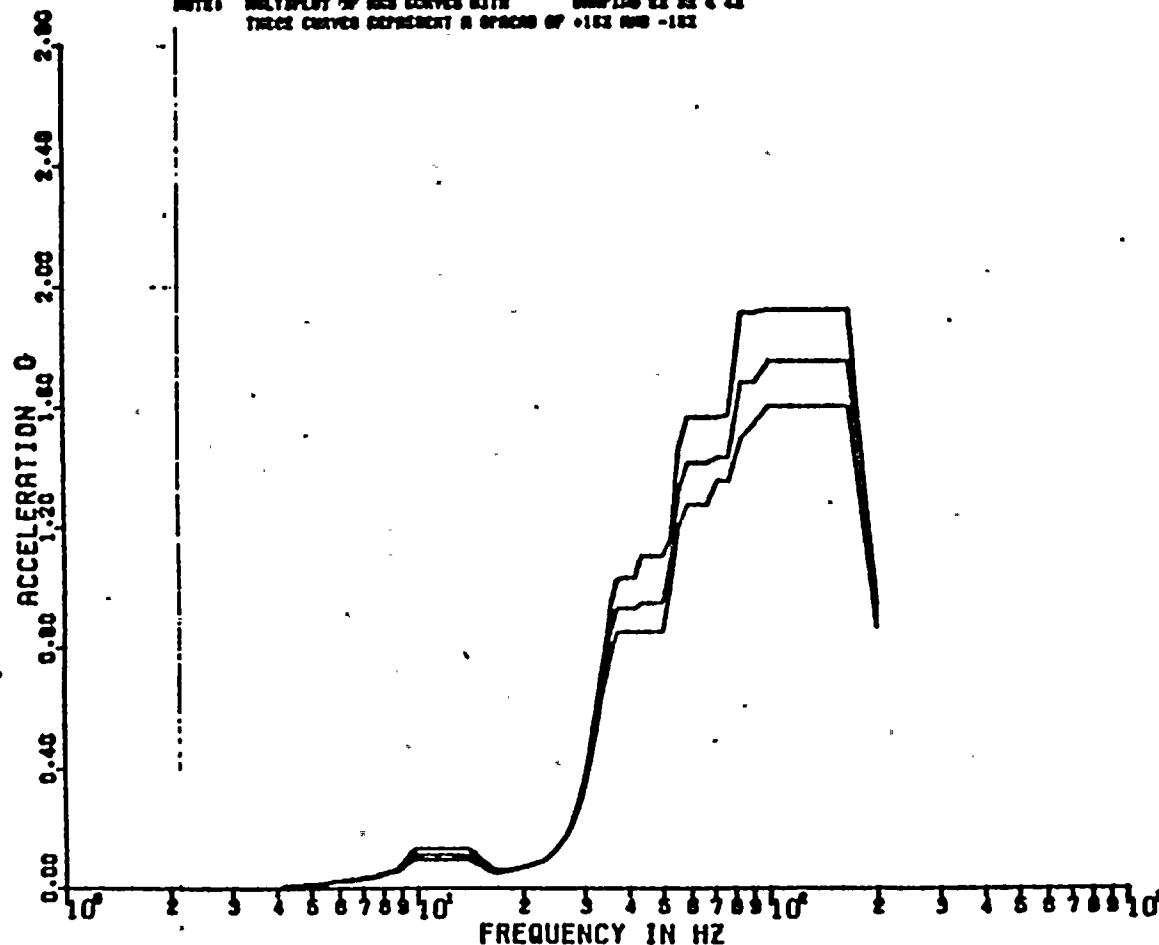
DISK CURVE SET NO.13

VER DIRECTION

MICHAEL H 80

DAMPING VALUES = 0.030
 0.030
 0.040

NOTE: MULTIPLOT OF RES CURVES WITH DAMPING OF 3% & 4%
 THESE CURVES REPRESENT A SPACING OF +10% AND -10%



REF 161
 MS 1737
 2221 SW



PEPECTRA VZB 01 LEV 09

CHUOING LOADING CASE

8 DEC 1962

NIAORON NIAORON-NINE MILES POINT UNIT-2 J.8-12177 NS-1737-0
RMS OF ACCELERATION PRIM. CONT. M.L. (ELEV. 201.0 FT)

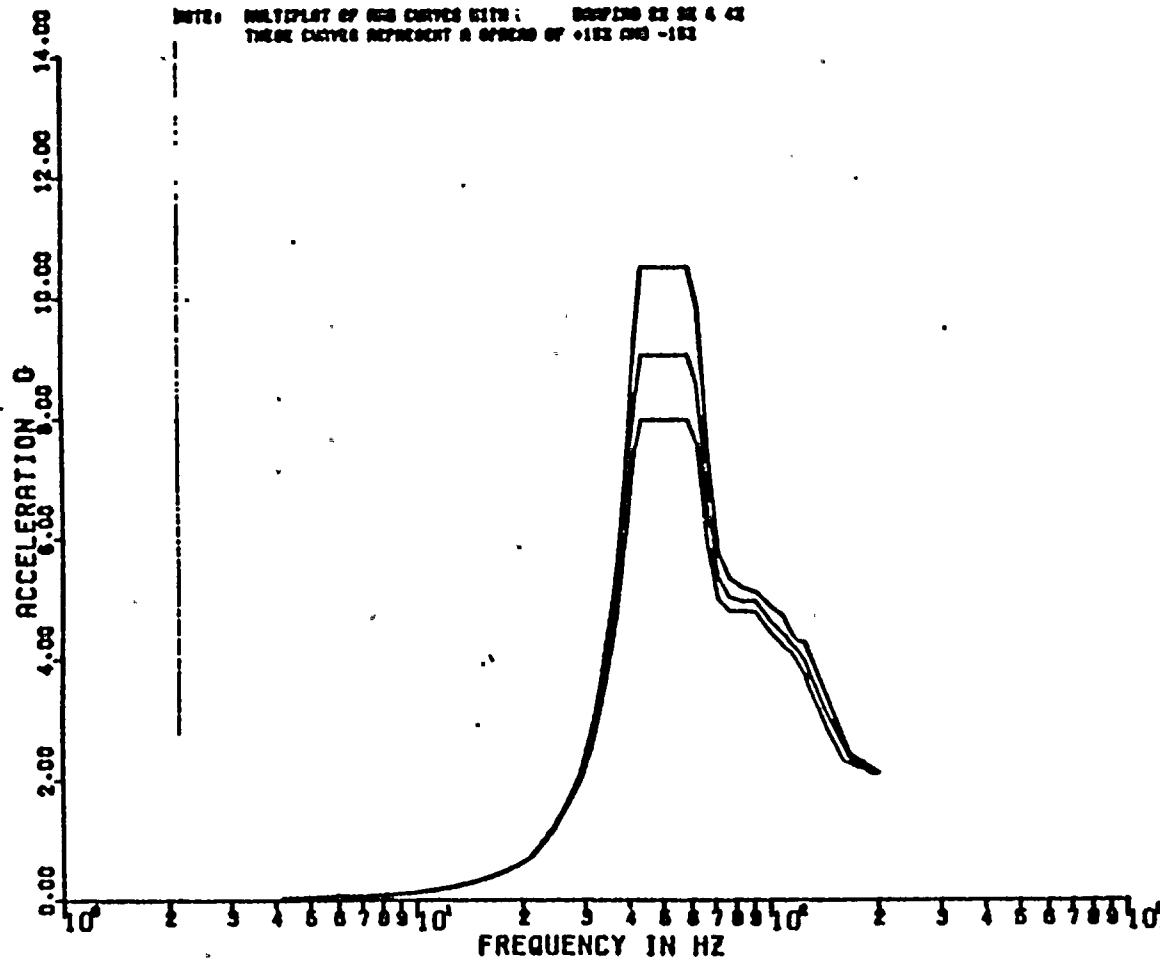
MICHAEL N 00

DISK CURVE SET NO.14

NOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH: DAMPING 22 26 & 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 162
MS 1737
2821 SIN



SPECTRA VZ 01 LEV 08 CHUOING LOADING CASE
 NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
 RMS OF ACCELERATION PRIM. CONT. N.L. (ELEV. 201.0 FT)

8 DEC 1962

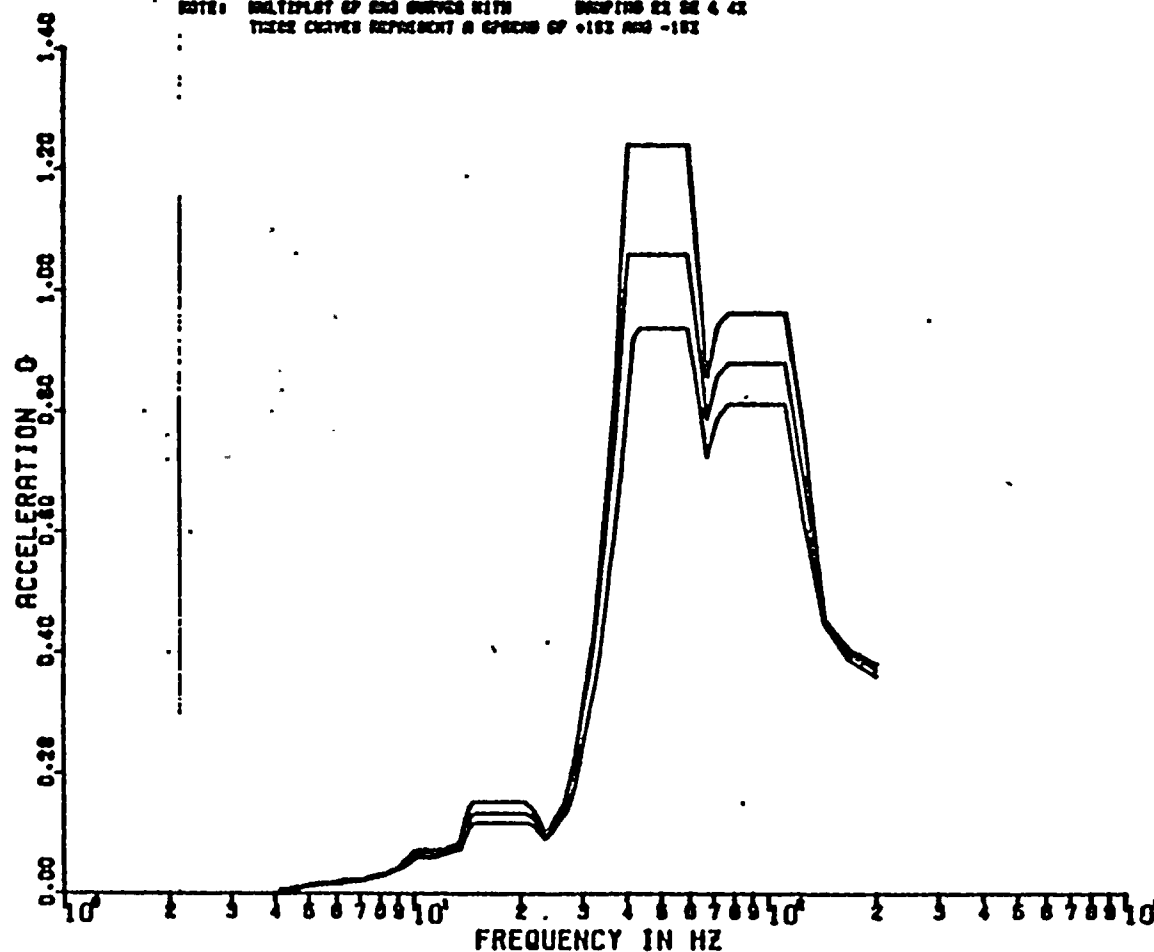
DION CURVE SET NO.14

VER DIRECTION

NICHOL N 08

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLE OF TWO CURVES WITH DAMPING 01 SE 4 42
 THESE CURVES REPRESENT A SPECTRUM OF +182 AND -182



REF 162
 MS 1737



PSPECTRA VER 01 LEV 03

CHUOING LOADING CASE

8 DEC 1982

HIAORRA MCHMAN-NINE MILES POINT UNIT-2 J.B.12177 MS-1737-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV.208.0 FT)

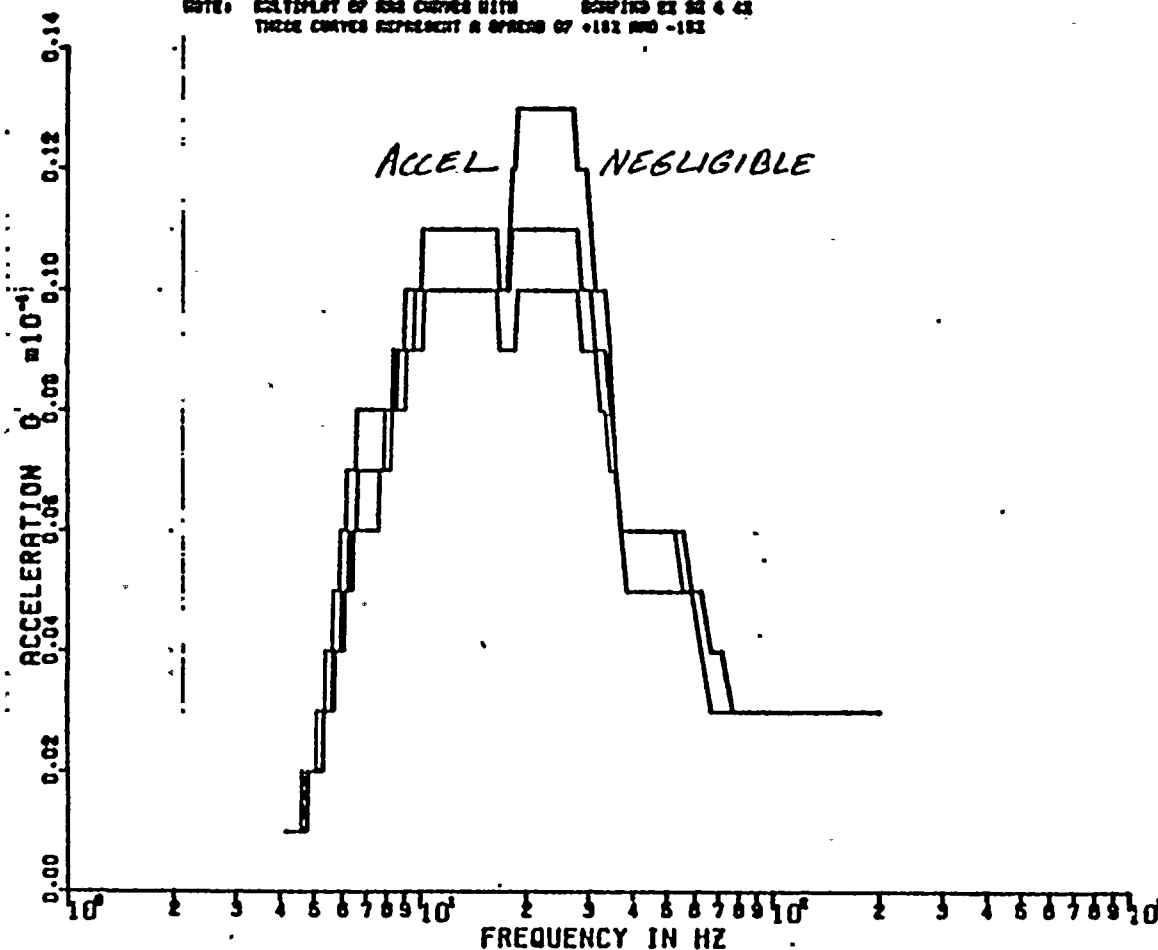
DIGI CURVE SET NO.15

NSR DIRECTION

NICHIEL N 63

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH SCALING BY 22.4 43
THREE CURVES REPRESENT A SPREAD OF +152 AND -152



REF 163
MS 1737



PSPECTRA VER 01 LEV 00

CHUDDING LOADING CASE

9 DEC 1992

NIAORRA NIAORRA-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV.100.0 FT)

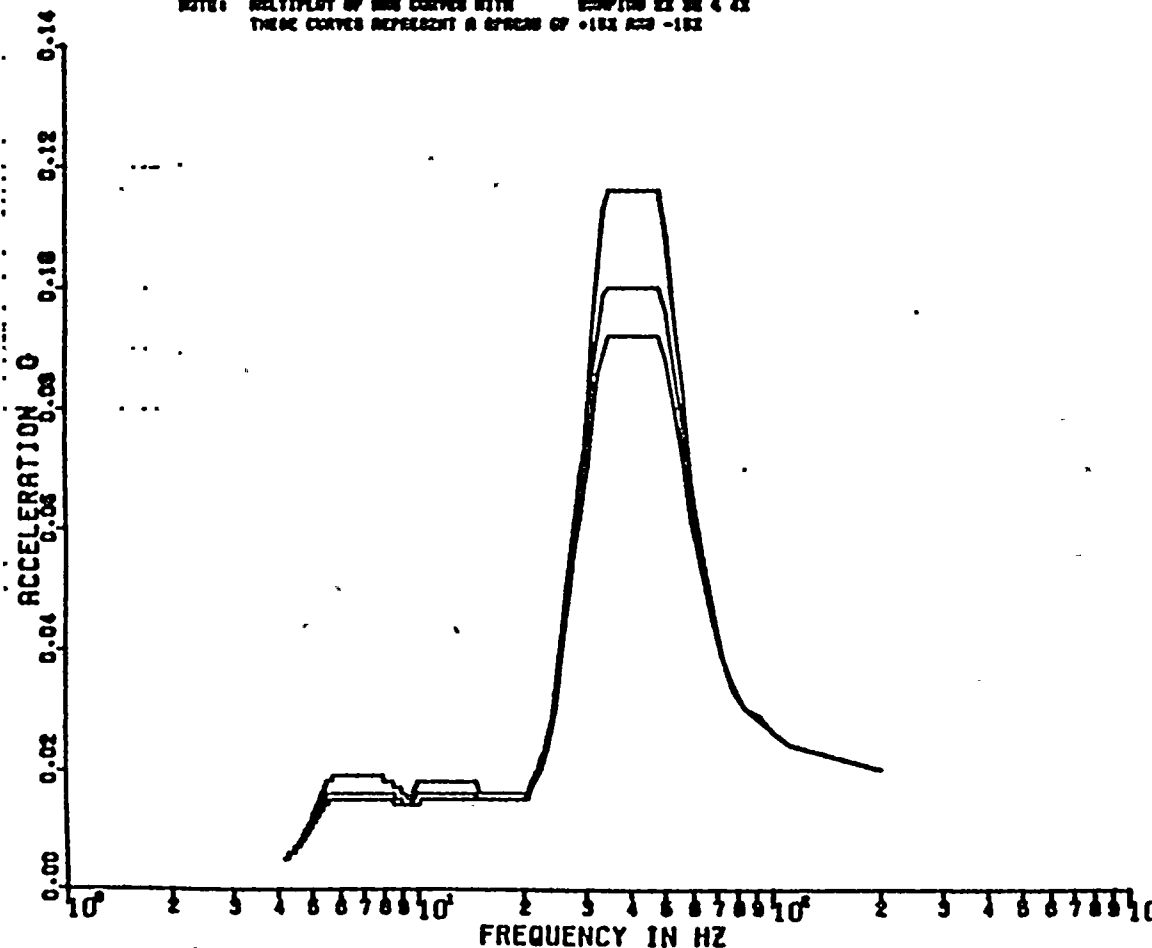
MICHAEL N 00

DIGR CURVE SET MS.10

VER DIRECTION

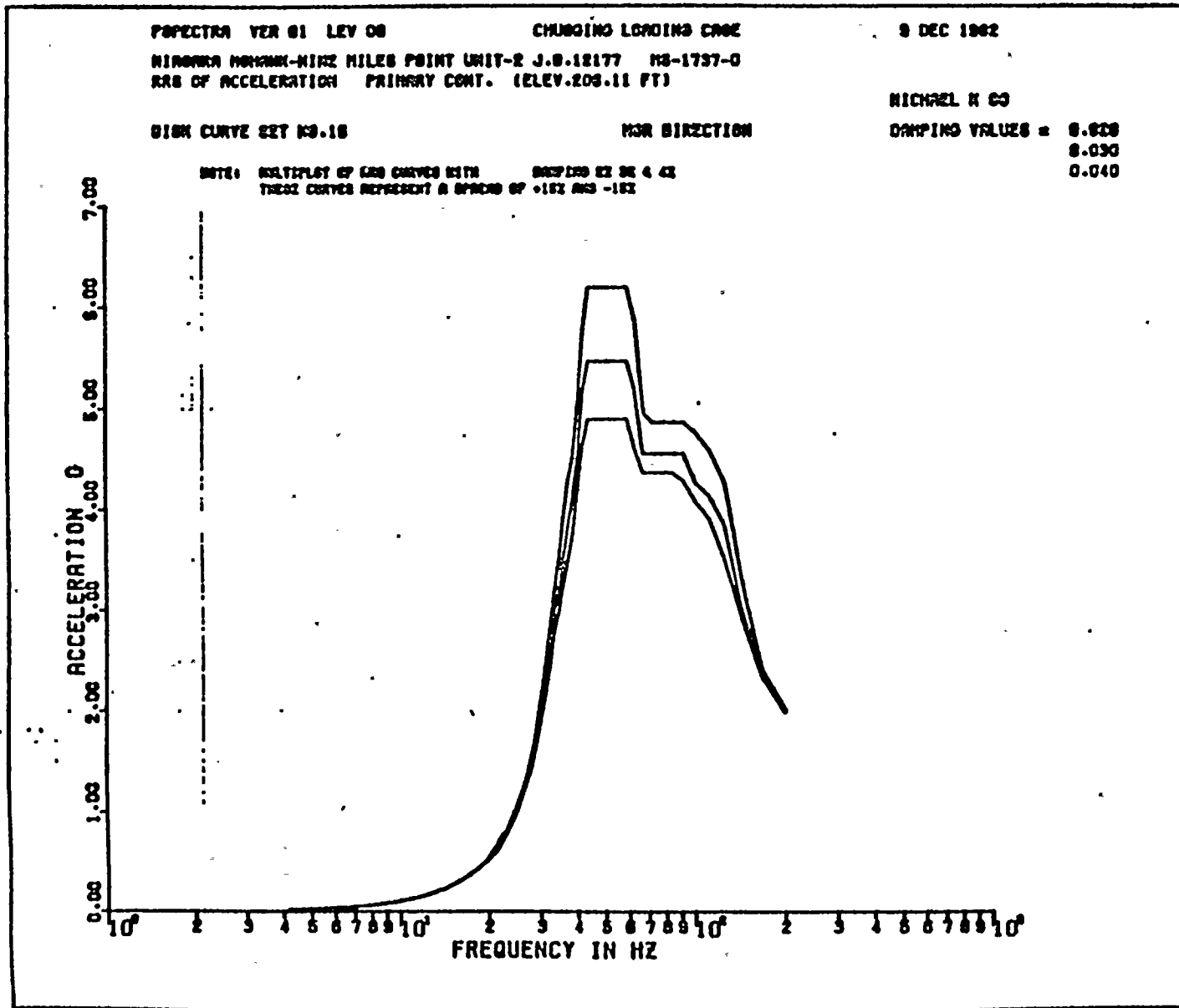
DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 22 20 & 42
THESE CURVES REPRESENT A SPECTRUM OF 100 220 -100



REF 163
MS 1737





MS 1737
491 570



PERCEPTRA VER 01 LEV 00

CHUORING LOADING CASE

9 DEC 1962

NIAGARA MONK-MINE MILES POINT UNIT-2 J.D.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.208.11 FT)

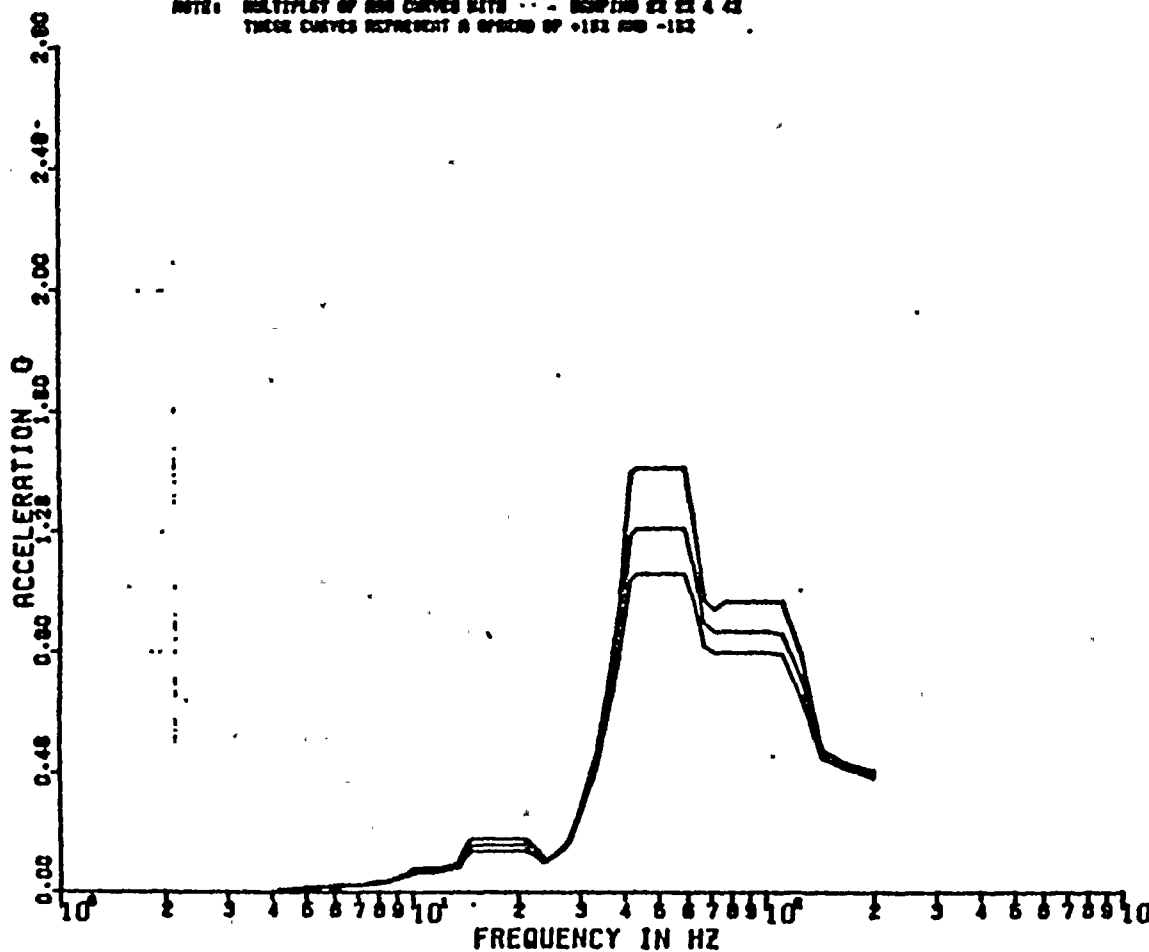
NICHOL H 00

DISK CURVE SET NO.18

VER DIRECTION

DAMPING VALUES = 0.028
0.030
0.040

NOTE: MULTIPLE OF RMS CURVES WITH -- DAMPING 22 23 4 43
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 164
MS 1737



POPECTRA YZR 01 LEV 00

CHUOING LOADING CASE

9 DEC 1982

NIRORRA NONGWAK-NINE MILES POINT UNIT-2 J.S.12177 MS-1737-0
RAG OF ACCELERATION PRIMARY CONT. (ELEV.212.22 FT)

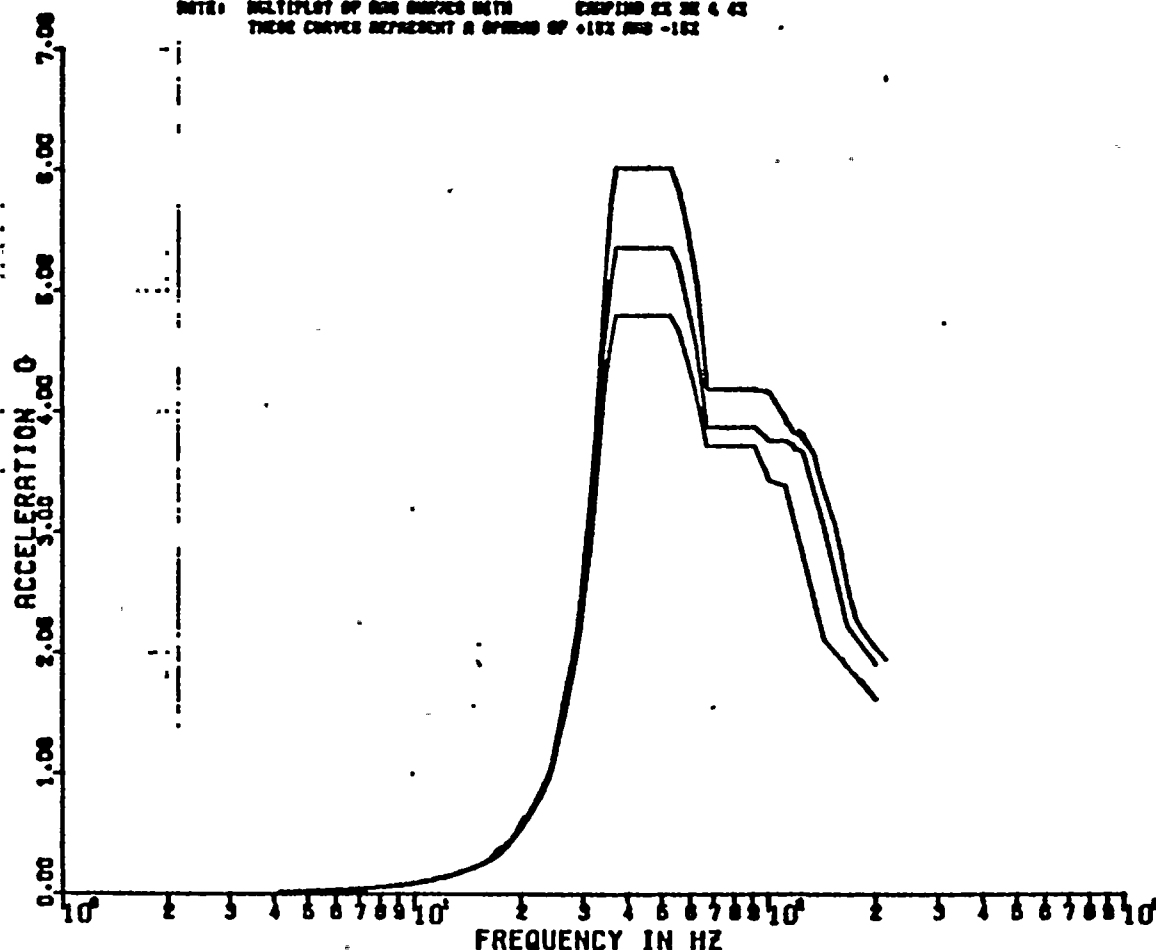
DICK CURVE SET NO.17

HOR DIRECTION

MICHAEL H 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAG CURVES WITH DAMPING 02 03 & 04
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 165
MS 1737



SPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1992

NIAOWA HANNAH-NIKE MILES POINT UNIT-2 J.O.12177 MS-1737-0

RAS OF ACCELERATION PRIMARY CONT. (ELEV.212.22 FT)

MICHAEL K 63

DIGI CURVE SET NO.17

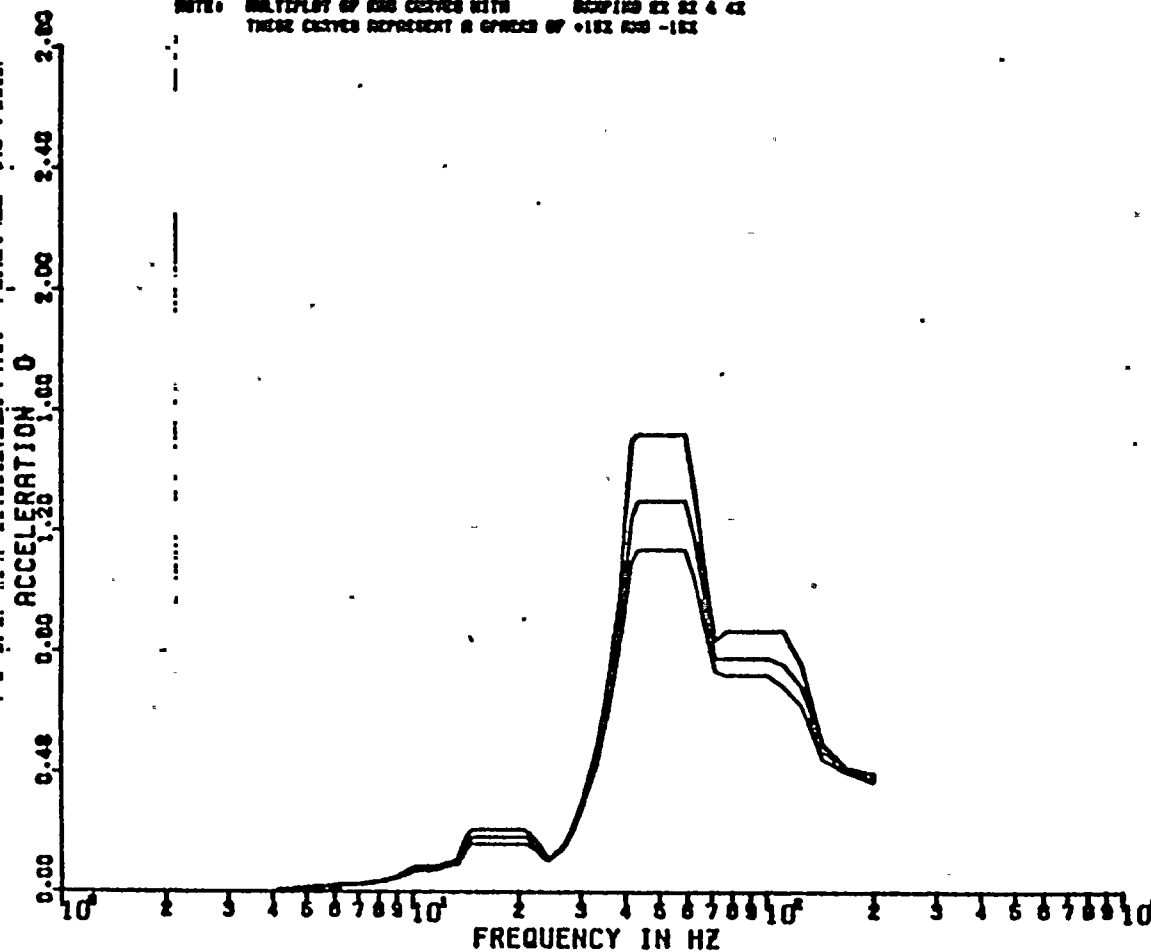
VER DIRECTION

DAMPING VALUES = 0.020

0.030

0.040

NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 02 02 & 02
THESE CURVES REPRESENT A SPREAD OF +10% RAS -10%



REF 165
MS 1737



SPECTRA YEN 01 LEV 00

CHUGGING LOADING CASE

9 DEC 1962

MIDWAY HANSON-NINE MILES POINT UNIT-2 J.B.12177 MS-1737-0

RMS OF ACCELERATION PEDestal (ELEV.217.6 FT.)

RICHARD H CO

DICK CURVE SET NO.10

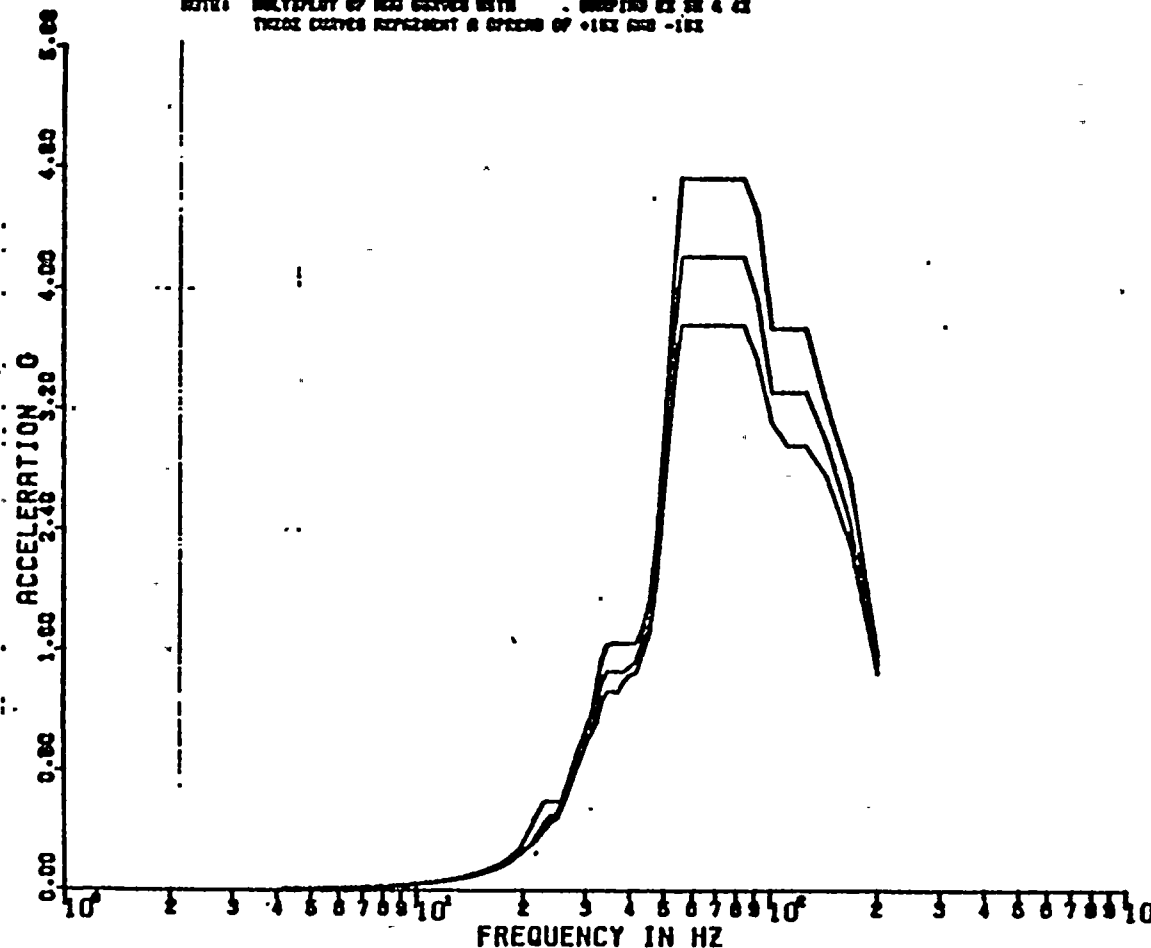
HGR DIRECTION

DAMPING VALUES = 0.020

0.030

0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 0.02 0.03 & 0.04
THREE CURVES REPRESENT A SPECTRUM OF +10% AND -10%



MS 1737

REF 166



PSPECTRA VER 01 . LEV 08

CHUOONING LOADING CASE

8 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION PEDestal (ELEV.217.5 FT.)

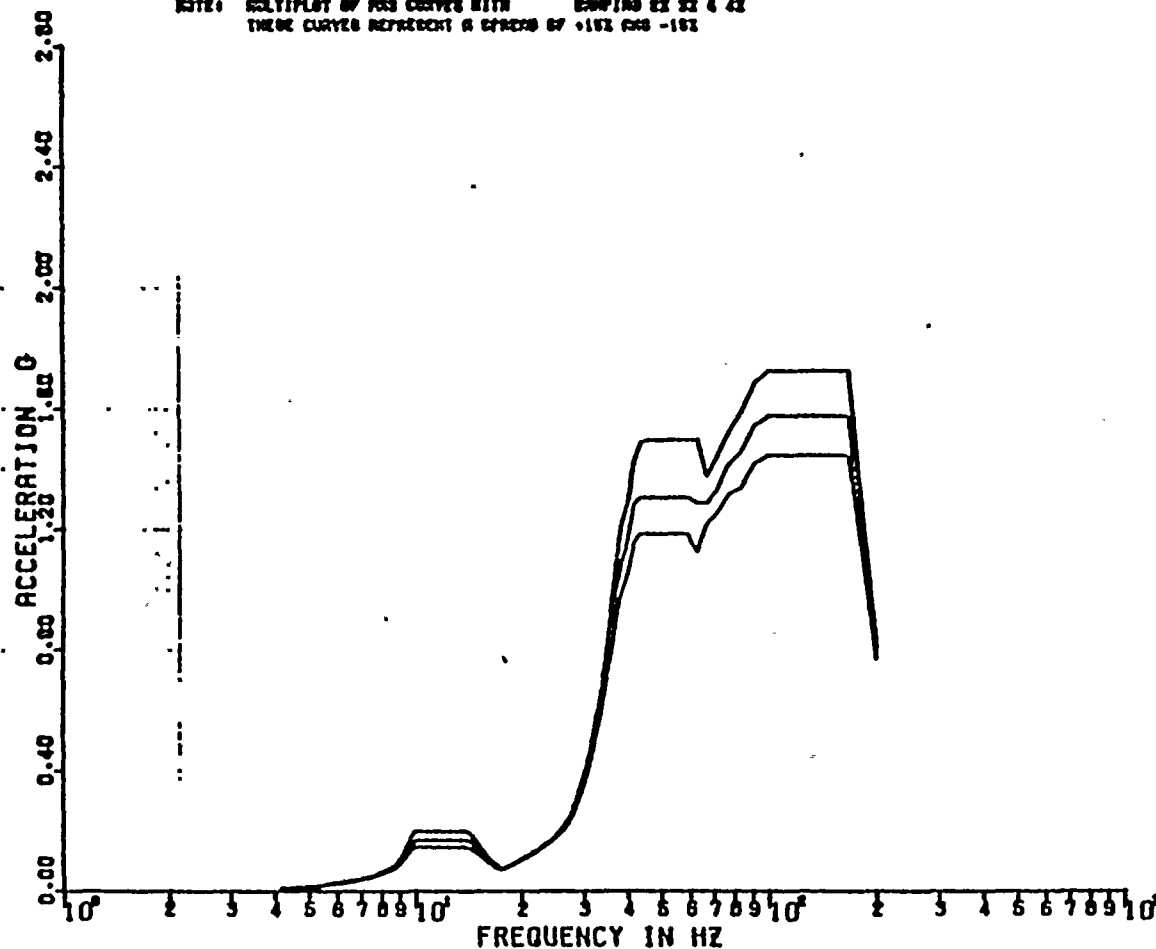
MICHAEL K GO

DISK CURVE SET NO.18

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS VALUES WITH DAMPING BY 22.4 Hz
THESE CURVES REPRESENT A SPECTRUM OF 10% RMS - 10%



MS 1737
REF 166



POPECTRA VER 01 LEV 00 CHUOINGO LOADING CASE
 NIAGARA MONK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
 RRS OF ACCELERATION PRIMARY CONT. (ELEV. 210.33 FT)

8 DEC 1962

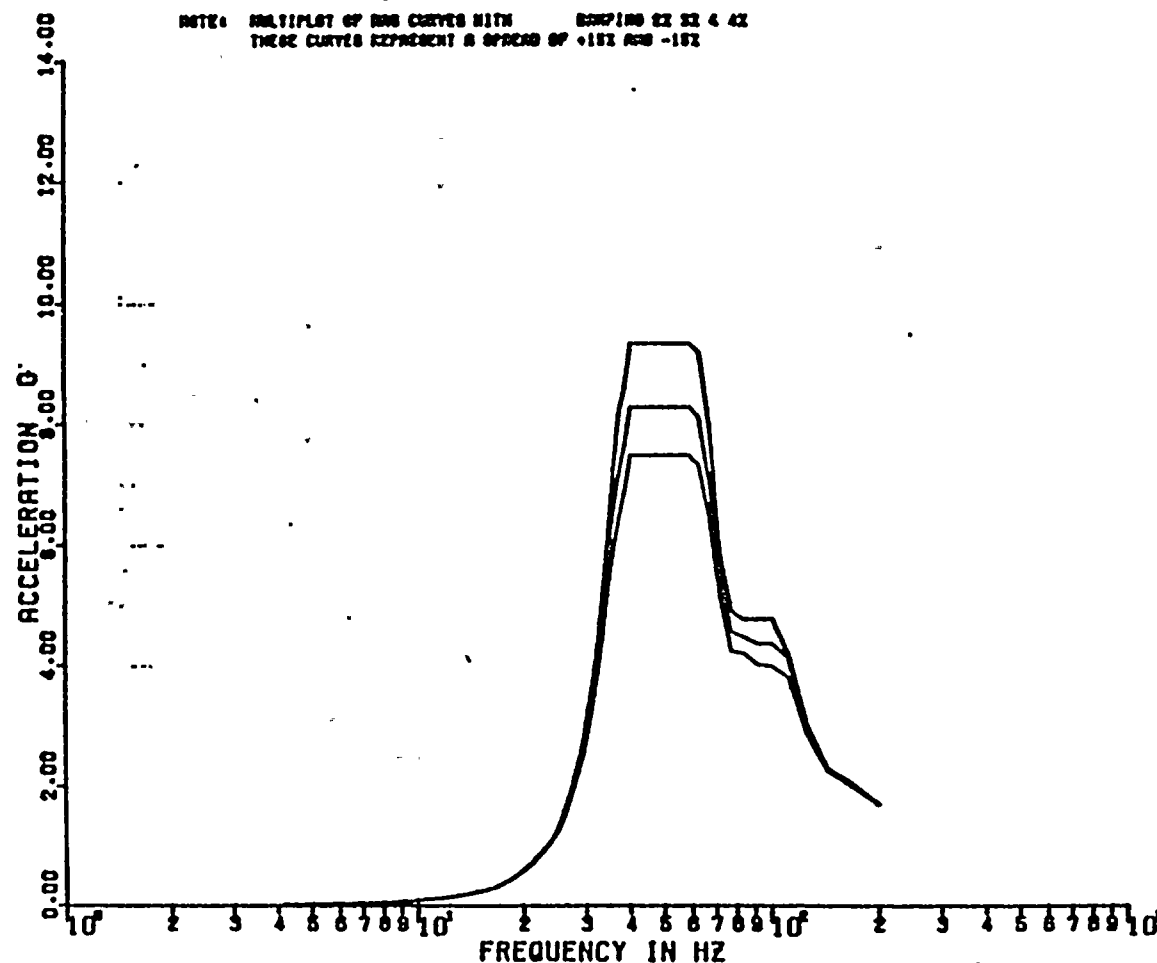
DISK CURVE SET NO.19

HOR DIRECTION

MICHAEL R DO

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLY OF TWO CURVES WITH DAMPING 22 32 & 42
 THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 167
 MS 1737



PEPECTRA VER 01 LEV 00

CHUODING LOADING CASE

9 DEC 1982

NIPORRA MCHMMK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 218.99 FT)

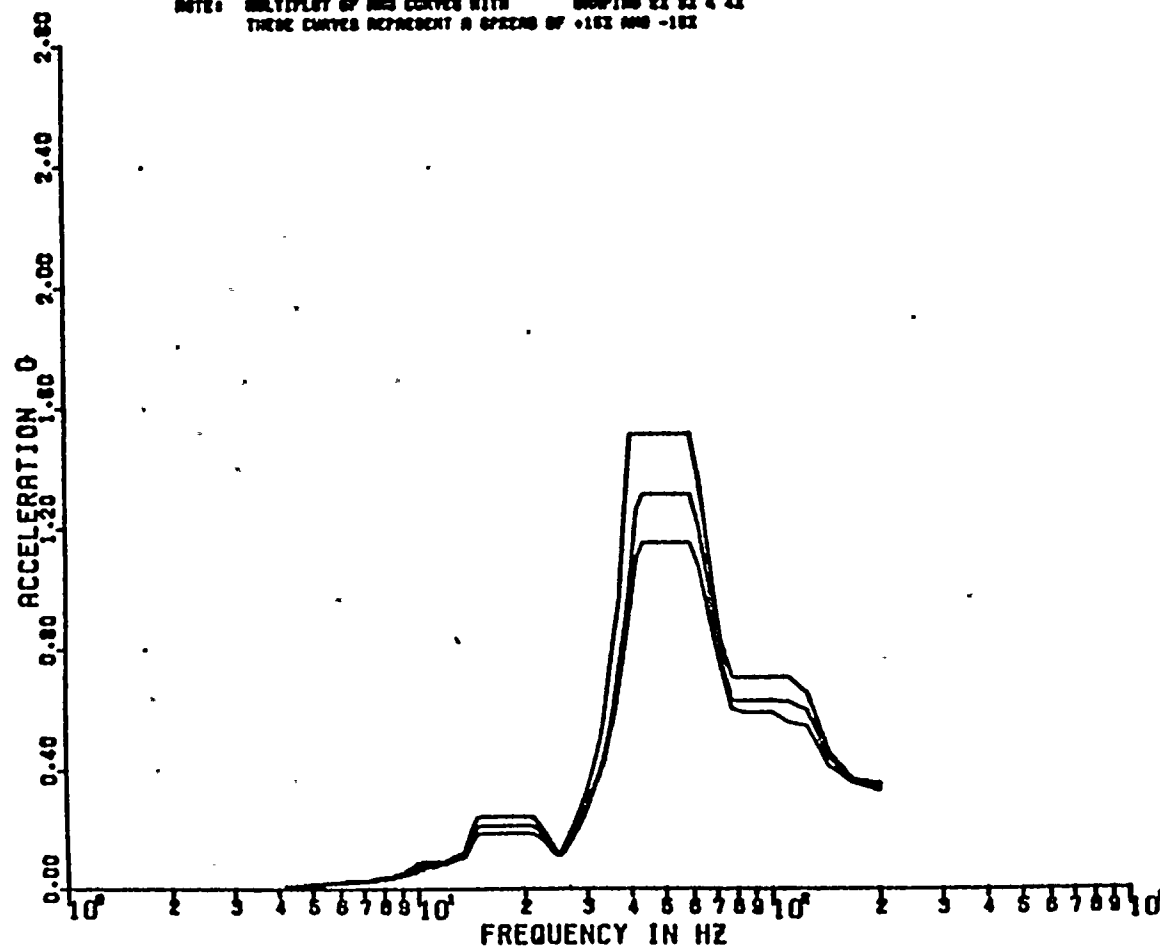
DISK CURVE SET NO.18

VER DIRECTION

MICHAEL N 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING BY 32 & 42
THESE CURVES REPRESENT A SPEED OF +102 AND -102



REF 167
MS 1737



PEPECTRA VER 01 LEV 08 CHUOING LOADING CASE
 NIAGARA MONARX-NINE MILES POINT UNIT-2 J.8.12177 MS-1737-0
 RMS OF ACCELERATION TOP OF SEC. CONT. (ELEV.388.83 FT)

9 DEC 1982

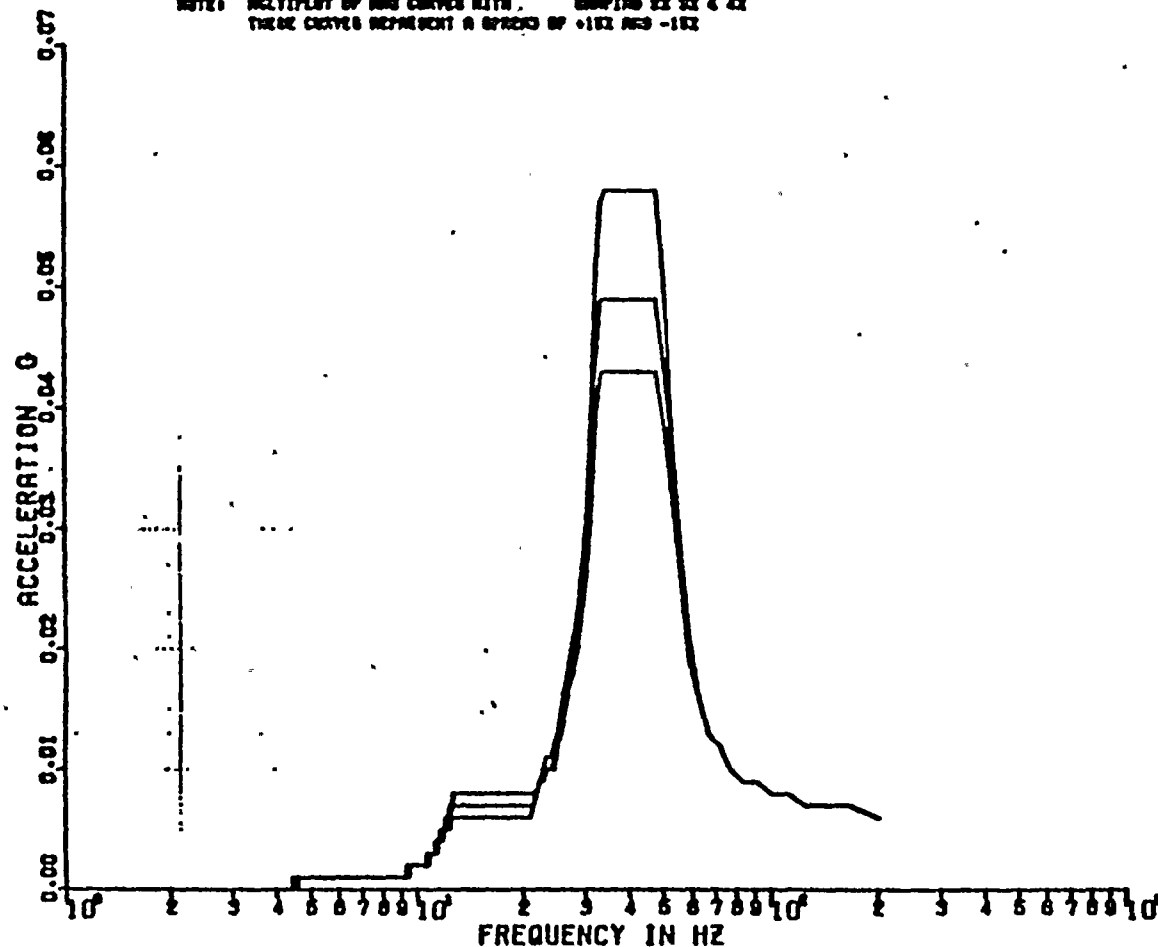
DISK CURVE SET NO.20

HCR DIRECTION

MICHAEL H 00

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 22 32 & 42
 THESE CURVES REPRESENT A SPECTRUM OF +152 AND -152



MS 1237

REF 168



PSPECTRA VER 01 LEV 00

CHUDDINO LOADING CASE

9 DEC 1992

NIAOARA MONMAY-NINE MILES POINT UNIT-2 J.B.12177 MS-1737-0
RAB OF ACCELERATION TOP OF SEC. CONT. (ELEV.388.83 FT)

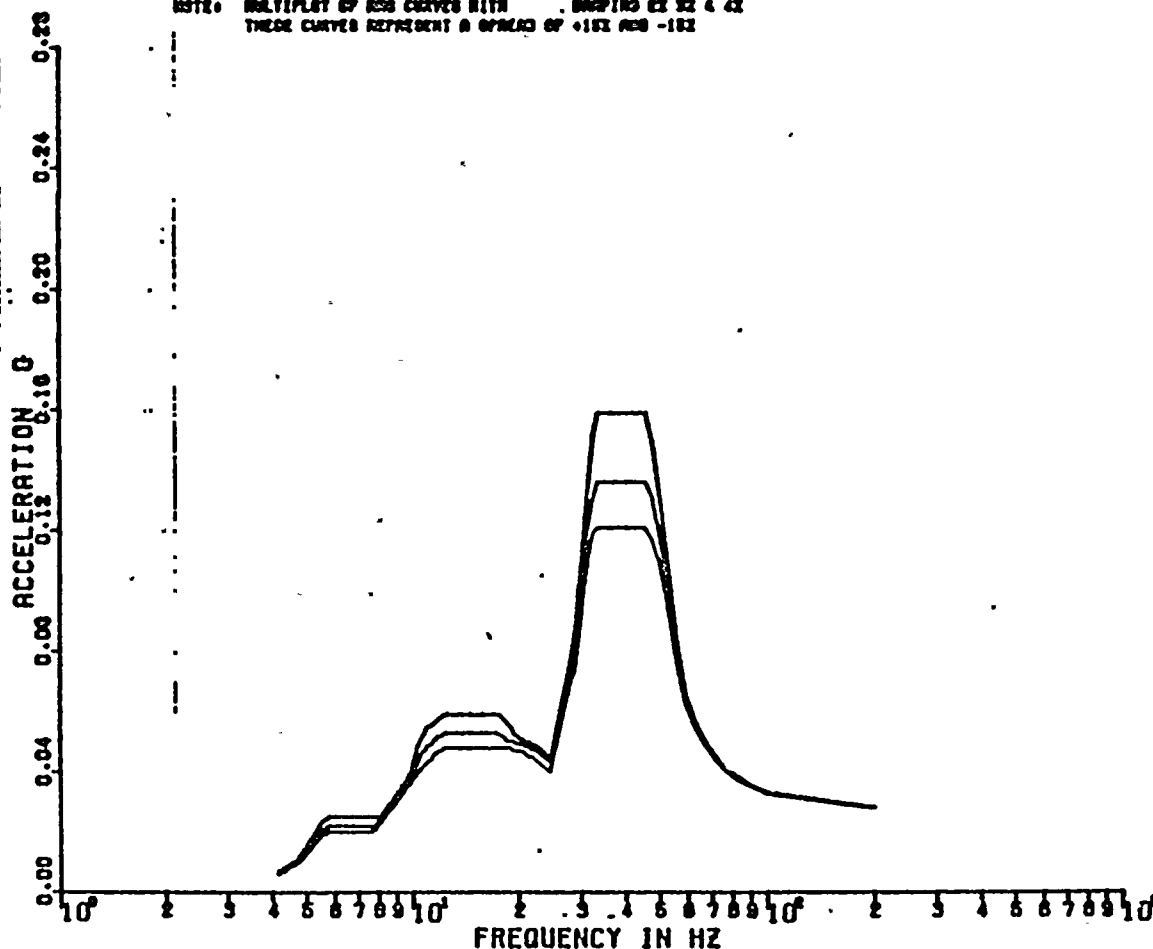
NICHAEEL K CO

DICH CURVE 02T K0.20

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAB CURVES WITH DAMPING 02 32 & 42
THESE CURVES REPRESENT A SPREAD OF +10% RAB -10%



MS 1737

REF 168



PSPECTRA VER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1992

MIRAWA MOWAK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.224.00 FT.)

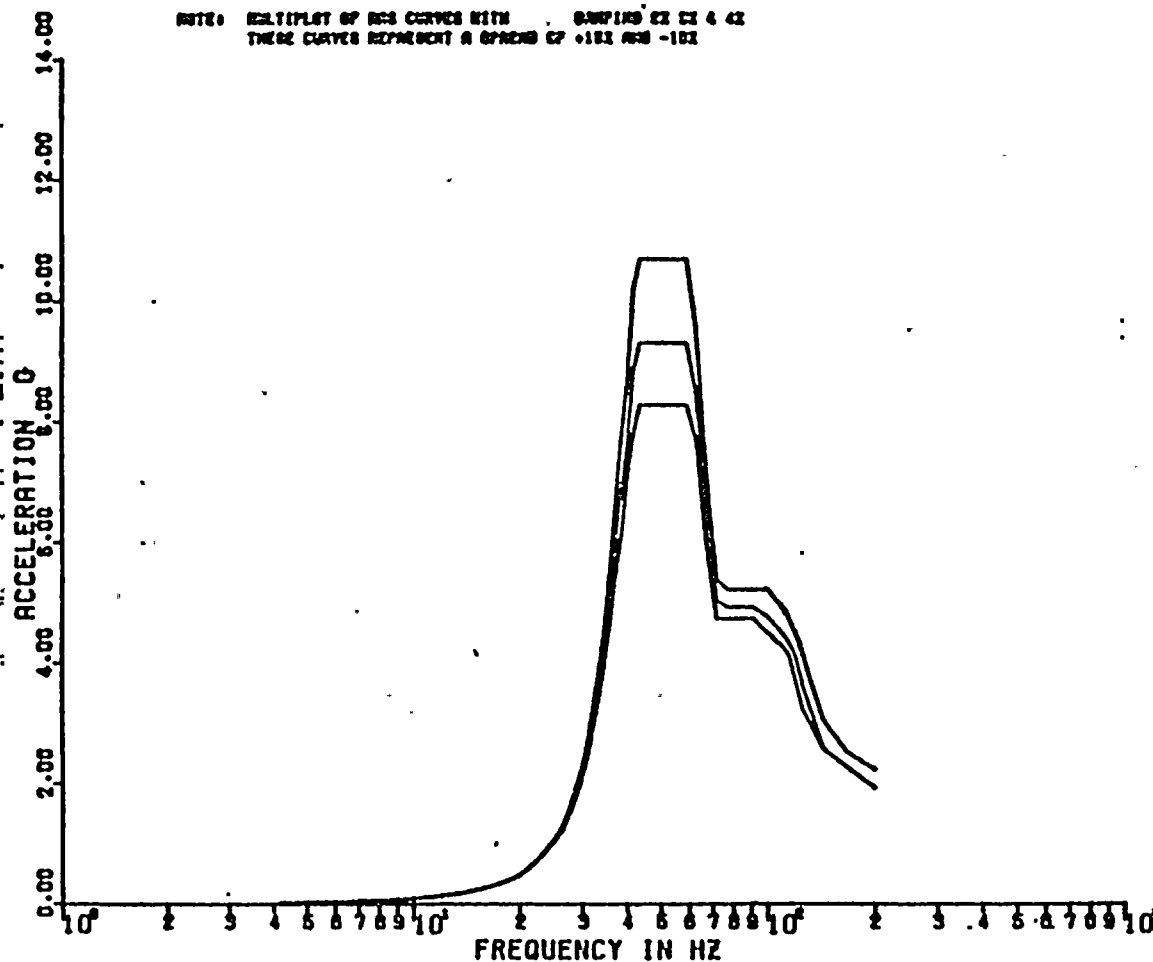
DISK CURVE SET NO.21

HOR DIRECTION

MICHAEL M 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 02 03 04
THESE CURVES REPRESENT A SPACING OF +10% AND -10%



MS 1737

REF 169



SPECTRA VER 01 LEV 08 CHUOING LOADING CASE
 NIDAKA NODAKA-NINE MILES POINT UNIT-2 J.O.12177 HS-1737-0
 RAS OF ACCELERATION PRIMARY CONT. (ELEV.224.89 FT.)

8 DEC 1982

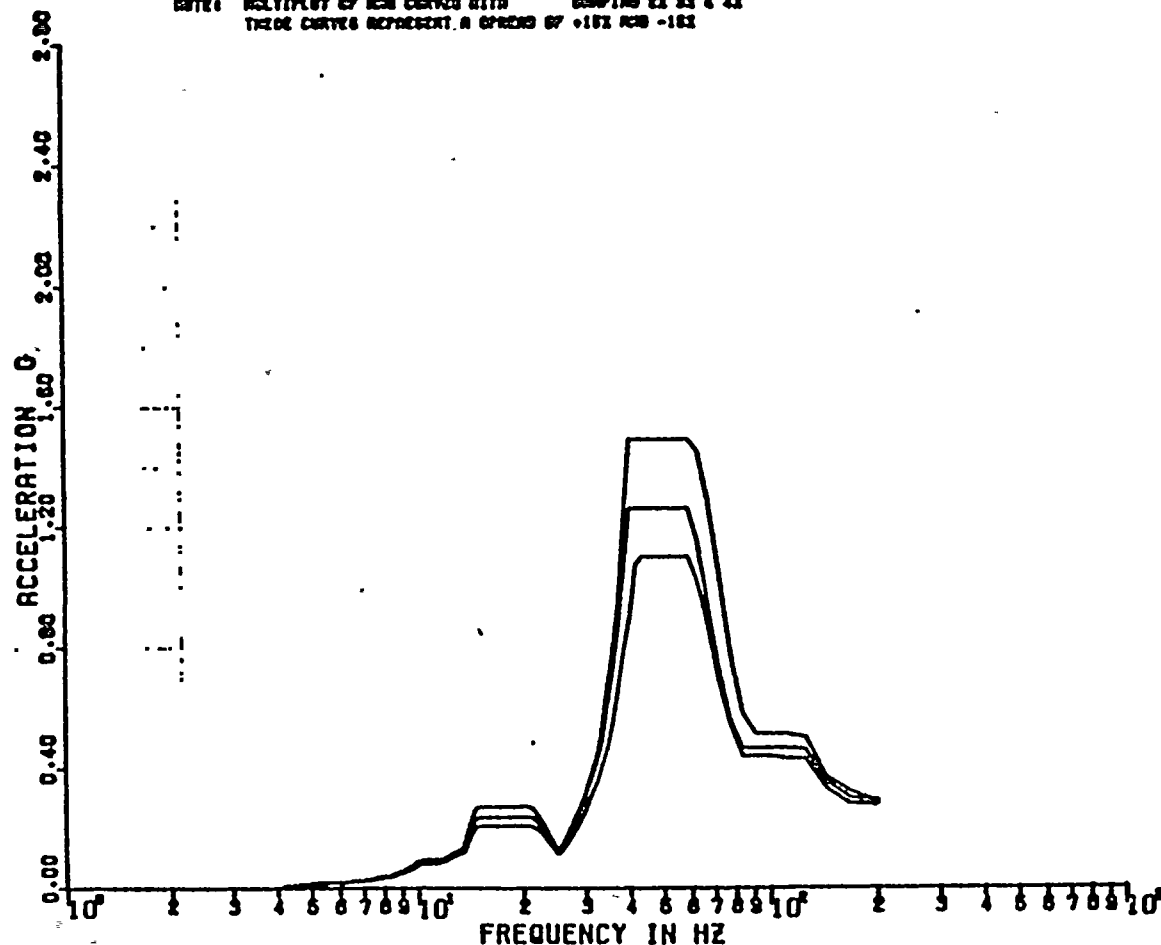
DISK CURVE SET NO.21

VER DIRECTION

MICHAEL H 60

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLE OF RAS CURVES WITH DAMPING 01 03 & 04
 THESE CURVES REPRESENT A SPREAD OF +10% RAS -10%



MS 1737
 REF 169



PSPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1992

NIRORAN HONMAM-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAS OF ACCELERATION PRIMARY CONT. (ELEV.231.44 FT)

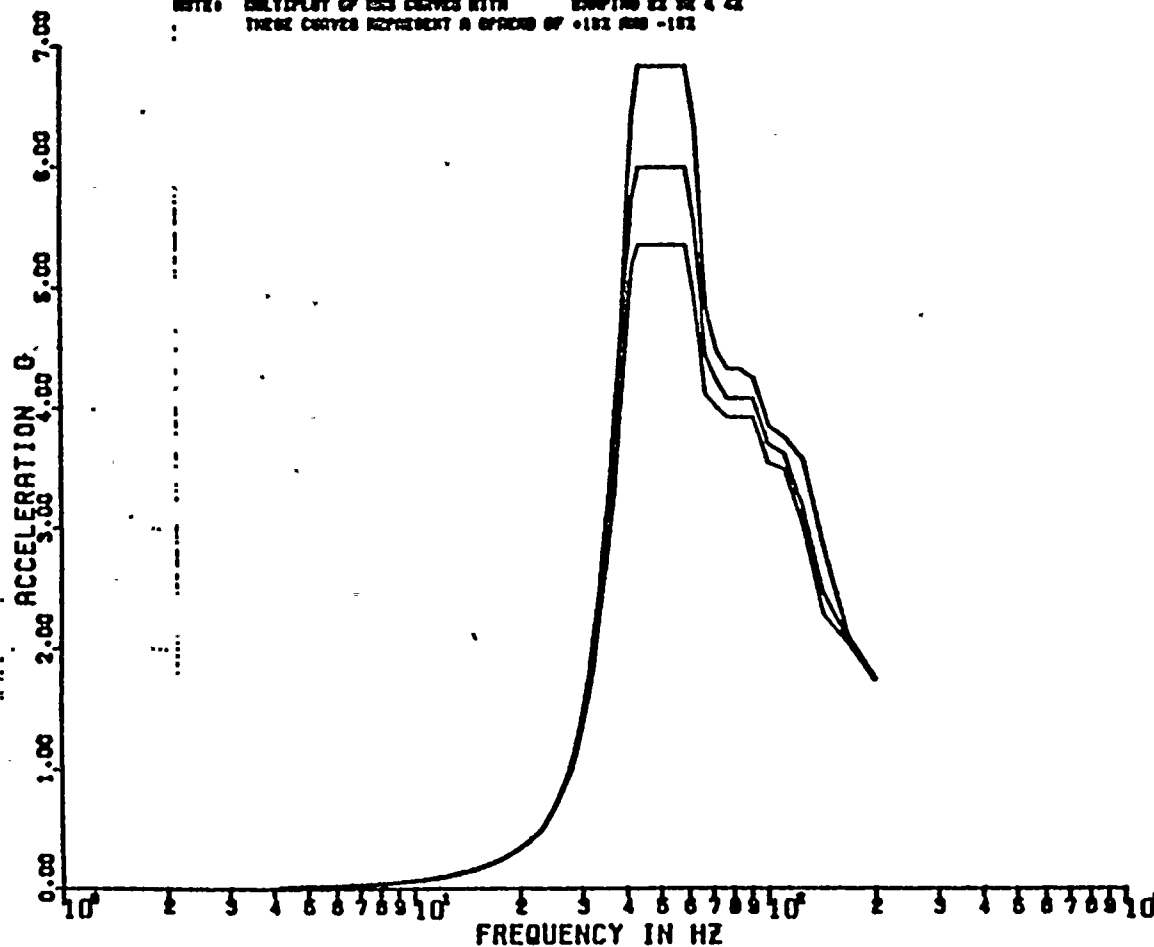
MICHAEL W 00

DISK CURVE SET NO.22

NOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF 223 CURVES WITH DAMPING 22 SE 4 42
THESE CURVES REPRESENT A SPACING OF +152 AND -152



REF 170
MS 1737



POPECTA VER 01 LEV 08 CHAOSING LOADING CASE
 NINOMAN MONSUK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
 RRS OF ACCELERATION PRIMARY CONT. (ELEV.231.46 FT)

9 DEC 1982

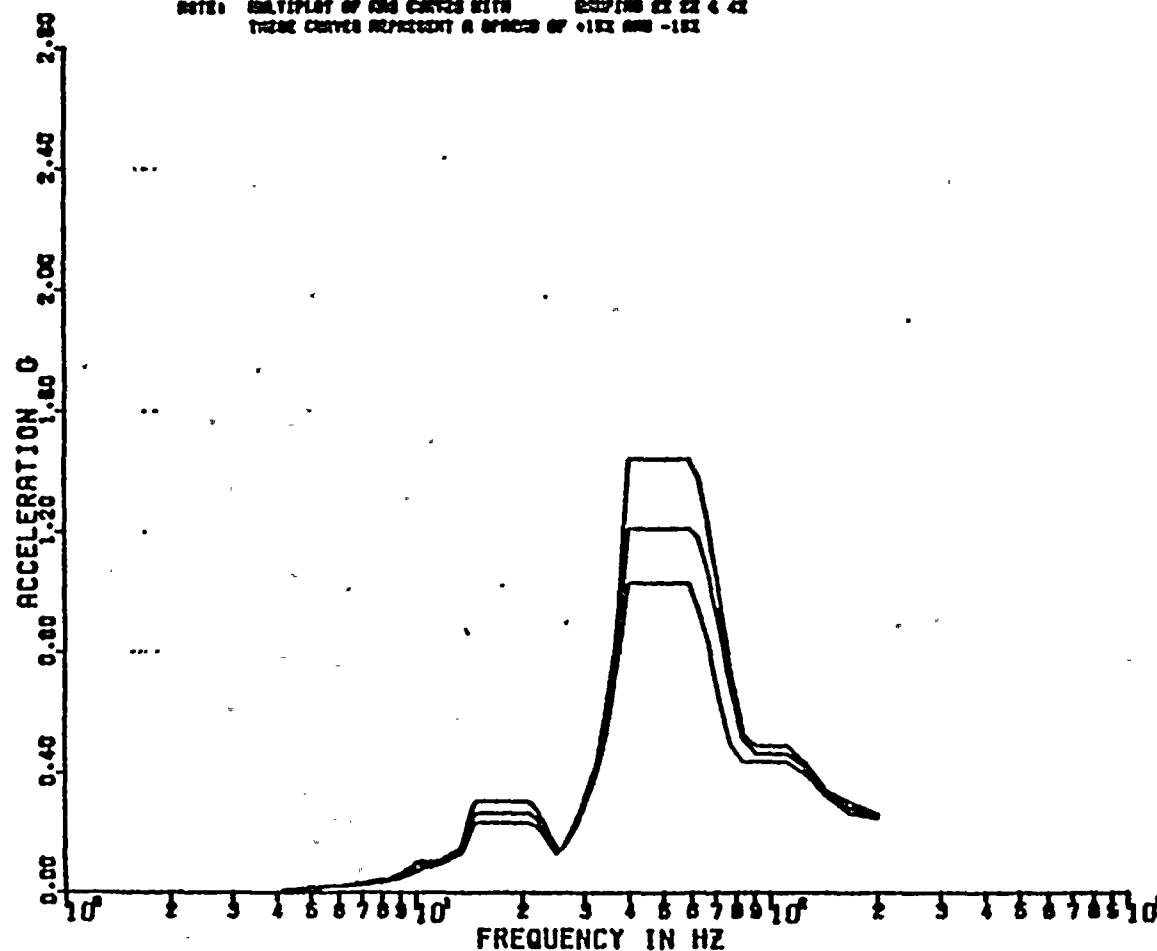
BIGN CURVE SET MS.22

VER DIRECTION

MICHAEL K 80

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLY OF RMS CURVES WITH DOWING 2X 2X 4 4X
 THESE CURVES REPRESENT A SPACED OF +10% AND -10%



REF 170
 MS 1737



POPECTRA VER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1982

MIRAMAR MARIANA-NINE MILES POINT UNIT-2 J.B.12177 MS-1737-0
RMS OF ACCELERATION PEDestal (ELEV.230.5 FT)

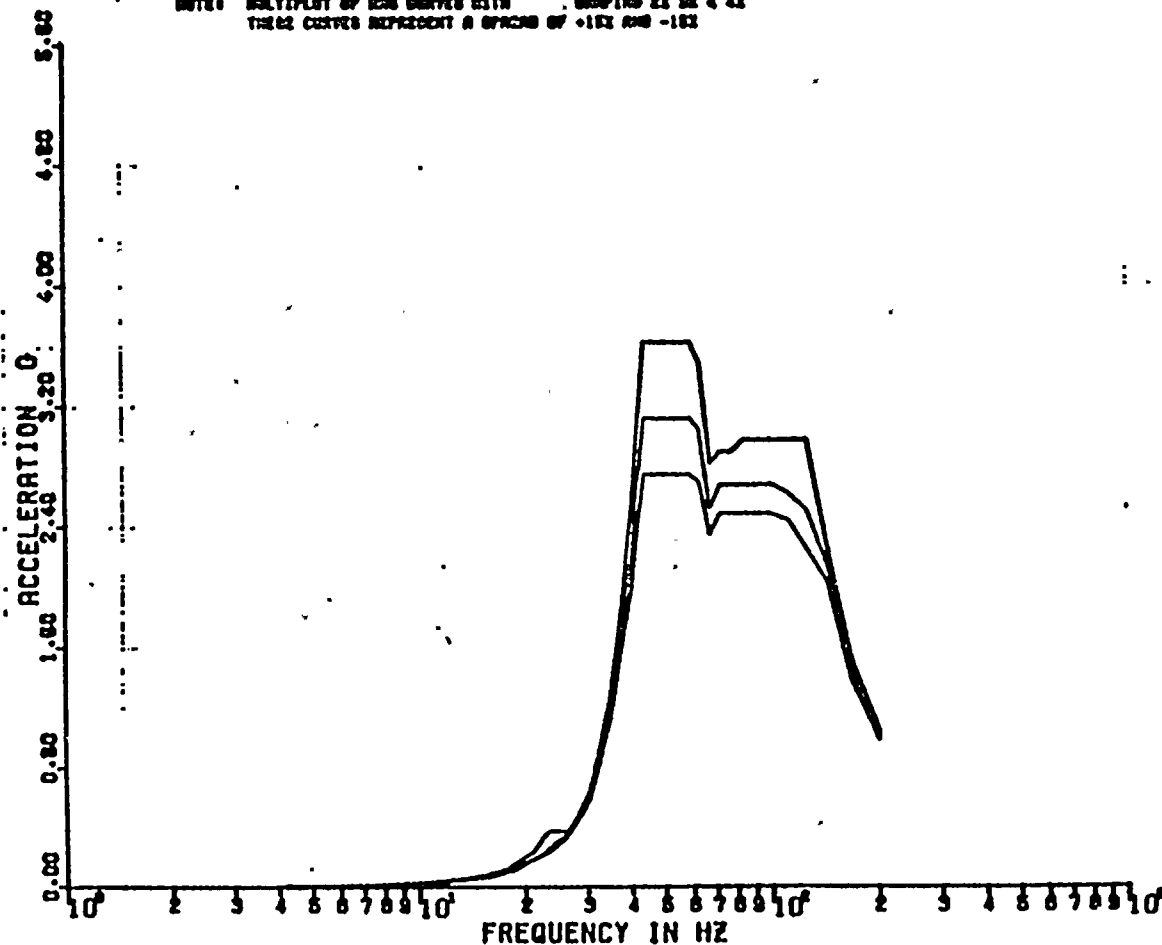
BIGK CURVE SET NO.23

HOR DIRECTION

MICHAEL R GO

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING XX SEE 4.42
THESE CURVES REPRESENT A SPACING OF +15% AND -15%



REF 171
MS 1737



SPECTRA VER 01 LEV 00 CHUDDING LANDING CASE
 NIAGARA MONARCH-NINE MILES POINT UNIT-2 J.B-12177 MS-1737-0
 RMS OF ACCELERATION PEDestal (ELEV.230.5 FT)

8 DEC 1962

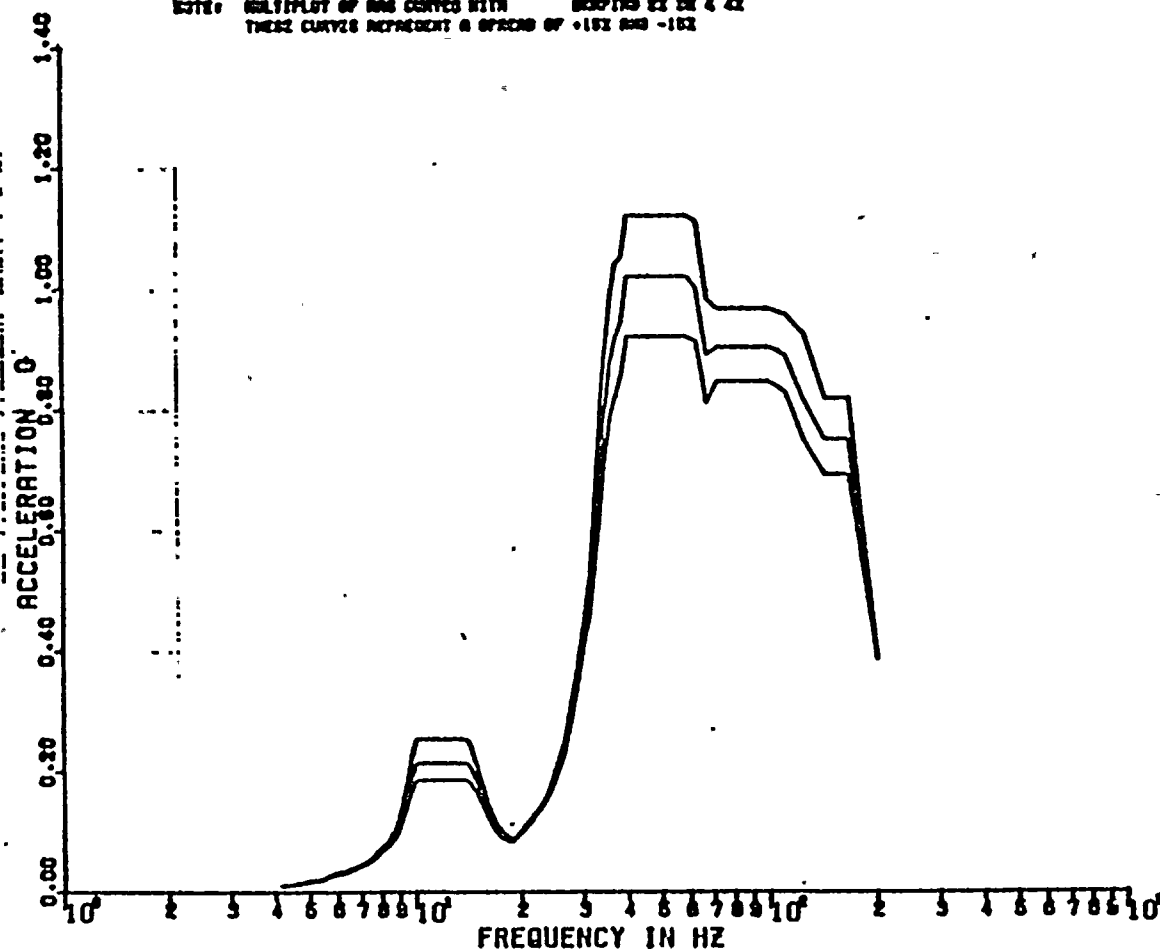
DISK CURVE SET NO.23

VER DIRECTION

NICHAE'L H GO

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLOT OF RMS CURVES WITH SCALING 22 DB 4 42
 THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



2321 SW
 MS 1737
 161 #32



PSPECTRA VER 81 LEV 08

CHUOSING LOADING CASE

8 DEC 1982

WADSWORTH MICHIGAN-NINE MILES POINT UNIT-2 J.O.12177 HQ-1737-0
RMS OF ACCELERATION DAYWELL PL. AT CENR. LH (ELEV.230.6 FT)

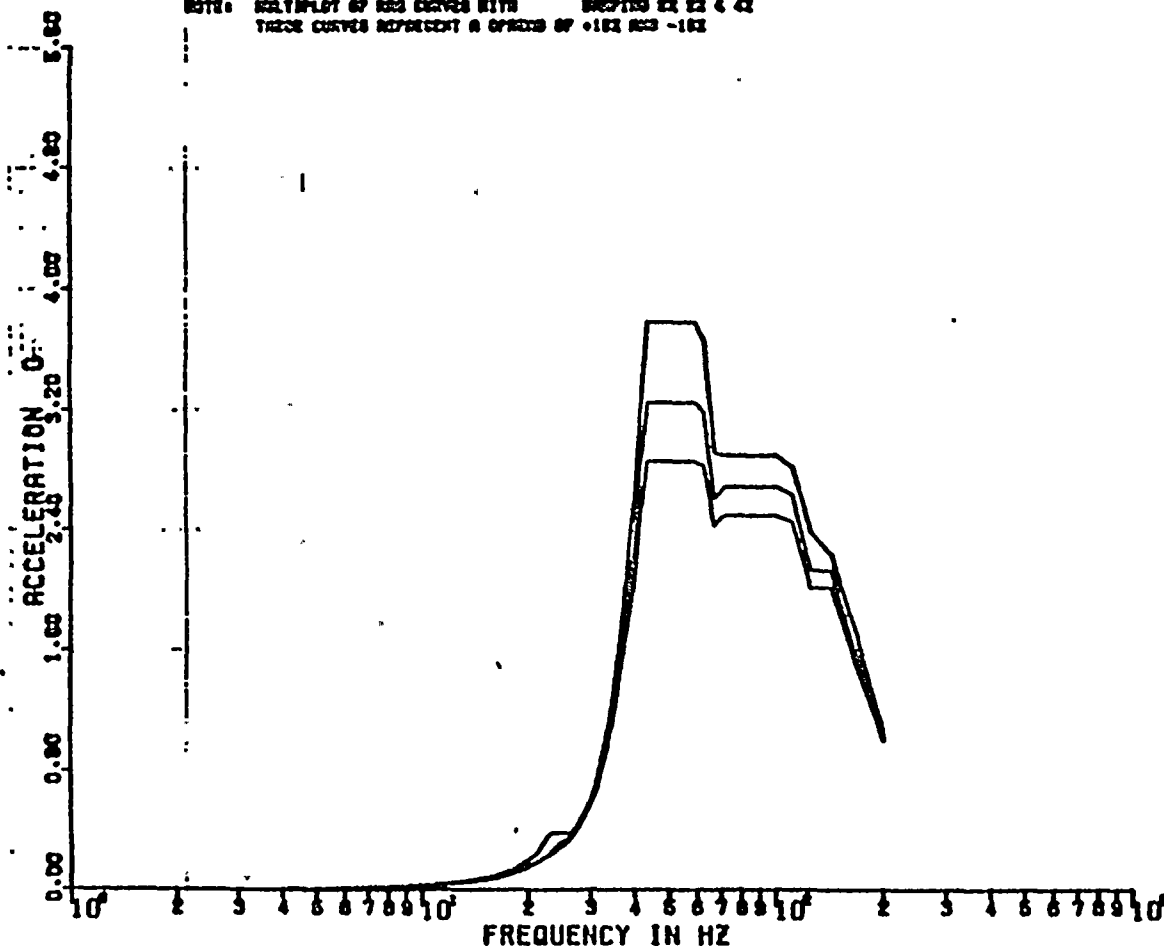
DISK CURVE DET NO.24

HSR DIRECTION

MICHAEL R 69

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPACING OF +10% RMS -10%



MS 1737

REF 172



PEPECTRA VER 01 LEV 00 CHUOING LOADING CASE
 NIAGARA MONARK-NINE MILES POINT UNIT-2 J.D.12177 NS-1737-0
 RRS OF ACCELERATION DRYHELL FL. AT CEHR. LN (ELEV.250.5 FT)

9 DEC 1992

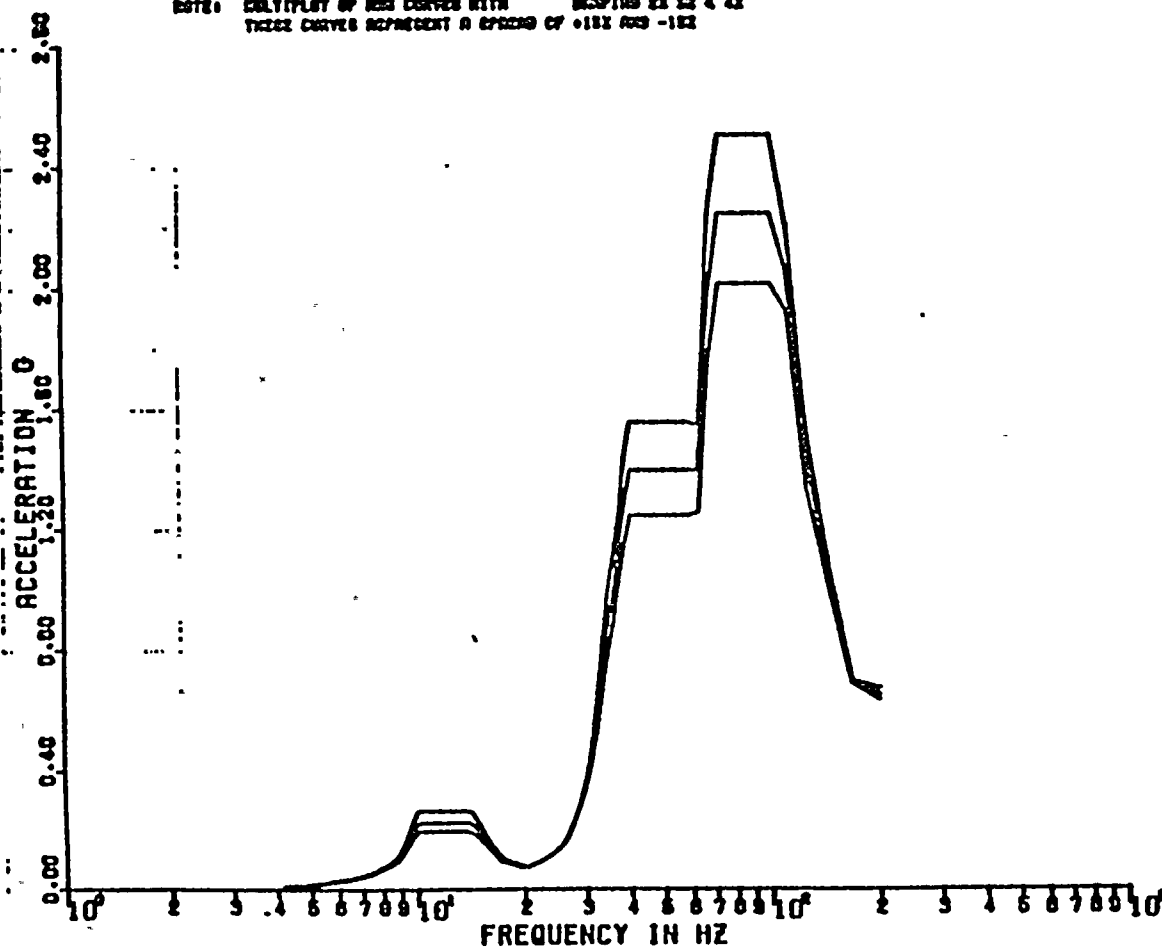
BIEX CURVE SET NO.24

VER DIRECTION

MICHAEL R 63

DAMPING VALUES = 0.628
 0.030
 0.040

NOTE: MULTIPLOT OF RRS CURVES WITH SCOPING BY 2.4.42
 THREE CURVES REPRESENT A SPECTRUM OF +15% RRS -15%



MS 1737

REF 172



PSPECTRA VER 01 LEV 08

CHUGGING LOADING CASE

9 DEC 1992

NIAGARA MOHAWK-HINE MILES POINT UNIT-R J.D.12177 MS-1737-0
RMS OF ACCELERATION DAYWELL FL./PAH. CONT. (ELEV.250.00 FT)

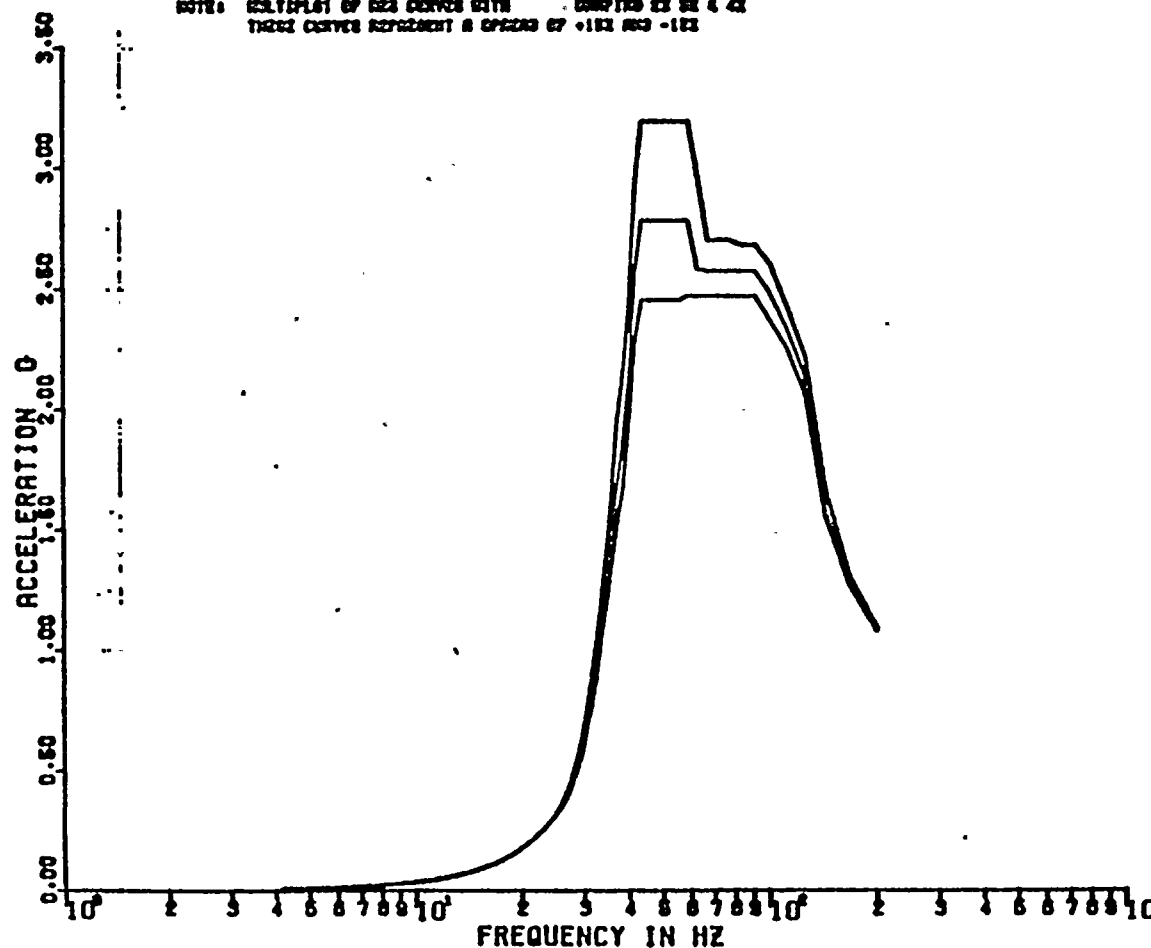
DIGI CURVE SET MS.25

HOR DIRECTION

NICHOL N 09

DAMPING VALUES = 0.028
0.030
0.040

NOTE: MULTIPLE OF RES CURVES WITH DAMPING 22 SE 4 42
THREE CURVES REPRESENT A SPREAD OF -122 DEG -122



MS 1737

REF 173



PSPECTRA VER 01 LEV 00 CHUDDING LOADING CASE
 NIAGARA POWER-HOME HILES POINT UNIT-2 J.B.12177 NS-1737-0
 RRS OF ACCELERATION CRYWELL FL./PAIN. CONT. (ELEV.230.00 FT)

9 DEC 1992

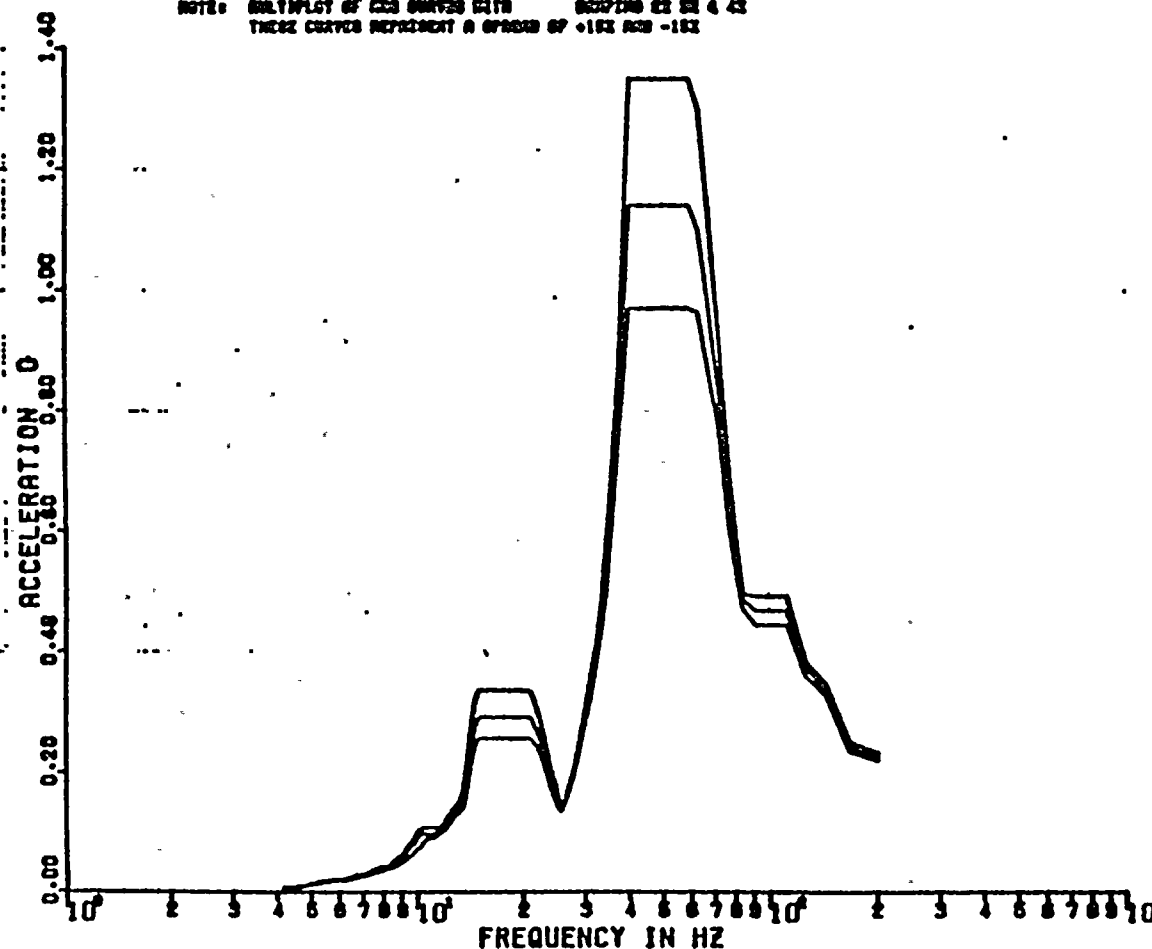
DIGR CURVE ECT NO.25

VER DIRECTION

NICKEL K 60

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLOT OF ECT CURVES WITH SCALING 12 22 & 42
 THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 173
 MS 1737



PEPECTRA VER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1982

NIROKKA NONKAK-NINE MILES POINT UNIT-2 J.0.12177 MS-1737-0
RMS OF ACCELERATION DAYWELL FLOOR (ELEV.238.00 FT)

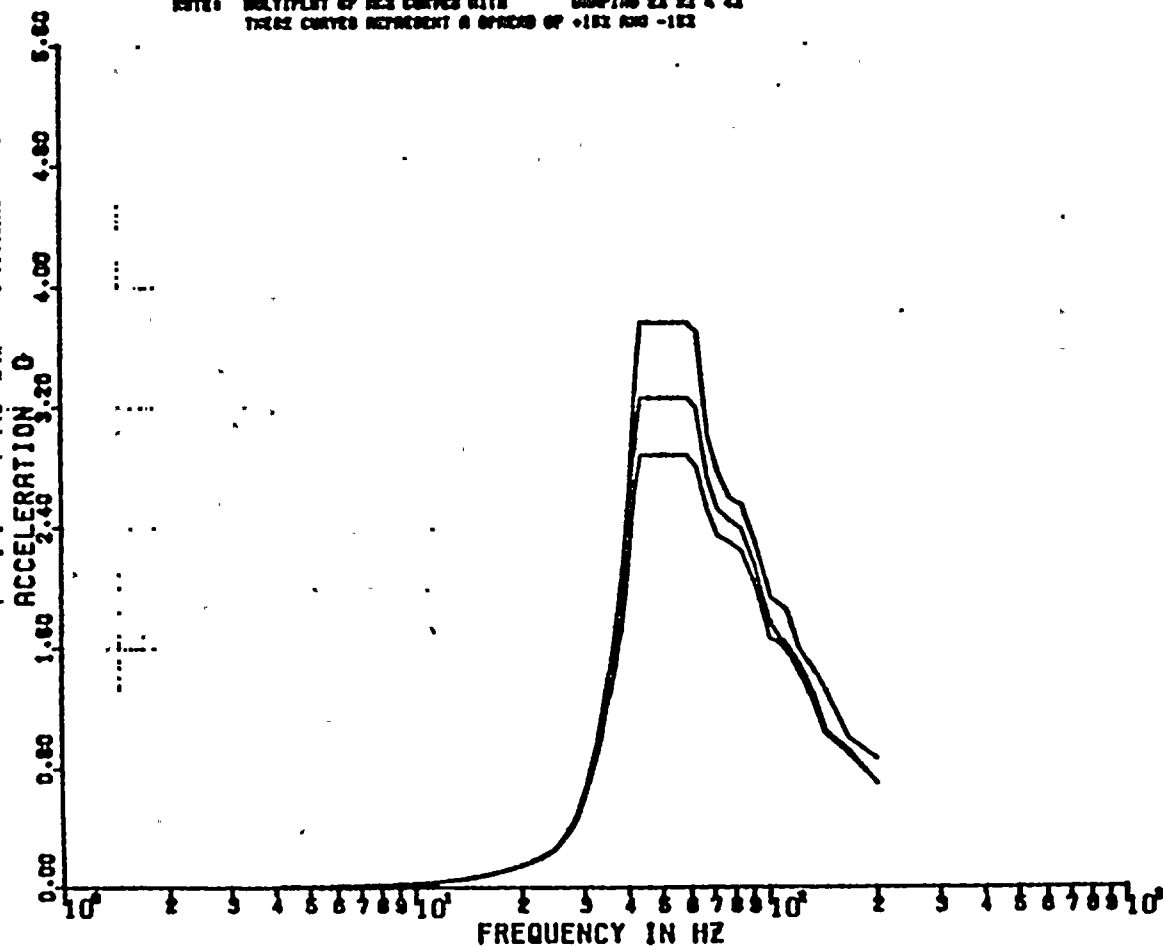
DICK CURVE SET NO.20

NOR DIRECTION

MICHAEL K 60

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLE OF AC CURVES WITH DAMPING 2% 3% & 4%
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 174
MS 1737



PERPECTAR VER 01 LEV 00

CHUODING LOADING CASE

8 DEC 1982

NIAGARA CANNON-NINE MILES POINT UNIT-2 J.0.12177 MS-1737-0
RMS OF ACCELERATION DAYWELL FLOOR (ELEV.238.00 FT)

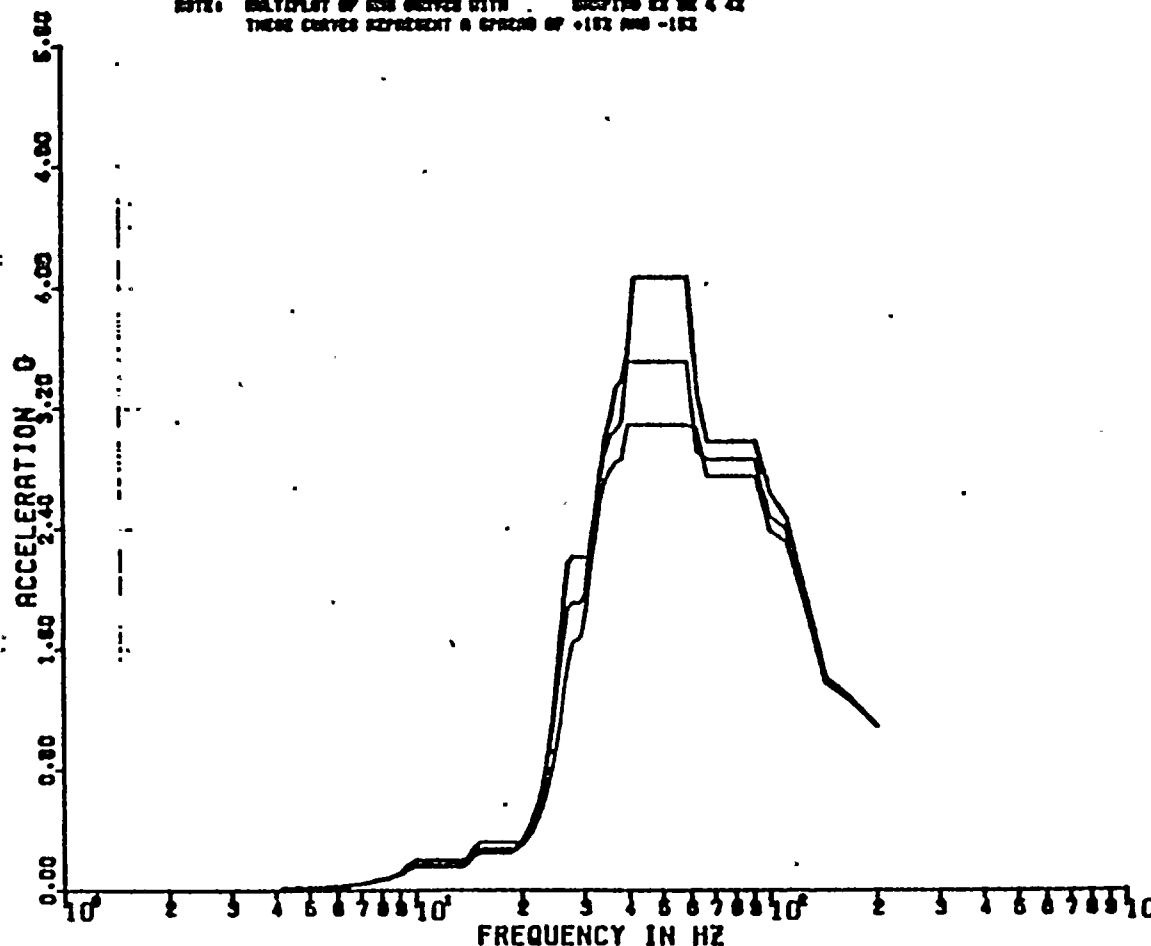
BIGH CURVE SET NO.28

VER DIRECTION

NICHZEL K 00

DAMPING VALUES = 0.028
0.030
0.040

NOTE: MULTIPLOT OF RMS VALUES WITH DAMPING RZ BE 4 42
THESE CURVES REPRESENT A SPECTRUM OF +152 AND -152



REF 174
MS 1737



POPECTRA VER 01 LEV 00
 CHUONG LOADING CASE
 NIAGARA HATCH-MINE MILES POINT UNIT-2 J.O.12177 H3-1737-0
 RRS OF ACCELERATION DAYZELL/PEDESTAL (ELEV.230.0 FT)

9 DEC 1962

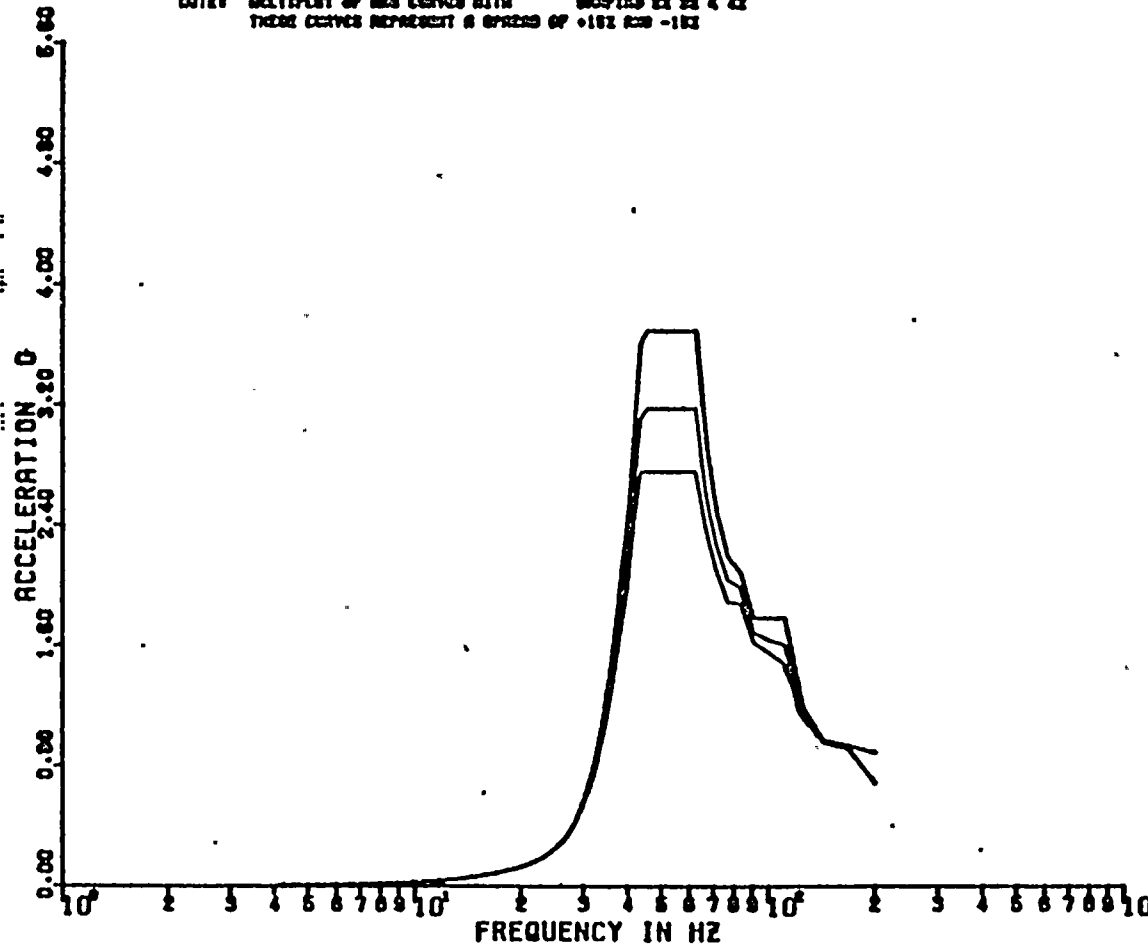
SIXX CURVE SET H3.27

HCR DIRECTION

MICHAEL R 00

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLOT OF SIX CURVES WITH DAMPING OF 2% 4% 6%
 THESE CURVES REPRESENT A SPREAD OF +10% RCR -10%



REF 175.
 MS 1737



POPECTRA VER 01 LEV 00

CRUISING LOADING CASE

8 DEC 1982

NINAGRA MANNIX-MINE HILES POINT UNIT-2 J.B.12177 MB-1737-0
RMS OF ACCELERATION DAYWELL/PEDESTAL (ELEV.290.0 FT)

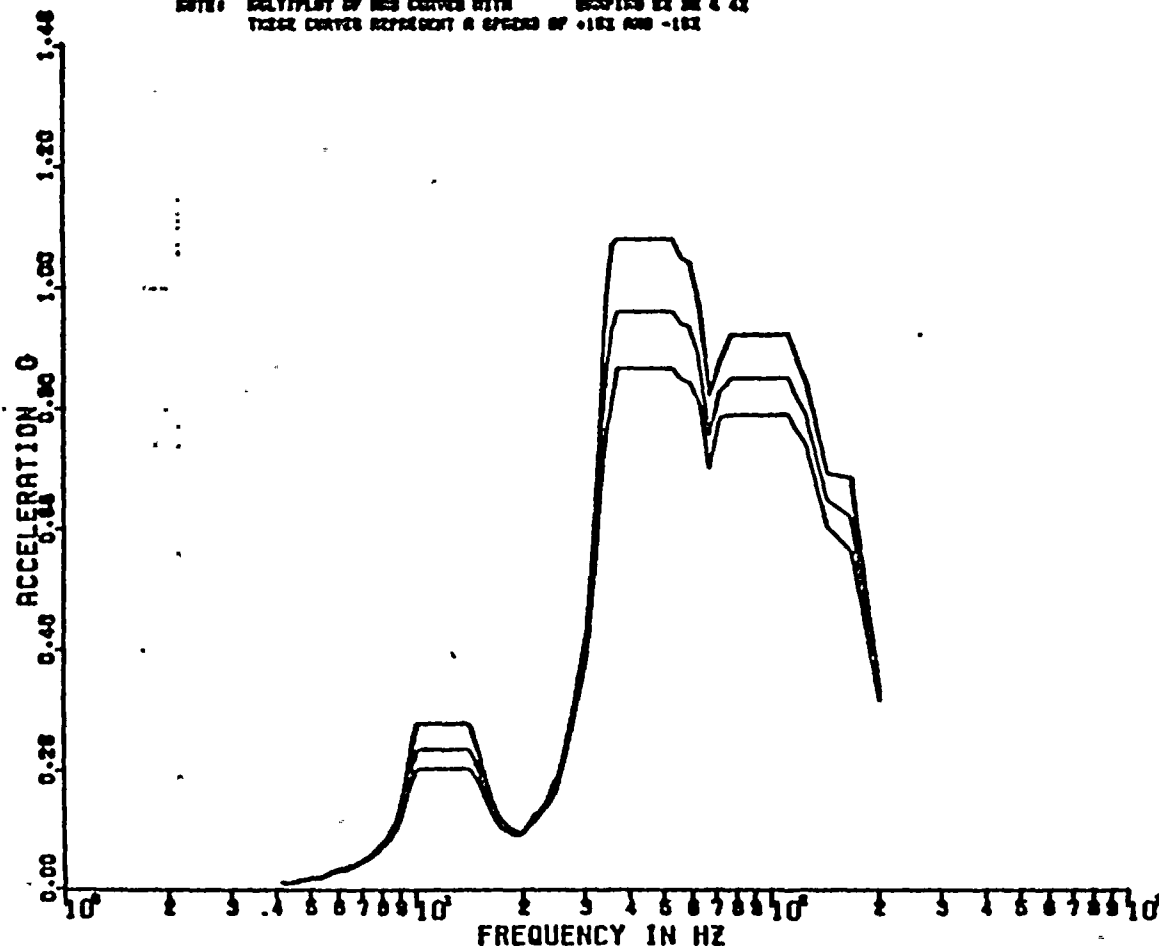
DIGI CURVE SET NO.27

VER DIRECTION

NICHOL R 60

DAMPING VALUES = 0.000
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DOWNSIDE OF 4 42
THESE CURVES REPRESENT A SPEED OF +102 AND -102



MS 1237

REF 175



POPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1982

NIRAKA NEMAK-NINE HILES POINT UNIT-2 J.B.12177 NG-1737-0
RHS OF ACCELERATION PRIMARY CONT. (ELEV.243.33 FT)

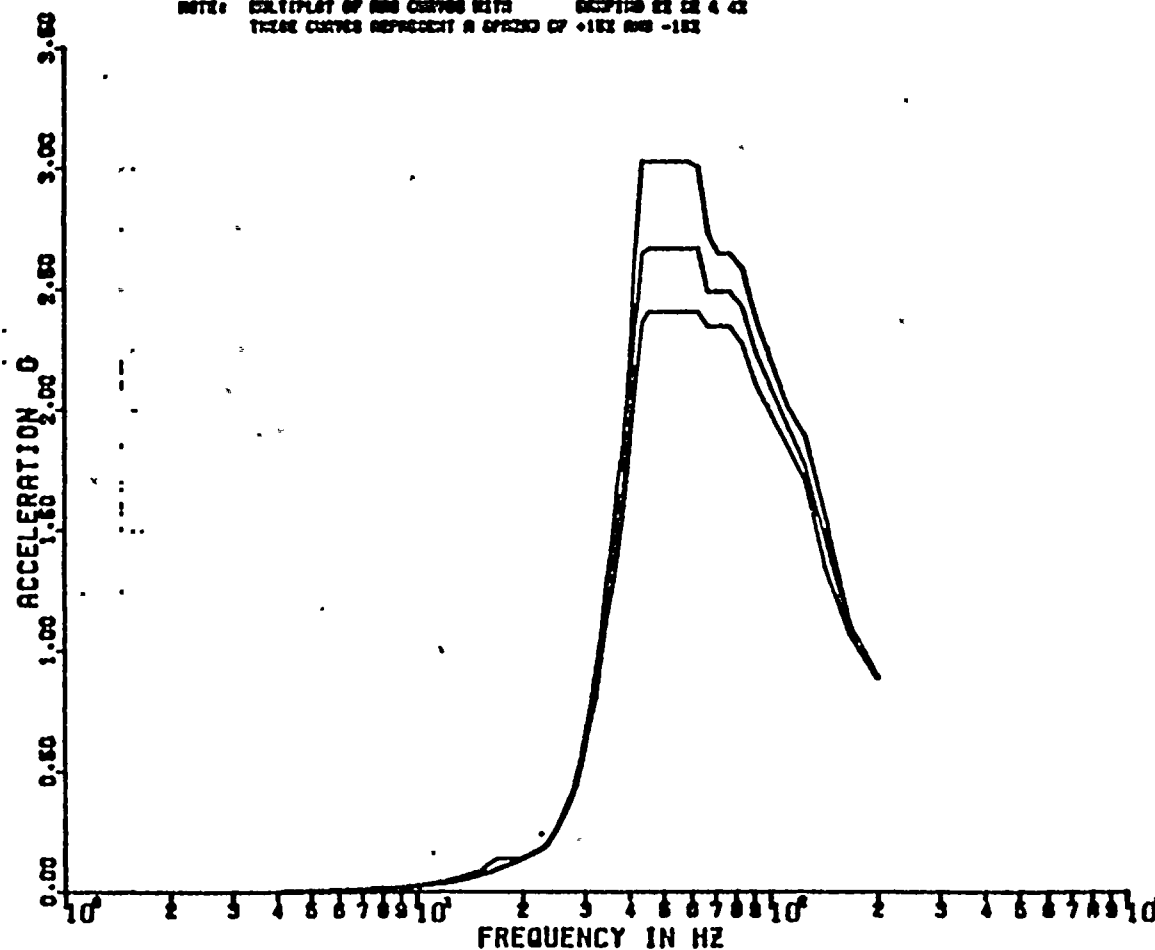
BIGH CURVE GET NO.20

MCN DIRECTION

MICHAEL R 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF TWO CURVES WITH DAMPING OF 4.4%
THESE CURVES REPRESENT A SPEED OF +10% AND -10%



REF 176
MS 1737



PERPECTA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1982

NIAGARA HONKAM-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAB OF ACCELERATION PRIMARY CONT. (ELEV.245.33 FT)

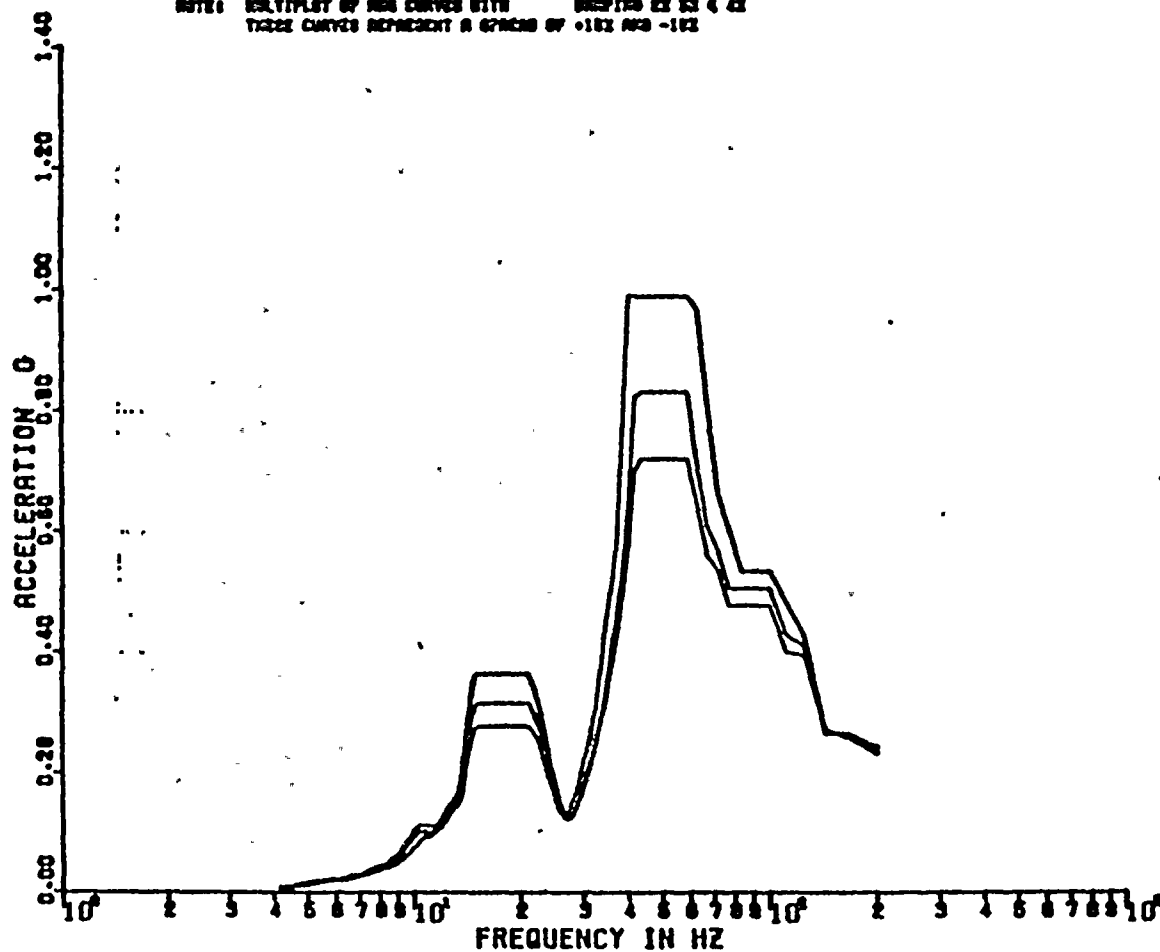
DICK CURVE SET NO.28

VER DIRECTION

NICHAEZ K CO

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLE OF RAB CURVES WITH DAMPING 0.02 0.03 & 0.04
THREE CURVES REPRESENT A SPACING OF +10% AND -10%



REF 176
MS 1737



PERECTA VER 01 LEV 00

CHUOING LANDING CRGZ

8 DEC 1962

NIAOARA HONNAN -NINE MILES POINT UNIT-2 J.O.12177 HG-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 248.68 FT)

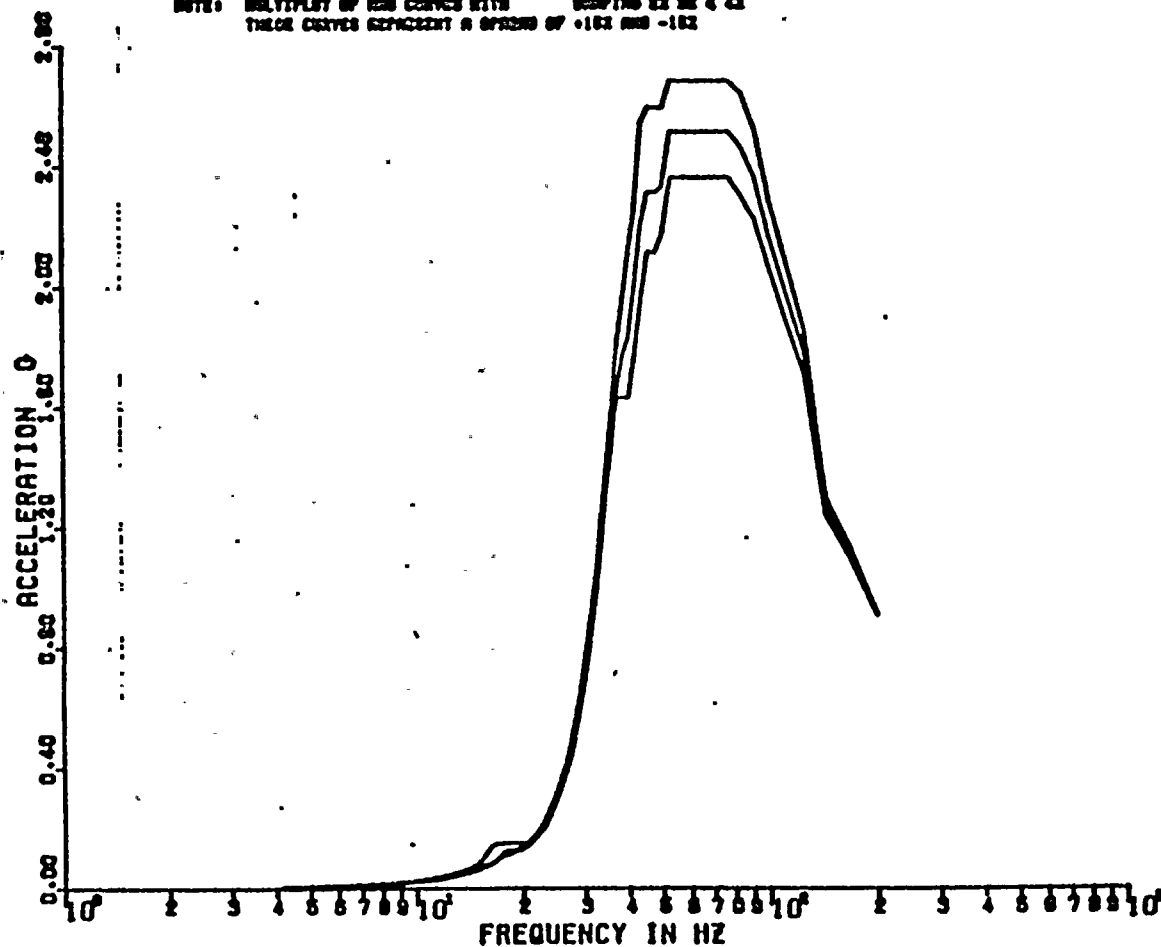
DICK CURVE SET NO.20

NOR DIRECTION

NICHAEZ N 00

DAMPING VALUES = 0.030
0.030
0.040

NOTE: MULTIPLE OF RMS CURVES WITH DAMPING OF 0.030
THREE CURVES REPRESENT A SPACING OF +10% AND -10%



REF 177
MS 1237



POPECTRA VER 01 LEV 00

CHUGGING LOADING CASE

8 DEC 1982

NINONNA MONARK -NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAS OF ACCELERATION PRIMARY CONT. (ELEV. 240.00 FT)

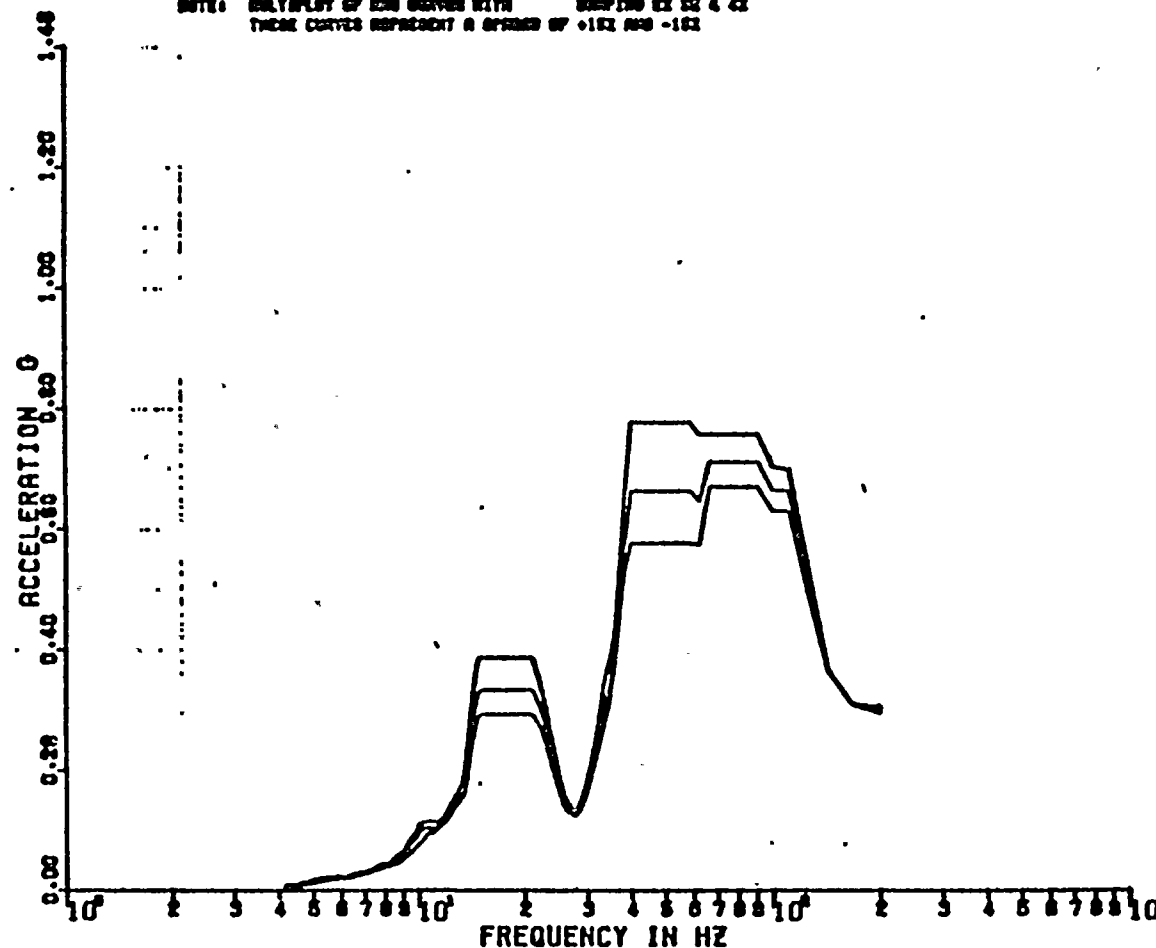
DIGM CURVE SET MS.00

VER DIRECTION

MICHAEL N 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF 230 CURVES WITH DAMPING 0.02 0.03 0.04
THESE CURVES REPRESENT A SPECTRUM OF +10% AND -10%



REF 177
MS 1737



SPECTRA YR 81 LEV 60

CRUISING LOADING CASE

8 DEC 1962

MINORAN KOTAWAN-NINE MILES POINT UNIT -8 J.D.12177 HS-1737-0
 DAS OF ACCELERATION PRIMARY CNT. (ELEV. 254.63 FT)

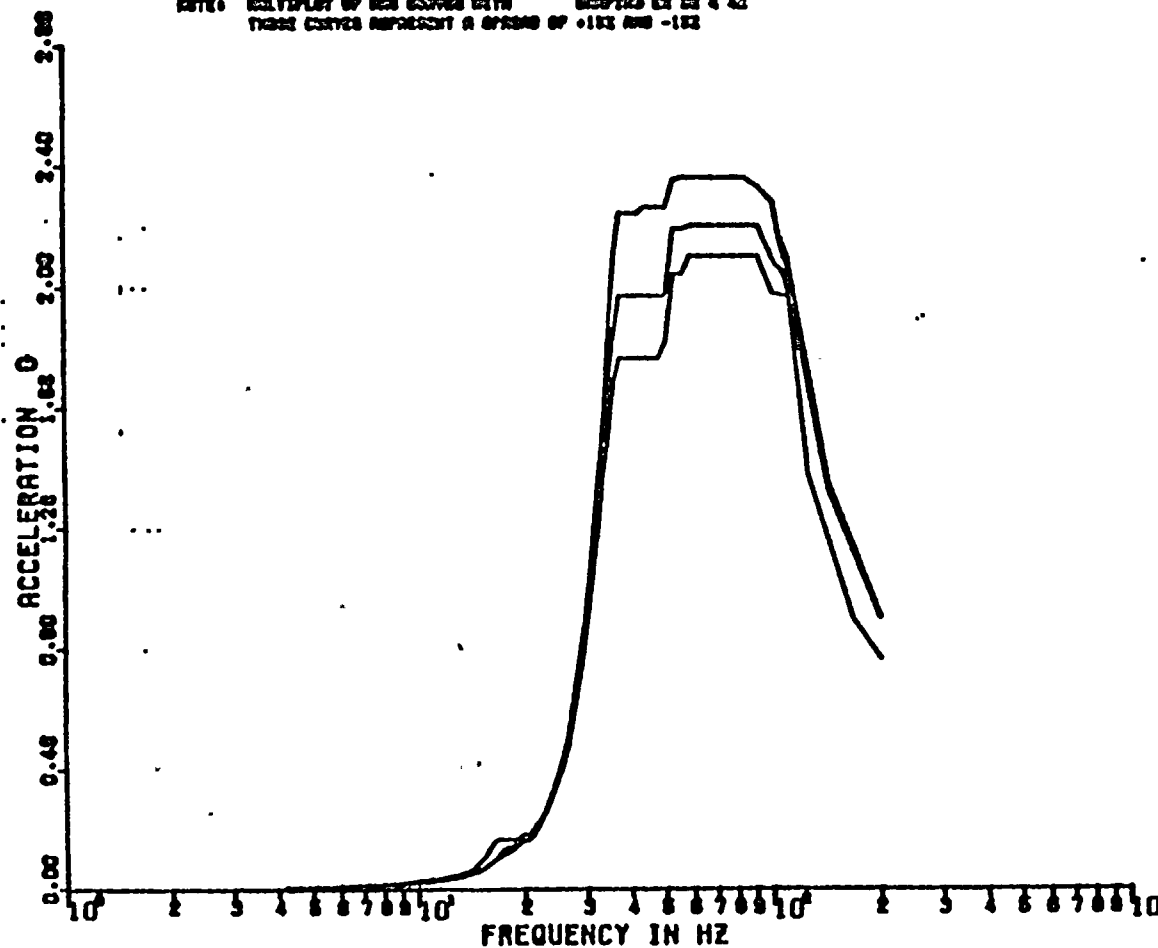
MICHAEL N 60

WIG CURVE SET 19.29

NSR DIRECTION

DAMPING VALUES = 0.033
 0.038
 0.040

NOTE: MULTIPLE OF DAS CURVES WITH SCALING OF 4 42
 THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1737
 REF 178



POPECTRA VER 01 LEV 03 CHUONG LOADING CASE
 NIAGARA POWER-HINE HILES POINT UNIT -2 J.0.12177 MS-1737-0
 R28 OF ACCELERATION PRIMARY CONT. (ELEV. 254.00 FT)

8 DEC 1992

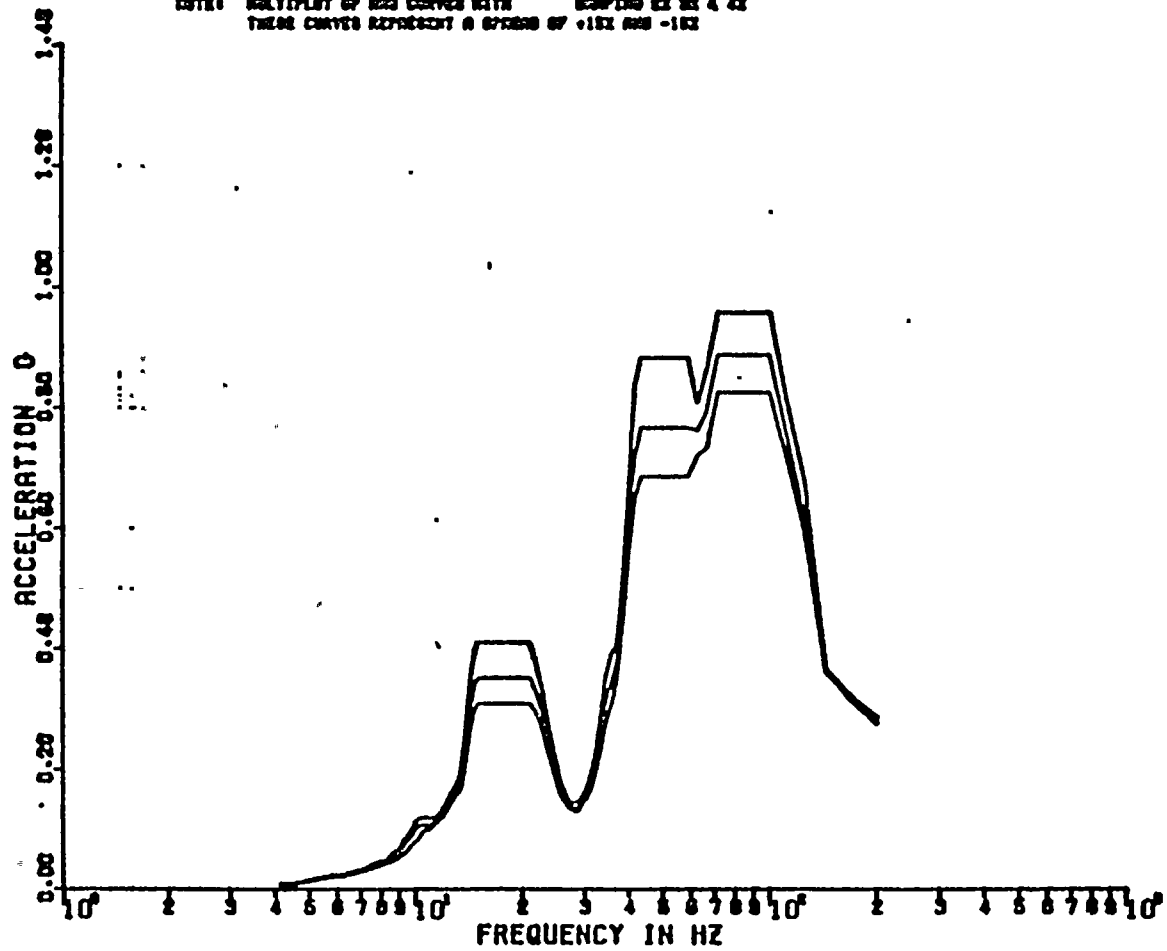
BIGX CURVE GET H9.30

VER DIRECTION

MICHAEL R 63

DAMPING VALUES = 0.028
 0.050
 0.040

NOTE: MULTIPLY OF R28 CURVES WITH DAMPING BY 4.42
 THESE CURVES REPRESENT A SPECTRUM OF +15% AND -15%



REF 178
 MS 1737



POPECTRA VER 01 LEV 00

CHOOSING LOADING CASE

9 DEC 1962

NICARUA MICHAM-MINE MILES POINT UNIT-2 J.O.12177 MS-1737-0

RMS OF ACCELERATION PEDestal (ELEV. 284.0 FT)

SIGMA CURVE SET 19.31

MSR DIRECTION

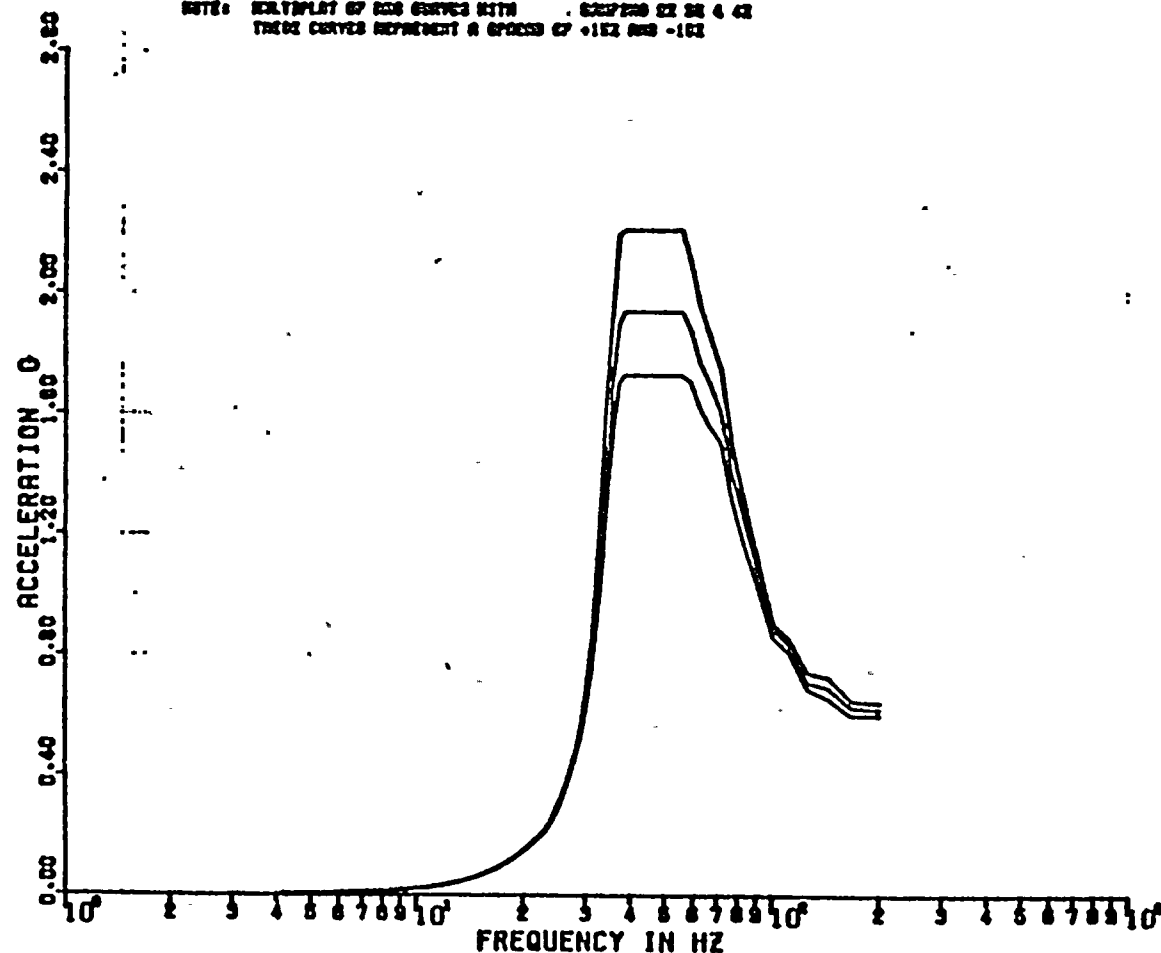
NICHAEI R 23

DAMPING VALUES = 0.020

0.030

0.040

NOTE: MULTIPLOT OF RMS CURVES WITH SCALING BY 20 & 40
THREE CURVES REPRESENT A SPEED OF +102 AND -102



MS 1737

REF 179



SPECTRA VER 01 LEV 00

CHUBBING LOADING CASE

8 DEC 1992

MINORNA HIGHWAY-NINE MILES POINT UNIT-2 J.O.12177 NS-1737-0
RMS OF ACCELERATION PEDESTAL (ELEV. 284.0 FT)

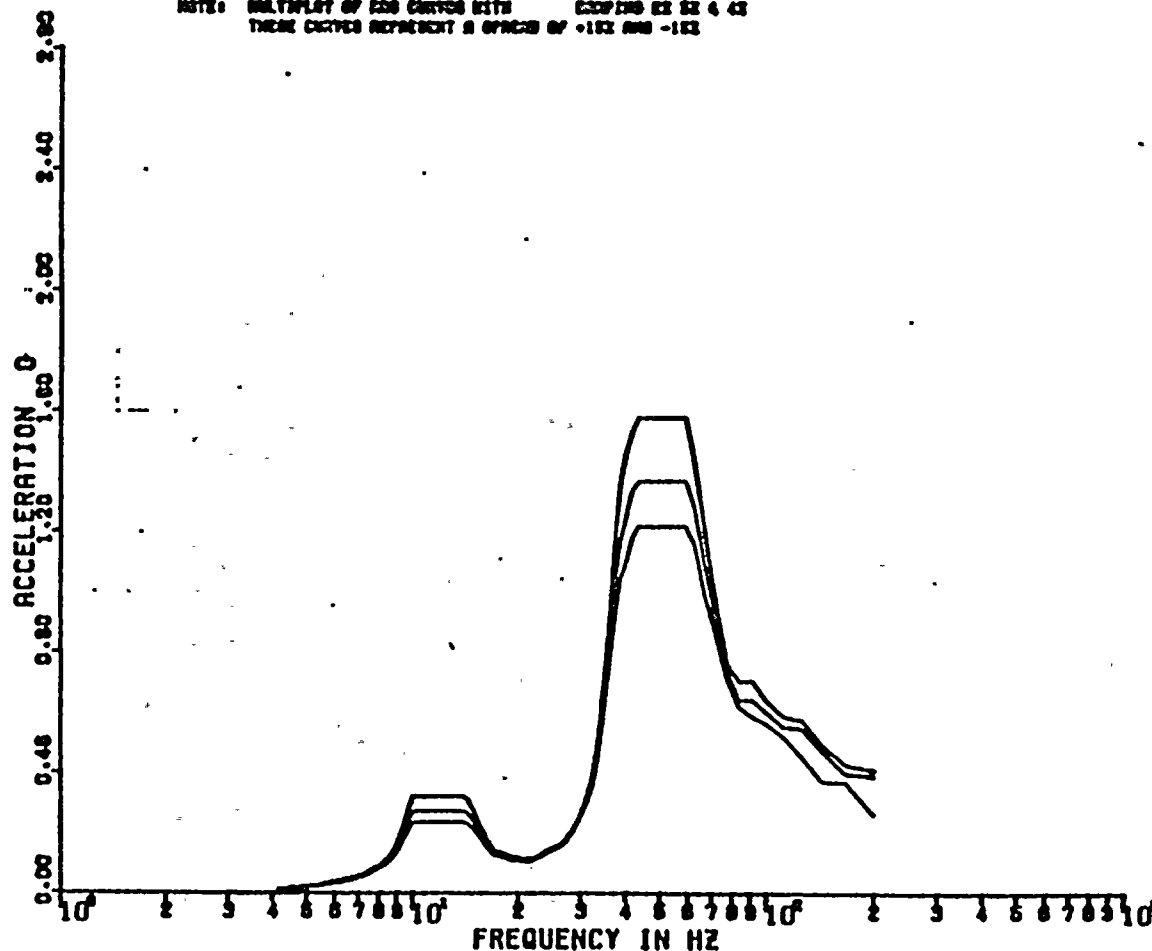
BIGX CURVE GET NS.91

VER DIRECTION

NICHOL N 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF TWO CURVES WITH COUPLING BY 4.43
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 179
MS 1737



POPECTRA YER 01 LEV 08

CHUOSING LOADING CASE

8 DEC 1962

NIAOWA NIAOWA-NINE MILES POINT UNIT-2 J.S.12177 MS-1737-0
RBS OF ACCELERATION PRIMARY CONT. (ELEV.259.33 FT)

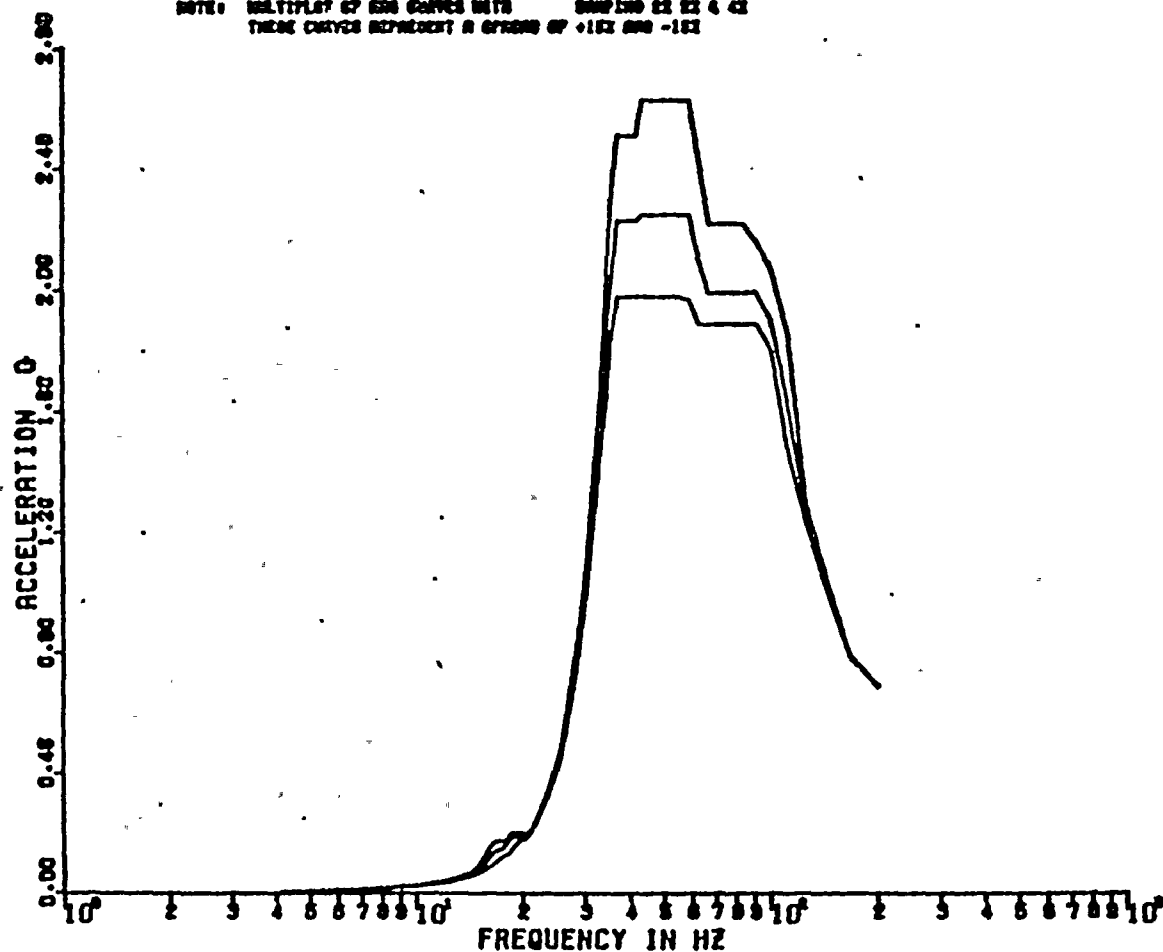
SIGN CURVE SET NO.32

NOR DIRECTION

MICHAEL H 00

DRAWING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLE OF 1000 CURVES WITH SAMPLING 22 22 & 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 180
MS 1737



SPECTRA VER 01 LEV 00 CRUISING LOADING CASE
 NIAGARA MONITOR-NINE MILES POINT UNIT-2 J.0.12177 HQ-1737-0
 RMS OF ACCELERATION PRIMARY CONT. (ELEV.250.33 FT)

8 DEC 1982

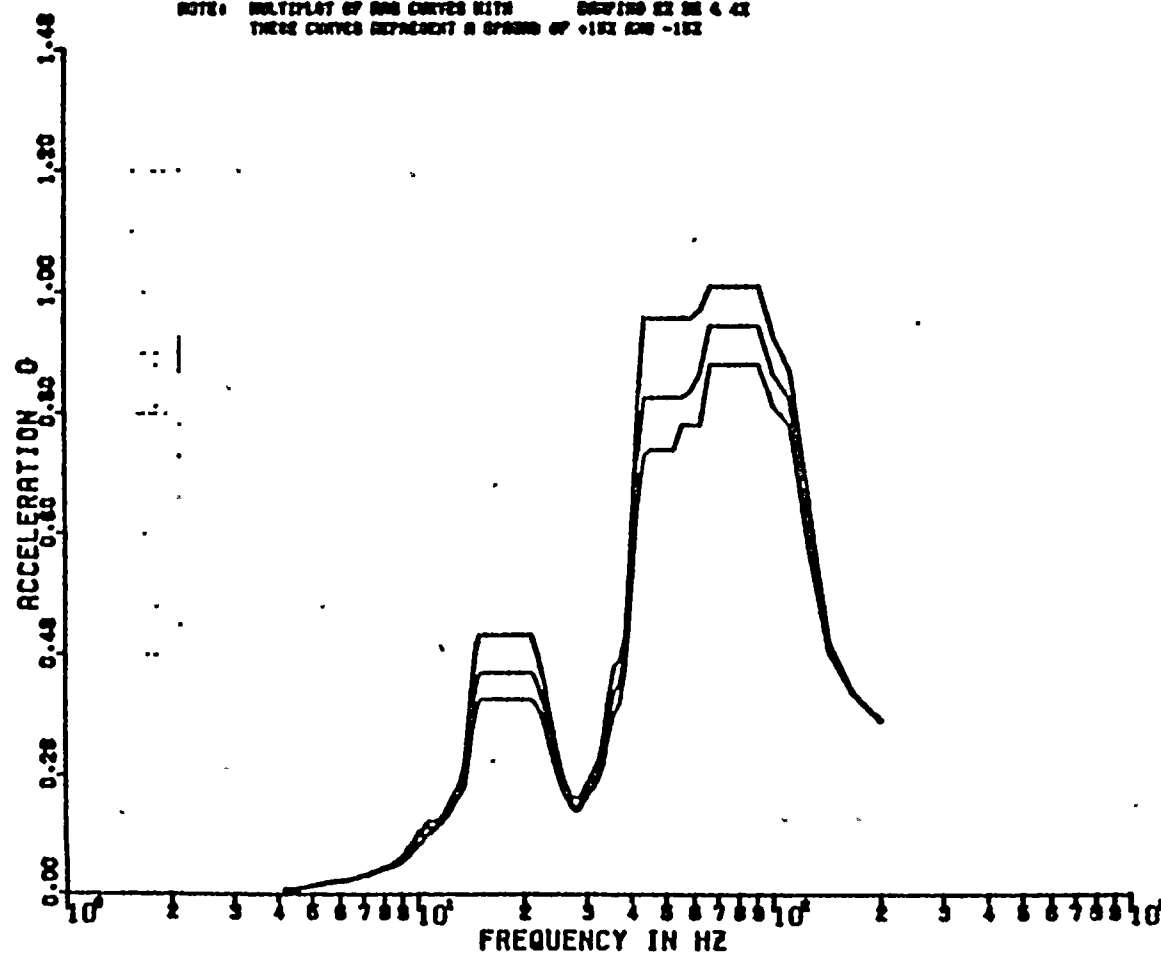
SIGM CURVE SET HQ.32

VER DIRECTION

NICHOL N 69

DAMPING VALUES = 0.023
 0.030
 0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 22 BY 4.42
 THESE CURVES REPRESENT A SPACING OF +152 AND -152



REF 180
 MS 1737



SPECTRA VER 01 LEV 00

CRUISING LOADING CASE

9 DEC 1982

NIRONIA MOWAK-HIKE MILES POINT UNIT-2 J.B.12177 MS-1737-0

RMS OF ACCELERATION PRIMARY CONT. (ELEV.270.00 FT)

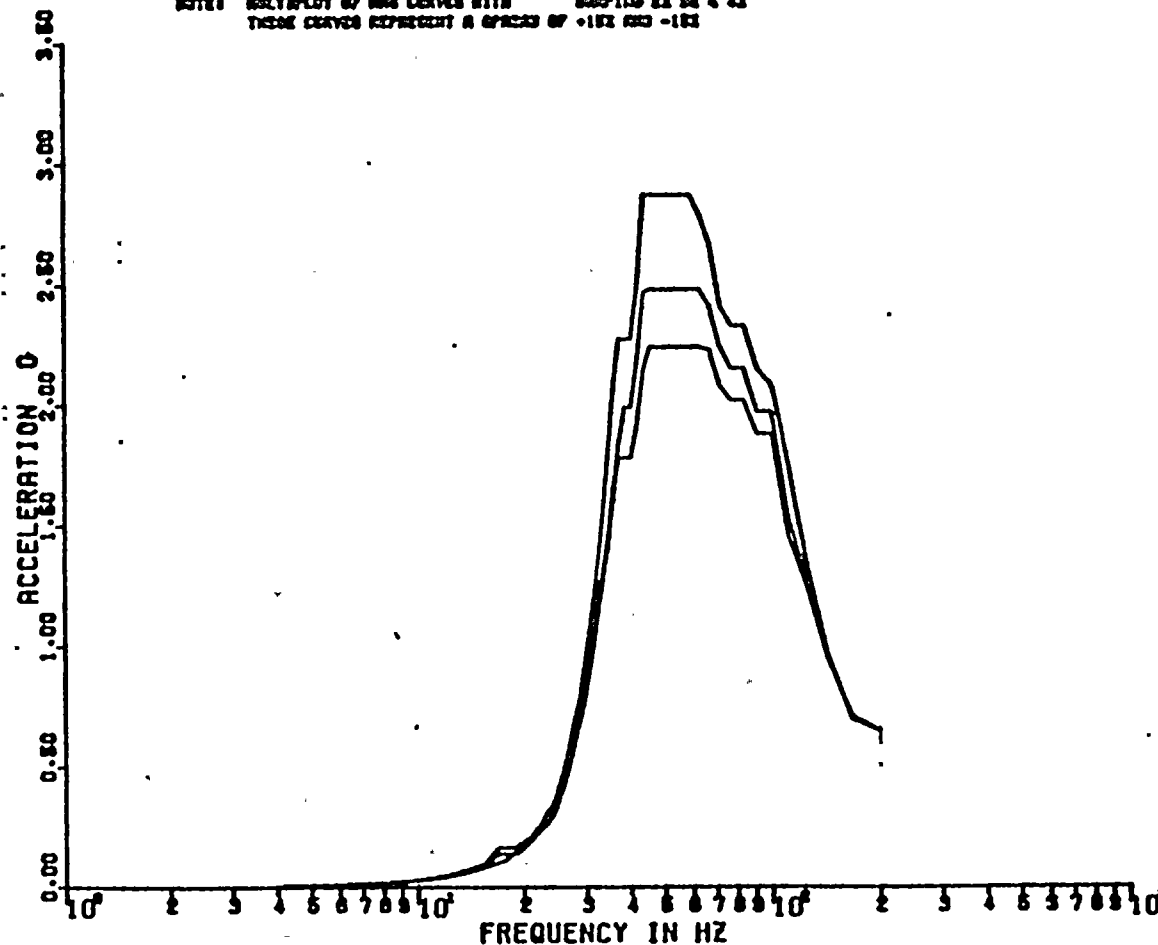
SIGN CURVE SET NO.33

NOR DIRECTION

NICHOL N 00

DRAWING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH SHAPING BY SE 4 43
THESE CURVES REPRESENT A SPACING OF +10% AND -10%



MS 1737
REF 181



SPECTRA VER 01 LEV 00

CRUISING LOADING CASE

9 DEC 1992

NIAGARA MONARK-WICE MILES POINT UNIT-E J.O.12177 HS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.270.00 FT)

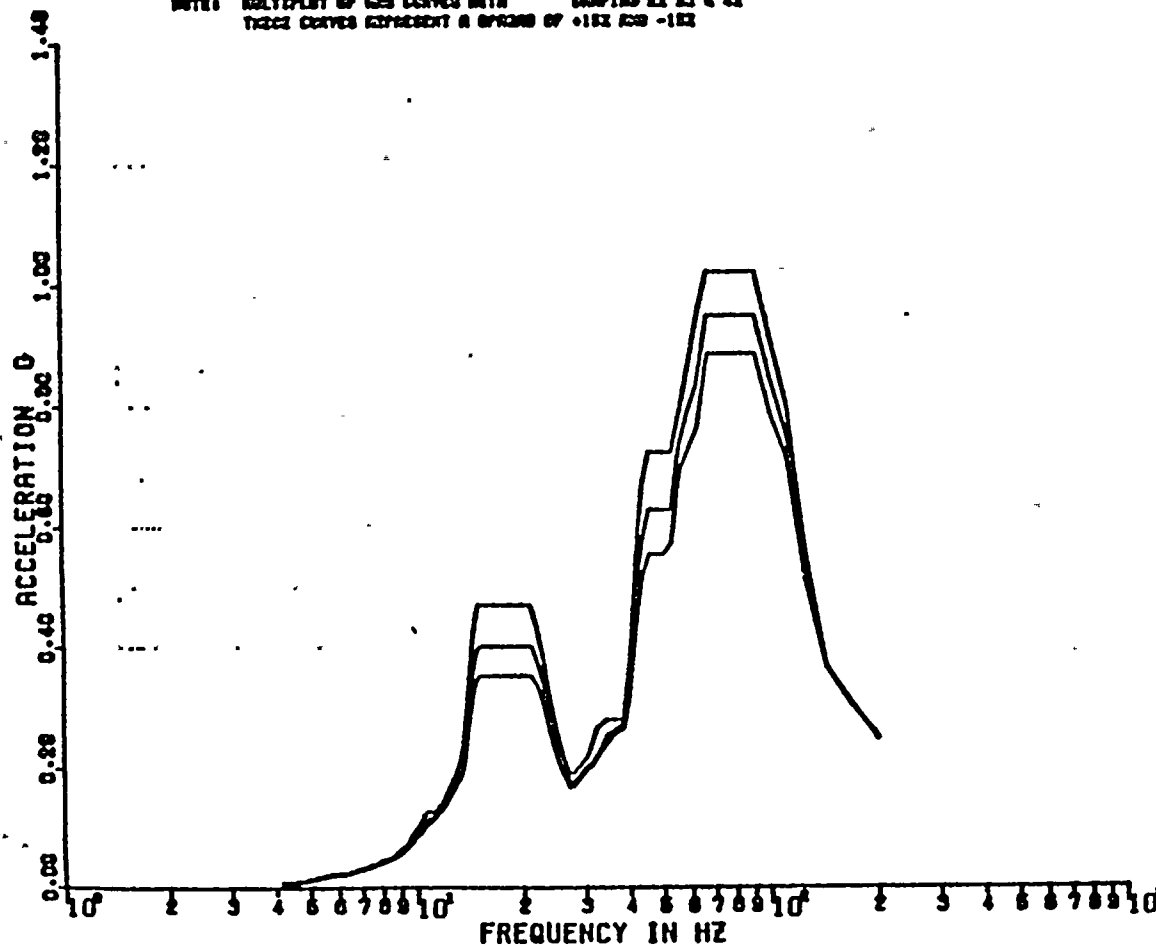
SIGX CURVE GET #3.33

VER DIRECTION

NICHOL N 60

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF 128 CURVES WITH DAMPING 0.02 & 0.04
THREE CURVES REPRESENT A SPACING OF +10% 0.03 -10%



REF 181
MS 1737



POPECTRA VER 01 LEV 00

CHUOJING LANDING CAGE

9 DEC 1932

NIAGARA MONK-MINE MILES POINT UNIT-2 J.9.12177 MS-1737-0

RAS OF ACCELERATION PRIMARY.COMT. (ELEV.275.33 FT)

NICKAZL R 63

DICK CURVE SET NO.34

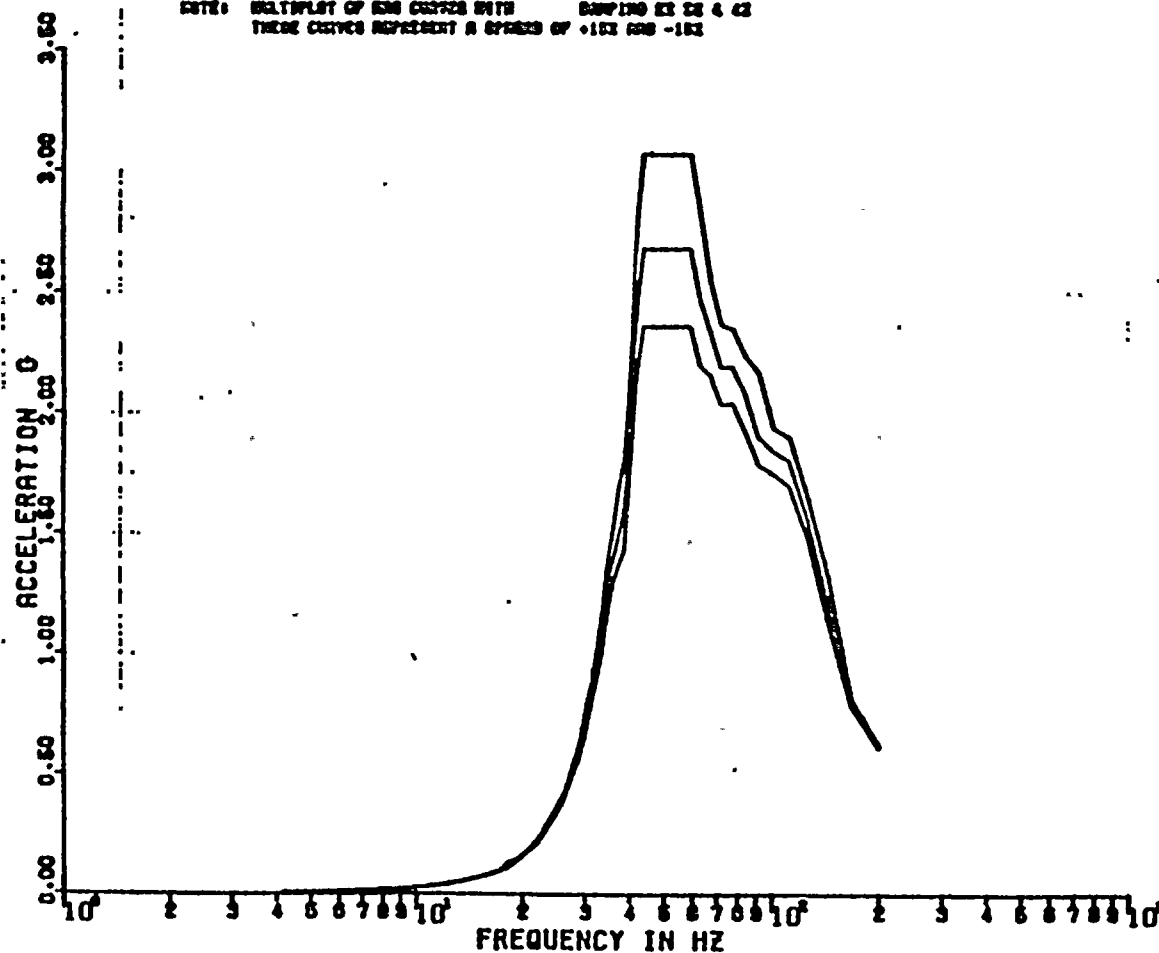
NER DIRECTION

DAMPING VALUES = 0.020

0.030

0.040

NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 0.02 & 0.04
THESE CURVES REPRESENT A SPEEDS OF +100 AND -100



MS 1737

REF 182



POPECTRA VER 01 LEV 00

CHUDDING LOADING CASE

9 DEC 1982

NIAWKA NORMAN-NINE MILES POINT UNIT-2 J.B.12177 MS-1737-0
BAS OF ACCELERATION PRIMARY CONT. (ELEV.278.33 FT)

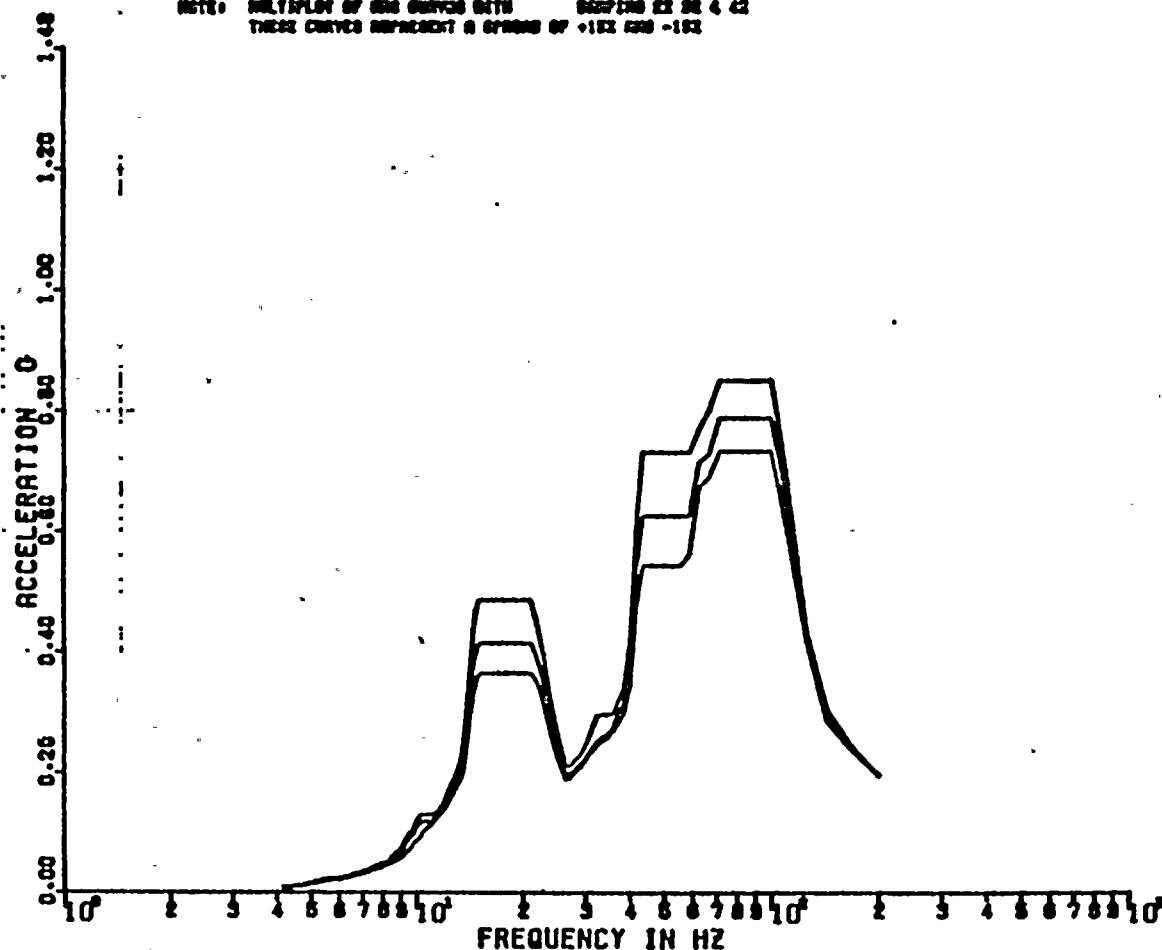
SIGN CURVE SET NO.34

VER DIRECTION

NICHOL N 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF SIG CURVES WITH DAMPING RZ 2E 4 42
THESE CURVES REPRESENT A SPECTRUM OF +10X 200 -102



REF 182
MS 1737



PERFECTA VER 01 LEV 00

CHOOSING LOADING CASE

9 DEC 1982

NIAGARA NIAGARA-NINE MILES POINT UNIT-2 J.0.12177 MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.206.00 FT)

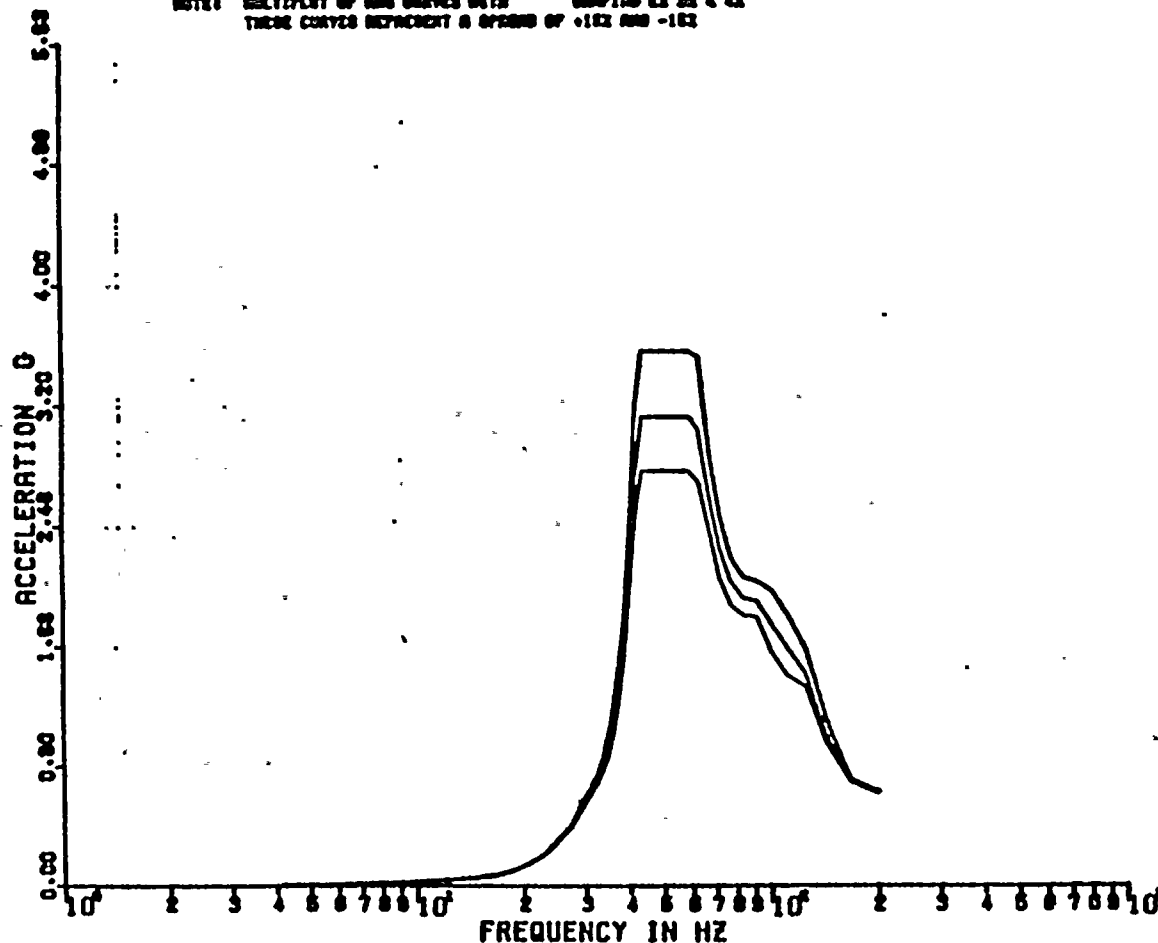
SIGN CURVE SET NO.36

MSR DIRECTION

MICHAEL R 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 02 22 & 42
THESE CURVES REPRESENT A SPACING OF +102 AND -102



MS 1737

REF 183



SPECTRA VER 01 LEV 00

CHUDDING LORING CAGE

9 DEC 1982

NIRANNA NEWARK-NINE MILES POINT UNIT-2 J.B.12177 HG-1757-0
ERS OF ACCELERATION PRIMARY CONT. (ELEV.223.03 FT)

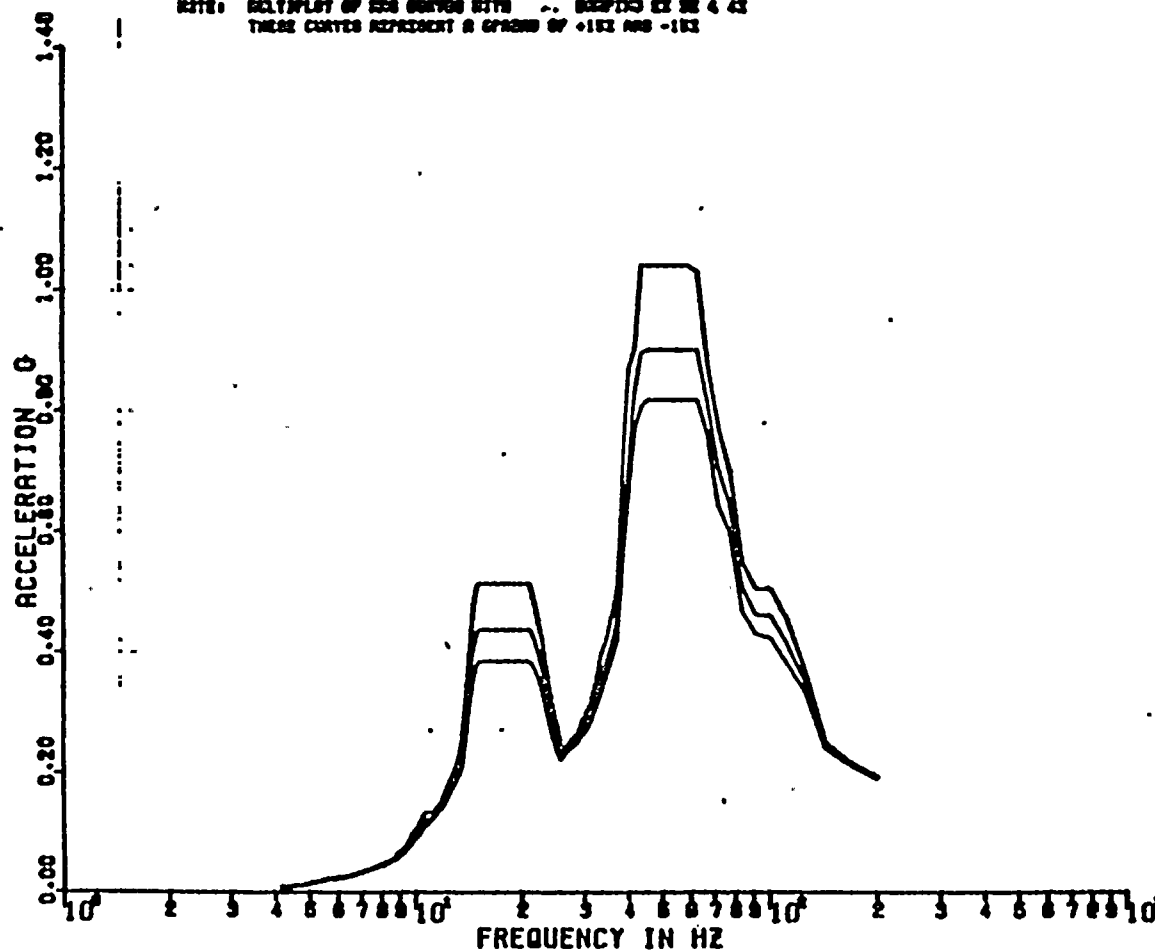
BIGK CURVE SET NO.38

VER DIRECTION

NICHKEL K 63

DAMPING VALUES = 0.020
0.030
0.040

NOTE: DELTAPLOT OF ERS CURVES WITH -- DAMPING IS 0.4 43
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



MS 1737
REF 183



SPECTRA VER 01 LEV 00

CHUOJING LOADING CASE

9 DEC 1982

NIGARA MONK-NINE MILES POINT UNIT-2 J.O.12177 HS-1757-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 291.33 FT)

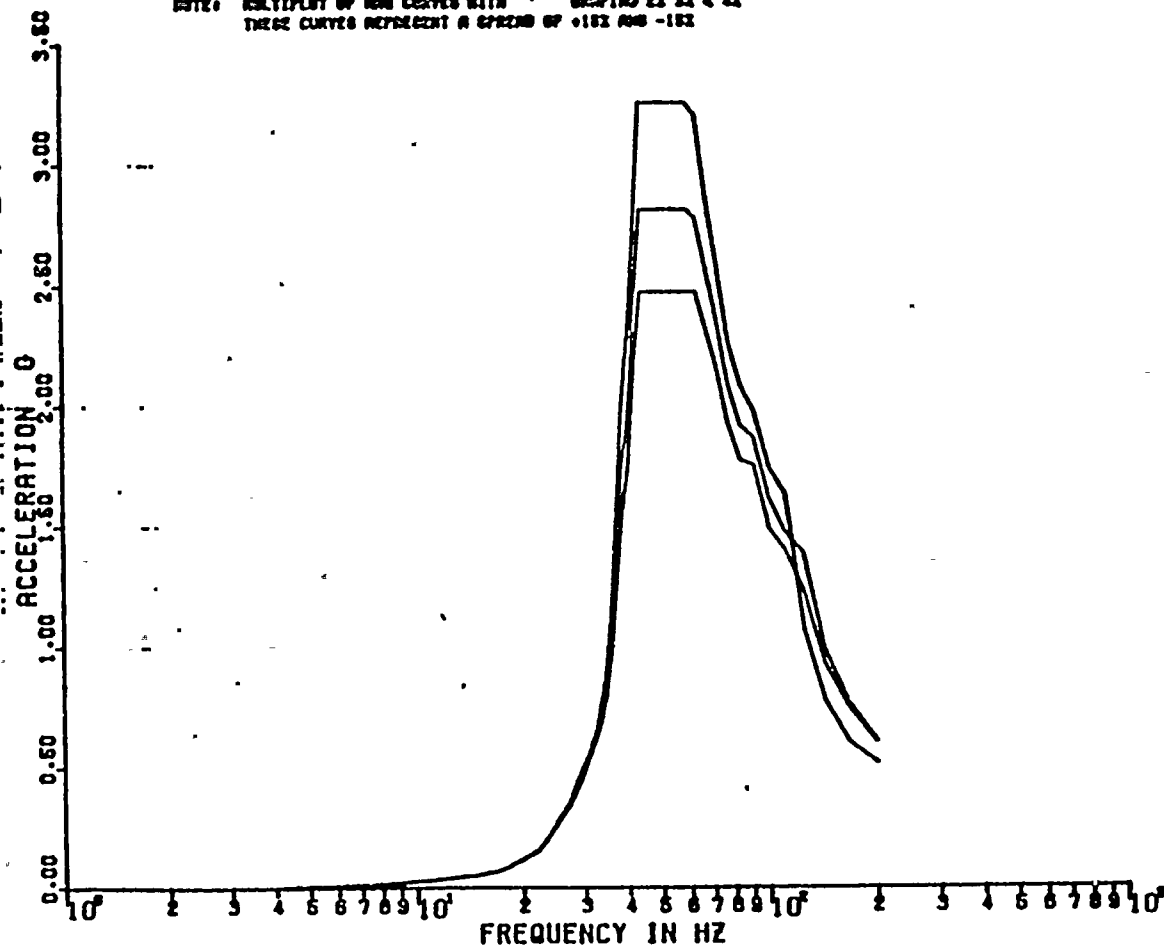
DIER CURVE SET NO.36

HOR DIRECTION

MICHAEL R 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 22 32 & 42
THESE CURVES REPRESENT A SPECTRUM OF +182 AND -182



REF 184
MS 1737



PERECTRA VER 01 LEV 00

CHUDDING LOADING CASE

8 DEC 1992

NIPORAN NIPORAN-NINE MILES POINT UNIT-2 J.O.12177. MS-1737-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 291.33 FT)

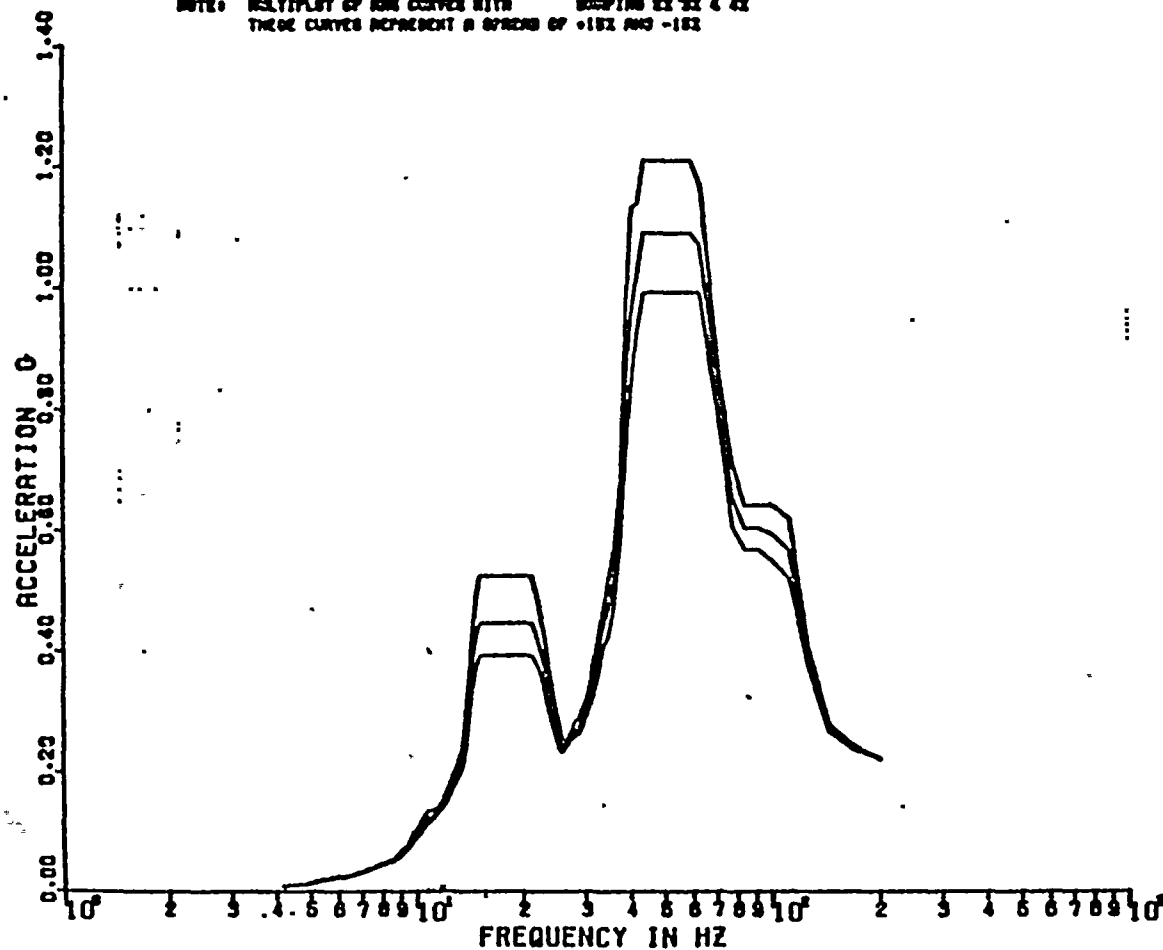
DISK CURVE SET NO.33

VER DIRECTION

MICHAEL H DO

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPREAD OF +1% AND -1%



REF 184
MS 1737



PEPECTRA VER 01 LEV 08

CHUOING LOADING CASE

8 DEC 1982

NIAGARA MONMAY-NINE MILES POINT UNIT2 J.D.12177 RS-1737-0
RHS OF ACCELERATION PRIMARY CONT. (ELEV 302.0 FT)

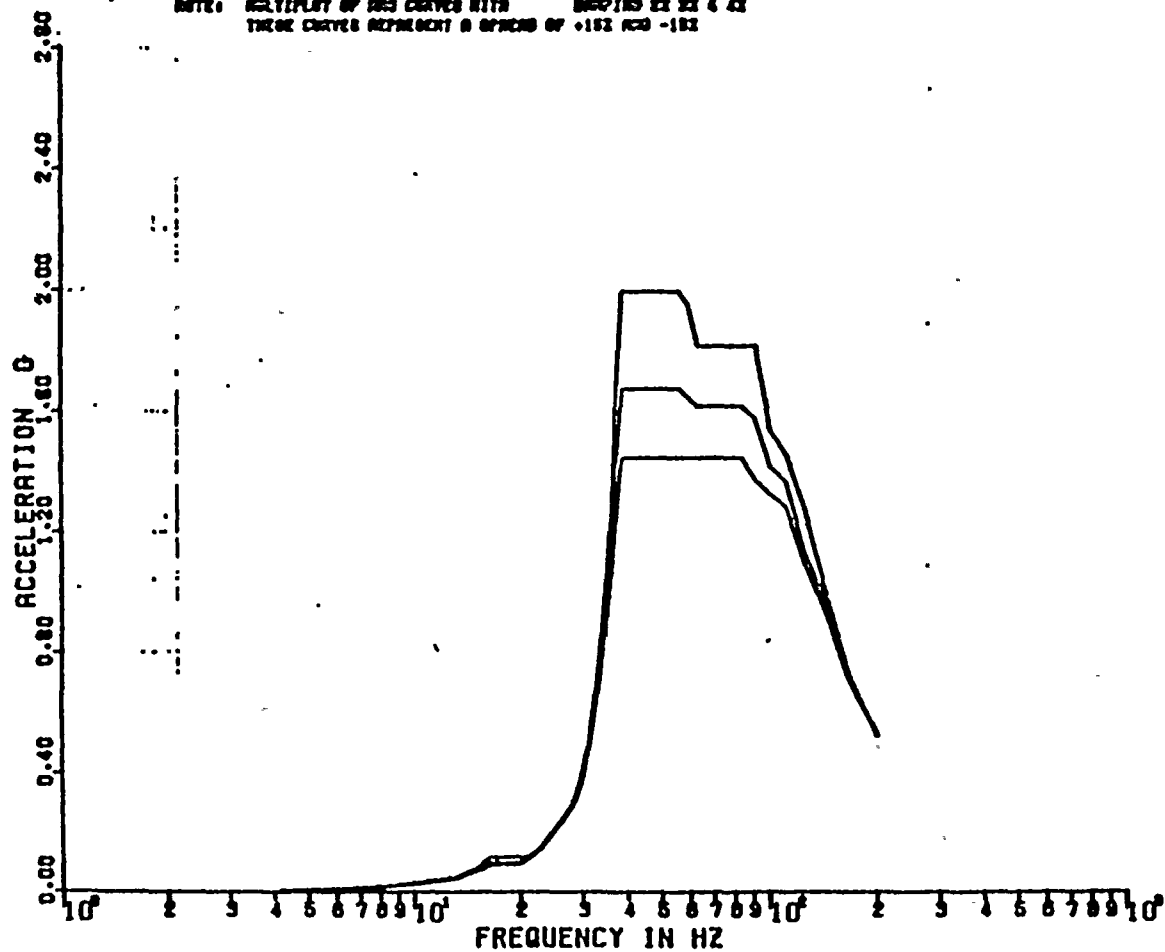
DICK CURVE SET NO.37

HOR DIRECTION

NICHAEK K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 185
MS 1737



PSPECTRA VER 01 LEV 00

CHUOJING LANDING CASE

8 DEC 1982

NIRBARA NONHAK-NINE HILES POINT UNITS J.0-12177 NS-1737-0
RAB OF ACCELERATION PRIMARY CONT. (ELEV 302.0 FT)

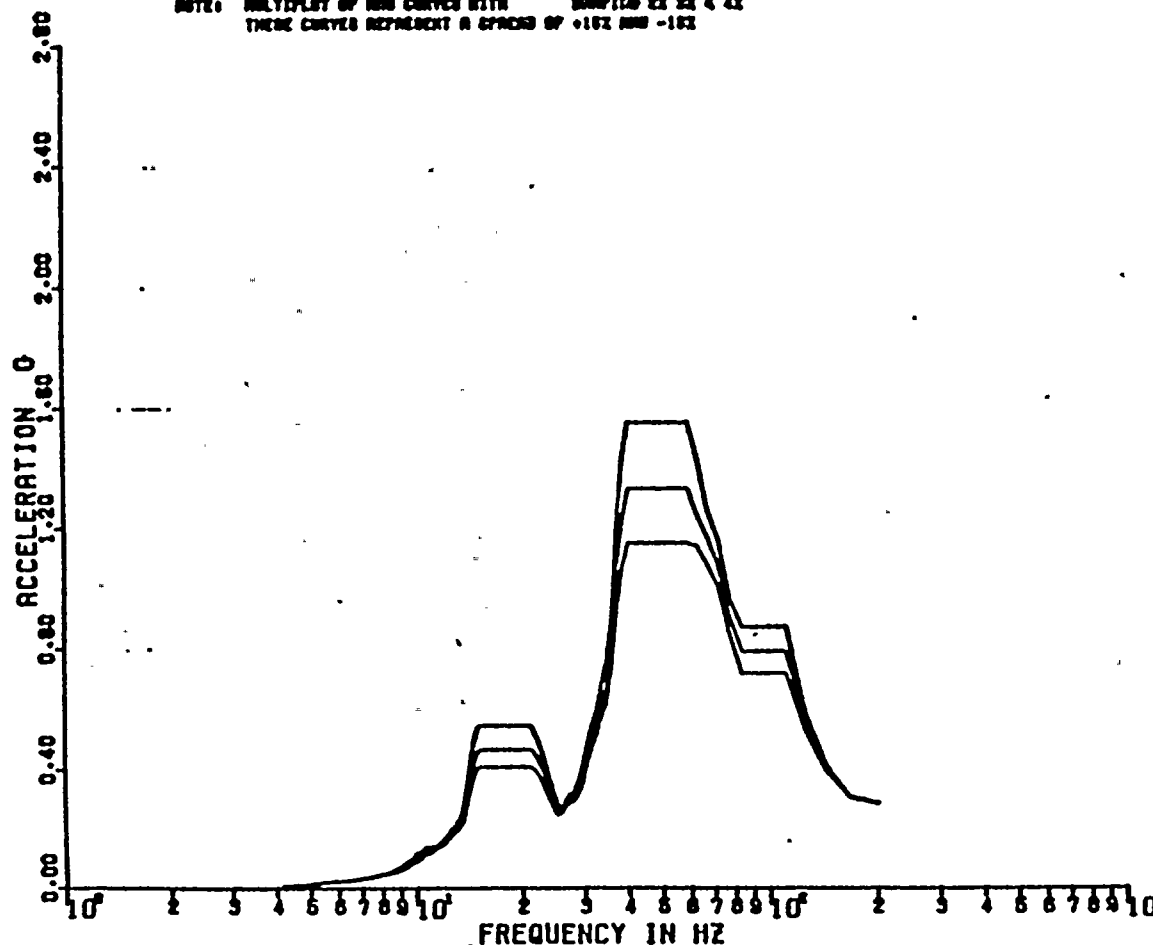
MICHAEL K DO

BIMK CURVE SET NO.37

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING BY 22.4 X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 185
MS 1737



PSPECTRA VER 01 LEV 00

CHOOSING LOADING CASE

9 DEC 1962

NIAGARA MONK-MIKE MILES POINT UNIT-2 J.B.12177 MS-1737-0
RAS OF ACCELERATION PRIMARY CONT. (ELEV. 300.50 FT)

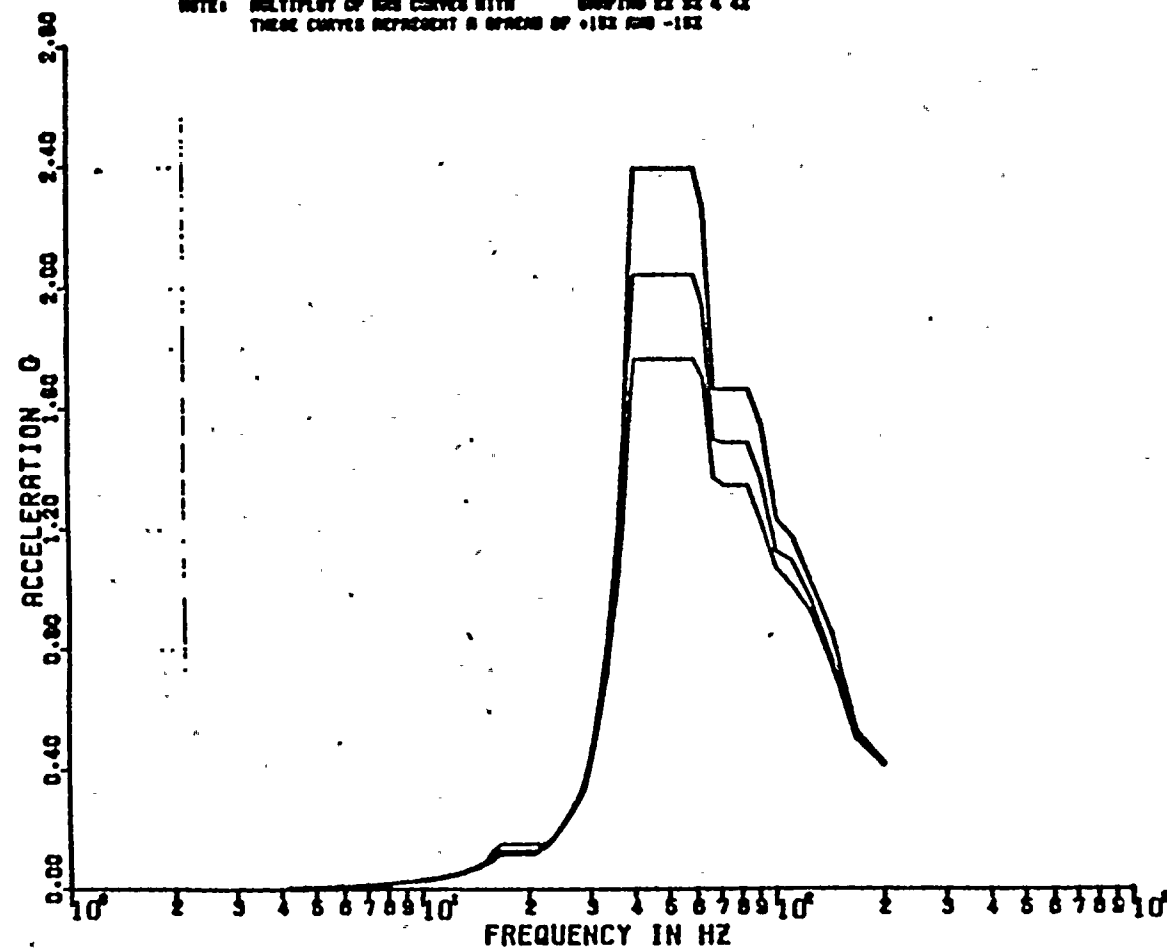
DIGI CURVE SET NO.50

HCR DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 22 32 4 42
THESE CURVES REPRESENT A SPACING OF +10% AND -10%



REF 186
MS 1737



PSPECTRA VER 01 LEV 08

CHUDDING LOADING CASE

9 DEC 1982

NIAOARA NONWAK-NINE MILES POINT UNIT-2 J.O.12177 MS-1757-0
RBS OF ACCELERATION PRIMARY CONT. (ELEV. 308.38 FT)

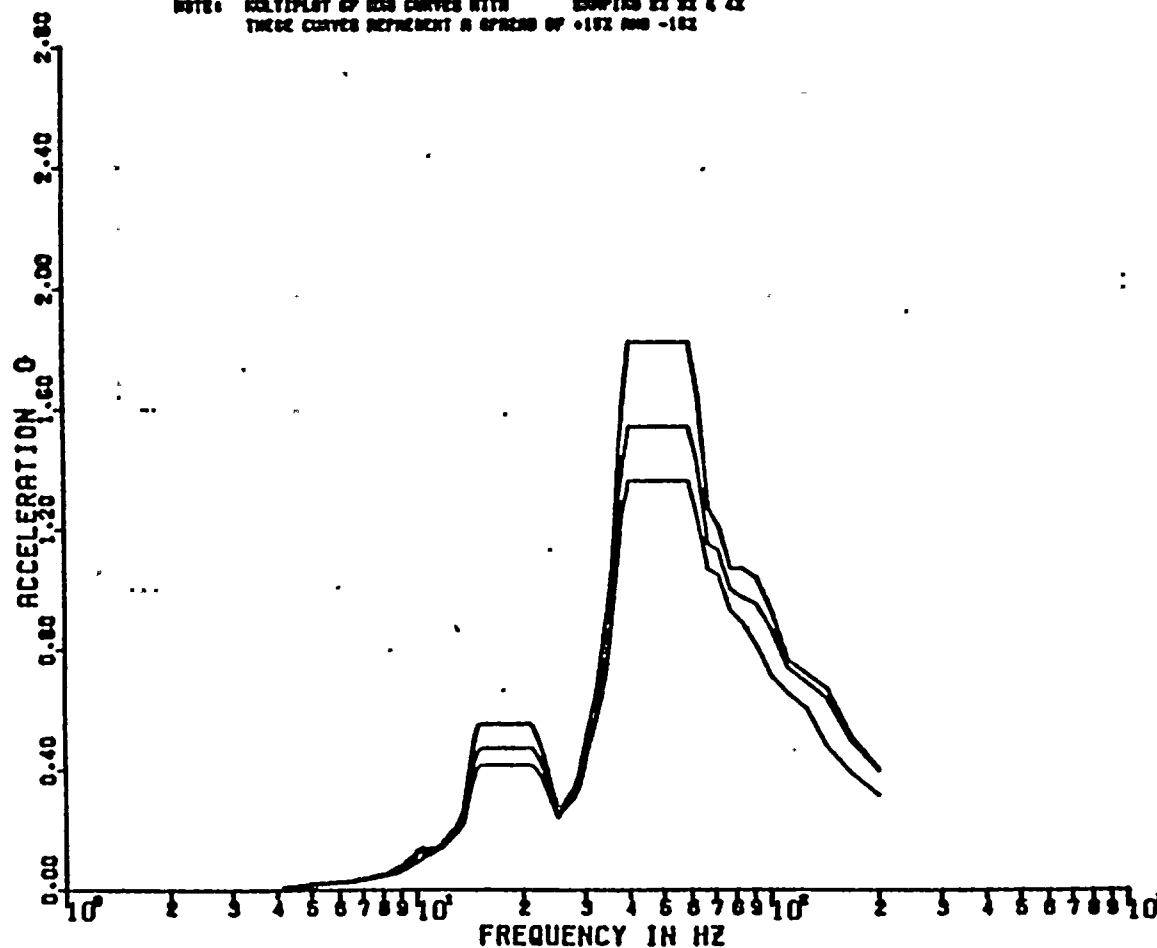
DIGM CURVE GET NO.33

VER DIRECTION

MICHAEL N 88

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RBS CURVES WITH DAMPING 21 21 & 42
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



MS 1737

1248 186



SPECTRA VER 01 LEV 00 CHUOING LOADING CASE
 NIAGARA MONK-MINE MILES POINT UNIT-2 J.0.12177 NS-1737-0
 RAS OF ACCELERATION PRIMARY CONT. (ELEV. 916.25 FT)

9 DEC 1982

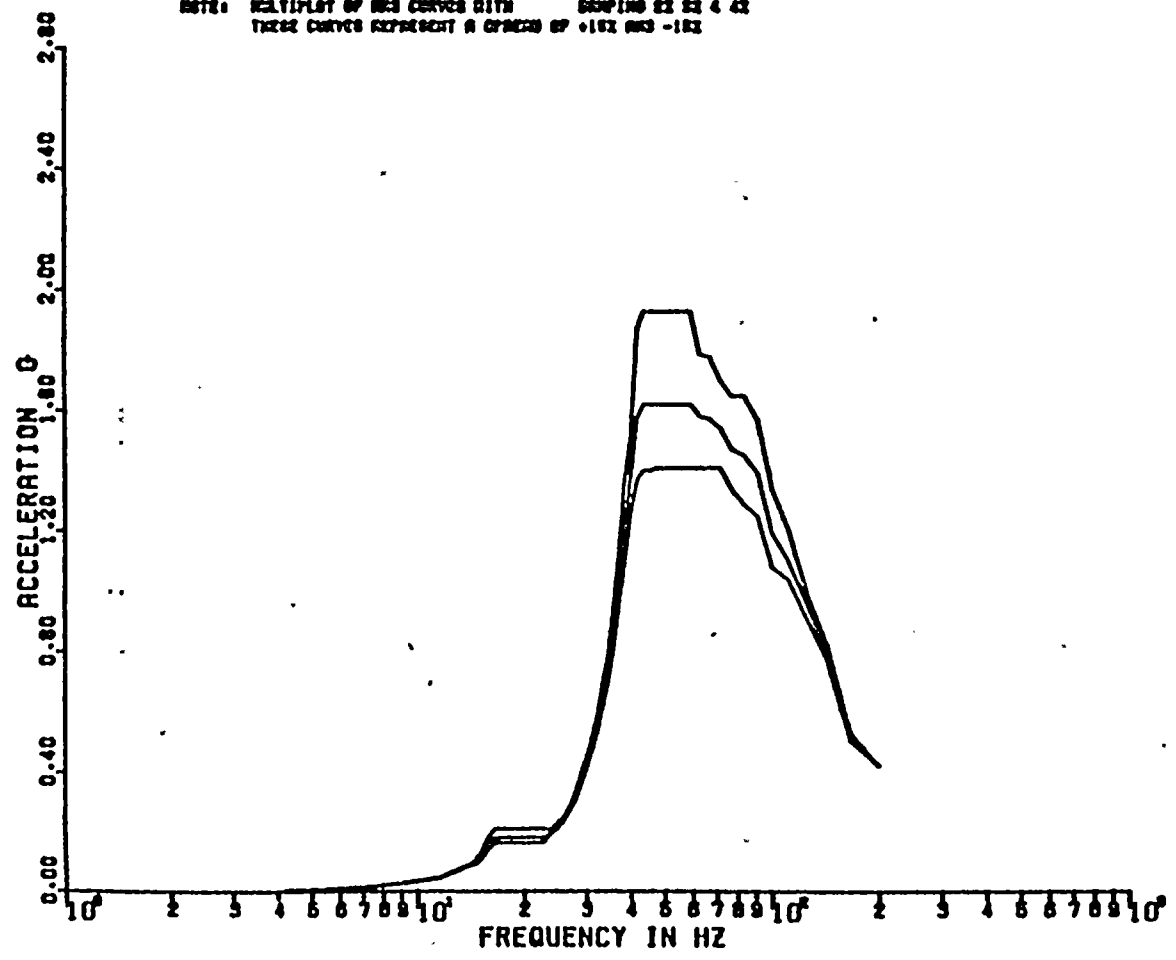
SIG CURVE SET NO.59

HCR DIRECTION

NICKEL K 00

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLY BY HCR CURVES WITH DAMPING 02 03 & 04
 THESE CURVES REPRESENT A COMBINATION OF +10% AND -10%



REF 187
 MS 1737



PSPECTRA VER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1962

MINORAK MOKRAK-NIFE MILES POINT UNIT-2 J.8.12177 MS-1737-0

RAS OF ACCELERATION PRIMARY CONT. (ELEV. 316.25 FT)

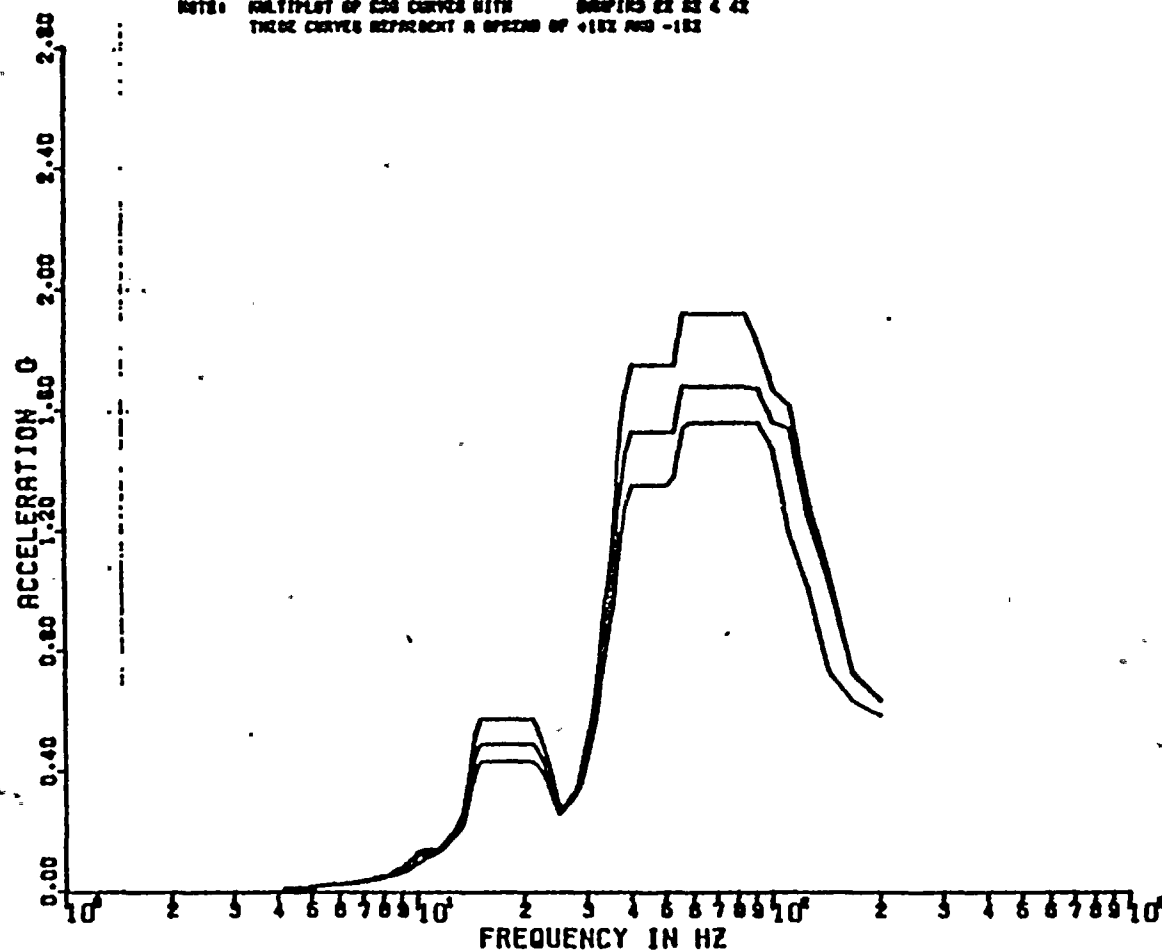
BIGH CURVE SET NO.38

VER DIRECTION

RICHARD N 80

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF 1000 CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPEED OF +10% AND -10%



REF 187
MS 1737



SPECTRA YER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1982

NIAONIA NIAONIA-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAS OF ACCELERATION PRIM. CONT. TOP (ELEV.328.03 FT)

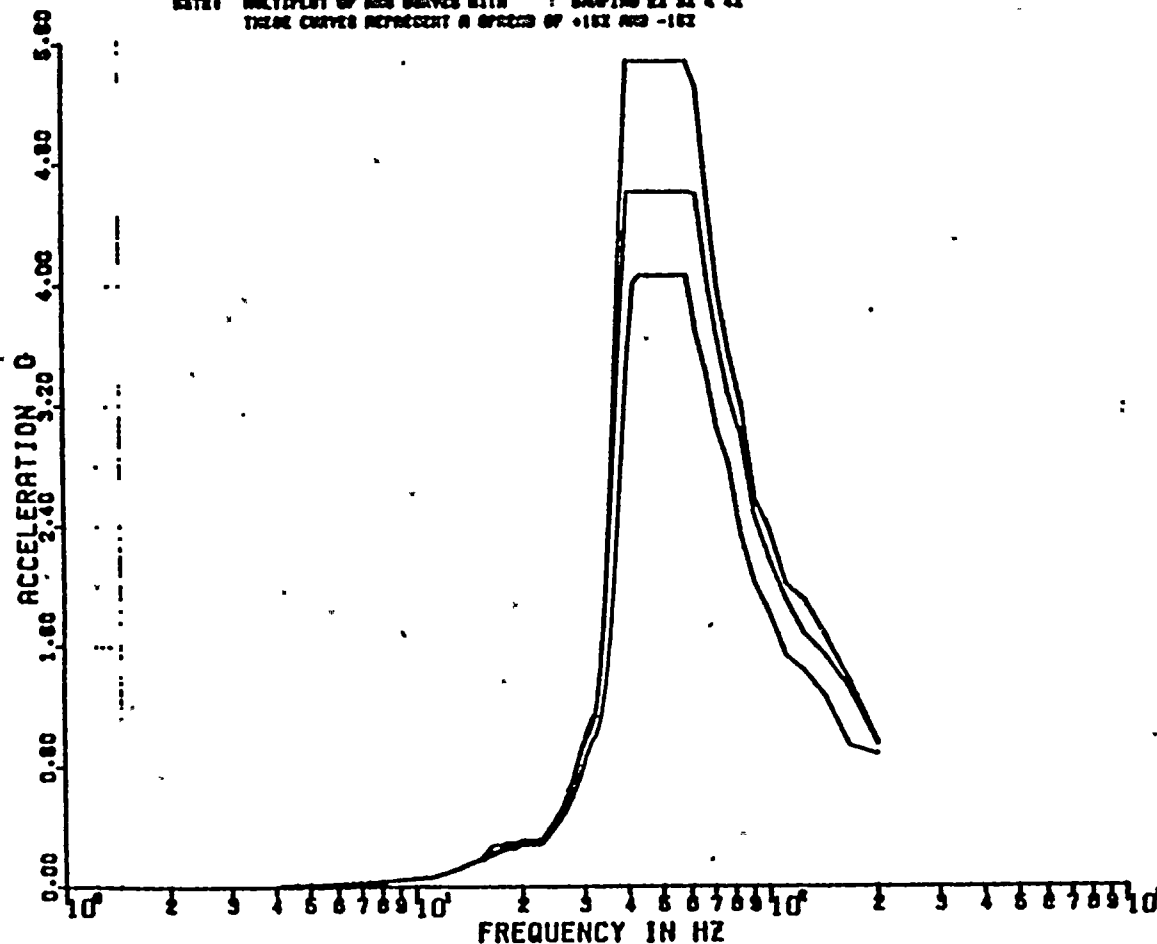
MICHAEL K 09

DISK CURVE 827 NO.40

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF 800 CURVES WITH : DAMPING 22 22 4 42
THESE CURVES REPRESENT A SPECTRUM OF +152 AND -152



REF 188
MS 1737



POPECTRA VER 01 LEV 00

CHUOING LANDING CASE

9 DEC 1962

NIAOARA NIAOARA-NINE MILES POINT UNIT-2 J.8-12177 N8-1737-0
RIS OF ACCELERATION PRIN. CONT. TOP (ELEV.328.83 FT)

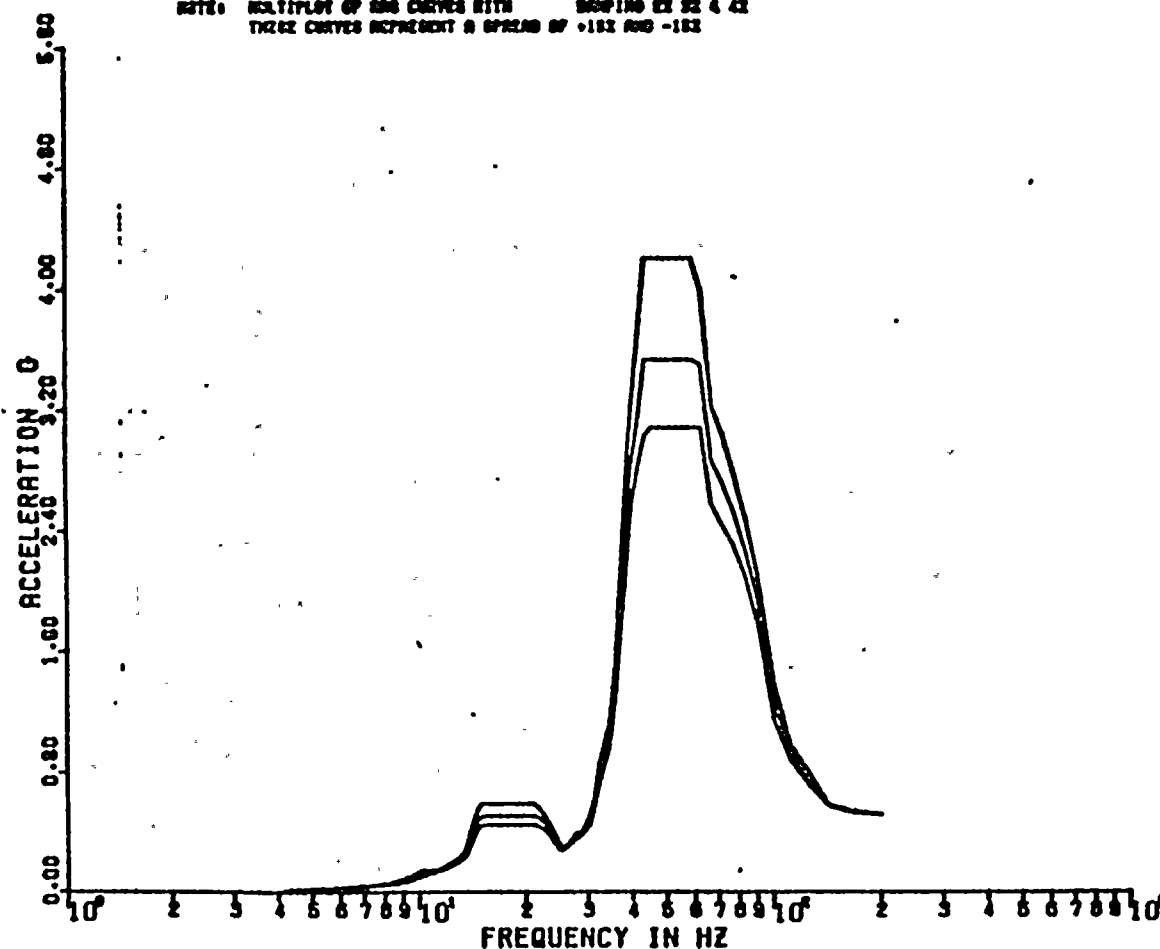
DIGI CURVE SET N8.48

VER DIRECTION

NICHREL K 60

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 0.02 & 0.04
THREE CURVES REPRESENT A SPREAD OF +15% AND -15%



MS 1737

REF 188



SPECTRA VER 01 LEV 00

CHUOJING LOADING CASE

9 DEC 1992

NIRAWA NAWAK-NINE MILES POINT UNIT-2 J.D.12177 MS-1737-0
RMS OF ACCELERATION SHIELD WALL OUT (ELEV.515.23 FT)

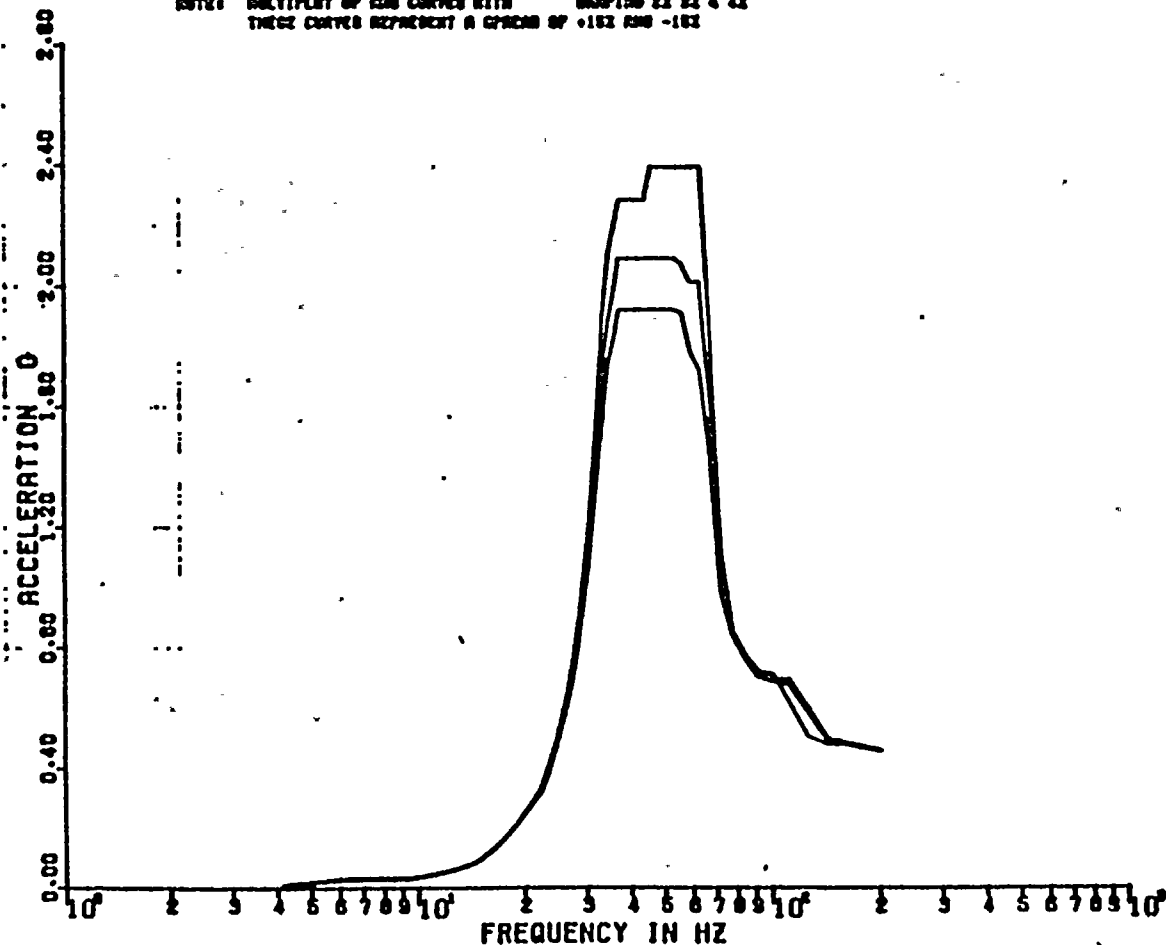
DISK CURVE SET NO.41

MCZ DIRECTION

MICHAEL H CO

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 22 22 4 42
THESE CURVES REPRESENT A SPECTRA OF +102 RMS -102



REF 189
MS 1737



POPECTRA VER 01 LEV 08

CHUOJING LANDING CRGE

9 DEC 1982

NIRORRA NONHAK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAS OF ACCELERATION SHIELD WALL OUT (ELEV.318.23 FT)

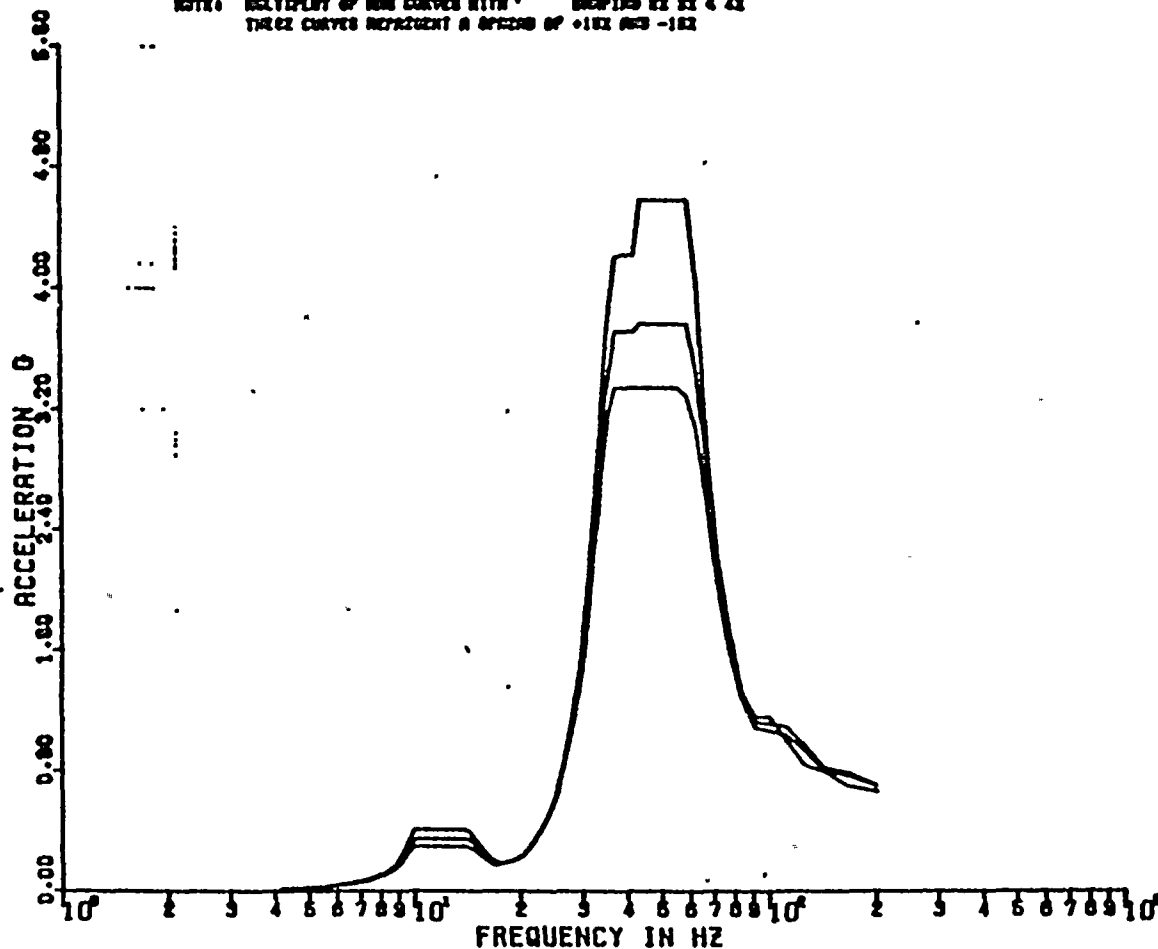
MICHAEL K 08

DICK CURVE SET NO.41

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 02 03 & 04
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1737

REF 189



PSPECTRA VER 01 LEV 08

CHUDDING LOADING CASE

8 DEC 1982

NINOWA MONARK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0

RAS OF ACCELERATION PEDESTAL TOP (ELEV.268.54 FT)

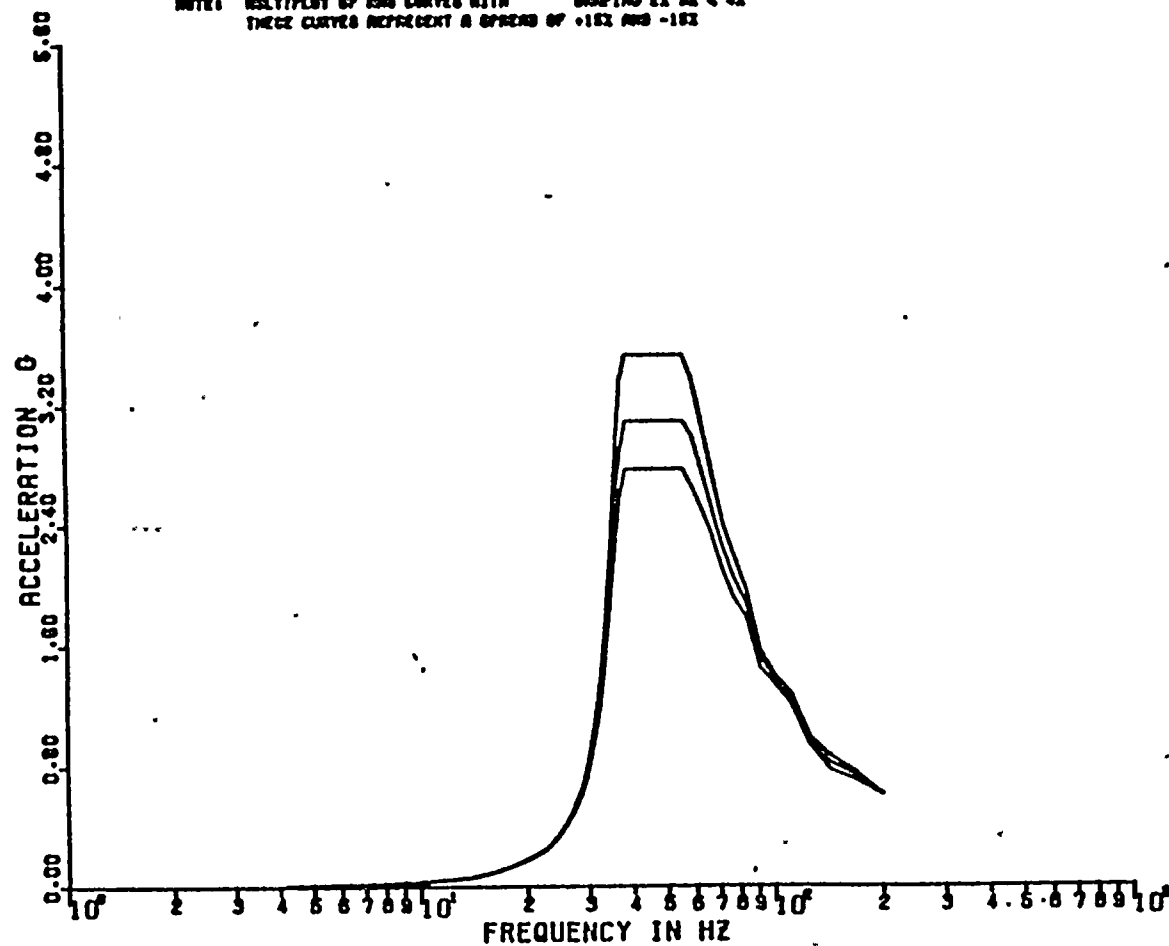
MICHAEL K 00

DISK CURVE SET NO.42

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: RESULTPLOT OF RAS CURVES WITH DAMPING SET 4 42
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



MS 1737

REF 190



SPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1992

MIOMAKA HONMAK-HINE NILES POINT UNIT-2 J.B.12177 MS-1737-0
RAB OF ACCELERATION PEDSTAL TOP (ELEV.288.84 FT)

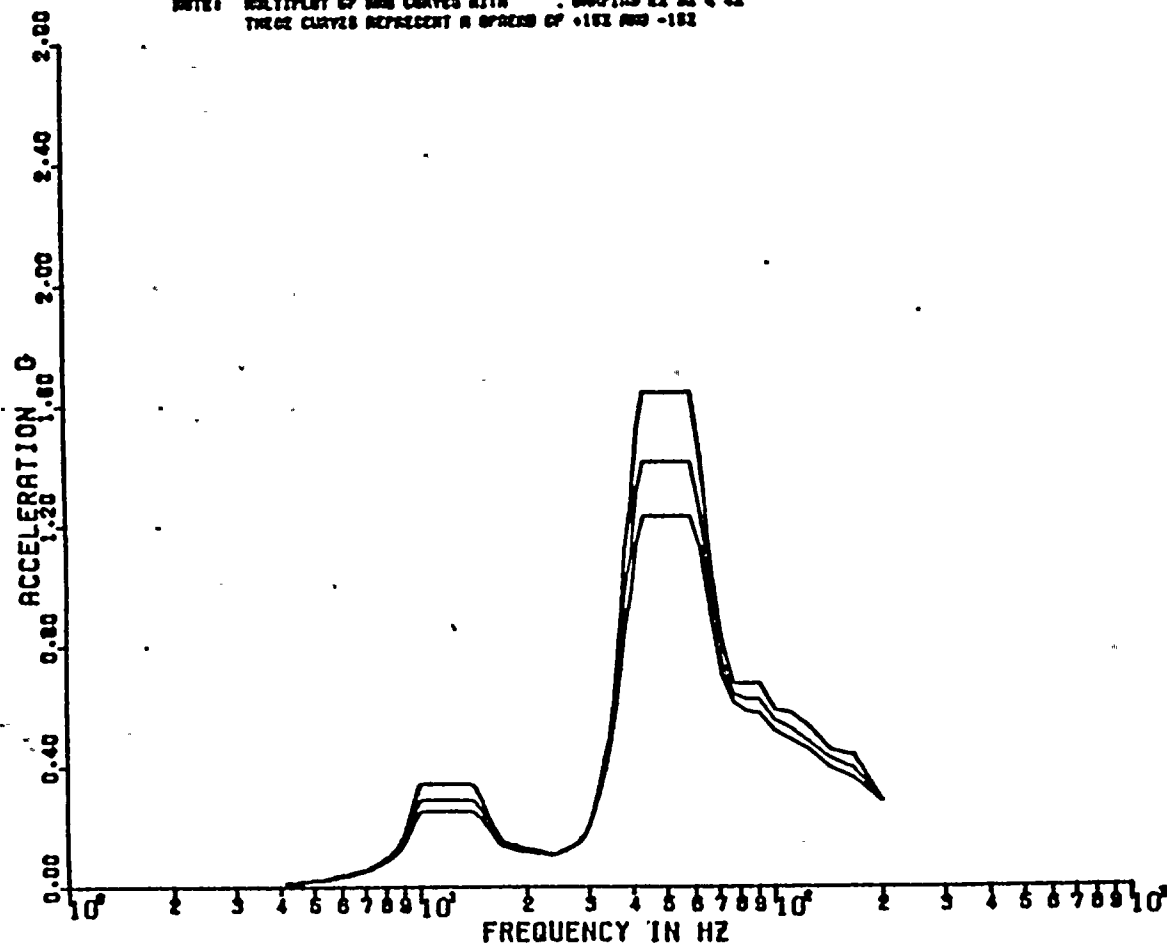
MICHAEL K CO

DISK CURVE SET NO.42

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAB CURVES WITH DAMPING 02 03 & 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1737

REF 190



PSPECTRA VER 01 LEV 00

CHUOONG LOADING CASE

8 DEC 1982

NIAONIA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0

RAS OF ACCELERATION SHIELD WALL OUT (ELEV.278.28 FT)

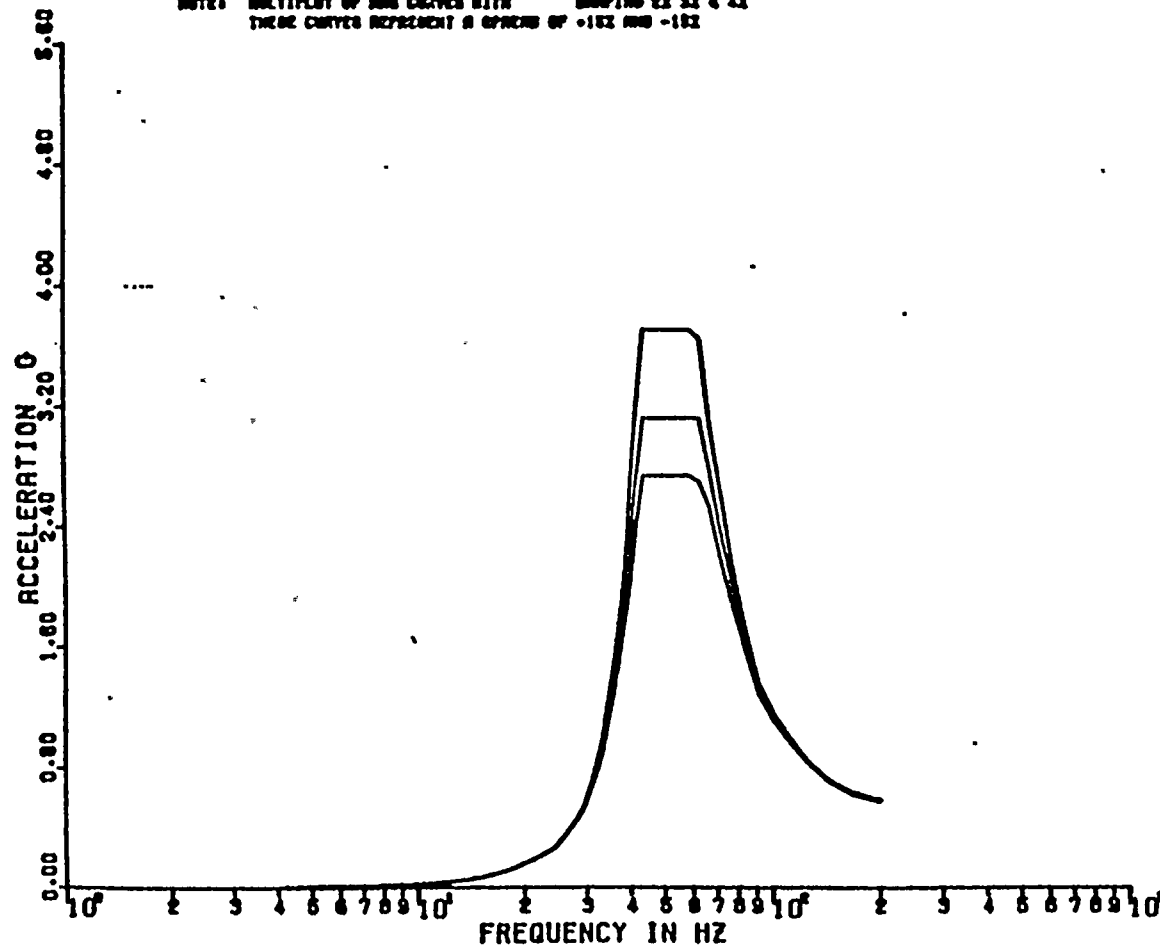
DISK CURVE SET NO.49

HOR DIRECTION

MICHAEL N 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 22 32 & 42
THESE CURVES REPRESENT A SPACING OF +15Z AND -15Z



MS 1737
REF 191



PERPECTR VER 01 LEV 00

CHUOJING LOADING CASE

9 DEC 1982

MIKAWA MICHIMAKI-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RMS OF ACCELERATION SHIELD WALL OUT (ELEV.276.28 FT)

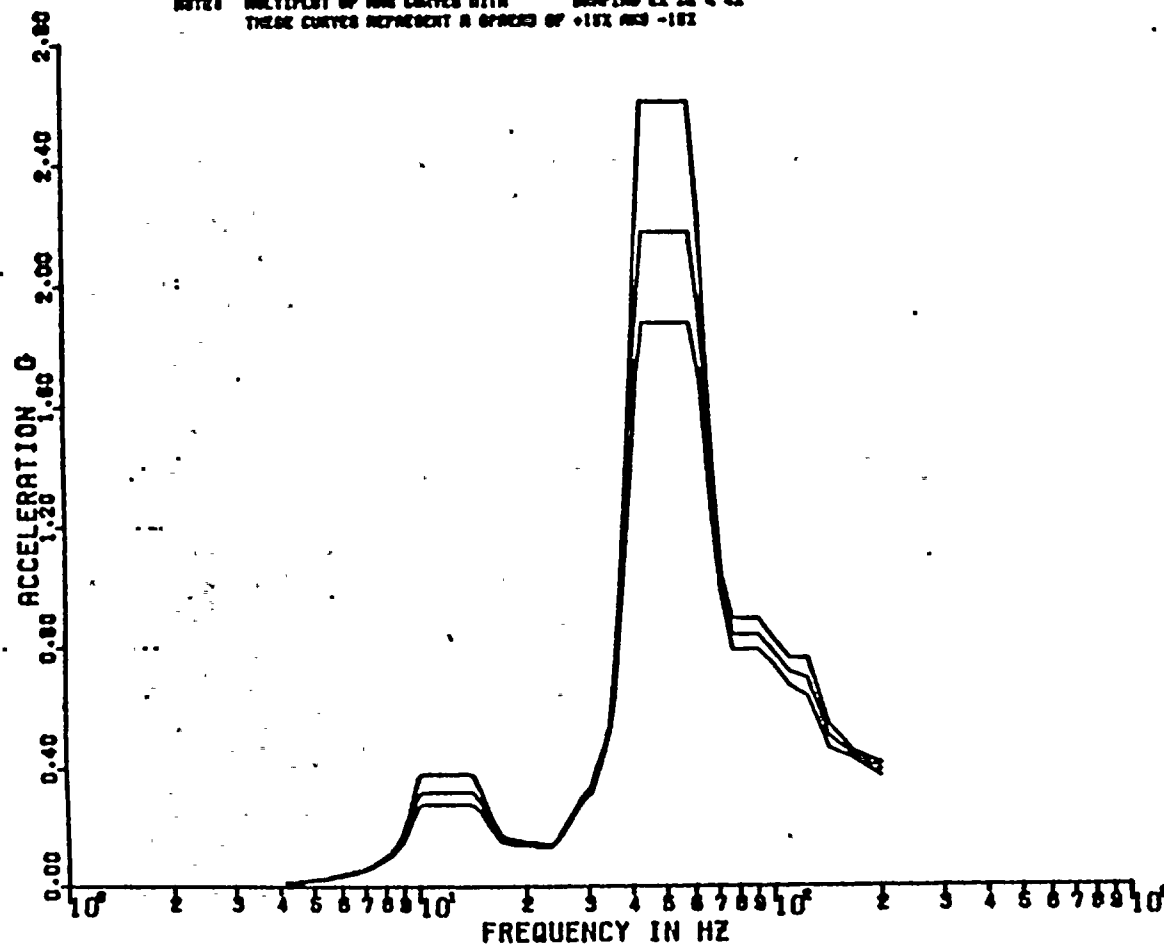
MICHAEL K DO

DISK CURVE SET NO.49

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RMS VALUES WITH DAMPING BY 2.5 & 4.0
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 121
MS 1737



POPECTRA VER 01 LEV 00

CHUGGING LOADING CASE

8 DEC 1962

NINERCA MONROE-NINE MILES POINT UNIT-2 J.O.12177 HS-1737-0
RMS OF ACCELERATION SHIELD WALL CUT (ELEV. 280.83 FT)

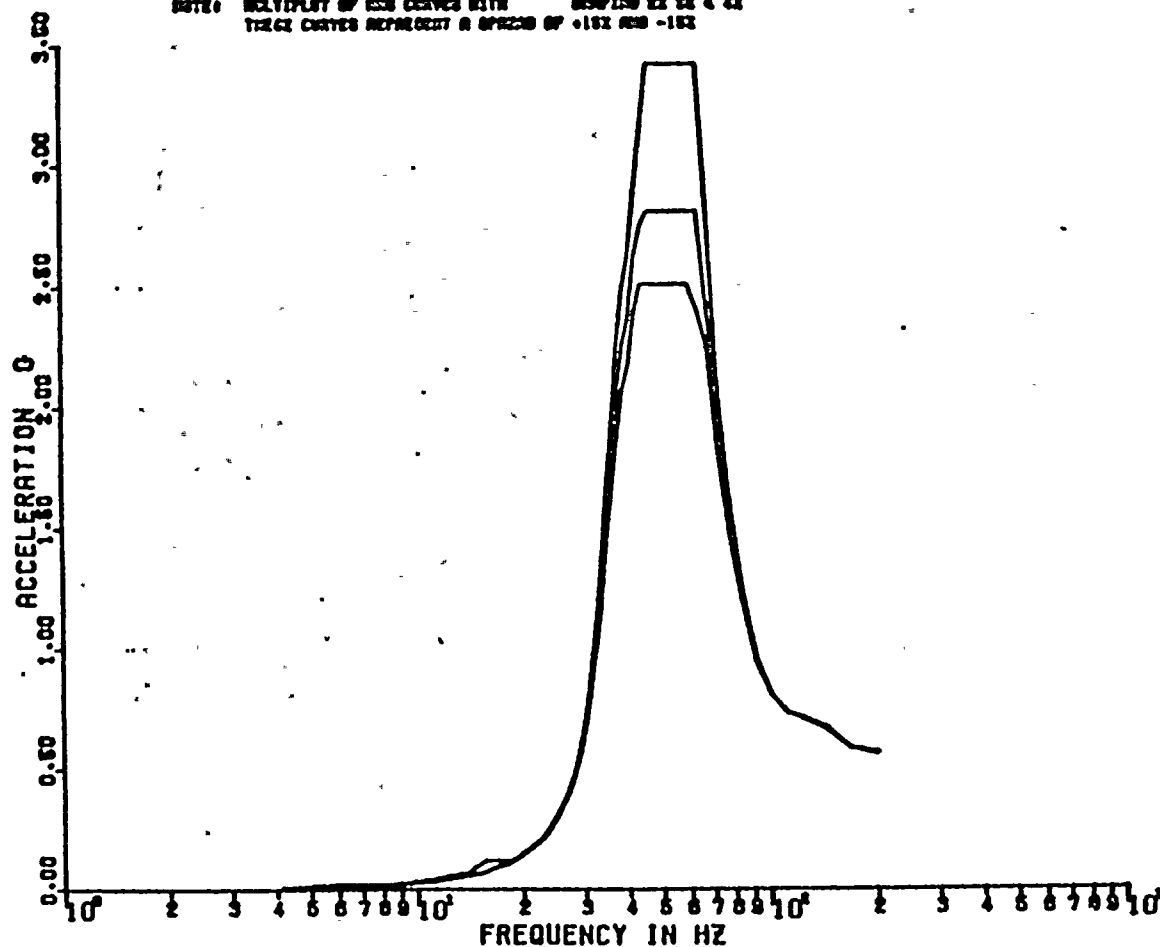
MICHAEL K CO

DICK CURVE SET NO.44

NOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

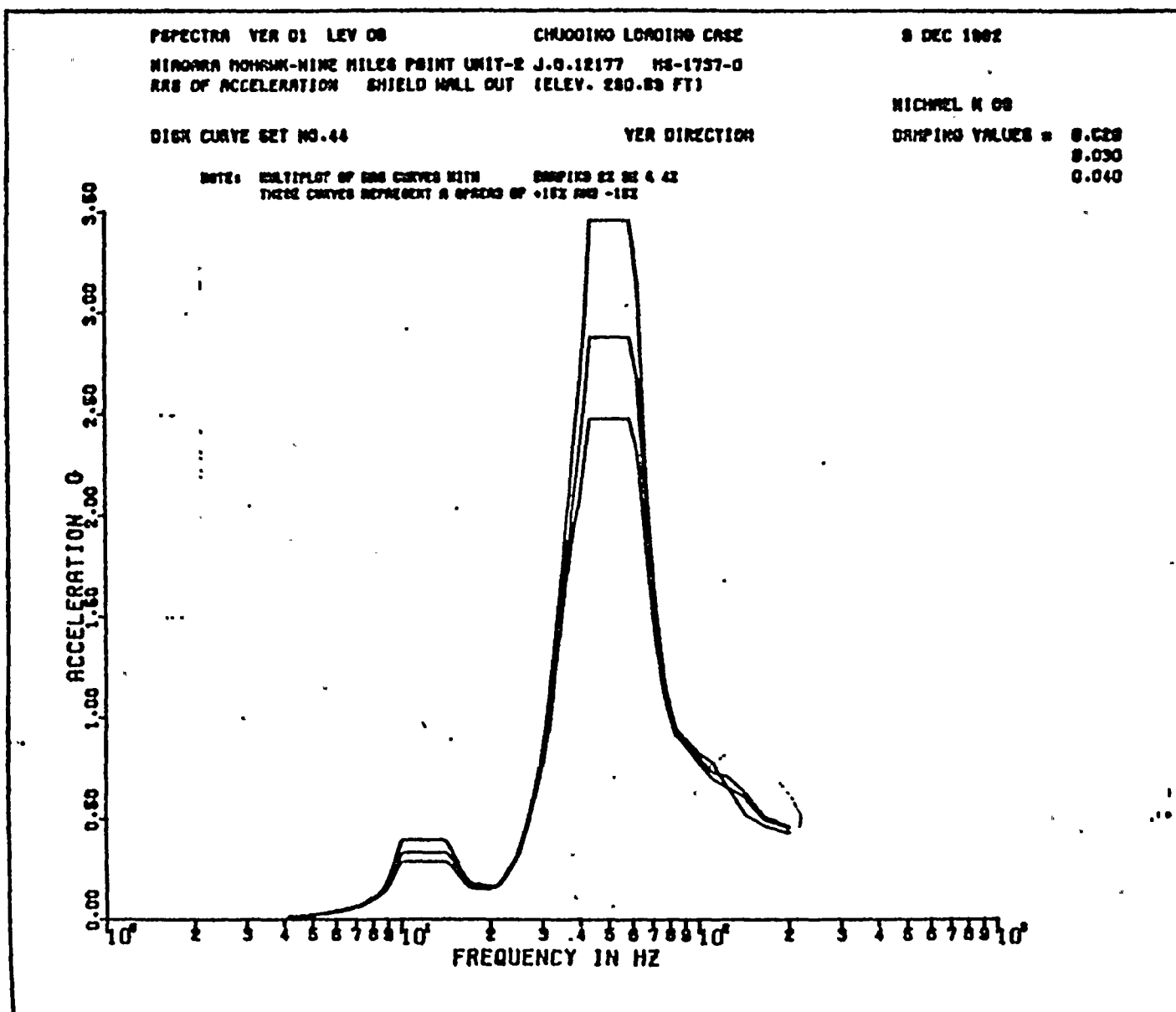
NOTE: MULTIPLY OF 1000 CURVES WITH DAMPING 2% 3% 4% 5%
THESE CURVES REPRESENT A SPECTRUM OF +15% AND -15%



MS 1737

REF 142





REF 192
MS 1737



PSPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1992

NIRONIA MONTANA-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RIS OF ACCELERATION SHIELD WALL OUT (ELEV.300.62 FT)

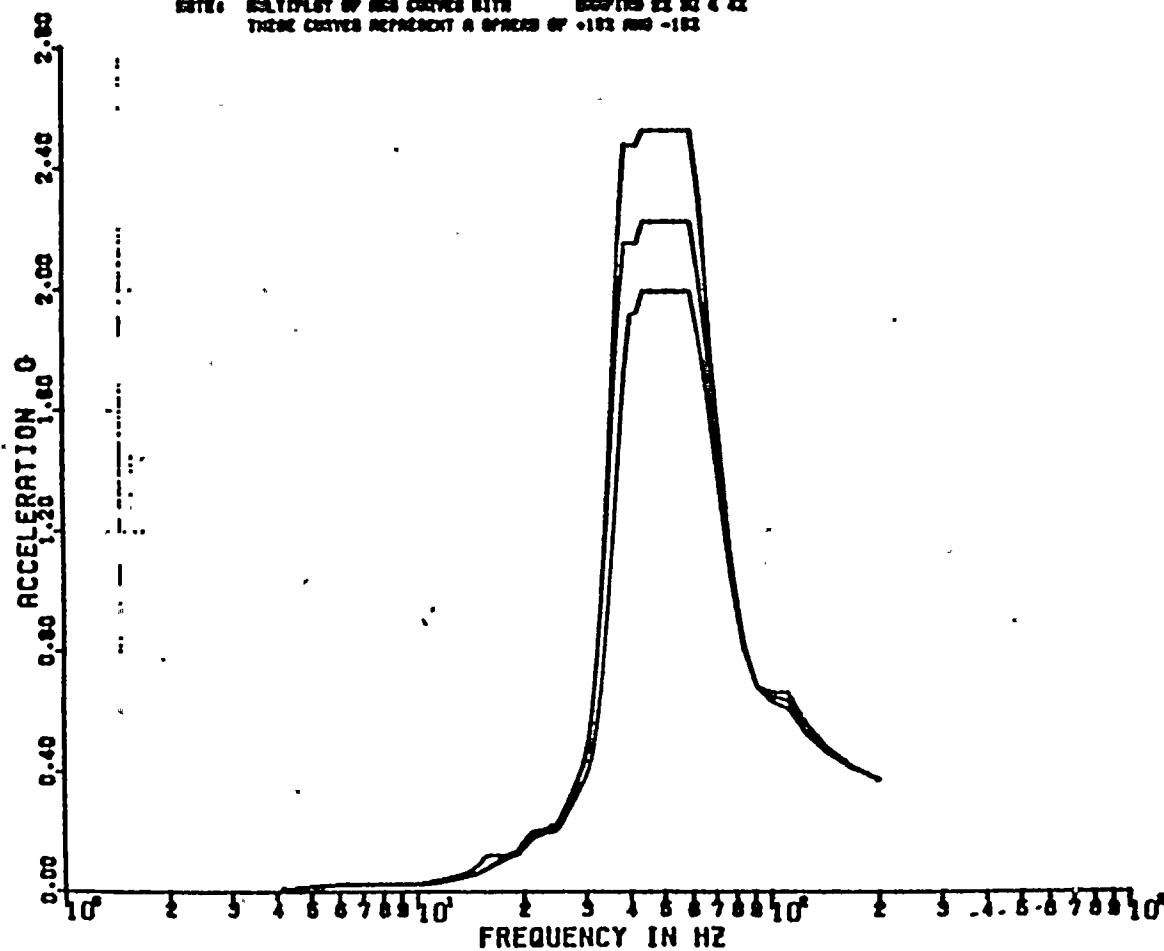
DISK CURVE SET NO.45

HOR DIRECTION

NICHSEL N 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLE OF DIS CURVES WITH DAMPING 21 32 4 42
THESE CURVES REPRESENT A SPREAD OF +102 AND -102



MS 1737

REF 193



PSPECTRA VER 01 LEV 00

CHUOING LOADING CASE

8 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 NS-1737-0
RBS OF ACCELERATION SHIELD WALL CUT (ELEV.300.82 FT)

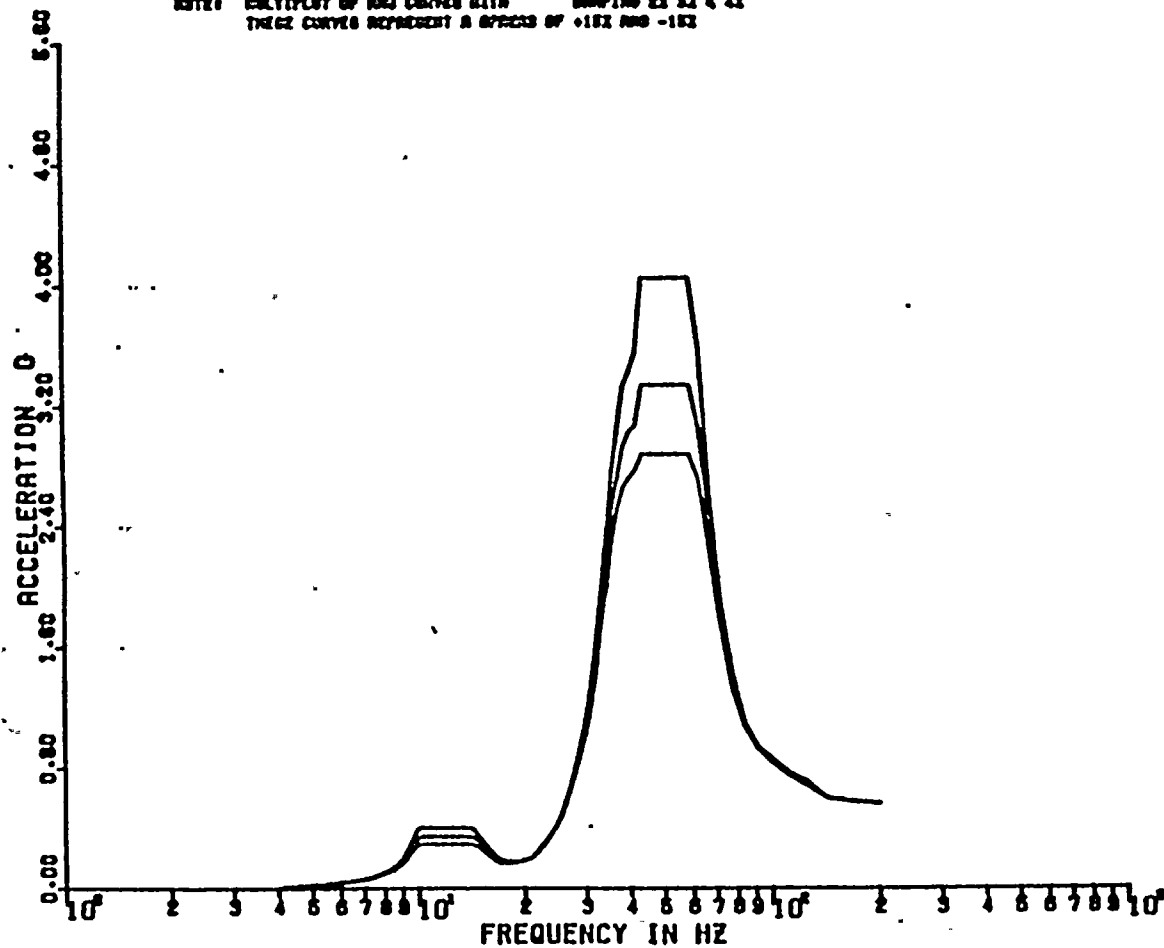
DIGI CURVE SET NO.45

VER DIRECTION

MICHAEL K CO

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RBS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPECTRUM OF +15% AND -15%



MS 1737

REF 193



POPECTA VER 01 LEV 00

CHUJING LANDING CRZ

8 DEC 1932

WINDOVA HANNAH-NINE MILES POINT UNIT-2 J.S.12177 MB-1737-0
RAS OF ACCELERATION RPV SHELL (ELEV.315.00 FT)

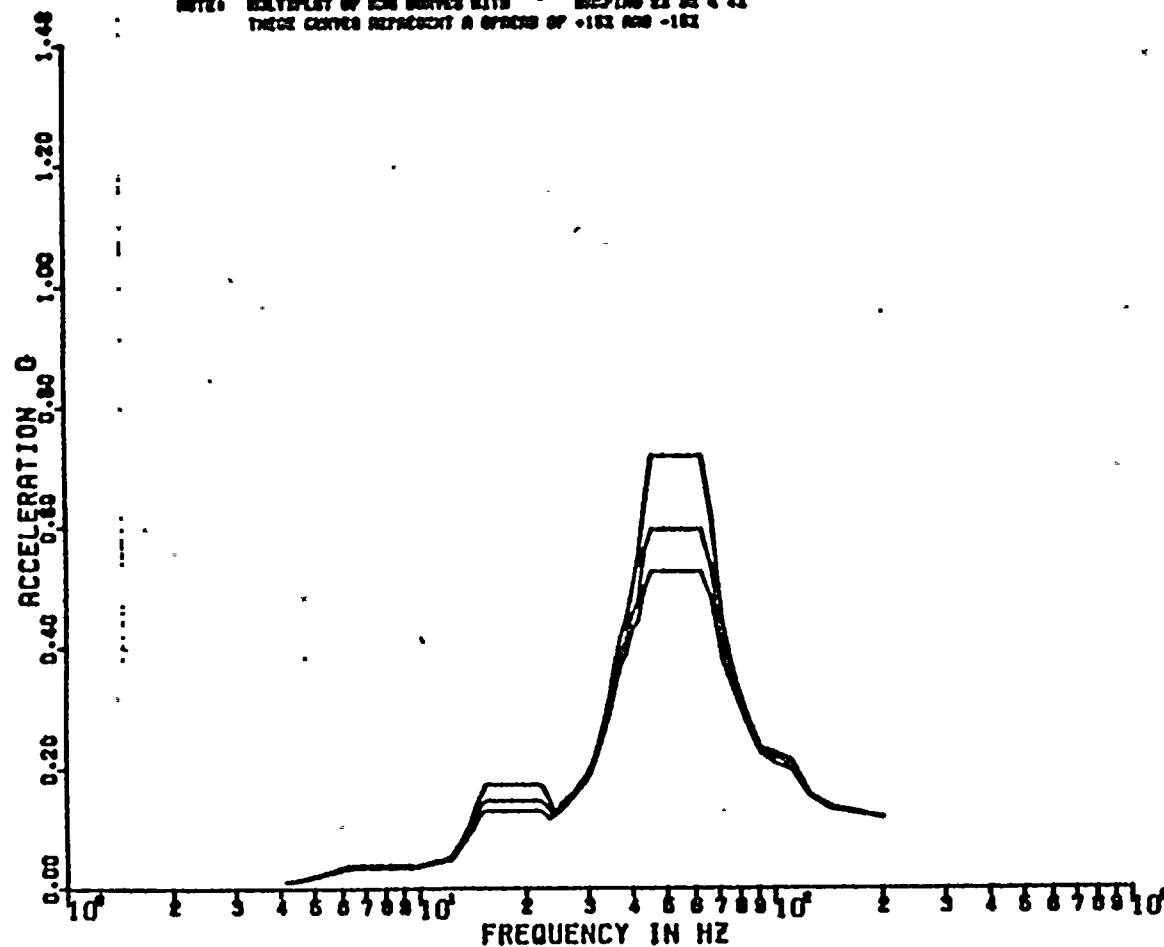
NICHOL R 00

DIGX CLVTE SET NO.48

NRD DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF ICM CURVES WITH DAMPING 2% 3% 4% 5%
THESE CURVES REPRESENT A SPECTRUM OF +10% AND -10%



REF 194
MS 1737



POPECTRA VER 01 LEV 00

CHUGGING LOADING CASE

8 DEC 1992

MIRAMAR MARINA-NINE MILES POINT UNIT-2 J.0.12177 MS-1737-0
RMS OF ACCELERATION RPV SHELL (ELEV.315.00 FT)

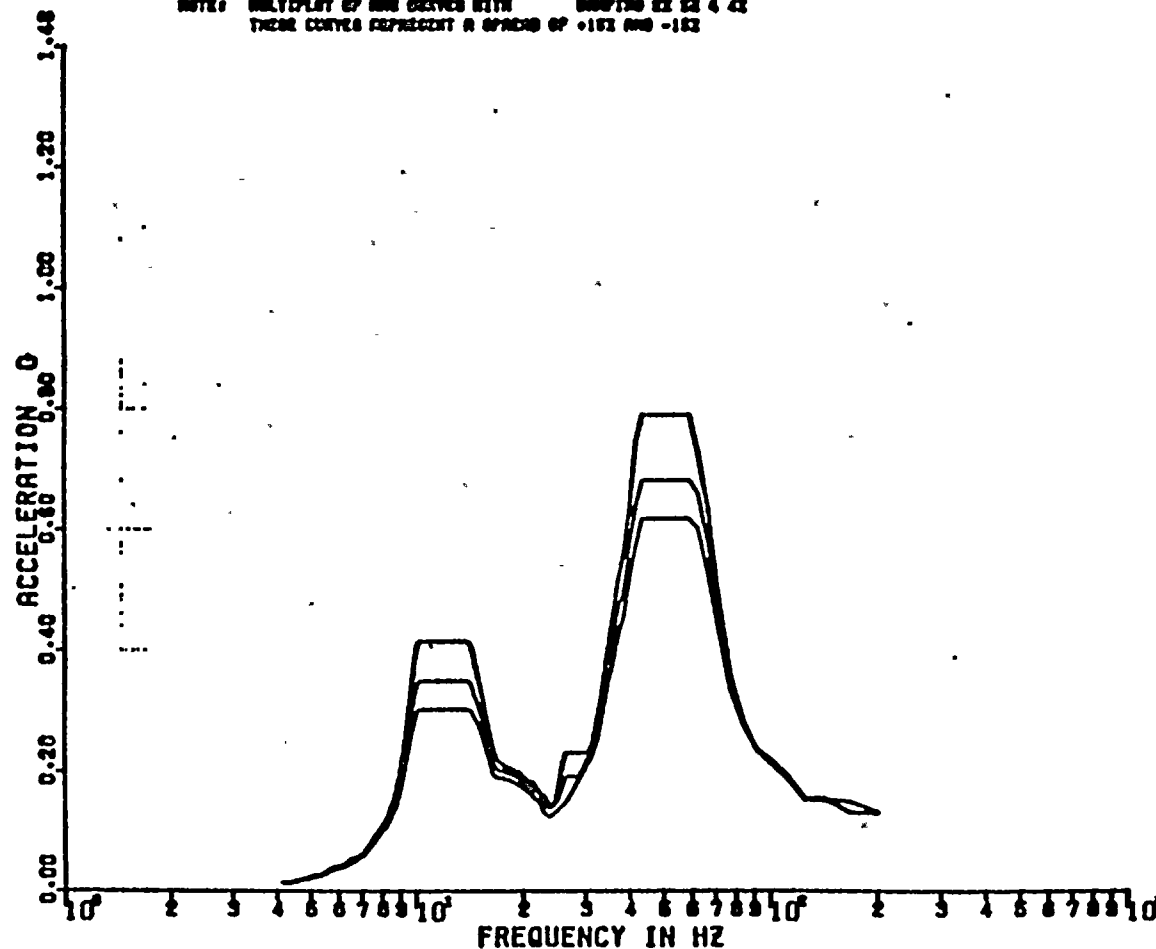
MICHAEL N 00

DIGX CURVE GET 13.48

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF TWO CURVES WITH DAMPING 22 22 4 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1737

REF 194



PSPECTRA VER 01 LEV 00

CHUOING LOADING CASE

9 DEC 1982

MINORAN NAWAN-NINE MILES POINT UNIT-2 J.0.12177 NG-1737-0
RAS OF ACCELERATION RPY SHELL (ELEV.201.74 FT)

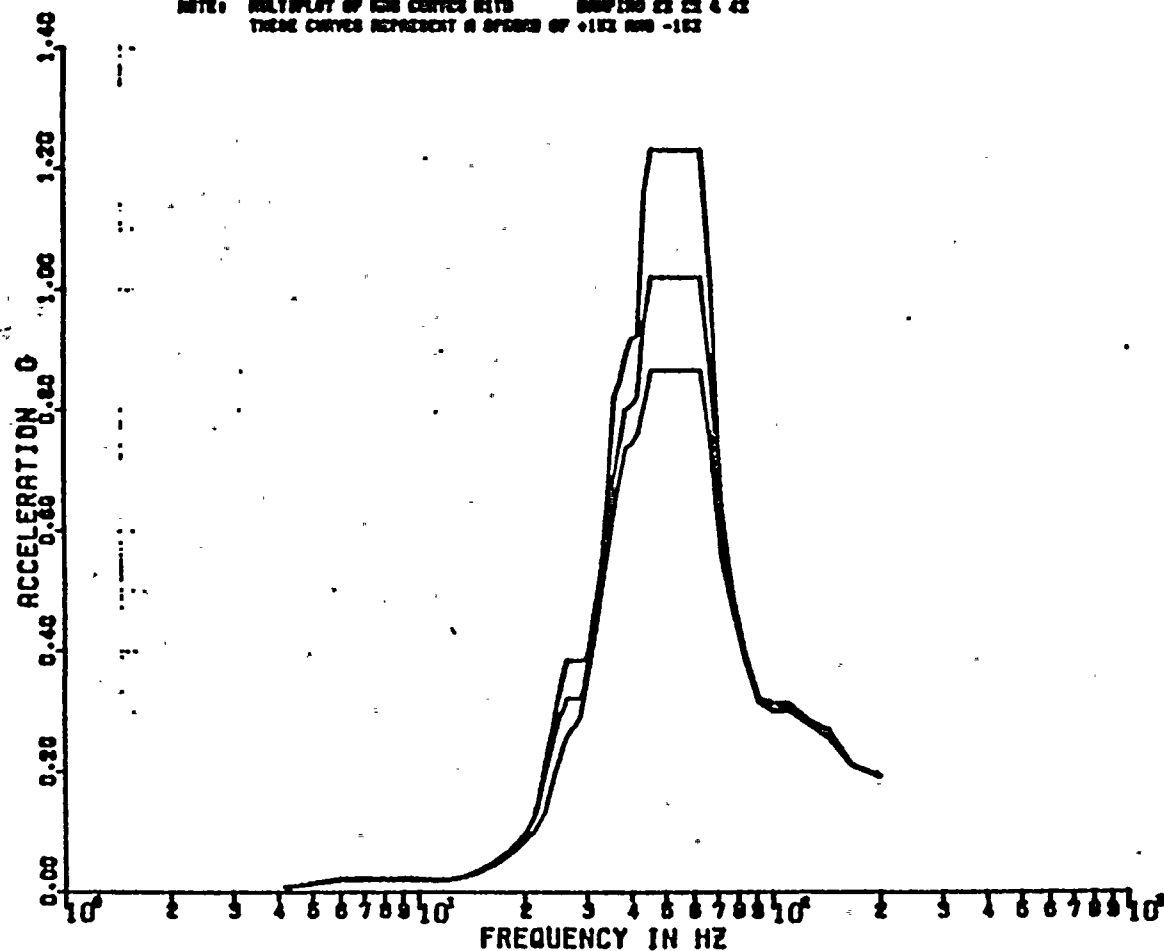
WIKI CURVE COT NO.47

NOX DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF ERM CURVES WITH DAMPING 0.02 & 0.04
THESE CURVES REPRESENT A SPECTRUM OF +100 AND -100



REF 195
MS 1737



POPECTKA VER 01 LEV 08

CHUDDING LOADING CASE

9 DEC 1992

NIAOARA MINNACK-NINE MILES POINT UNIT-2 J.O.12177 MS-1737-0
RAB OF ACCELERATION RPV SHELL (ELEV.281.74 FT)

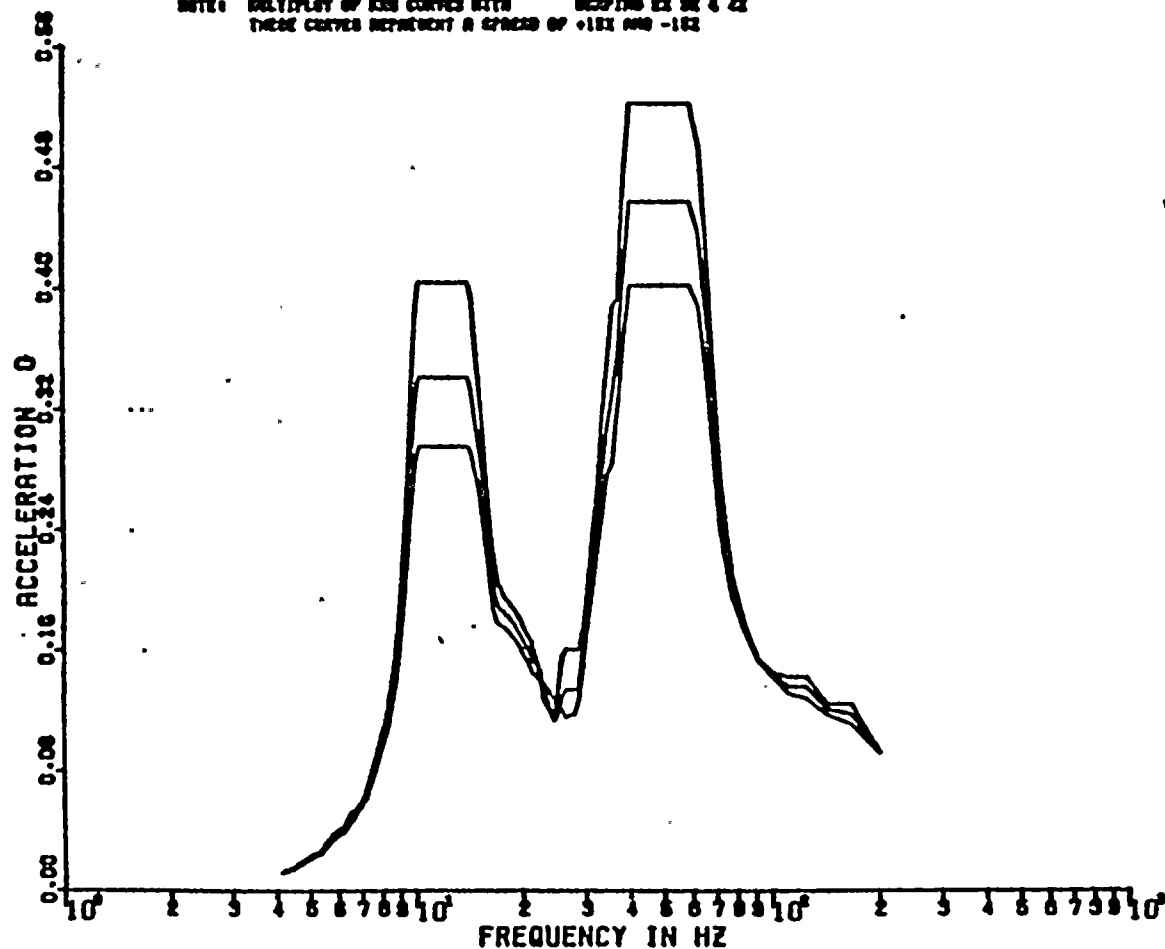
NICHREL X 00

DIGI CURVE SET NO.47

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF 330 CURVES WITH DAMPING 2% TO 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1737

REF 195



SOURCE: PAL #105

POPECTRA VER 01 LEV 00 CHUDDING LOADING CASE
 NIAGARA MONK-NINE MILES POINT UNIT-2 J.B.12177 MS-1737-0
 RMS OF ACCELERATION RPV SHELL (ELEV.278.11 FT)

9 DEC 1962

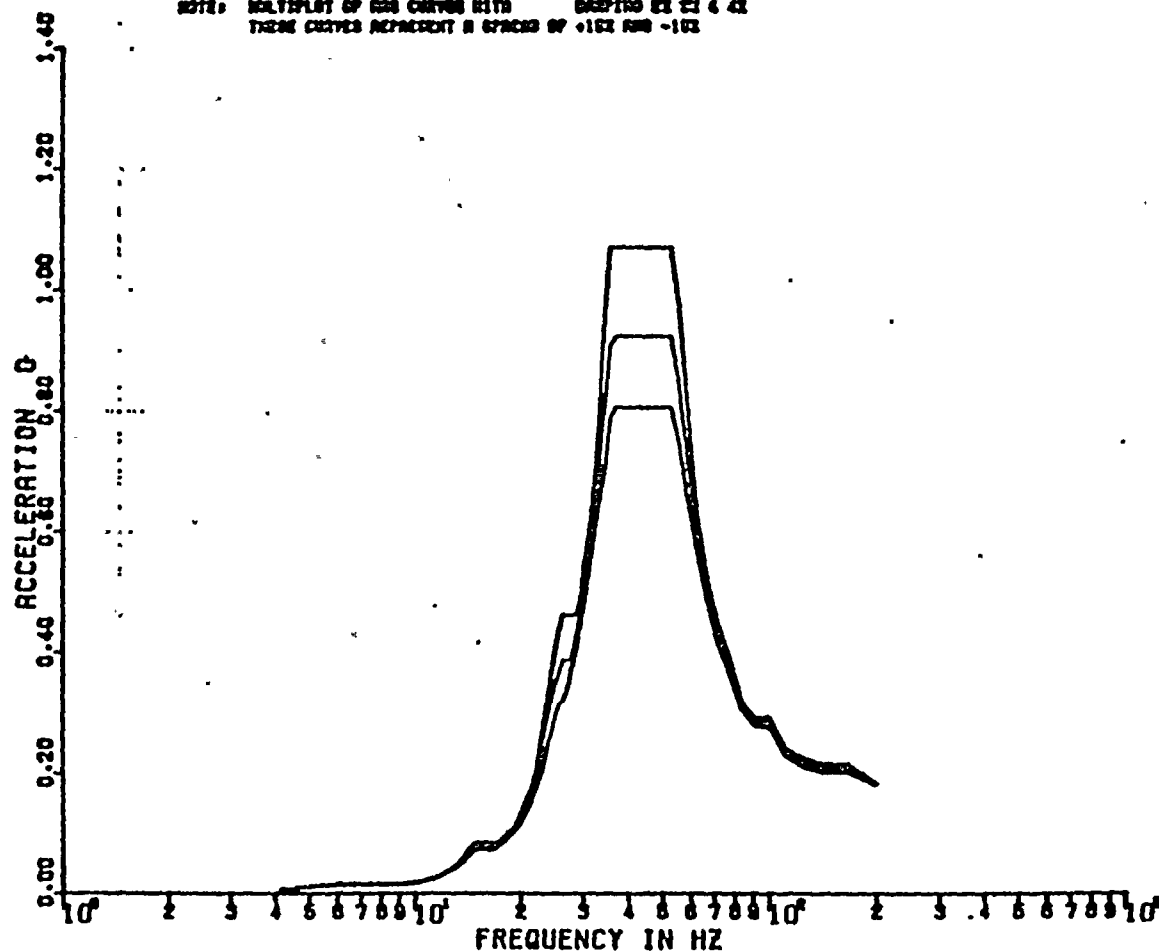
SIGN CURVE SET 130.48

HGR DIRECTION

MICHAEL H 03

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLE OF RMS CURVES WITH DAMPING 0.02 0.03 & 0.04
 THESE CURVES REPRESENT A SPACING OF +10% AND -10%



REF 196
 MS 1737
 2321 SW



PSPECTRA VER 01 LEV 00 CHUDDING LANDING CASE
 NIPOMBA MARK-MIKZ MILES POINT UNIT-2 J.0.12177 MS-1737-0
 RMS OF ACCELERATION RPV SHELL (ELEV.278.11 FT)

9 DEC 1962

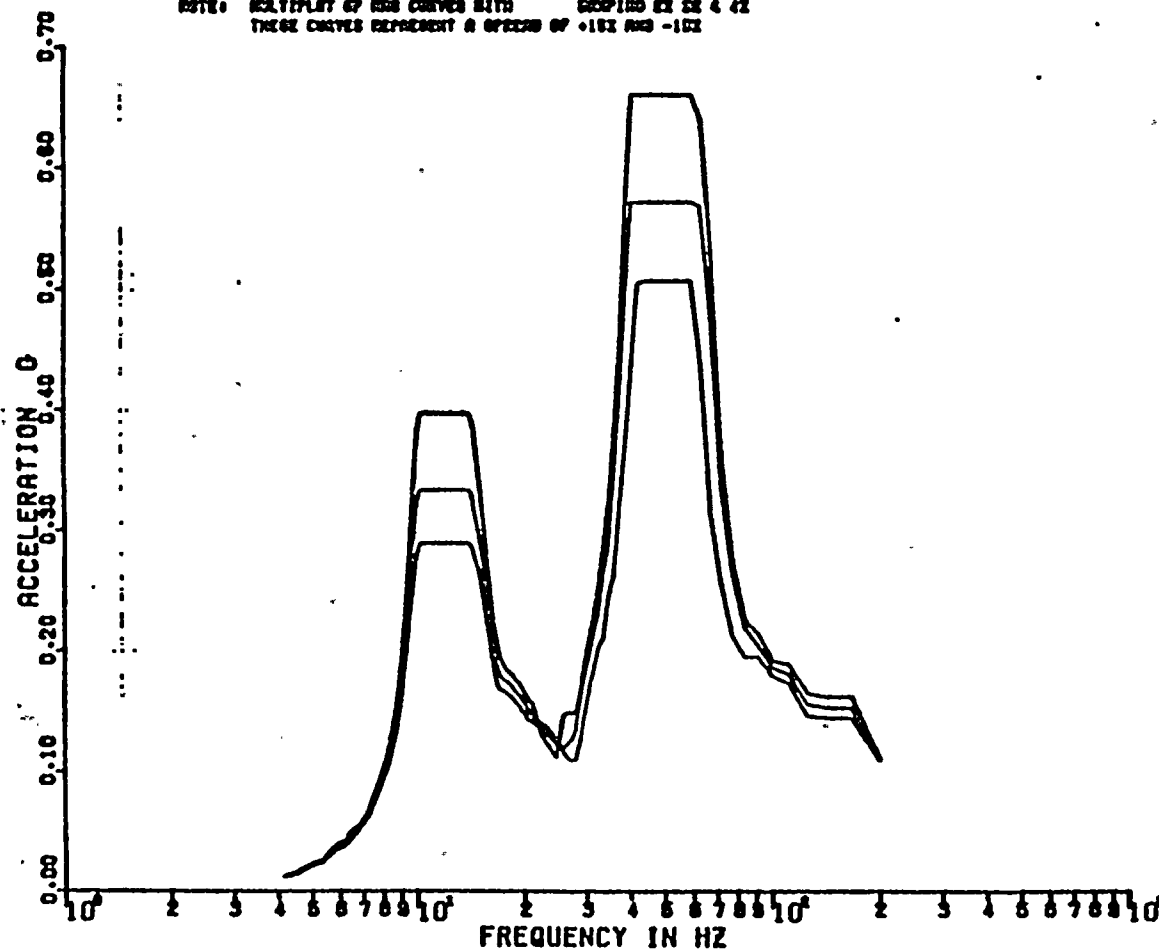
SIGN CURVE C2T NO.48

VER DIRECTION

NICHOLAS R 00

DAMPING VALUES = 0.020
 0.030
 0.040

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING BY 2 & 4
 THESE CURVES REPRESENT A SPEED OF +100 AND -100



MS 1737

REF 196



0000000000 # 107

POPECTER VER 01 LEV 08

CHUOING LOADING CASE

9 DEC 1982

NIAGARA NIAGARA-NINE MILES POINT UNIT-2 J.O.12177 NS-1737-0

RRS OF ACCELERATION RPV SHELL (ELEV.288.84 FT)

800 SERIES CHUOING LOADS

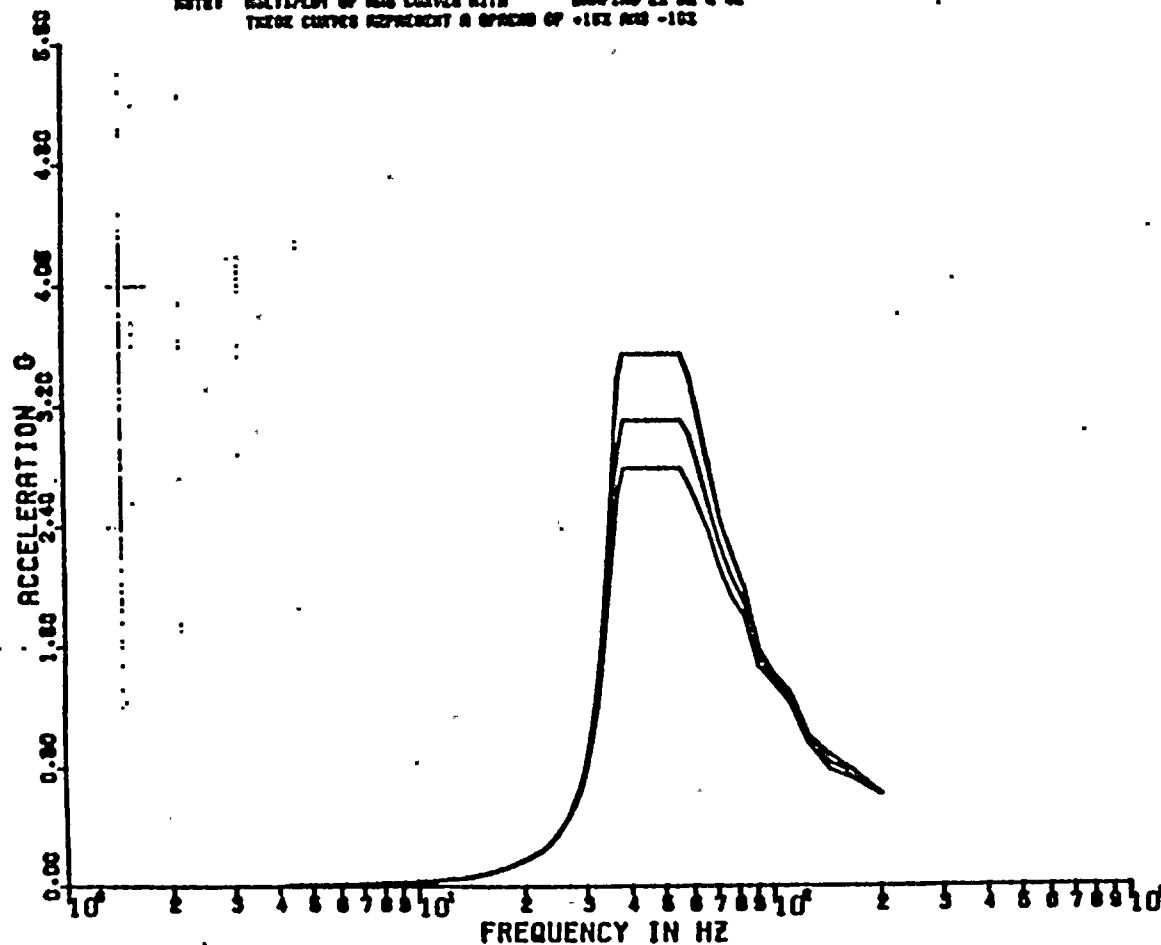
RICHARD H 83

BICK CURVE SET NO.48

HGR DIRECTION

DRAWING VALUES = 0.000
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DRAWING SET NO 4 43
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



MS 1737

REF 197



POPECTRA VER 01 LEV 00

CHUODING LOADING CASE

8 DEC 1902

WINDOWN HONKIN-NINE MILES POINT UNIT-2 J.O.12177 PG-1737-0

RRS OF ACCELERATION RPV SHELL (ELEV.268.54 FT)

800 SERIES CHUODING LOADS

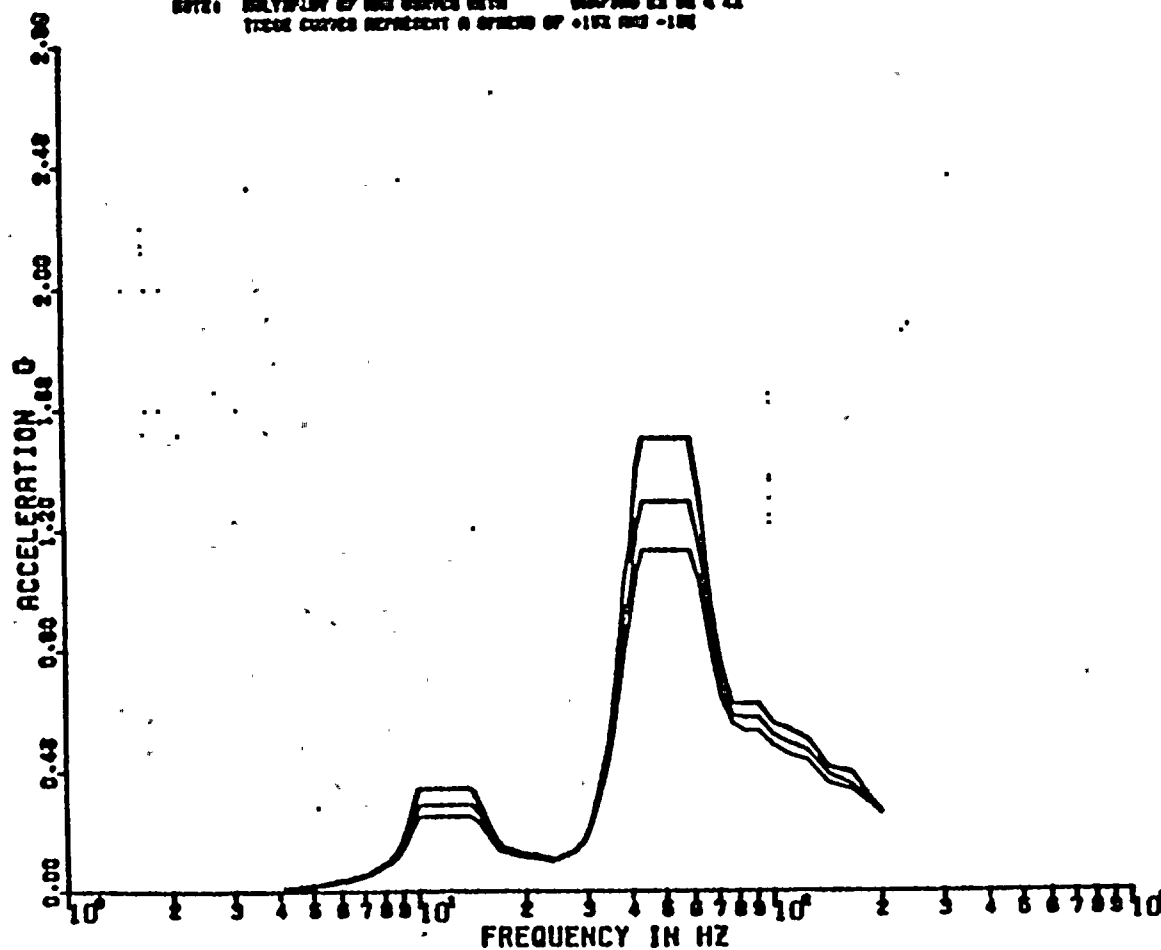
NICHREL N 69

BIEN CURVE SET PG.49

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF TWO CURVES WITH DAMPING OF 0.02
THESE CURVES REPRESENT A SPECTRUM OF +1% AND -1%



MS 1737

REF 197



NMP2

SRV

REQUIRED RESPONSE SPECTRA FOR THE
REACTOR BUILDING



Hydrodynamic - SRV

Required Response Spectra (RRS) for the Reactor Building

<u>Mass Point - Location</u>	<u>Elev (ft)</u>	<u>Reference No.*</u>
064 - Center of Mat	170.00	99
071 - Mat (R=29.81 ft)	170.00	100
077 - Mat (R=66.375 ft)	170.00	101
078 - Pedestal at Mat	176.00	102
079 - Primary Containment @ Mat	176.00	103
080 - Secondary Containment @ Mat	175.00	104
082 - Primary Containment	180.80	105
084 - Pedestal	185.60	106
085 - Primary Containment	185.60	107
088 - Primary Containment	190.40	108
091 - Primary Containment	195.20	109
092 - Secondary Containment	261.00	111
093 - Pedestal, W. L.	201.00	112
094 - Primary Containment, W. L.	201.00	113
095 - Secondary Containment	289.00	114
097 - Primary Containment	206.11	115
100 - Primary Containment	212.22	116
102 - Pedestal	217.50	117
103 - Primary Containment	218.33	118
104 - Top of Secondary Containment	386.83	119
106 - Primary Containment	224.88	120
107 - Primary Containment	231.44	121
108 - Pedestal	230.50	122
110 - Drywell Fl @ Center Line	230.50	123
111 - Drywell Fl/Primary Containment	238.00	124
114 - Drywell Floor	238.00	125
116 - Drywell Floor/Pedestal	238.00	126
117 - Primary Containment	243.33	127
119 - Primary Containment	248.66	128
121 - Primary Containment	254.00	129
122 - Pedestal	254.00	130
123 - Primary Containment	259.33	131
127 - Primary Containment	270.00	132
128 - Primary Containment	275.33	133
130 - Primary Containment	286.00	134
131 - Primary Containment	291.33	135
133 - Primary Containment	302.00	136
134 - Primary Containment	306.36	137
136 - Primary Containment	315.25	138
137 - Primary Containment Top	326.83	139
138 - Shield Wall Out	315.23	140



Hydrodynamic - SRV
Required Response Spectra (RRS)
for the Reactor Building

<u>Mass Point - Location</u>	<u>Elev (ft)</u>	<u>Reference No.*</u>
141 - Pedestal Top	266.54	141
145 - Shield Wall Out	276.28	142
151 - Shield Wall Out	290.89	143
156 - Shield Wall Out	300.62	144
161 - RPV Shell	315.08	145
163 - RPV Shell	291.74	146
164 - RPV Shell	278.11	147
165 - RPV Shell	266.54	148

*Each reference number includes an SRV envelope for horizontal and vertical direction at 1, 2, 3, and 4 percent damping.



PSPECTRA VER 01 LEV 00

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

NIAORRA MOHAWK-NINE MILES UNIT POINT-2 J.0.12177 MS-1740-0
RRS OF ACCELERATION CENTER OF MAT (ELEV. 170 FT.)

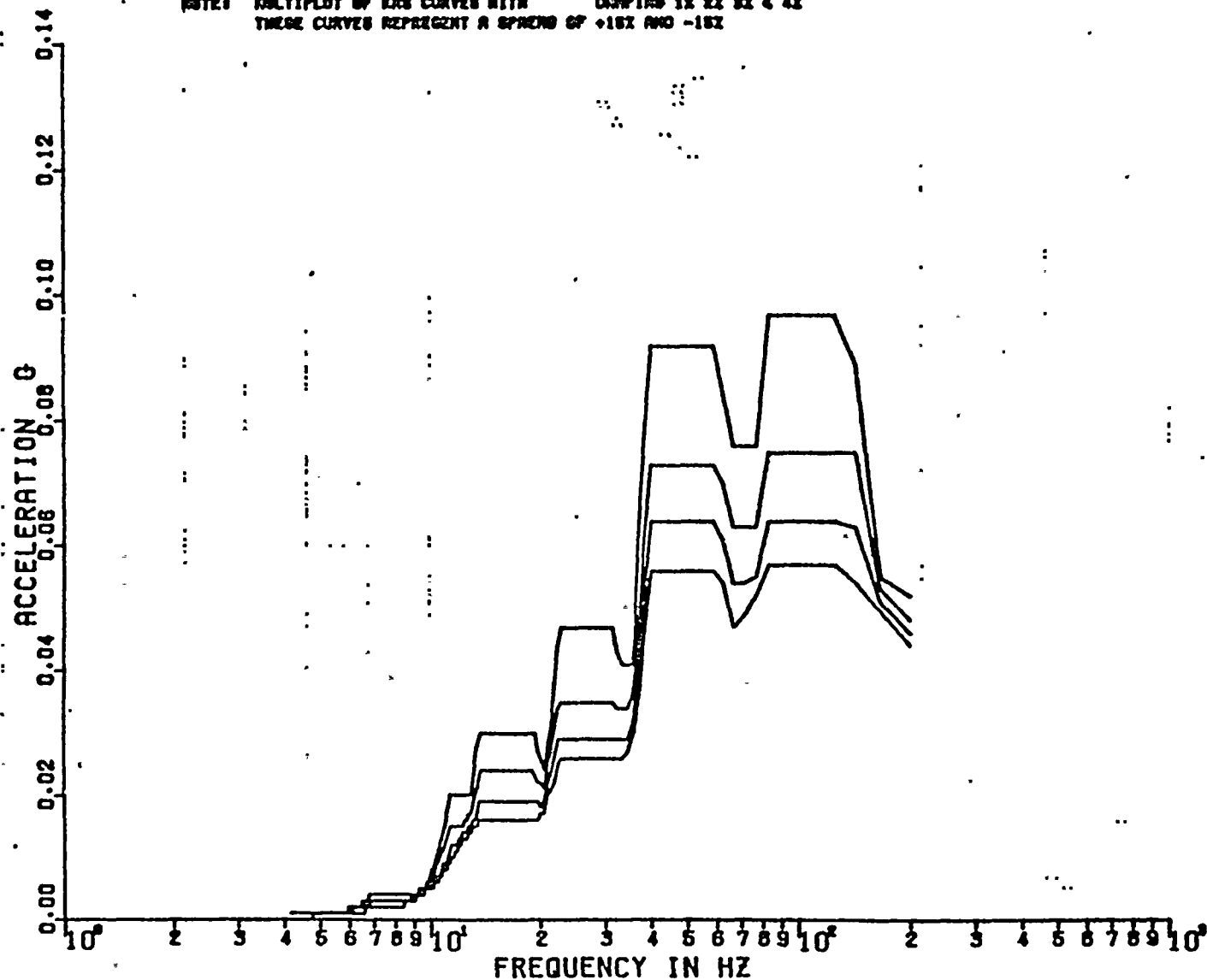
DISK CURVE SET NO.1

HOR DIRECTION

MICHAEL R. CO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF ERS CURVES WITH DAMPING 1X 2X 3X 4 4X
THESE CURVES REPRESENT A SPACING OF +15% AND -15%



REF 99



PSPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

000:00:00

WIAORRA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 M5-1748-0
RRS OF ACCELERATION CENTER OF MAT (ELEV. 170 FT.)

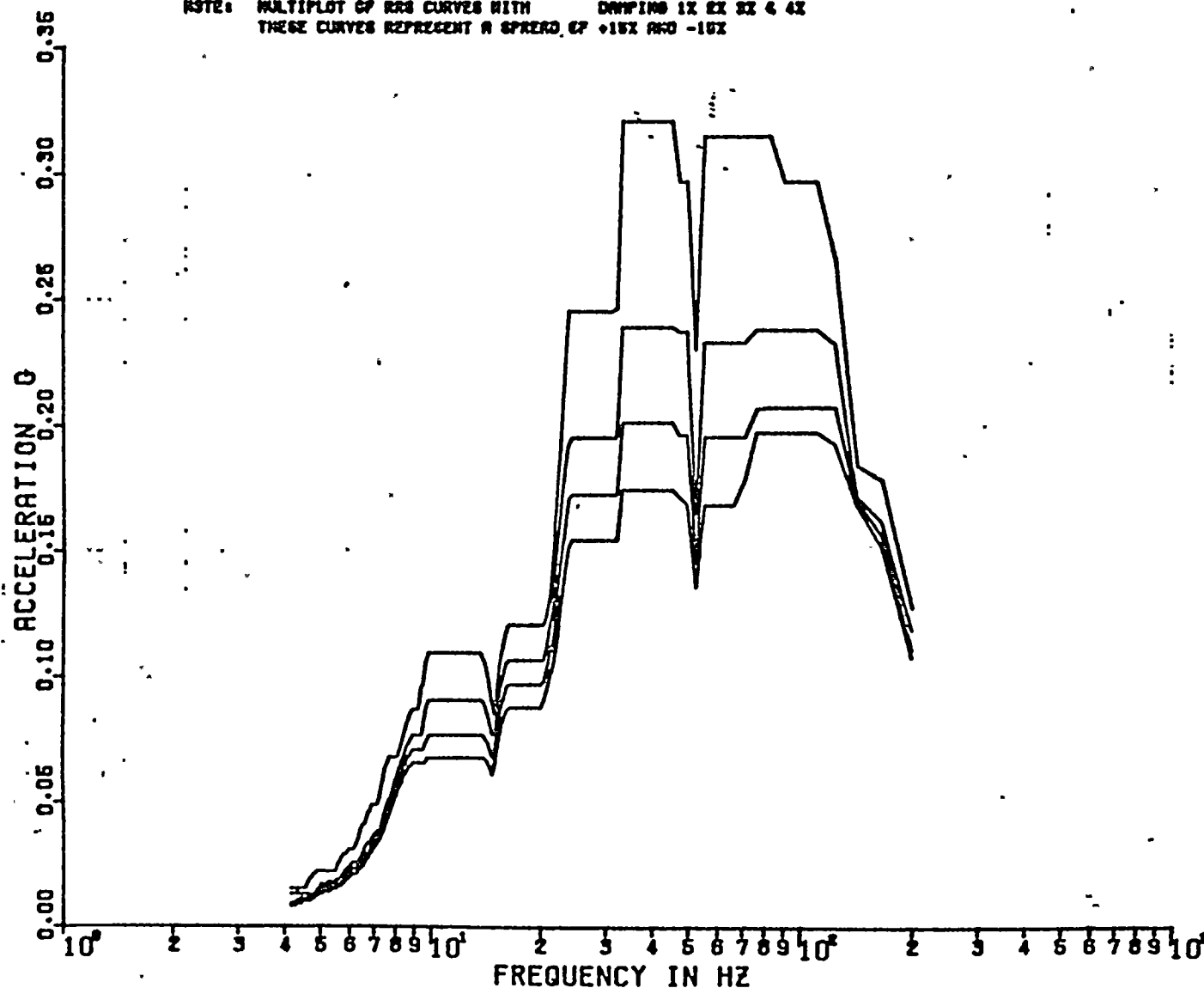
MICHAEL K 00

DISK CURVE SET NO.1

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 3X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 99



PSPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SAY CASES)

22 OCT 1992

MIAGORA MONAHK-NINE MILES UNIT POINT-2 J.O.12177 NS-1743-8
RRS OF ACCELERATION NAT(R=28.91FT) (ELEV.170.8 FT)

DISK CURVE SET NO.2

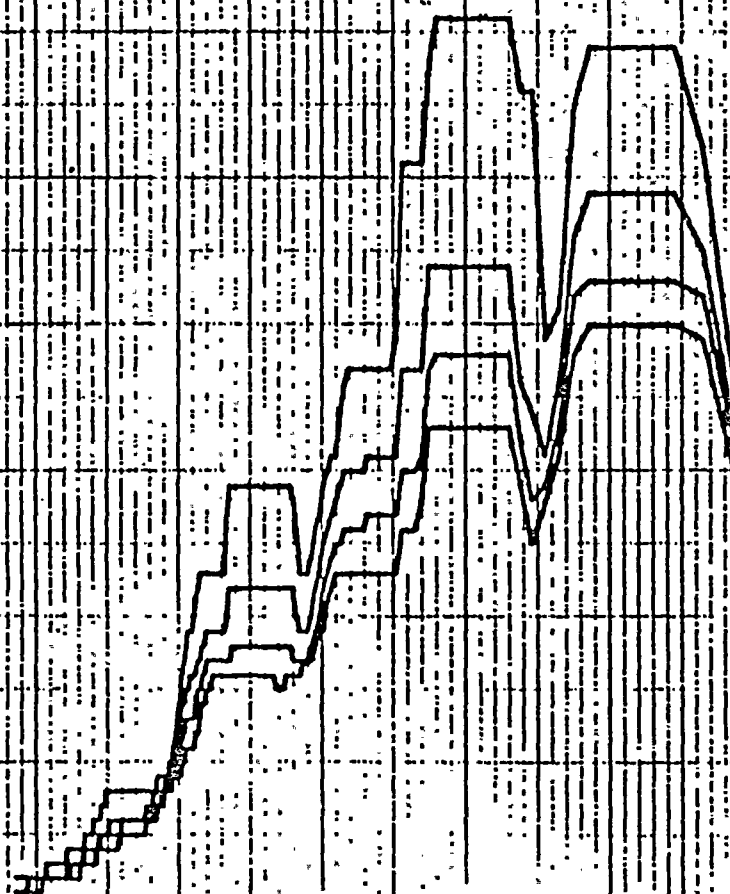
HGR DIRECTION

NICHOL N. 63

DAMPING VALUES = 0.010
0.020
0.050
0.100

NOTE: MULTIPLY BY RRS CURVES WITH RESIDUE 12 21 31 4 42
TRACE CURVES REPRESENT A SERIES OF +100 000 -100

ACCELERATION 0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07



FREQUENCY IN HZ

REF 100



SPECTRA VER 01 LEV 00

SAVENV. 0- ALL SRY CASES

22 OCT 1952

NIAGARA MONK-NIKE MILES UNIT POINT-2 J.O.12/77 NS-1748-0
RMS OF ACCELERATION: MATR-20.81FT (ELEV.170.0 FT)

DIST CURVE SET NO.2

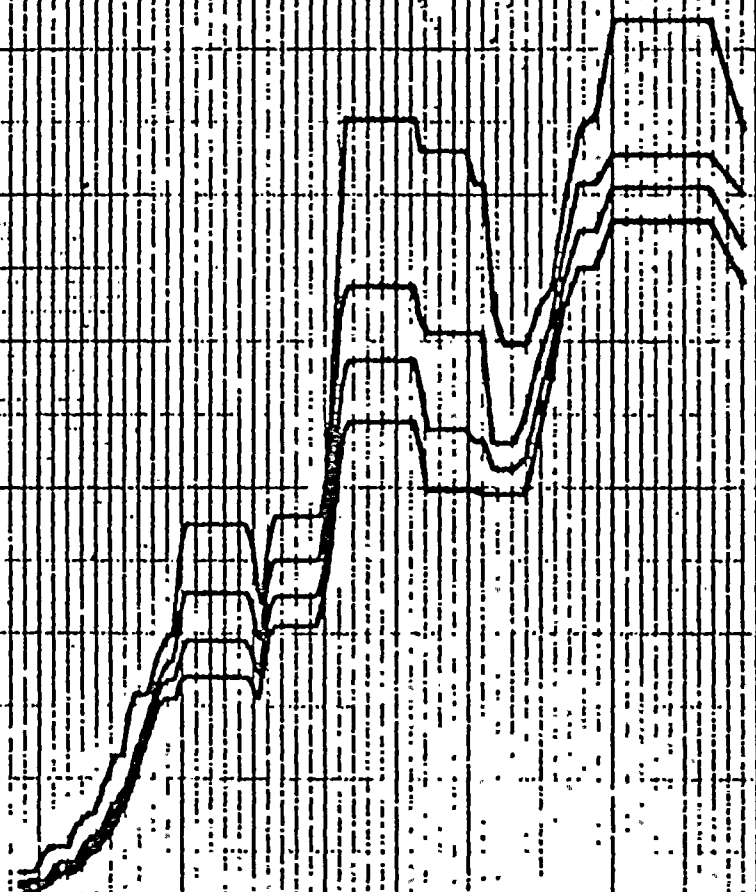
VER DIRECTION

MICHAEL N 53

SAMPLE VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY ALL CURVES WITH SAMPLES IN 20 40 60 80
THICK CURVES REPRESENT A RANGE OF 1000 2000 3000

ACCELERATION 0
0.00 0.04 0.08 0.12 0.16 0.20 0.24 0.28



FREQUENCY IN HZ

REF 100



SPECTRA VER 01 LEV 00

SRV(ENV. OF ALL SRV CASES)

22 OCT 1982

NIAHARA HONANUK-NINE MILES POINT UNIT 2-J.O.12177 HQ-1740-0

RMS OF ACCELERATION NAT(R=66.375FT) (ELEV.170.0 FT)

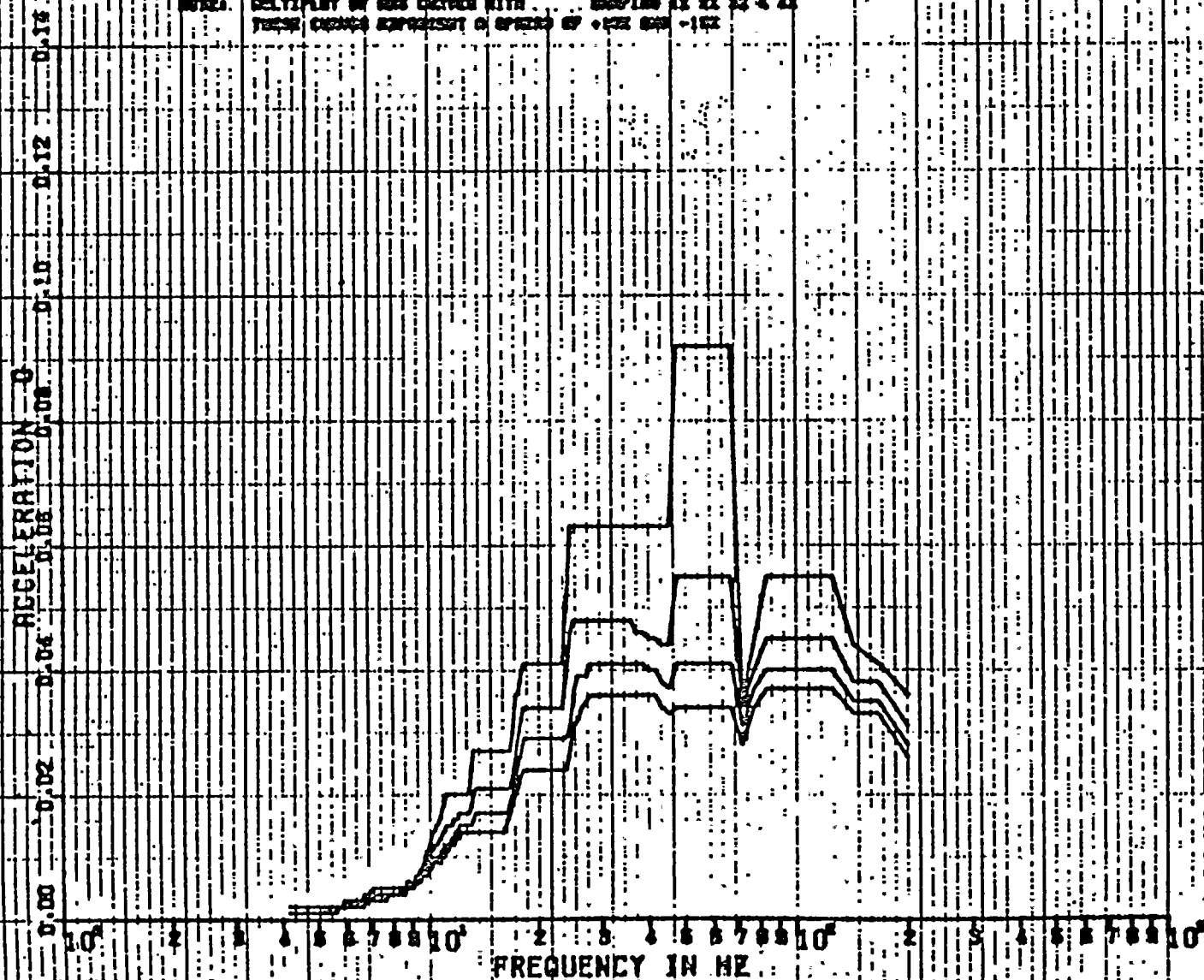
DISK CURVE SET NO.9

HQZ DIRECTION

MICHAEL N. 03

DEPTED VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY RMS VALUES WITH ... SCALING BY 2X 3X 4X 5X
THESE VALUES REPRESENT AVERAGE OF 1000 RMS -100



REF 101



PAPECTRA VER 01 LEV 09

SRVIER. ALL SRV CASES

22 OCT 1932

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 H3-1748-0
RRE OF ACCELERATION MAT(R=55.375FT) (ELEV.170.0 FT)

DISK CURVE SET NO.3

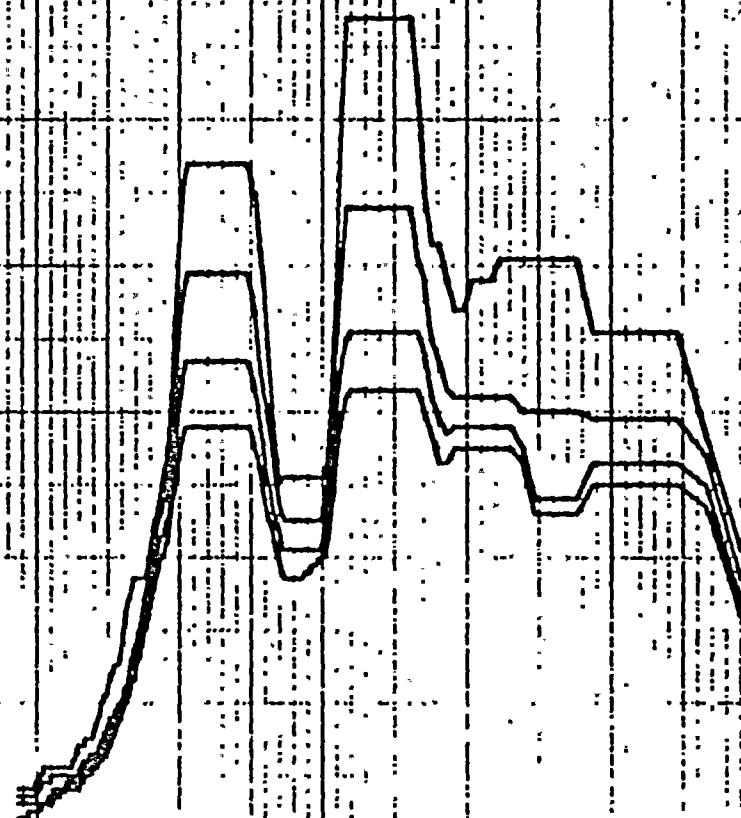
VER DIRECTION

MICHAEL N. CO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLAT OF RRE CURVES WITH DAMPING 1X 2X 3X & 4X
THREE CURVES REPRESENT A SPREAD OF +10% RRE -10%

ACCELERATION - g
0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14



FREQUENCY IN HZ

REF 101



SPECTRA VER 01 LEV 00

SRV(ENV. OF ALL SRV CASES)

22 OCT 1982

P-1B

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0
 RMS OF ACCELERATION PEDestal AT MAT (ELEV 178.0 FT)

DISK CURVE SET NO.4

NRD DIRECTION

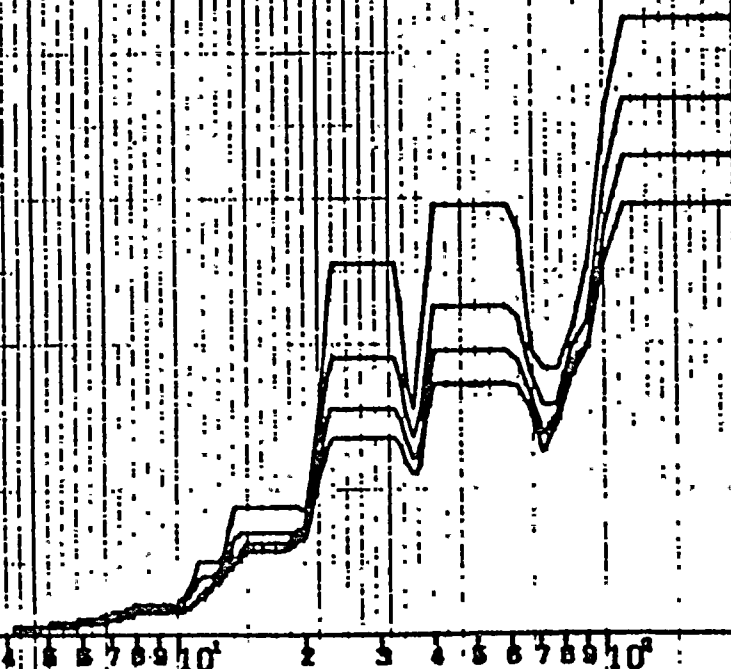
MICHAEL R. RD

DAMPING VALUES = 0.010
 0.020
 0.050
 0.100

NOTES: MULTIPLY SET OF ALL CURVES WITH DAMPING 1X 2X 5X & 10X
 THESE CURVES REPRESENT A SPECTRA OF +10X AND -10X

ACCELERATION 0.00 0.04 0.08 0.12 0.16 0.20 0.24 0.28

10⁰ 2 5 10¹ 2 5 10² 2 5 10³
 FREQUENCY IN HZ



REF 102



SPECTRA VER 01 LEV 03

SRVENV. OF ALL SRV CASES)

22 OCT 1982

P-19

NIRAGAA MOHAWK-NINE MILES POINT UNIT-2 J.S.12177 MS-1748-0
RBS OF ACCELERATION PEDESTAL AT NST (ELEV 178.9 FT)

DIGK CURVE SET NO.4

VER DIRECTION

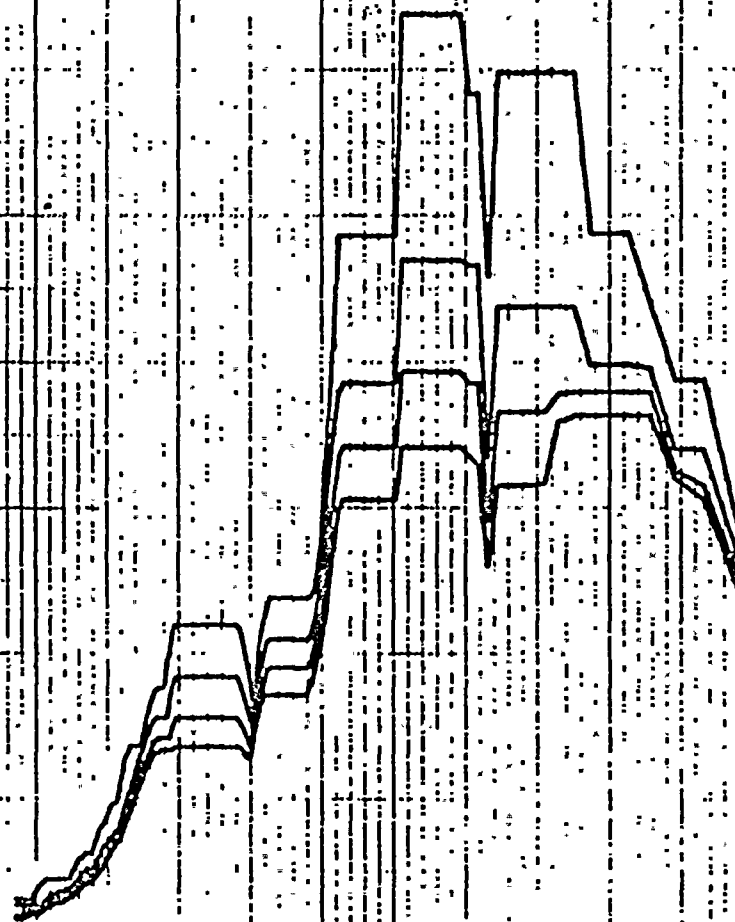
MICHAEL R. GO

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RBS CURVES WITH DAMPING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPECTRA OF 100X RBS -100X

ACCELERATION g

0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35



FREQUENCY IN HZ

REF 102



SPECTRA VER 01 LEV 03

SRV(ENV. OF ALL SRV CASES)

22 OCT 1982

P-20

NINONRA MOHAWK-NINE MILES POINT UNIT-2 J.G.12177 NS-1748-0
RSE OF ACCELERATION PRIMARY CONT. (ELEV 176.0FT) AT NAT

DISK CURVE SET NO.5

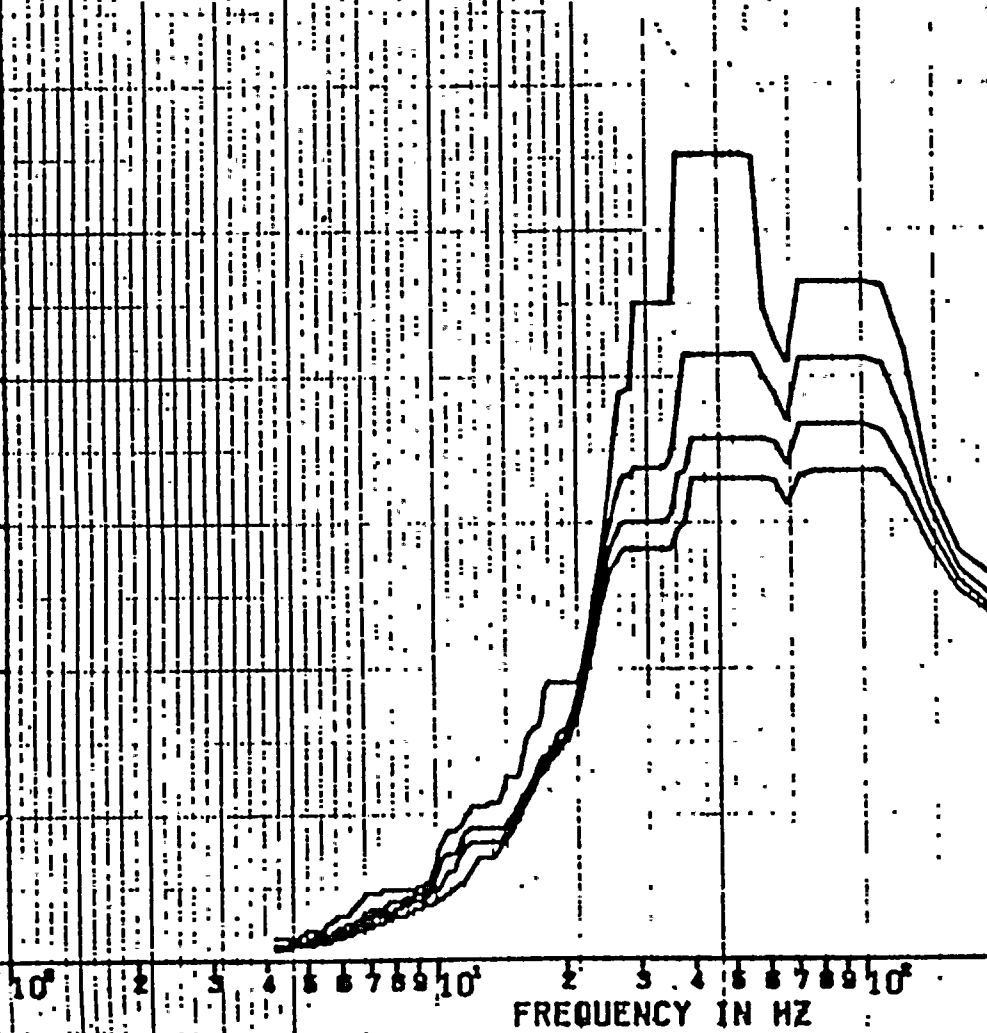
HOR DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY SET OF RSE CURVES WITH DAMPING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION - g
0.00 0.04 0.08 0.12 0.16 0.20 0.24 0.28



REF 103



SPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1982

WINDRUM MONITOR-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-D
RBS OF ACCELERATION PRIMARY CONT. (ELEV 178.0FT) AT H3T

DISK CURVE SET NO.5

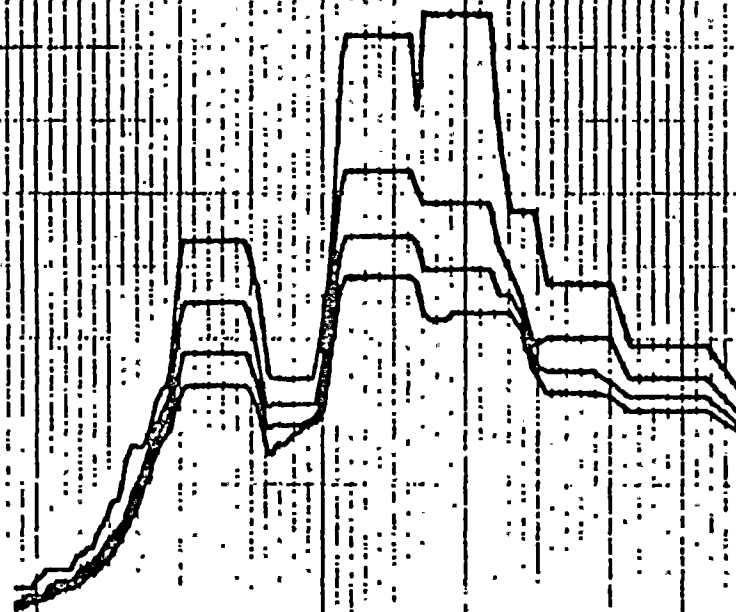
VER DIRECTION

RICHARD K. E2

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF GRS CURVES WITH DAMPING 1X 2X 3X & 4X
THREE CIRCLES REPRESENT A SPREAD OF +10% GRS -10%

0.00 0.04 0.08 0.12 0.16 0.20 0.24 0.28
ACCELERATION G



FREQUENCY IN HZ

REF 103



PERCEPTRA VER OF LEV 03 . SRV(ENV. or ALL SRV CASES)

SRV(ENV. or ALL SRV CASES)

22 OCT 1992

WIAOATA MOHAWK-NINE MILES' POINT UNIT-2 J.O.12177 MS-1748-0

RDS OF ACCELERATION SECONDARY CONT. (ELEV 175) AT NAT

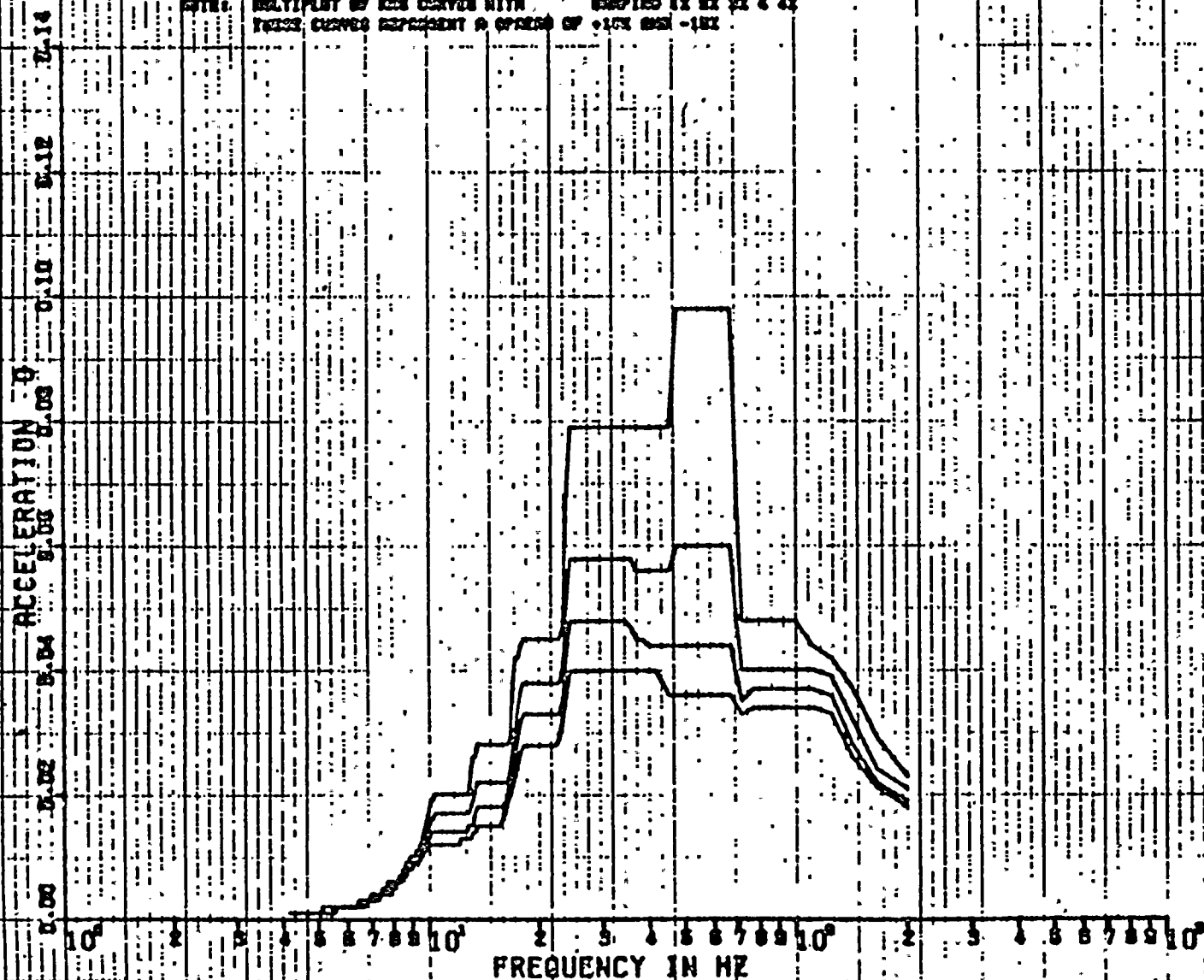
DISK CURVE SET NO. 8

HOR DIRECTION

NOTE: MULTIPLY OF RDS CURVES WITH SAMPLES 1X 2X 3X & 4X
THREE CURVES REPRESENT A SPREAD OF -10% RDSH -10%

RICHARD K. 62

COMPIED VALUES :	
	0.010
	0.020
	0.050
	0.040



REF 104



PSPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1982

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-D.
RRS OF ACCELERATION SECONDARY CONT. (ELEV 175) AT MAT

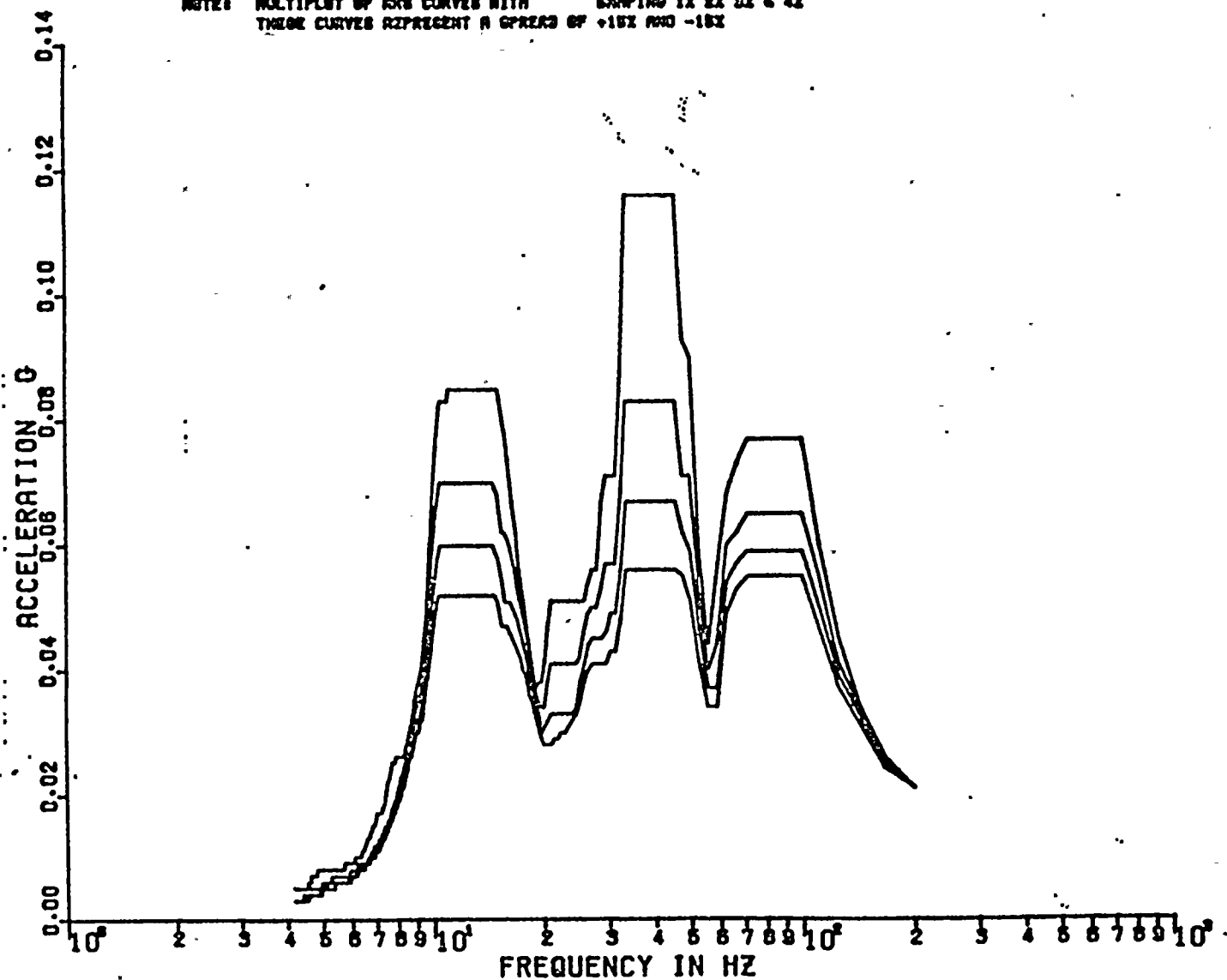
DISK CURVE SET NO.8

VER DIRECTION

MICHAEL R 03

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH SAMPLING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



P-23

REF 104



SPECTRA VER 01 LEV 03

SRV(HV. OF ALL SRV CASES)

22 OCT 1962

NIAOARA MOUNTAIN-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV 180.8 FT)

DISK CURVE SET 08.7

HOR DIRECTION

MICHAEL R 03

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY RES CURVES WITH DAMPING 1X BY 22 & 42
THREE RECORDS REPRESENT AVERAGE OF +10% AND -10%

ACCELERATION 0
0.20
0.40
0.60
0.80
1.00
1.20
1.40

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

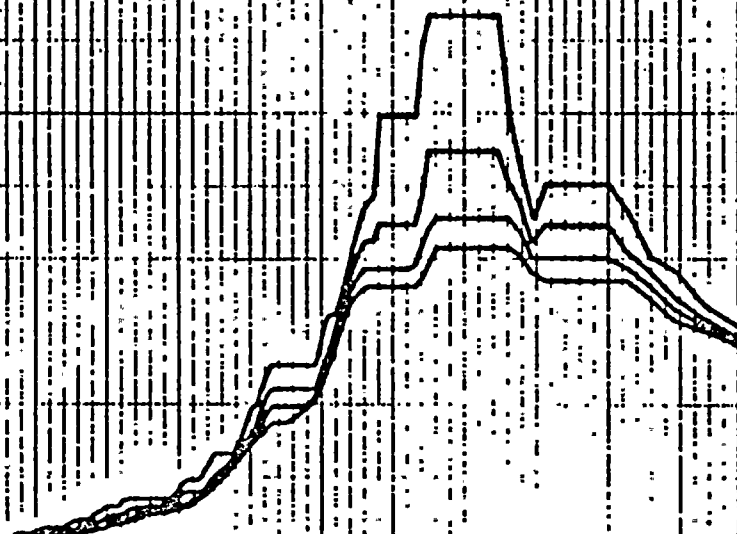
10

2

5

10

FREQUENCY IN HZ



P. 34

REF 105



SPECTRA VER 01 LEV 08

REVIEW OF ALL SBY CASES

22 OCT 1982

WINDWARD HONOLULU-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
BAS OF ACCELERATION PRIMARY CONT. (ELEV 100.8 FT)

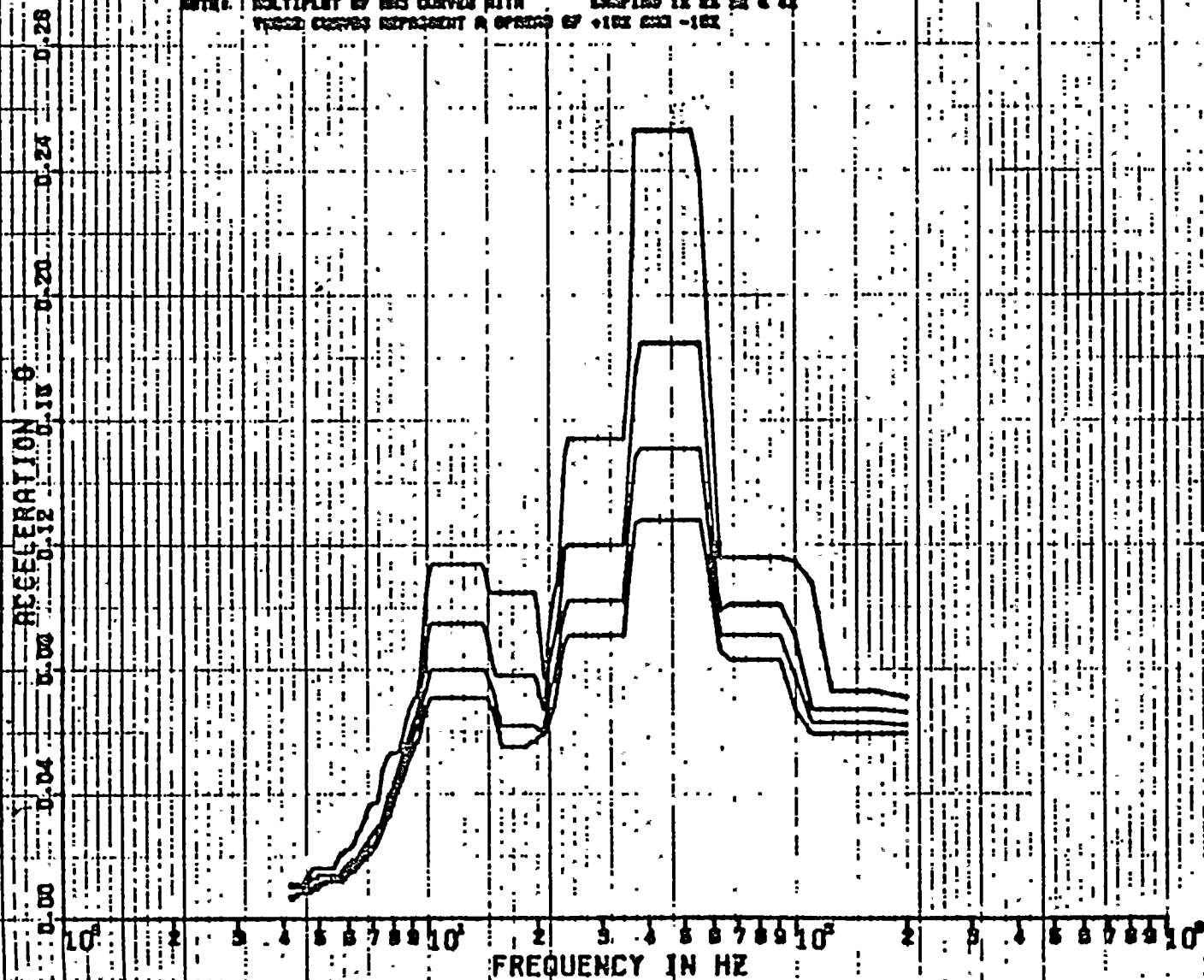
NICHOLAS K. CO.

DISK CURVE SET NO. 7

VER DIRECTION

DAMPING VALUES
0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY BAS CURVES WITH DAMPING 12 22 32 & 42
THREE CURVES REPRESENT A SPREAD OF +10% -10%



REF 105



PERPECTRA VER 01 LEV 00

SRVENV. OF ALL SRV CASES)

22 OCT 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-D.
RRE OF ACCELERATION PEDESTAL. (ELEV.185.8 FT)

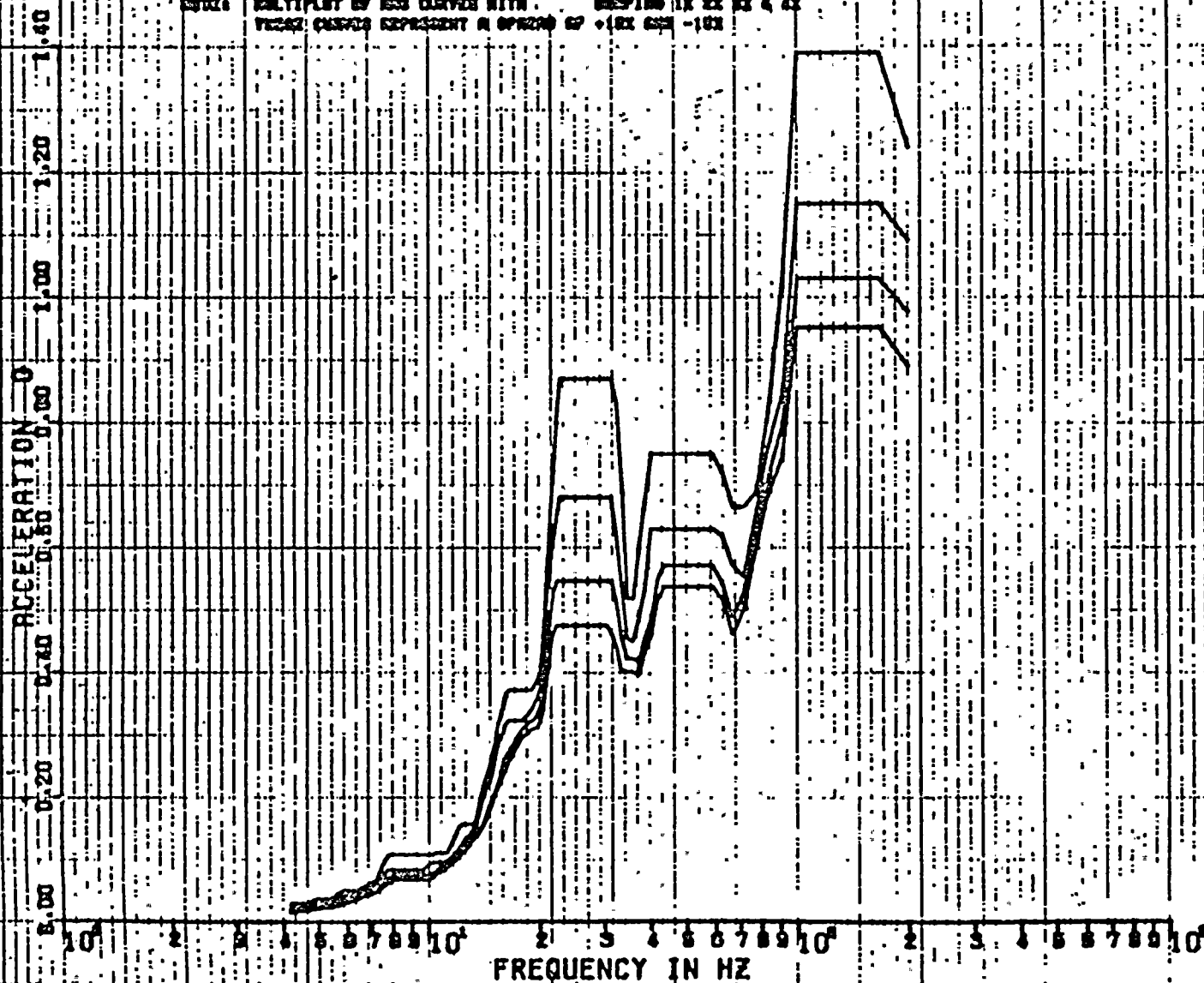
DISK CURVE SET NO.8

HOR DIRECTION

MICHAEL K. DO

DAMPING VALUES = 0.010
0.020
0.050
0.040

NOTE: MULTIPLY OF 800 CURVES WITH DRYING 1X 2X 3X 4X 5X
VELOC: CURVES REPRESENT A SPREAD OF 10X 20X 30X 40X 50X



P.26

REF 106



SPECTRA VER 01 LEV 03

SRV(ENV. OF ALL SRV CASES)

22 OCT 1962

NICARA MONSIE-MINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
RMS OF ACCELERATION PEDSTAL (ELEV.185.0 FT)

DISK CURVE SET 10.0

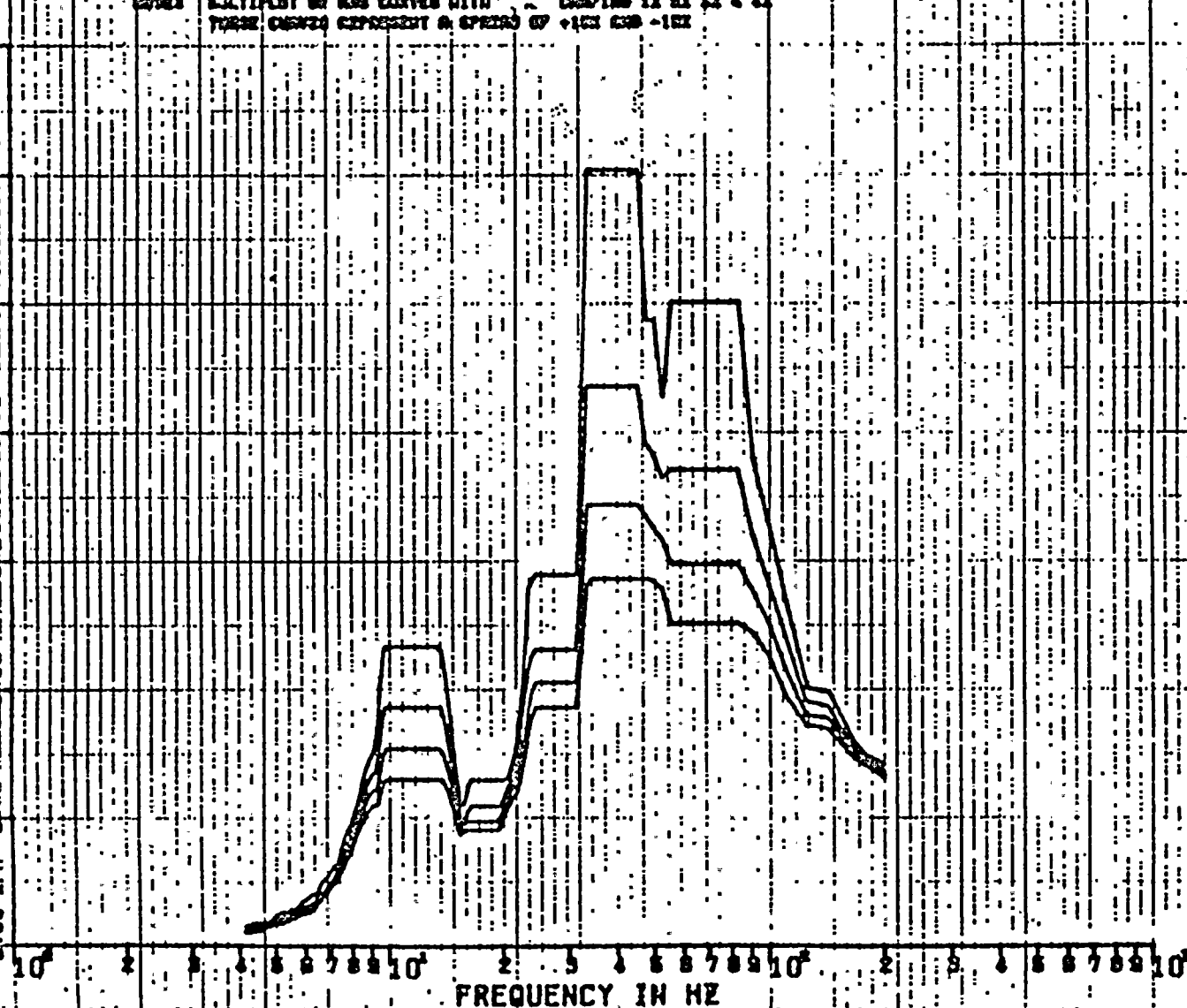
VER DIRECTION

HICKZEL R. 03

DAMPING VALUES: 0.010
0.020
0.050
0.040

NOTE: MULTIPLY OF RMS VALUES WITH DAMPING 1X 2X 3X 4 4X
THESE VALUES REPRESENT A SERIES OF +100 RMS -100

ACCELERATION 0.00 0.03 0.10 0.24 0.32 0.40 0.48 0.56



REF 106



PSPECTRA VER 01 LEV 03

SRVIEHV. OF ALL SAV CASES

22 OCT 1982

P-28

NINOGRA MONTANA-NINE HILES POINT UNIT-2 J.G.12177 NS-1748-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.185.6 FT)

DIST. CURVE SET NO.2

NER DIRECTION

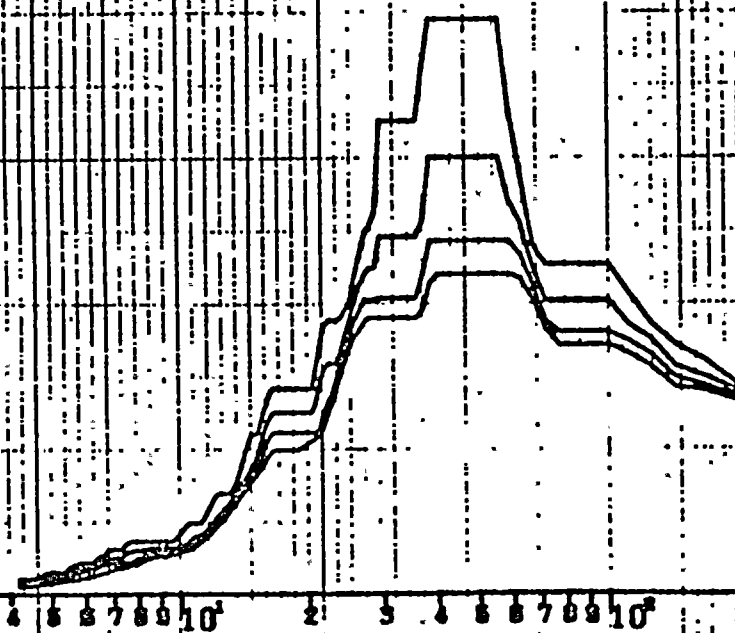
NICHREL. K 03.

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY RMS CURVES WITH . . . SCALING BY 22 23 & 24
Y-axis CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00

FREQUENCY IN HZ



REF 107



PERCEPTRA VER 01 LEV 00

SRVICHV. OF ALL SRY CASES)

22 OCT 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.G.12177 RS-1740-9.
RIS OF ACCELERATION PRIMARY CONT. (ELEV.185.8 FT)

DISK CURVE EXT. 12.9

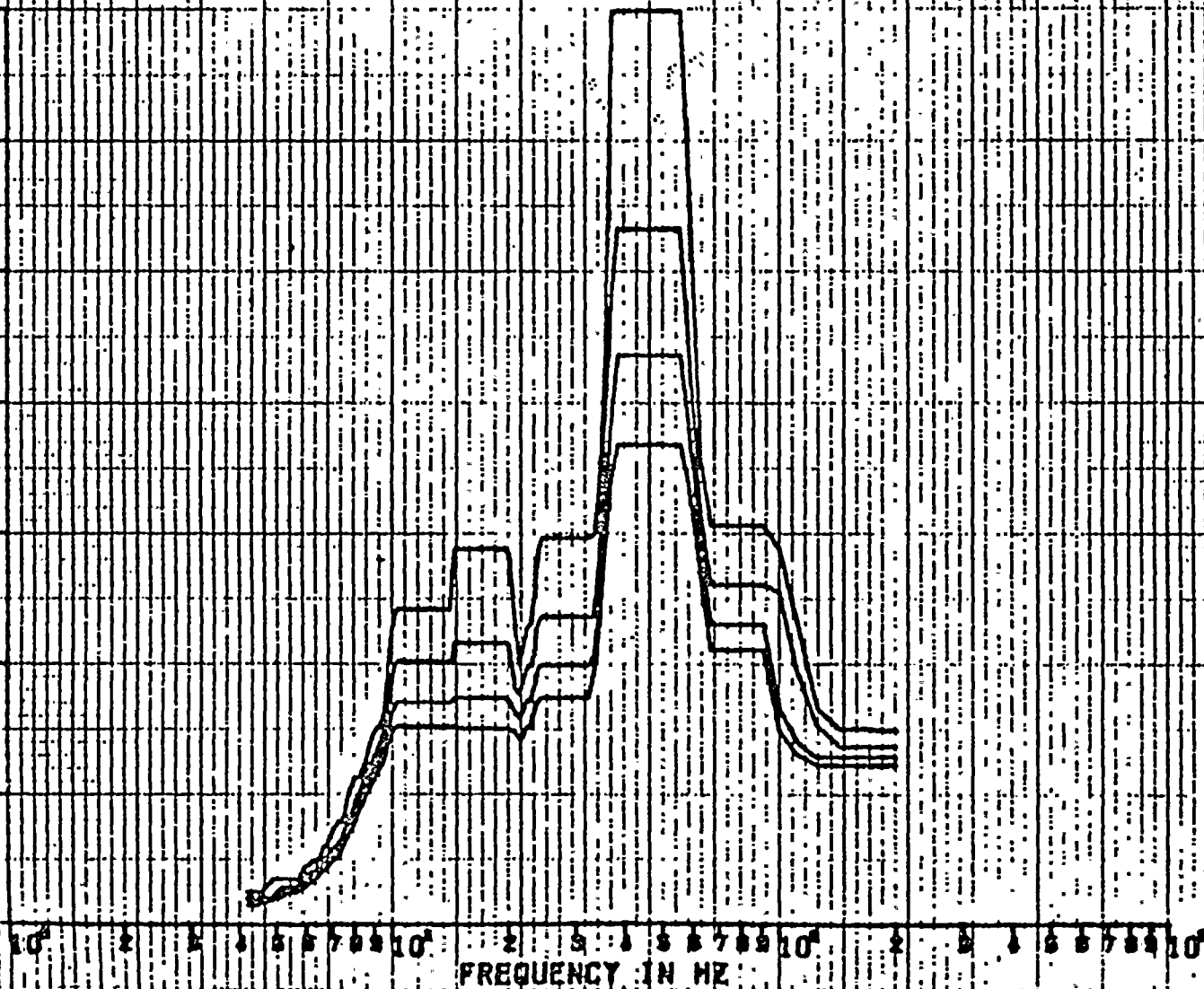
VER DIRECTION

NICHOL N. 00

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF SRS CURVE WITH DRYING 1X 2X 3X 4 5X
FORCES CORRECT DEPENDENT A SPEEDS OF 15X 20X 100X

ACCELERATION 0
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35



REF 107



SPECTRA VER 01 LEV 03

SRVENV. OF ALL GRY CASES

22 OCT 1982

HINDORA MONAH-NINE HILES POINT UNIT-2 J.O.12177 RS-1740-0
RPS OF ACCELERATION PRIMARY CONT. (ELEV. 190.4 FT)

DISK CURVE SET NO.10

N32 DIRECTION

MICHAEL M. 03

DAMPING VALUES = 0.010
0.020
0.050
0.100

NOTE: MULTIPLY BY RES CURVES WITH DAMPING 1X 2X 5X & 10X
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION G
0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30 1.40 1.50 1.60 1.70 1.80 1.90 2.00 2.10 2.20 2.30 2.40 2.50

10⁰

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

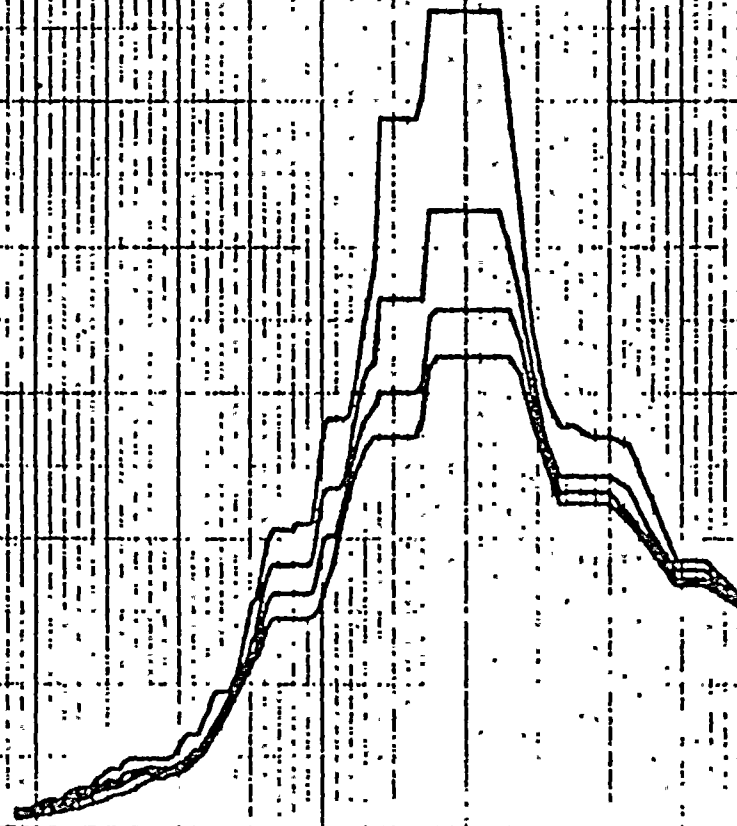
5

10

2

5

FREQUENCY IN HZ



REF 108

P.30



PSPECTRA VER 01 LEV 08

SRVENV. OF ALL GAY CASES)

22 OCT 1982

WINDATA HONOLULU-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 190.4 FT)

DISK CURVE SET NO.10.

VER DIRECTION

NICHOL K 52

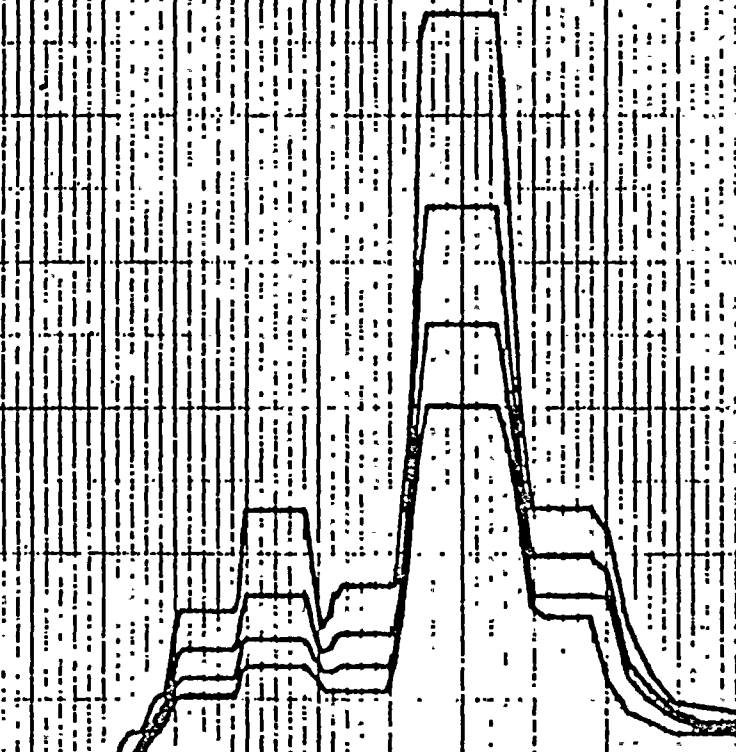
DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1E 2E 3E 4 5E
RMS CURVES REPRESENT A DIRECTION OF 1E1 2E1 -102

RECELERATION - 0
0.56
0.48
0.40
0.32
0.24
0.16
0.08
0.00

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



REF 108

P. 31



SPECTRA VER 01 LEV 08

SRVIEWY. OF ALL SRY CASES

22 OCT 1982

NIRORRA MONAUK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0
RRE OF ACCELERATION PRIMARY CONT. (ELEV. 184.2 FT)

DISK CURVE SET NS.11

HCR DIRECTION

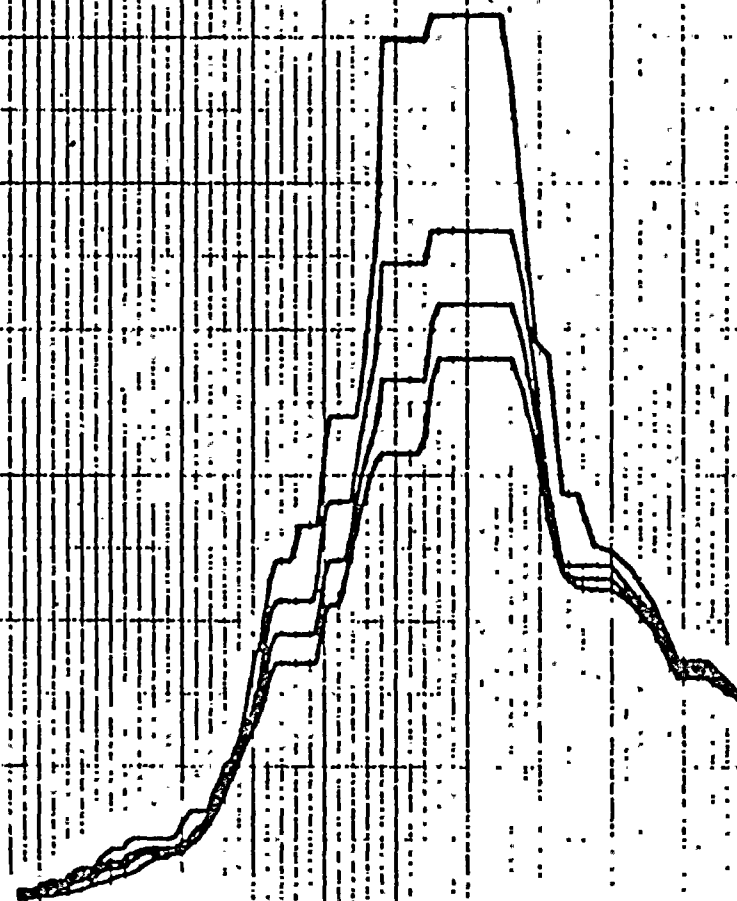
NICHSEZL R. 60

DAMPING VALUES * 0.010
0.020
0.030
0.040

COPY: MULTIPLST OF RRE CURVES WITH . . . COMPIED IN EX EX & 43
THREE CURVES SPACED AT SPACES OF +12X RRE -182

RECELERATION 0
1.00
1.20
1.40
1.60
1.80
2.00
2.20
2.40
2.60

10⁰ 2 5 10¹ 2 5 10² 2 5 10³
FREQUENCY IN HZ



P-30

REF 109



PEPECTRA VER 01 LEV 03

SRV(ENV. OF ALL SRY CASES)

22 OCT 1952

P-33

WINDSON HOWARD-NIKE MILES POINT UNIT-2 J.O.12177 NS-1748-0.
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 185.2 FT)

NICHOLAS H. CO

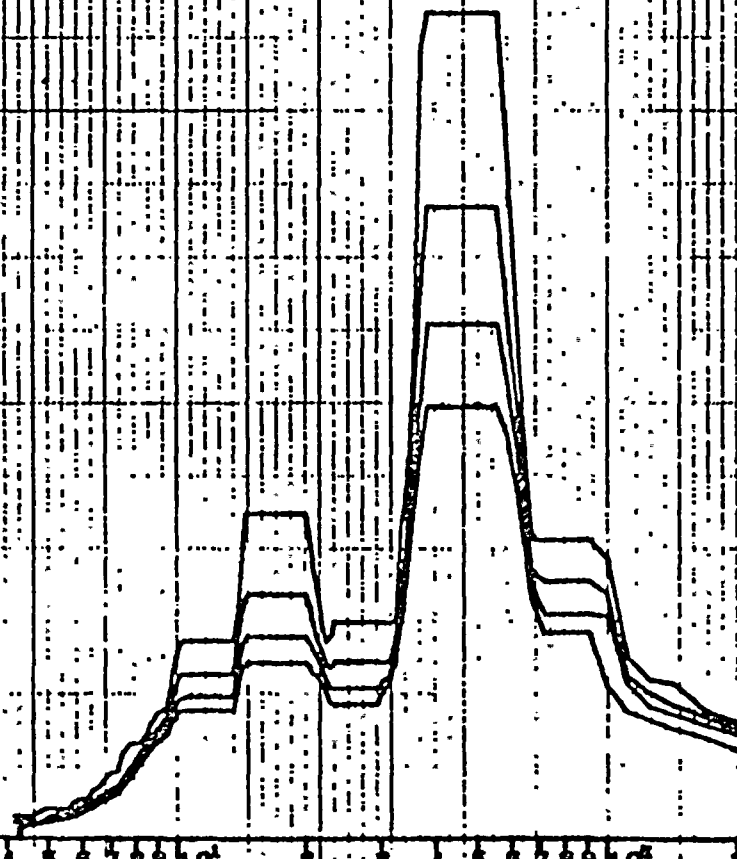
DIRK CURVE GET NO.11

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS VALUES WITH DAMPING 1X 2X 3X 4X
THESE CURVES REPRESENT A SERIES OF +10X AND -10X

ACCELERATION - 0
0.10
0.20
0.30
0.40
0.50
0.60
0.70



FREQUENCY IN HZ

Ref 109



SPECTRA VER 01 LEV 03

SRV ENV. OF ALL BAY CASES

22 OCT 1982

P. 34

NICOMAR MICHIGAN-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0
 RMS OF ACCELERATION SECONDARY CONT. (ELEV 281.0 FT)

DISK CURVE SET 03,12

NSR DIRECTION

NICOMAR M. 20

COMPIED VALUES = 0.010
 0.020
 0.050
 0.040

NOTE: MULTIPLOT OF RMS CURVES WITH SCALING 1X 2X 3X 4X 5X
 THESE CURVES REPRESENT A SPACING OF 10X RMS -10X

ACCELERATION G
 0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14

10¹

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

FREQUENCY IN HZ

REC III



SPECTRA VER 01 LEV 03

SRVENV. (SRV CASES)

22 OCT 1992

NIAORRA HONOLULU-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV 281.0 FT)

DISK CURVE SET NO.12:

VER DIRECTION

NICHOL K 80

PEAKING VALUES:

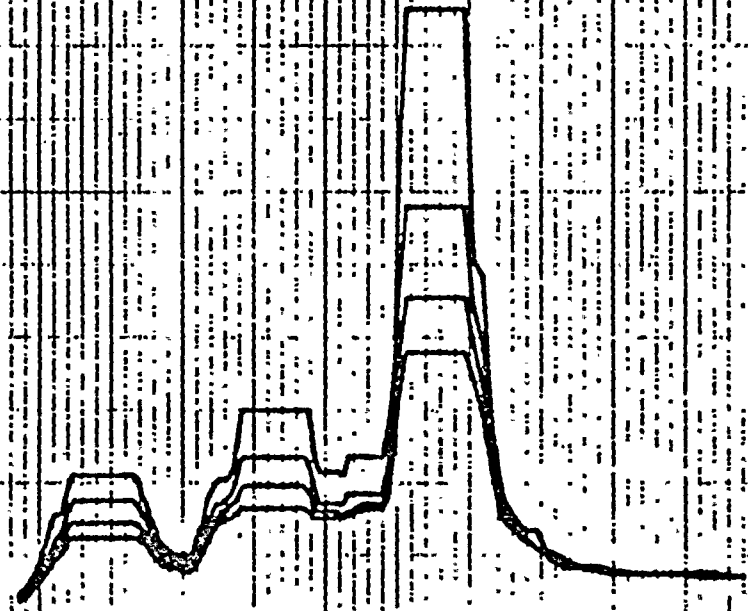
0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH SCALING 1X 2X 3X 4X 5X
THREE CURVES REPRESENT A SPREAD OF +10% 0% -10%

ACCELERATION

10 2 5 10 2 5 10 2 5 10 2 5 10

FREQUENCY IN HZ



Ref 111



PEPECTRA VER 01 LEV 09

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

P-36

MINORAK MONK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0
 RES OF ACCELERATION PEDESTAL WATER LEVEL (ELEV. 201.0 FT)

DISK CURVE SET NO.15

NSZ DIRECTION

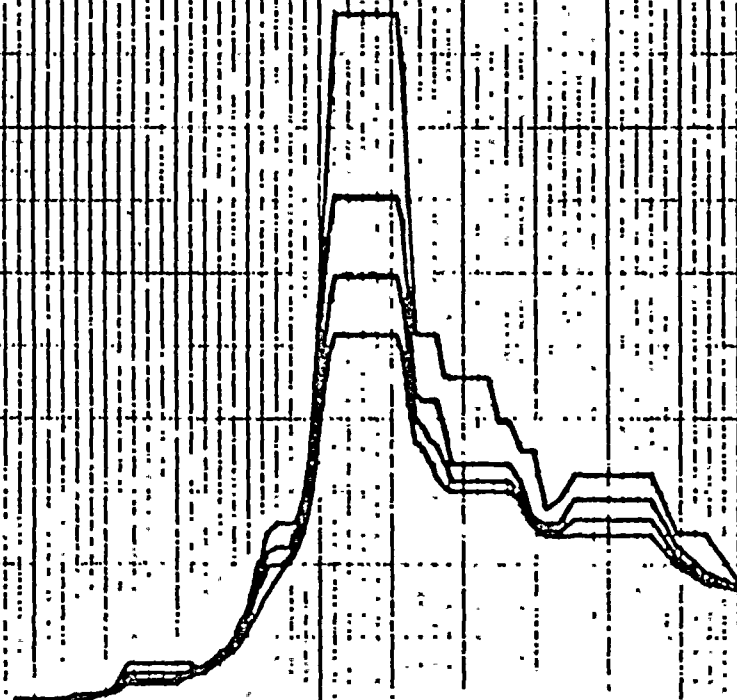
MICHAEL K RS

DROPPING VALUES = 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLY OF RES CURVES WITH SCALING 15 25 35 & 45
 STRENGTH REDUCES REPRESENT A STRENGTH OF 15% RES -10%

ACCELERATION 0

0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30 1.40 1.50 1.60 1.70 1.80 1.90 2.00



FREQUENCY IN HZ

REF 112



PEPECTRA VER 01 LEV 03

SRV(ENV. OF ALL SRV CASES)

22 OCT 1932

NIAORRA MONUMEN-NINE MILES POINT UNIT-2 J.O.12177 KS-1748-8
RDS OF ACCELERATION PEDISTAL WATER LEVEL (ELEV. 201.0 FT)

P-37

DISK CURVE SET 63.18

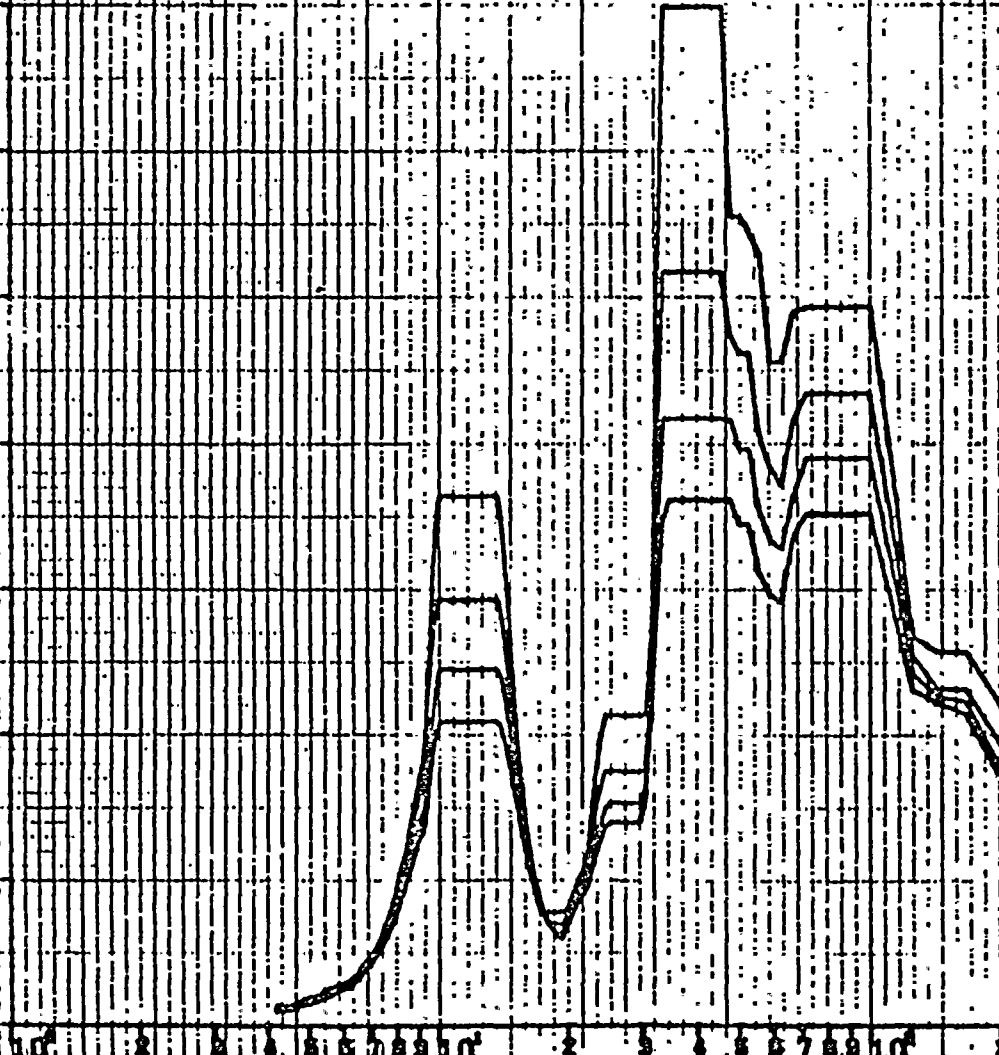
VER DIRECTION

MICHAEL H 23

DAMPING VALUES: 0.010
0.020
0.050
0.080

NOTE: MULTIPLY BY RDS CURVES WITH DCPING 1X 2X 3X 4X 5X
FROM GRAPHIC DISCREPANT & SPECIES OF +15X RDS -15X

RECELERATION 0
0.10
0.20
0.30
0.40
0.50
0.60
0.70



FREQUENCY IN HZ

REF 112



SPECTRA VER 01 LEV 03

SRV(ENV) ALL SRV CASES)

22 OCT 1962

P. 38

MIRORA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0
 RMS OF ACCELERATION PRIM. CONT. W.L. (ELEV. 201.0 FT)

DISK CURVE SET NO.14

NSR DIRECTION

NICHOL N. 03

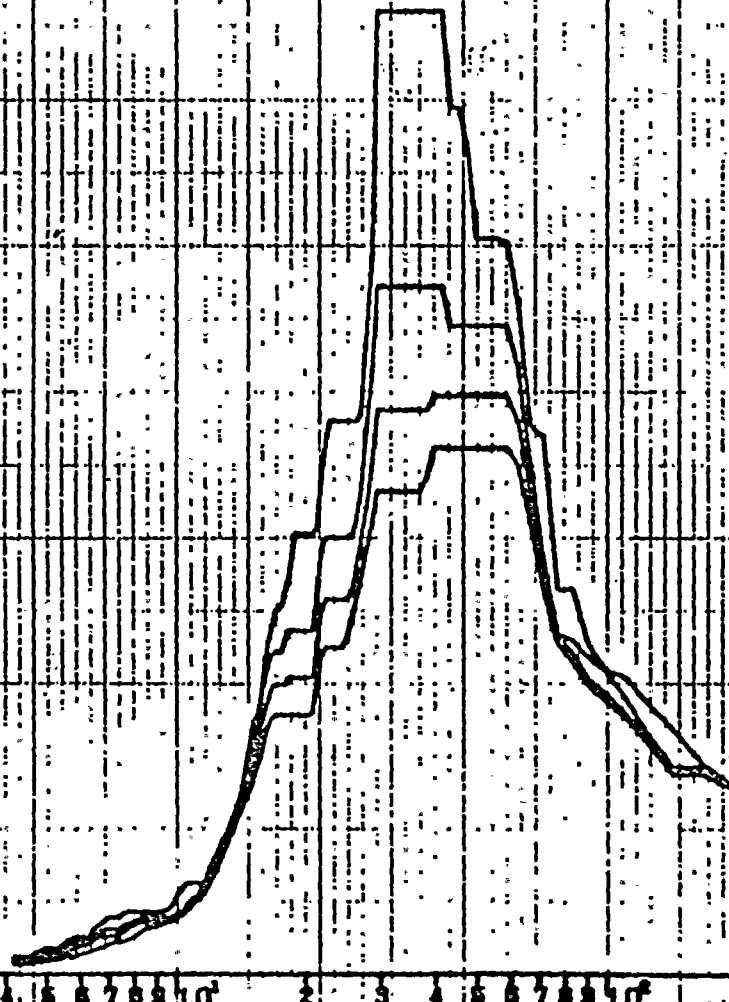
RESPONSE VALUES = 0.018
 0.020
 0.020
 0.040

NOTE: MULTIPLY OF RMS CURVES WITH RESPONSES 12 22 32 & 42
 POWER CURVES DEPENDENT A SPEED OF +101 030 -103

ACCELERATION 0 1.00 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



REF 113



PEPECTER VER 01 LEV 03

SRV(ENV. ALL SRV C03261

22 OCT 1982

P-39

WINDERS ROCK-9 MILE POINT UNIT-2 J.O.12177 HS-1748-0
 NOS OF ACCELERATION PRIM. CONT. N.L. (ELEV. 201.0 FT)

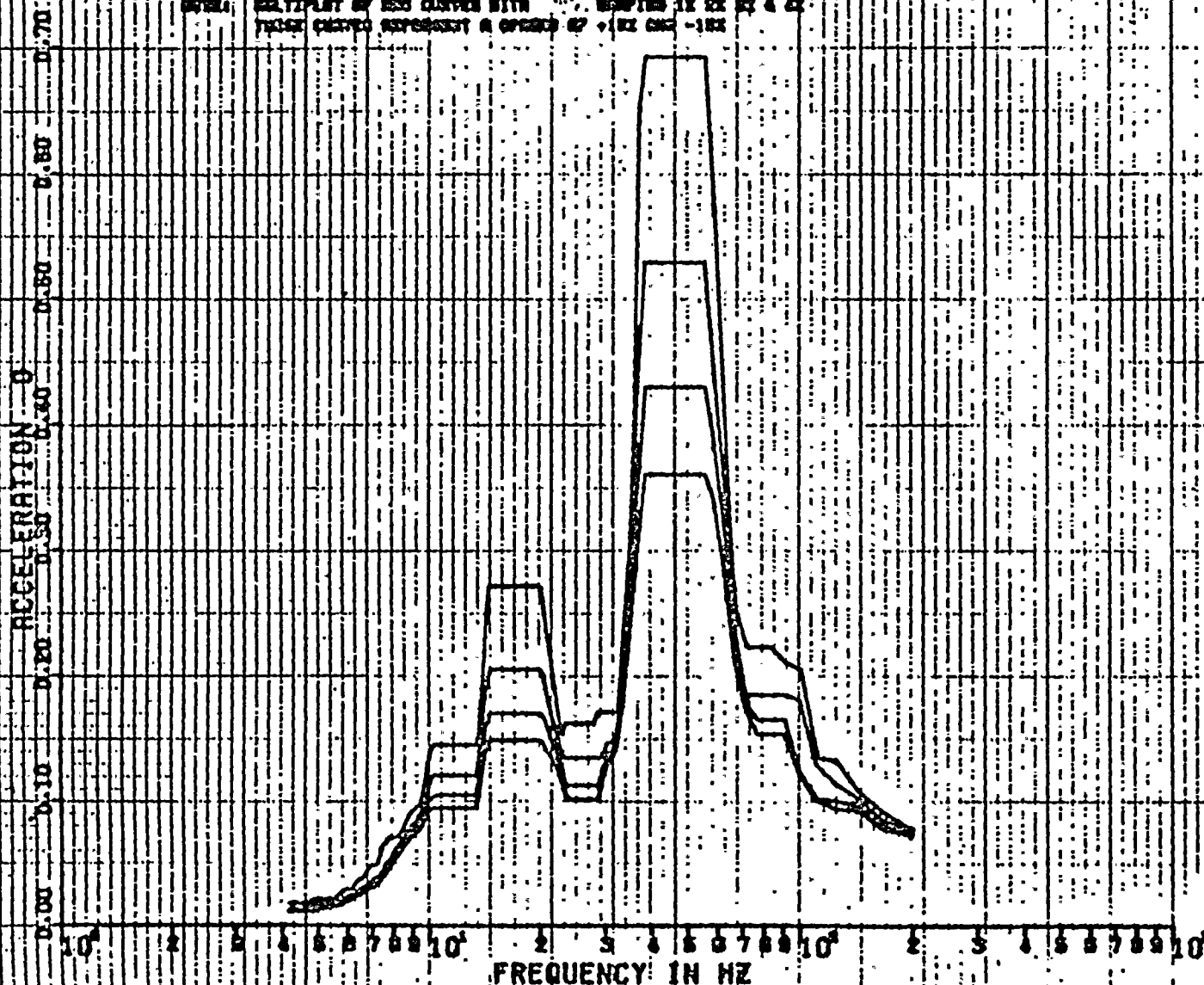
DICK CURVE SET 43-14

VER DIRECTION

MICHAEL R. CS

DRYING VALUES = 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLY BY 100 CURVES WITH ... SAMPLES 12 22 BY 4 42
 THESE CURVES REPRESENT A SPECTRUM OF ... 100



REF 113





PERPECTA VER OF LEV 08

SAVIENV. OF ALL SKY CRDS)

22 OCT 1962

NINOTER FOMANK-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV.289.0 FT)

NICHASL E. CO

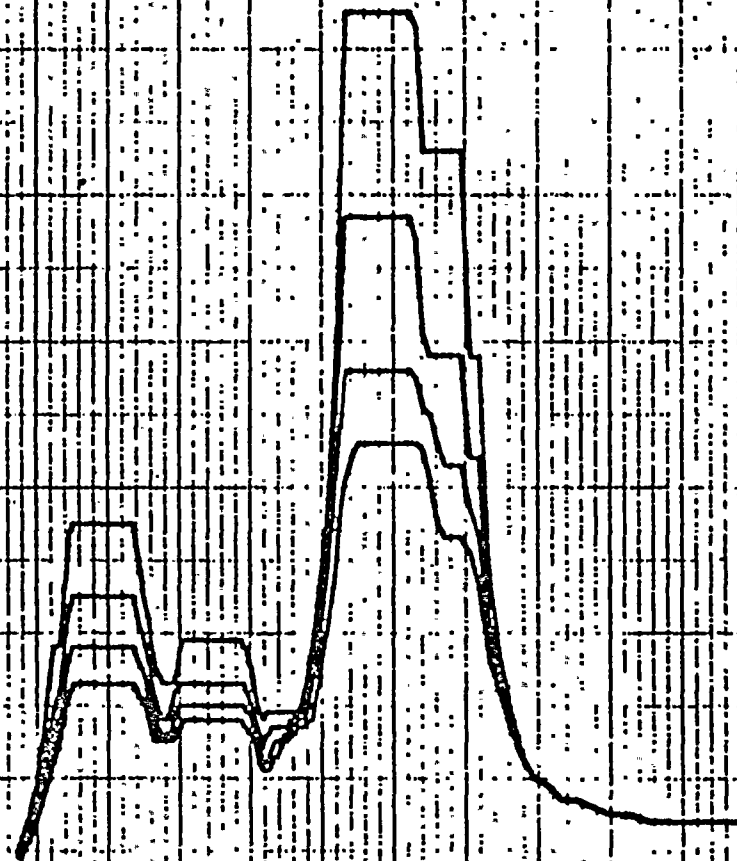
DISK CURVE SET C9.15

VER DIRECTION

COMPIED VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH SCALING 12 22 36 6 43
THAT THESE REPRESENT A SPEED OF 100 KTS -100

0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14
ACCELERATION



FREQUENCY IN HZ

REC 114



SPECTRA VER 01 LEV 00

REVIEW OF ALL GRV CASES

22 OCT 1982

NIGARA KOWALK-NINE MILES POINT UNIT-2 J.9.12177 M3-1748-0
 RMS OF ACCELERATION PRIMARY CONT. (ELEV.208.11 FT)

DISK CURVE SET 28.10

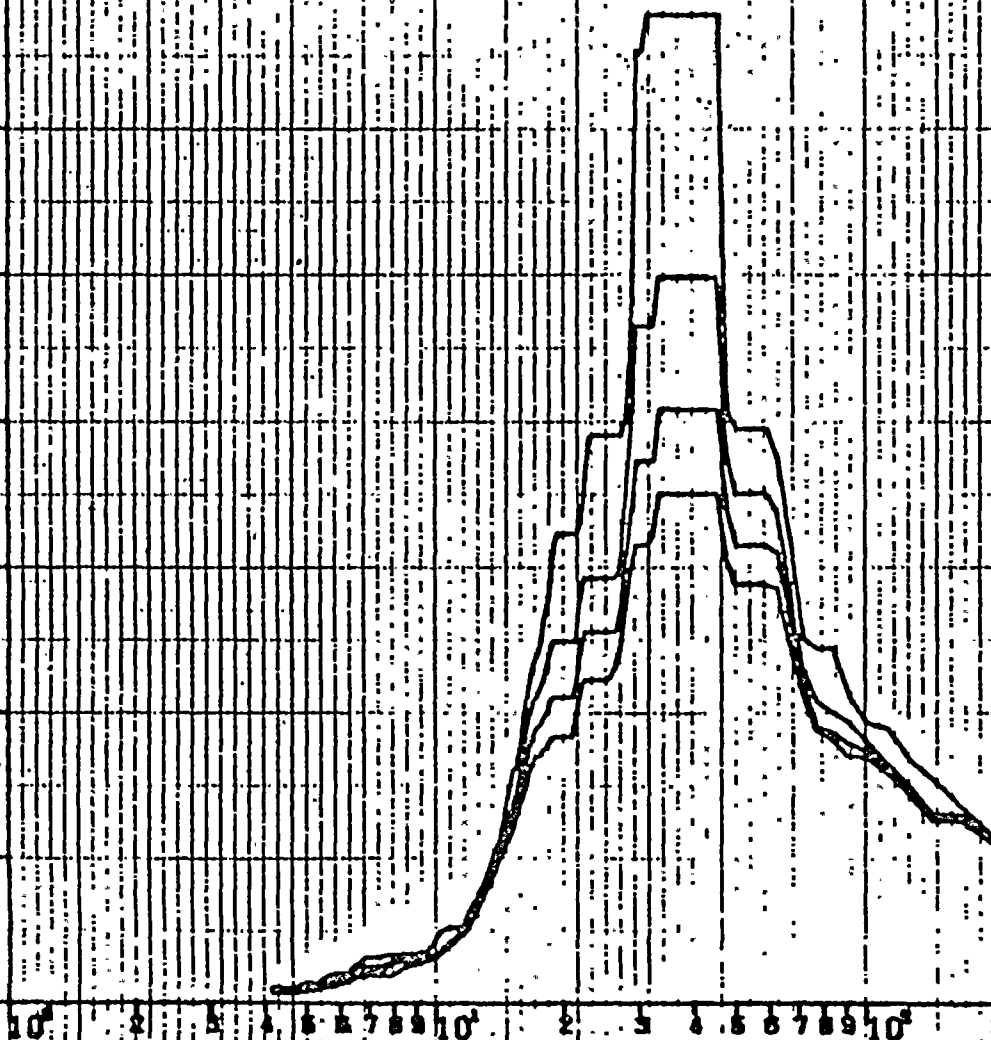
NSR DIRECTION

HICKS21 R. 00

DAMPING VALUES: 0.010
 0.020
 0.030
 0.050

NOTE: MULTIPLY OF 222 CURVES WITH SCALING 1E 02 03 & 04
 THESE CURVES REPRESENT A SERIES OF 1000 200-100

ACCELERATION -0
 2.00
 1.50
 1.00
 0.50
 0.00



FREQUENCY IN HZ

P. 22

REF 115



SPECTRA VER 01 LEV 03

SRV(ENV. & ALL SRY CASES)

22 OCT 1992

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.B.12177 MS-1748-S.
RMS OF ACCELERATION PRIMARY CONT. (ELEV.208.11 FT)

DISK CURVE SZT 63.18

VER DIRECTION

MICHAEL N'ER

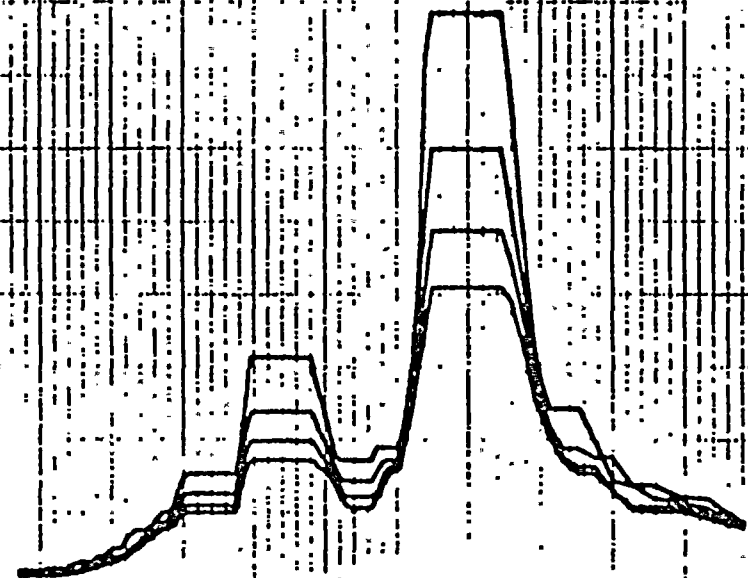
DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF ALL CURVES WITH DAMPING 1X 2X 3X 4 4X
TWOSE CURVES REPRESENT A SPEED OF +18X AND -18X

ACCELERATION G
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00

10⁰ 2 5 10¹ 2 5 10² 2 5 10³

FREQUENCY IN HZ



SEP 115



PSPECTRA VER 01 LEV 03

SRVENV. OF ALL SRV CASES)

22 OCT 1982

NICARAGUA HONKIN-NINE MILES POINT UNIT-2 J.O.12177 MS-1740-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.212.22 FT)

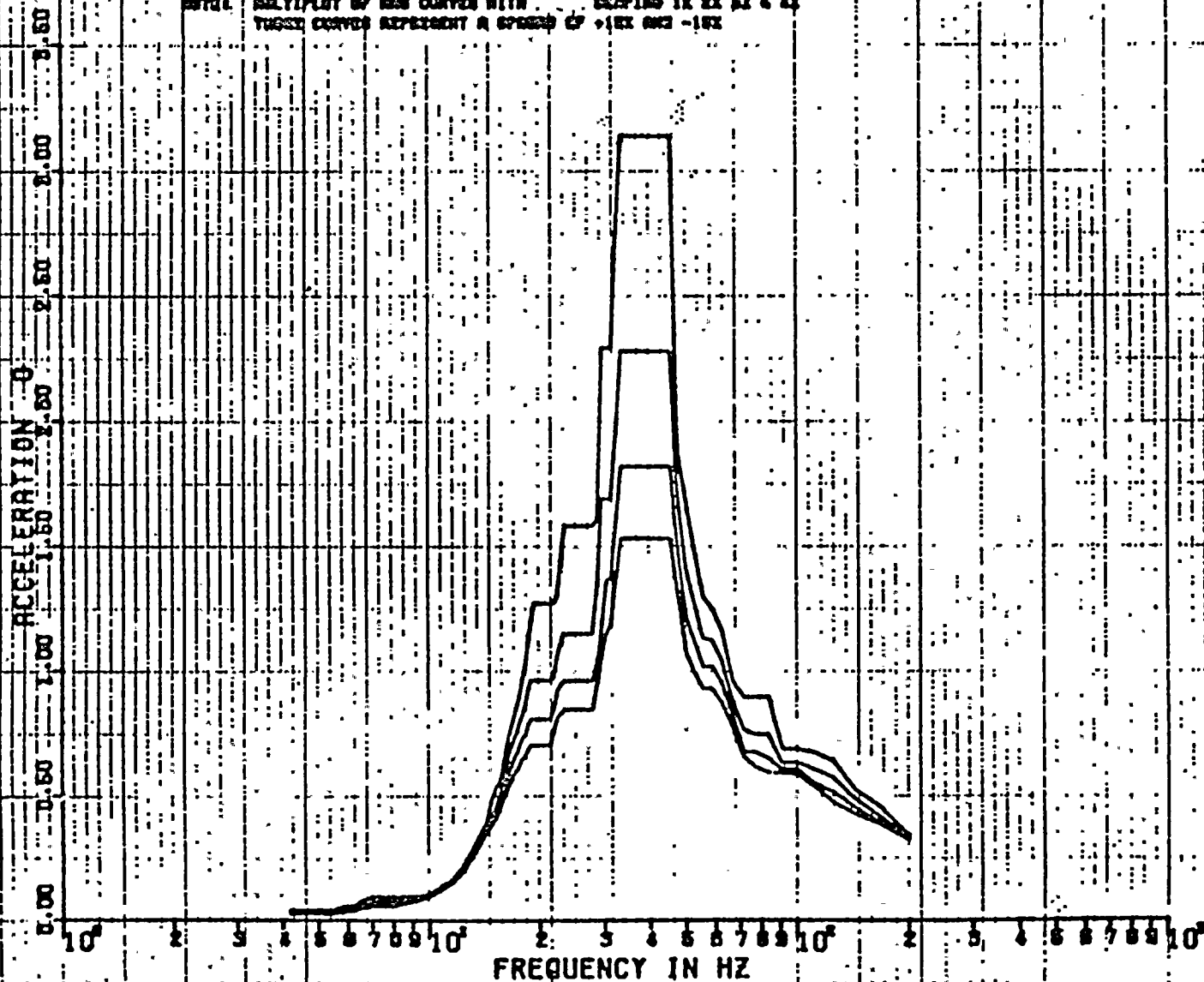
DISK CURVE SET NO.17

HOR DIRECTION

MICHAEL K 03

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLT OF RMS CURVES WITH SCALING 1K 2K 3K 4K
THREE CURVES REPRESENT A SPEED OF +1K AND -1K



REF 116

P. 44



PSPECTRA VER 01 LEV 08

SRVIEW. OF ALL SRY CASES)

22 OCT 1982

P-95

NIAGARA MONK-MINE HILES POINT UNIT-2 J.O.12177 NS-1748-8
RDS OF ACCELERATION PRIMARY CONT. (ELEV.212.22 FT).

DISK CURVE SET NO.17.

VER DIRECTION

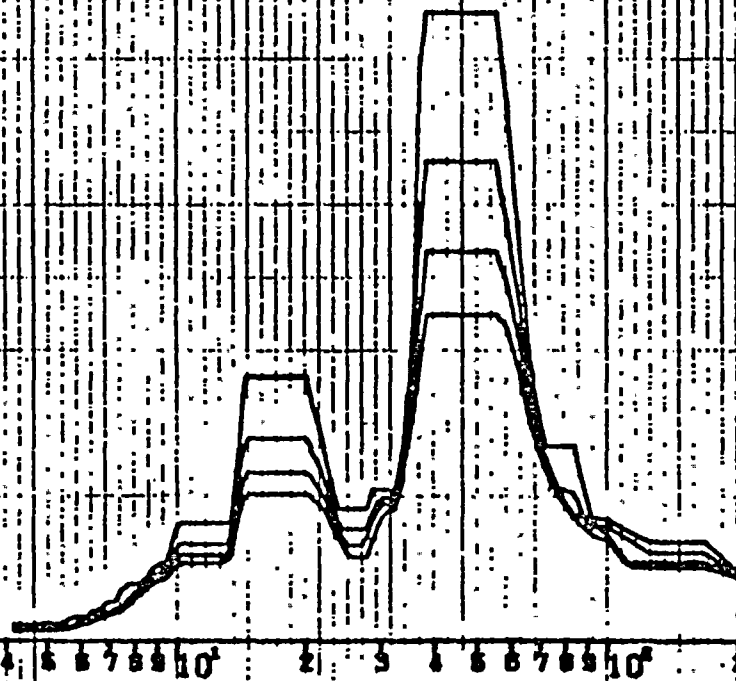
NICHOL K CO

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY 1000 CURVES WITH SCALING 1X 2X 3X 4X 5X
PULSE CANNOT REPRESENT A SPECTRUM OF 1000 HZ - 1000

ACCELERATION - 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

FREQUENCY IN HZ



Ref 1/6



PEPECTRA VER 01 LEV 03

SRV(ENV. OF ALL SKY CASES)

22 OCT 1992

NIRADAR MONUM-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0.
 RMS OF ACCELERATION PEDESTAL (ELEV.217.5 FT.)

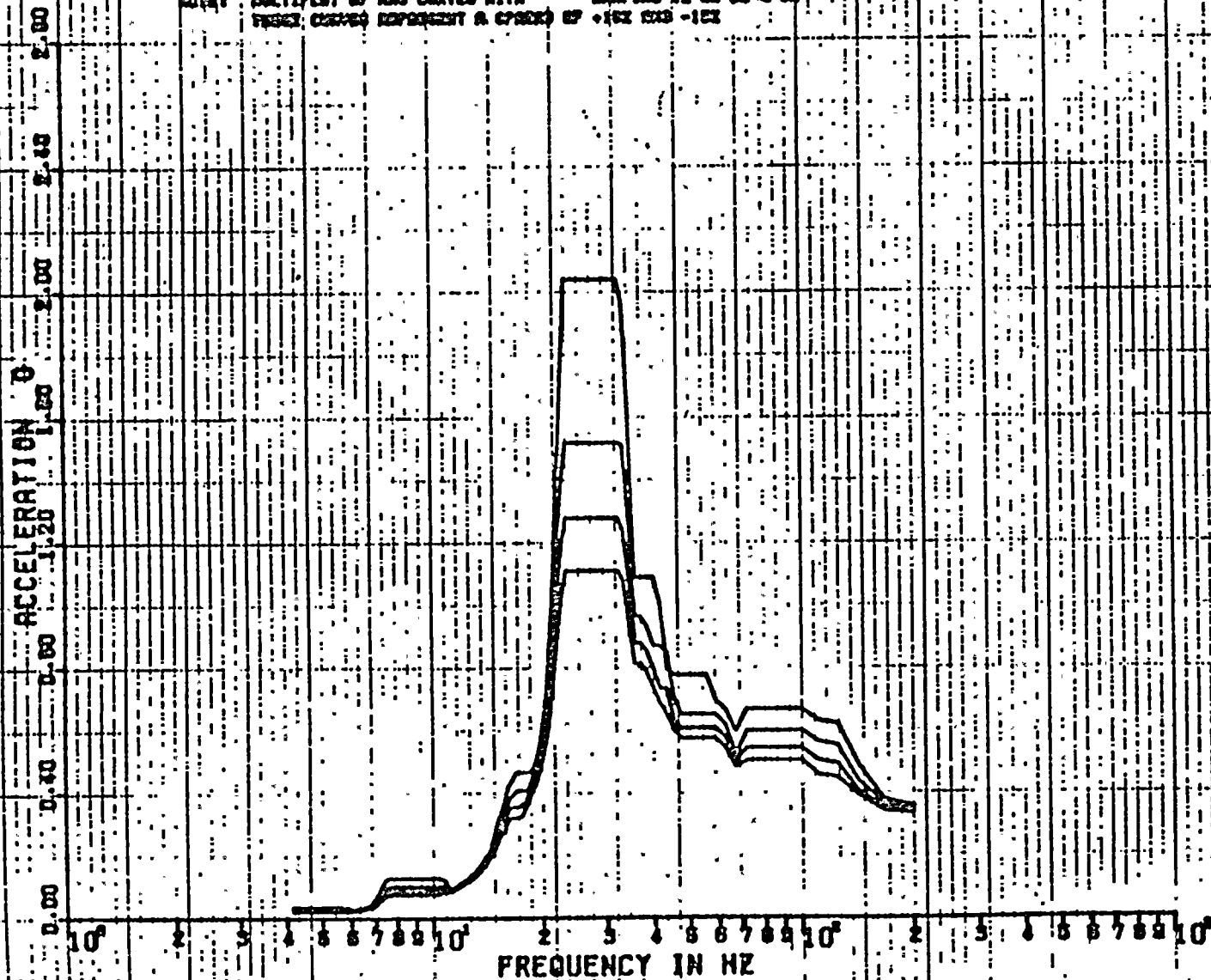
NICHOL K. 63

DISK CURVE SET 03.18

NRZ DIRECTION

DAMPING VALUES = 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 12 22 4 43
 FIRST CURVES REPRESENT A CYCLE OF +152 153 -152



REF 117



SPECTRA VER 01 LEV 03

SRVENV. OF ALL SRV CASES)

22 OCT 1962

P-47

NINONIA MONARK-NINE MILES POINT UNIT-2 J.O.12177 RS-1748-8
 OBS OF ACCELERATION. PEDestal. (ELEV.217.8 FT.)

DICK CURVE SET 23.18

VER DIRECTION

MICROPL. R. 60

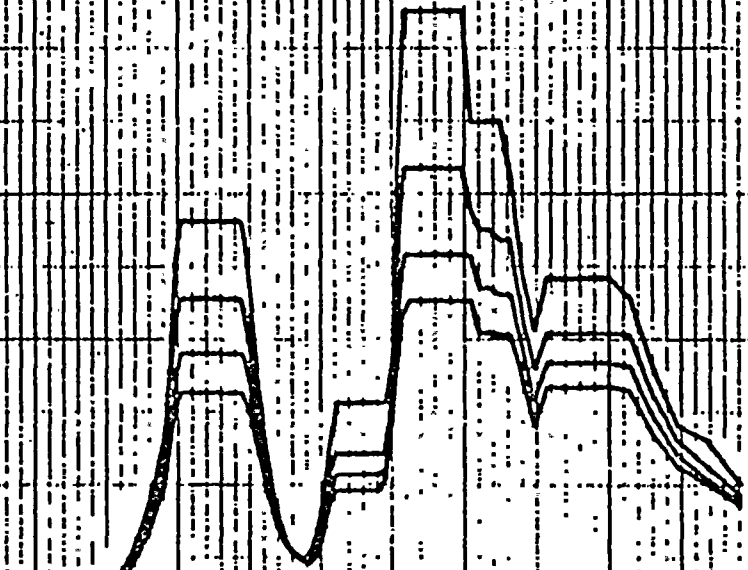
DRIFTED VALUES: 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLY BY 100 CURVES WITH DRIFTED IN RE RE & 42
 FROM CURVES REPRESENT A SPEED OF 100 KTS -100

RECELERATION - 0
 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

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

FREQUENCY IN HZ



REF 117



PSPECTRA VER 01 LEV 03

SAVING. (ALL SRY CASES)

22 OCT 1982

P-48

NIAOGA MONHAWK-NINE MILES POINT UNIT-2 J.8.12/77 HS-1748-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 218.33 FT)

DISK CURVE SET 83-18

NOR DIRECTION

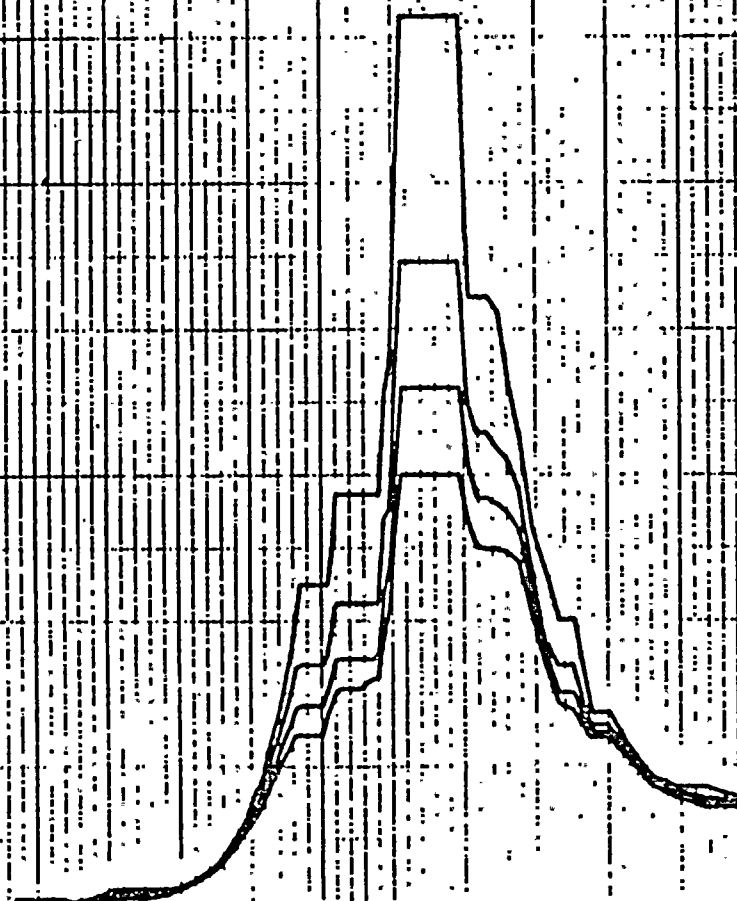
NICHETL R. 53

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH SCALING 1X BY 22 & 42
THREE CURVES REPRESENT A SPACING OF 10X AND 10X

ACCELERATION - G

FREQUENCY IN HZ



REF 118



PERCEYRA VER 01 LEV 03

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

NIRORRA KONAUK-NINE MILES POINT UNIT-2 J.O.12177 H3-1748-0
RRE OF ACCELERATION PRIMARY CONT. (ELEV. 218.33 FT)

DISK CURVE SET NO.19

VER DIRECTION

RICHARD K. CO.

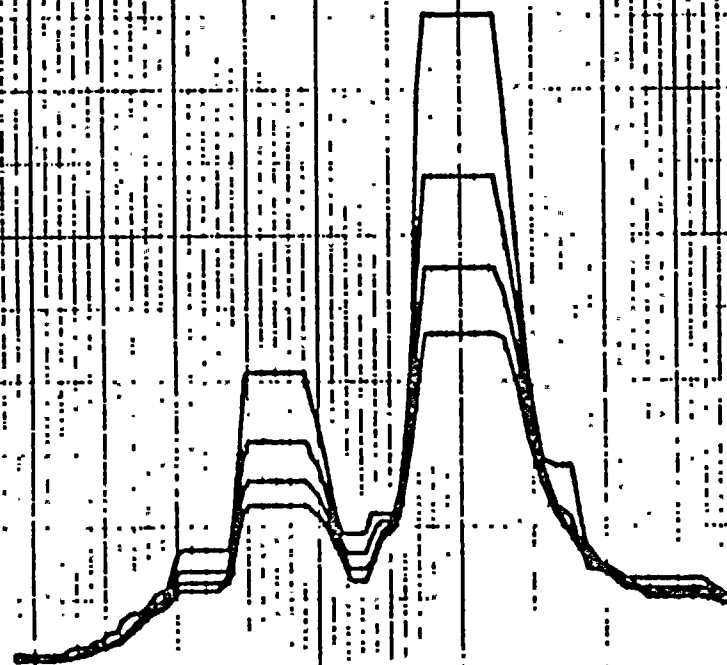
DAMPING VALUES =
0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RES CURVES WITH ... DAMPING BY 01 02 03 & 04
TO GET CURVES REPRESENT A SPEED OF 100 KNOTS - 100

ACCELERATION - G
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00

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



Ref 1/8

P-49



SPECTRA VER 01 LEV 03

REVIEW OF ALL CASES

22 OCT 1982

MINORRA MONAH-KINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
 RES OF ACCELERATION TOP OF SEC. CONT. (ELEV. 365.93 FT)

DISK CURVE SET NO. 20

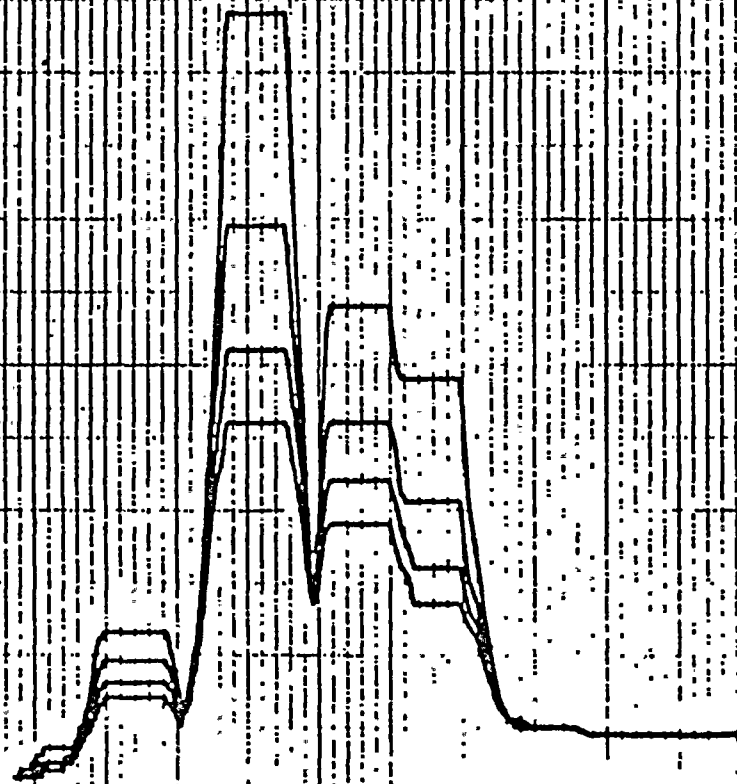
HOR DIRECTION

MICHAEL K CO

DAMPING VALUES = 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLY ALL CURVES WITH DAMPING 1% BY 1.4
 POSITIVE CURVES REPRESENT A CROSS OF +1% BY 1.4

ACCELERATION 0
 0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14



FREQUENCY IN HZ

2-50

REF 119
 6119



SPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1982

NINOAHA MOHAIK-NINE HILES POINT UNIT-2 J.O.12177 HS-1748-0
RMS OF ACCELERATION TOP OF SEC. CONT. (ELEV.308.93 FT)

DISK CURVE SET NO.20

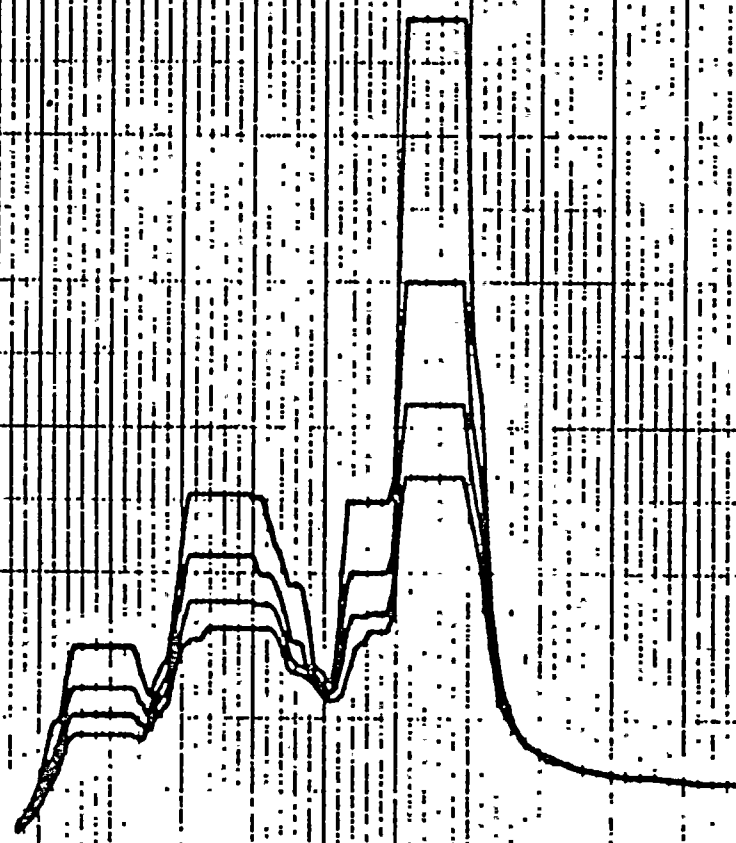
VER DIRECTION

MICHAEL K 23

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 12 22 32 42
TWO: CURVES REPRESENT A SPAN OF +12X AND -12X

ACCELERATION - G
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00



FREQUENCY IN HZ

REF 119



PSPECTRA VER 01 LEV 08

ENV (ENV. OF ALL ENV CASES)

22 OCT 1982

WINDATA MOHAWK-NINE MILES POINT UNIT-2 J.0.12177 NS-1748-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.224.88 FT.)

DISK CURVE SET NO.21.

HOR DIRECTION

MICHAEL K CB

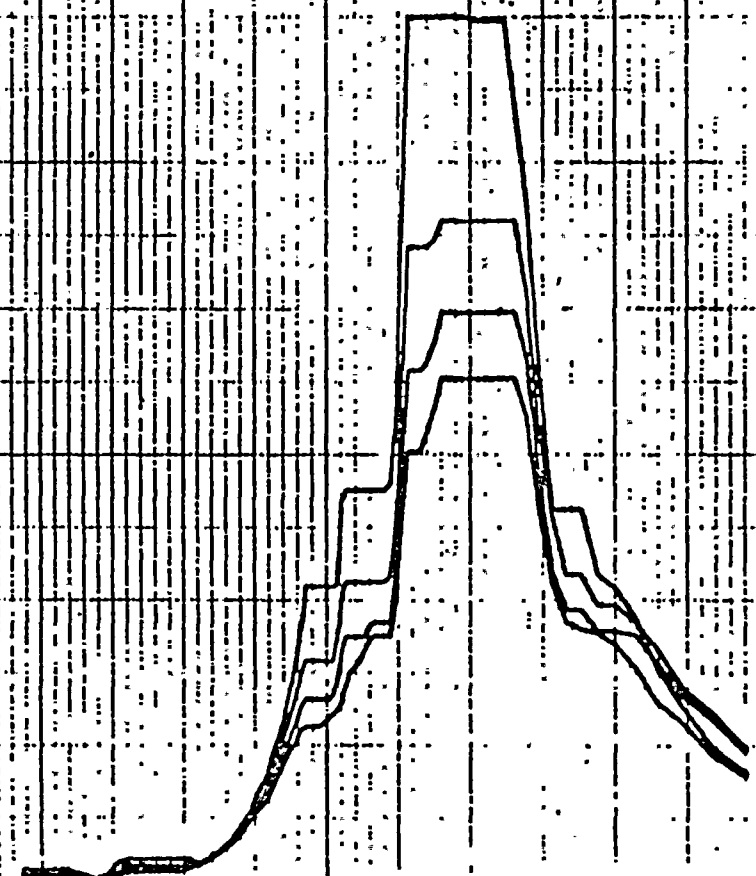
DAMPING VALUES =
0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 12 22 32 & 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00

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



P.52

REC 120



PSPECTRA VER 01 LEV 08

SRVENV. OF ALL ERY CASES

22 OCT 1982

HIGASHI MOHARI-MINE POINT UNIT-2 J.O.12177 H3-1745-8
R08 OF ACCELERATION PRIMARY CONT. (ELEV.224.89 FT.)

MICHAEL K. GO

DIGIT CURVE SET 20.21

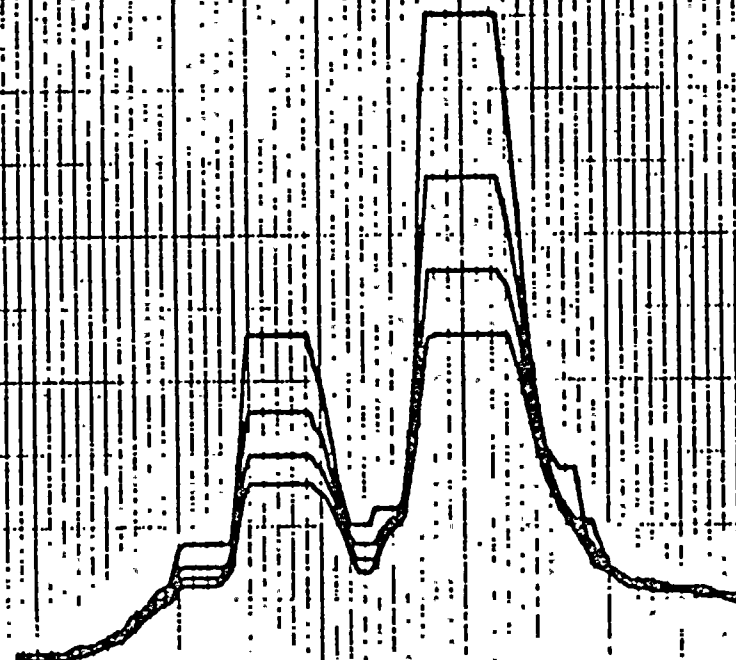
VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLAT OF R08 CURVES WITH DAMPING 1X 2X 3X 4X
P0222 CURVES REPRESENT A SPECIES OF 10X 20X 30X 40X

ACCELERATION - g
1.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40

10⁰ 2 5 10¹ 2 5 10² 2 5 10³
FREQUENCY IN HZ



P-53

REF 120



PERPECTRA VER 01 LEV 08

SRVENV. OF ALL SRV CASES)

22 OCT 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-B
RAB OF ACCELERATION PRIMARY CONT. (ELEV.291.44 FT)

DISK CURVE SET N9.22

HOR DIRECTION

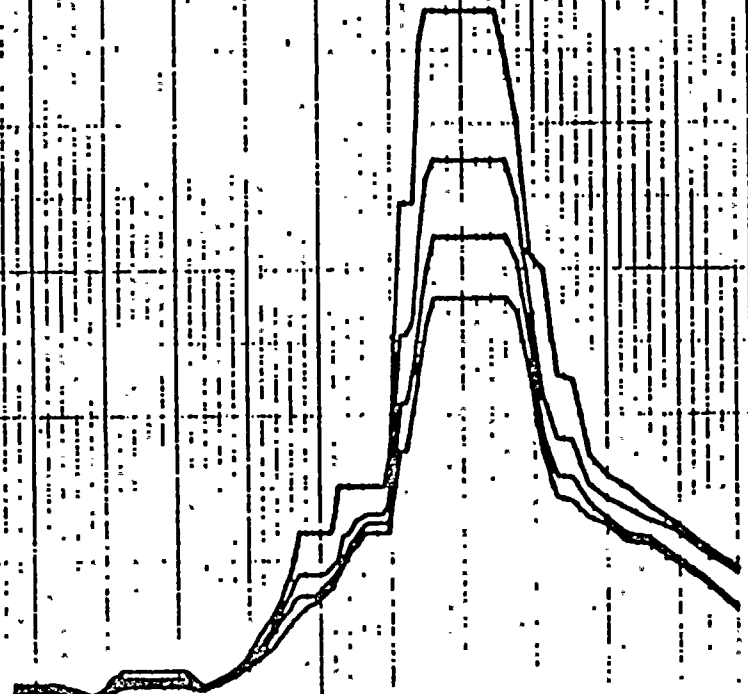
MICHAEL R DO

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RAB CURVES WITH SCALING 1X 2X 3X 4X
THESE CURVES REPRESENT A SPECTRUM OF +10X AND -10X

ACCELERATION G

FREQUENCY IN HZ



P.54

REF 121



PERCEPTRA VER 01 LEV 00

SRV ENV. OF ALL SRV CASES

22 OCT 1992

P-55

MIRARRA MONITORING-NINE MILES POINT UNIT-2 J.D.12177 MS-1748-D
RMS OF ACCELERATION PRIMARY CONT. (ELEV.291.44 FT)

DIGX CURVE SET NO.22

VER DIRECTION

NICHOL K. 03

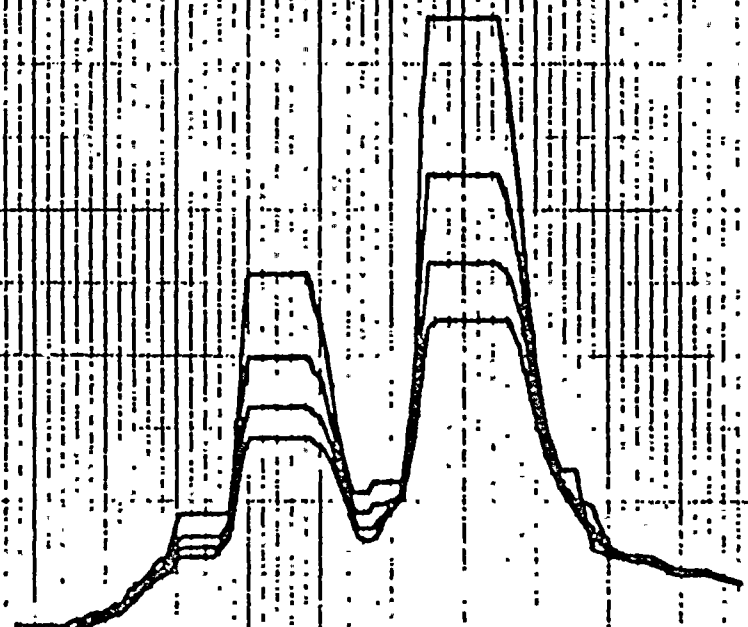
DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 12 22 32 4 42
THREE CURVES REPRESENT A SPECIES OF +100 200 -100

ACCELERATION G
1.00 0.80 0.60 0.40 0.20 0.00

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



REF 121



PSPECTRA VER 01 LEV 03

SRV ENV. OF ALL SRV CASES)

22 OCT 1982

WISDOMA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
RES OF ACCELERATION PEDESTAL (ELEV.230.5 FT)

DISK CURVE SET NO.23

HOR DIRECTION

NICHOL K CO.

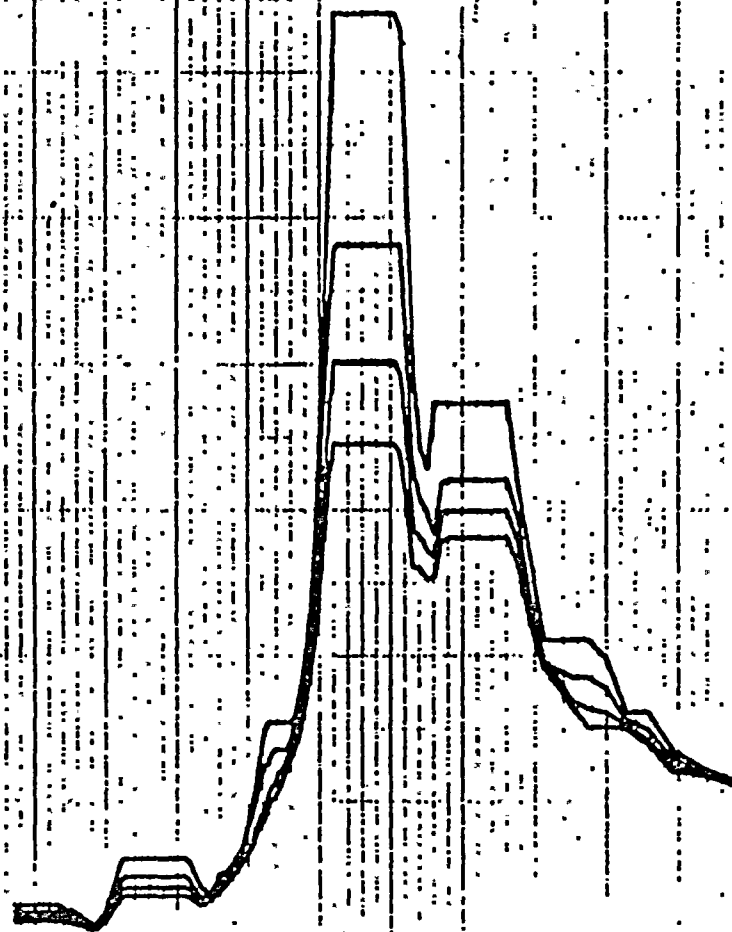
DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RES CURVES WITH DAMPING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPECTRUM OF +10X AND -10X

ACCELERATION 0 0.25 0.50 0.75 1.00 1.25 1.50

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

FREQUENCY IN HZ



REF 122

P-56



SPECTRA VER 01 LEV 08

SRVENV. OF ALL SAY CASES

22 OCT 1992

HINDON MONARK-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
RMS OF ACCELERATION PEDESTAL (ELEV.280.5 FT)

DICK CURVE SET NO.23

VER DIRECTION

HICKMAN R. 12

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING IS 22 32 & 42
THESE CASES REPRESENT A SPEECH OF +100 200 -100

ACCELERATION - 0
0.80 0.60 0.40 0.20 0.00 0.20 0.40 0.60 0.80

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

Ref 122

P.57



SPECTRA VER 01 LEV 03

SRV ENV. U. ALL BRV CASES

22 OCT 1982

NIAHARA MONARK-NINE MILES POINT UNIT-2 J.O.12177 MS-1740-0
RMS OF ACCELERATION DRYWELL FL. AT CNR. LN (ELEV.250.5 FT)

DISK CURVE SET #0.24

HOR DIRECTION

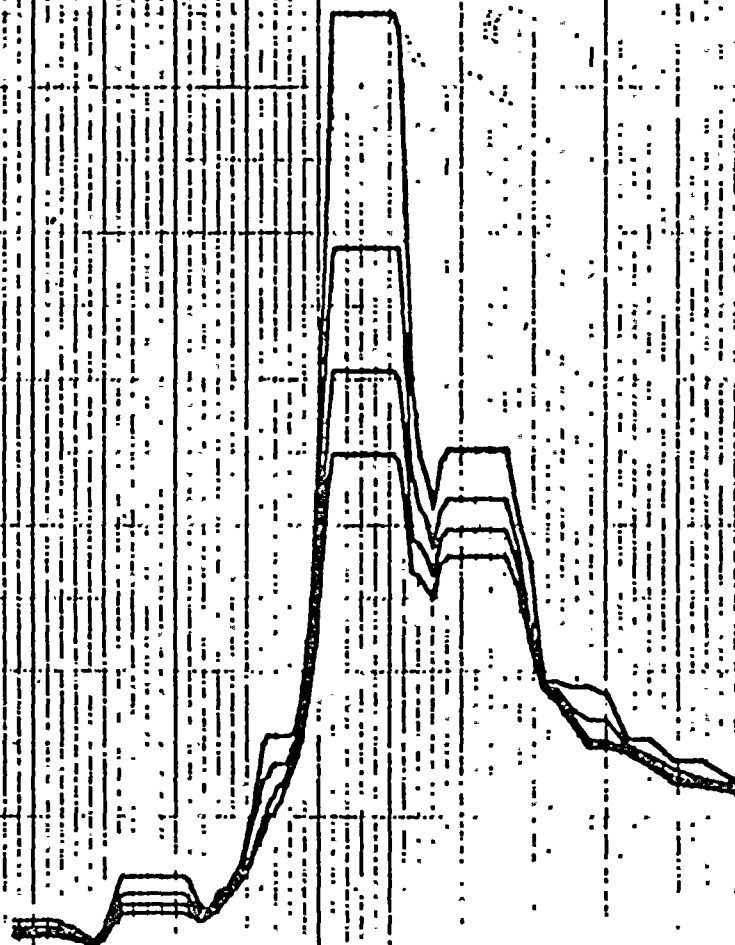
MICHAEL R. 22

DAMPING VALUES
0.010
0.020
0.050
0.040

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 1X 2X 5X 4.4X
FUDGE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION

1.40 1.20 1.00 0.80 0.60 0.40 0.20 0.00



FREQUENCY IN HZ

REF 123

P.58



PERPECTRA VER 01 LEV 08

ORVIEW.. OF ALL SAV CASES)

22 OCT 1982

WINDORA MOHAWK-NINE MILES POINT UNIT-2 J.B.12177 MS-1748-0
RBS OF ACCELERATION DRYWELL FL. AT CENR. LN (ELEV.230.5 FT)

DISK CURVE SET NO.24

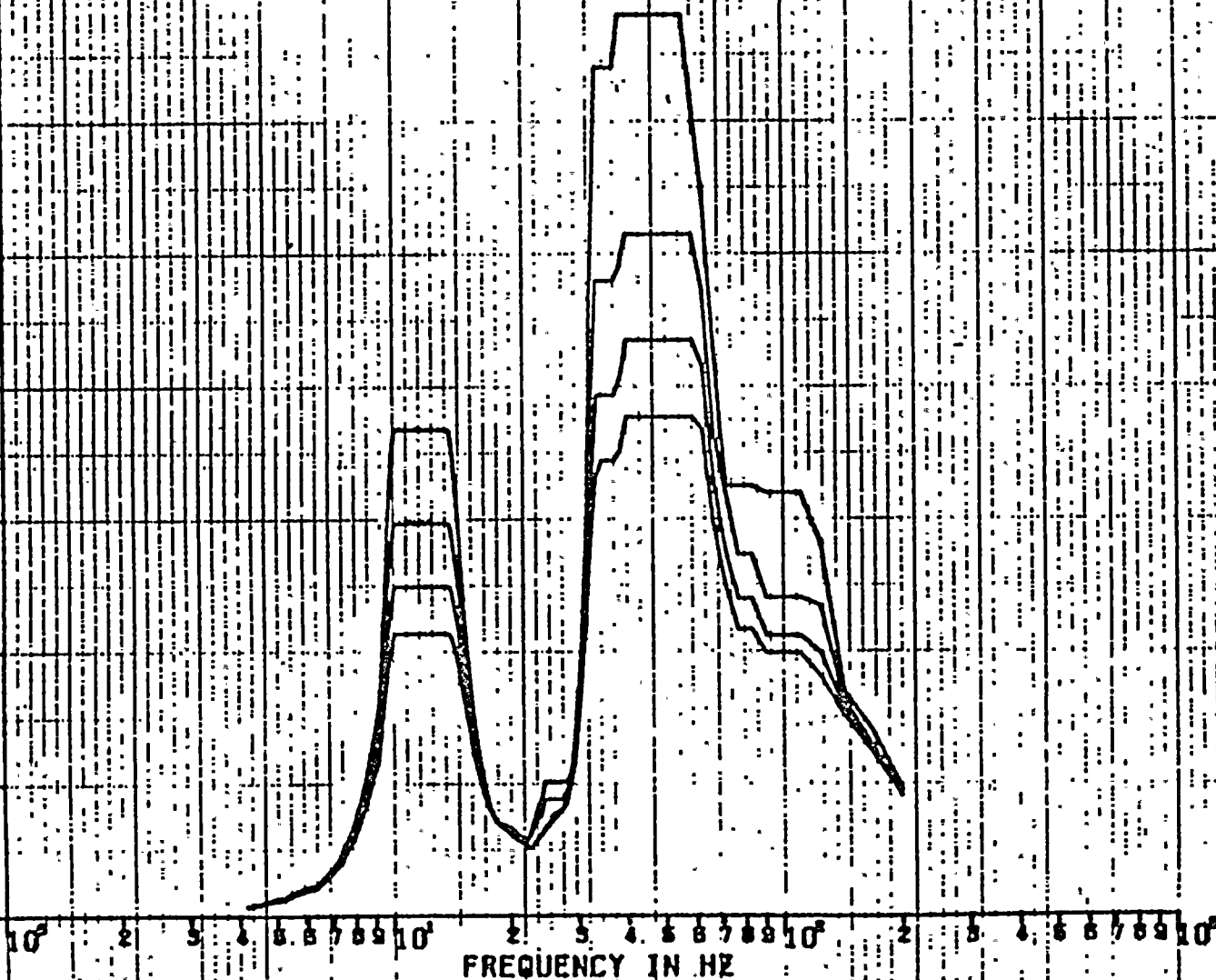
VER DIRECTION

RICHARD E. CO

DAMPING VALUES = 0.010
0.020
0.050
0.040

ACCELERATION -G
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00

NOTE: MULTIPLY OF RES CURVES WITH SCALING 12 22 21 & 21
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 123

P.59



SPECTRA VER 01 LEV 05

GRVENV. OF ALL BRV CASES

22 OCT 1992

P-60

WINGRA MCHAWK-NINE MILES POINT UNIT-2 J.B.12177 H2-1748-0
 EBB OF ACCELERATION DRYWELL FL./PRIM. CONT. (ELEV.259.00 FT)

DISK CURVE SET NO.25

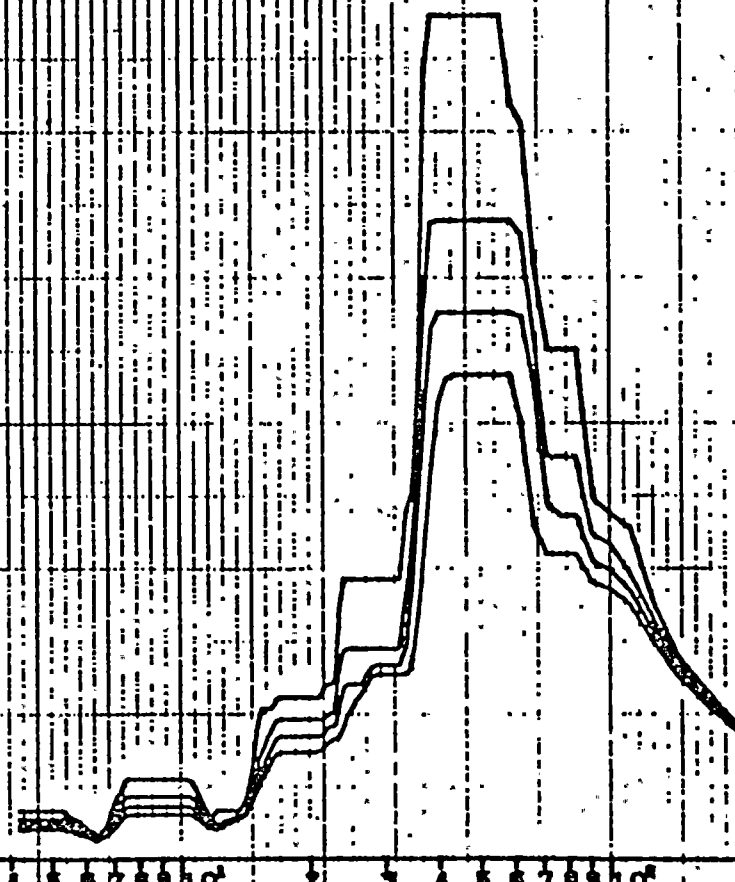
HOR DIRECTION

MICHAEL R. 03

DAMPING VALUES = 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLY OF RES CURVES WITH RESPING 1X 2X 3X 4 4X
 THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION - 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 124



SPECTRA VER 01 LEV 08

SRV(ENV. & ALL SRV CASES)

22 OCT 1992

WINDRUM MONITOR-NINE MILES POINT UNIT-2 J.G.12177 HS-1748-0
RMS OF ACCELERATION DRYWELL FL./PRIM. CONT. (ELEV.238.00 FT)

DISK CURVE SET NO.25

VER DIRECTION

MICHAEL R. (S)

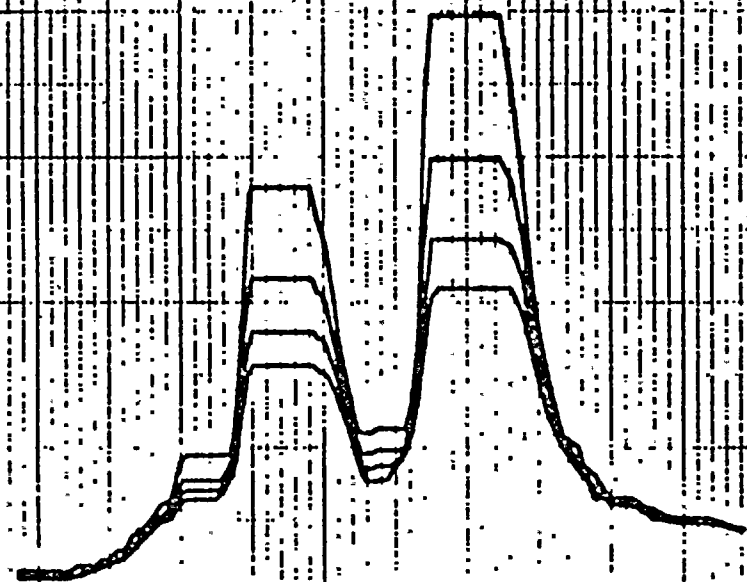
ADJUSTED VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLIPLY BY 1000 CURVES WITH . . . DRIPPING 12 22 32 & 42
TWO CURVES REPRESENT A SPREAD OF +10% AND -10%

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



121-137



SPECTRA VER 01 LEV 03

SRV(ENV. OF ALL SRV CASES)

22 OCT 1972

P-62

NINORRA ROMARK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-3
RMS OF ACCELERATION DRYWELL FLOOR (ELEV.239.00 FT)

DISK CURVE SET NO.28

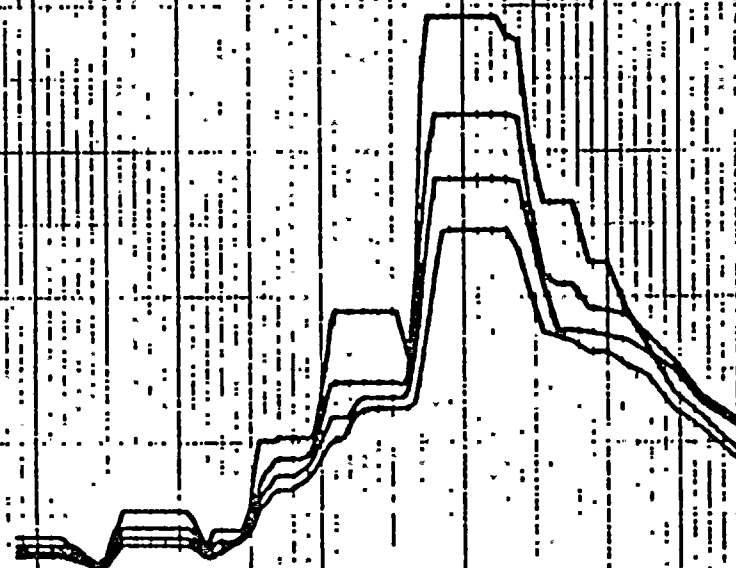
HGR DIRECTION

NICHOL K.23

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPECTRA OF +1X AND -1X

ACCELERATION 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 125



SPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1962

P-63

NIOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
RRS OF ACCELERATION DRYWELL FLOOR: (ELEV.238.00 FT)

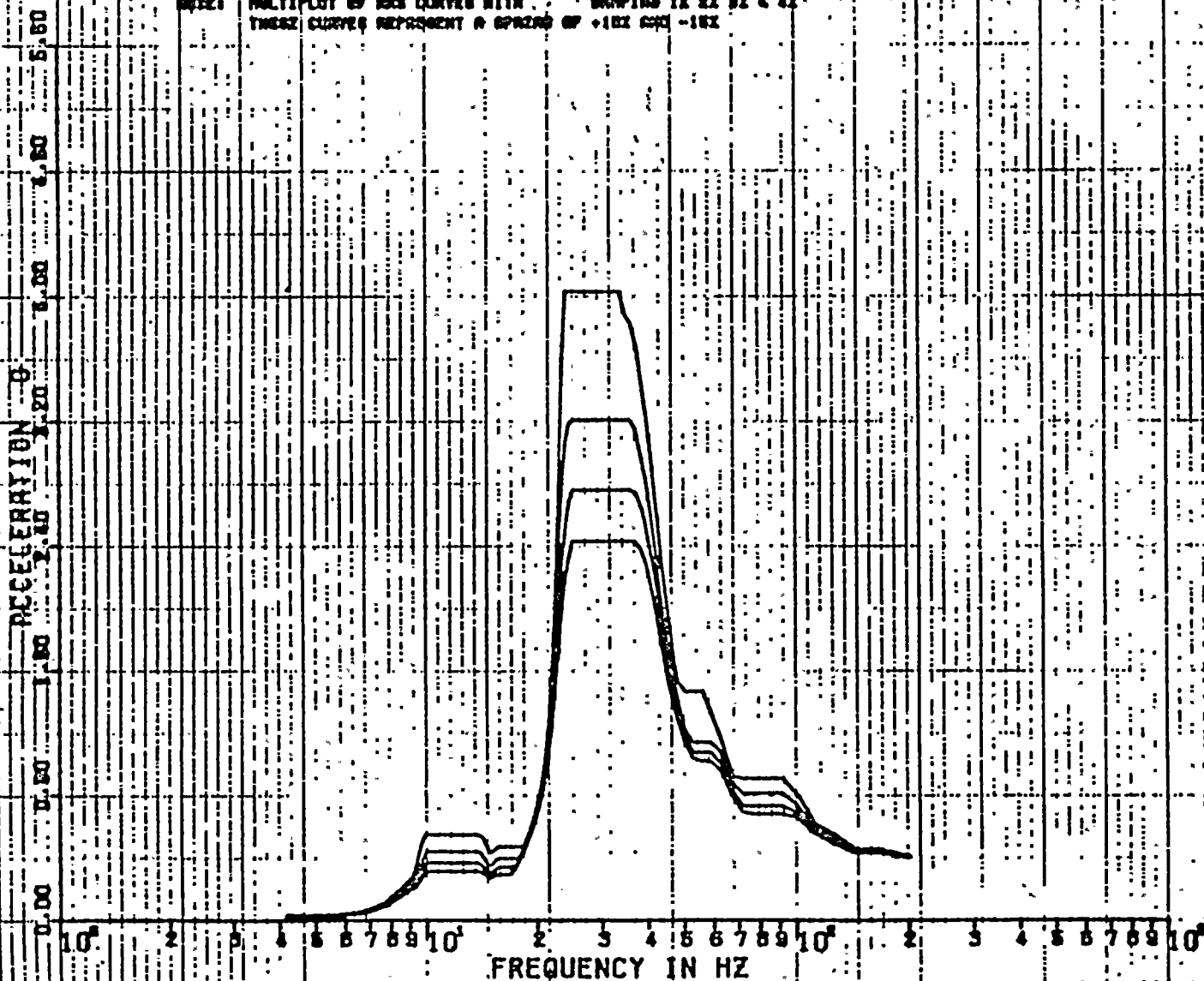
DISK CURVE SET NO.26

VER DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 12 22 32 4 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



LET 125



PEPECTRA VER 01 LEV 08

SRV ENV. OF ALL SRV CASES

22 OCT 1962

264

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
RMS OF ACCELERATION DRYWELL/PEDESTAL (ELEV.258.0 FT)

DISK CURVE SET NO.27

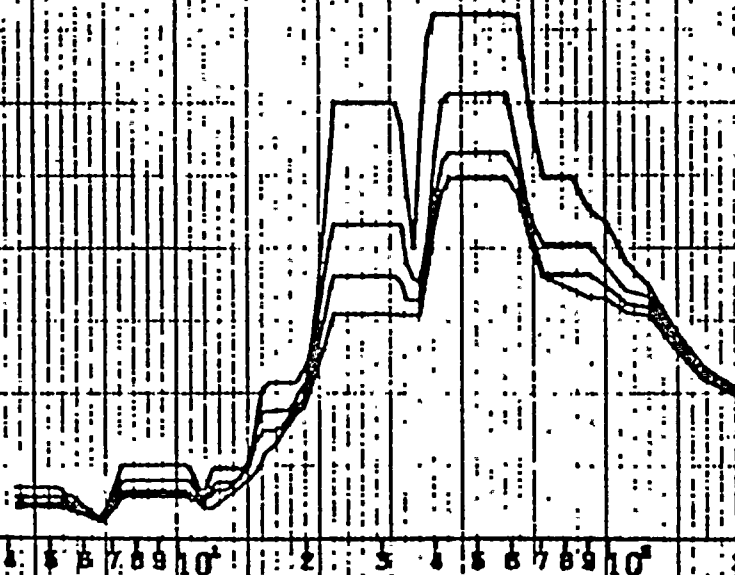
HOR DIRECTION

MICHAEL K 80

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY SET OF RES CURVES WITH SCALING 1X 2X 3X 4X
THESE CURVES REPRESENT A SPEED OF +18X AND -18X

ACCELERATION - 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 126



POPECTRA VER 01 LEV 03

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

P-65

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-S

RRS OF ACCELERATION DRYWELL/PEDESTAL (ELEV.293.0 FT)

MICHAEL K. CO.

DISK CURVE SET NO.27

VER DIRECTION

DAMPING VALUES = 0.010

0.020

0.030

0.040

NOTE: MULTIPLY OF RRS CURVES WITH DRYWELL 1X 2X 3X & 4X
THREE CURVES REPRESENT A SPEED OF 10X 20X 100X

ACCELERATION - G
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00

10⁰

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

FREQUENCY IN HZ

REF 126



PEPECTRA VER 01 : LEV 03

SRVENV. (OF ALL SRV CASES)

22 OCT 1982

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV.249.99 FT)

DISK CURVE SET NO.28

NOR DIRECTION

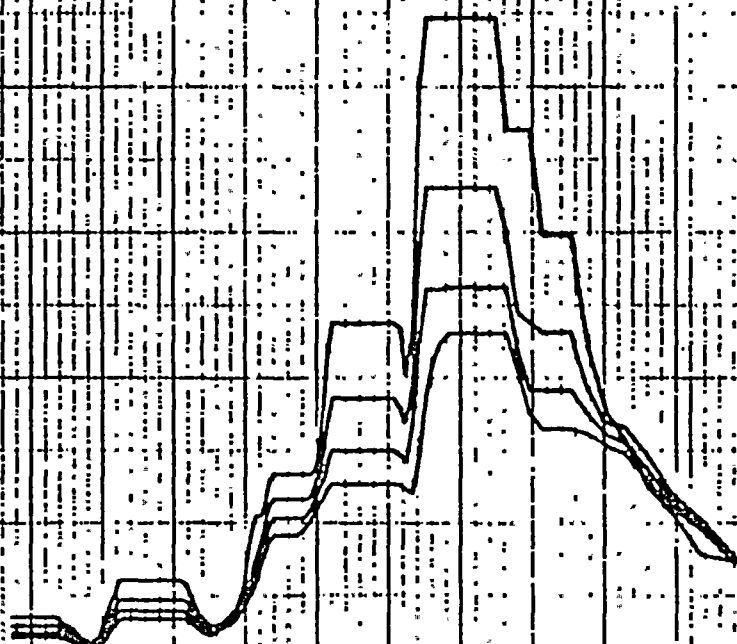
MICHAEL R 83

DAMPING VALUES : 0.010
0.025
0.050
0.040

NOTE: MULTIPLY BY 1000 FOR CURVES WITH DAMPING IN 2X BY 4.42
THREE CURVES REPRESENT A SPREAD OF 10X (MAX -10X)

ACCELERATION -G

0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REL 127

P-66



PSPECTRA VER 01 LEV 08

SRV(EHV. OF ALL SRV CASES)

22 OCT 1982

P-67

WINDARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
RRE OF ACCELERATION PRIMARY CONT. (ELEV.243.33 FT)

DISK CURVE SET NO.28

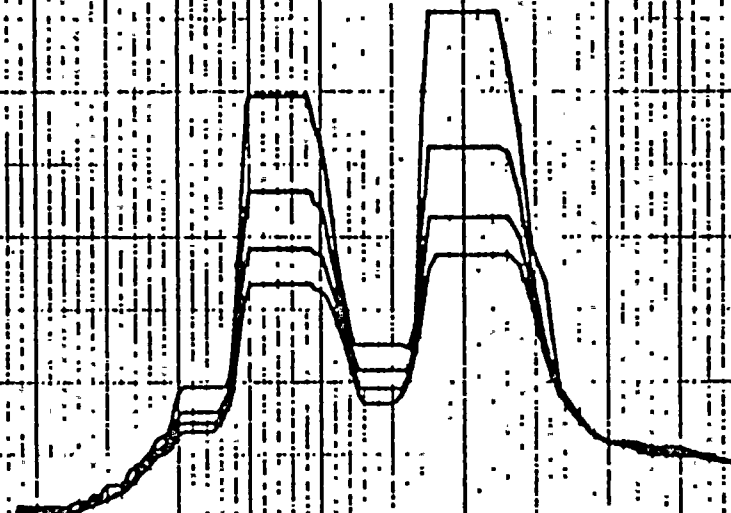
VER DIRECTION

MICHAEL K 50

DAMPING VALUES = 0.010
0.020
0.050
0.140

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 5X & 4X.
THREE CURVES REPRESENT A SPREAD OF +10X AND -10X

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 127



SPECTRA VER. 01 LEV 08

SRVIEV. (OF ALL SRY CASES)

22 OCT 1962

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NIRGAKA MOHAK - NIKE HILES POINT UNIT-2 J.G.12177 NS-1748-8
ERR. OF ACCELERATION PRIMARY CONT. (ELEV. 248.28 FT)

DISK CURVE SET NO.23

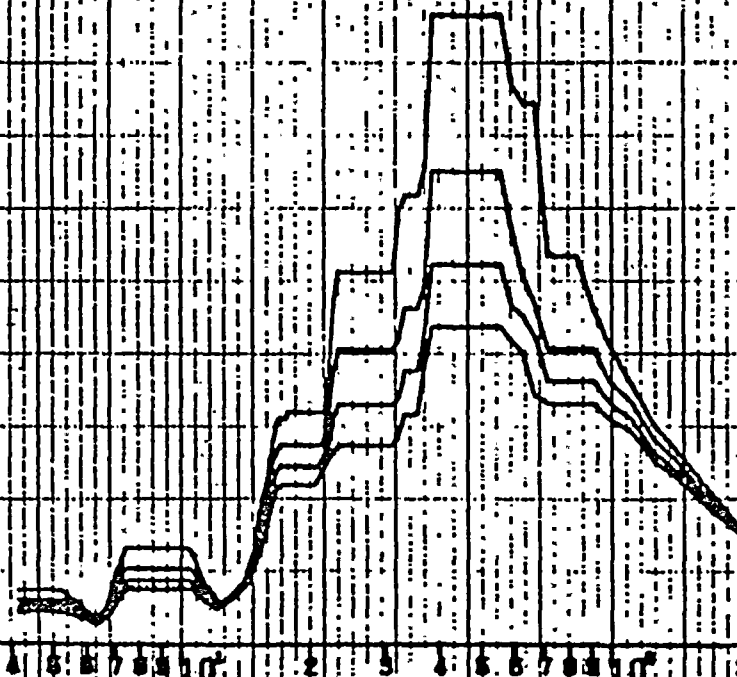
WGR DIRECTION

MICHAEL R. 23

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF DIS CURVES WITH DOWING 1X 2X 3X 4X 5X
THESE CURVES REPRESENT A SPEED OF 100 KTS - 100

ACCELERATION - 0
0.20
0.40
0.60
0.80
1.00
1.20
1.40



RAF 128



SPECTRA VER 01 LEV 03

SRVENV. OF ALL SRV CASES)

22 OCT 1962

P-69

HINOKA MOHAWK - NINE MILES POINT UNIT-2 J.O.12177 NS-1748-8

RRE OF ACCELERATION PRIMARY CONT. (ELEV. 249.88 FT)

MICHAEL R. CO

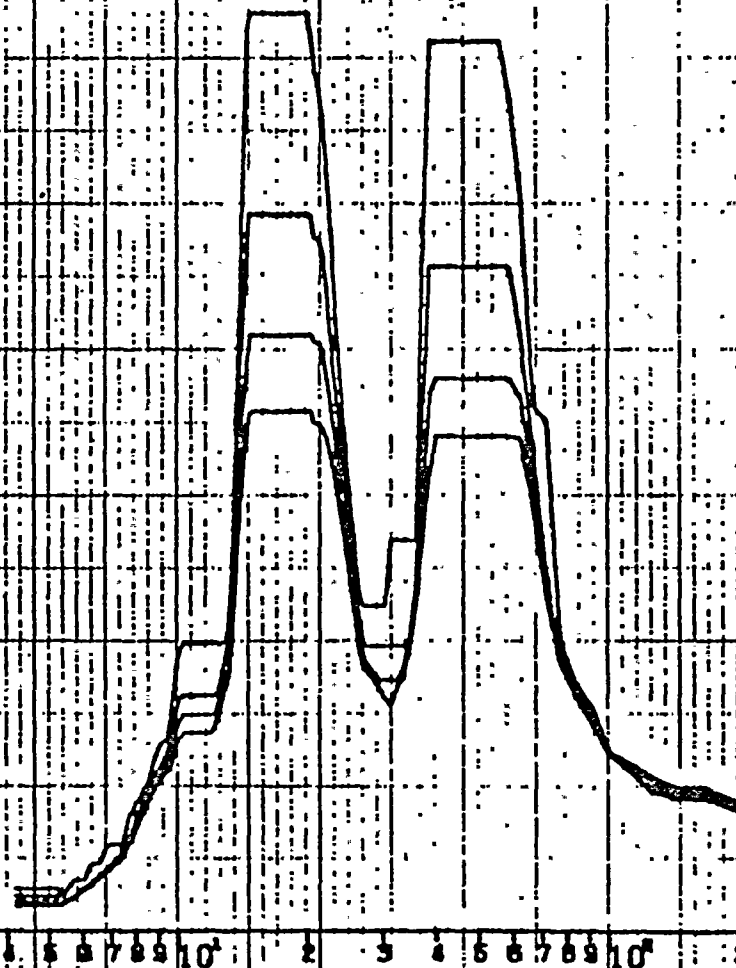
DISK CURVE SET NO. 28

VER DIRECTION

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RES CURVES WITH DAMPING 1X 2X 3X 4X 5X
THOSE CURVES REPRESENT A SPREAD OF +10% RES -10%

ACCELERATION 0 0.10 0.20 0.30 0.40 0.50 0.60 0.70



FREQUENCY IN HZ

REF 128



SPECTRA VER 01 LEV 00

SRVENV. OF ALL GRV CASES)

22 OCT 1962

P-20

MINORAH MOHAWK-NINE MILES POINT UNIT -2 J.O.12177 MS-1748-9
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 254.00 FT)

DISK: CURVE SET NO.30

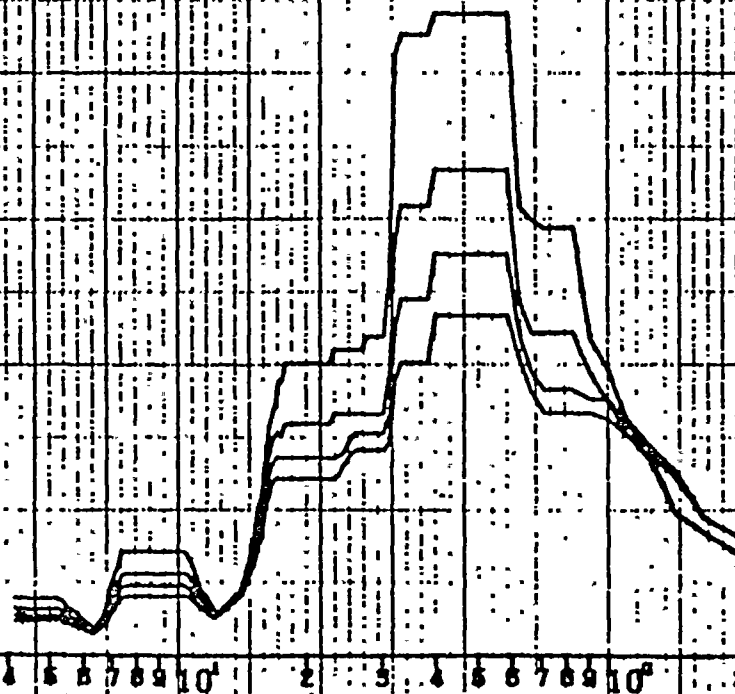
HOR DIRECTION

MICHAEL K. 03

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RES CURVES WITH DIPPING 1X BY 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION G
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00



FREQUENCY IN HZ

LEC 129



PERPECTRA VER 01 LEV 08

SRVIEW. OF ALL SIX CASES

22 OCT 1982

P-71

WINDRUM MOUNTAIN-NINE MILES POINT UNIT -2 J.O.12177 MS-1743-8
RRE OF ACCELERATION PRIMARY CONT. (ELEV. 254.00 FT)

NICHOL N 03

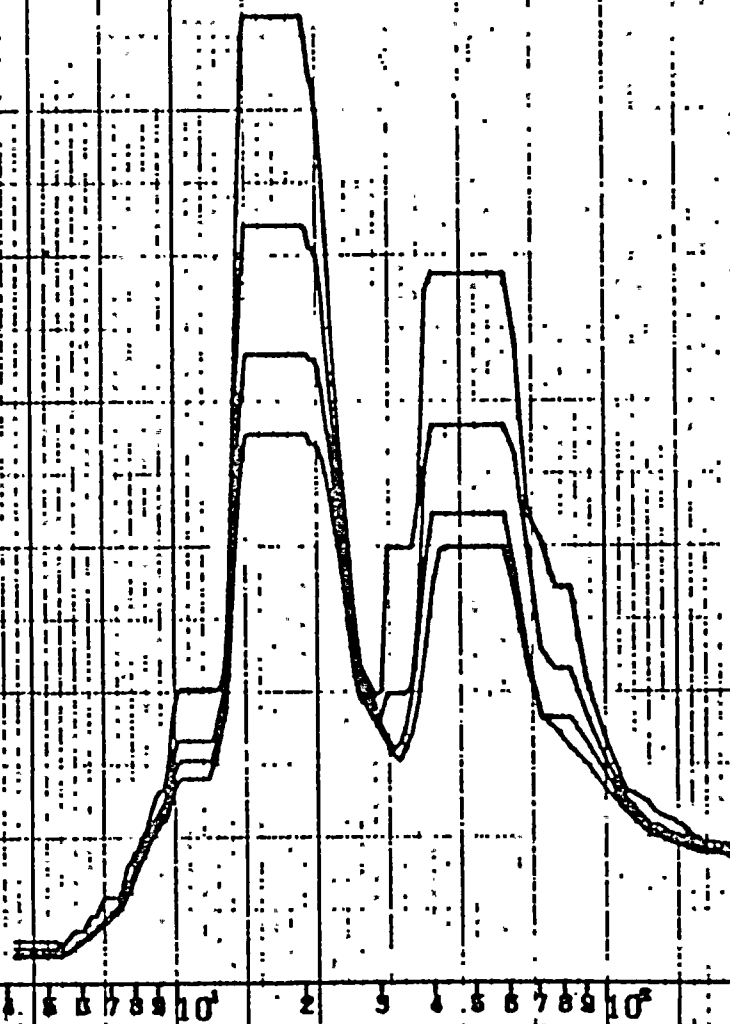
DISK CURVE SET NO.30

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY SIX ON CURVES WITH DAMPING 12 21 31 & 41
THOSE CURVES REPRESENT A SPACING OF 10X 000 -10X

ACCELERATION 0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70



FREQUENCY IN HZ

REF 129



PERPECTRA VER 01 LEV 03

BRVIER... OF ALL BRV CASES)

22 OCT 1982

P-72

NINOGRA HONMAK-NINE HILES POINT UNIT-2 J.O.12177 HS-1748-0:
RRE OF ACCELERATION PEDESTAL (ELEV. 254.0 FT)

DIER CURVE SET NO.81

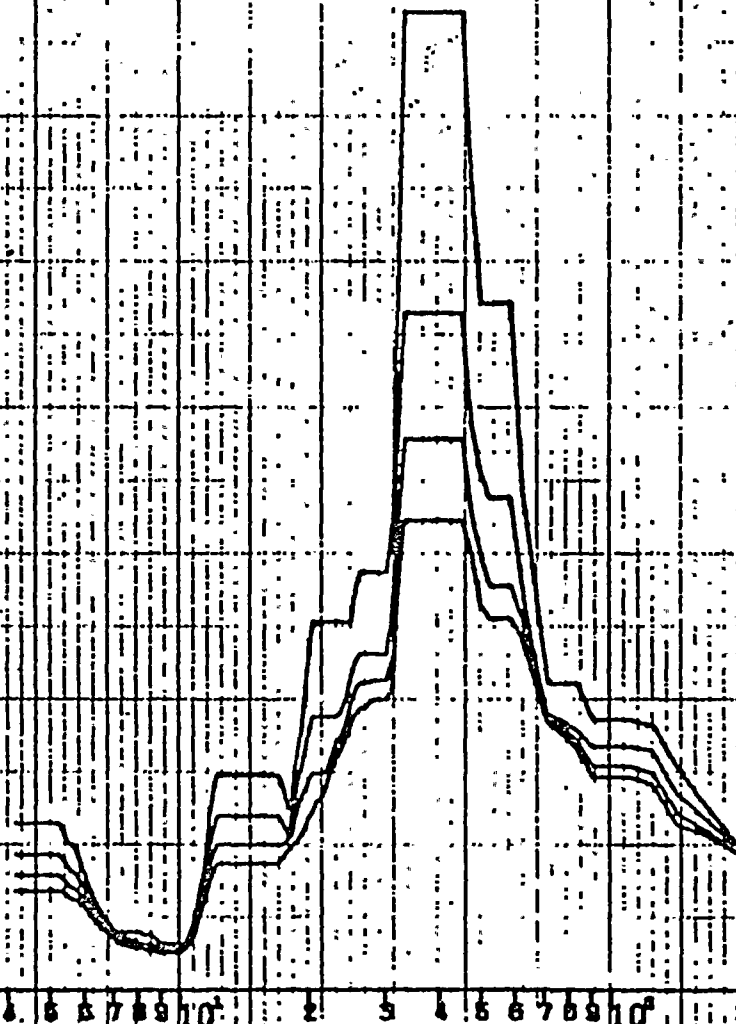
HSR DIRECTION

MICHAEL A. LB

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLT OF RES CURVES WITH DAMPING 1X 2X 3X 4 4X
TODAY: CURVES REPRESENT A SPREAD OF +10X 20X -10X

ACCELERATION - 0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70



FREQUENCY IN HZ

REF 130



SPECTRA VER 01 LEV 08

SRV(ENV. OF ALL GRV CASES)

22 OCT 1962

2-73

HINDARA MOHAWK-NINE HILES-POINT UNIT-2 J.O.12177 NS-1740-0
RMS OF ACCELERATION PEDESTAL (ELEV. 254.0 FT)

DISK CURVE SET NO.91

VER DIRECTION

NICHOL R 20

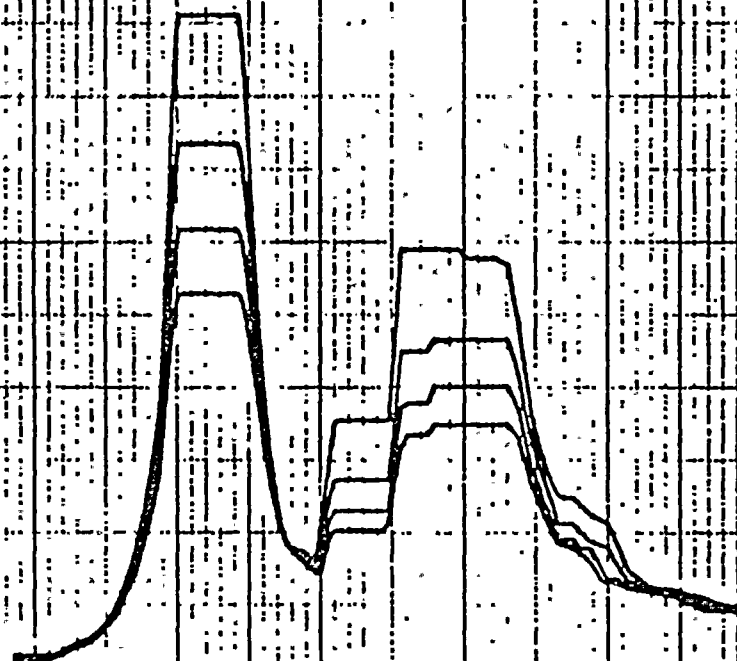
DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF 800 CURVES WITH DAMPING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPECTRA OF +15X AND -15X

ACCELERATION g
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁻¹ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10²

FREQUENCY IN HZ



REF 130



PERPECTRA VER 01 LEV 00

SRVENV. OF ALL GRV CASES)

22 OCT 1982

P. 74

NIRROEN MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-8
 RES. OF ACCELERATION, PRIMARY CONT. (ELEV.259.39 FT)

DISK: CURVE SET NO.32

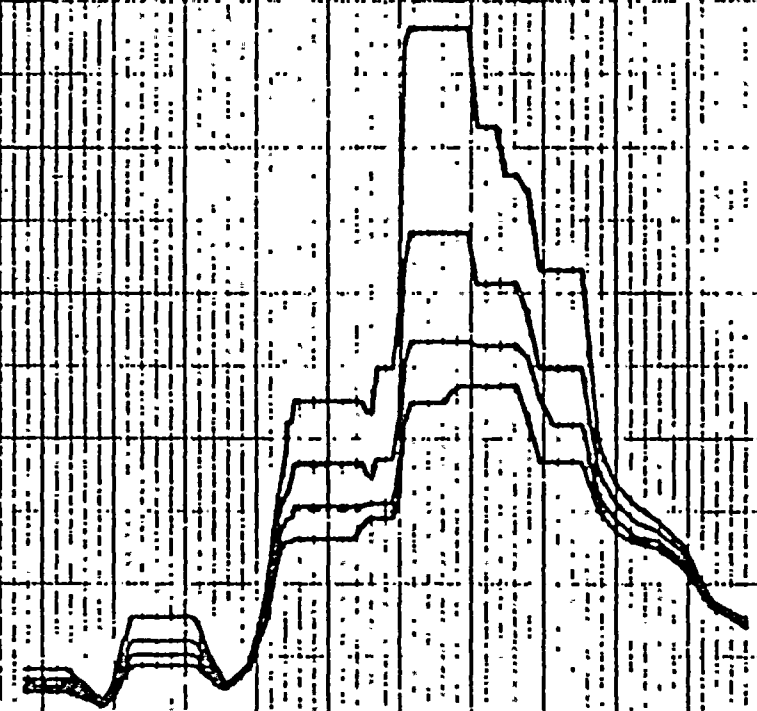
HOR DIRECTION

MICHAEL N: 53

DAMPING VALUES: 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLAT OF RES CURVES WITH DAMPING 1X 2X 3X & 4X
 THESE CURVES REPRESENT A SPREAD OF +10% (0.02 - 0.04)

ACCELERATION 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 6.00 6.50 7.00 7.50 8.00 8.50 9.00 9.50 10.00



FREQUENCY IN HZ

REF 131



PSPECTRA VER 01 LEV 00

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

P-75

NIRGARA HONOLULU-NINE MILES POINT UNIT-2 J.O.12177 RS-1748-9
RMS OF ACCELERATION PRIMARY CONT. (ELEV.259.33 FT)

DISK CURVE SET RS-32

VER DIRECTION

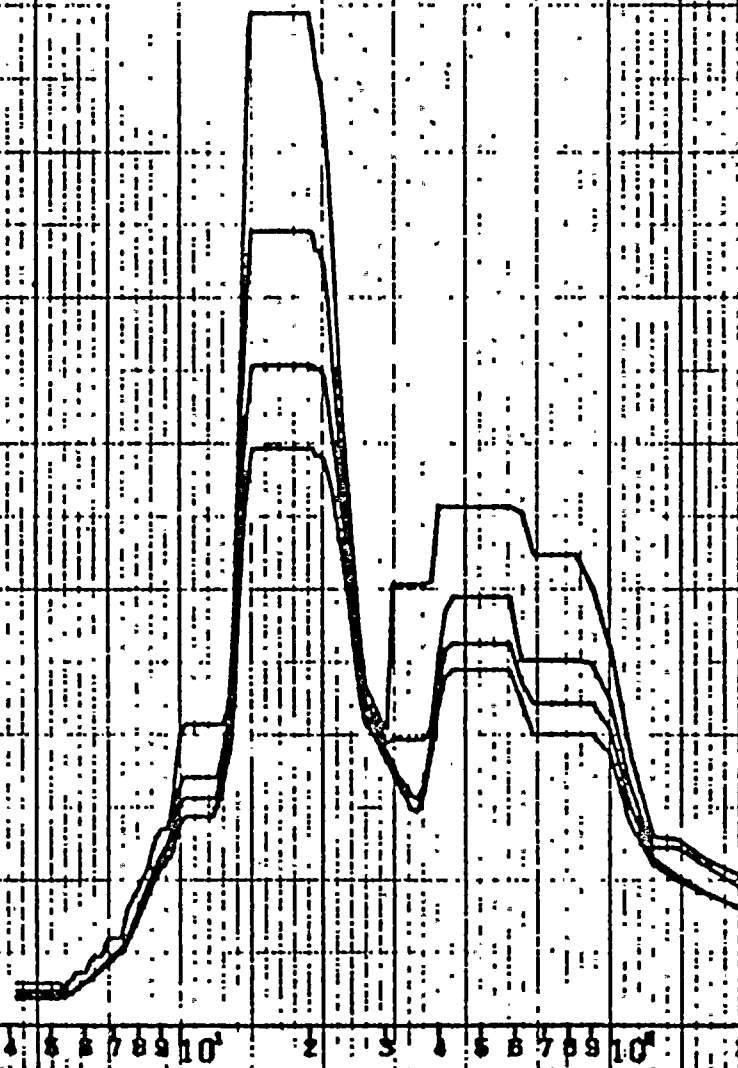
MICHAEL R. 02

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DOWING 1X 2X 3X 4X 5X
THESE CURVES REPRESENT A SPREAD OF +10X AND -10X

ACCELERATION 0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00

0.7
0.6
0.5
0.4
0.3
0.2
0.1



FREQUENCY IN HZ

REF 131



PERPECTR VER 01 LEY 03

SRVIEHY. BY CAL SRY CASES)

22 OCT 1982

2.76

NIAGARA MONCK-MINE MILES POINT UNIT-2 J.B.12177 MS-1748-B
RRE. OF ACCELERATION PRIMARY CONT. (ELEV.278.00 FT)

DICK CURVE SET NO.89

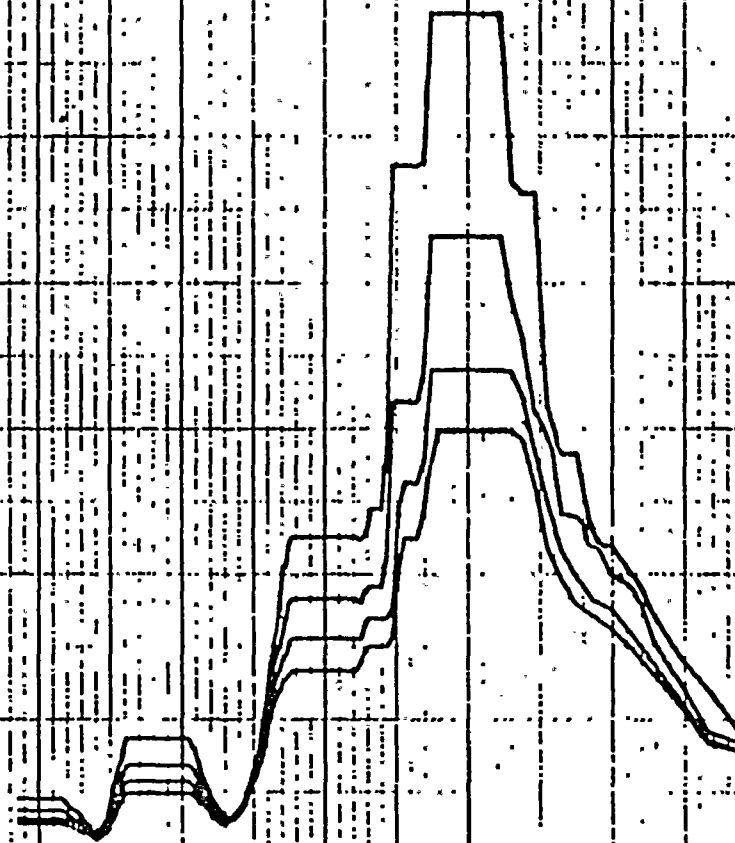
HOR DIRECTION

RICHARD L. CO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY RES CURVES WITH DAMPING 12 22 32 & 42
THESE CURVES REPRESENT A SERIES OF 1000 RMS -182

1 1.2 3 3.4 5 25 27 28
ACCELERATION 0
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 132



PSPECTRA VER 01 LEV 03

SRVIEW OF ALL SAV CASES

22 OCT 1982

NIRGARA MOKAWK-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-0
ERS OF ACCELERATION PRIMARY CONT. (ELEV.270.00 FT)

DISK CURVE SET NO.33

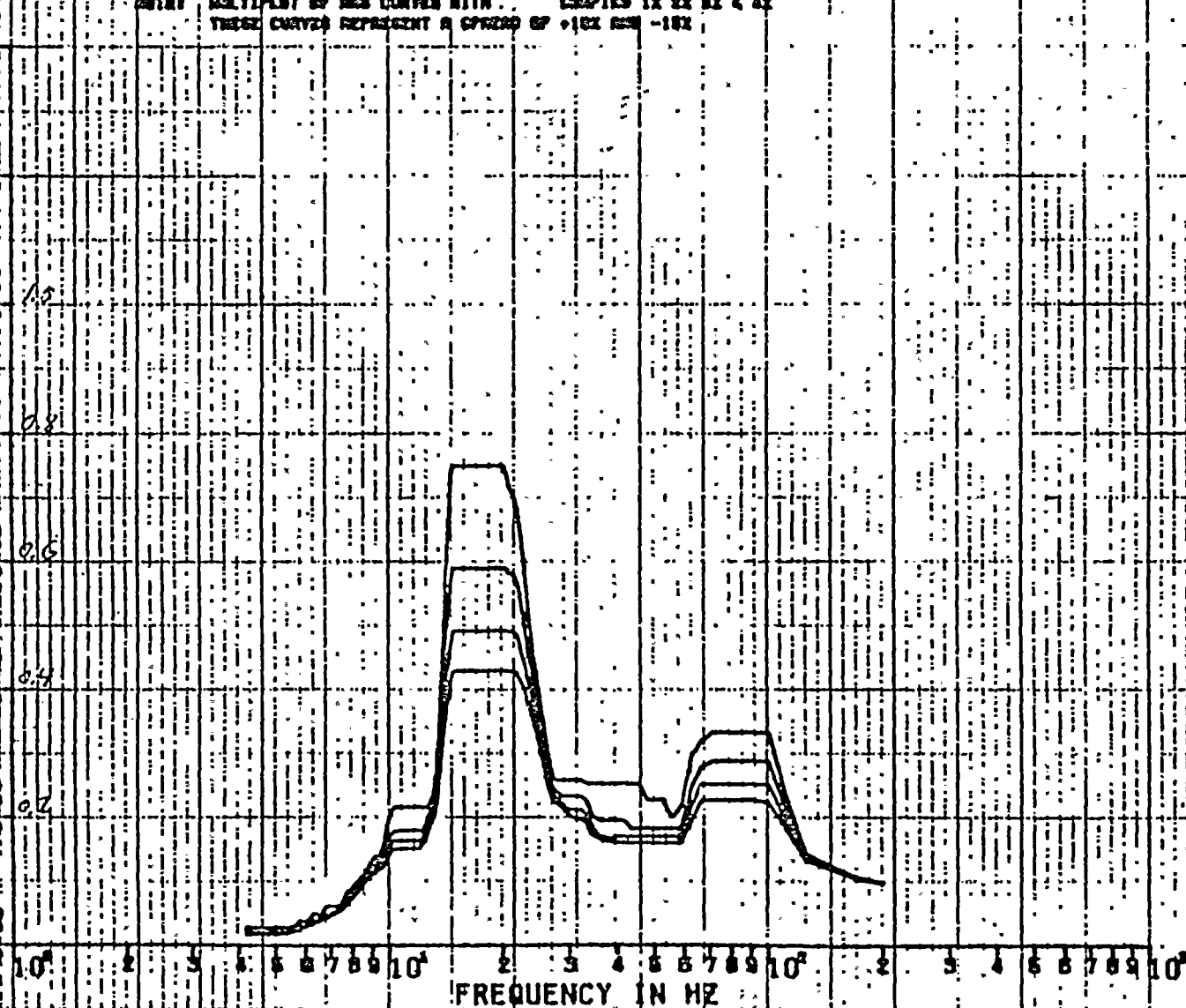
VER DIRECTION

MICHAEL K. DO

DRAWING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY RES CURVES WITH DRIPING 1X 2X 3X 4 4X
THESE CURVES REPRESENT A SPREAD OF +10% RES -10%

ACCELERATION - g
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00



REF 132



PSPECTRA VER 01 LEV 03

SRV(ENV.) OF ALL SRV CASES)

22 OCT 1932

NIRGARA MONKEY-HINE MILES-POINT UNIT-2 J.S.12177 HS-1748-8
ERR OF ACCELERATION PRIMARY CONT. (ELEV.275.33 FT)

2.78

DISK CURVE SET HS.34

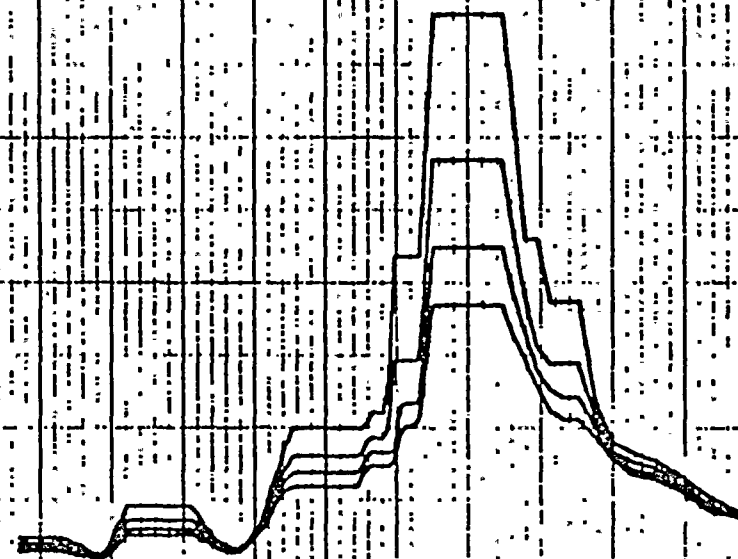
HOS DIRECTION

MICHAEL K. CO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLT OF DIS CURVES WITH DAMPING 12 21 32 & 43
THREE CURVES REPRESENT A SPEED OF +100 AND -100

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00



FREQUENCY IN HZ

REF 133



PEPECTRA VER 01 LEY 08

SRV ENV. OF ALL SRY CAGES

22 OCT 1962

NISGAAN MOHAWK-NINE HILES POINT UNIT-2 J.O.12177 'NS-1748-B
ERS OF ACCELERATION PRIMARY CONT. (ELEV.275.33 FT)

RICHARD K. 63

DISK CURVE SET NO.84

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY 800 CURVES WITH DAMPING 1X 2X 3X & 4X
THREE CURVES REPRESENT A SPECTRUM OF +10X 0X -10X

ACCELERATION 0

0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

2

5

10

FREQUENCY IN HZ

REF 133



SPECTRA VER 01 LEV 00

SRVENV. OF ALL SRV CASES)

22 OCT 1982

WIDEN HONOLULU-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0:
RMS OF ACCELERATION PRIMARY CONT. (ELEV.286.00 FT)

DISK CURVE SET 00.05

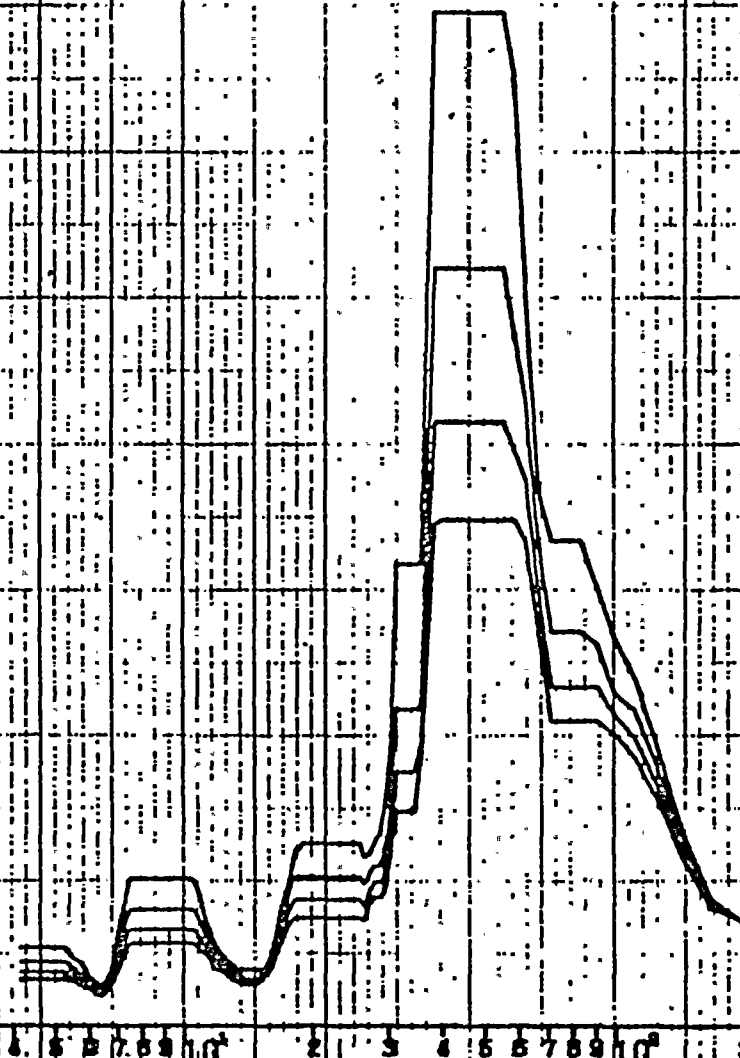
HOR DIRECTION

MICHAEL N 00

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 3X 4 4X
THESE CURVES REPRESENT A SPECTRUM OF +10X AND -10X

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 134



SPECTRA VER 01 LEV 00

SRV(ENV. OF ALL SRY CASES)

22 OCT 1992

7-81

WINDSON MONARK-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-8
RMS OF ACCELERATION PRIMARY CONT. (ELEV.285.00 FT)

DISK CURVE SET HS.25

VER DIRECTION

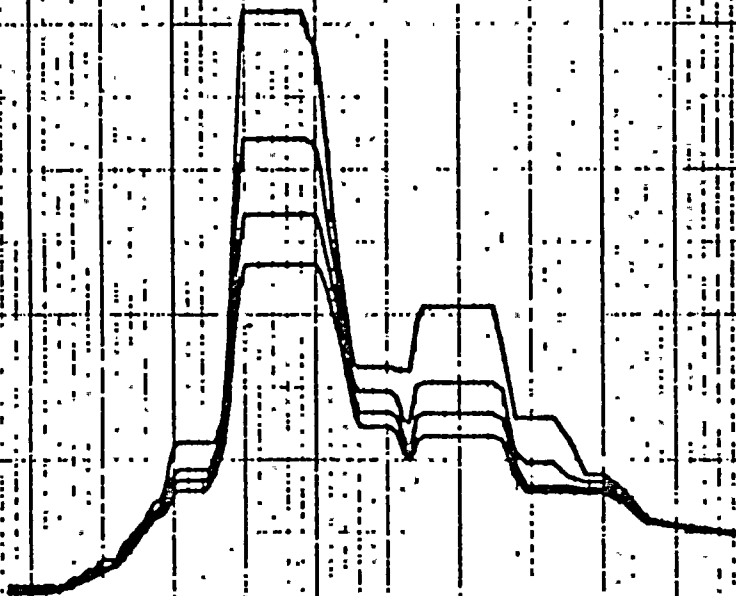
MICHAEL K. CO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 3X 4 4X
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 5 10¹ 2 5 10² 2 5 10³ 2 5 10⁴ 2 5 10⁵ 10⁶
FREQUENCY IN HZ



REF 134



POPECTA VER 01 LEV 08

SRVENV. OF ALL SRV CASES)

22 OCT 1932

P. 82

MIRORA MONSUK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-8
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 291.33 FT)

DISK CURVE SET NO.30

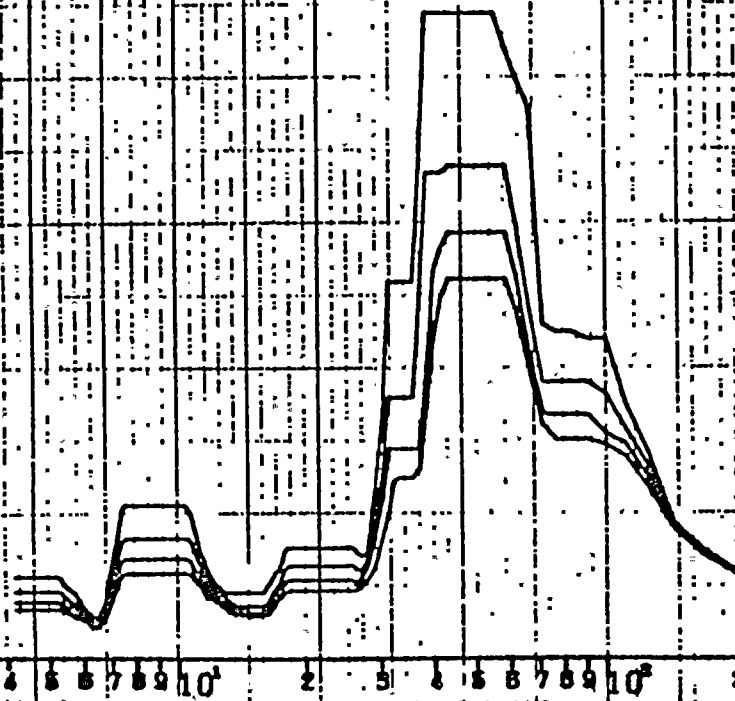
NER DIRECTION

MICHAEL K. 00

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLT OF RMS CURVES WITH DAMPING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +10X AND -10X

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

Ref 135



PERPECTER VER 01 LEV. 00

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

P-83

WINDOM HONOLULU-NINE MILES POINT UNIT-2 J.O.12177 HS-1748-9
RRE OF ACCELERATION PRIMARY CONT. (ELEV. 201.53 FT)

DISK CURVE SET NO. 96

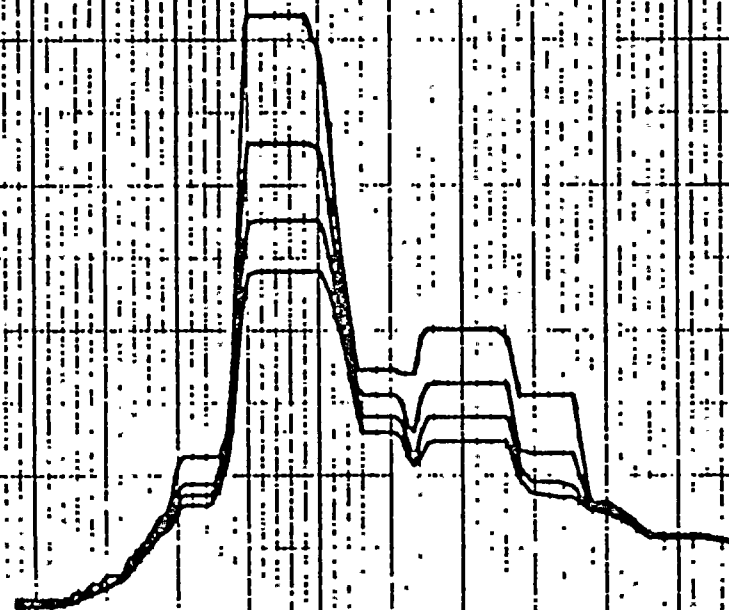
VER DIRECTION

HIGHST. K. 00

DAMPING VALUES = 0.010
0.020
0.030
0.040

CORZ: MULTIPLY OF RRS CURVES WITH ... DAMPING IN 21 32 & 42
THREE CURVES REPRESENT A SPREAD OF +10% CASE -10%

ACCELERATION 0
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 135



PEPECTER VER 01 LEV 08.

SRV(EHV. OF ALL SRV CASES)

22 OCT 1982

NIGARA MONITOR-NINE MILES POINT UNIT 2 J.O.12177 NS-1748-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 302.8 FT)

MICHAEL K. DO

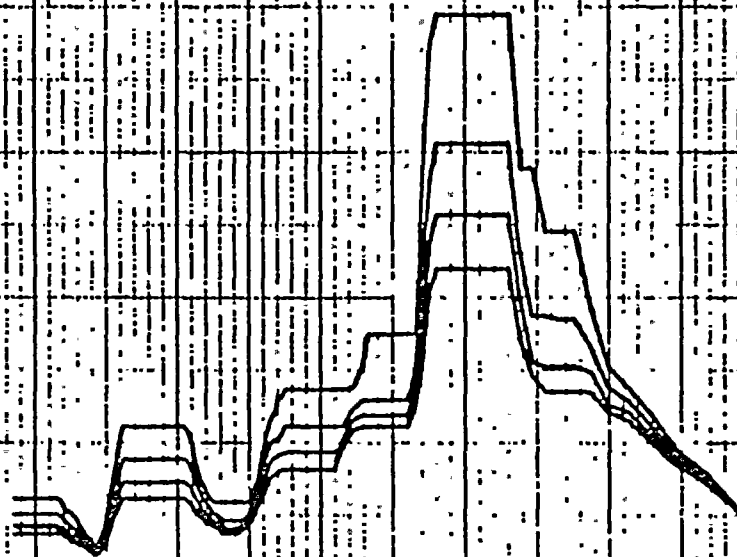
DISK CURVE SET NO. 37

NO. DIRECTION

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 3X 4X 5X
THREE CURVES REPRESENT A SPREAD OF +10% RRS -10%

ACCELERATION 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 136



PERCEPTR. VER 01 LEV 00

SAVING. OF ALL SRY CASES)

22 OCT 1932

7-85

WINDRAA MONAWK-NINE MILES POINT UNIT2 J.O.12177 HS-1748-0
RBS OF ACCELERATION PRIMARY CONT. (ELEV 302.0 FT)

MICHAEL K CO.

DISK CURVE SET NO.57

VER DIRECTION

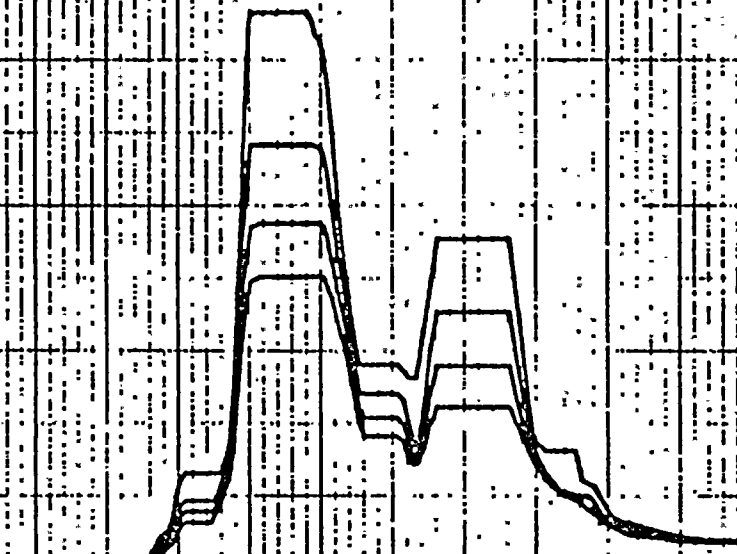
DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF MAG CURVES WITH DAMPING IN XX XX & 42
THREE CURVES REPRESENT A SPECTRUM OF +10X 600 -10X

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 2 3 4 5 6 7 8 9 10

FREQUENCY IN HZ



REF 136



PEPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1999

WISCONSIN MONROE-NINE MILES POINT UNIT-2 J.O.12177 1748-8

RMS OF ACCELERATION PRIMARY CONT. (ELEV. 308.93 FT)

DISK CURVE SET NO.38

HCR DIRECTION

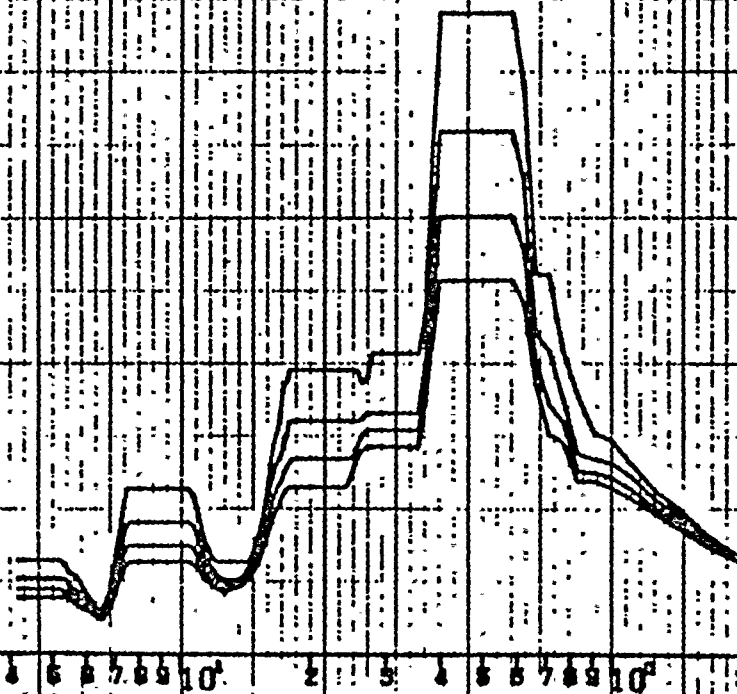
MICHAEL K. DO

DRIFTING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY SRS CURVES WITH DAMPING 0.2 0.5 1.0 & 2.0
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION g

1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00



FREQUENCY IN HZ

REF 137



NINAGAH MONAHUK-NINE MILES POINT UNIT-2 J.G.12177 HS-1748-8
RBS OF ACCELERATION PRIMARY CONT. (ELEV. 308.36 FT)

ENVIRONMENTAL - ALL CASES

. 22 OCT 1962.

9187

DICK CURVE SET NO. 23!

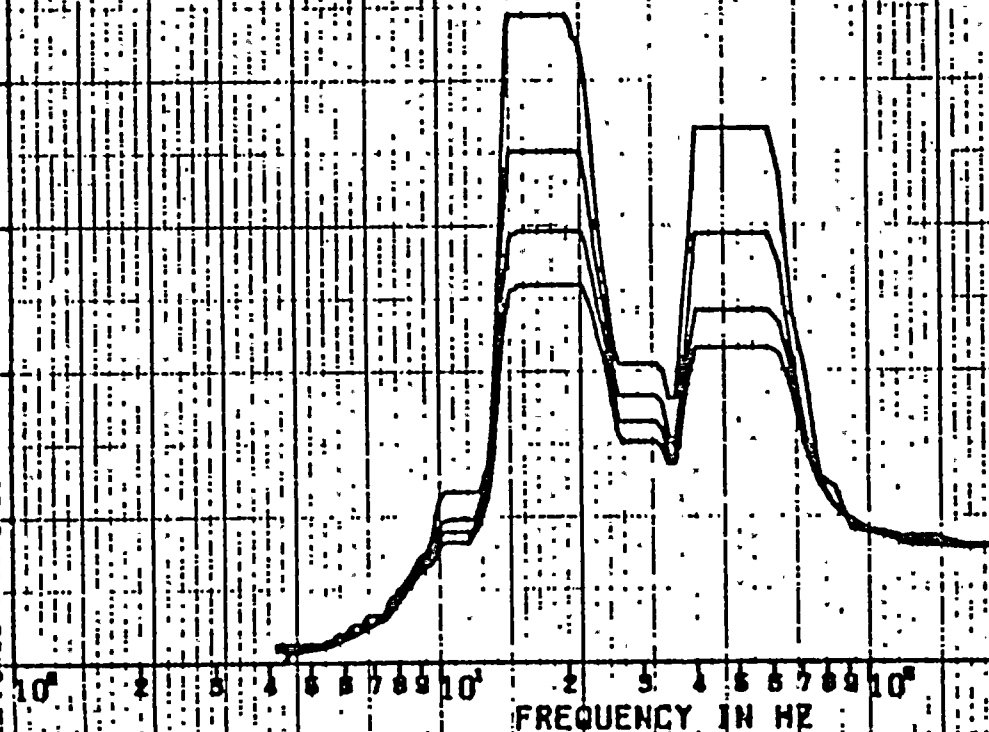
VER DIRECTION

NICHSEL K. 60

DRIPING VALUES - 0.010
0.020
0.030
0.040

NOTE: MULTIPLAT OF SAG CURVES WITH SLOPING 1X 2X 3X & 4X
THESE CURVES REPRESENT A SPACING OF +10X AND -10X

TIME	ACCELERATION	g	1.00	1.40
0.00	0.00	0.00	1.00	1.40
0.20	0.20	0.20	1.00	1.40
0.40	0.40	0.40	1.00	1.40
0.60	0.60	0.60	1.00	1.40
0.80	0.80	0.80	1.00	1.40
1.00	1.00	1.00	1.00	1.40



FREQUENCY IN HZ

26A 137



PEPECTRA: YER 01 LEV 03

SRVINY: OF ALL SKY CASES)

22 OCT 1932

P-38

WINDMAN BOMBAK-NINE MILES POINT UNIT-2 J.G.12177 RS-1743-8;
LOS OF ACCELERATION PRIMARY CONT. (ELEV. 315.25 FT)

DICK CURVE SET NO.39

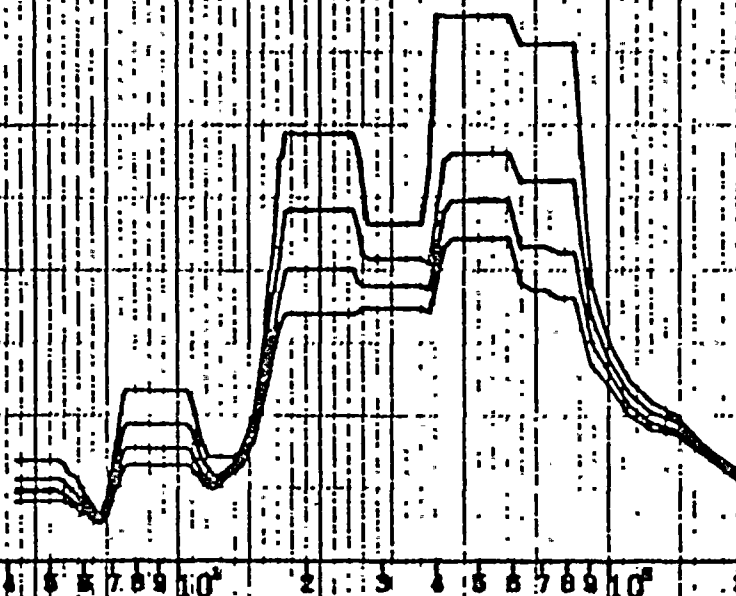
HOR DIRECTION

MICHAEL N. 03

DRYING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY 225 CURVES WITH
THREE CURVES REPRESENT A SPREAD OF +12% 225 -12%

ACCELERATION 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

RCF 138



SPECTRA VER 01 LEV 00

SRV ENV. (ALL RAY CASES)

22 OCT 1982

NIAOKA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-9
RMS OF ACCELERATION PRIMARY CONT. (ELEV. 915.25 FT)

DISK CURVE SET NO.39

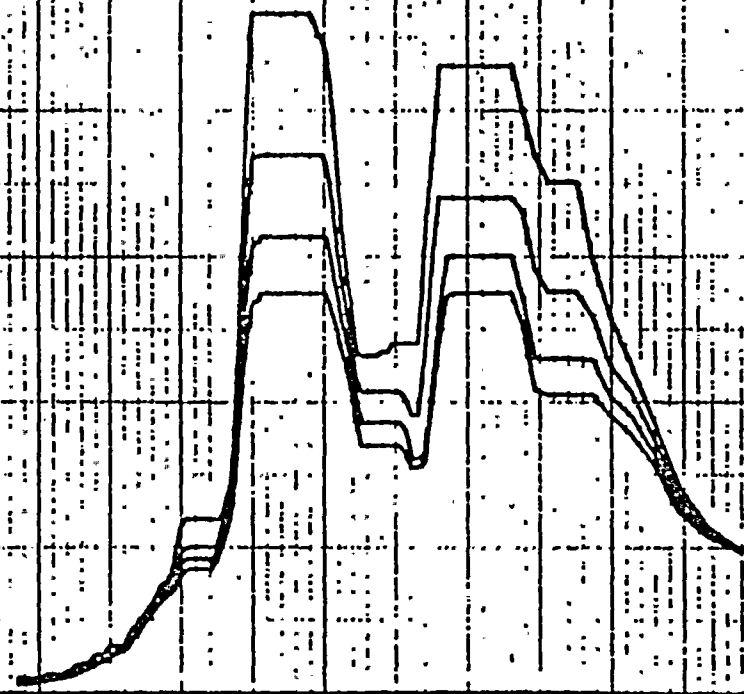
VER DIRECTION

MICHAEL K. 00

DAMPING VALUES: 0.010
0.020
0.025
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DOWING 12 22 32 & 42
THOSE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 138



PERCENTAGE VER 01 LEV 03

SRV (ENV. OF ALL GRY CASES)

22 OCT 1982

P. 90

NIGERIAN ROMAN-HINE HILES POINT UNIT-2 J.O.12177 MS-1740-8
RDS OF ACCELERATION PRIM. CONT. TOP (ELEV. 328.83 FT)

DISK CURVE SET NO. 40

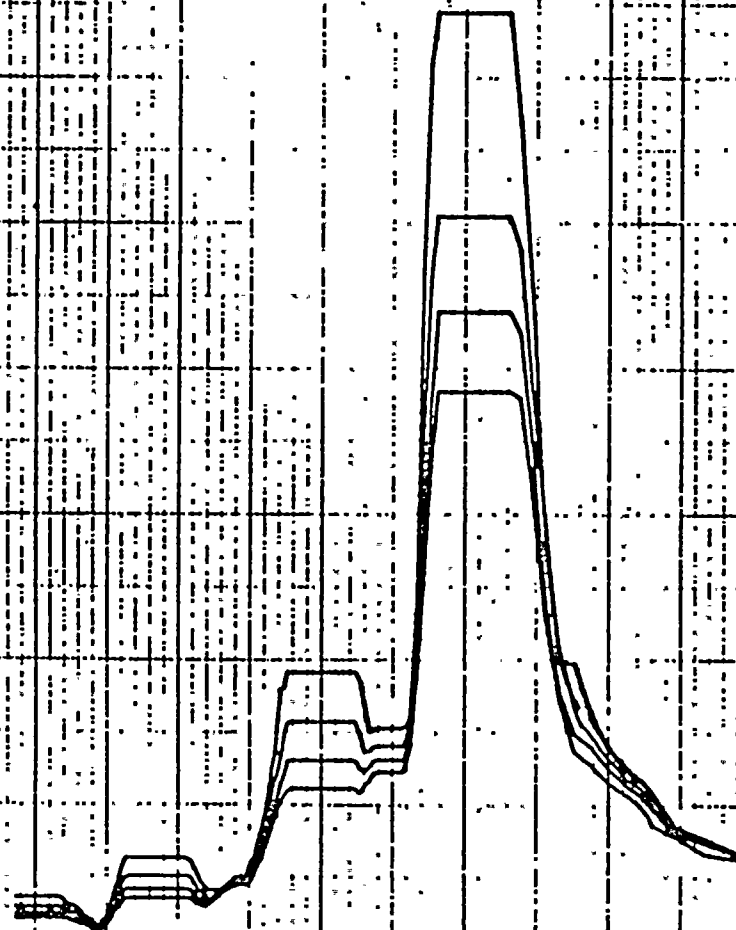
NSR DIRECTION

MICHAEL R. CO

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RDS CURVES WITH DAMPING 1X 2X 3X 4X 5X
THREE COLUMNS REPRESENT A SPACING OF 10X 20X 30X

ACCELERATION Φ
2.80
2.40
2.00
1.60
1.20
0.80
0.40
0.00



FREQUENCY IN HZ

REF 139



PSPECTRA VER 01 LEV 00

SRV(ENV. OF ALL SRY CASES)

22 OCT 1993

MISOURI MONSIEUR-NINE MILES POINT UNIT-2 J.G.12177 NS-1740-B
 RES OF ACCELERATION PRIM. CONT. TOP (ELEV.328.09 FT)

Page 91

DISK CURVE SET NO.40

VER DIRECTION

NICKS21 N 83

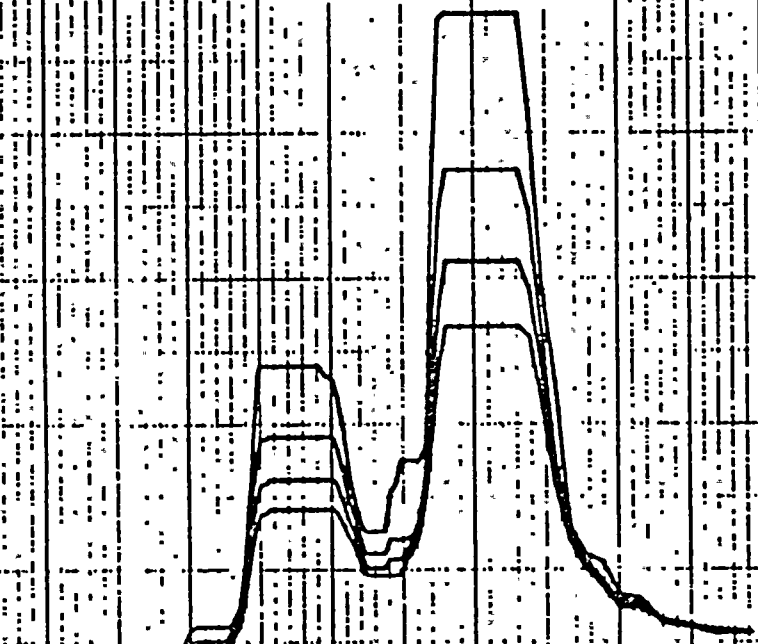
DAMPING VALUES = 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLOT OF RES CURVES WITH DAMPING 1% 2% 3% & 4%
 THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

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



Ref 139



PEPECTRA VER 01 LEY 03

SRV ENV. OF ALL SHY CASES)

22 OCT 1962

NINORAN MONAUK-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0

RES OF ACCELERATION SHIELD WALL OUT (ELEV. 915.29 FT)

MICHAEL R. 03

DISK CURVE SET 68-41

HOR DIRECTION

DAMPING VALUES = 0.010

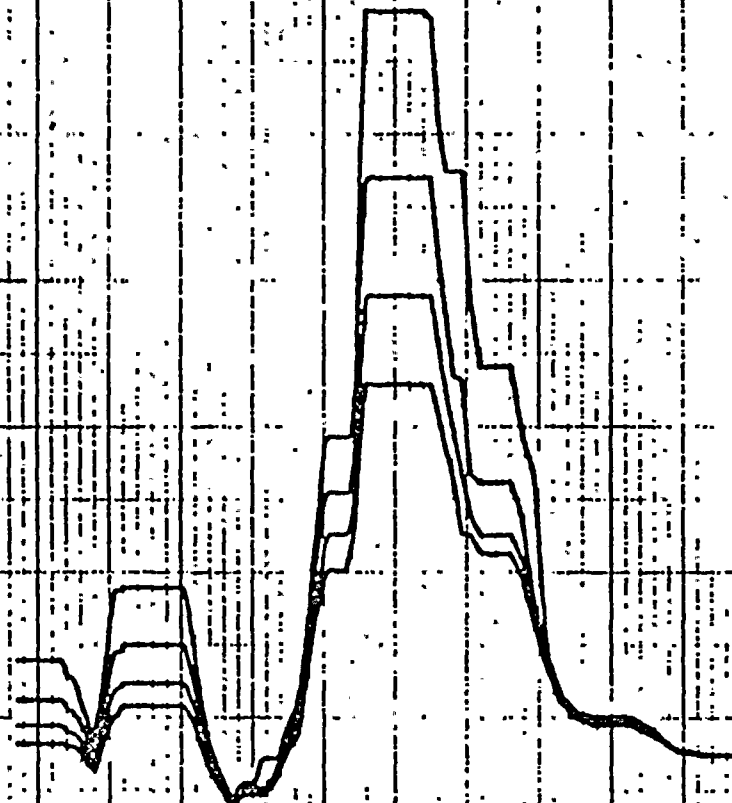
0.020

0.030

0.040

NOTE: MULTIPLY OF RES CURVES WITH DAMPING 1X 2X 3X 4 4X
THESE CURVES REPRESENT A SPREAD OF +10X AND -10X

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 140



SPECTRA VER 01 LEV 03

SRV(EN). OF ALL SRV CASES)

22 OCT 1982

NIRORA HONMAK-NINE MILES POINT UNIT-2 J.O.12/77 MS-1748-0
RMS OF ACCELERATION SHIELD WALL OUT (ELEV. 315.23 FT)

MICHAEL K DO

Page 93

DISK CURVE SET NO.41

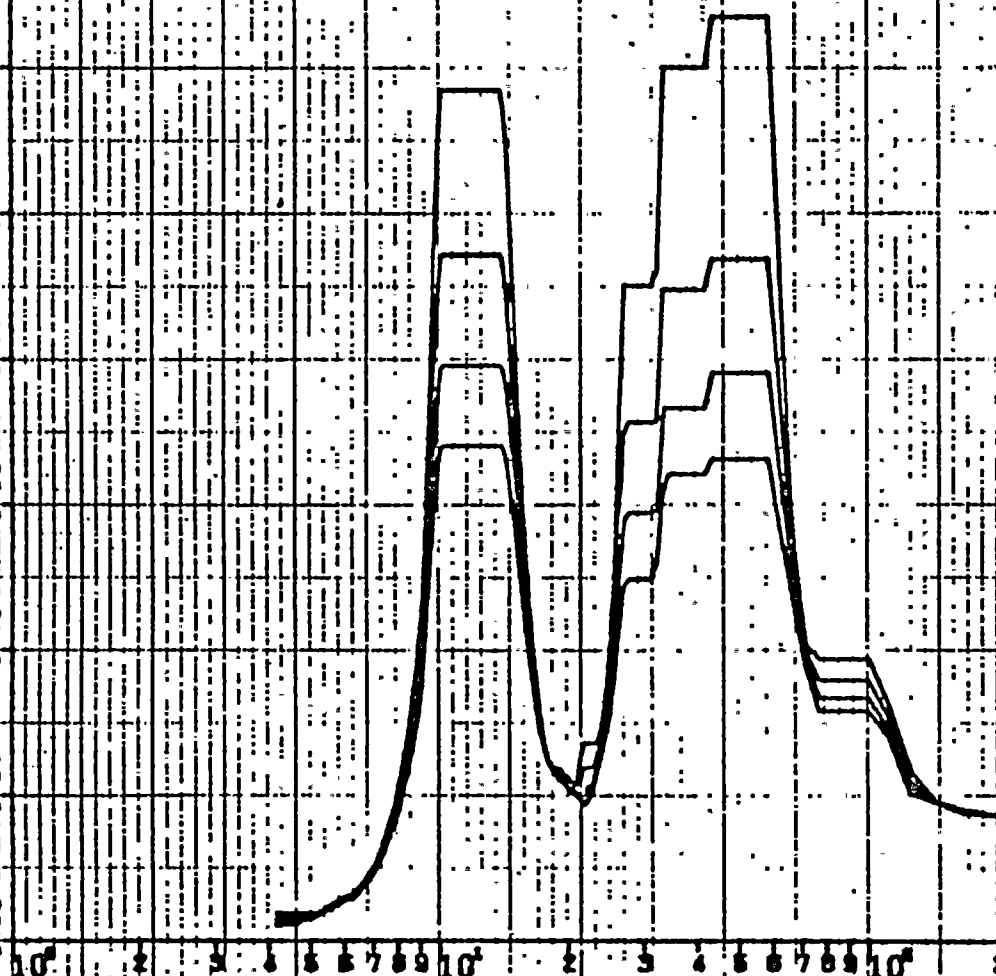
VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 3X 4X 5X
THREE CURVES REPRESENT A SPREAD OF +10% RMS -10%

ACCELERATION g

1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00



FREQUENCY IN HZ

REF 140



SPECTRA VER 01 LEV 03

SRVIENT. OF ALL SRV CASES)

22 OCT 1982

NICARAGUA HONANX-HINE MILES POINT UNIT-2 J.O.12177 NS-1748-8

RRS OF ACCELERATION PEDESTAL TOP (ELEV.288.84 FT)

DISK CURVE SET NO.42

NOR DIRECTION

MICHAEL R. 50

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% 3% & 4%
THICK CURVES REPRESENT A SPREAD OF +1% 0% -1%

ACCELERATION g

10⁰

2

5

10

2

5

10

2

5

10

2

5

10

2

5

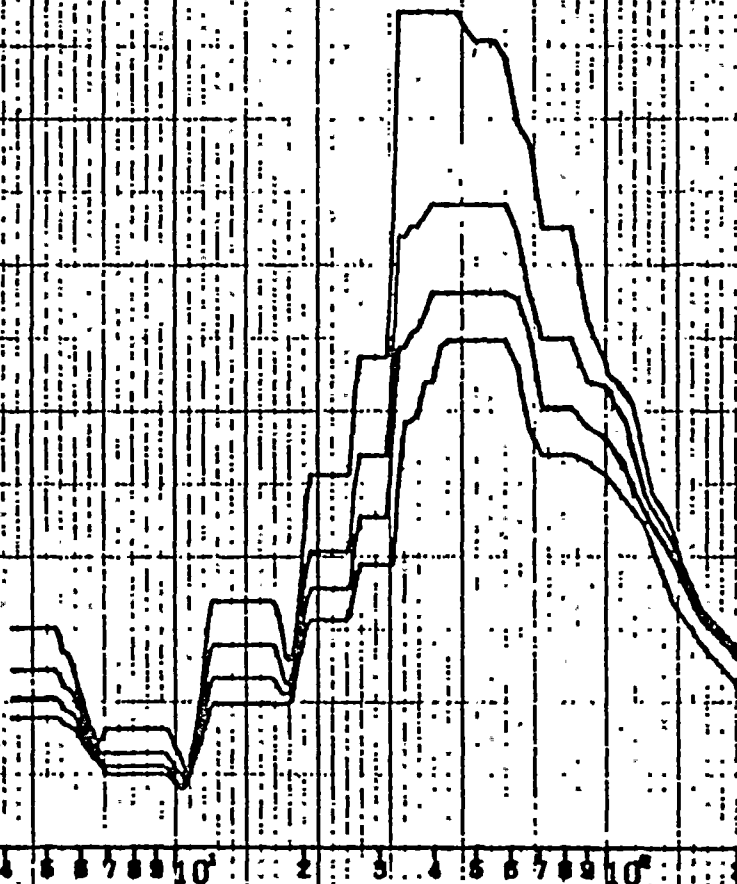
10

2

5

10

FREQUENCY IN HZ



P-99

141 137



SPECTRA VER 01 LEV 03

SRVIEW. OF ALL SRV CASES)

22 OCT 1982

P. 95

NIGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 K3-1748-8
 ERS OF ACCELERATION, PEDESTAL TOP (ELEV.266.64 FT)

DIGX CURVE SET NO.42

VER DIRECTION

NICHTEL K.03

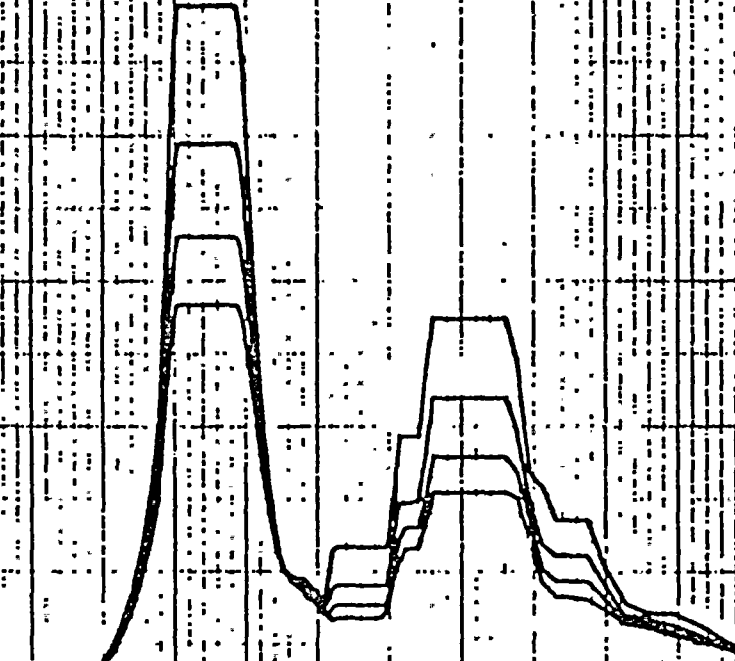
CRYPING VALUES = 0.010
 0.020
 0.030
 0.040

NOTE: MULTIPLY BY 222 CURVES WITH SCALING 12 22 31 & 42
 THESE CURVES REPRESENT A SPREAD OF +10% 222 -10%

ACCELERATION 0
 0.20 0.40 0.60 0.80 1.00 1.20

10⁰ 2 5 10¹ 2 5 10² 2 5 10³ 2 5 10⁴

FREQUENCY IN HZ



REF 141



SPECTRA VER 01. LEV 03

SRVENV. OF ALL SRV CASES)

22 OCT 1982

WINDMILL MOUNTAIN-HIDE MILES POINT UNIT-2 J.O.12177 NS-1748-0.

POS OF ACCELERATION SHIELD WALL OUT (ELEV.278.28 FT)

MICHAEL H 03

DISK CURVE SET NO.43

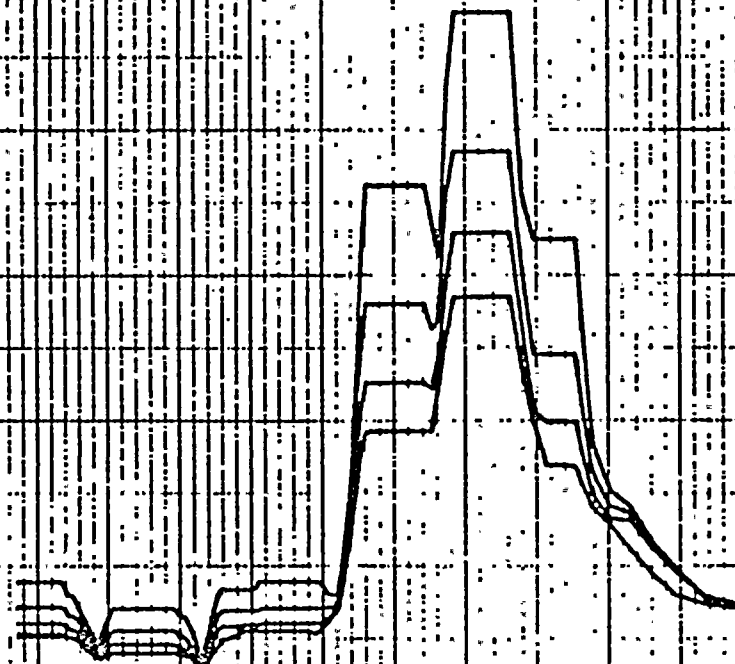
NSR DIRECTION

DAMPING VALUES

NOTE: MULTIPLY BY TWO CURVES WITH DAMPING 1X 2X 3X & 4X
THREE CURVES REPRESENT A SPREAD OF 1X TO 10X

0.010
0.020
0.030
0.040

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

P-96

ENC 142



SPECTRA VER 01 LEV 08

SRVENV. OF ALL SRV CASES

22 OCT 1982

MIRORA MOWAK-HINE HILES POINT UNIT-2 J.O.12177 MS-1748-8
RMS OF ACCELERATION SHIELD WALL OUT (ELEV.278.20 FT)

DIGX CURVE SET NO.43

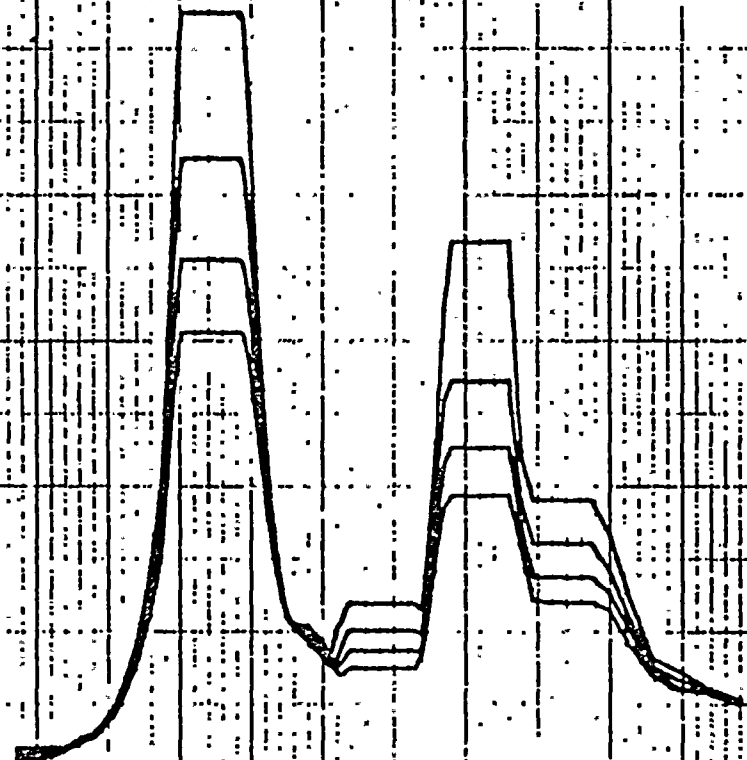
VER DIRECTION

MICHAEL X 63

DAMPING VALUES: 0.010
0.020
0.030
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 3X 4 4X
THREE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 142



SPECTRA VER 01 LEV 00

SRVINY. OF ALL ERY CASES)

22 OCT 1977

NIRGON NONGON-NINE MILES POINT UNIT-2 J.O.12177 NS-1745-0

ERS OF ACCELERATION SHIELD WALL OUT (ELEV. 250.69 FT)

DIREX CURVE SET NO.44

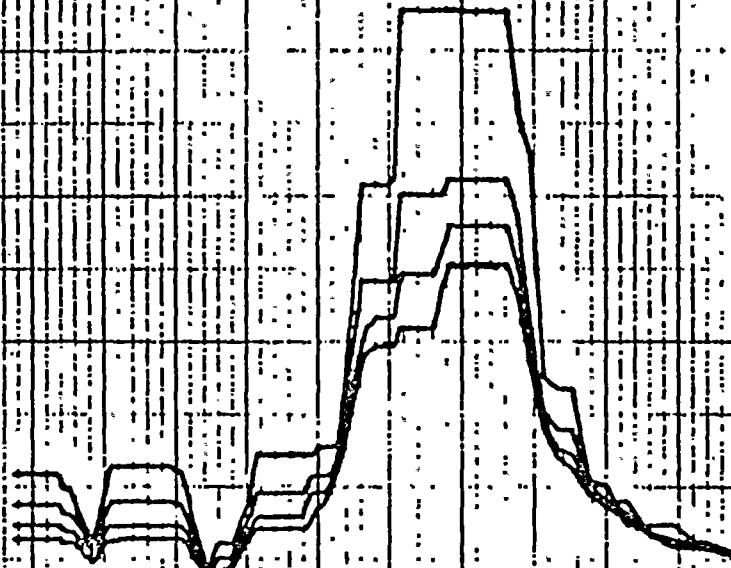
HOR DIRECTION

MICHAEL K 09

DAMPING VALUES + 0.010
0.020
0.030
0.040

NOTE: MULTIPLY BY 250 CURVES WITH DAMPING 1X BY 2X & 4X
THREE CURVES REPRESENT A SPREAD OF +1X 2X -1X

ACCELERATION 3
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 143

P-98



PEPECTRA VER 01. LEV 00

SRV(ENV. OF ALL SRV CASES)

22 OCT 1992

NINONRA MONTANA-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
ERS OF ACCELERATION SHIELD WALL OUT (ELEV. 280.83 FT)

DISK CURVE SET NO.44

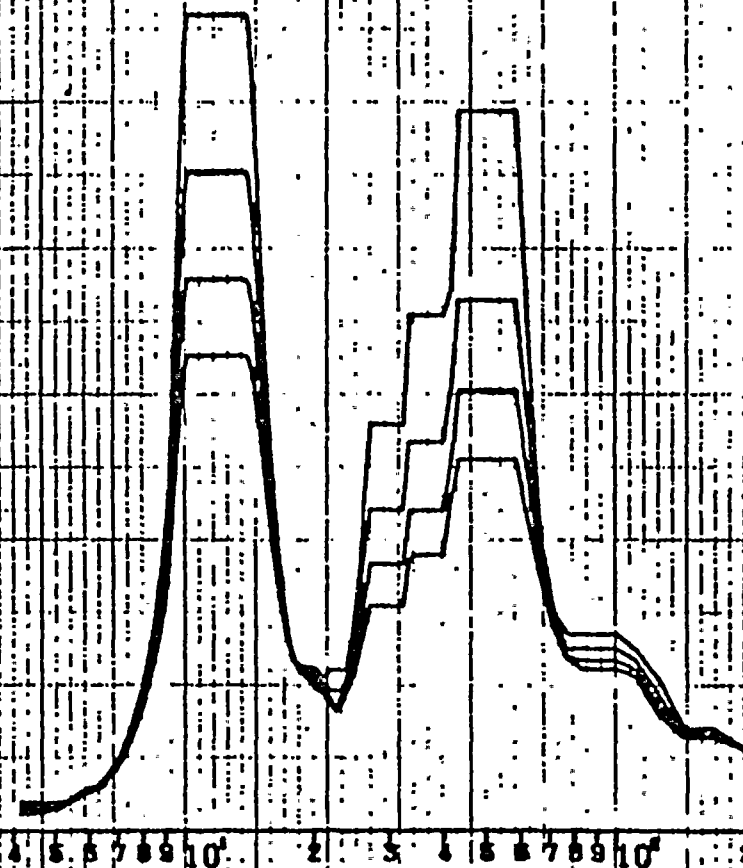
VER DIRECTION

MICHAEL N. 20

DAMPING VALUES - 0.010
0.020
0.050
0.148

NOTE: MULTIPLY OF TWO CURVES WITH DAMPING 1X 2X 3X 4 4X
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION - 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 143

P-99



SPECTRA VER 01 LEV 00

ENVIRONMENTAL OF ALL CASES

22 OCT 1982

P-100

WINDTUNNEL-NINE MILES POINT UNIT-2 J.O.12177 NS-1748-0
 RES OF ACCELERATION SHIELD WALL OUT (ELEV. 238.82 FT)

DISK CURVE SET NO. 45

NOZ DIRECTION

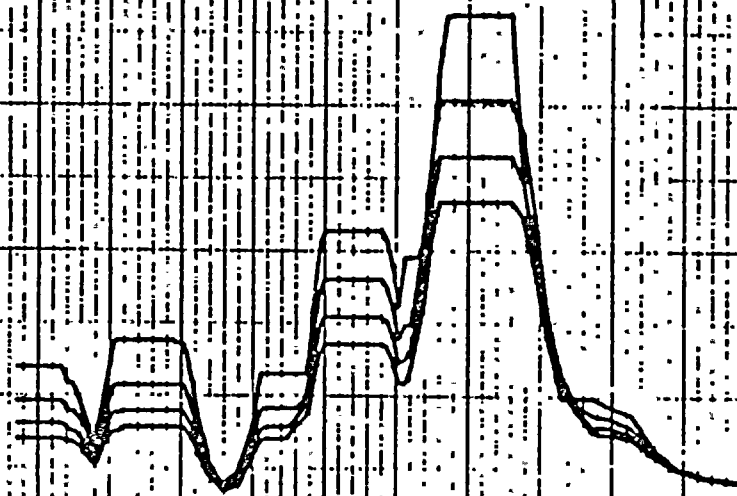
WINDTUNNEL K 60

SCALING VALUES: 0.010
 0.020
 0.050
 0.100

NOTE: MULTIPLIERS OF DISK CURVES WITH ... SCALING 1X 2X 3X 4X
 THESE CURVES REPRESENT A SERIES OF +10X AND -10X

ACCELERATION G

0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 144



PERCEIRA, VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1932

NIRORRA MONAUK-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0

RRE OF ACCELERATION SHIELD WALL OUT (ELEV.500.62 FT)

NICHOL N 63

DINA CURVE SET NO.45

VER DIRECTION

DAMPING VALUES = 0.010

0.028

0.029

0.040

NOTE: MULTIPLY BY ONE CURVES WITH DAMPING 1X 2X 4X 6X
TWO CURVES REPRESENT A SPREAD OF +10% -10%

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 144

P-101



SPECTRA VER 01 LEV 03

SAV(ENV. OF ALL GRY CASES)

22 OCT 1992

Page 102

NIGARA MONSIEUX-HINZ NILES POINT UNIT-2 J.O.12177 NS-1748-9
 838 OF ACCELERATION SPV:SWELL (ELEV.315.00 FT)

DISK CURVE SET NO.48

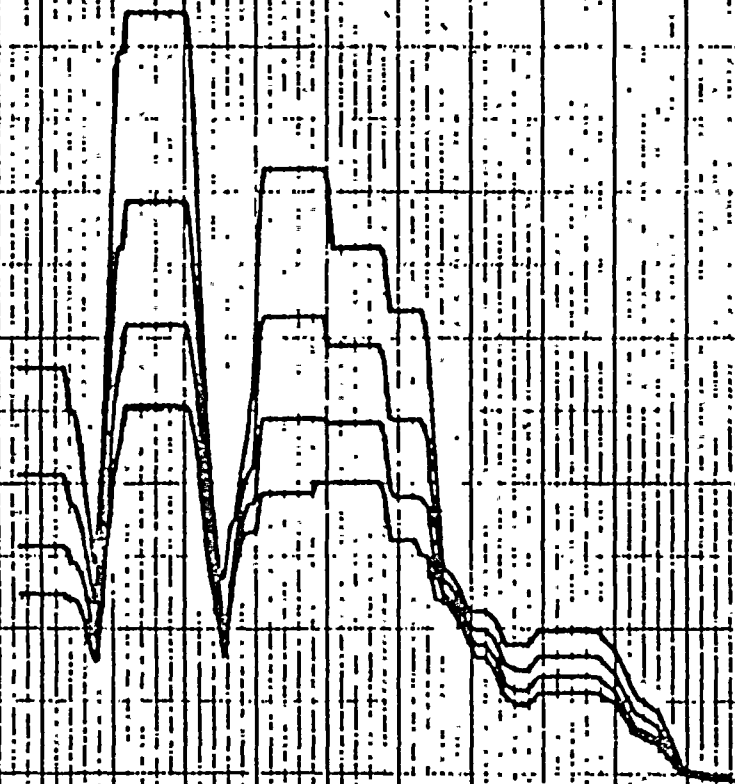
NOZ DIRECTION

MICHAEL K. 23

OUTPUTS VALUE: + 0.816
 0.328
 0.039
 0.248

NOTE: MULTIPLY OF AGE CURVES WITH COMPIED 12 22 32 4 22
 THESE CURVES REPRESENT A SPREAD OF +10% 42% -10%

ACCELERATION 0.00 0.08 0.16 0.24 0.32 0.40 0.48 0.56



FREQUENCY IN HZ

REF 145



SPECTRA VER 01 LEV 03

SAFETY. OF ALL SBY CASES)

22 OCT 1964

HIROSA MONTANA-HIKE HILES POINT UNIT-2 J-6-12177 NS-1743-0
RMS OF ACCELERATION RPV SHELL (ELEV. 315.03 FT)

P-103

DISK CURVE SET NO. 48

VER DIRECTION

MICHAEL R. 31

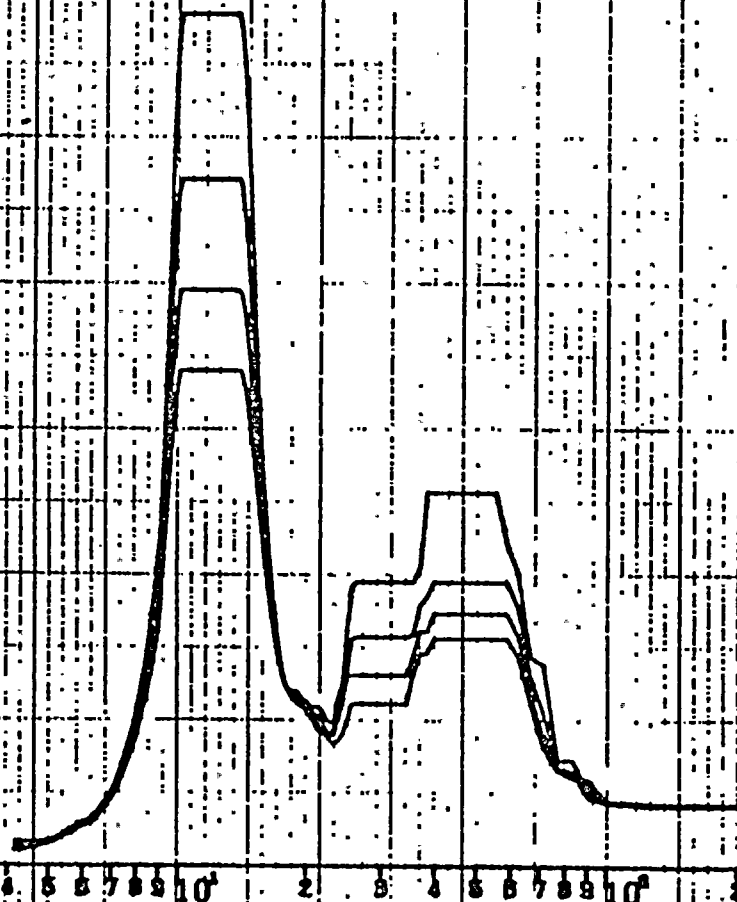
DAMPING VALUES = 0.018
0.020
0.025
0.049

NOTE: MULTIPLIST OF RMS CURVES WITH DAMPING 11 21 31 & 41
THESE CURVES REPRESENT A SERIES OF +10X AND -10X

ACCELERATION 0
0.20
0.40
0.60
0.80
1.00
1.20
1.40

FREQUENCY IN HZ

REF 145





SPECTRA VER 01 LEV 03

REVIEW OF ALL GRY CASES

22 OCT 1992

7-104

NITROAKA HONOLULU-NINE MILES POINT UNIT-2 J.O.12177 MS-1748-0
RMS OF ACCELERATION RPV SHELL (ELEV.201.74 FT)

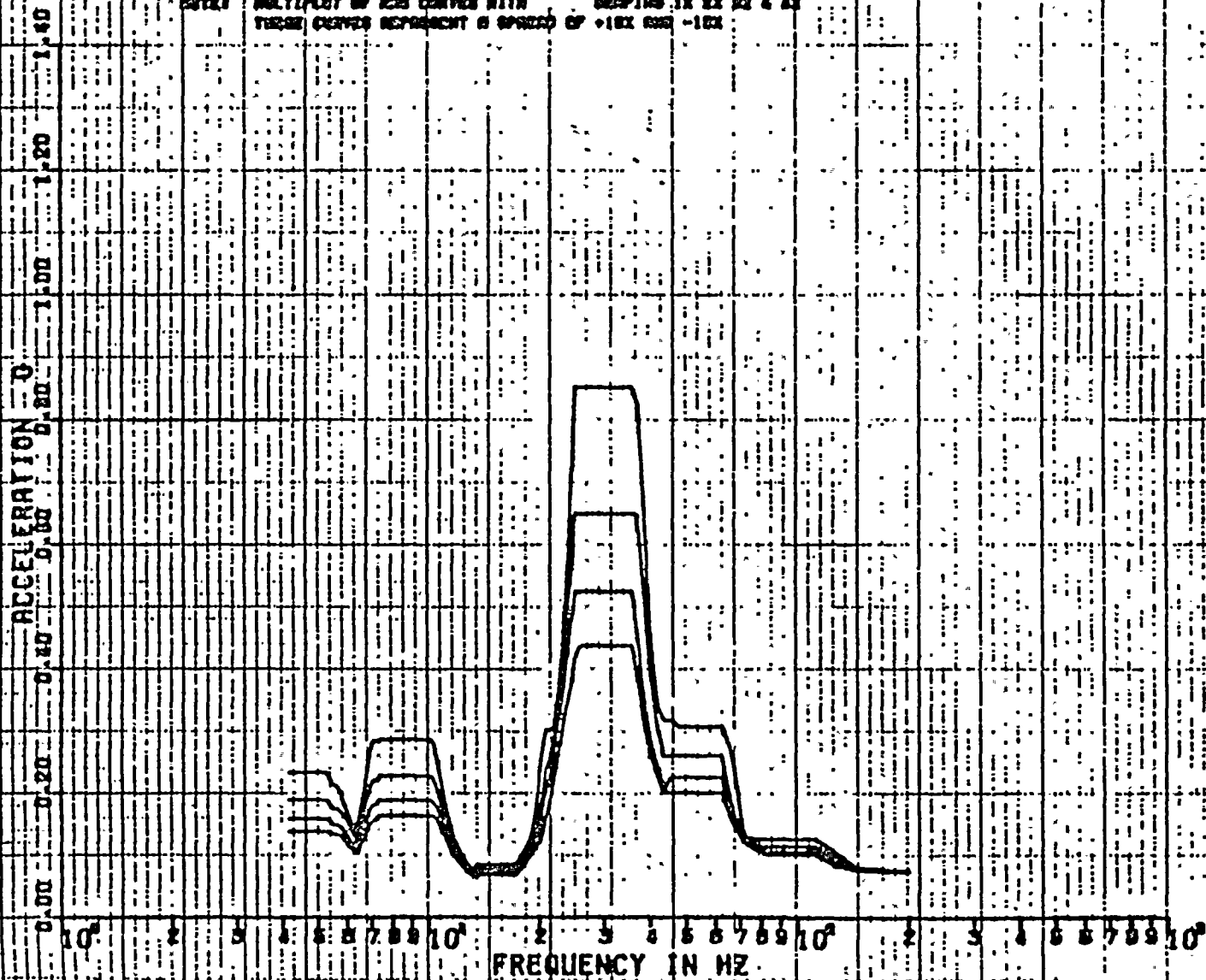
DISK CURVE SET 50.47

HEZ DIRECTION

MICHAEL N 59

DAMPING VALUES = 0.010
0.020
0.030
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 1X 2X 3X 4 5X
THESE CURVES REPRESENT A SPECTRUM OF 10X 20X 10X



R/L 146



PERPECTRA VER 01 LEV 08

SRV(ENV. OF ALL SRV CASES)

22 OCT 1977

NIAHARA MCHWUX-NINE MILES POINT UNIT-2 J.O.12/77 NS-1748-8:

RES. OF ACCELERATION RPV-SHELL (ELEV.281.74 FT).

MICHAEL R. [illegible]

Page 125

DIGX CURVZ SET NO.47

VER DIRECTION

DAMPING VALUES =

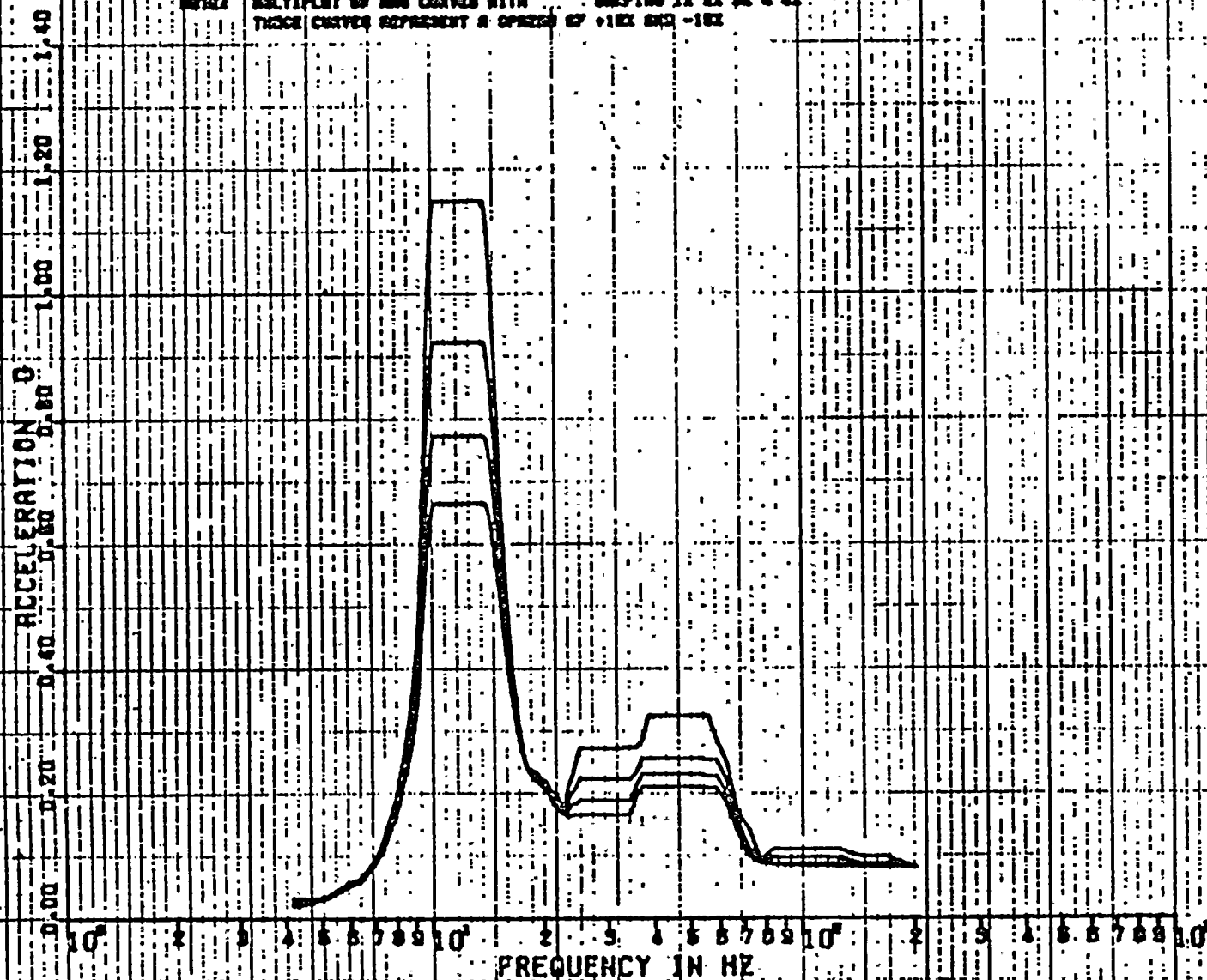
0.010

0.025

0.050

0.040

NOTE: MULTIPLIPLY OF TWO CURVES WITH DAMPING 1X 2X 3X & 4X
THREE CURVES REPRESENT A COMBINATION OF 1X 2X & 3X



REF 140



PSPECTRA VER 01 LEV 03

SAV(ENV. OF ALL SAV CASES)

22 OCT 1992

P: 106

NINETY-NINE MILES: POINT UNIT-2 J.O.12177 NS-1748-8
RMS OF ACCELERATION RPV SHELL (ELEV.270.11 FT)

DISK CURVE SET NO.48

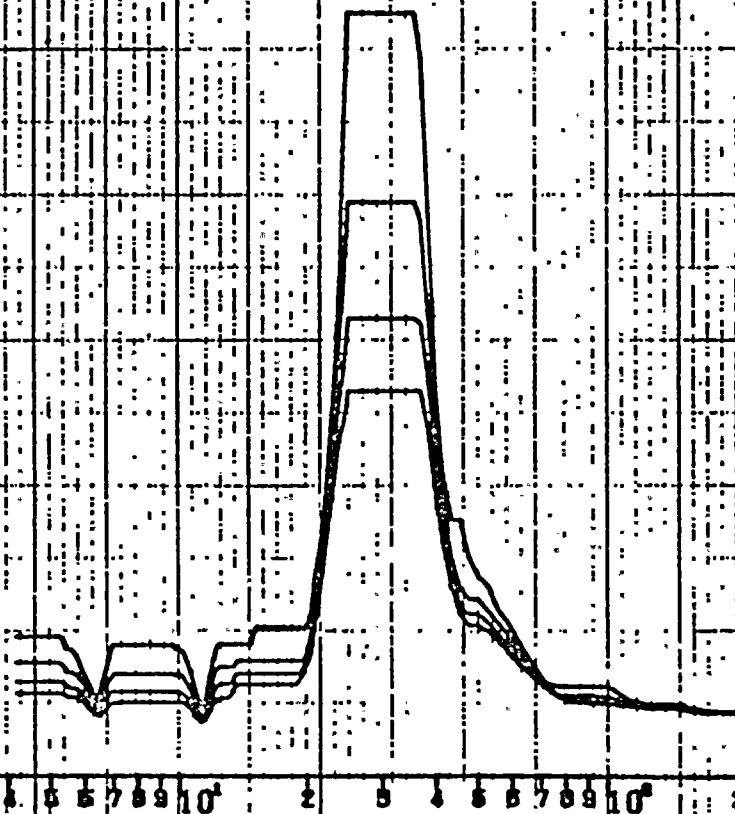
NOR DIRECTION

MICHAEL M. CO.

DAMPED VALUES =
0.018
0.020
0.023
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPED IN XX BY 4.
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION G



FREQUENCY IN HZ

REF 147



PEPECTRA VER 01 LEV 08

SRV ENV. OF ALL SRV CASES)

22 OCT 1962

WINDRUM MONAHK-NINE MILES POINT UNIT-2 J.O. 12177 HS-1748-0
RBS OF ACCELERATION RPV SHELL (ELEV. 278.11 FT)

NICHOL N 02

DIGIT CURVE SET NO. 48

VER DIRECTION

DAMPING VALUES
0.018
0.020
0.020
0.020

NOTE: MULTIPLY OF RBS CURVES WITH DOWNSIDE 1X 2X 3X 4X
TOTAL CURVES REPRESENT A COMB OF 4 (EX 8X 12X)

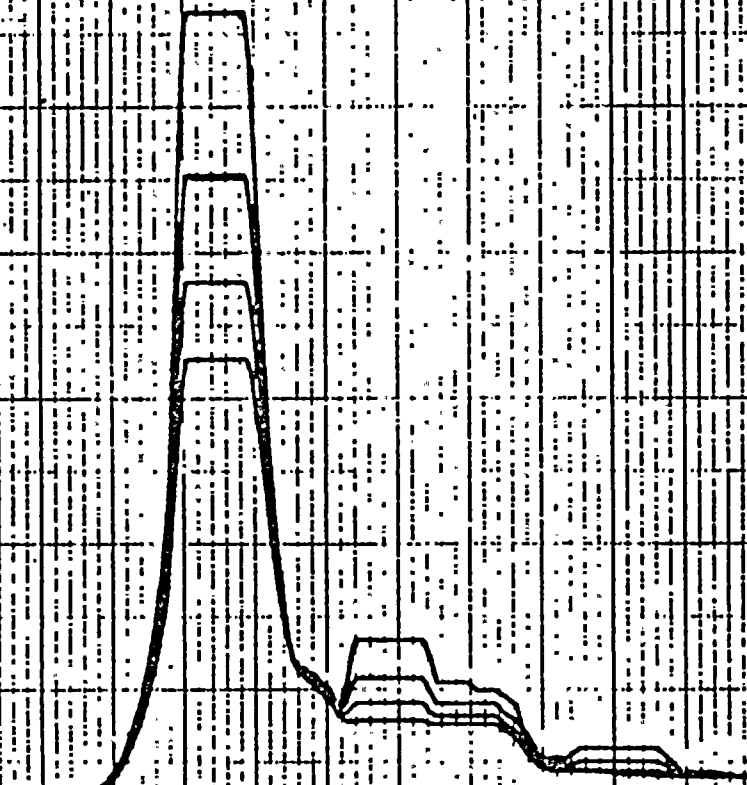
ACCELERATION 0
0.20 0.40 0.60 0.80 1.00 1.20 1.40

FREQUENCY IN HZ

10⁰ 2 5 10¹ 2 5 10² 2 5 10³

P107

REF 147





SPECTRA VER OF LEV 08

SAV(ENV. OF ALL GRY CASES)

22 OCT 1982

7108

NIAGARA MONROE-HINZ MILES POINT UNIT-2 J.O.12177 NS-1748-8

RAS OF ACCELERATION RPV SHELL (ELEV.285.54 FT)

SAFETY RELIEF VALVE DISCHARGE(81M40-8HZ) -RADIAL ACCELERATIONS

DISK CURVE SET NO.49

NO2 DIRECTION

HICKS21 R. 50

DAMPING VALUES =

0.010

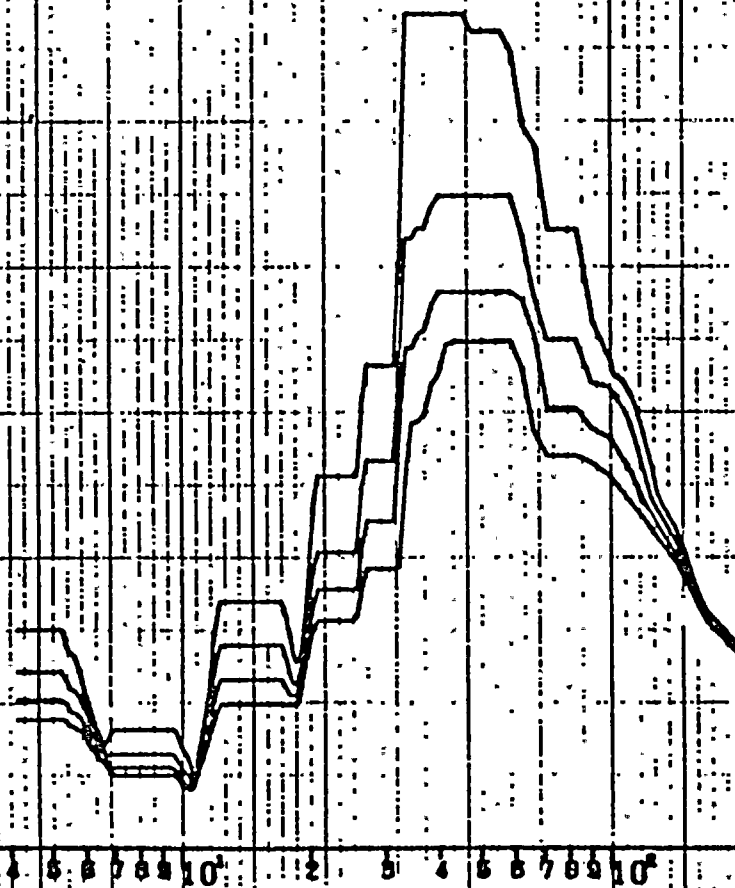
0.020

0.050

0.100

NOTE: MULTIPLY OF ACS CURVES WITH DAMPING 1X 2X 3X 4 5X
FUDGE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70



FREQUENCY IN HZ

REF 148



PEPECTRA: VER 01 LEV 03

SRV(ENV. OF ALL SRV CASES)

22 OCT 1952

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 NS-1740-0

RBS OF ACCELERATION: RPV SHELL (ELEV.268.54 FT)

SAFETY RELIEF VALVE DISCHARGE(SINAD-2HZ) -RADIAL ACCELERATIONS

DIGIT CURVE SET NO.43

VER DIRECTION

NICHOL N 08

DRIFTED VALUES =

0.010

0.020

0.030

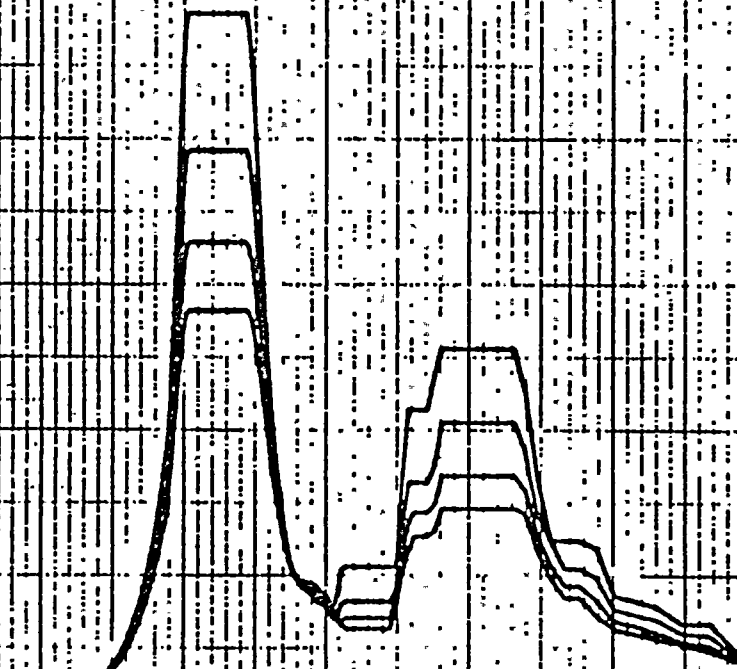
0.210

NOTE: MULTIPLY BY RES CURVES WITH DAMPING 1X 2X 3X 4X 5X
THESE CURVES REPRESENT A SPREAD OF +10% MIN -10%

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



RET 148

P109



HRP2

SEISMIC ORE AND SSE REQUIRED RESPONSE
SPECTRA
ALL BUILDINGS EXCLUDING THE REACTOR
BUILDING



Page 100 - 1000000

Page 100 - 1000000

ATTACHMENT A

Seismic OBE and SSE

Required Response Spectra (RRS)
For Electrical Tunnels, Standby Gas
Treatment, Turbine, Control, Diesel
Generator, Condensate Storage Tank,
and Radwaste Buildings

<u>Building</u>	<u>Elev (ft)</u>	<u>Reference No.*</u>
North Electrical Tunnel (Section E)	234.00	1
Standby Gas Treatment	216.00	2
	286.00	3
	310.00	4
Turbine and Vicinity Structures**	250.00	5
	277.50	6
	306.00	7
	336.00	8
	377.00	9
	230.00	10
	261.00	11
	277.00	12
	292.00	13
Control and Diesel Generator	214.00	14
	237.00	15
	261.00	16
	287.58	17
	306.00	18
	327.00	19
South Electrical Tunnel	234.00	20
Radwaste and Condensate Storage Tank	251.00	21
	261.00	22
	279.00	23
	291.50	24
	309.00	25
	339.00	26
Turbine Support (lines 4-5)	274.50	27
(lines 9-10)	274.50	28
	300.10	29
Ground	261.00	30

*Each reference number includes:

1. Horizontal and vertical direction OBE condition at 2 percent damping.



2. Horizontal and vertical direction SSE condition at 2, 3, and 4 percent damping.

**The vicinity structures include the following: auxiliary boiler building, auxiliary service building, demineralizer water and neutron tank building, electrical bay, heater bay, intake discharge shaft building, main steam tunnel, normal switchgear building, screenwell building, and service building.



SPECTRA: VER 01 LEV 08

DBE:

20 JUL 1987

ROADWAY: MOHAWK-NINE MILE POINT 2 - CALC 1 - /7-RTIC/LR-1418 REV(1)

RMS OF ACC: NORTH ELECT. TUNNEL ROOF ELEVATION 25410

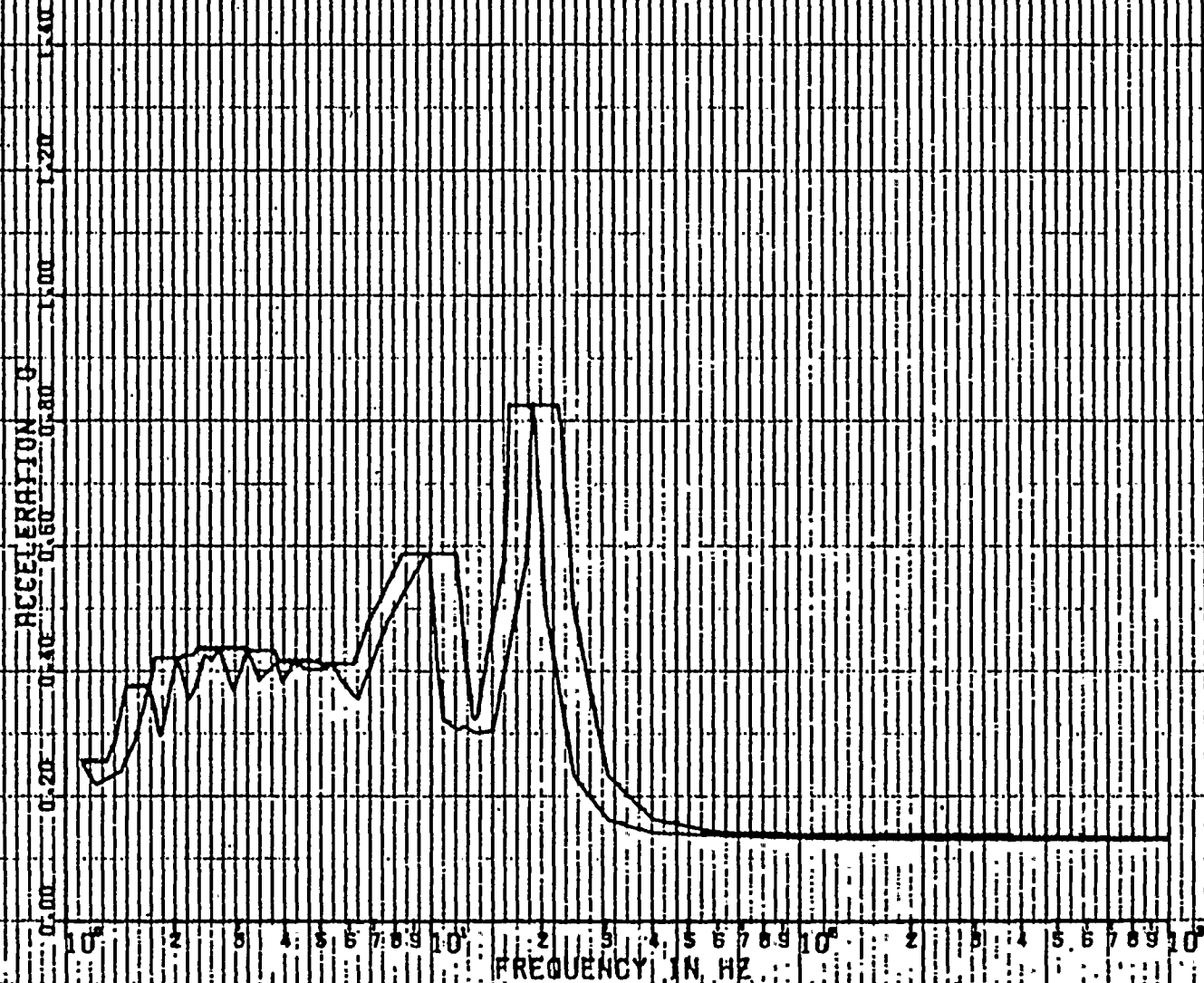
JOB 255

PEAK SPREAD: 1.152

DISK CURVE SET NO. 1

HOR. DIRECTION

DAMPING VALUE = 0.020



REF 1-4



File

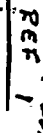
606 206

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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VER DIRECTION

DRAPING VALUE = 0.020

DISK CURVE SET NO. 1





PSPECTRA VER 01 LEV 09

S.S.E

18 JUL 1999

NIADANA MOHAWK-NINE MILE POINT 2 - CALC. (2177-WH(C)-RS-1418 REV 1)

RRS OF ACC. NORTH ELECT TUNNEL ROOF ELEVATION 294.0

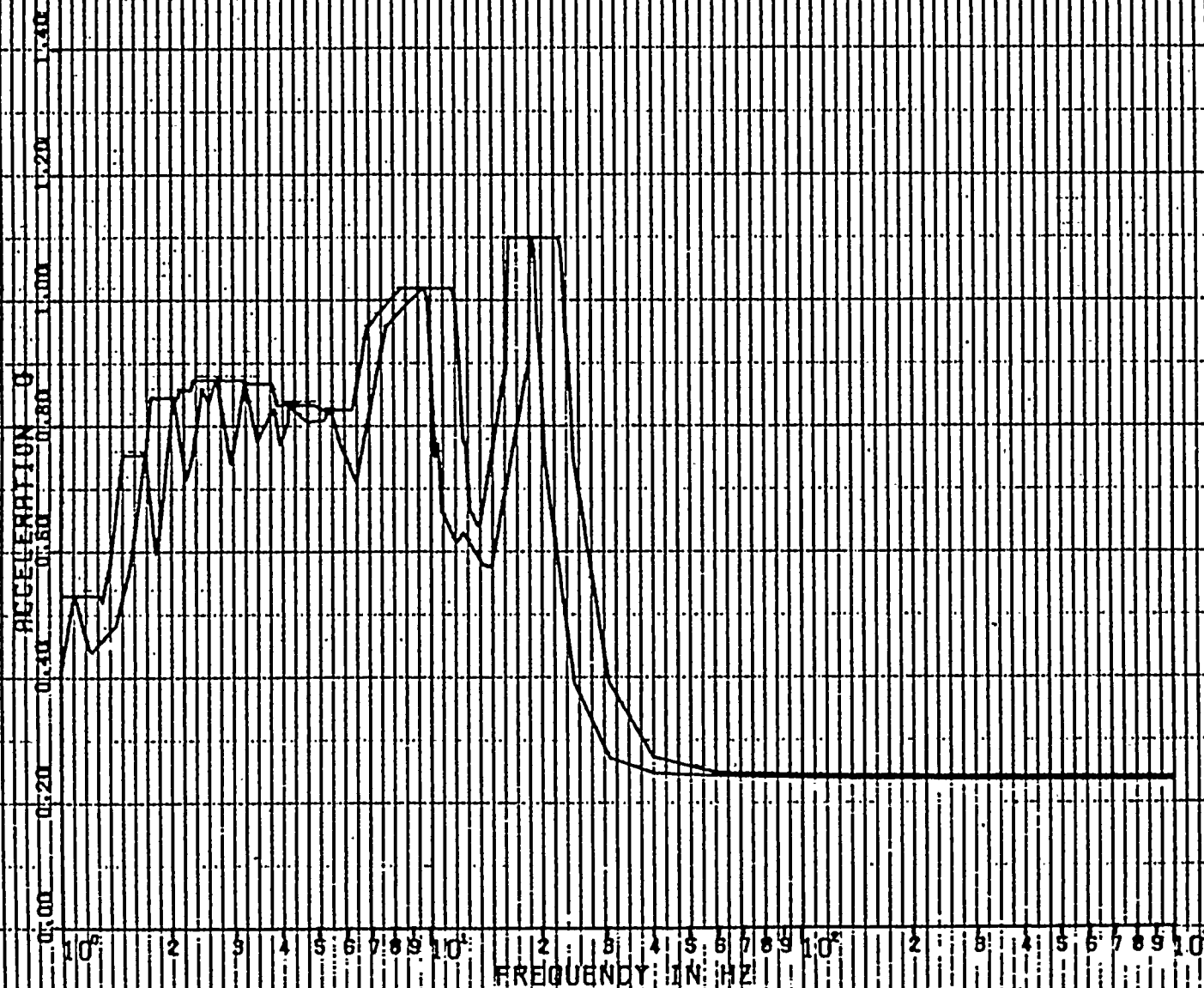
JOB 255K

PEAK SPREAD 1.15X

DISK CURVE SET NO.1

HDR DIRECTION

DAMPING VALUE = 0.020



Ref 1



PSPECTRA VER 01 LEV 08

SSE

18 JUL 1988

RIADARA ADHARK-NINE MILE POINT 2 - CALC. 12177-WHIC-18-1818 REV 11

NRB OF ACCL-NORTH ELECT TUNNEL ROOF ELEVATION 258.0

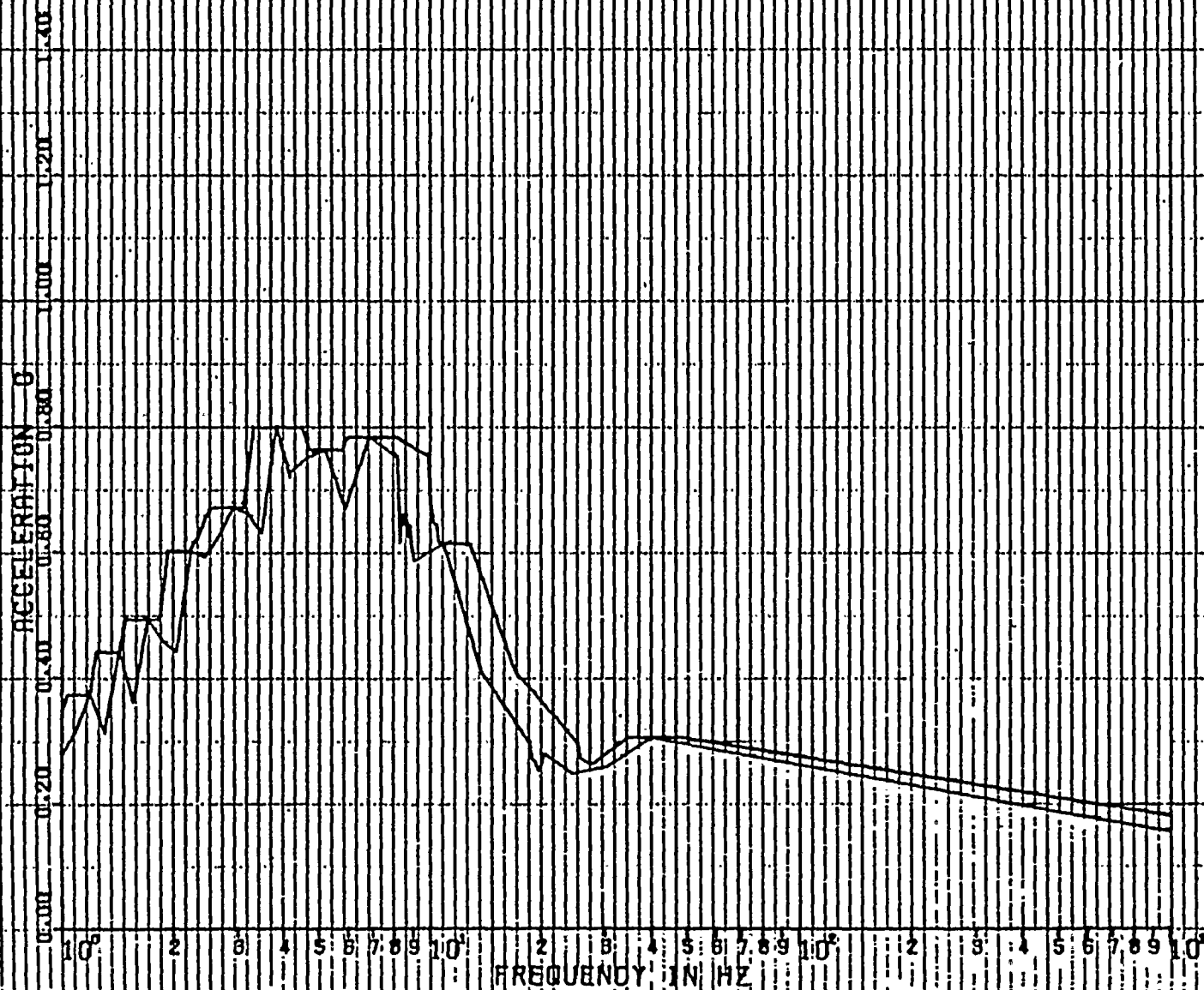
JOB 2334

PEAK SPREAD >= 15%

DISK CURVE SET NO. 1

VER DIRECTION

DAMPING VALUE = 0.020



Ref 1



PSPECTRA VER 01 LEV 09

SSE

20 JUL 1963

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC. 12177-NRICH-AS-1418 REV117

RRG OF ACC.-NORTH ELECT TUNNEL ROOF, ELEVATION 2341.0

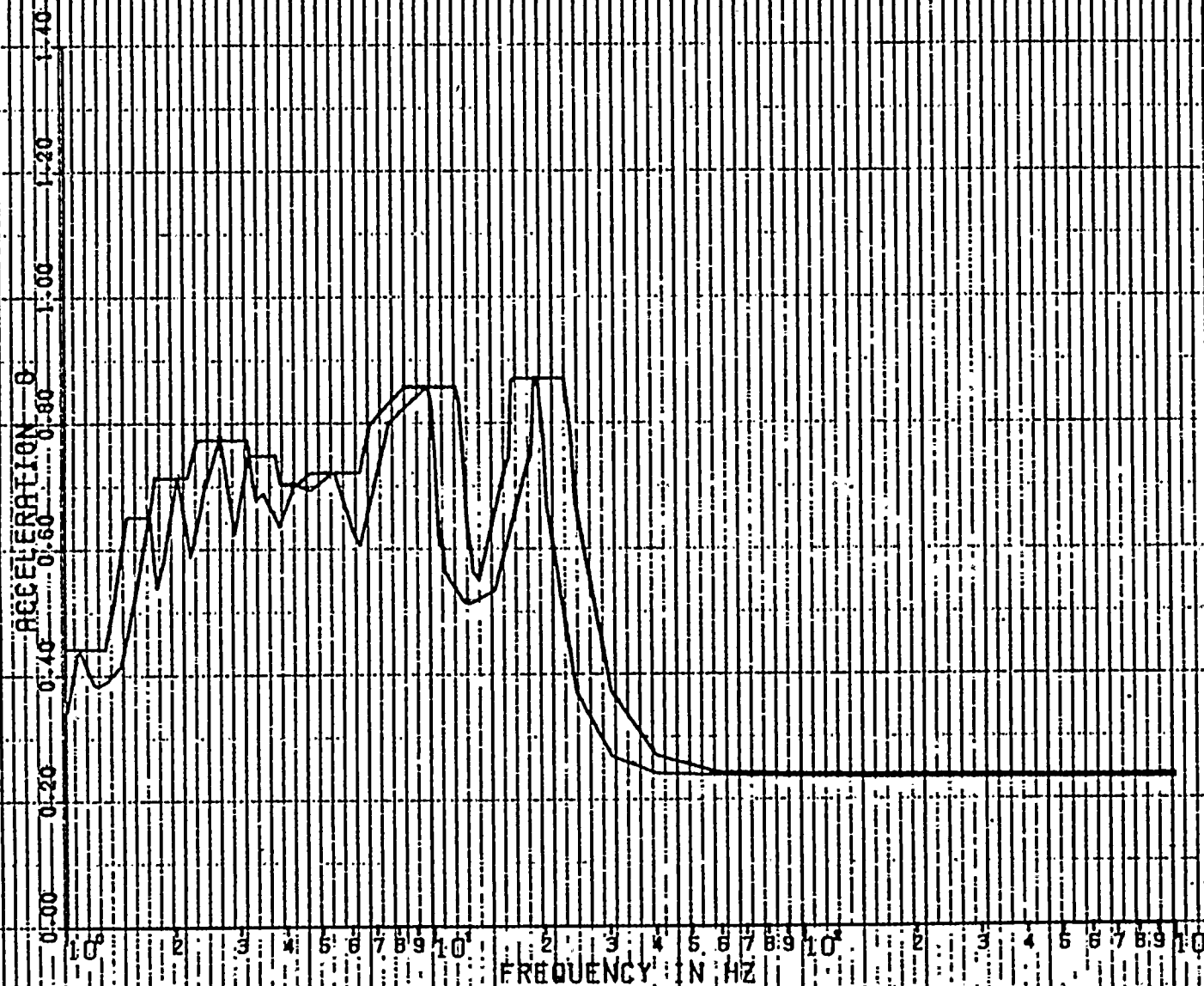
JOB 55

PEAK SPREAD 1-152

DISK CURVE SET NO. 11

HOR DIRECTION

DAMPING VALUE = 0.050



Ref 1



PSPECTRA VER D1 LEV D3

SSE

20 JUL 1983

WINDTUNNEL HAWK-NINE FILE POINT 2 - CALC:12177-ANAL:15-1418 REV:10

RRS OF ACC. NORTH ELECT TUNNEL MODF.ELEVATION 294.0

JOB 65

PEAK SPREAD W-15Z

DISK CURVE SET NO.1

VER DIRECTION

DAMPING VALUE = 0.030



SPECTRA: VER: 01 LEV: 09

55E

20 JUL 1985

ROADWAY: NODHAWK-NINE MILE POINT 2 - CALC 12177-NHIC-1415 REV(1)

RRS OF ACC-1-NORTH ELECT TUNNEL ROOF ELEVATION 294.0

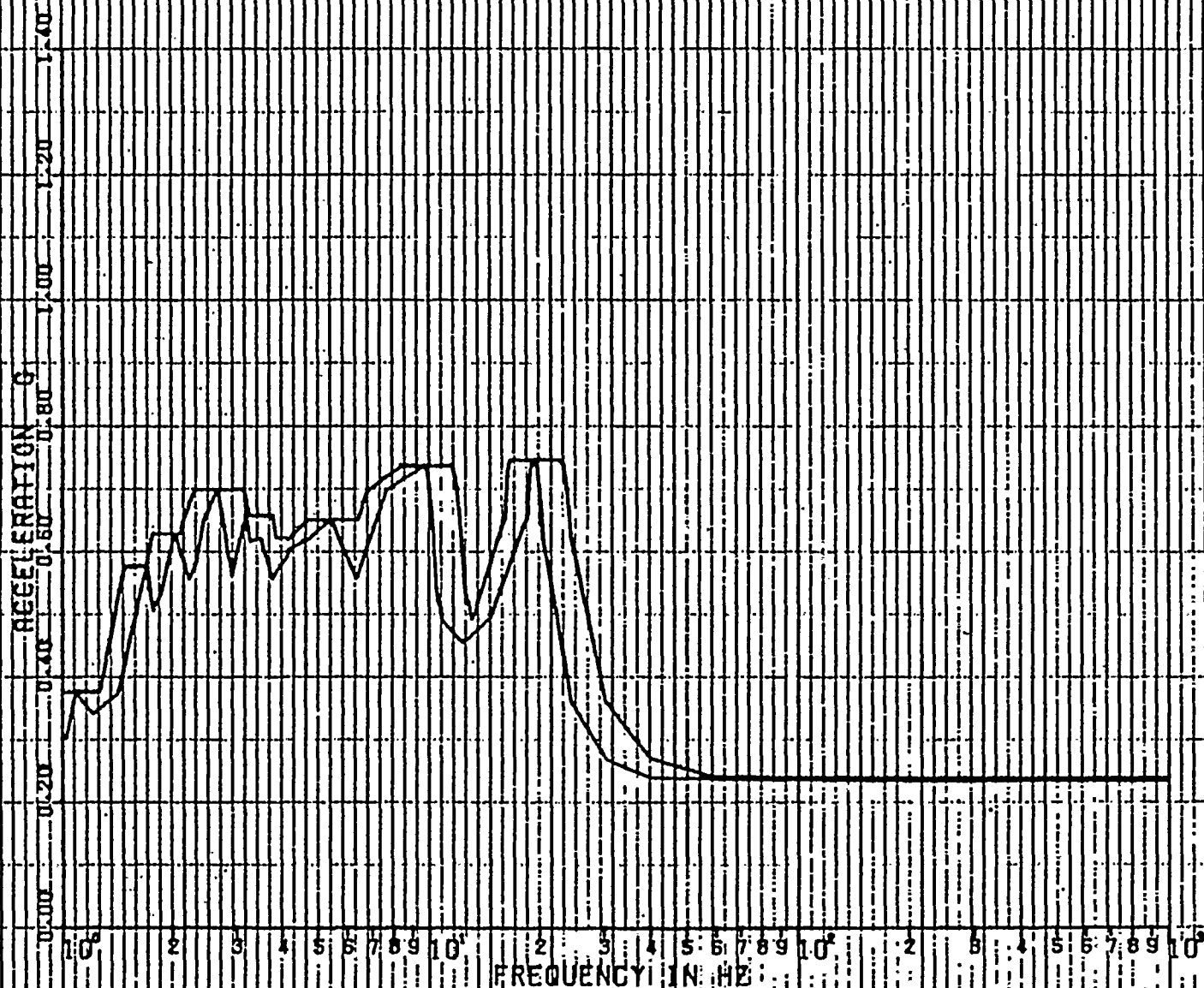
JOB 85

PEAK SPREAD 0.152

DISK CURVE SET NO. 1

HDR DIRECTION

DAMPING VALUE = 0.040





SPECTRA VER 01 LEV 09

35E

SSE

20 JUL 1989

NIAGARA MOHAWK NINE MILE POINT 2 - CALC. 12177-NHIC3-MB-1518 REV 11

RRS OF ACC. NORTH ELECT TUNNEL ROOF ELEVATION 2940

JOB 05

PEAK SPREAD 1-15K

DISK CURVE SET NO. 1

VER DIRECTION

DAMPING VALUE = 0.040



REF 1



PSPECTRA: VER: 01 LEV: 00

00E

20 JUL 1985

WADANA MOHAWK WIRE MILE POINT 2 L CALCL 2177-KNLC-16-410 KEV11

RRS OF ACCL-STANDBY DAS TREATMENT: 800 ELEVATION 261.0

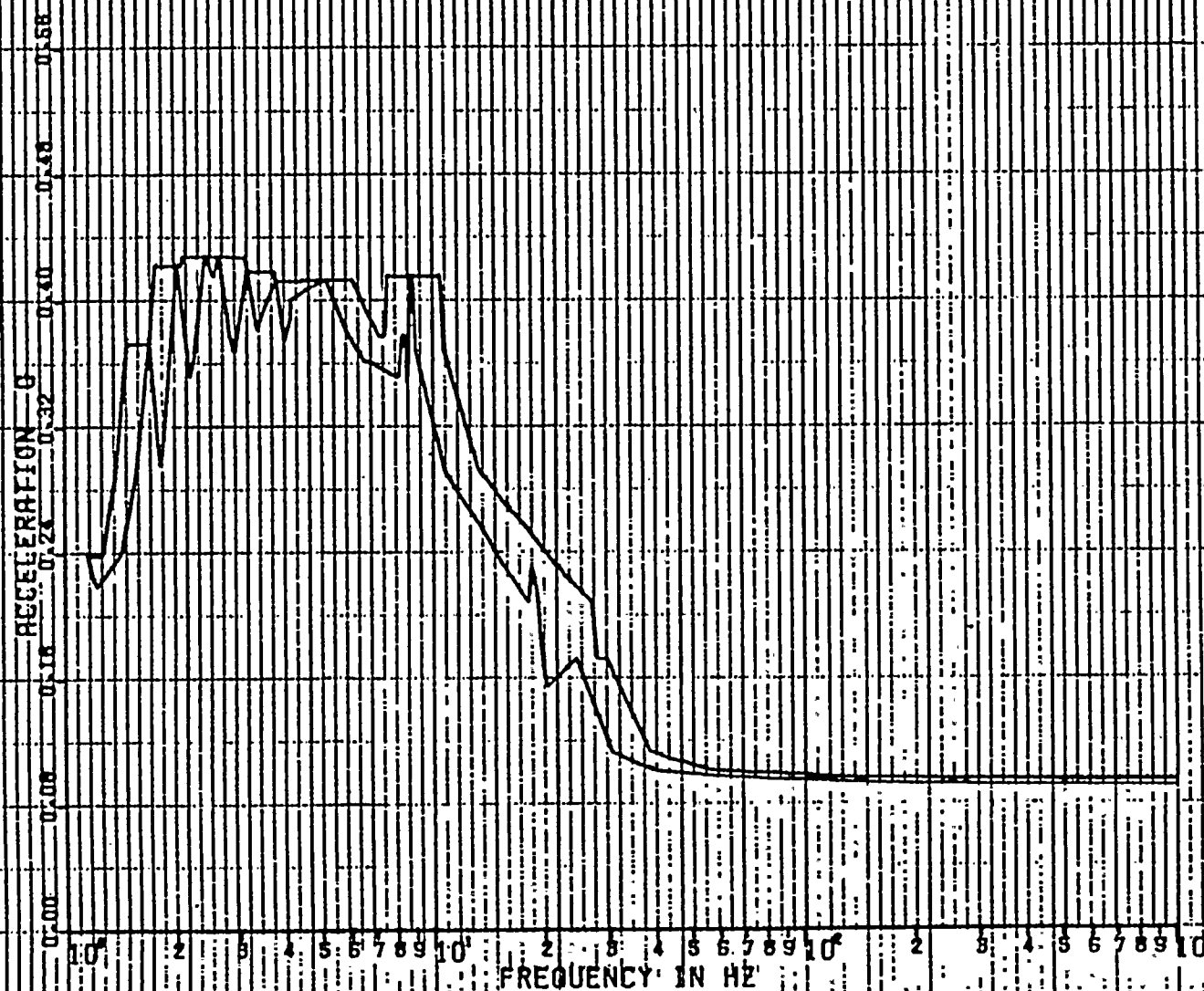
055 239

PEAK SPREAD: 1.15%

DISK CURVE SET NO. 2

HDR DIRECTION

DAMPING VALUE = 0.020



REF 2



SPECTRA: VER: 01 LEV: 00

08E

25 JUL 1993

RIHARRI MOHAWK-NINE MILE POINT 2: CALC: 12177-MALC-MS-1418 REV: 10

RRS OF RCC-STANDBY OBS: TREATMENT 0.00 ELEVATION: 28.0

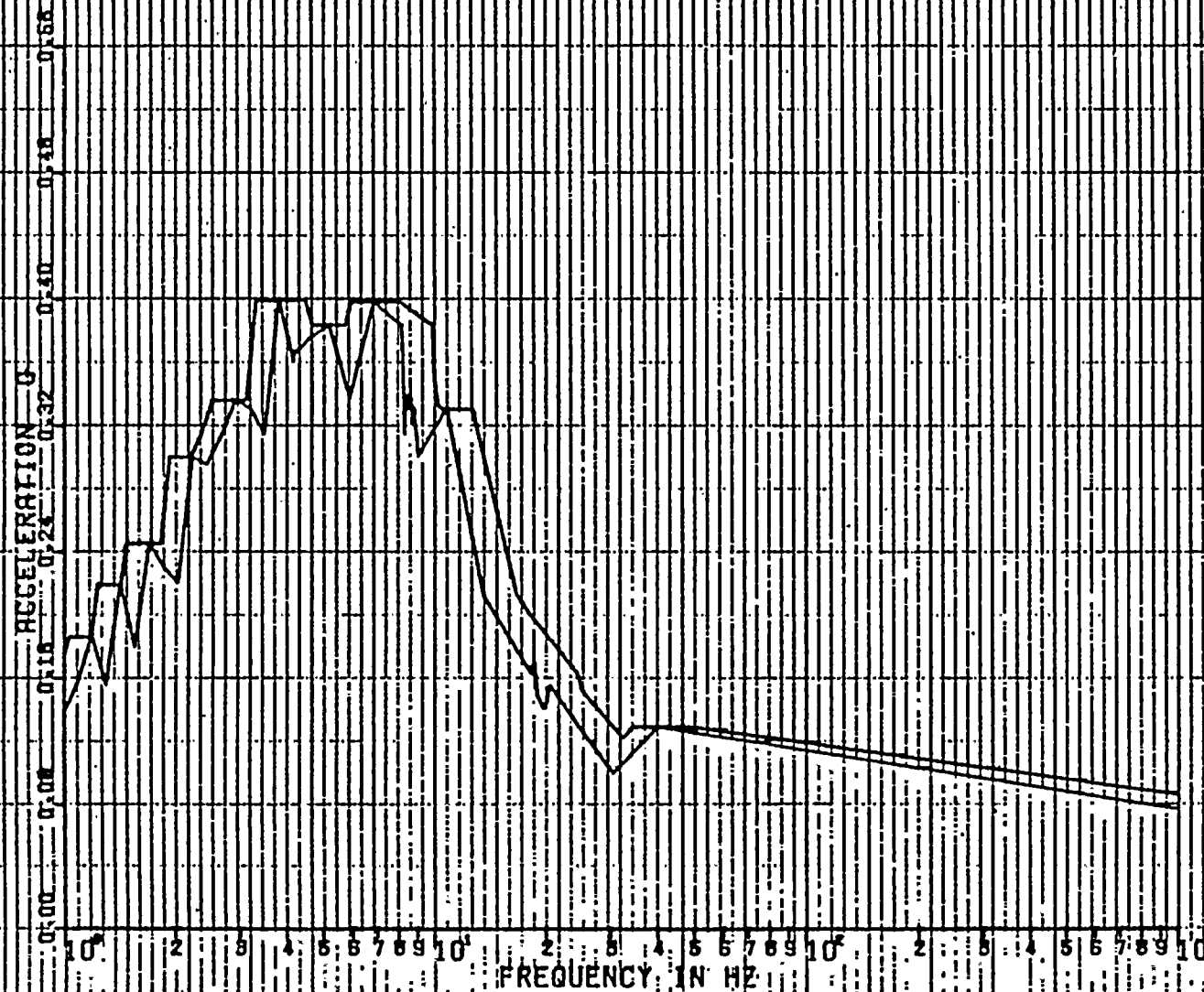
JOB: 233

PEAK: SPREAD: 1.15X

DISK CURVE SET NO. 2

VER: DIRECTION

DAMPING VALUE = 0.020



REF 2



PSPECTRA VER 01 LEY 08

SSC

18 JUL 1959

RIADARA MOHARR-NINE MILE POINT Z - CALC. 12177-KNICK-RS-1418 REV 17

RRS OF ACC.-STANDBY GAS TREATMENT BLDG. ELEVATION 281.0

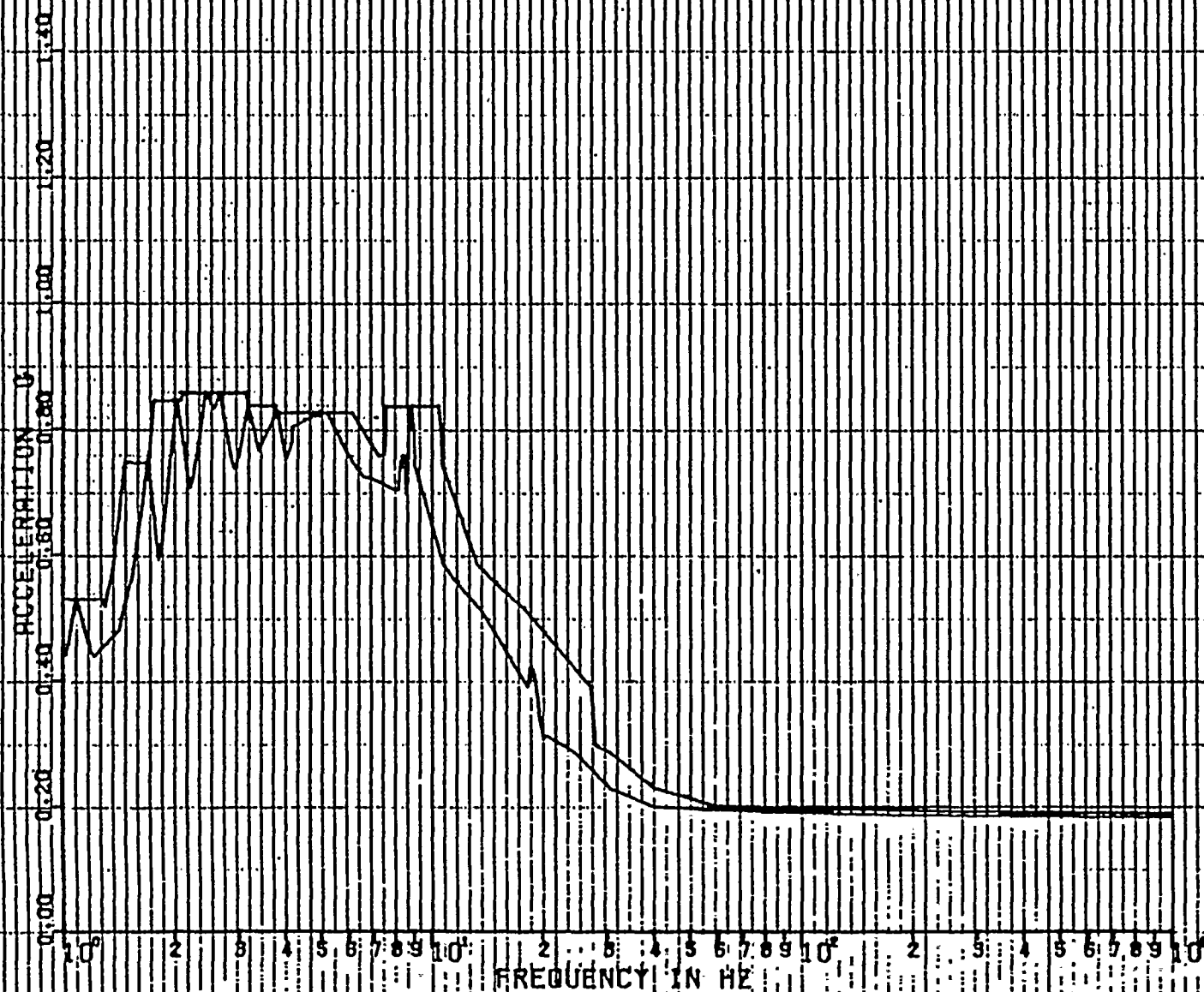
JOB 2534

PEAK SPREAD +/- 15%

DISK CURVE SET NO. 2

HDR DIRECTION

DAMPING VALUE = 0.020



REF 2 1

PSPECTRA VER: 01 LEV: 09

SSE

18 JUL 1983

WADSWORTH WADSWORTH NINE MILE POINT Z = CMC 12177-WHIC-18-1818 REV 11

RS OF ACC - STANDBY GAS TREATMENT 600 ELEVATION 281.0

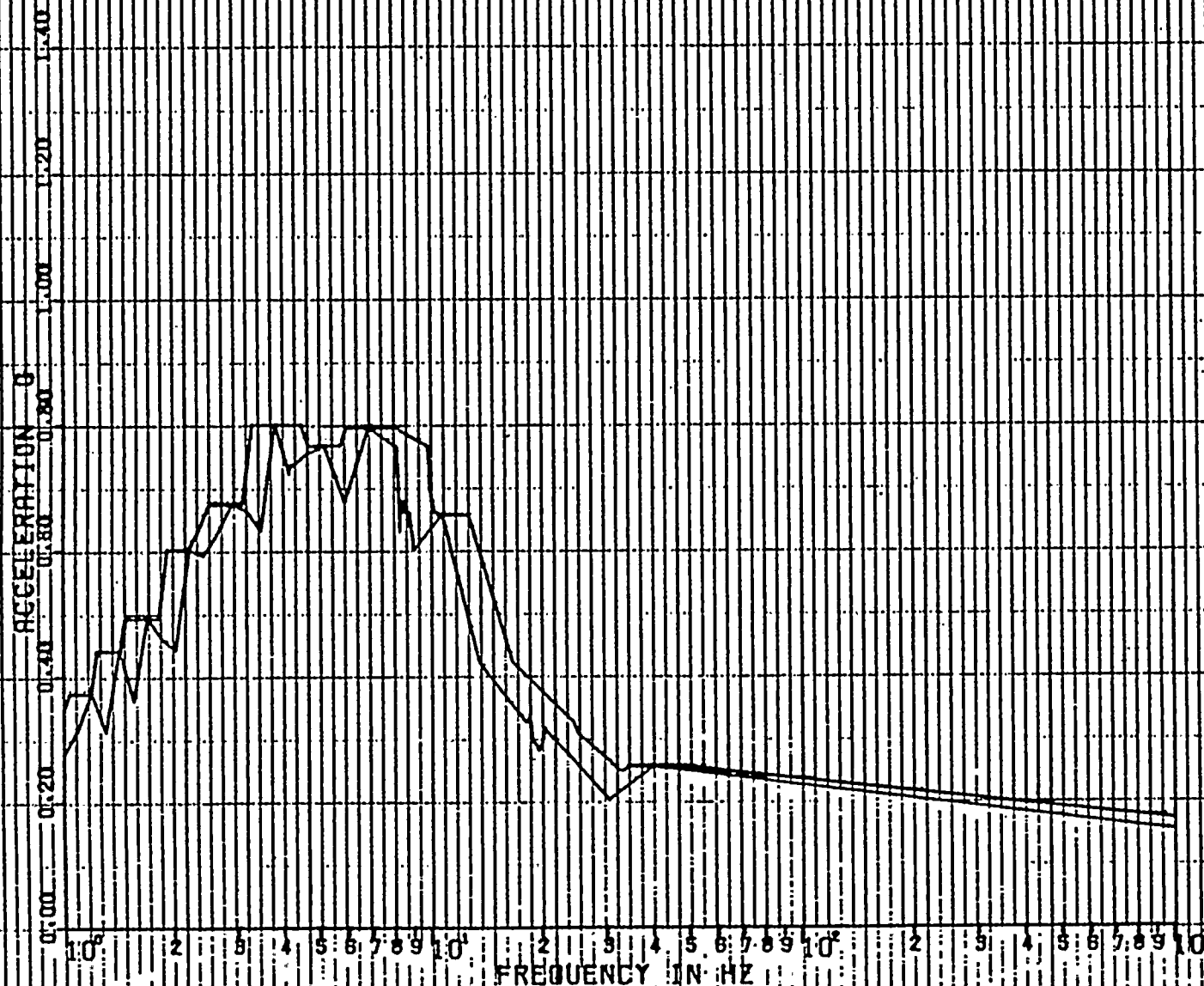
JOB 2558

PEAK SPREAD 1-15Z

DISK CURVE SET NO. 2

VER DIRECTION

DAMPING VALUE = 0.020



REF 2



PSPECTRA VER 01 LEV 09

56E

20 JUL 1983

WINDHRA HONOLULU NINE MILE POINT 2 - CALC: 12177-RAICD-HS-1418 REV 10

RRS OF ACC - STANDBY OAS TREATMENT BLDG ELEVATION 251.0

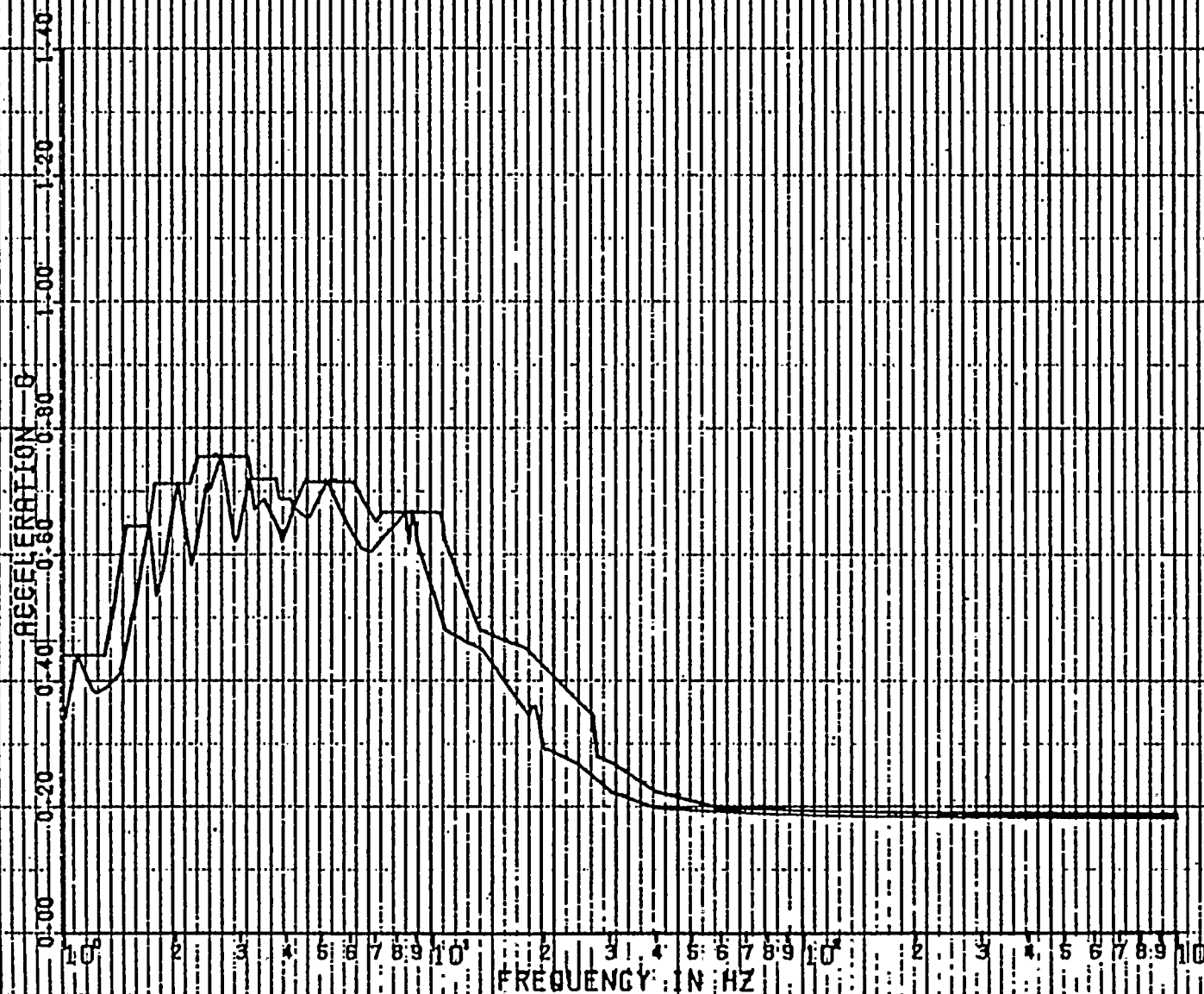
JOB 55

PEAK SPREAD - 15%

DISK CURVE SET NO. 2

HOR DIRECTION

DAMPING VALUE = 0.050



REF 2



PSPECTRA VER 01 LEV 09

66E

20 JUL 1963

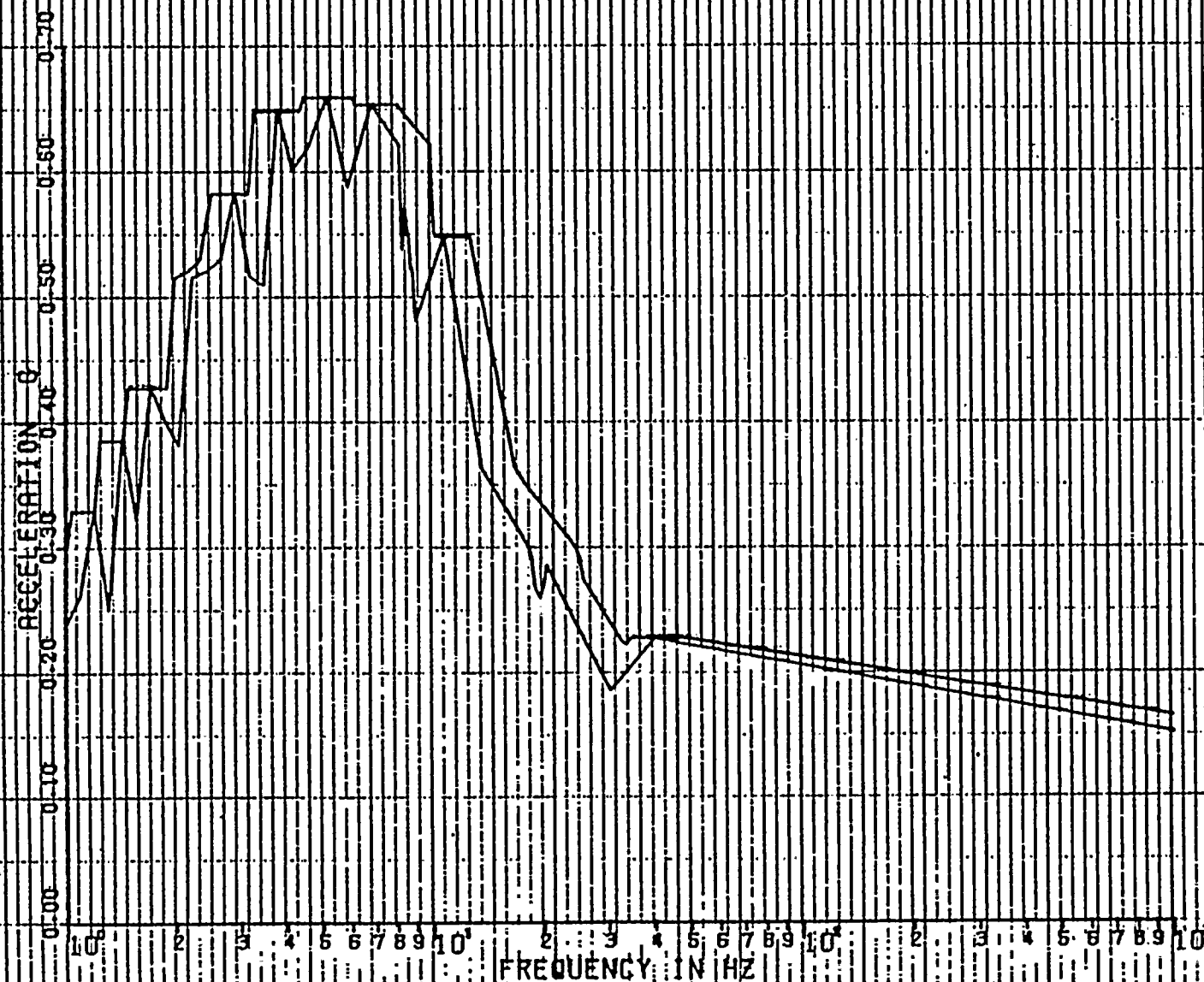
RIHARRA FORANK-NINE MILE POINT 2 - CALC. 12177-RM(C)-MS-1415 KEV(D)
RRS OF ACC. - STANBY GAS TREATMENT. SLOD. ELEVATION: 251.01
PEAK SPREAD - 11521

JOS 85

DISK CURVE SET NO. 2

VER DIRECTION

DAMPING VALUE = 0.030



REF 2



PSPECTRA: VER 01 LEY 09

55E

20 JUL 1985

HIADARA MOHAWK-NINE MILE POINT 2 - CALC. (2177-NALC)-MS-1415 REV(1)

RRS OF ACC--STANDBY GAS TREATMENT BLDG ELEVATION 261.0

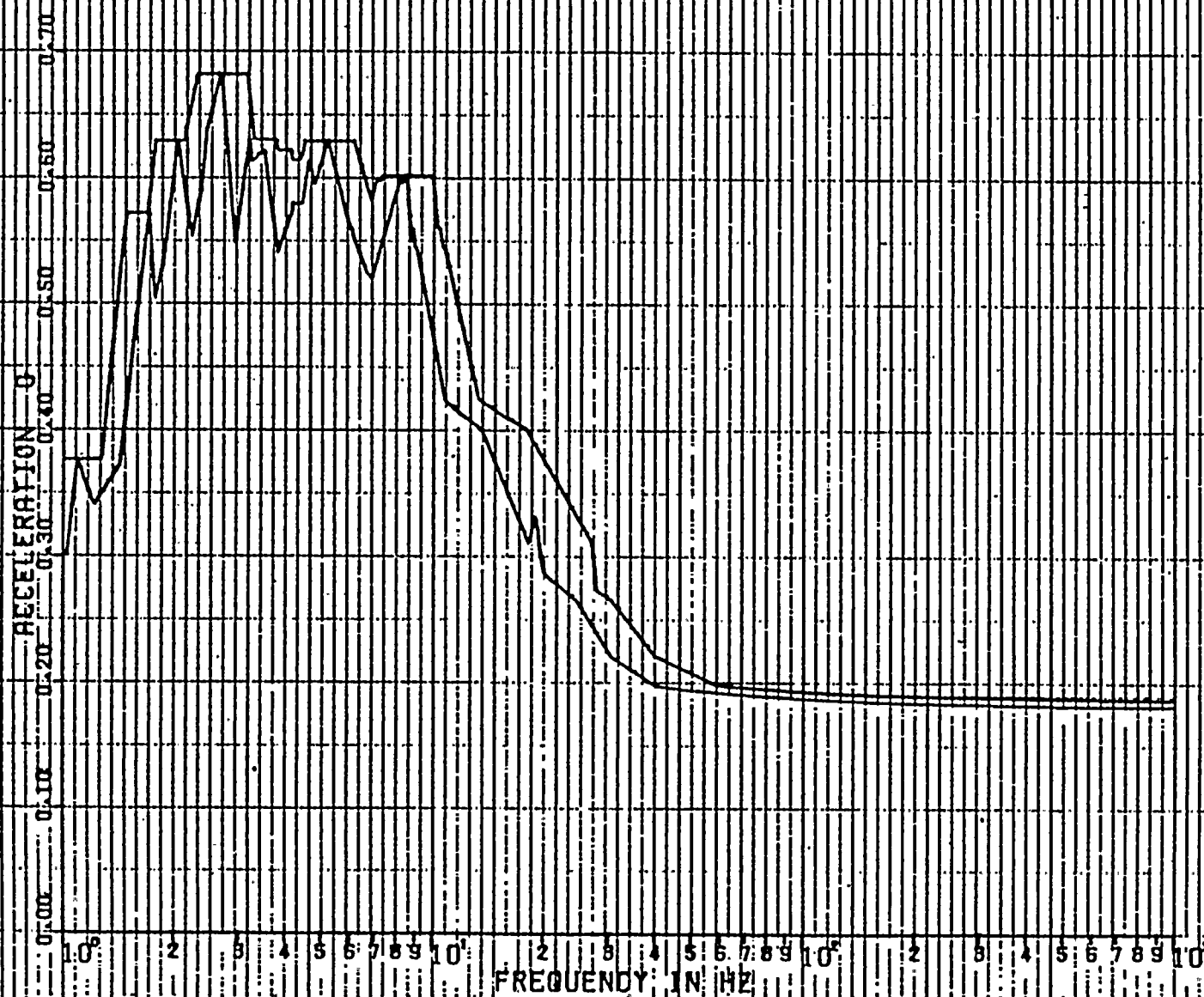
DOB 85

PEAK SPREAD -152

DISK CURVE SET NO.2

HOR DIRECTION

DAMPING VALUE = 0.040



Ref 2



SPECTRA VER DI LEV DB

55E

20 JUN 1988

NIAGARA NIAGARA-RINE MILE POINT 2 - CALC 12177-MHICD-HS-1518 REV 17

RRS OF ACC. 1-STANDBY DAS TREATMENT 6.0 DB/ELEVATION 251.0

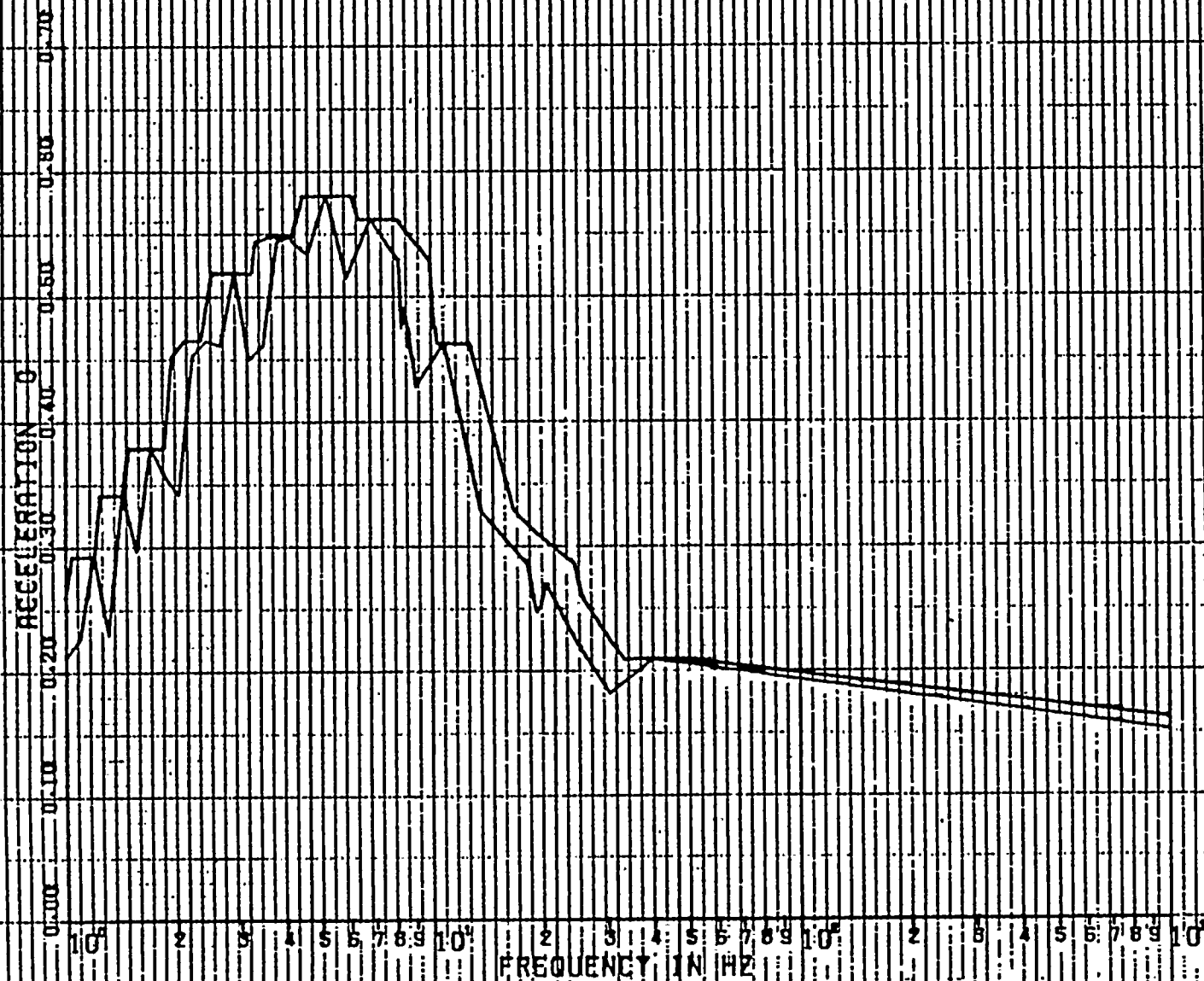
JOB 55

PERK SPREAD 1-15%

DISK CURVE SET NO. 2

VER DIRECTION

DAMPING VALUE = 0.040



REF 2



SPECTRA VER: 01 LEV: 08

HE 013E

20 JUL 1969

STATION: MOHAWK-HINE MILE POINT 2 - CALCIZIT-77-AM(C)-AS-1418 REV(1)

RMS OF ACCL-STANDBY GAS TREATMENT BLDG ELEVATION 288.0

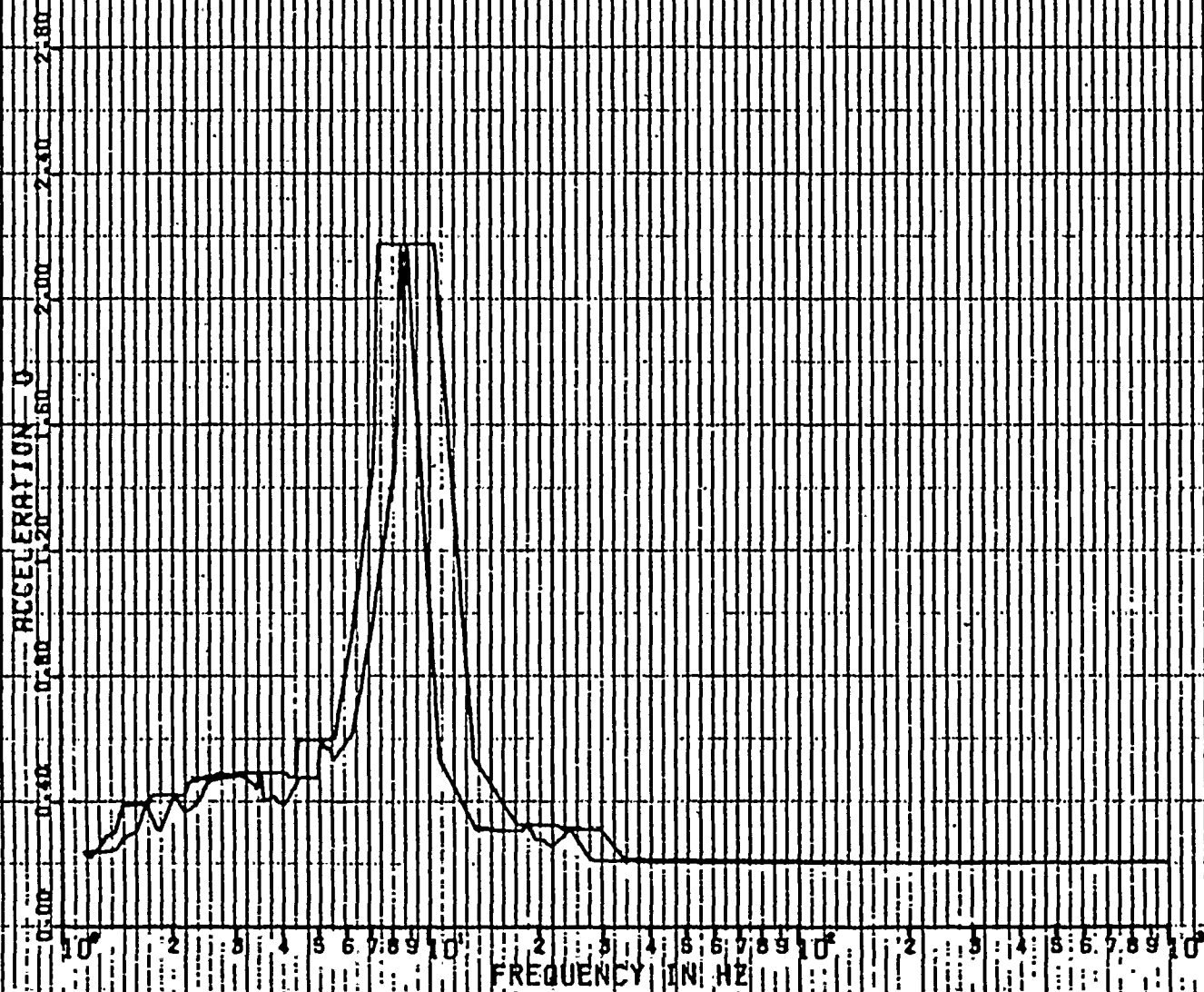
JOB 207

PEAK SPREAD 1.15%

DISK CURVE SET NO. 3

HOR DIRECTION

SAMPLING VALUE 1 0.000



REF 3



SPECTRA VER: 01 LEV: 00

DBE:

036

20 JUL 1985

HYDRAK ADHAKK-HINE HILE POINT 2 - CMLC12177-NN(C)-NS-1-10-REV(1)

NR6 OF ACCL-STANDBY GAS TREATMENT BLDG ELEVATION 286.0

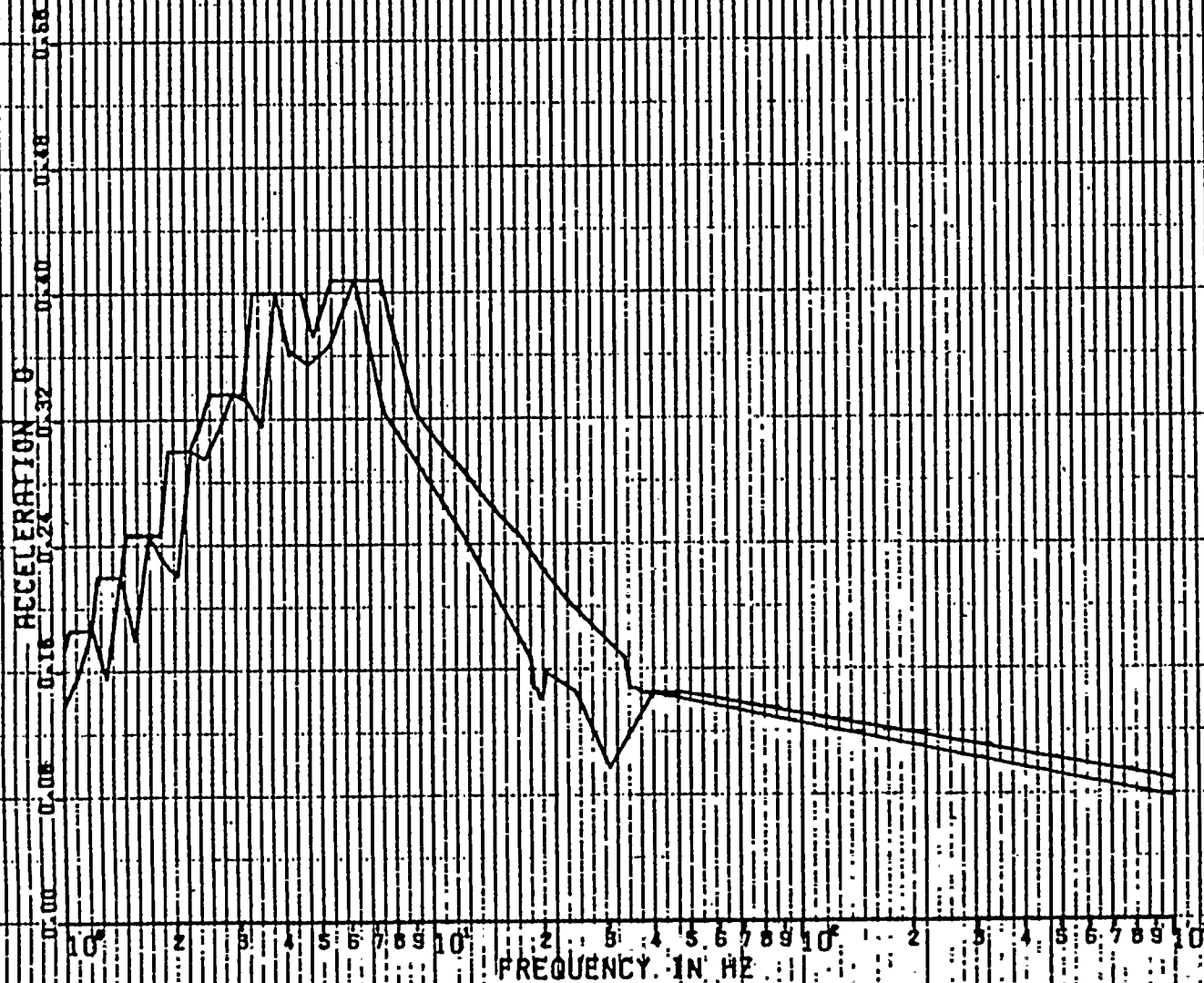
JOB 239

PEAK SPREAD 1.152

DISK CURVE SET NO. 5

VER DIRECTION

DAMPING VALUE = 0.020



REF 3



PSPECTRA VER 01 LEV 08

SSG

18 JUL 1988

NIADANA MOHAK-MINE MILE POINT Z = CALCIZI77-KH(C)-MS-1818 REV 11

RRS OF ACC. STANDBY DRS TREATMENT BLOOD ELEVATION 288.0

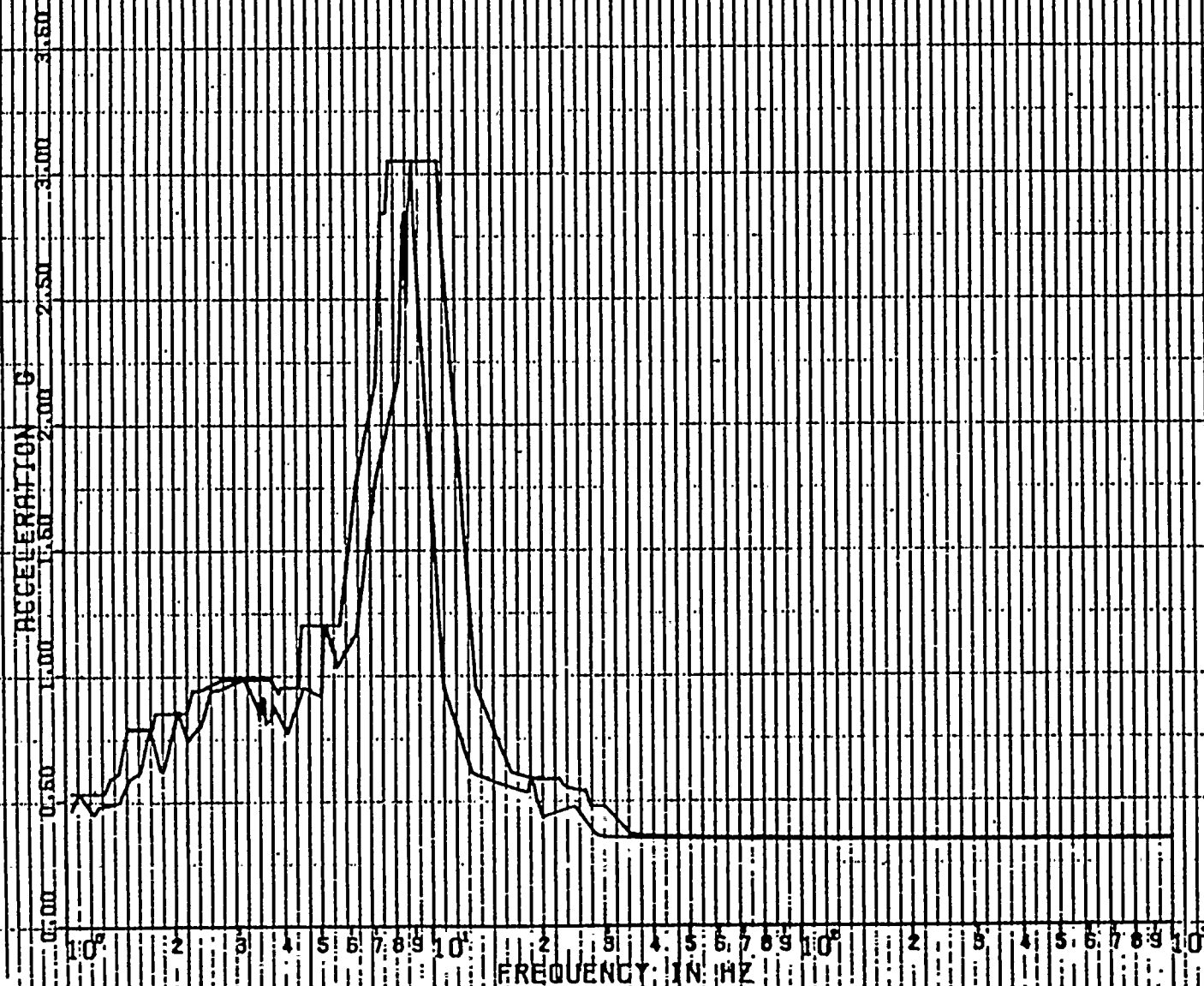
JOB 2888

PERK SPREAD 4-15%

DISK CURVE SET NO. 3

MDR DIRECTION

DAMPING VALUE = 0.020



REP 3



PSPECTRA VER 01 LEV 08

SSE

10 JUL 1988

NIHARA NIHARA-NINE MILE POINT 2 - CHLC12177-NHIC1-N8-1418 REV 11

RRS OF ACCL-STANDBY GAS TREATMENT 0100 ELEVATION 286.0

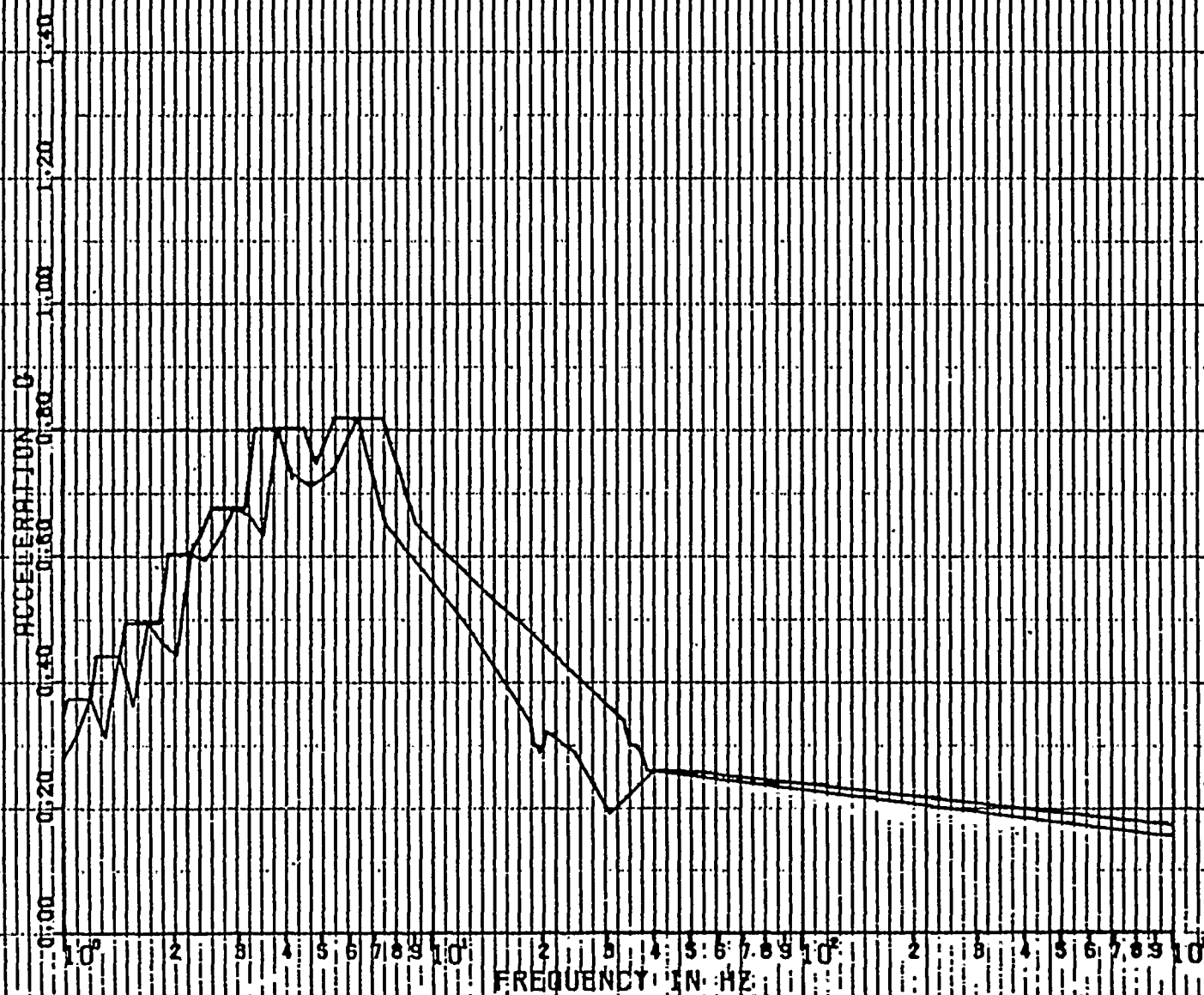
JOB 2554

PEAK SPREAD - 152

DISK CURVE SET NO.3

VER DIRECTION

DAMPING VALUE = 0.020



Ref 3



PSPECTRA · VER 01 LEV 09

SSS

20 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-NH(C)-M5-1418 REV(1)

RRS OF ACC.-STANDBY GAS TREATMENT BLDG.ELEVATION 286.0

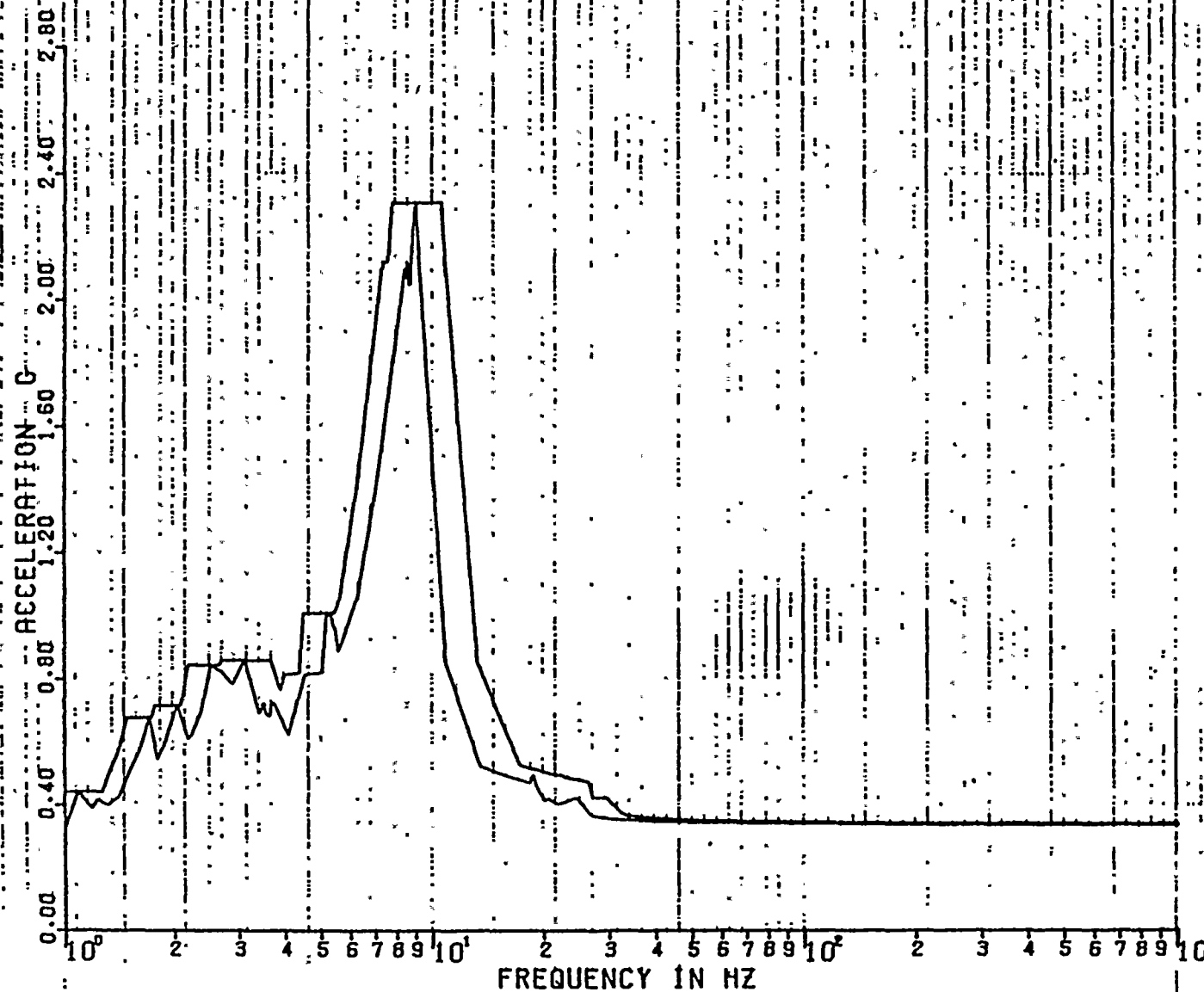
JOB 65

PEAK SPREAD +-15%

DISK CURVE SET NO.3

HOR DIRECTION

DAMPING VALUE 0.030



REF 3



PSPECTRA VER 01 LEV 09

662

20 JUL 1965

WINDOOR MOHAWK-NINE HILE POINT 2 - CHL 2177-MR 10-16-1418 REV 10

RRG OF ACC. STANDBY DRS TREATMENT BLDG. ELEVATION 286.0

JOB 85

PEAK SPREAD 1152

DISK CURVE SET NO. 3

VER DIRECTION

DRAFTING VALUE = 0.000



REF 3



PSPECTRA: VER 01 LEV 09

85E

20 JUL 1985

NIADAKA MOHAWK-NINE MILE POINT 2 - CALCIUM-44 (MIL) - 1415 REV 10

RRS OF ACCL-STANDBY OAS TREATMENT 0.00 ELEVATION 205.0

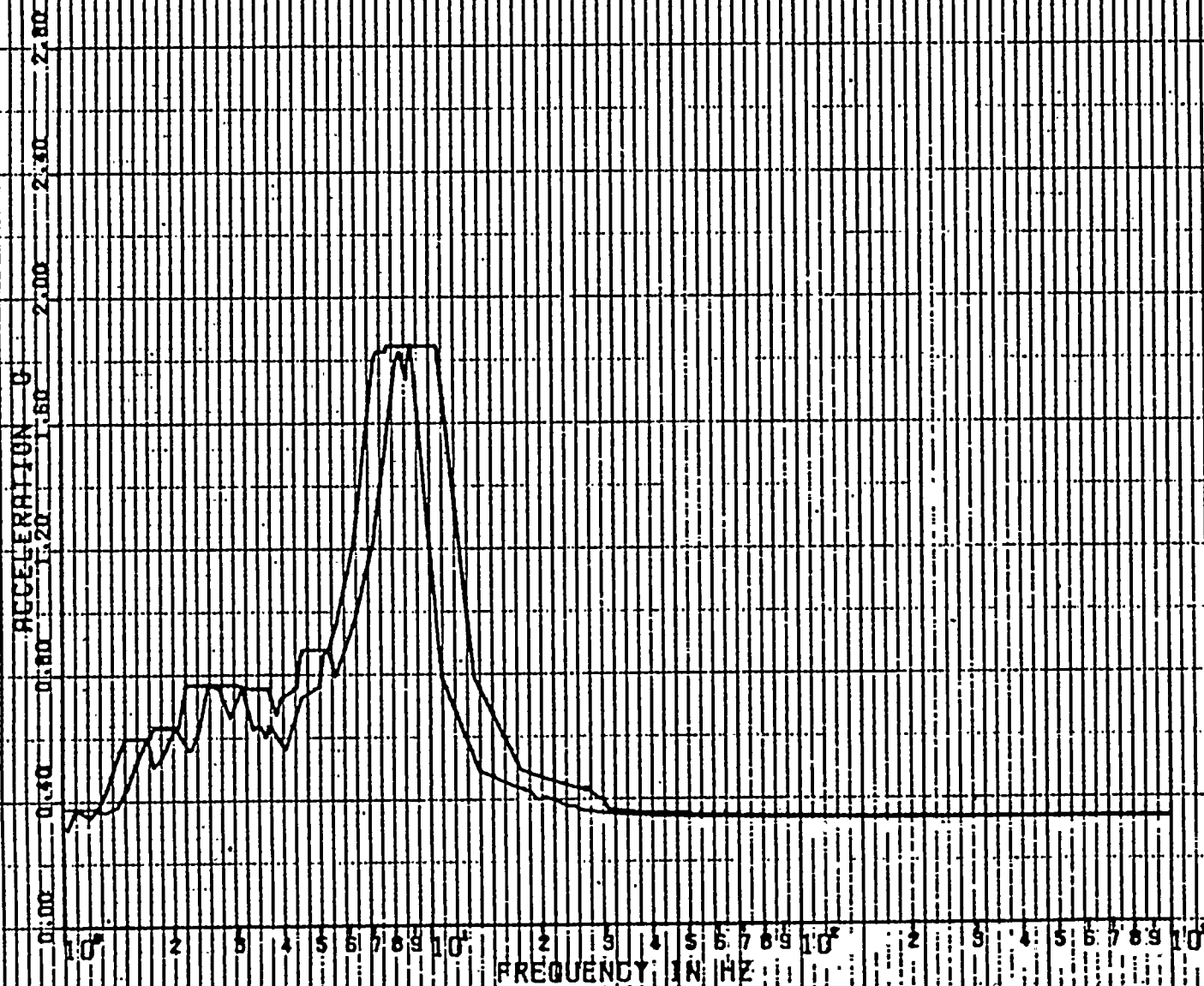
JOB 85

PEAK SPREAD 1-15%

DISK CURVE SET NO. 8

HDR DIRECTION

DAMPING VALUE = 0.040



REF 3



SPECTRA VER D1 LEV 08

85E

20 JUL 1988

WADARA MOHAWK NINE MILE POINT 2 - CALCT2177-NNICJ-R6-1418 REV 11

RR6 OF ACCL-STANDBY GAS TREATMENT BLDG ELEVATION 2861.0

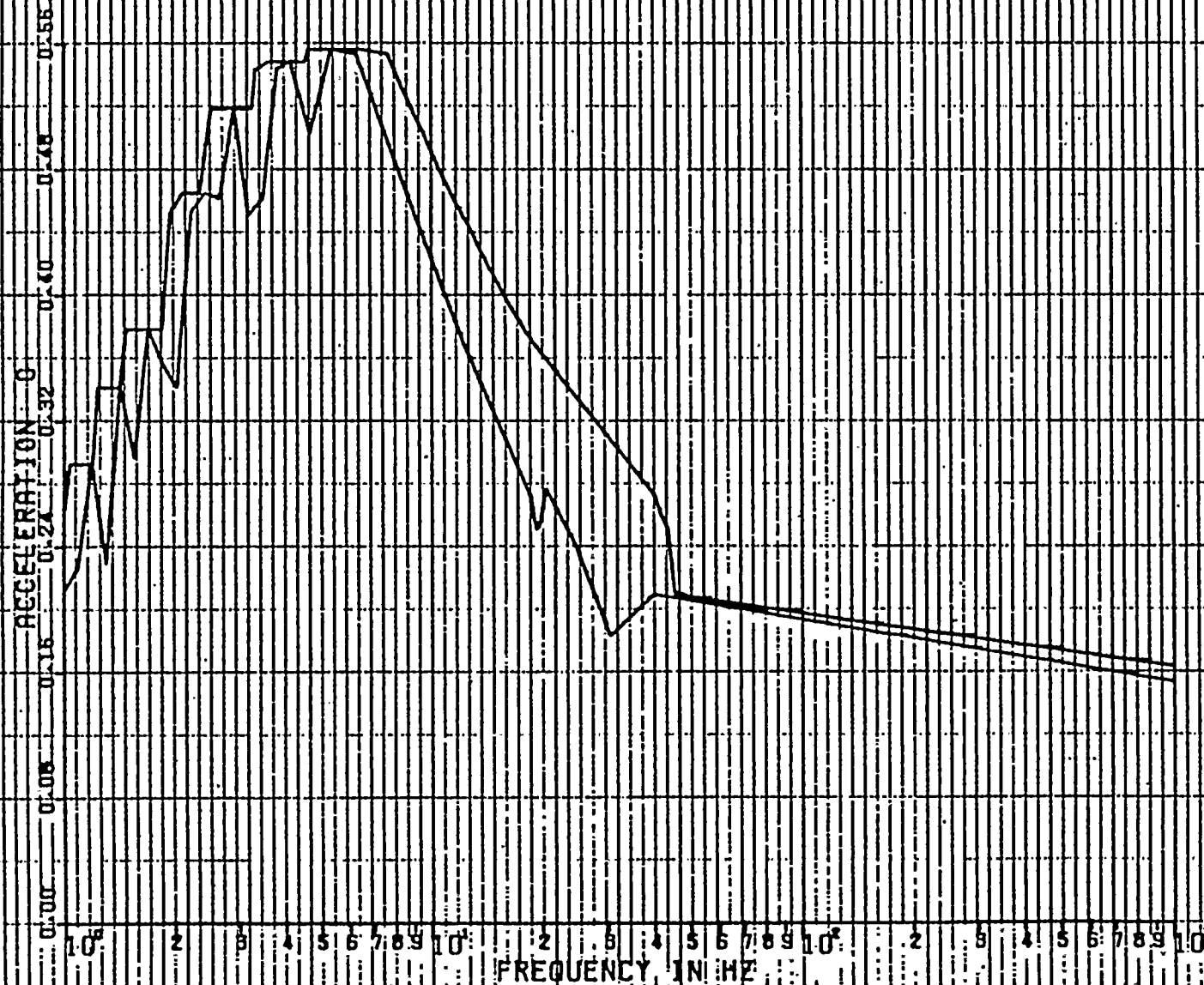
008 85

PEAK SPREAD > 15%

DISK CURVE SET NO. 8

VER DIRECTION

DAMPING VALUE = 0.040



REF 3



SPECTRA VER 01 LEV 09

DBE

20 JUL 1969

WINDHAWK-NINE MILE POINT 2 - CALC. 12177 WHIC - HS-1410 KEY (1)

RRS OF ACC. + STANDBY OBS; TREATMENT BLDG; ROOF ELEVATION 310.0

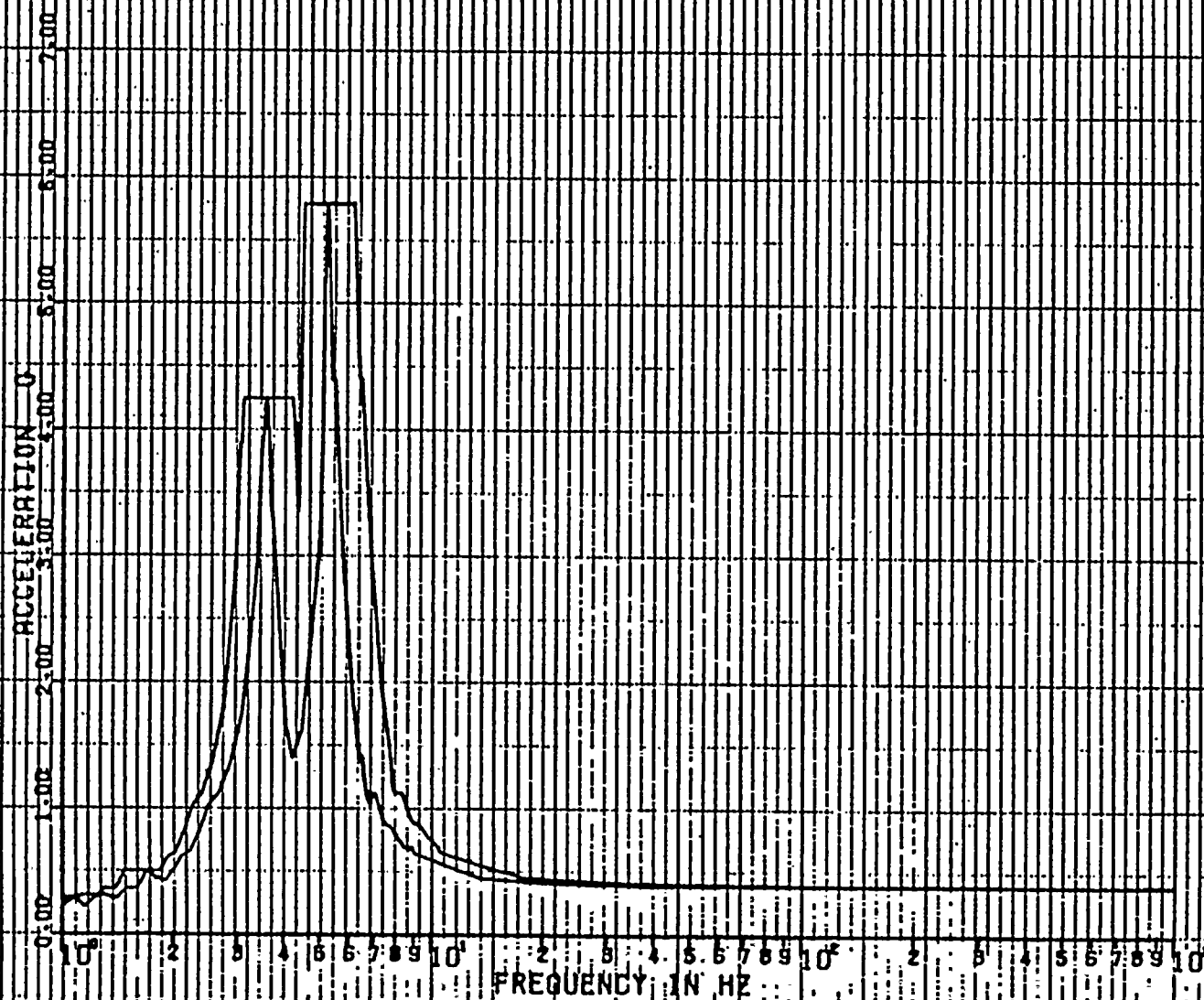
JUN 258

PEAK SPREAD 1.152

DISK CURVE SET NO. 1

HOR DIRECTION

DAMPING VALUE = 0.020



REF. 4



SPECTRA VER 01 LEV 09

3DE

08C

20 JUL 1959

MIADANA: KONAHIKI-MIHE MILE POINT 2 - CALC 12177-RN(C)-RS-14.8 REV 11

RRS OF ACCL-STANDBY GAS TREATMENT BLOO ROOF ELEVATION 518.8

005 233

PEAK SPREAD 1.152

DISK CURVE SET NO. 1

VER DIRECTION

SAMPLING VALUE = 0.020



Ref 4



PSPECTRA VER 01 LEV 09

SSC

18 JUL 1959

NINDARRA MOHAWK-NINE MILE POINT 2 - CALC. 12177-AMCT-MS-1318 REV 11

RRS OF ACC.-STANDBY GAS TREATMENT BLDG. ROOF ELEVATION 31010

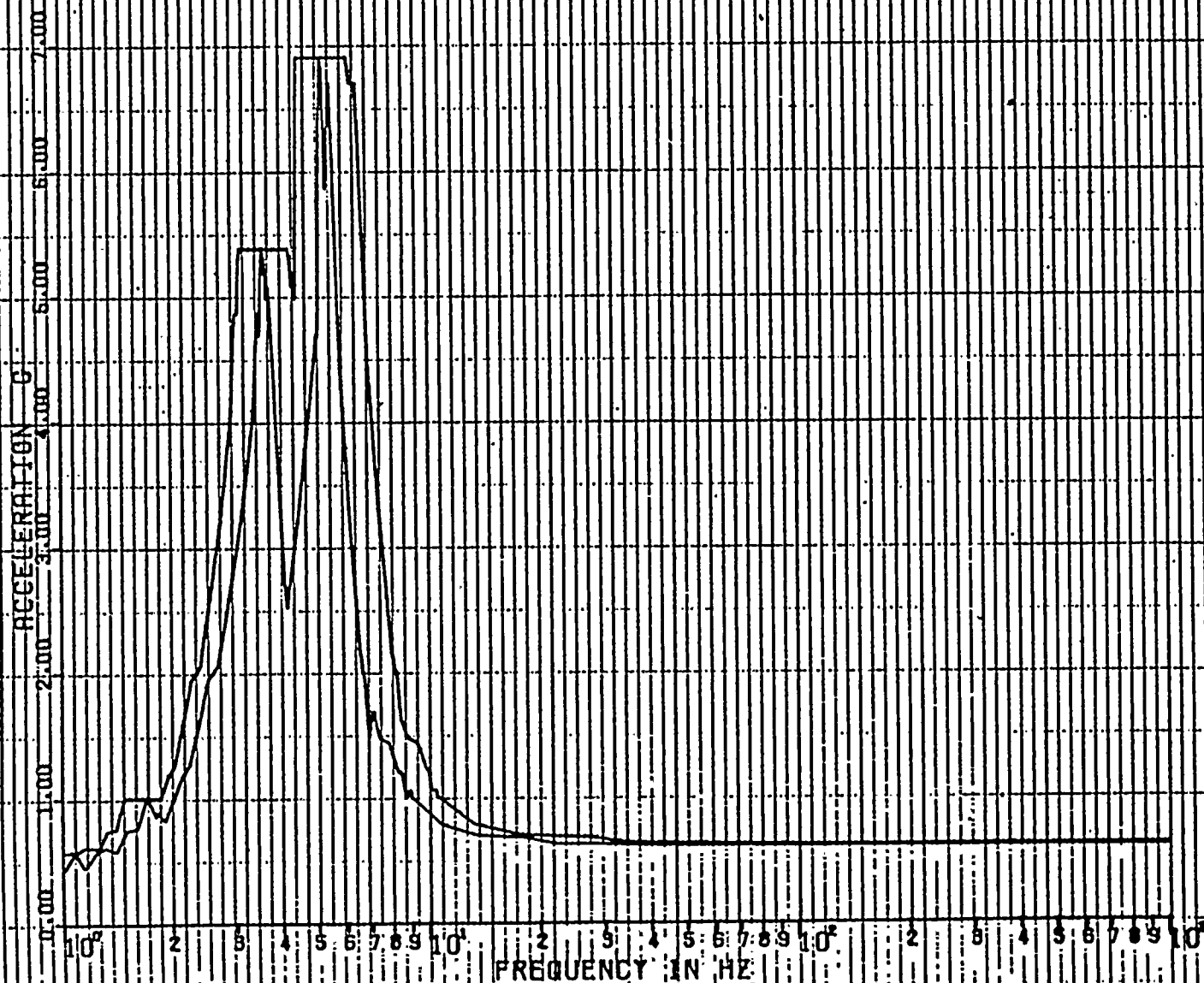
JOB 2558

PEAK SPREAD 1-15%

DISK CURVE SET NO. 4

HOR DIRECTION

DAMPING VALUE = 0.020





PSPECTRA VER 01 LEV 09

SSG

15 JUL 1959

WINDHRA HORRAN-NINE MILE POINT 2 - CALC. 12177-KNICK-MS-1318 REV 17

RMS OF ACC.-STANDBY DAB TREATMENT BLOOD ROOF ELEVATION 310.0

JOB 2534

PEAK SPREAD 1-15%

DISK CURVE SET HOLD

VER DIRECTION

DAMPING VALUE = 0.020



REF 4



PSPECTRA VER 01 LEV 09

56E

20 JUL 1969

NIAHARA MOHAWK NINE MILE POINT 2 - CALC. 12177-RATE 1-AS-1418 REV(1)

RRS OF ACC. - STANDBY DRS TREATMENT BLDG ROOF ELEVATION 310.0

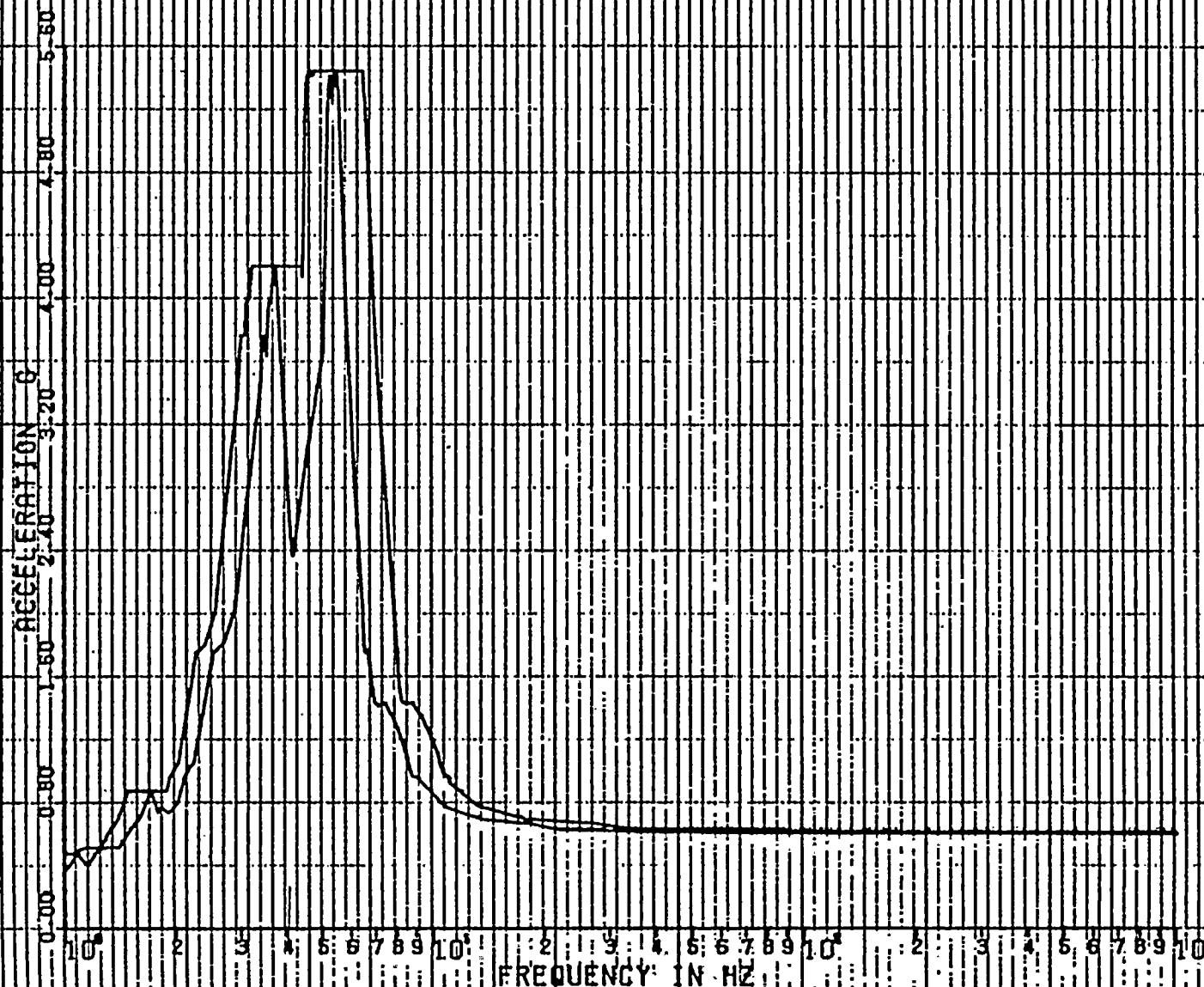
JOB 85

PEAK SPREAD 4-115Z

DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUE = 0.030



REF 4



SPECTRA NEW 01 LEV DB

65E

20 JUL 1983

NIHONKA HONKAWO-NINE MILE POINT 2 - CIRC. 12177-RHICD-MS-1418 REV 10

PKS OF ACC.-STANDBY DRS TREATMENT BLDG ROOF ELEVATION 910.0

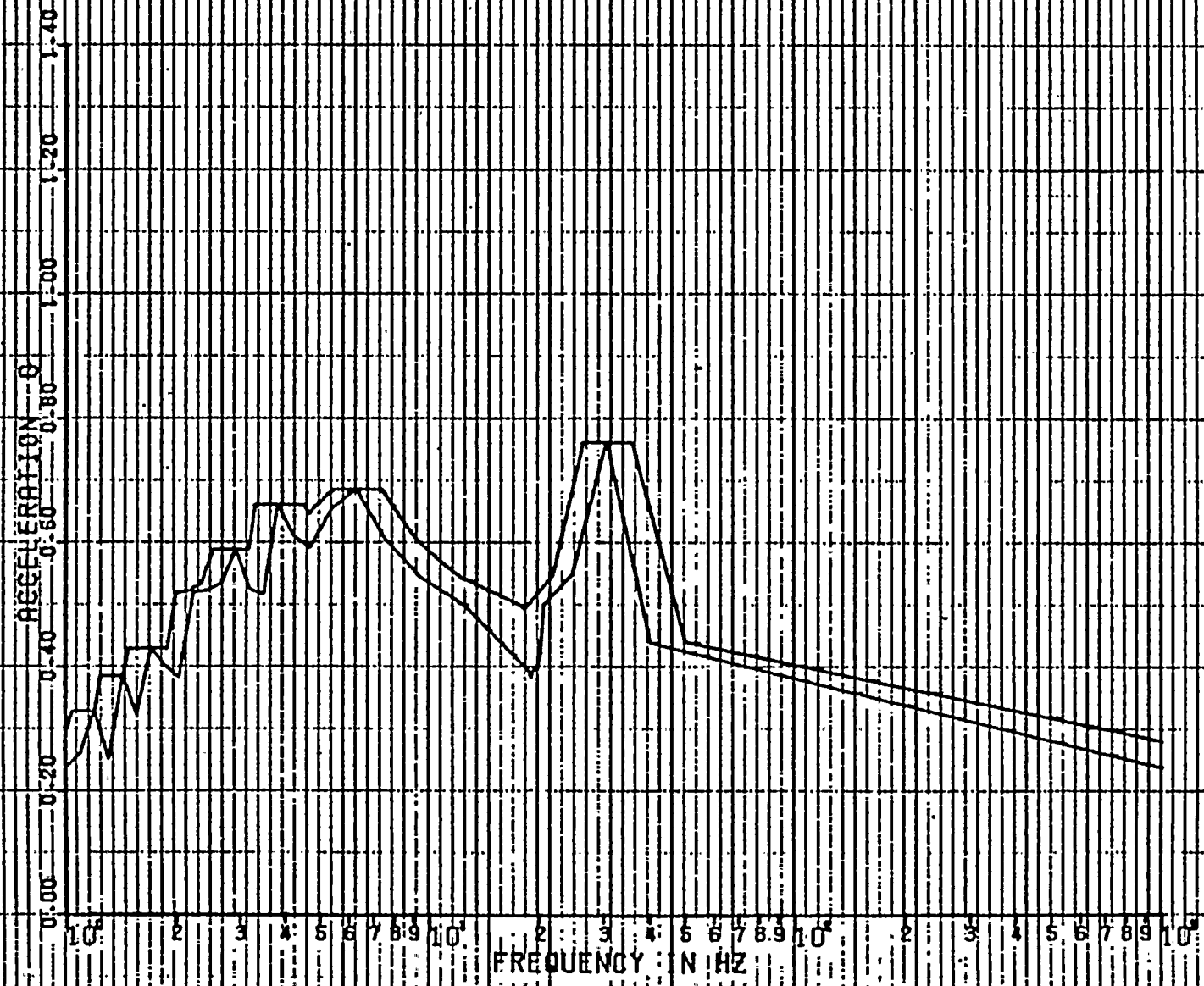
JOB 58

PEAK SPREAD - 15%

DISK CURVE SET NO. 4

VER DIRECTION

DAMPING VALUE = 0.050



Ref 4



PSPECTRA VER 01 LEV 08

55E

20 JUL 1955

NINORRR KODHANK-WIRE MILE POINT 2 - CALC 12177-RMCD-MS-1418 KEV11

RRG OF ACC. - STANDBY GAS TREATMENT BLDG ROOF ELEVATION 510.0

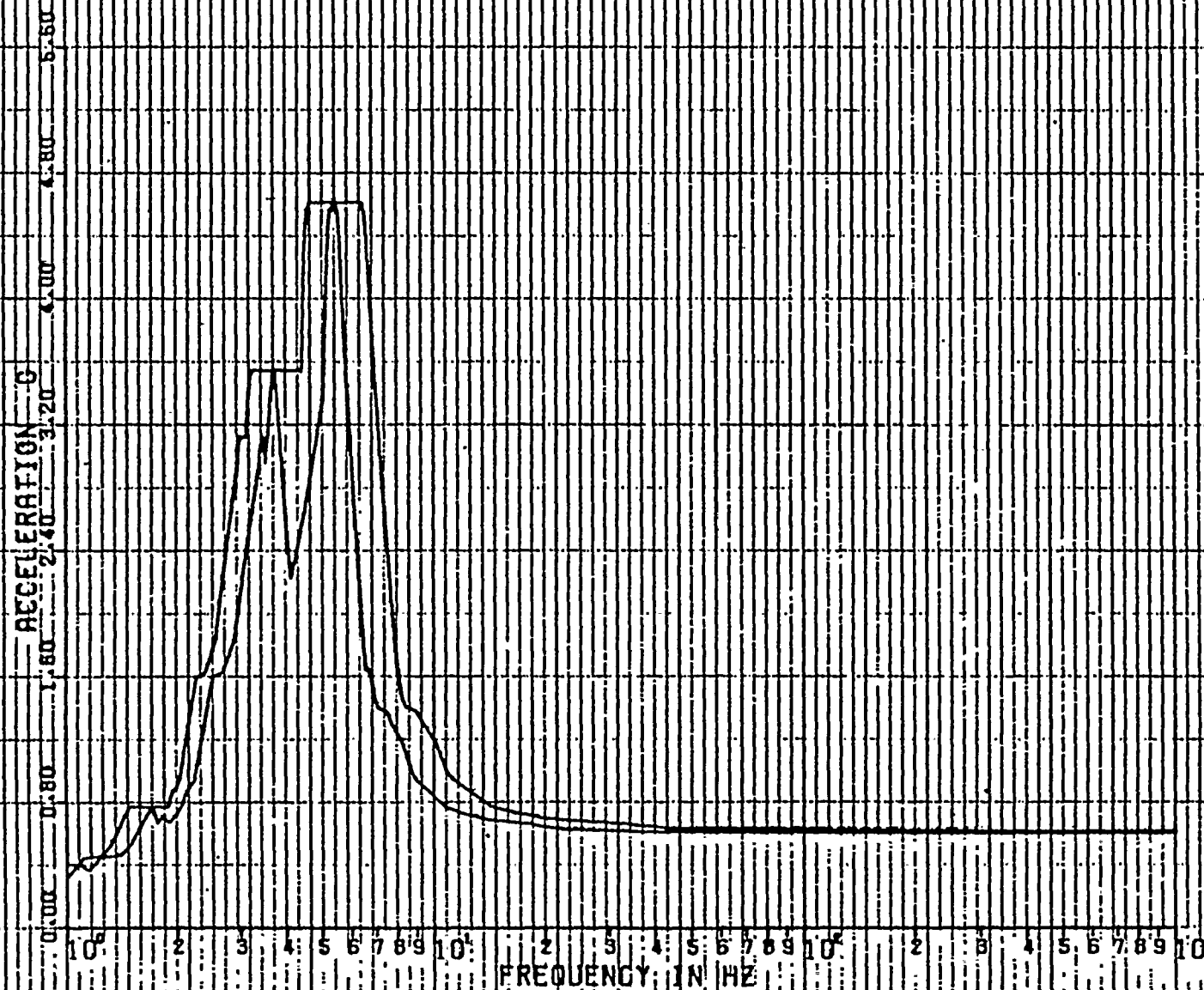
JOB 85

PEAK SPREAD 5-15%

DISK CURVE SET NO. 4

HOR DIRECTION

DAMPING VALUE = 0.040





PSPECTRA, VER 01, LEV 00

55E

20 JUL 1985

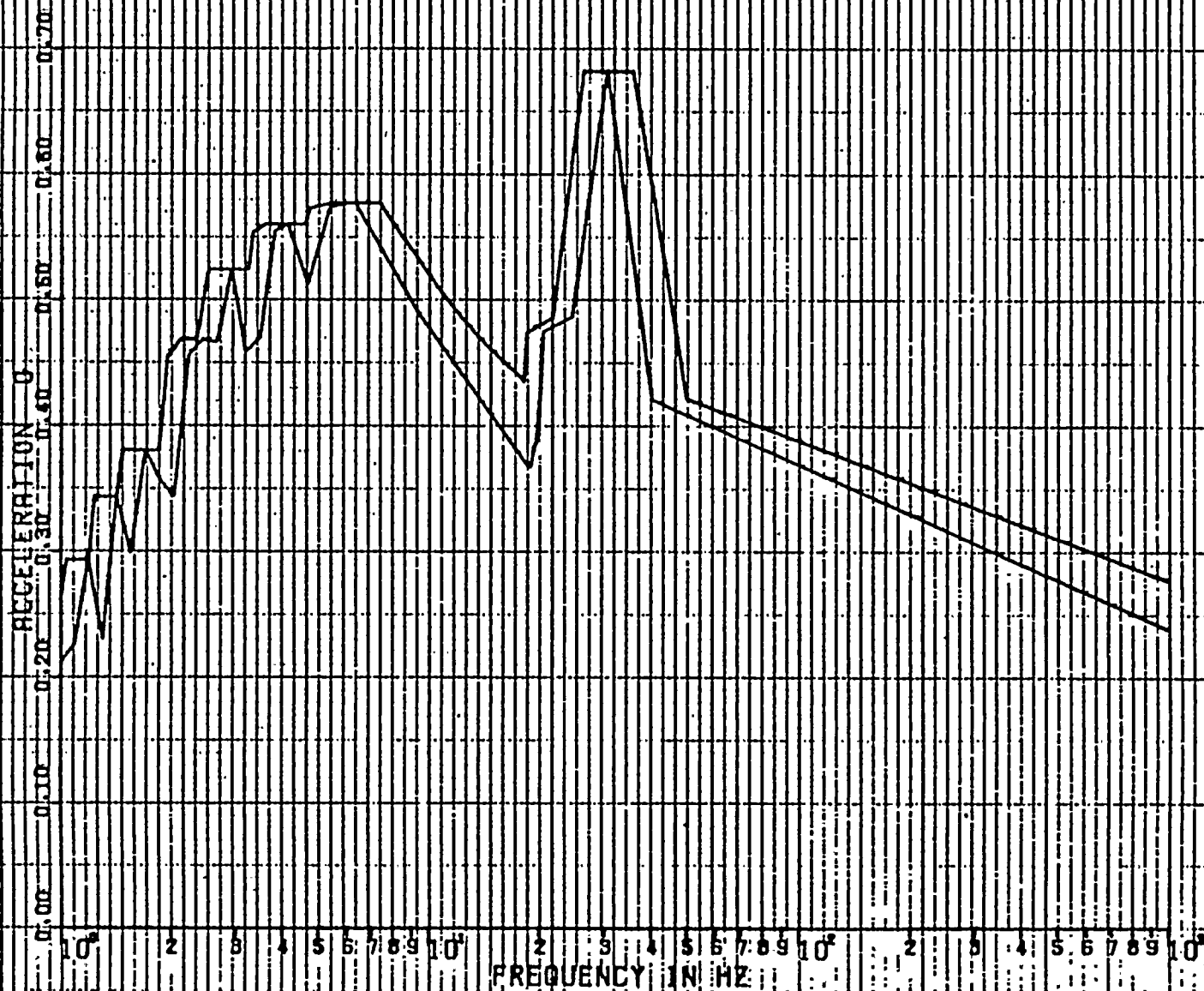
NIAGARA MOHAWK-NINE MILE POINT Z - CALC 121, - AMCI-M5-T418 REV 11
RRS OF ACC - STANDBY; GAS TREATMENT BLDG; ROOF; ELEVATION 310.0
PEAK SPREAD 1 - 15%

JDW 85

DISK CURVE SET NO. 4

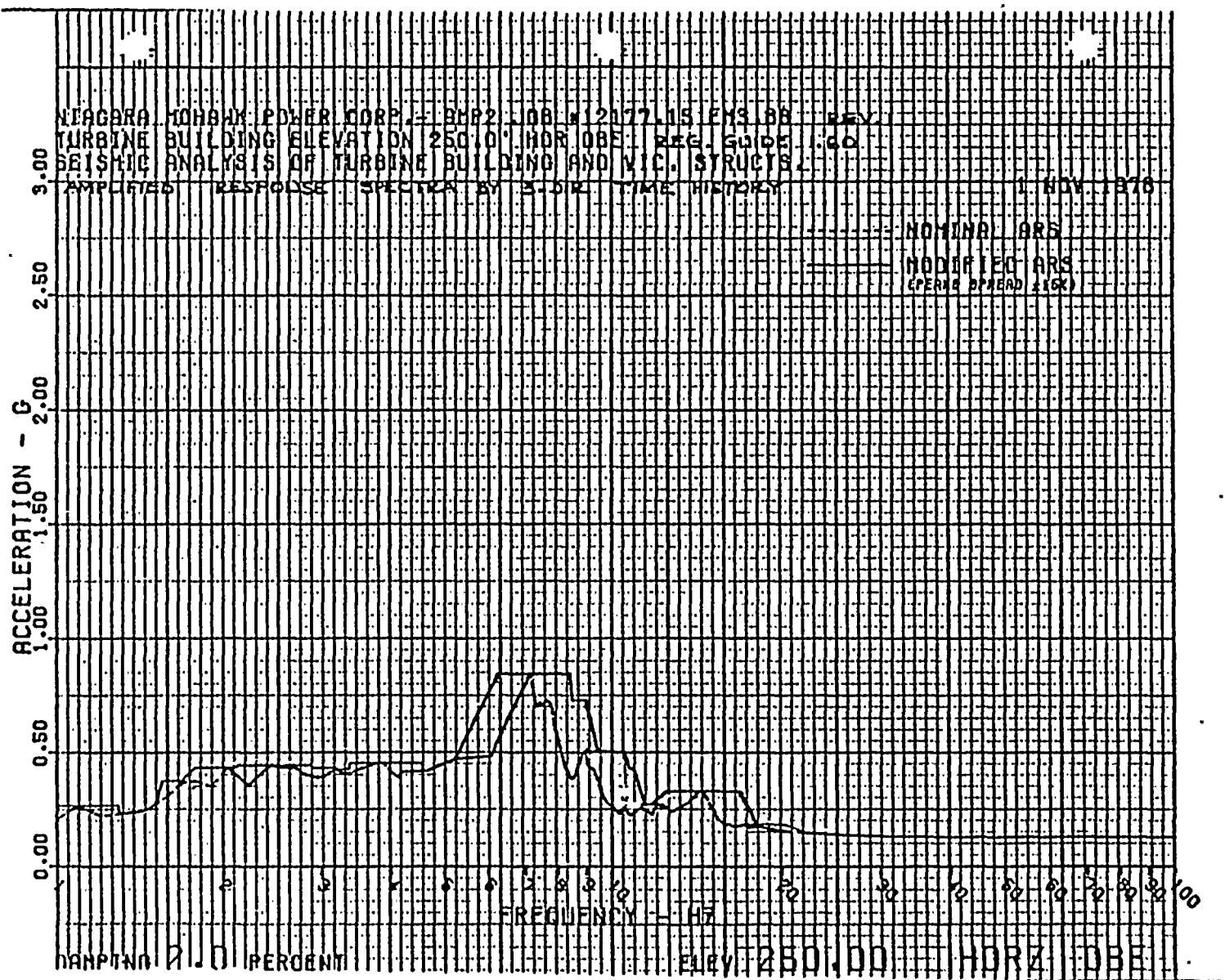
VER DIRECTION

DAMPING VALUE = 0.040



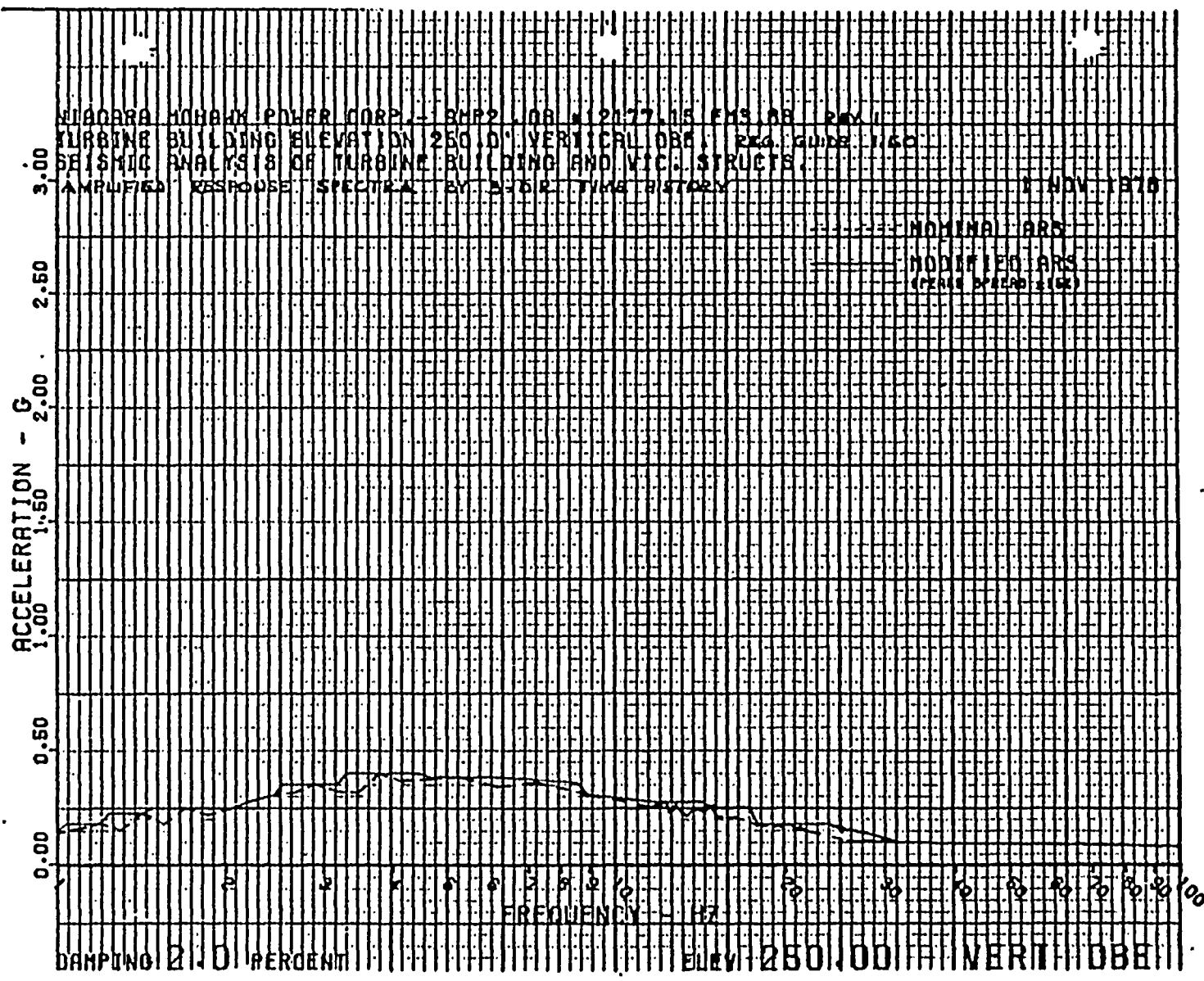
Rev 4





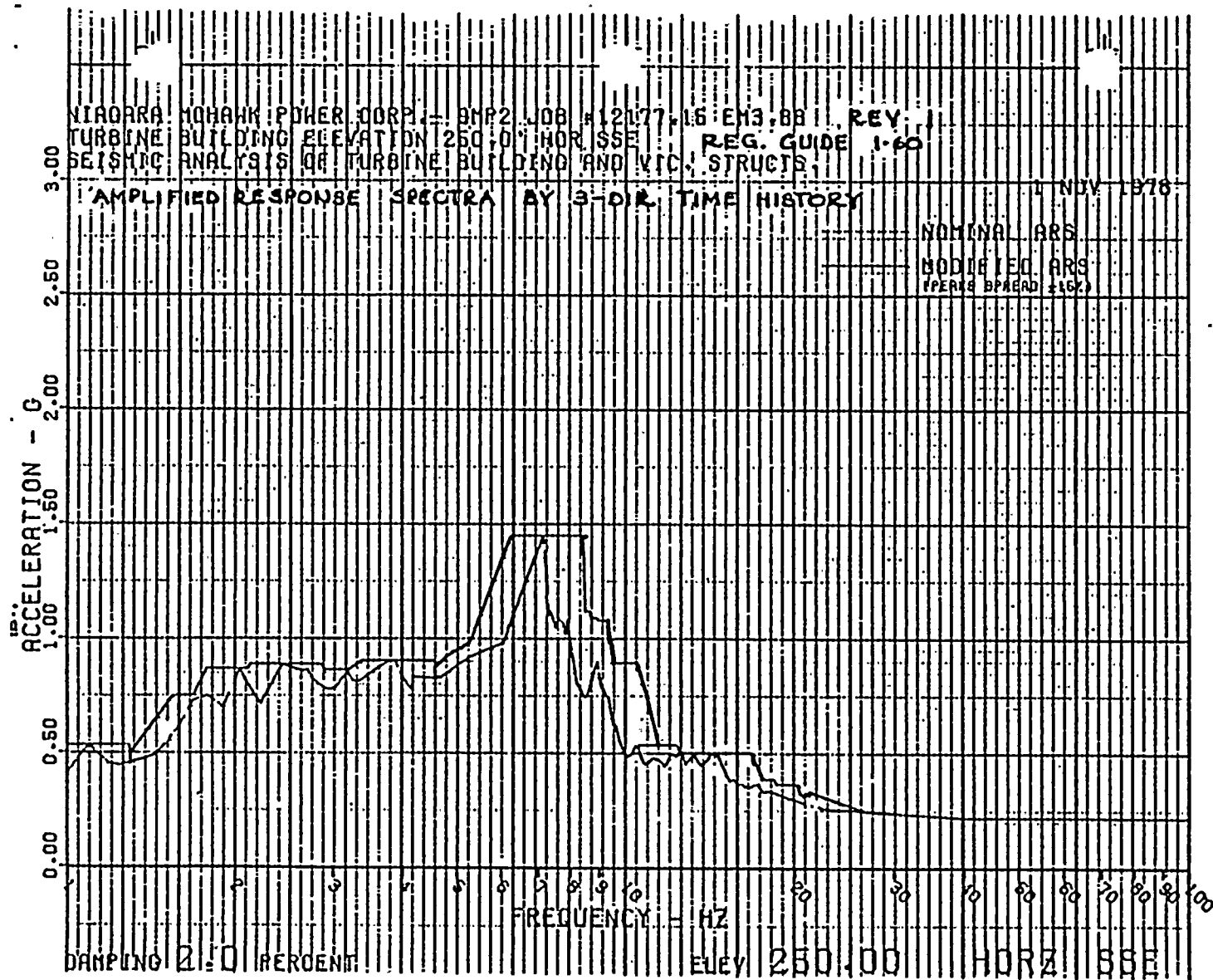
MS-1373 REV 0 REF 5--
 12177





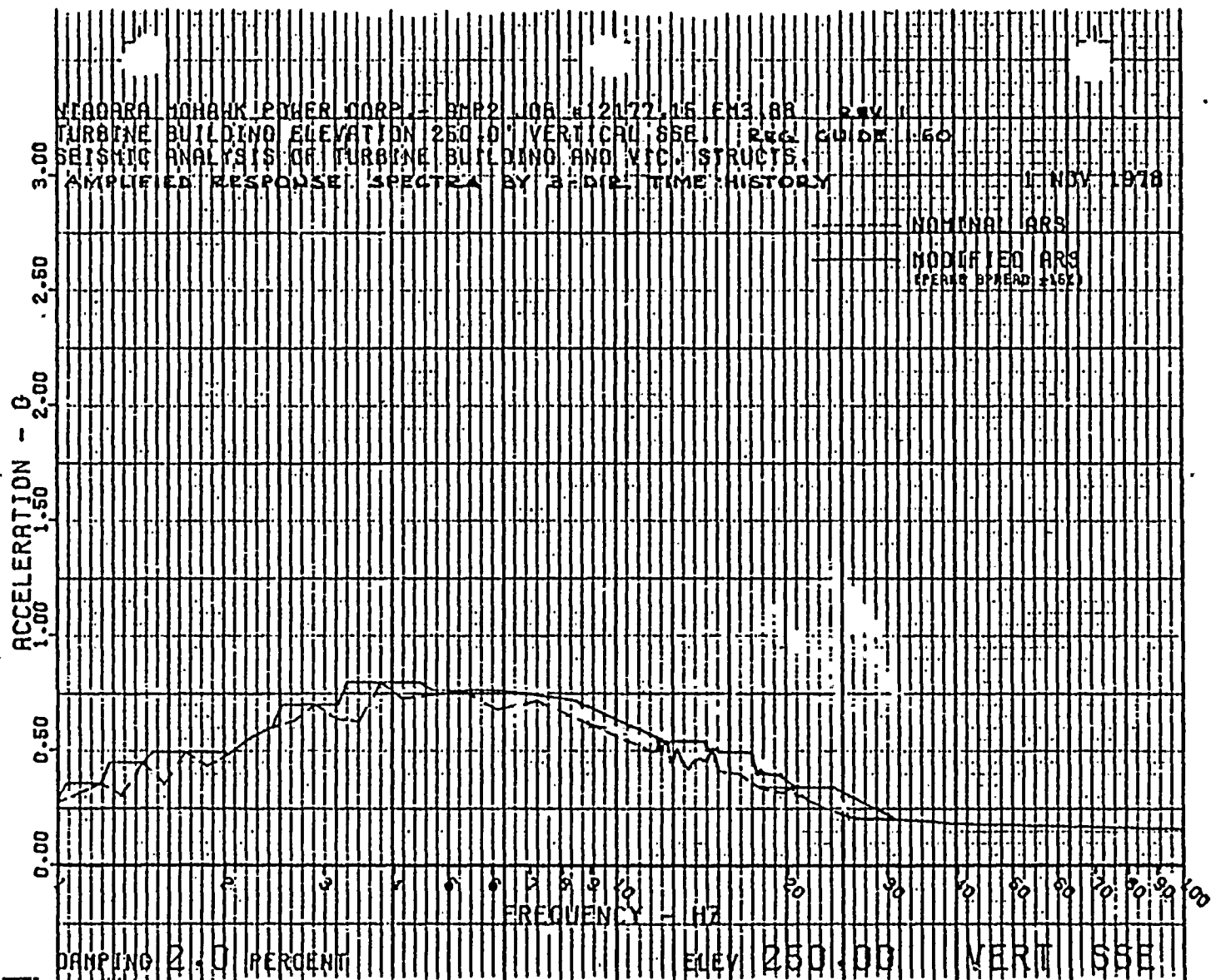
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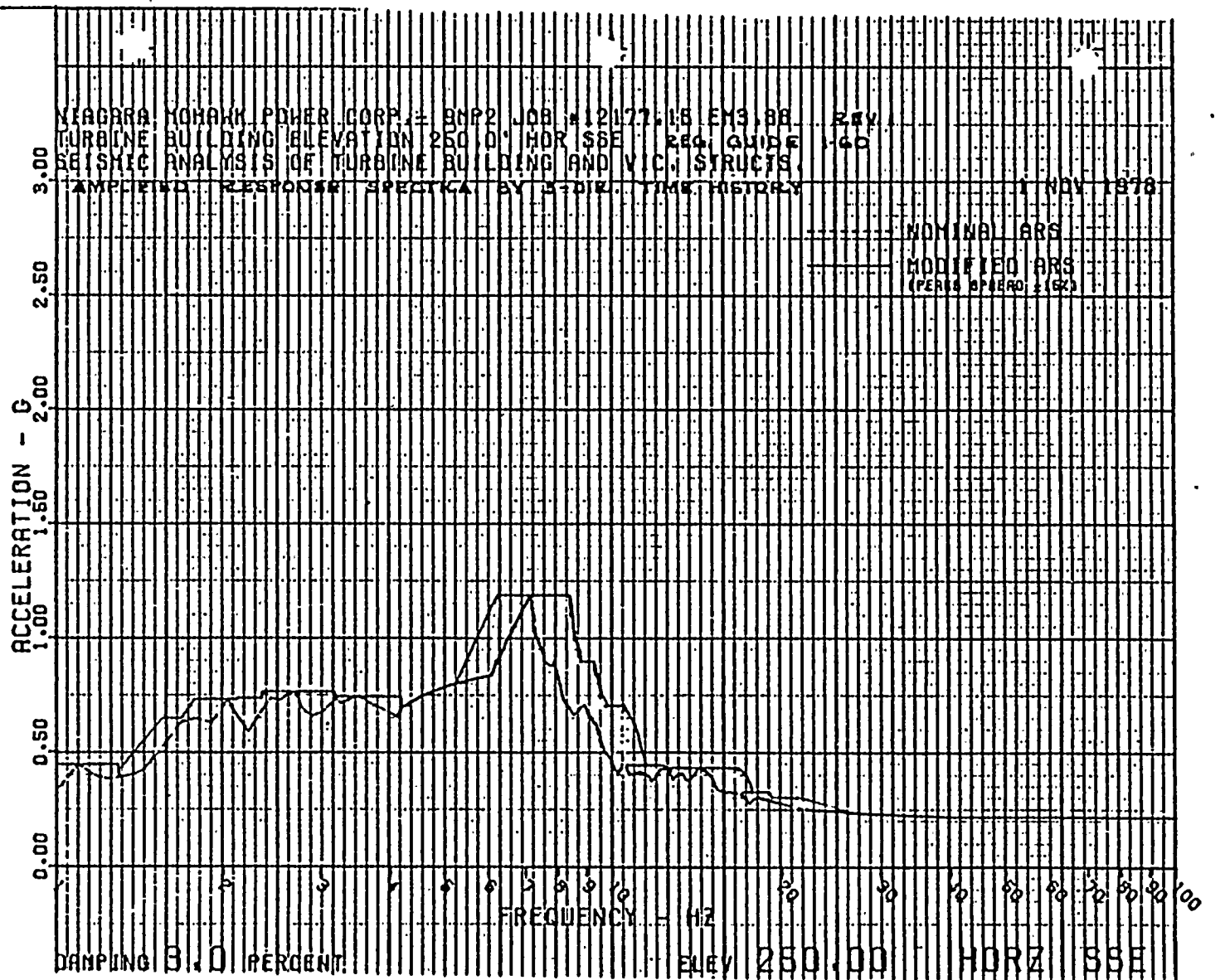
MS 1373 REV 01 REF 5
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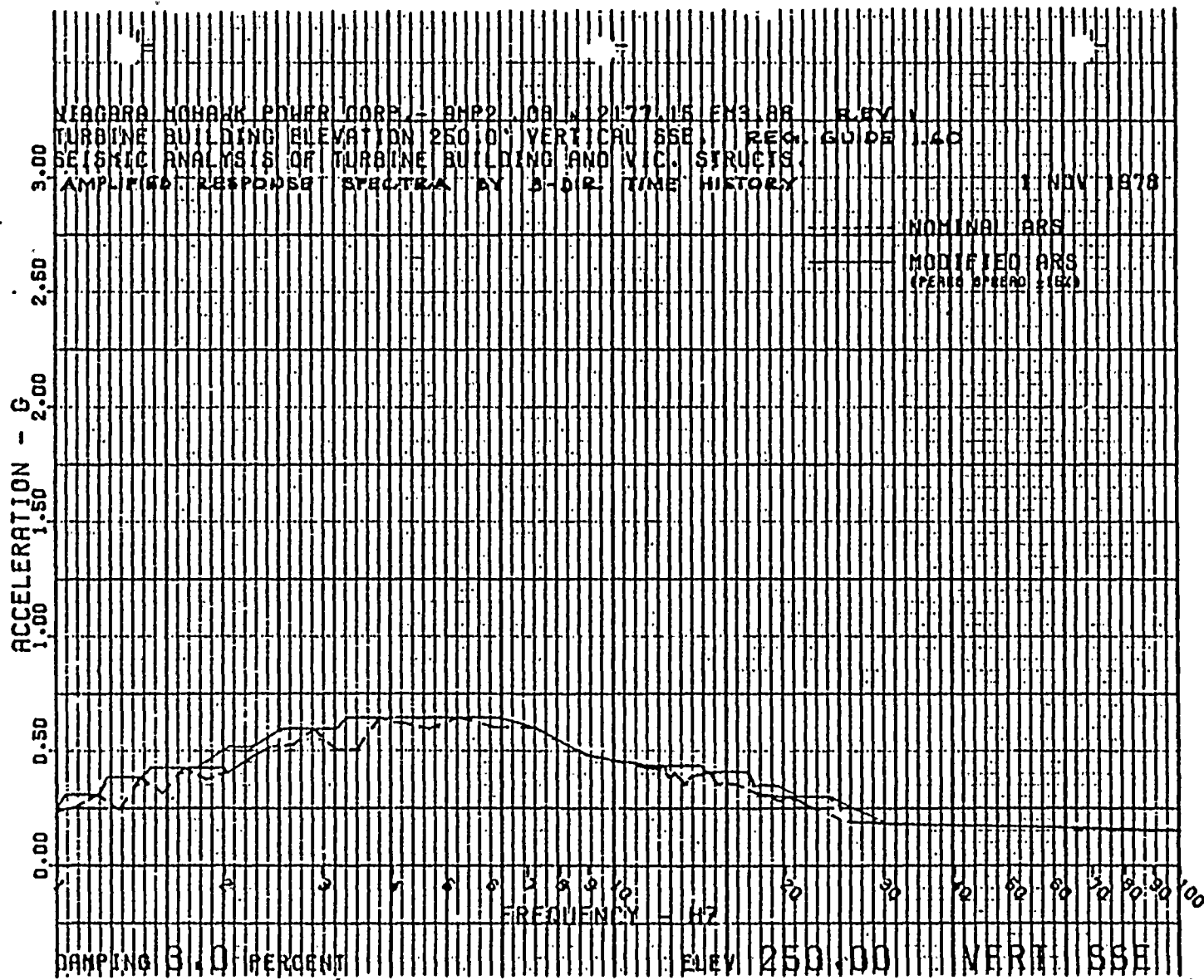
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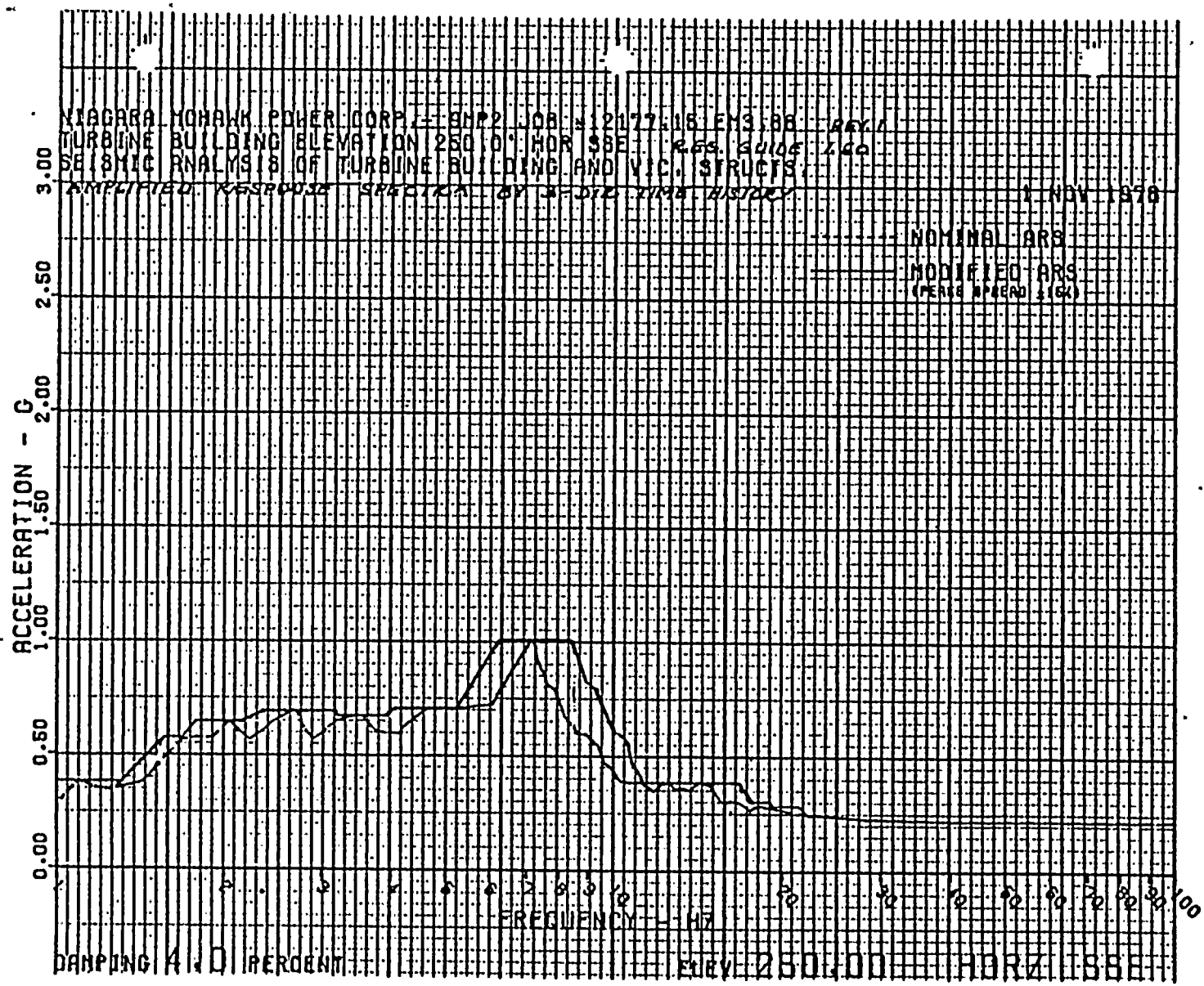
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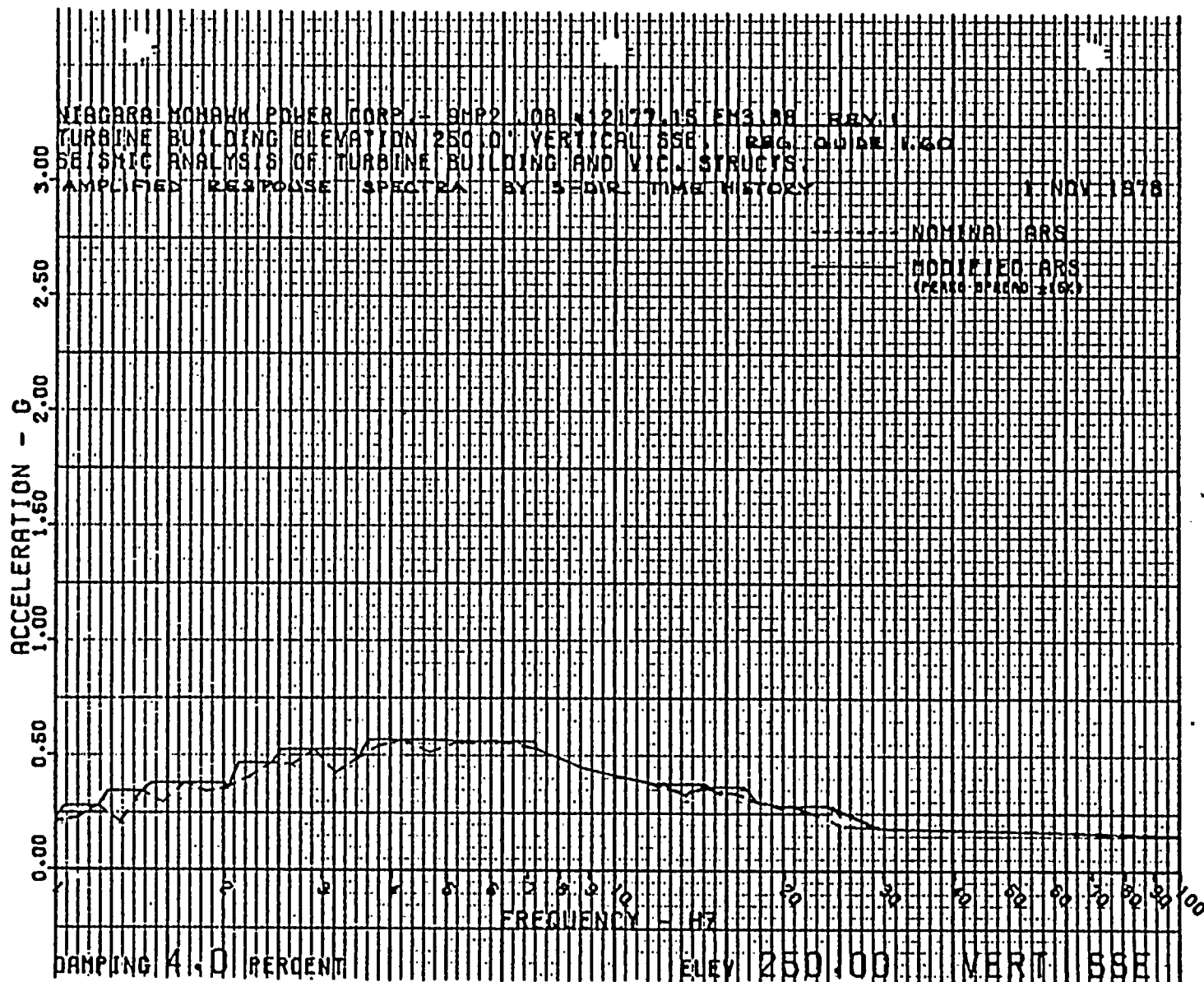
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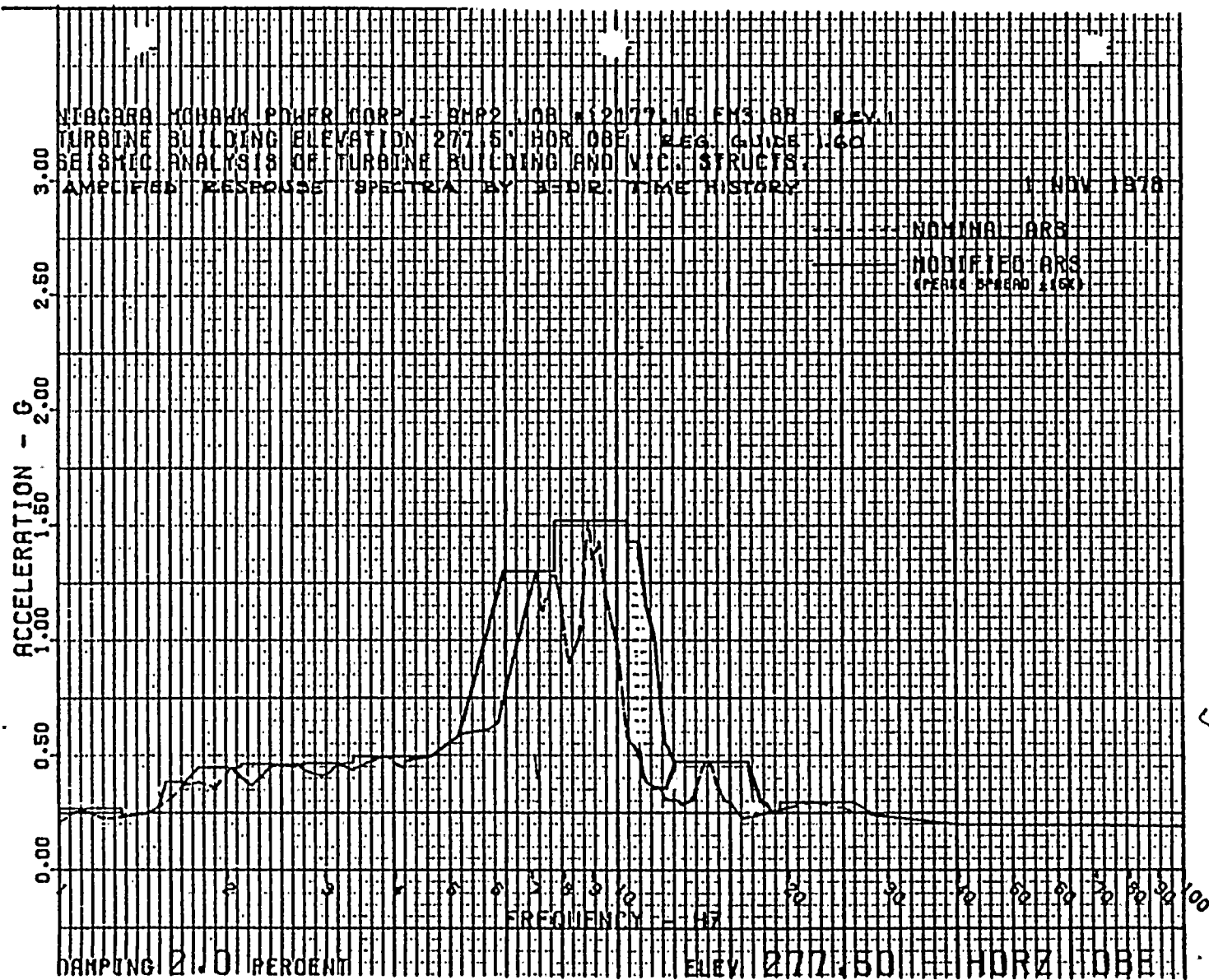
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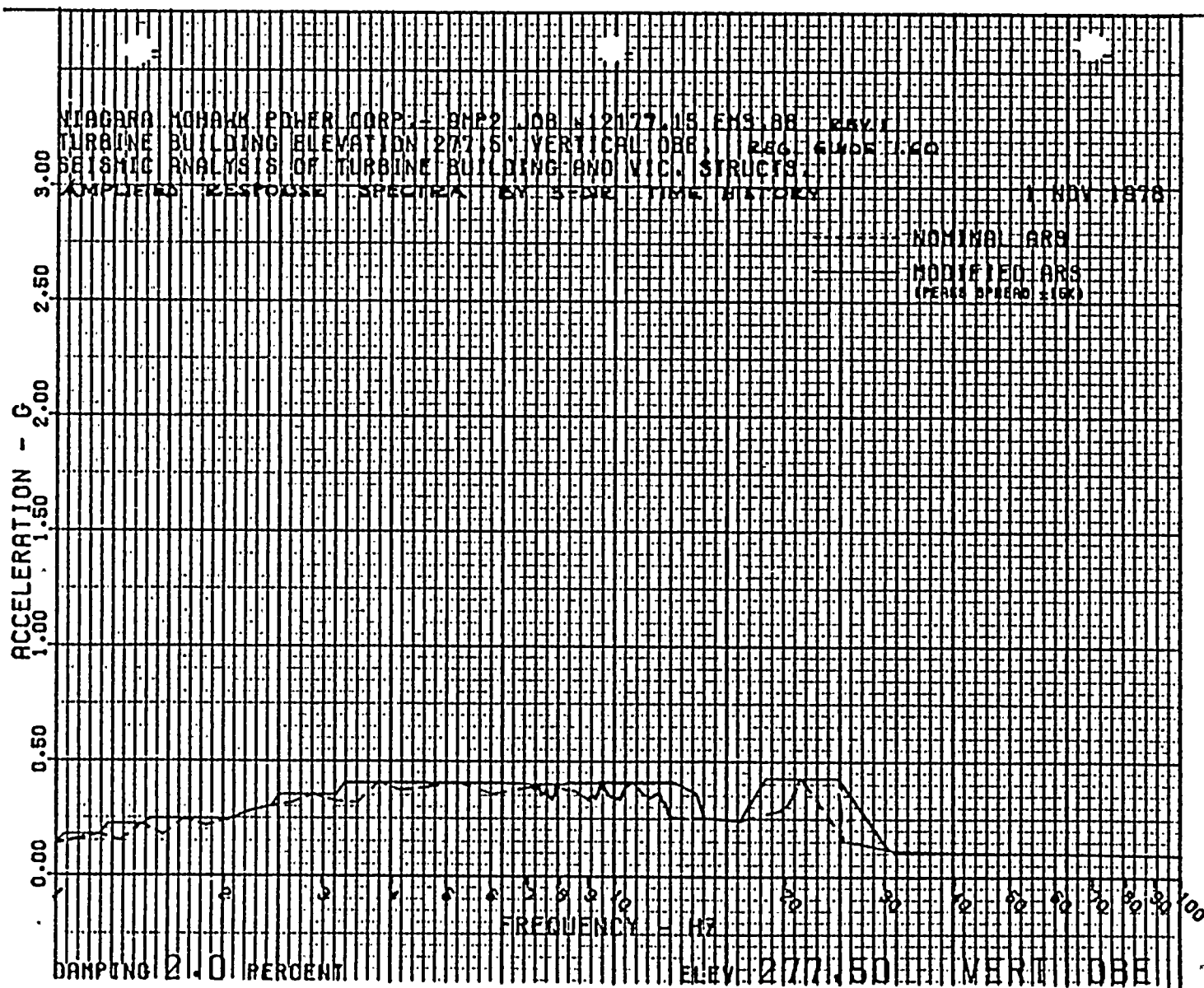
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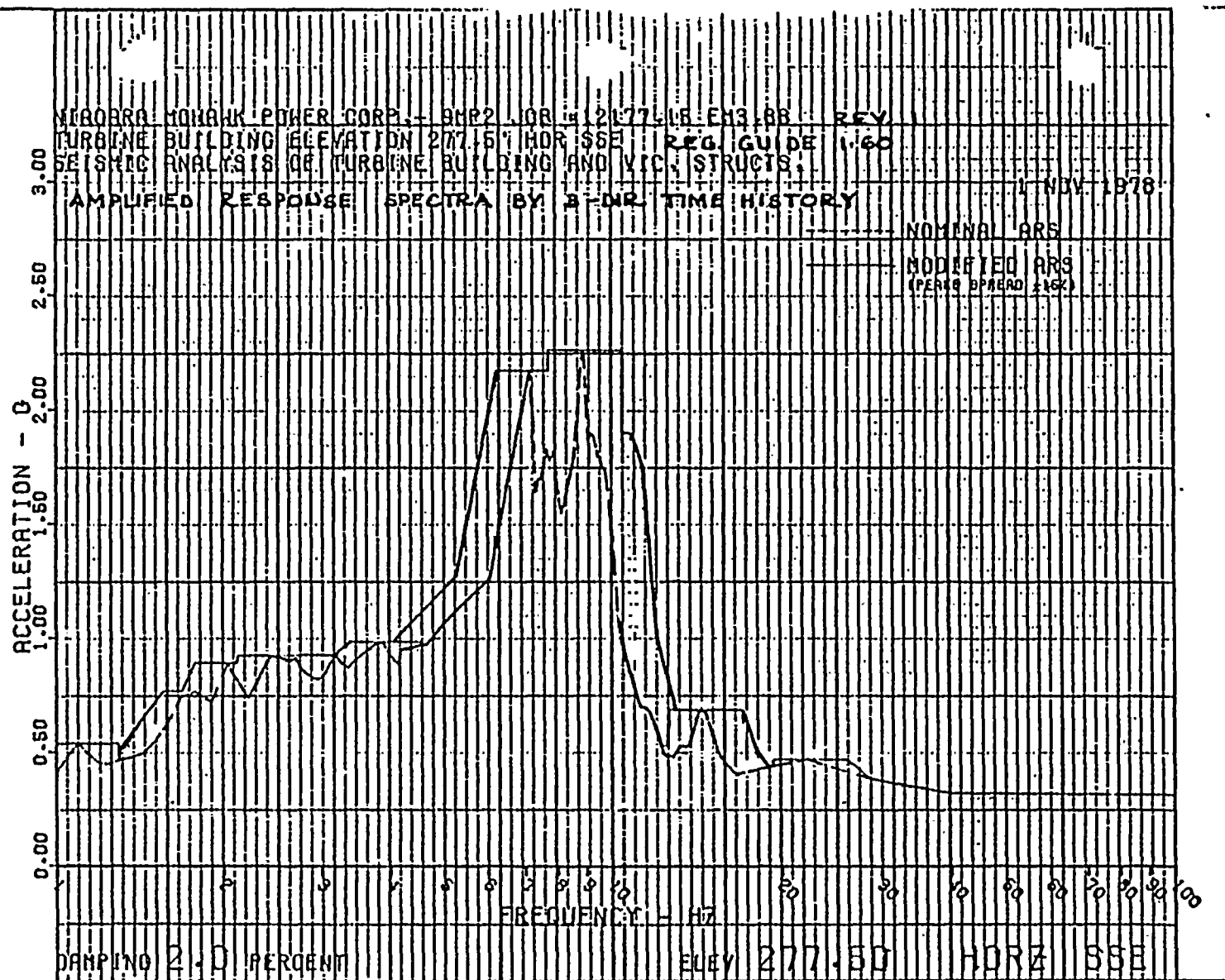
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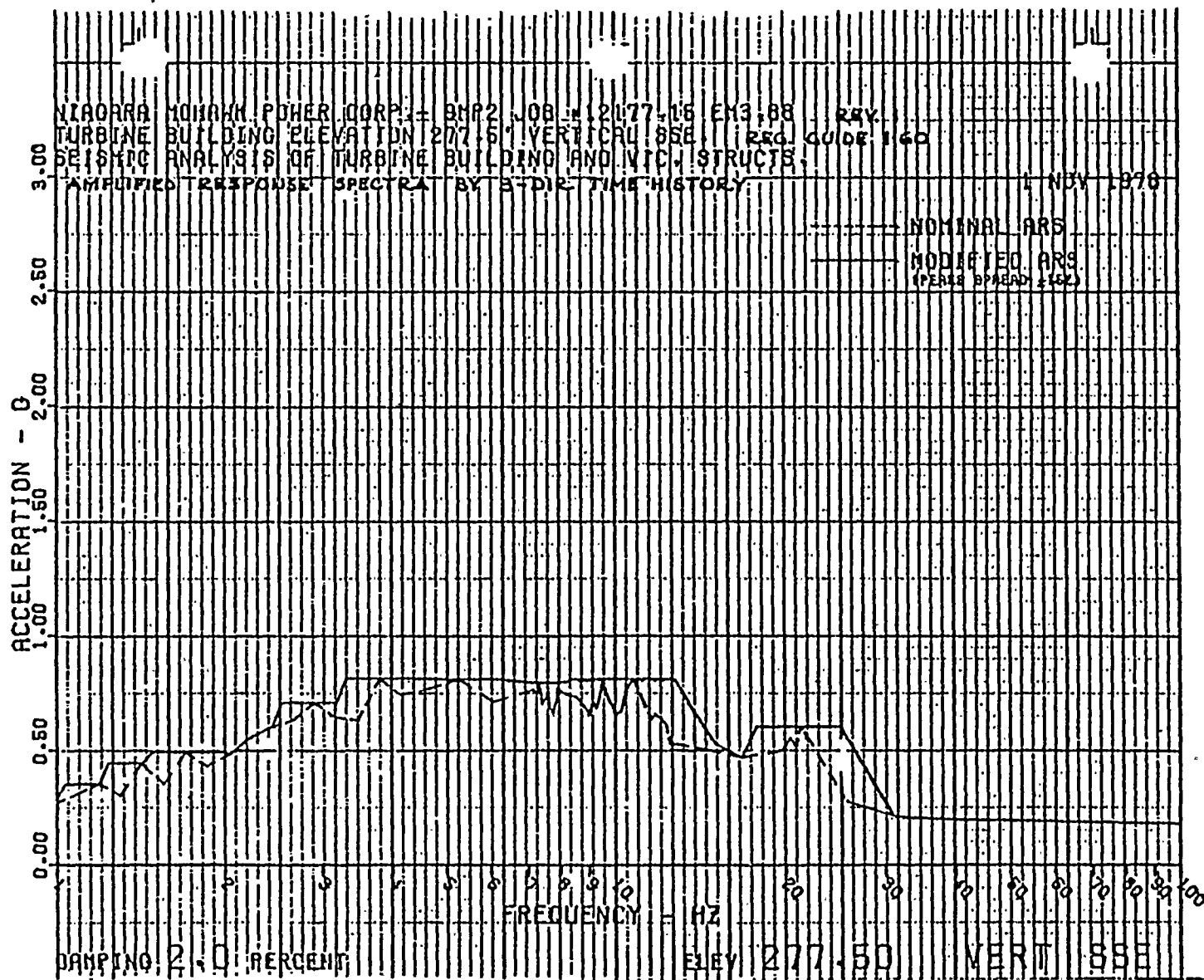
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 12/77





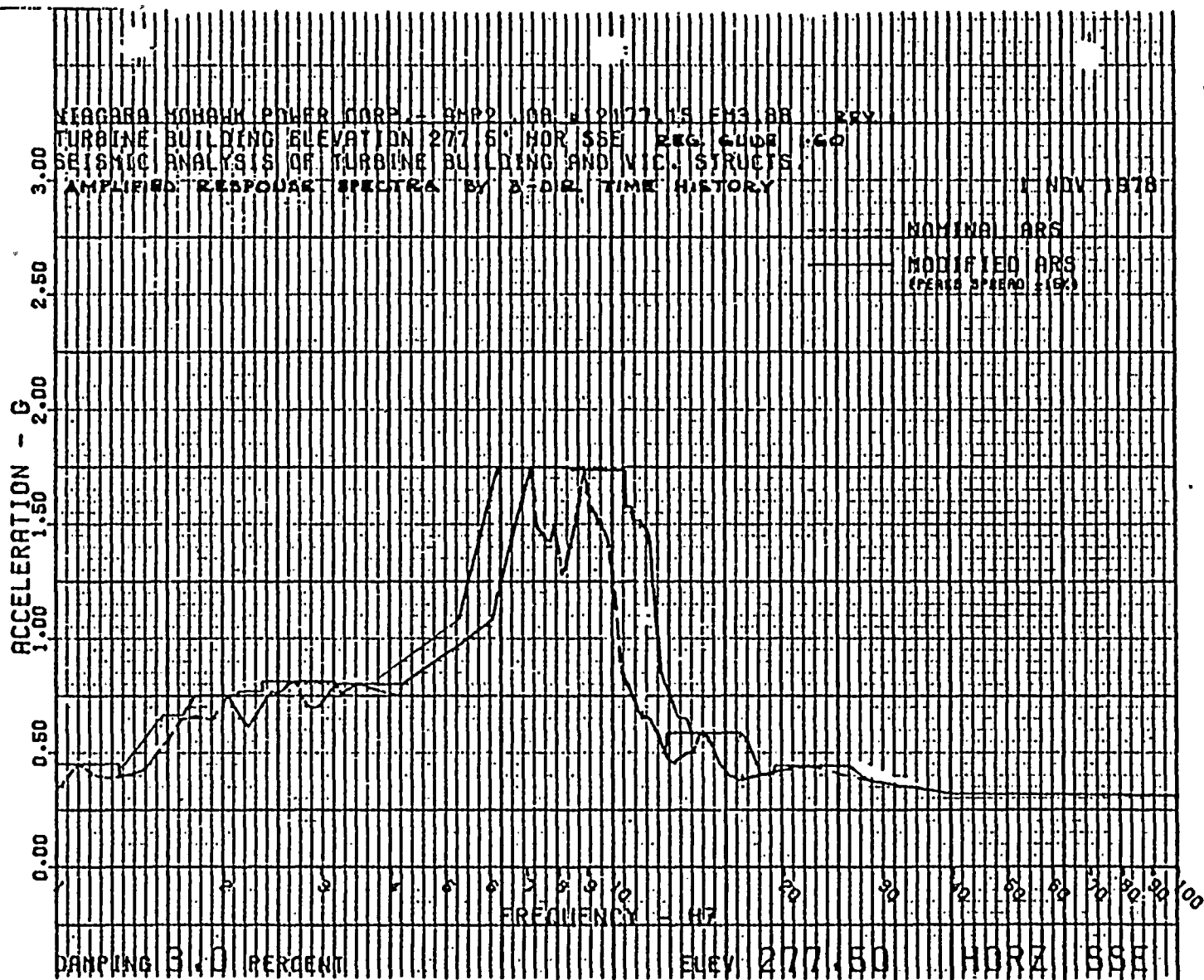
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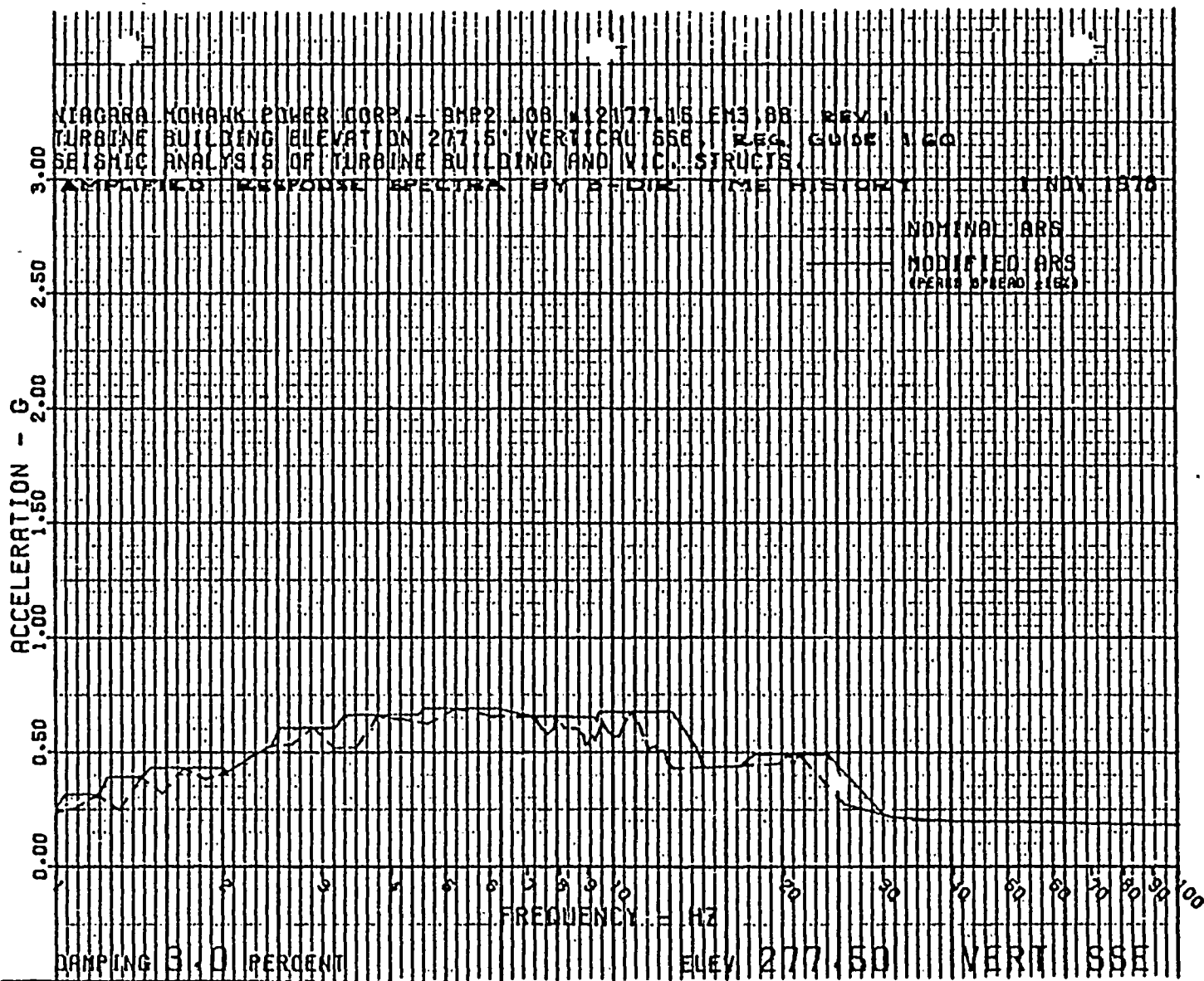
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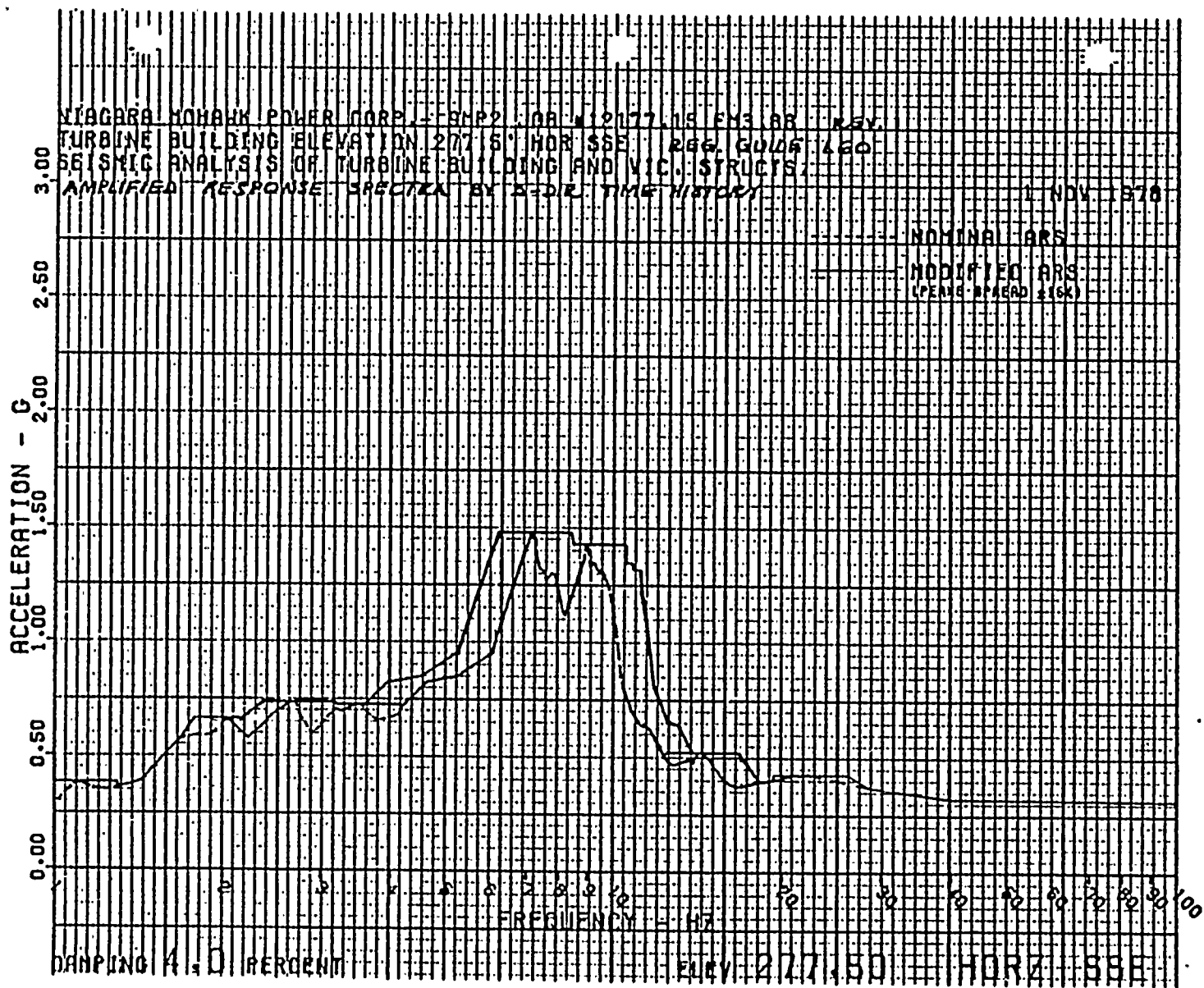
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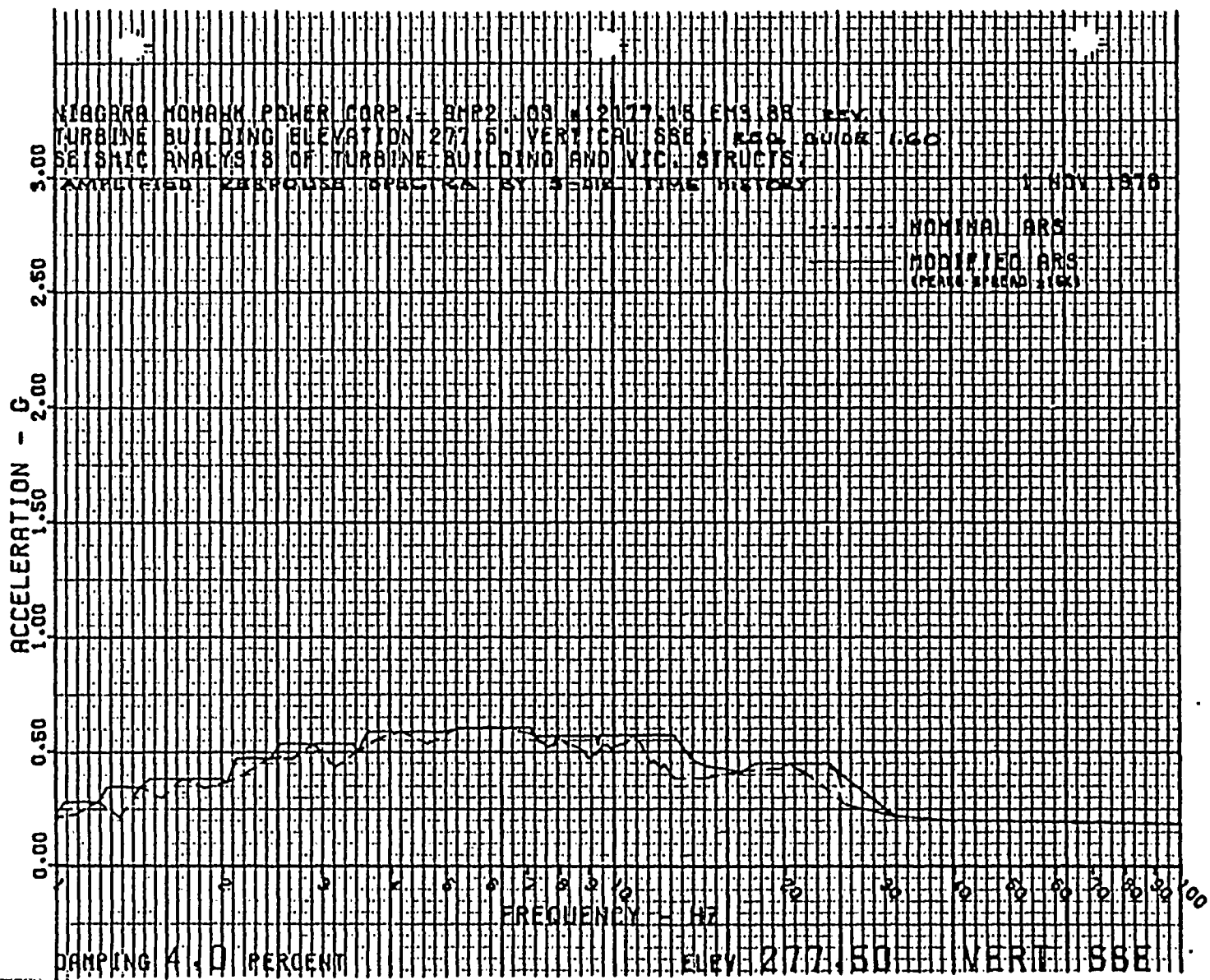
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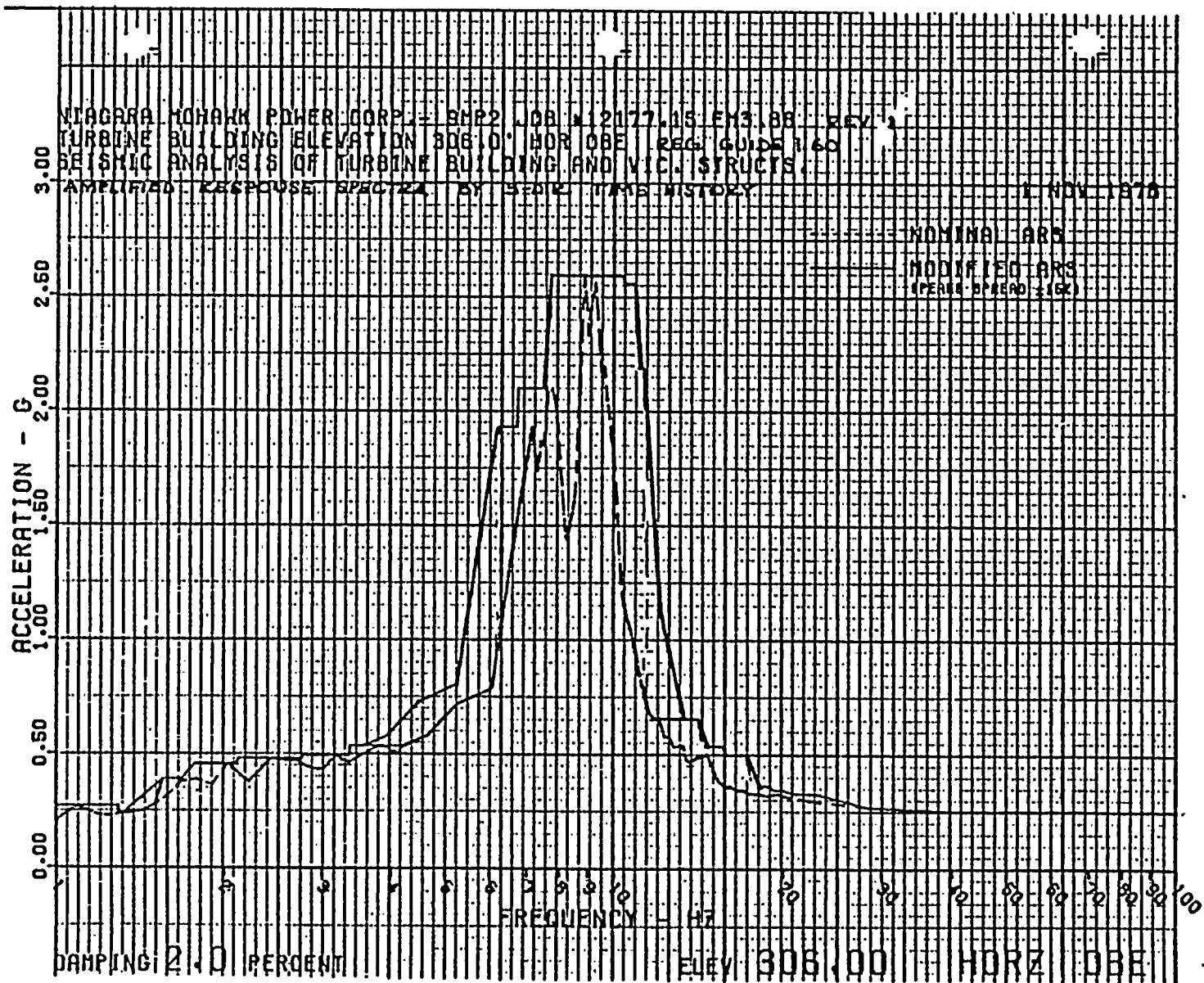
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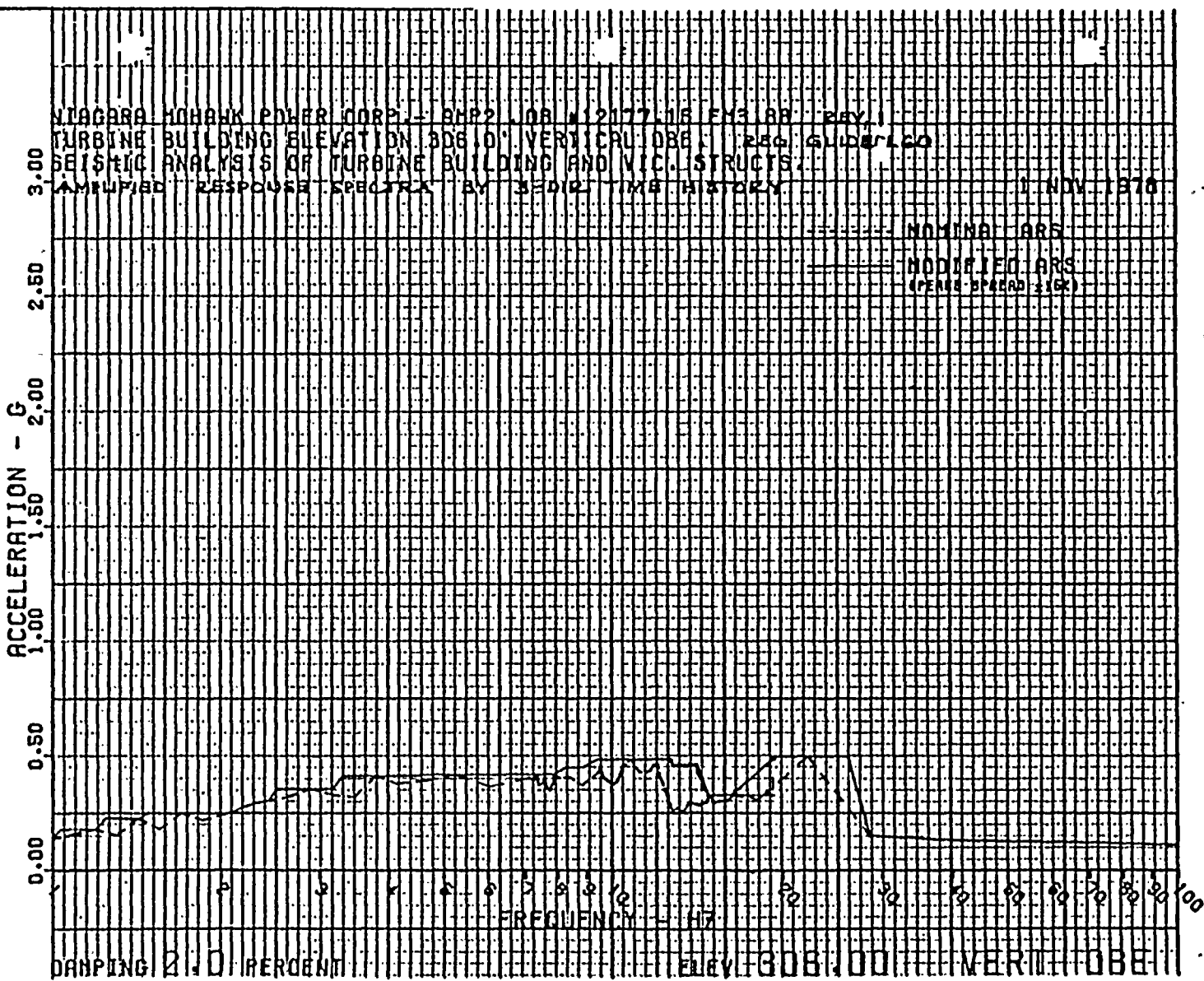
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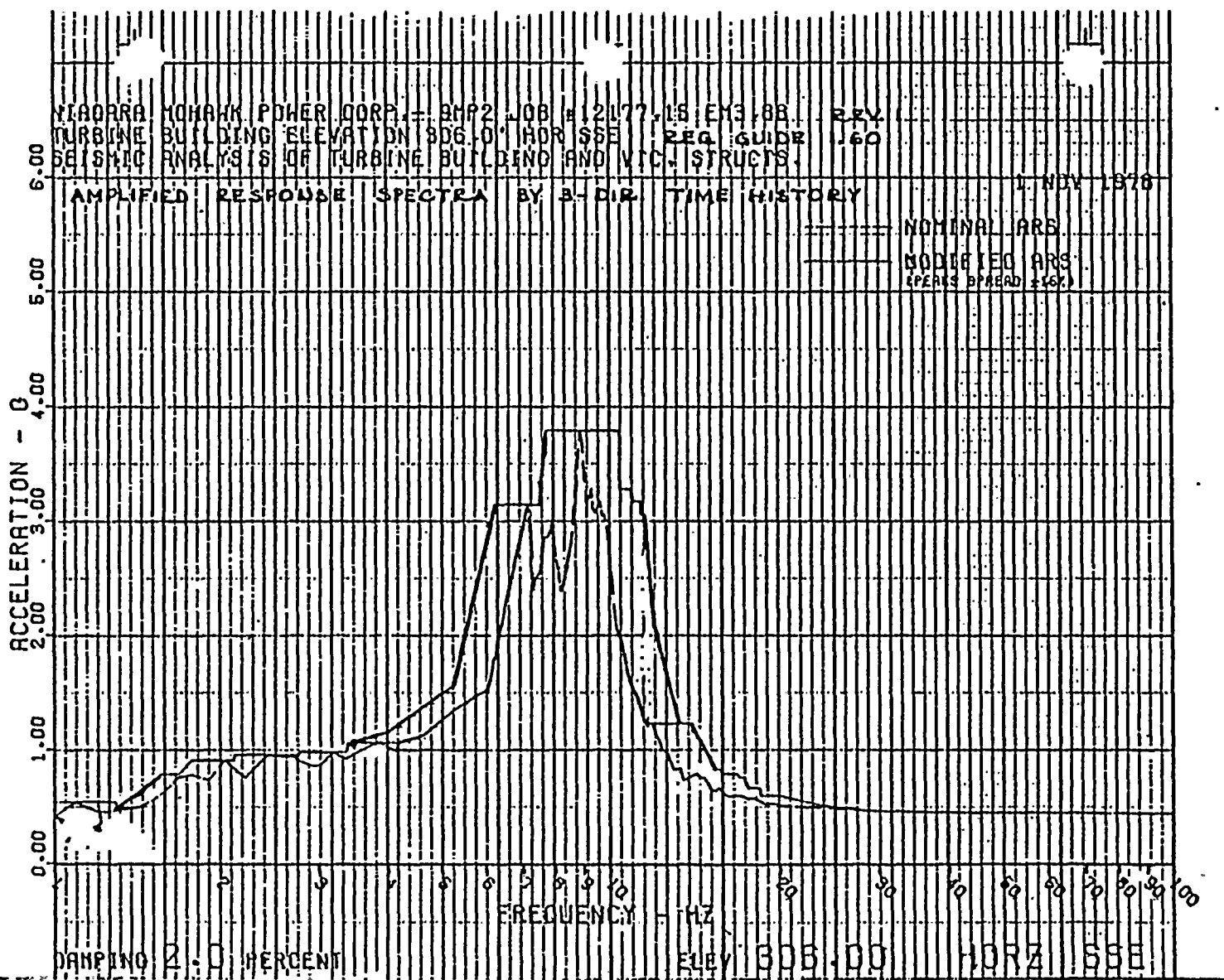
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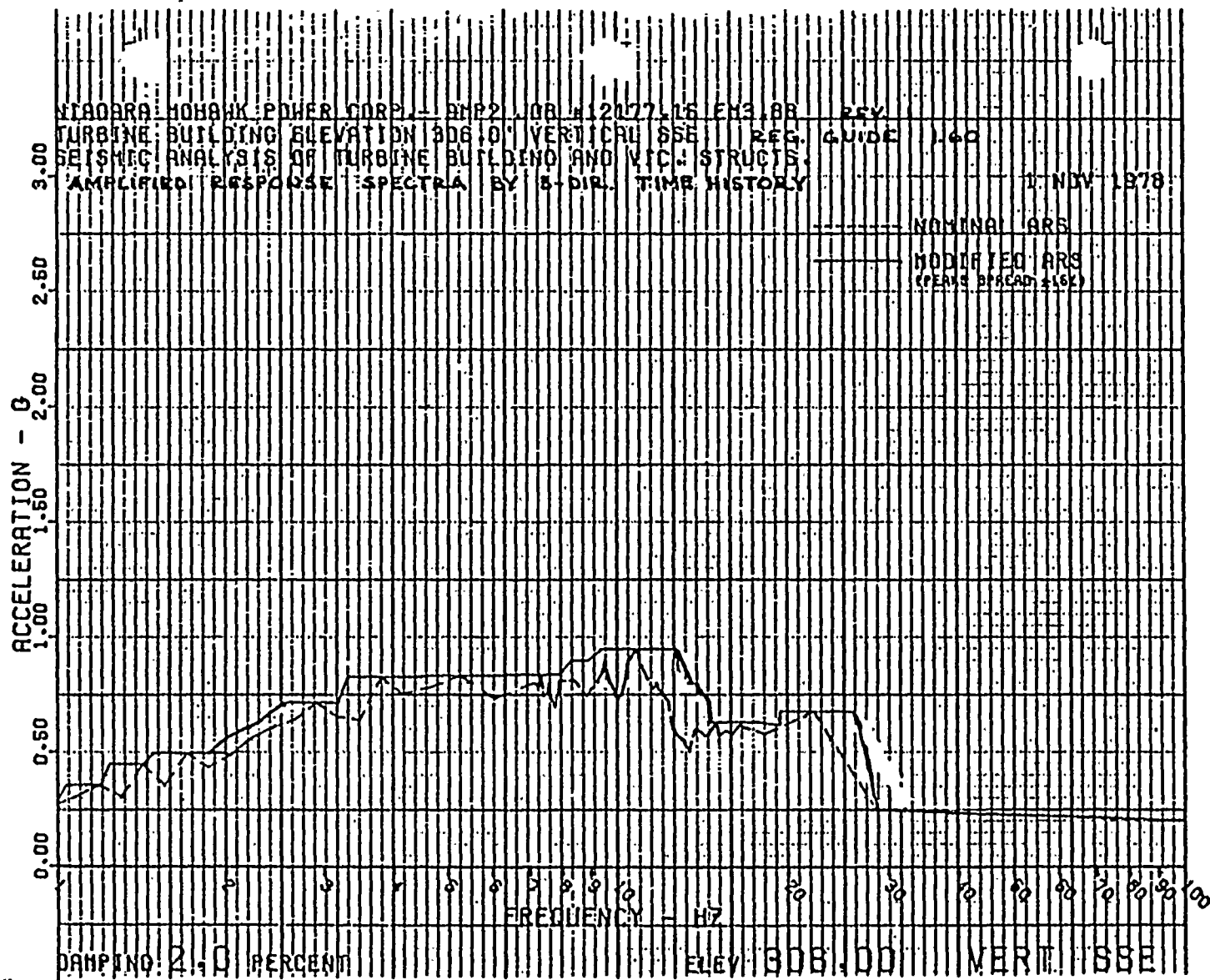
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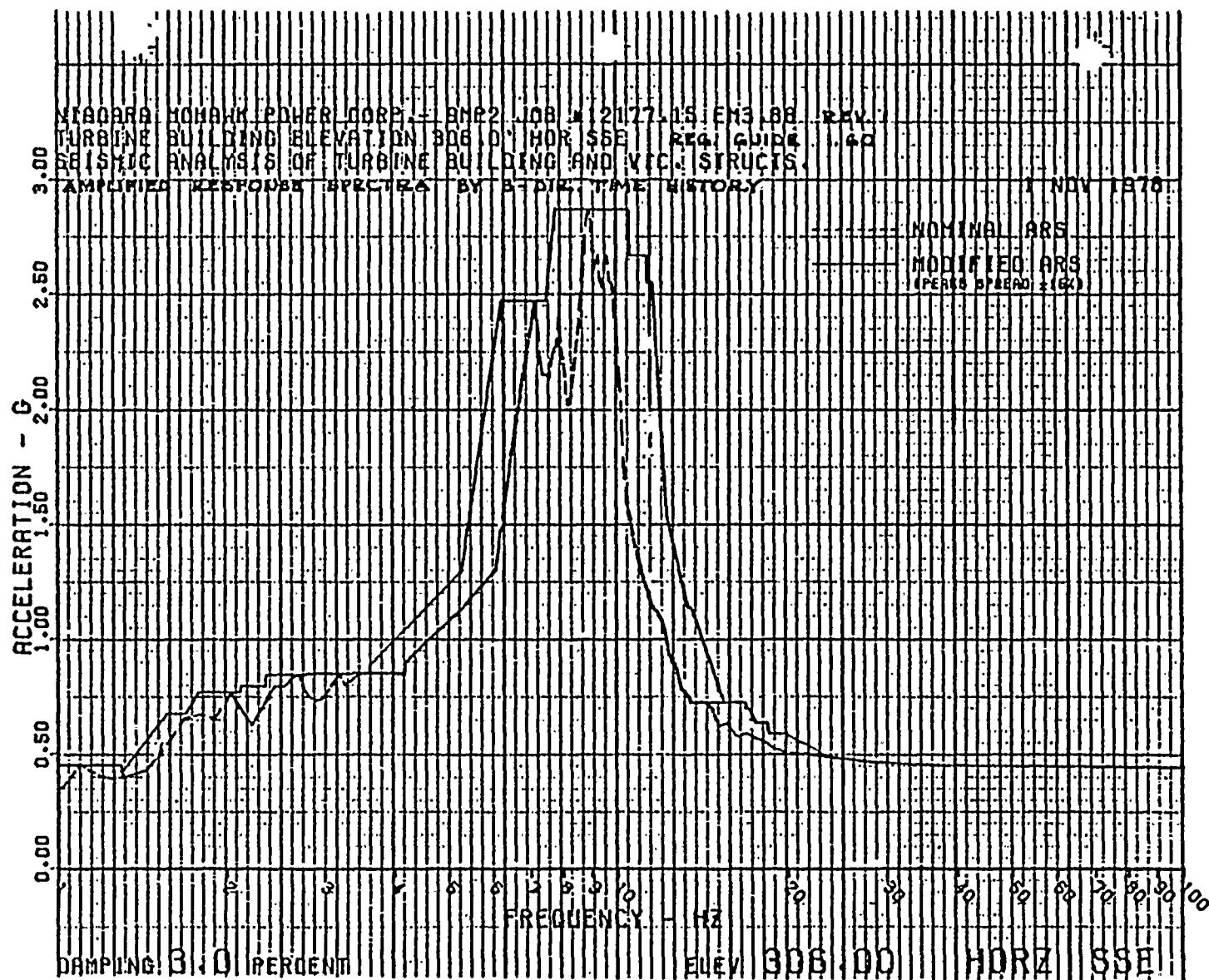
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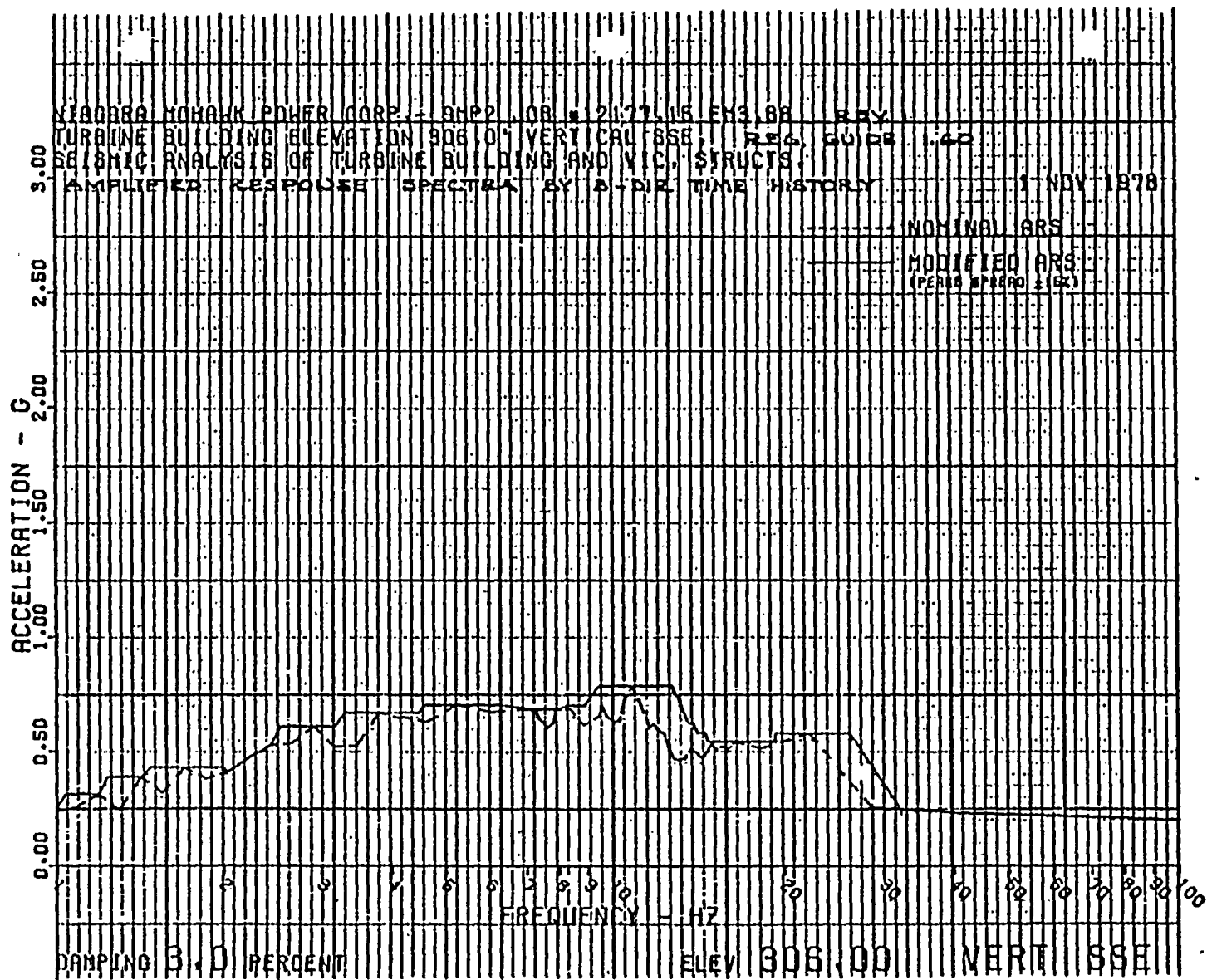
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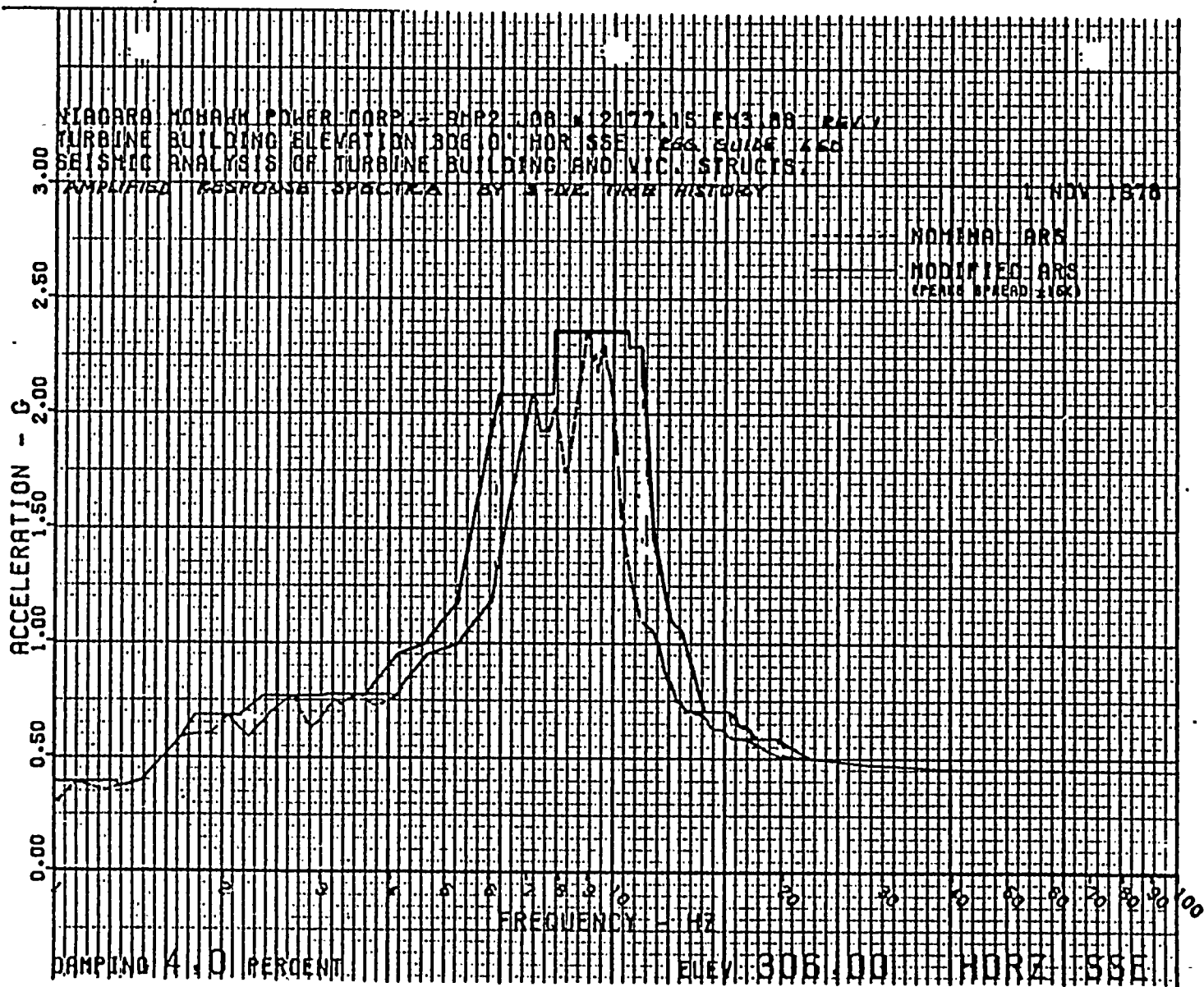
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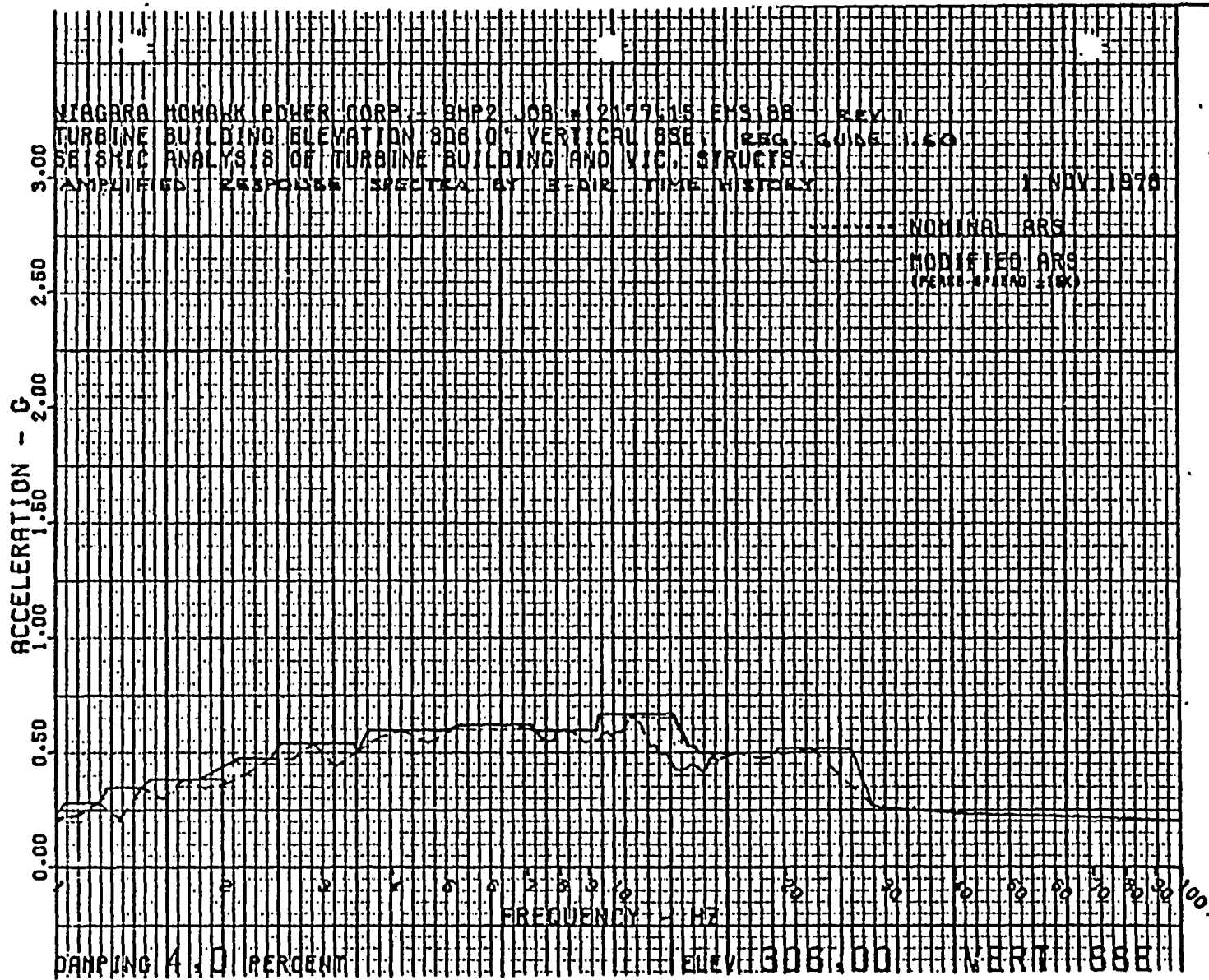
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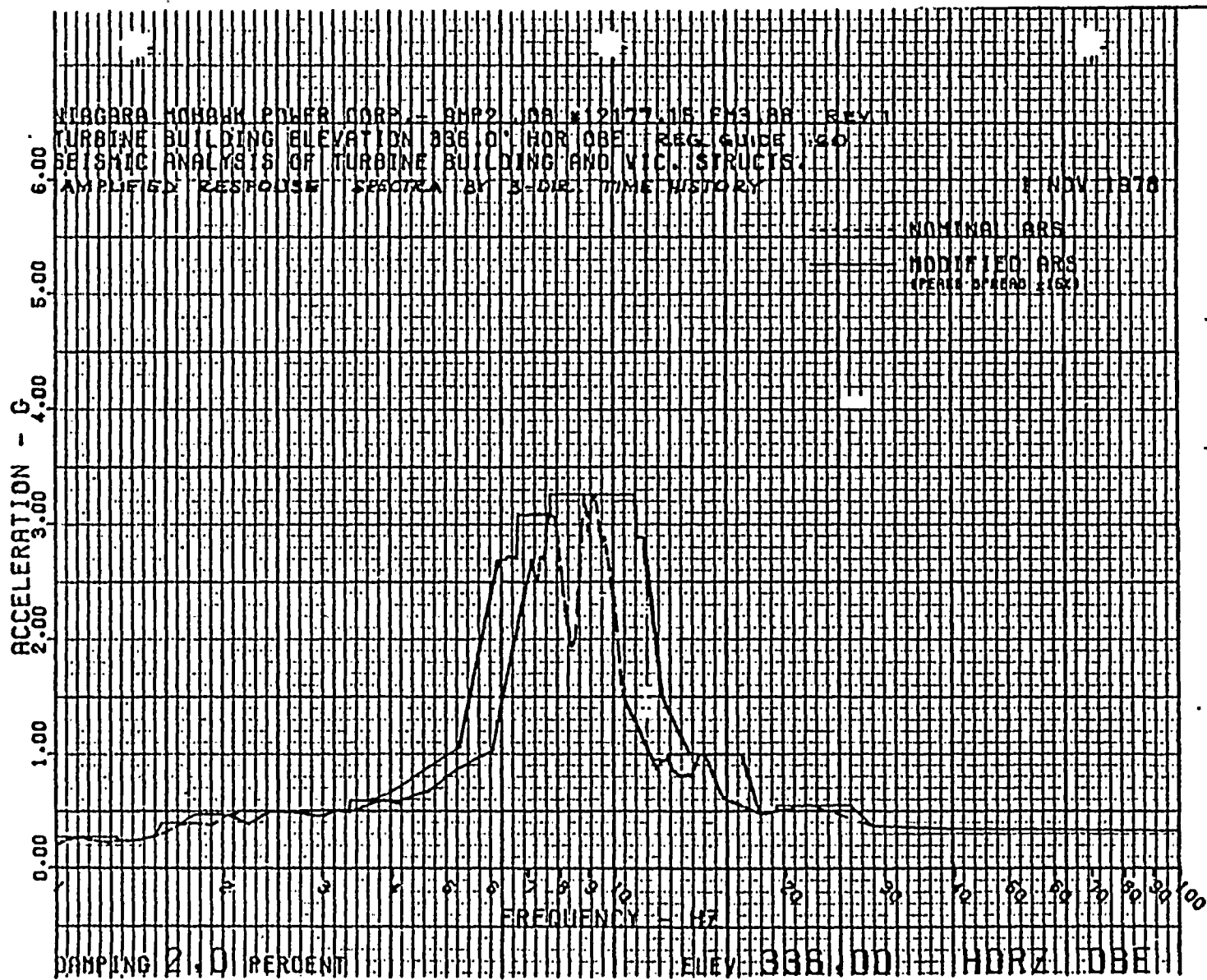
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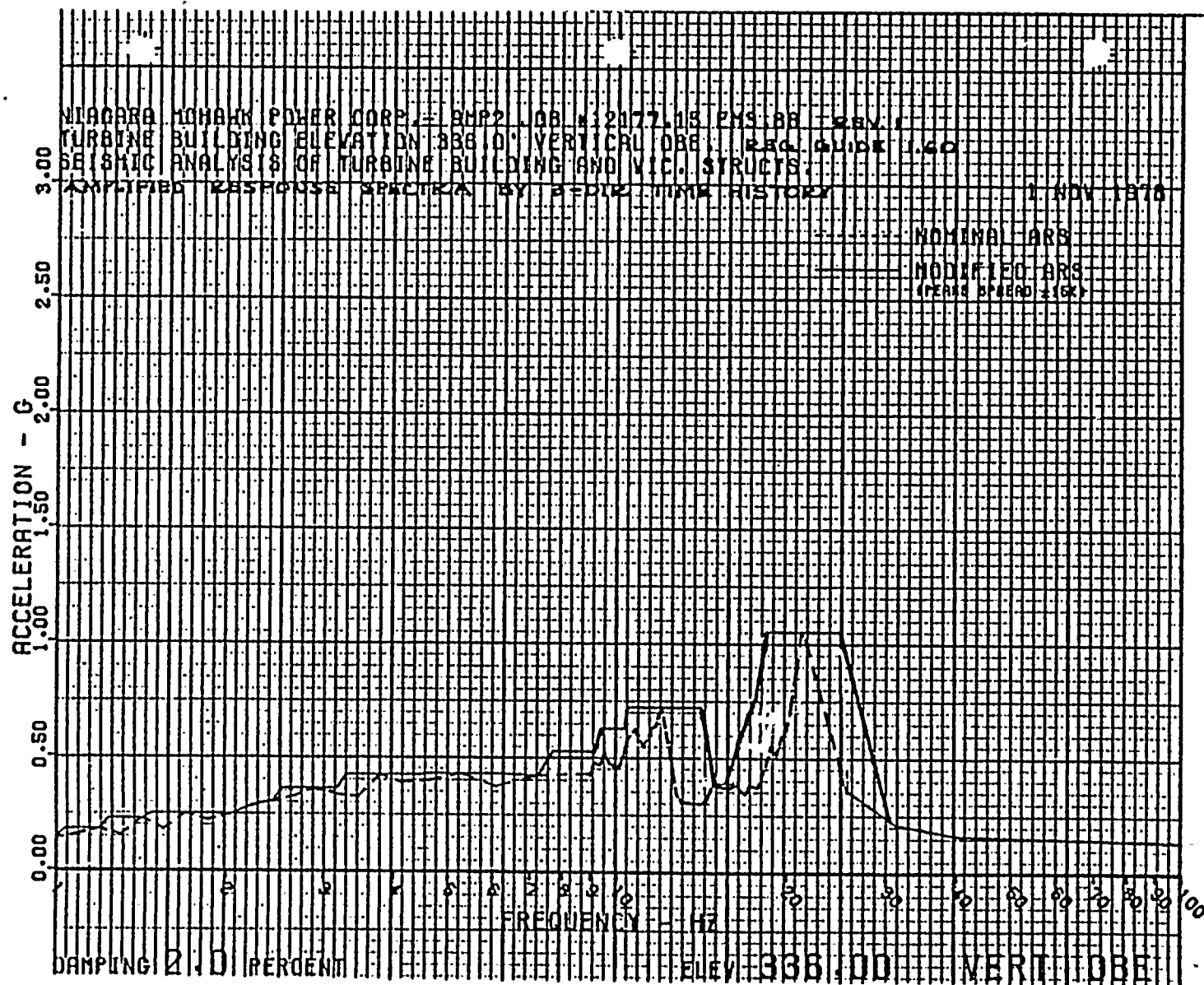
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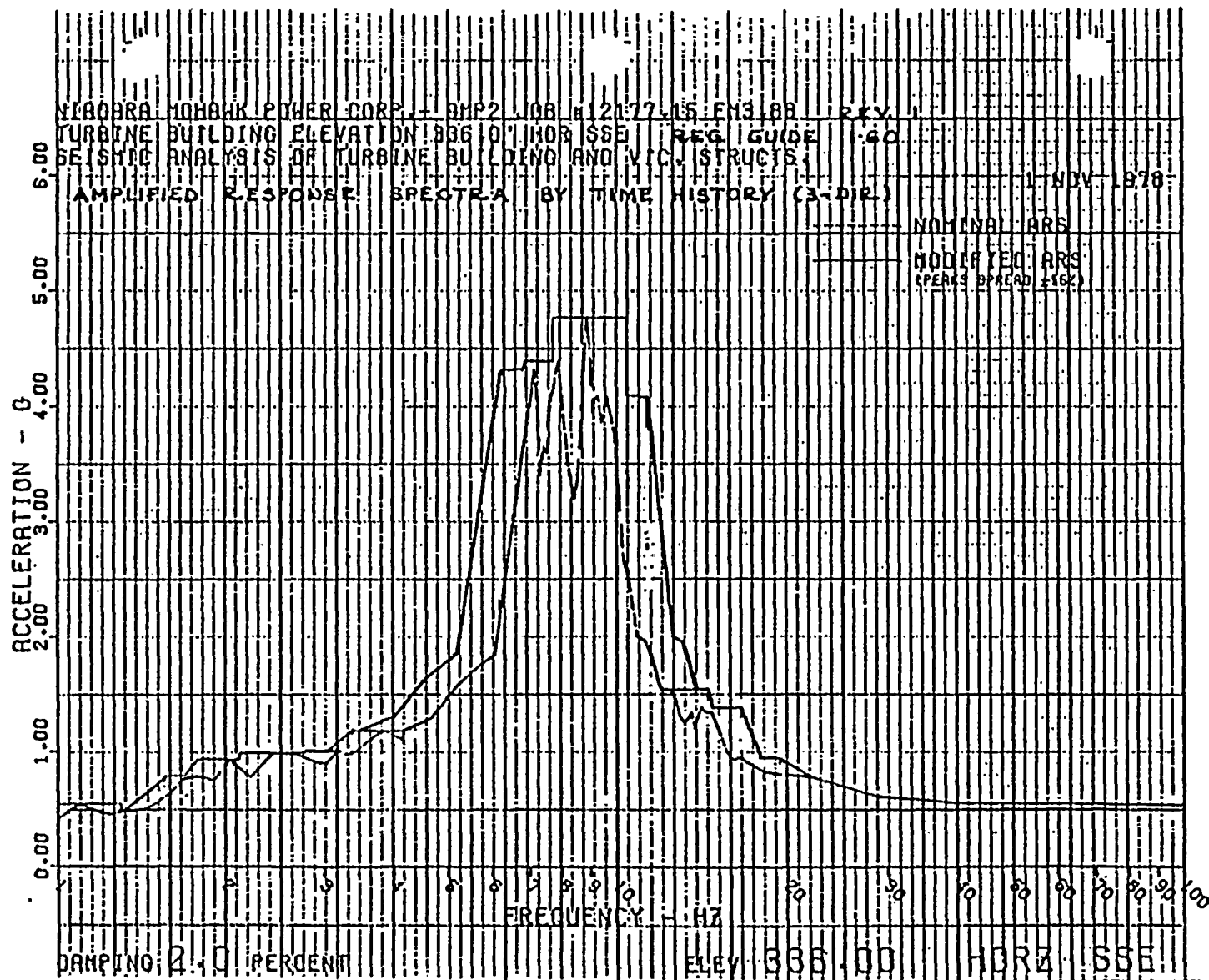
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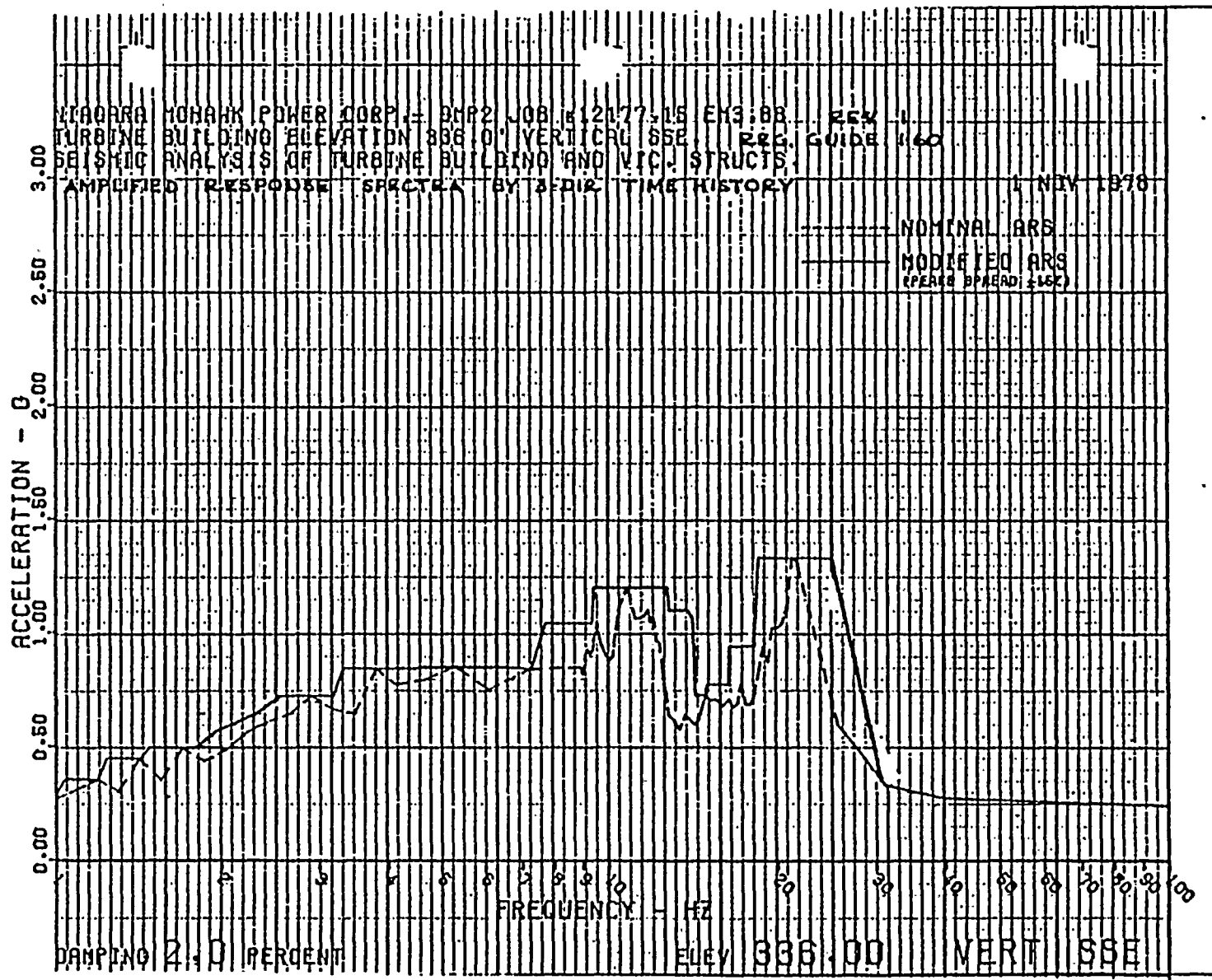
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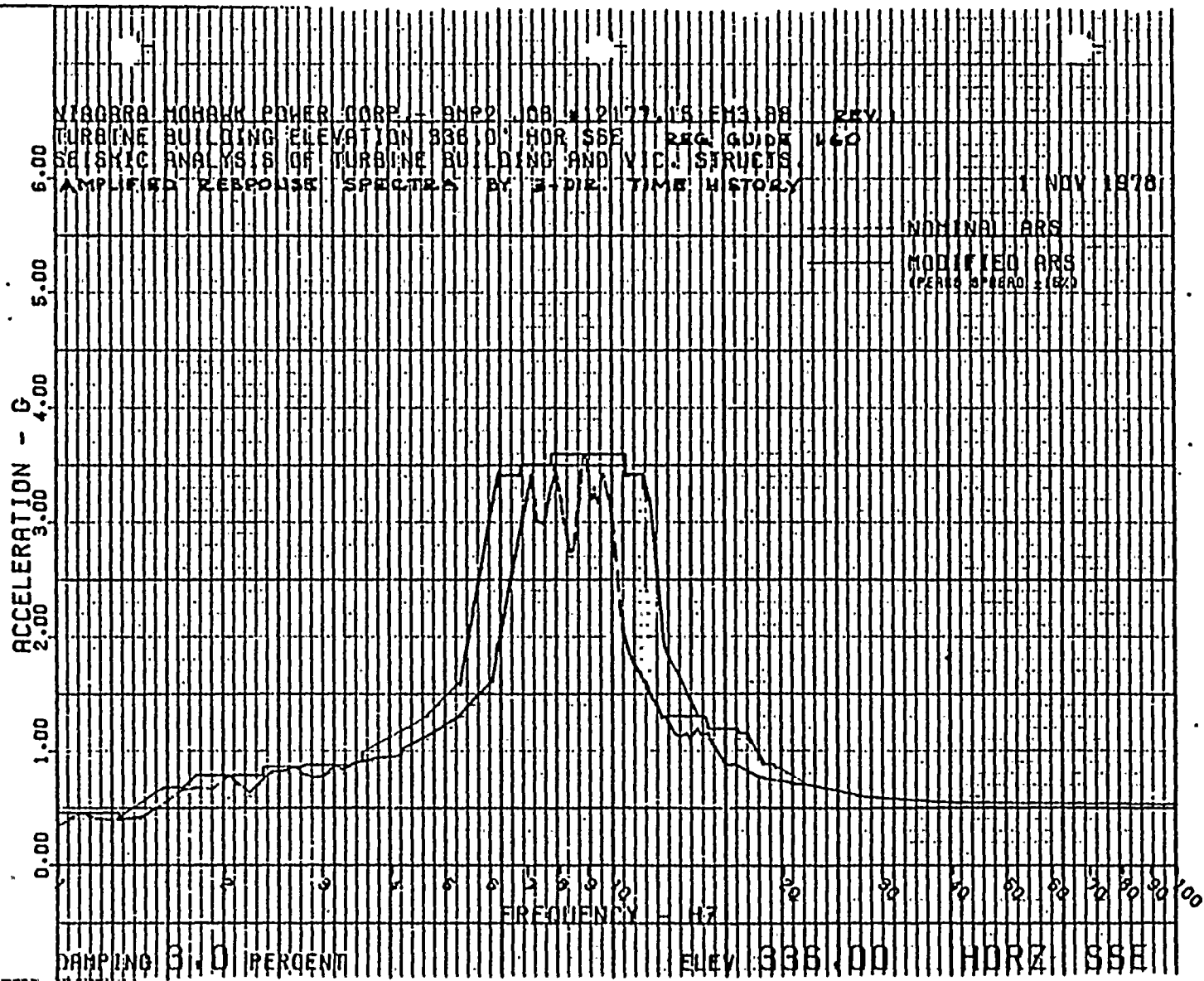
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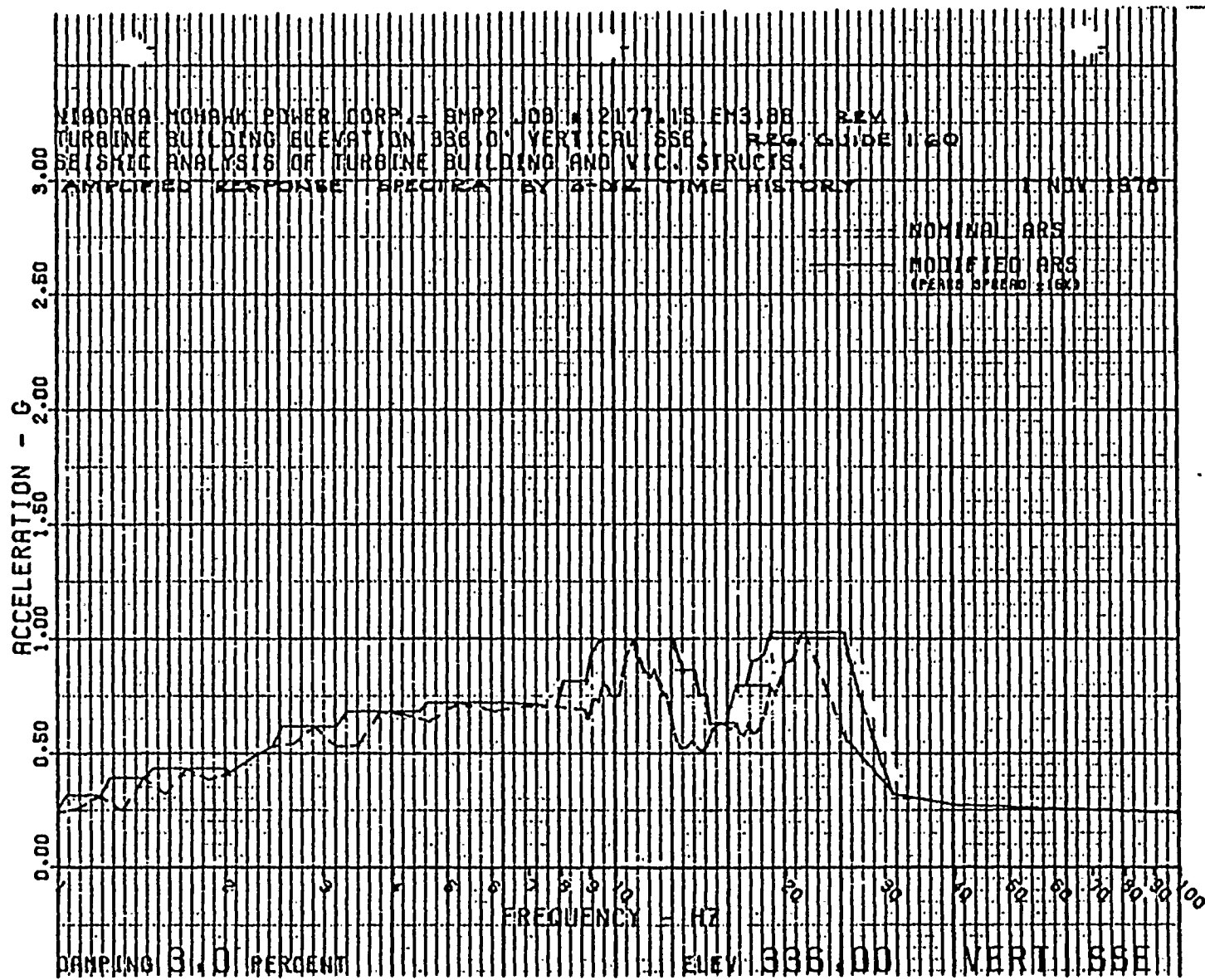
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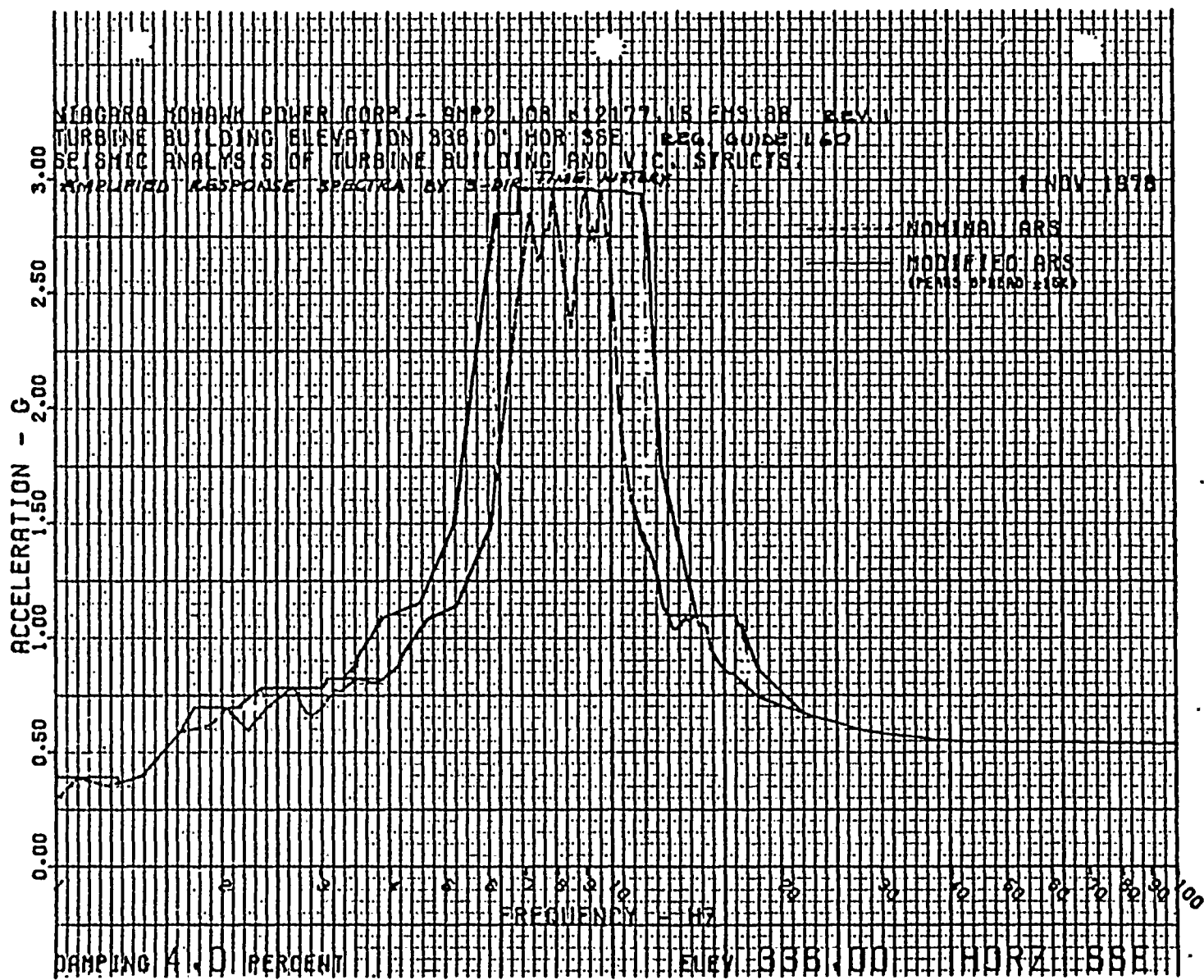
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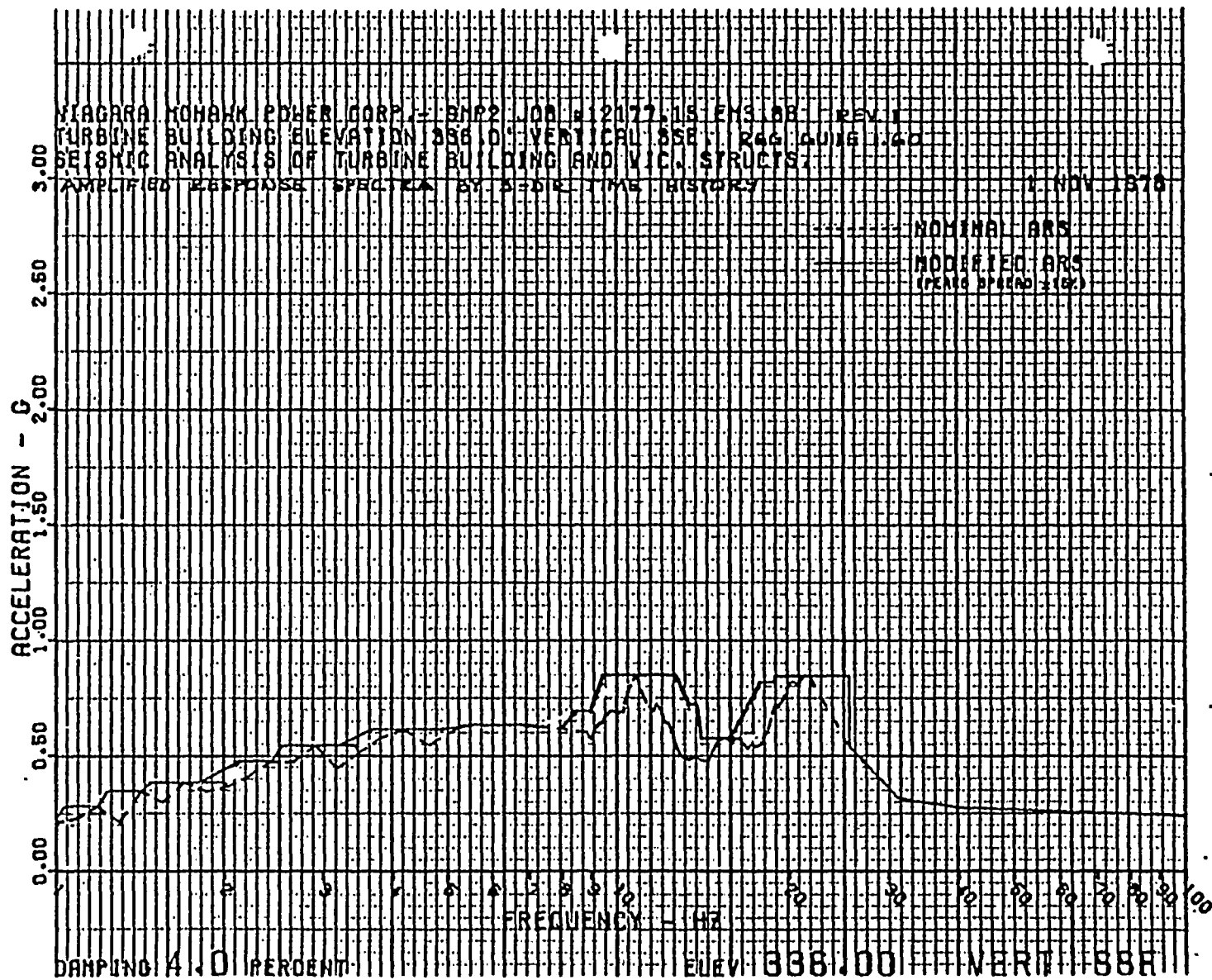
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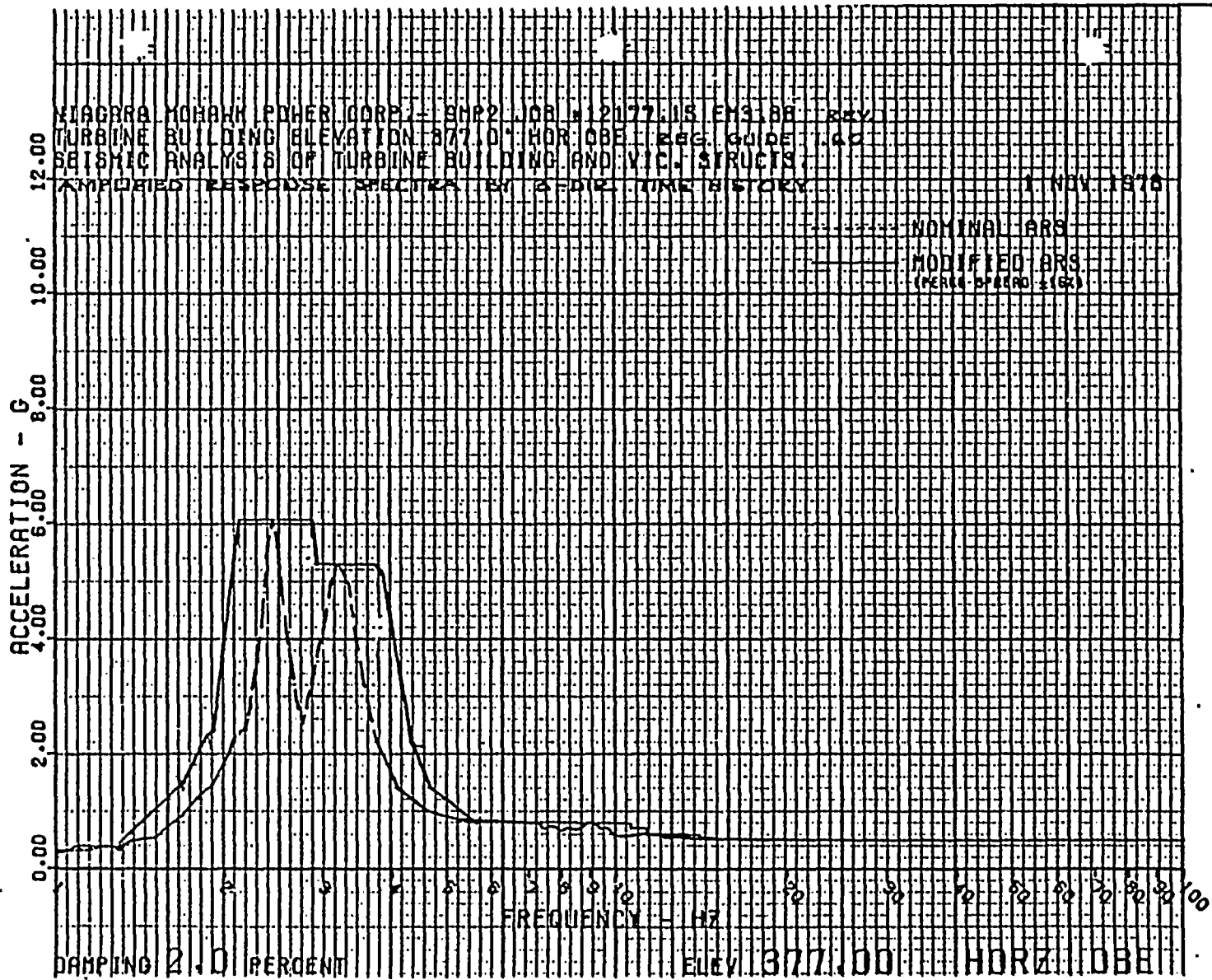
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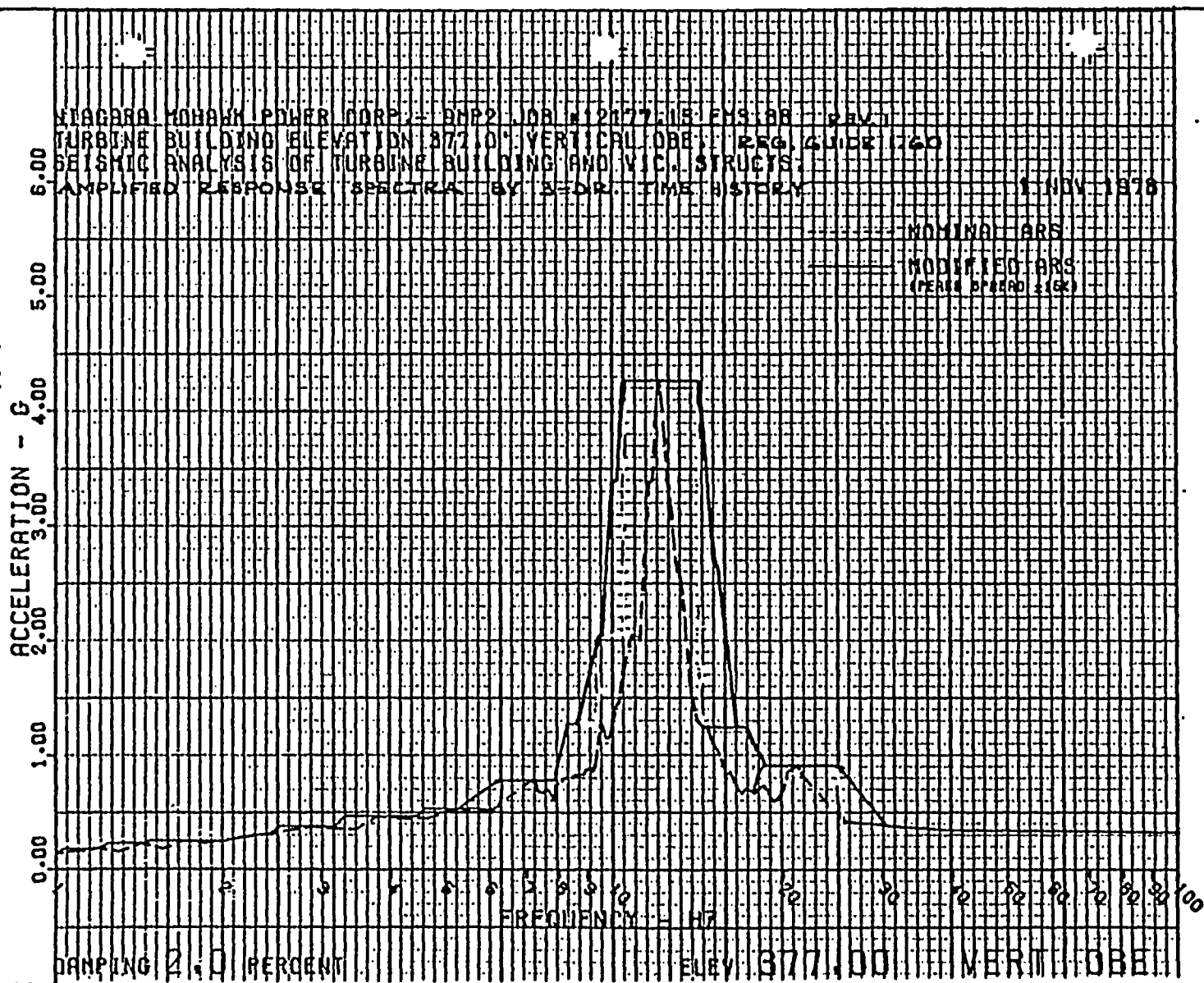
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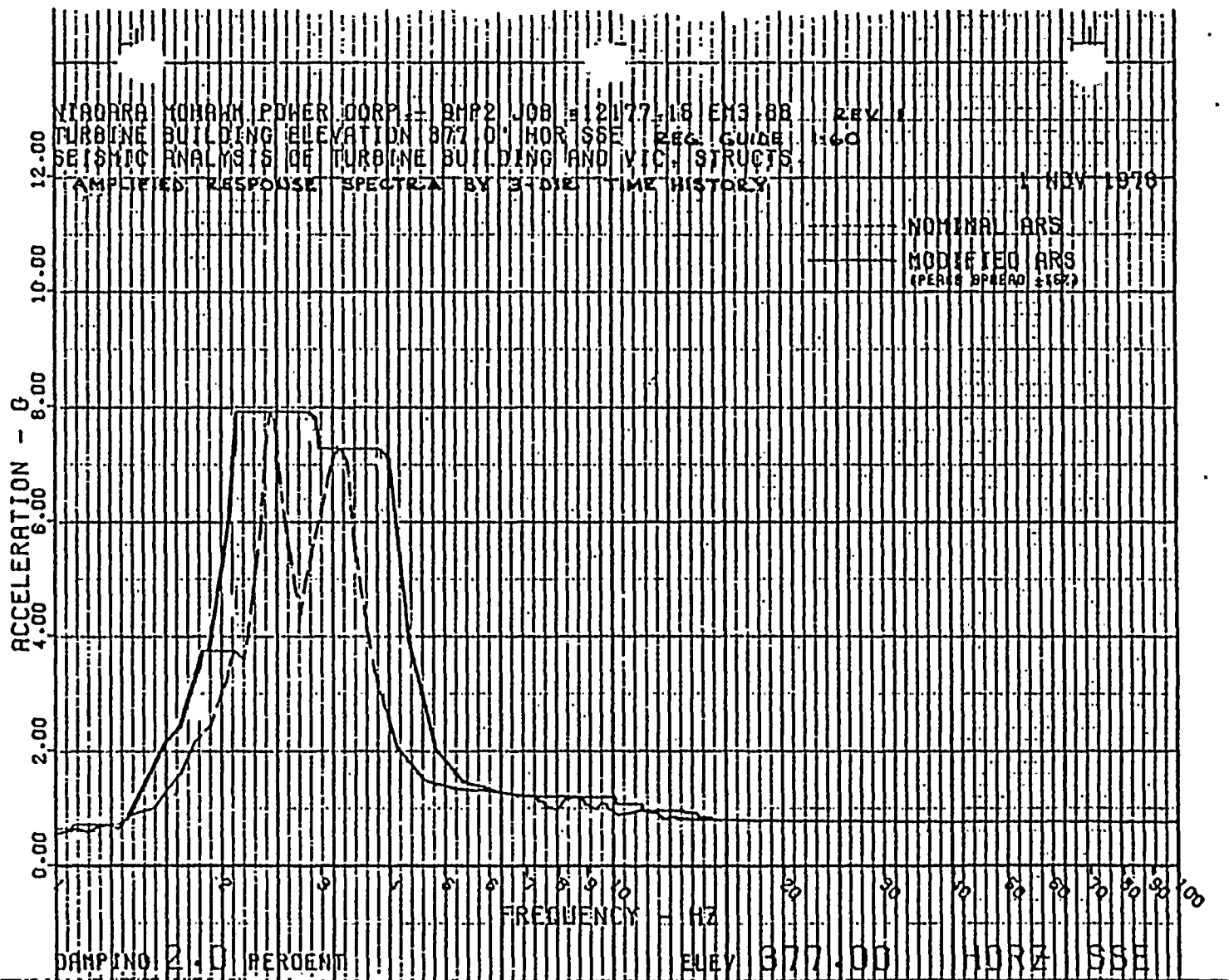
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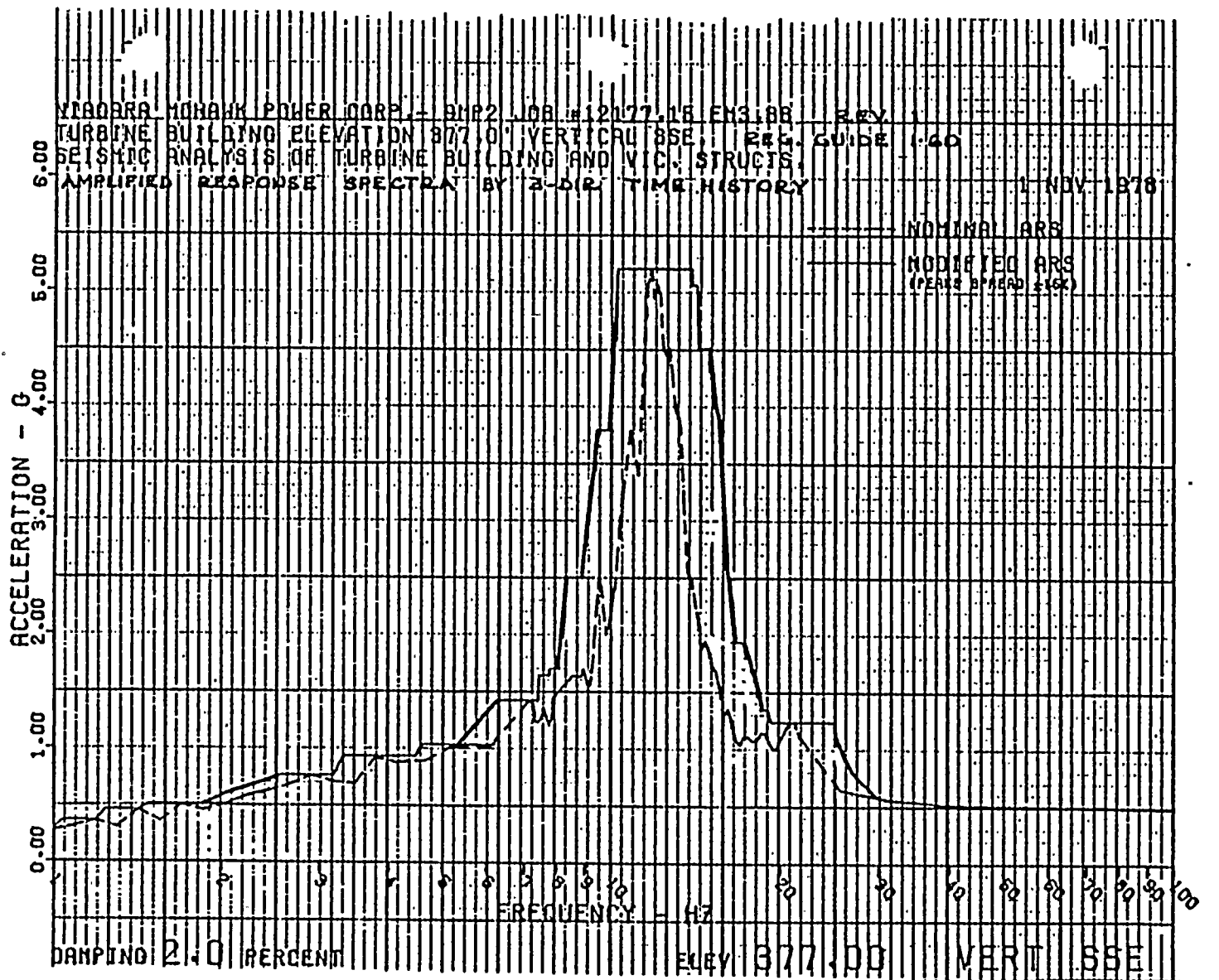
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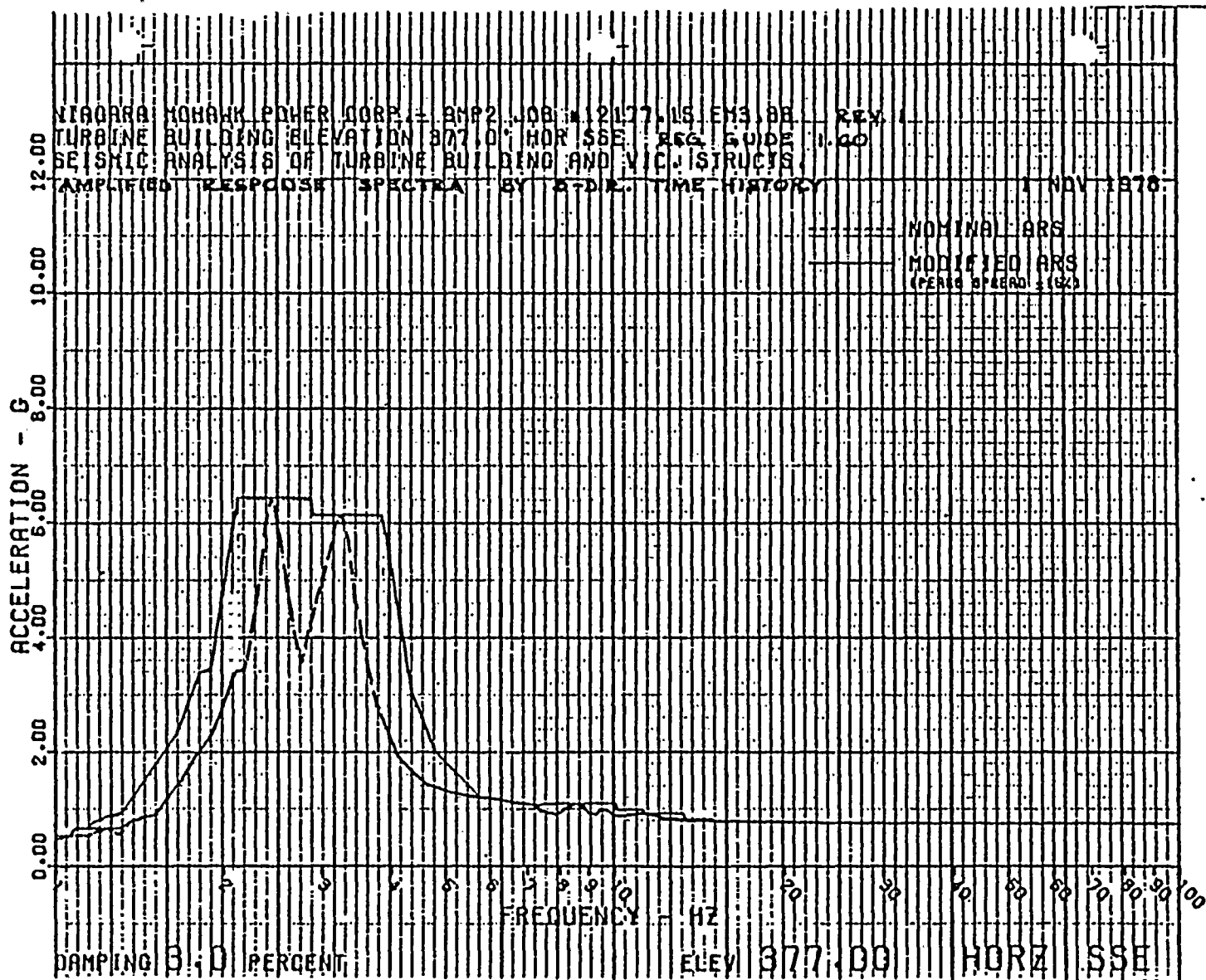
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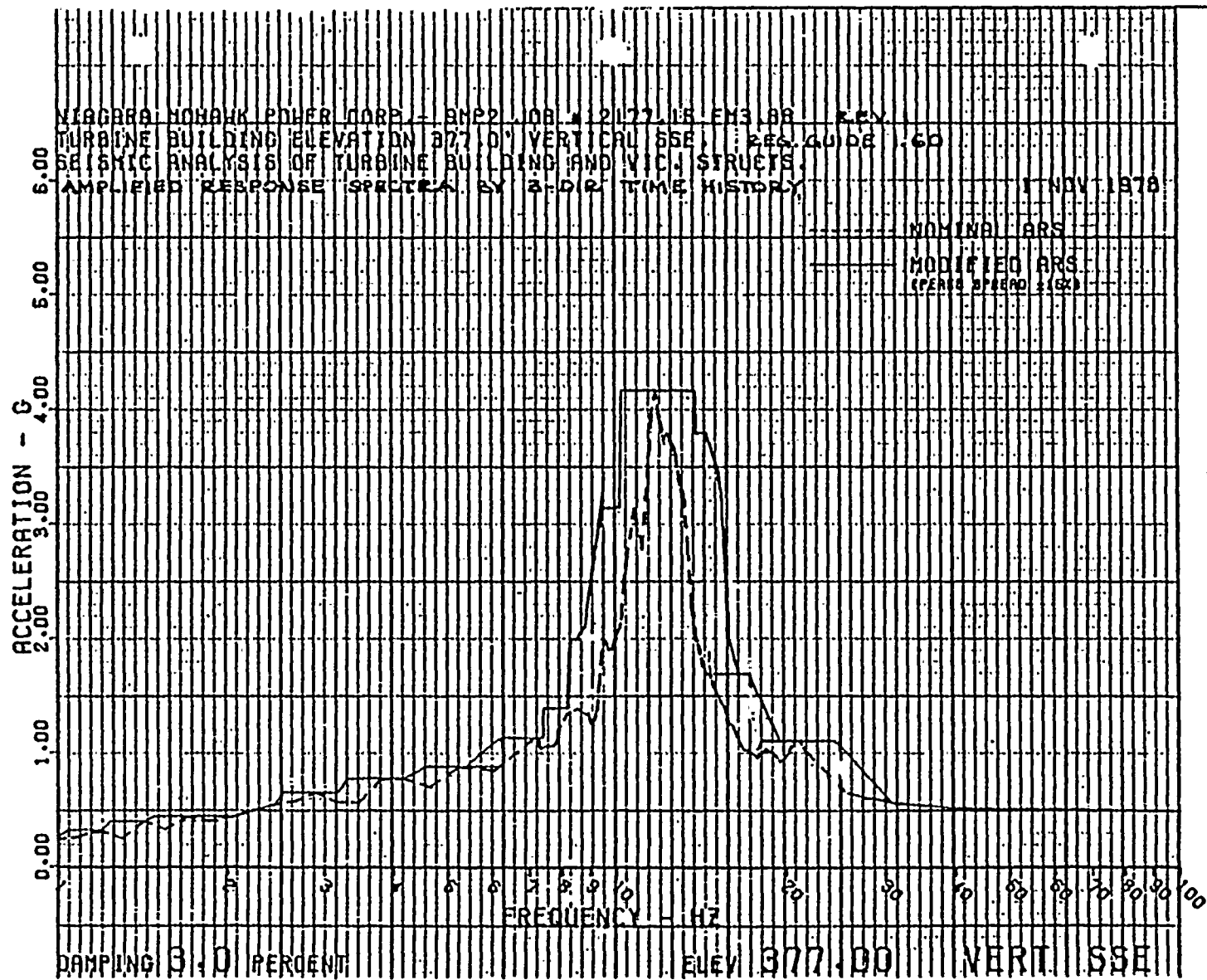
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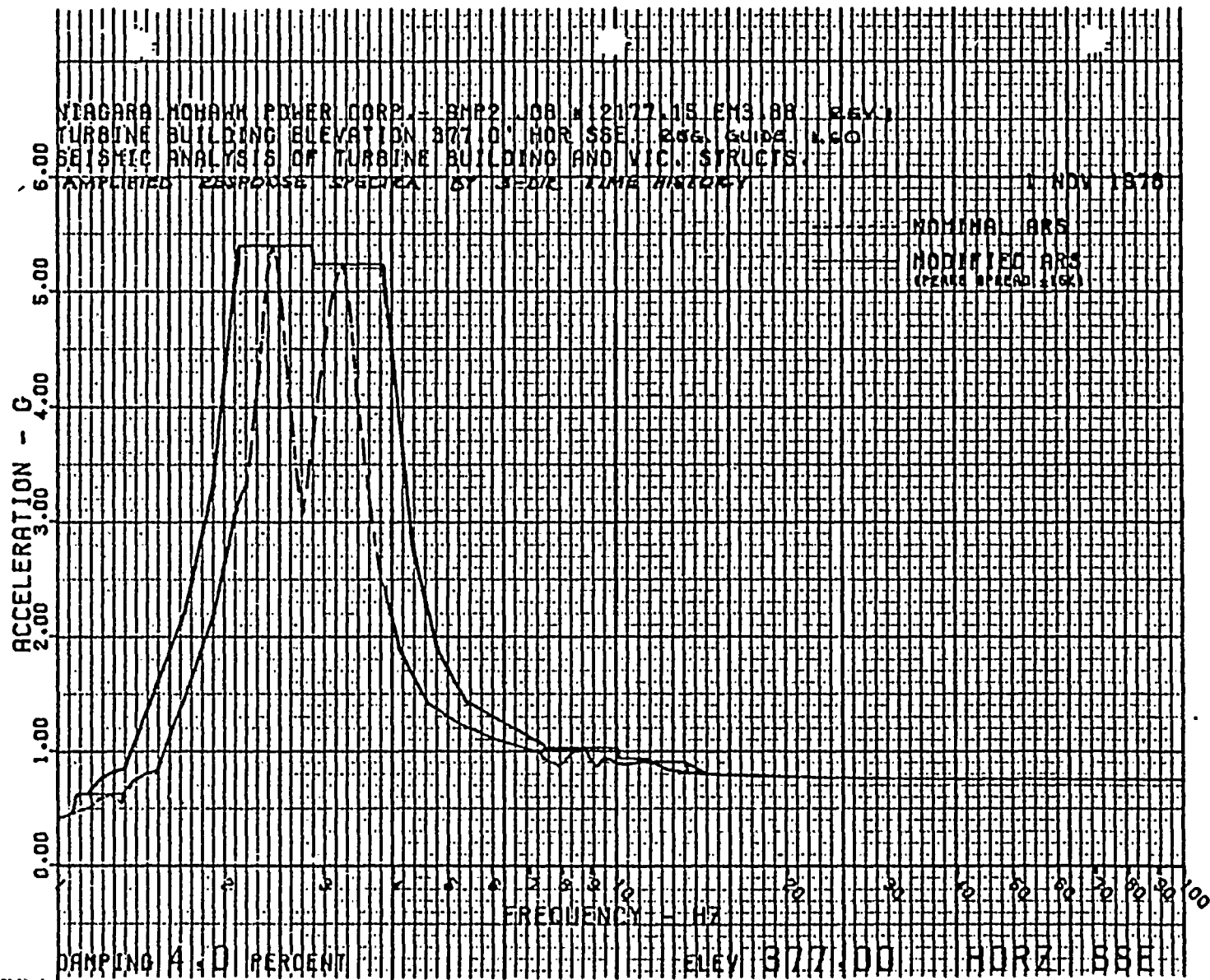
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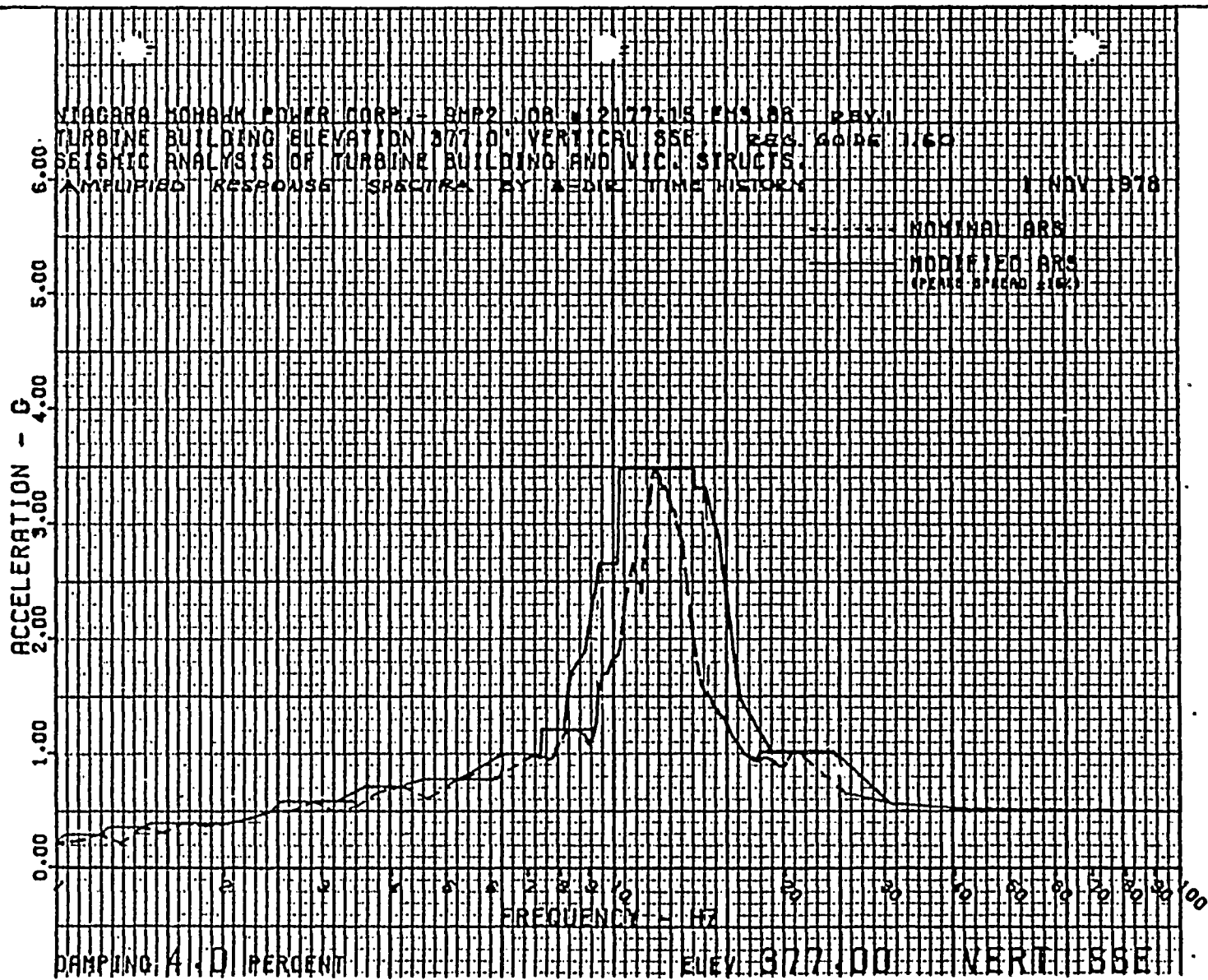
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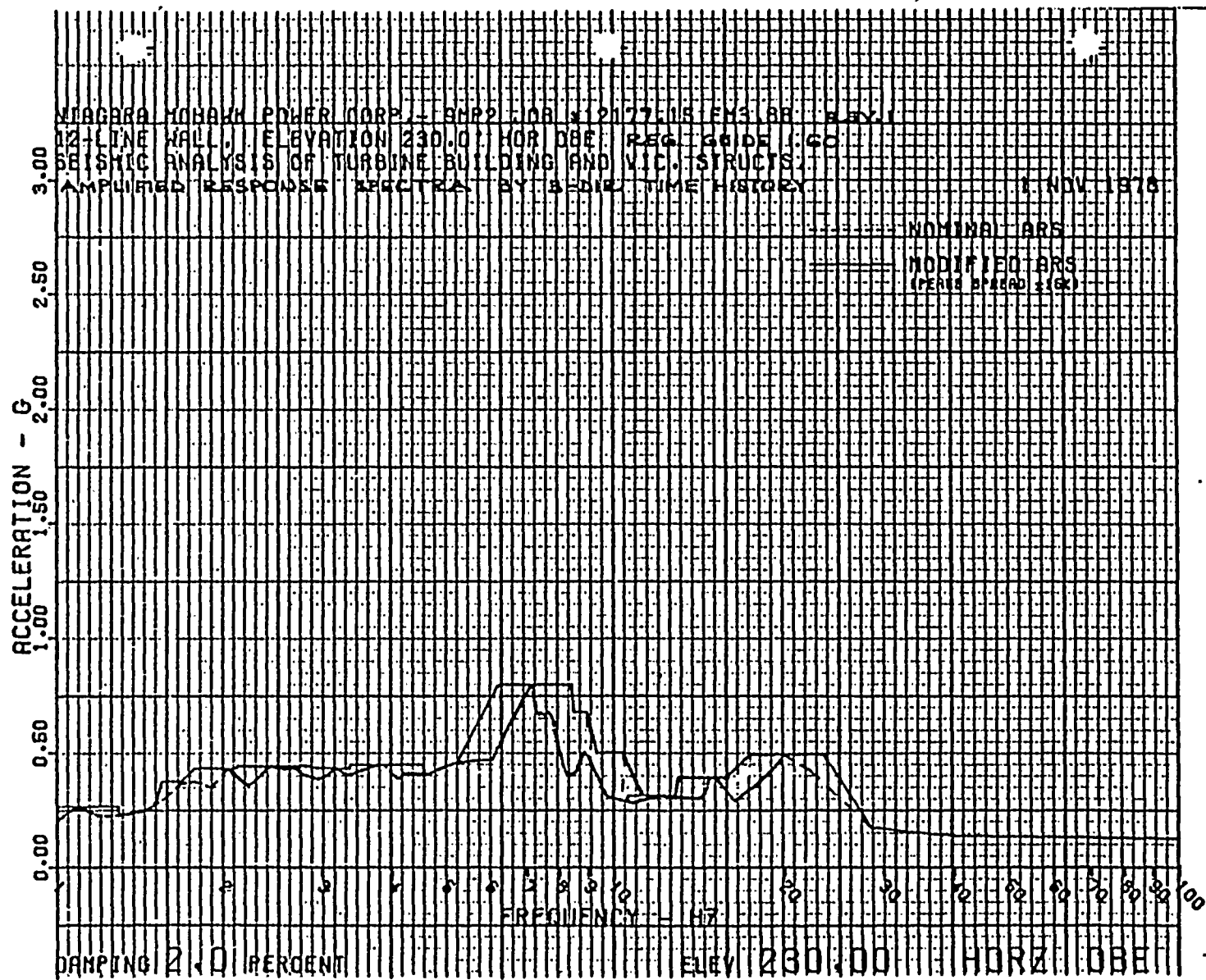
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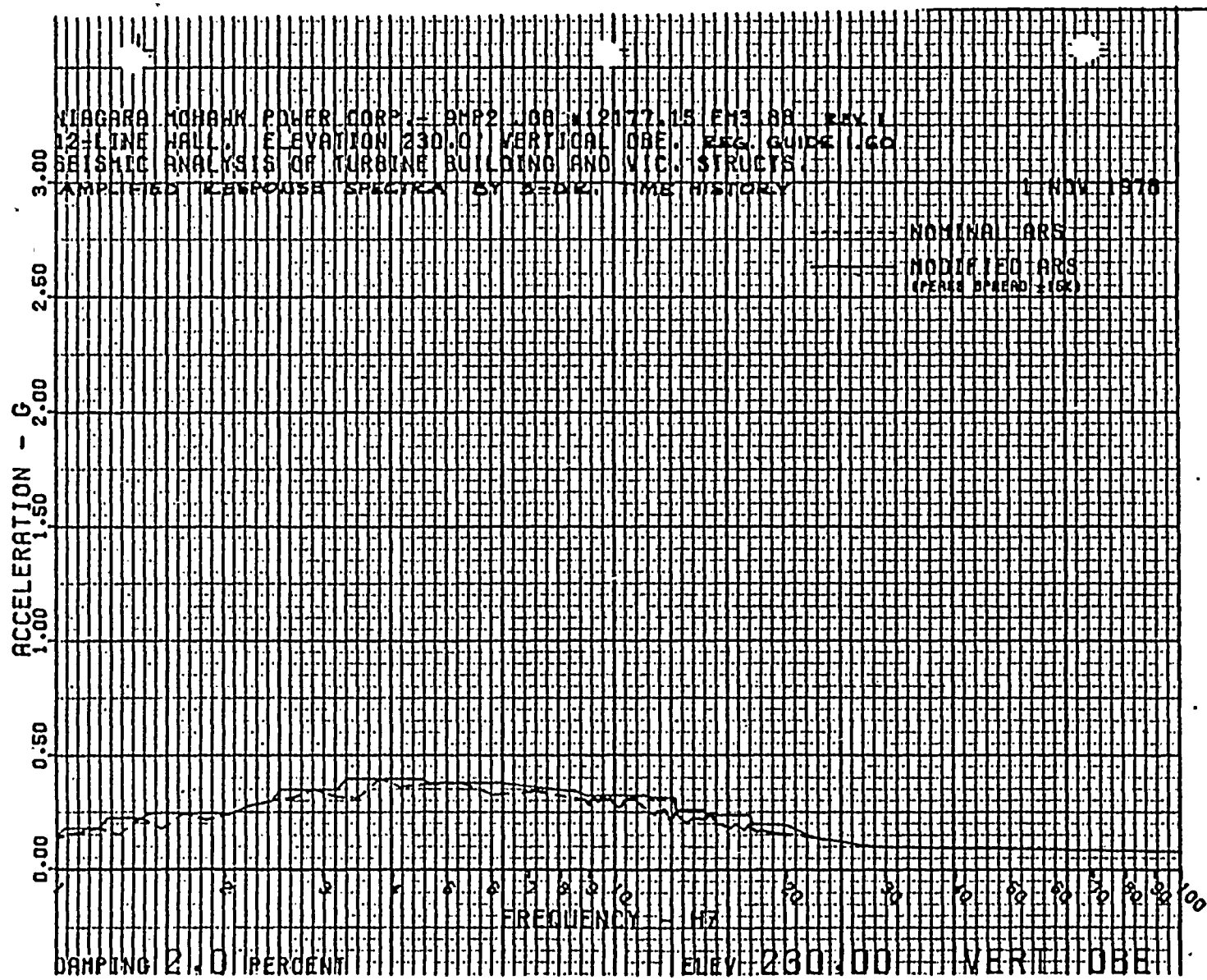
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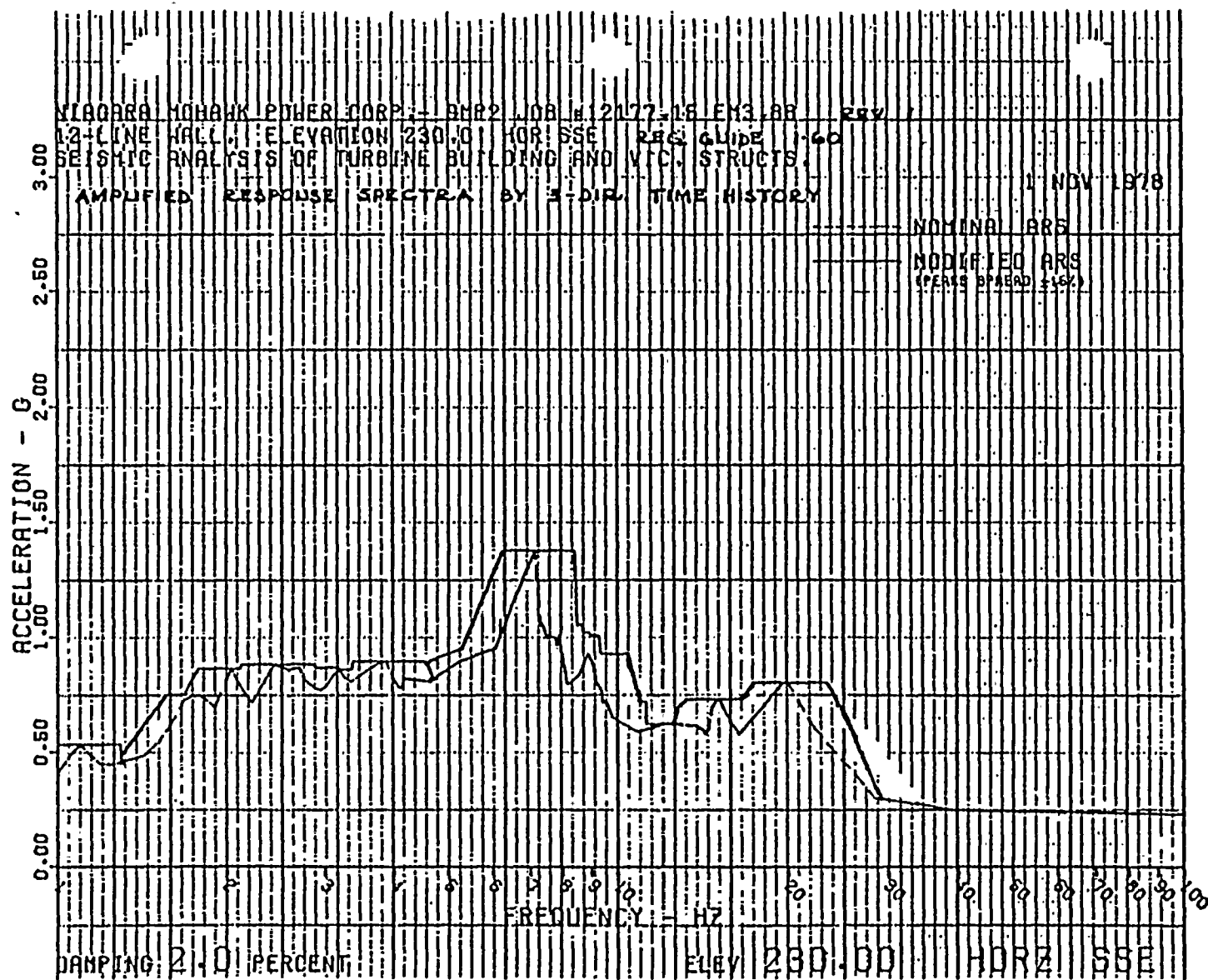
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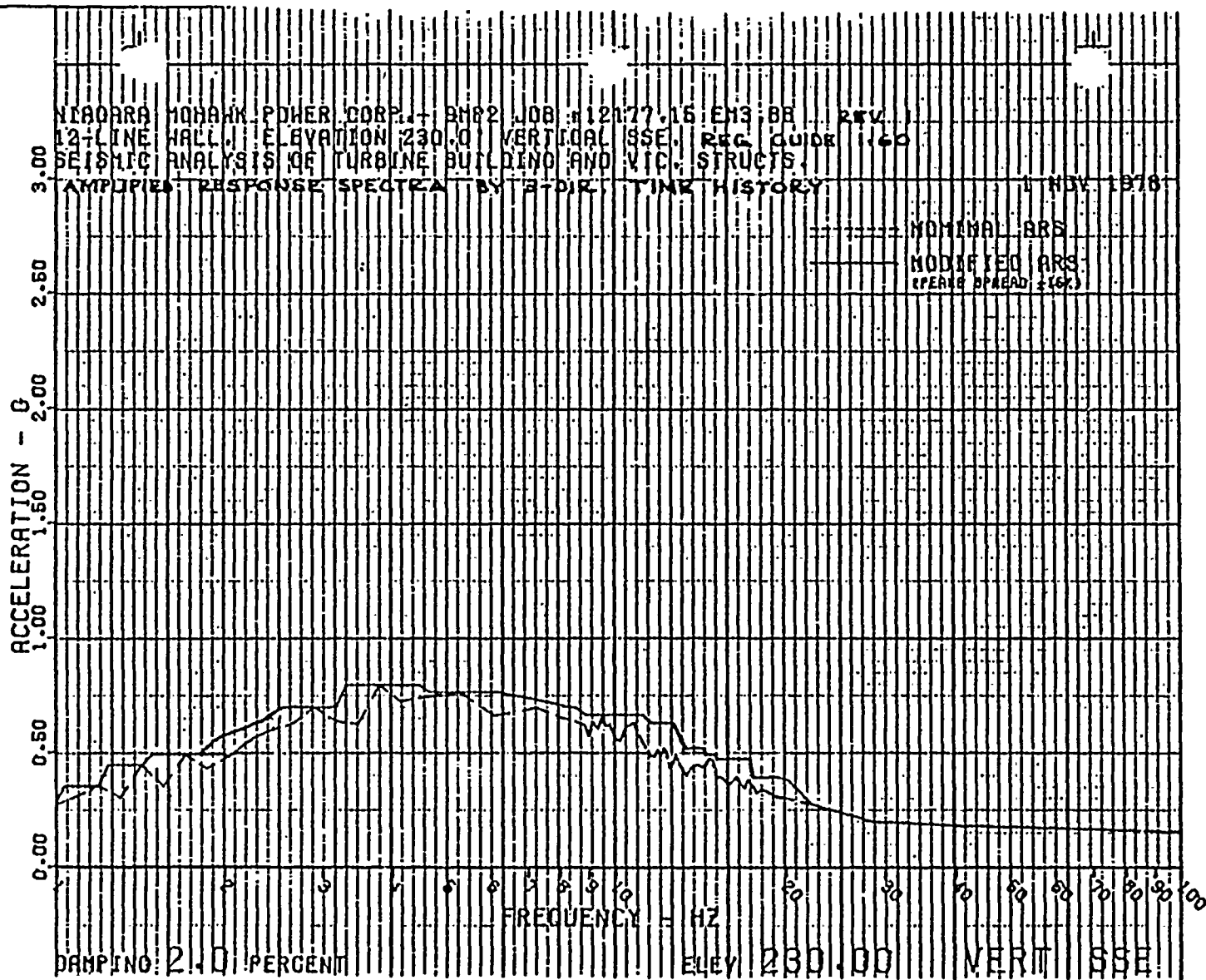
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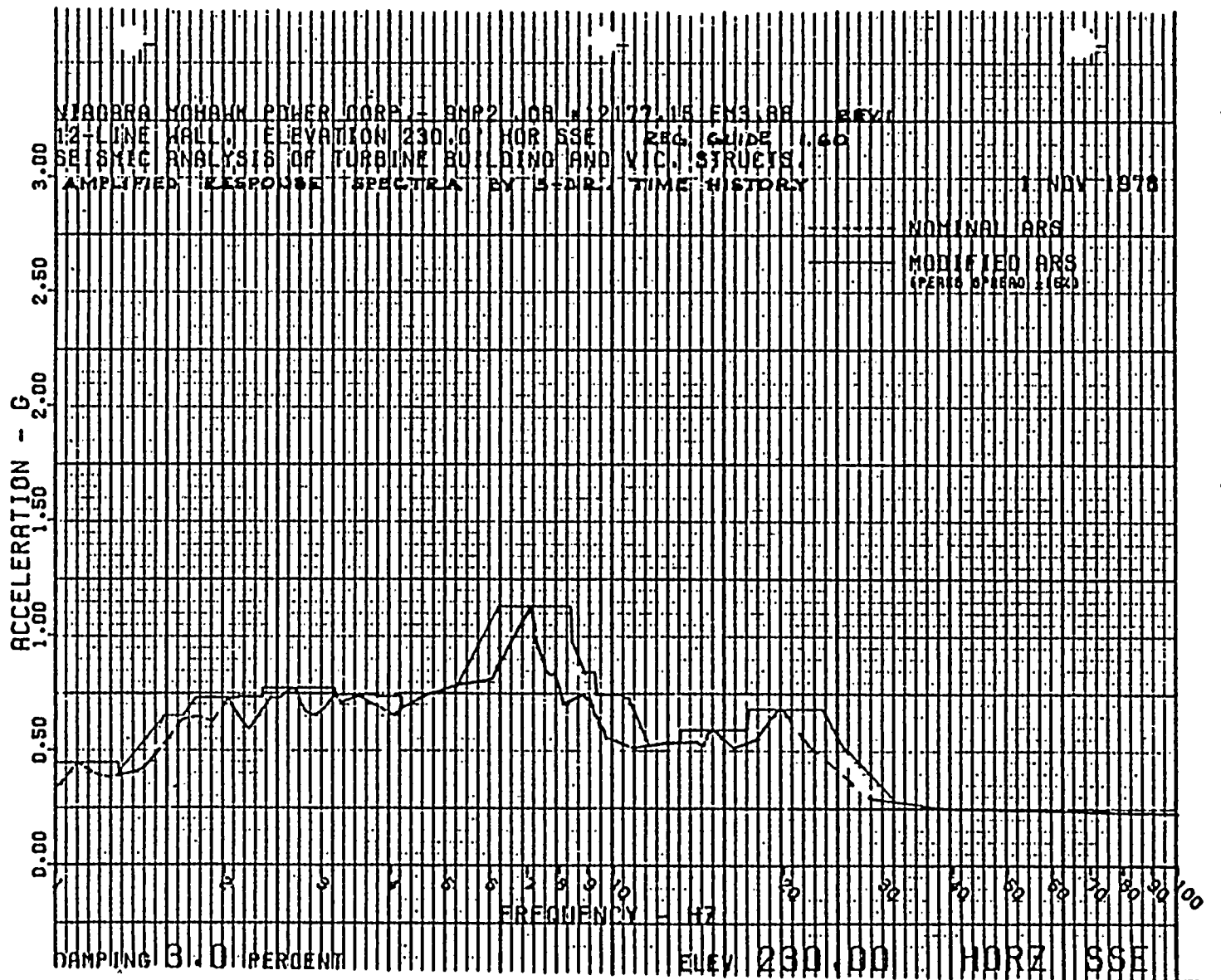
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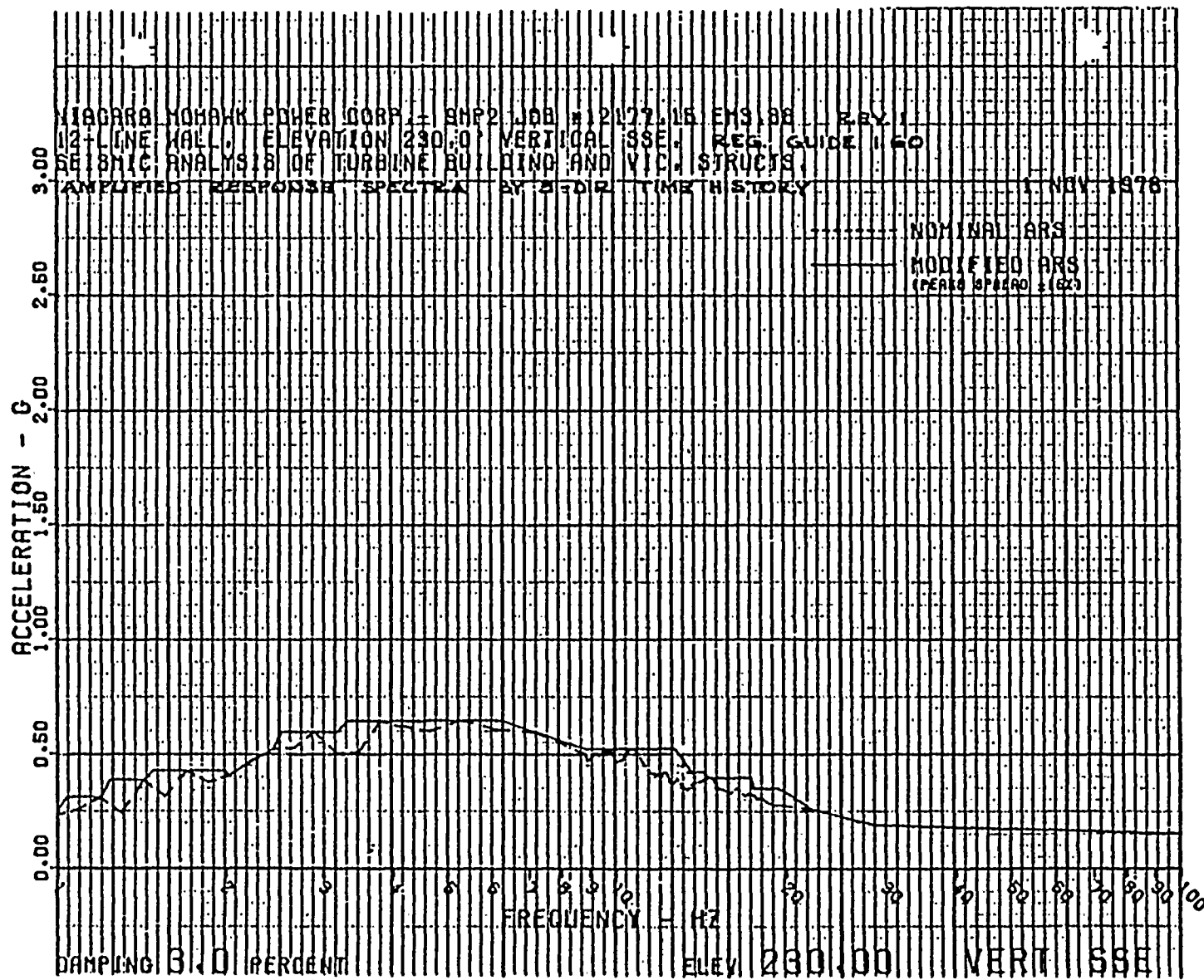
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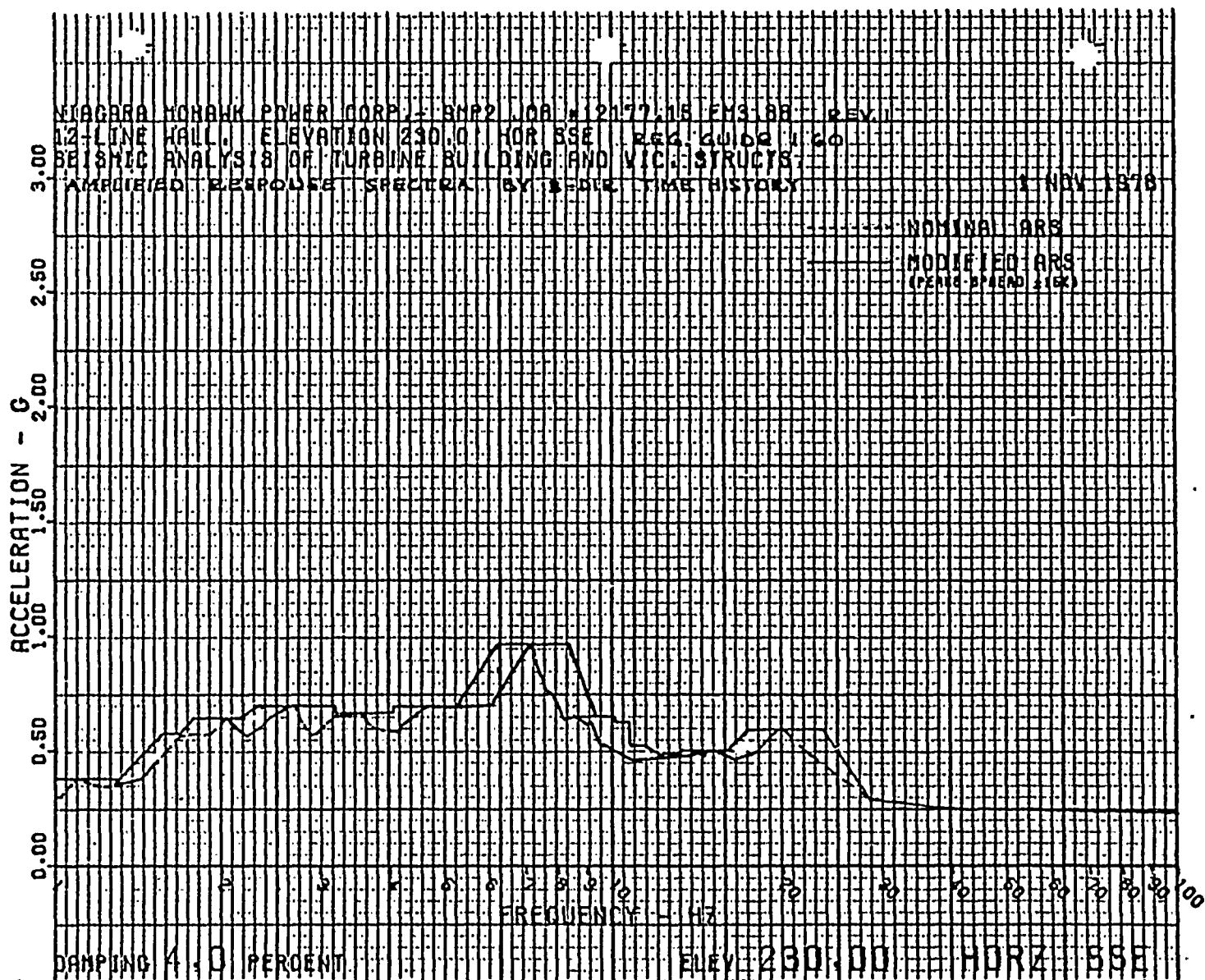
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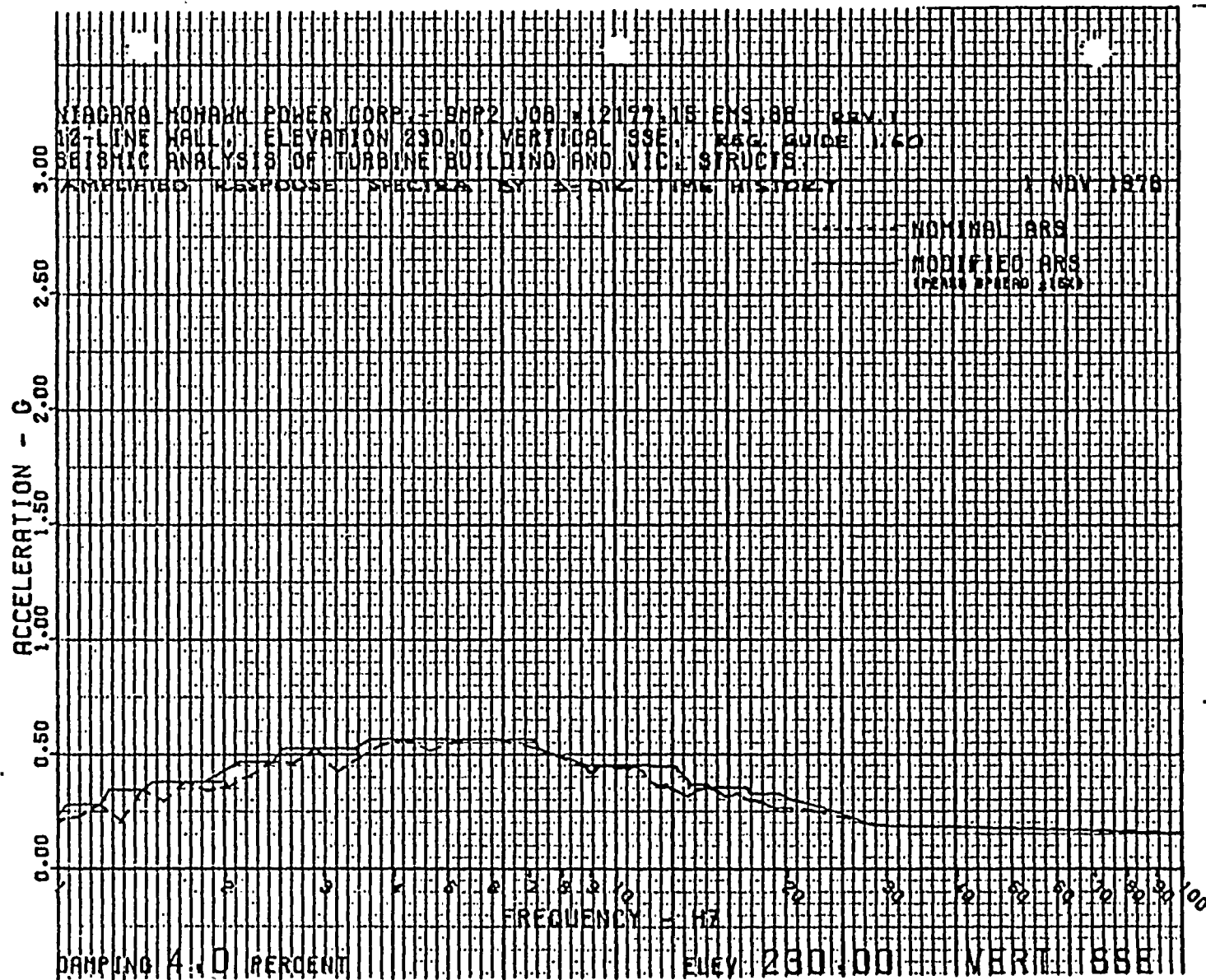
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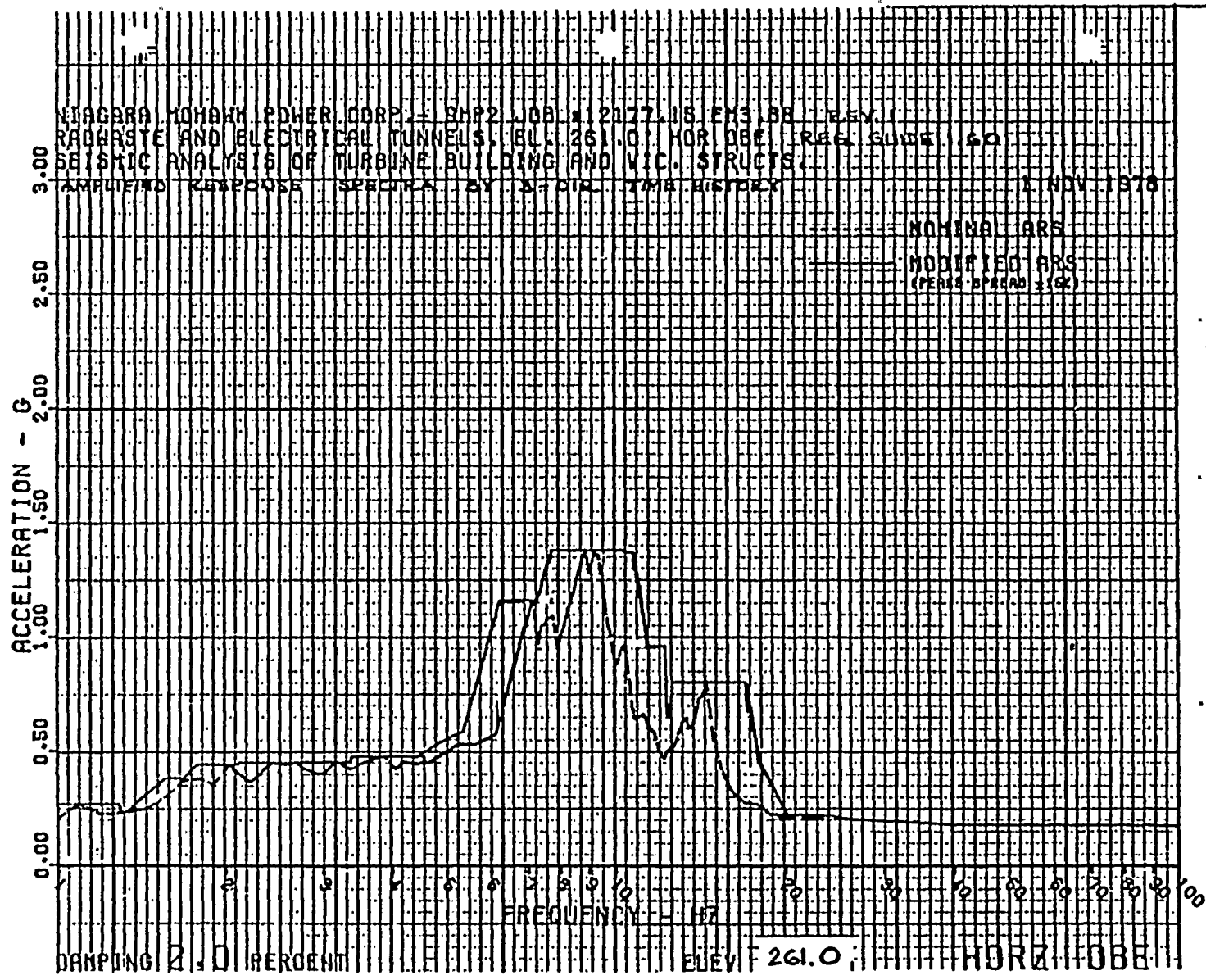
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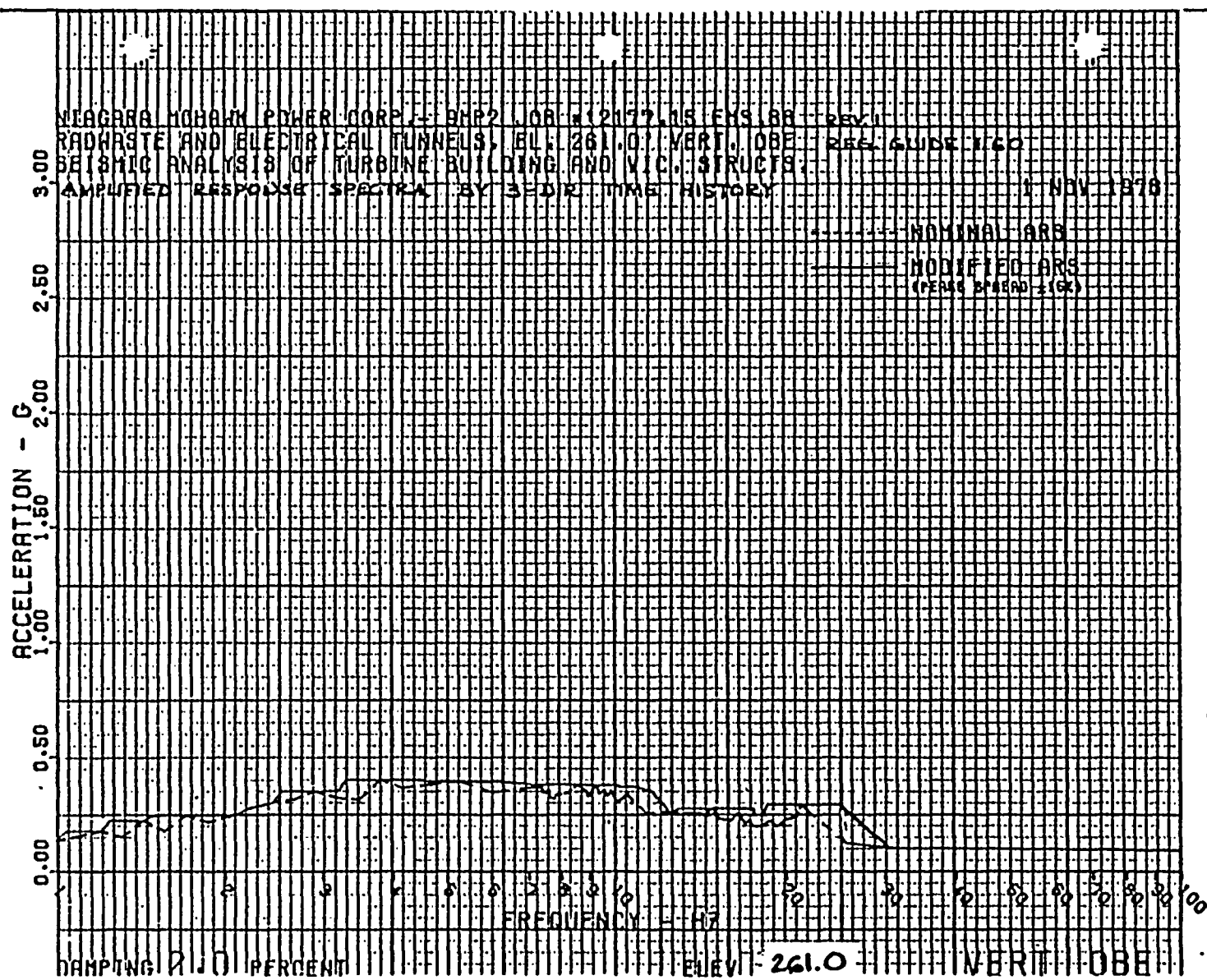
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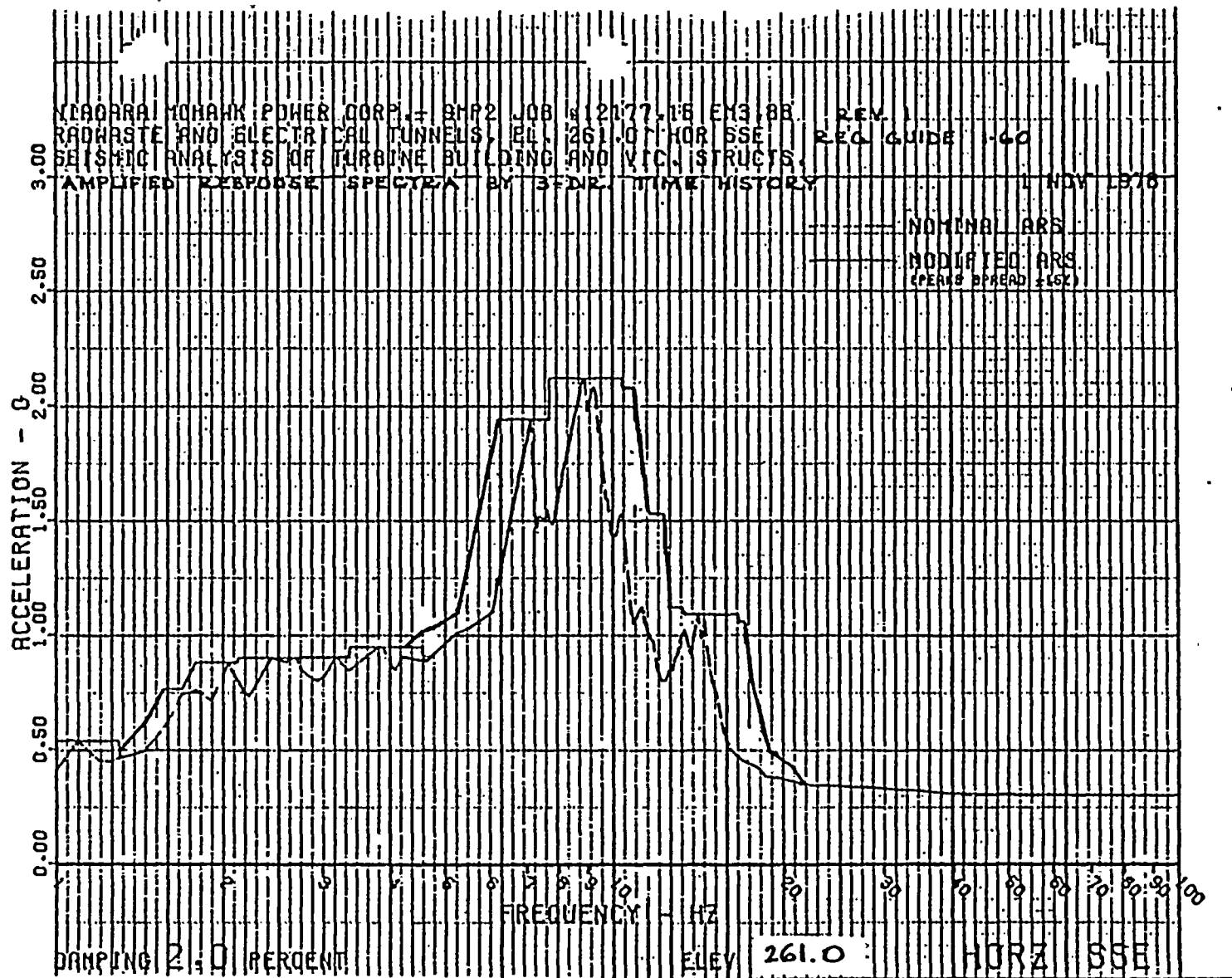
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MS-1373 REV 0 REF 11
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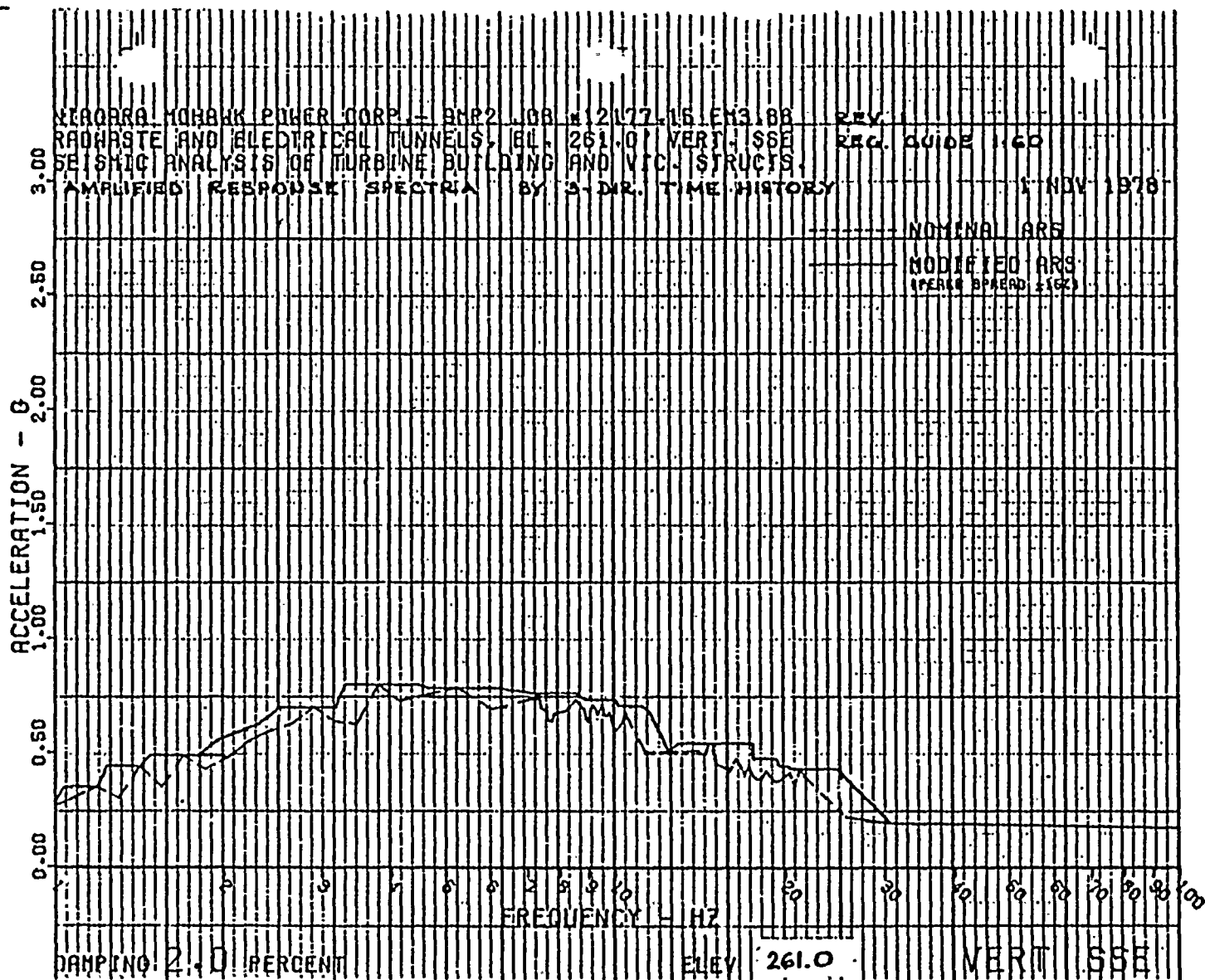




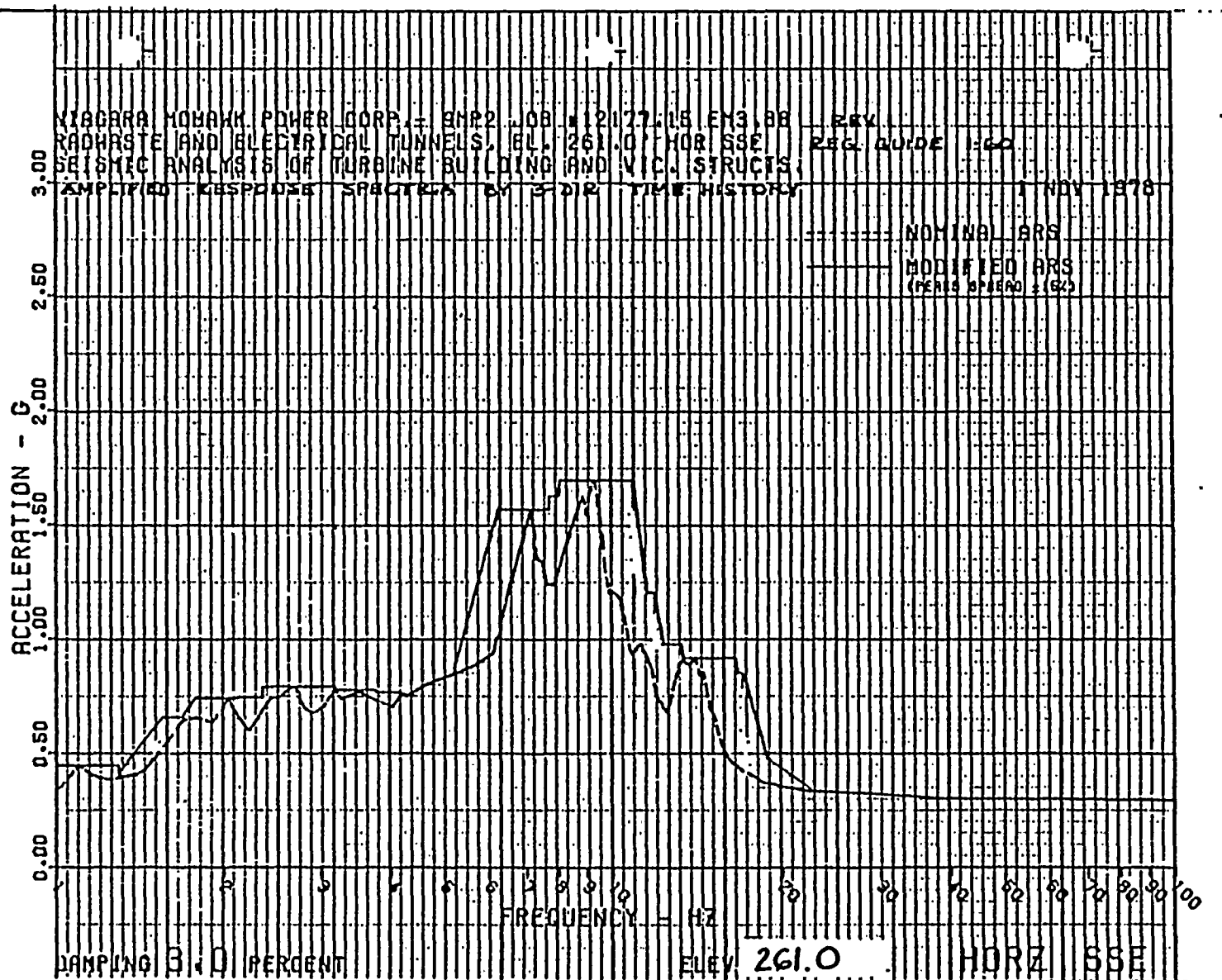
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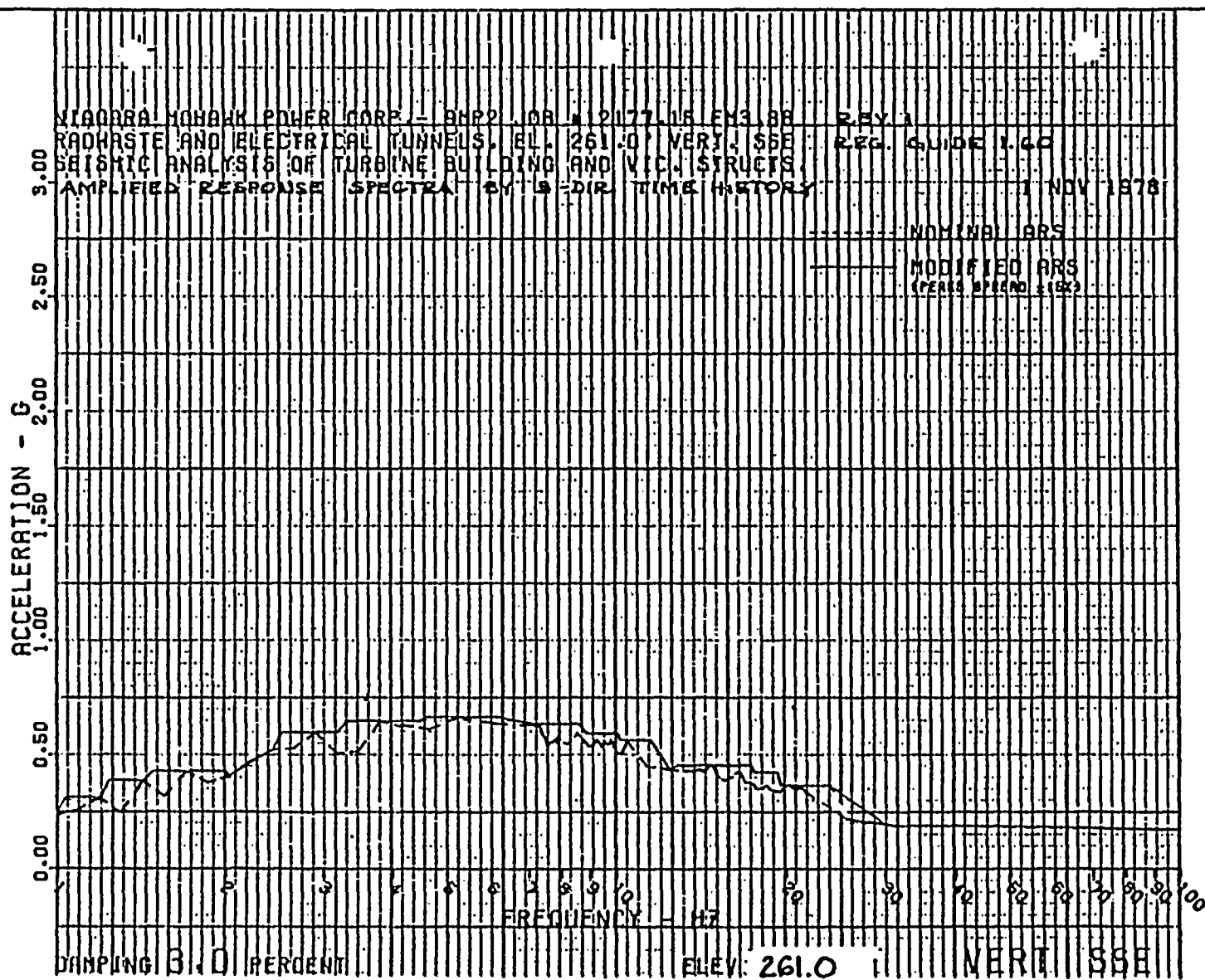


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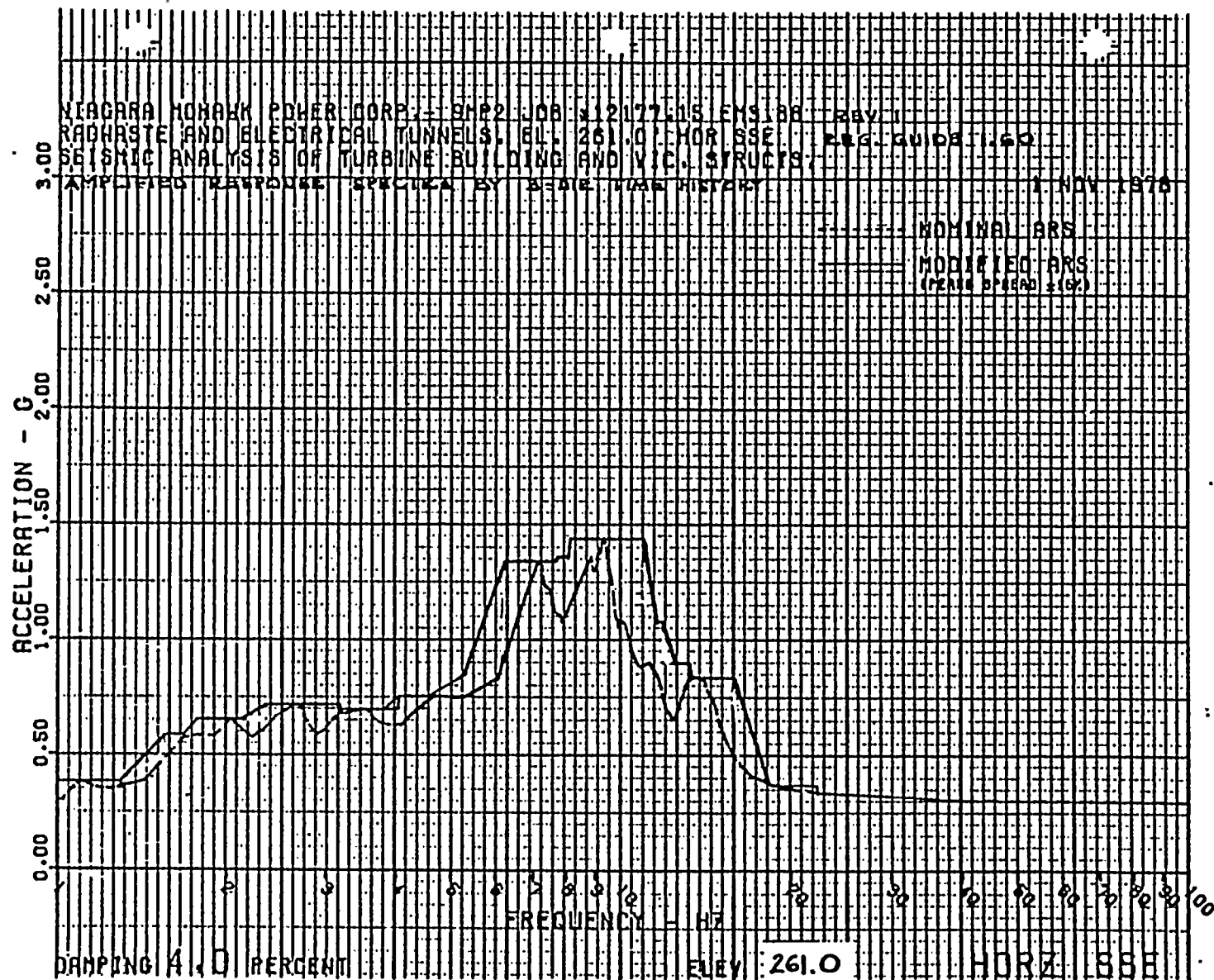
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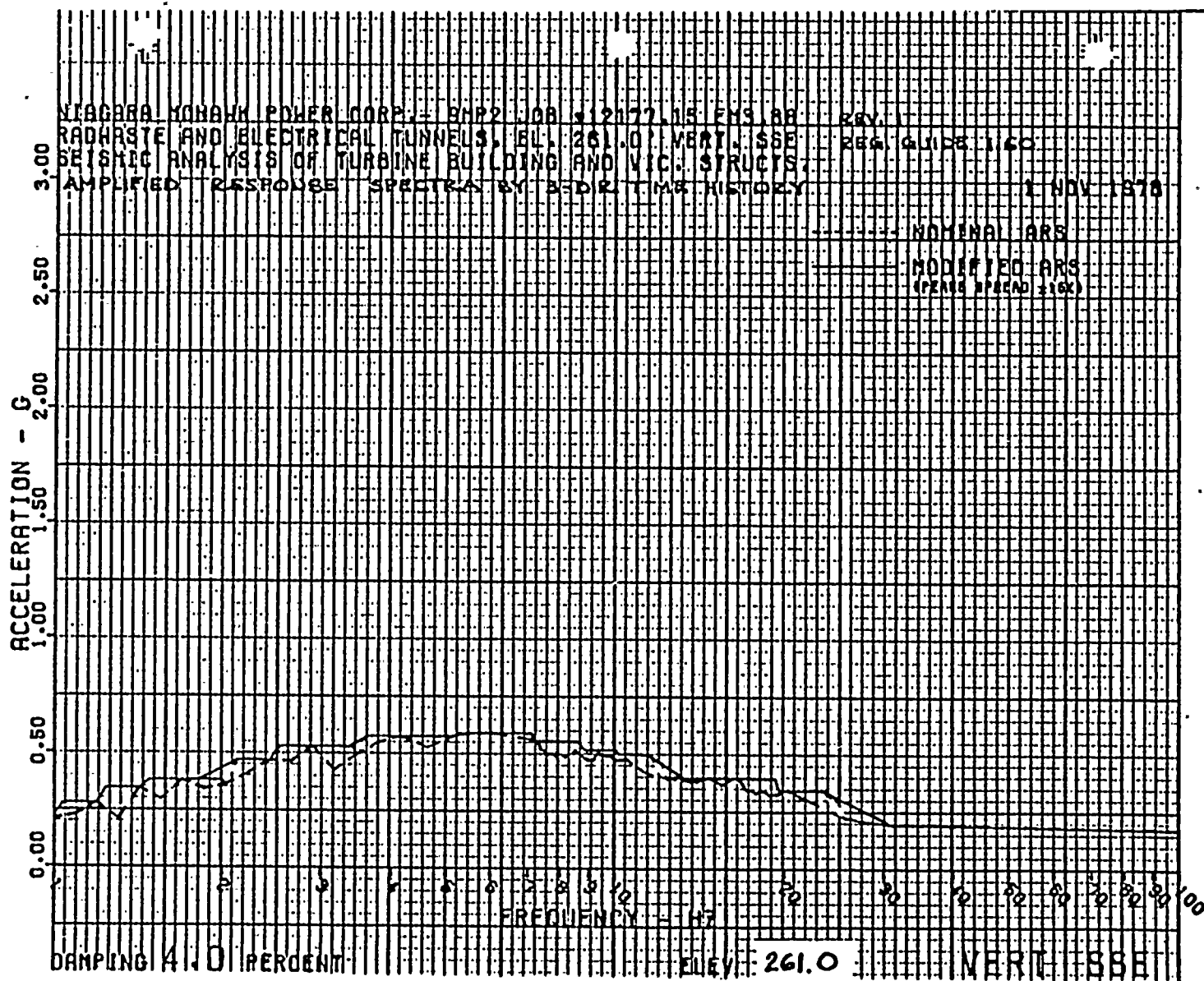
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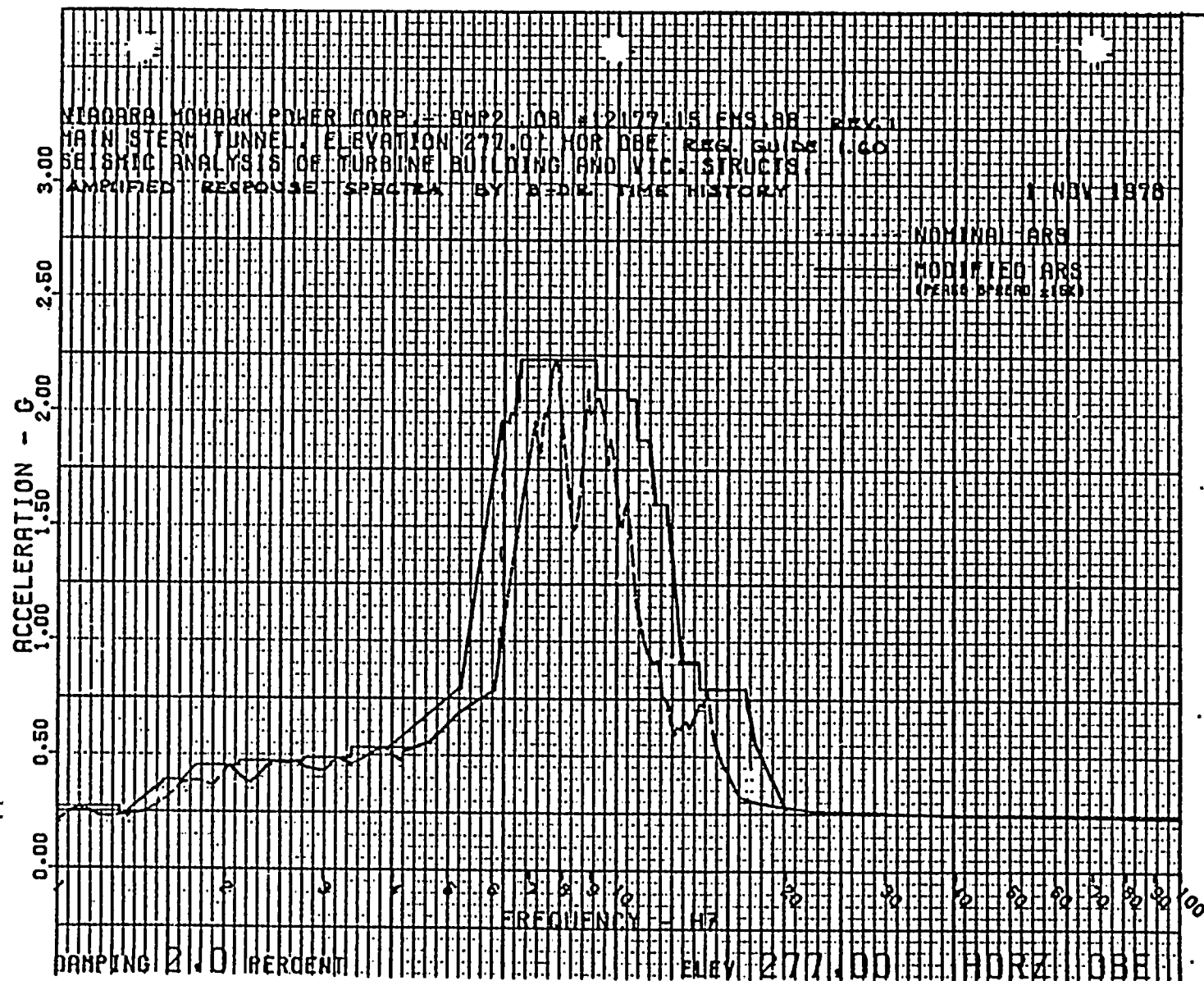


MS-1373 REV 0 REF 11
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MS-1373 REV 0 REF 11
 12177

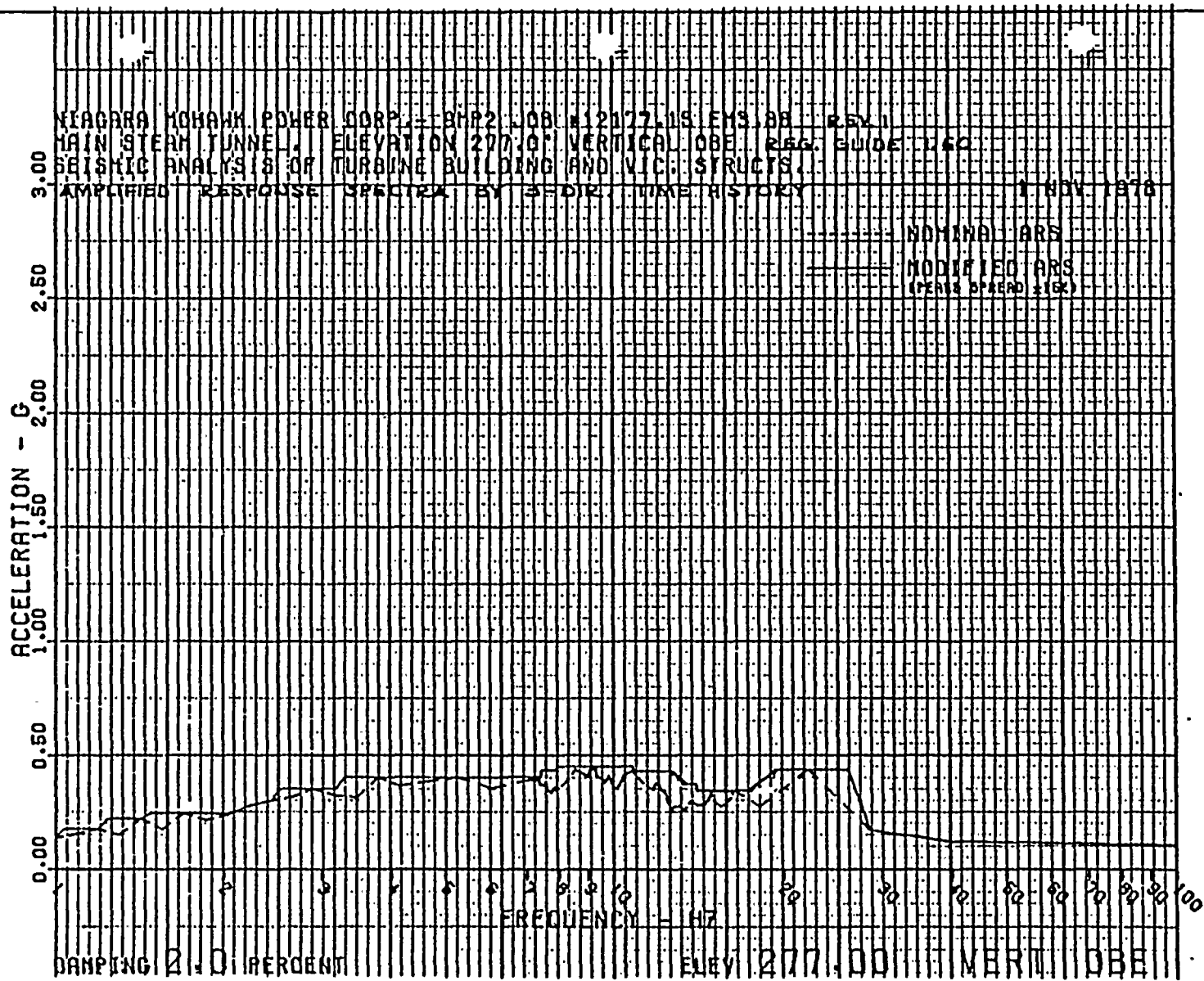


HS-1373 REV 0 REF 12
 12177



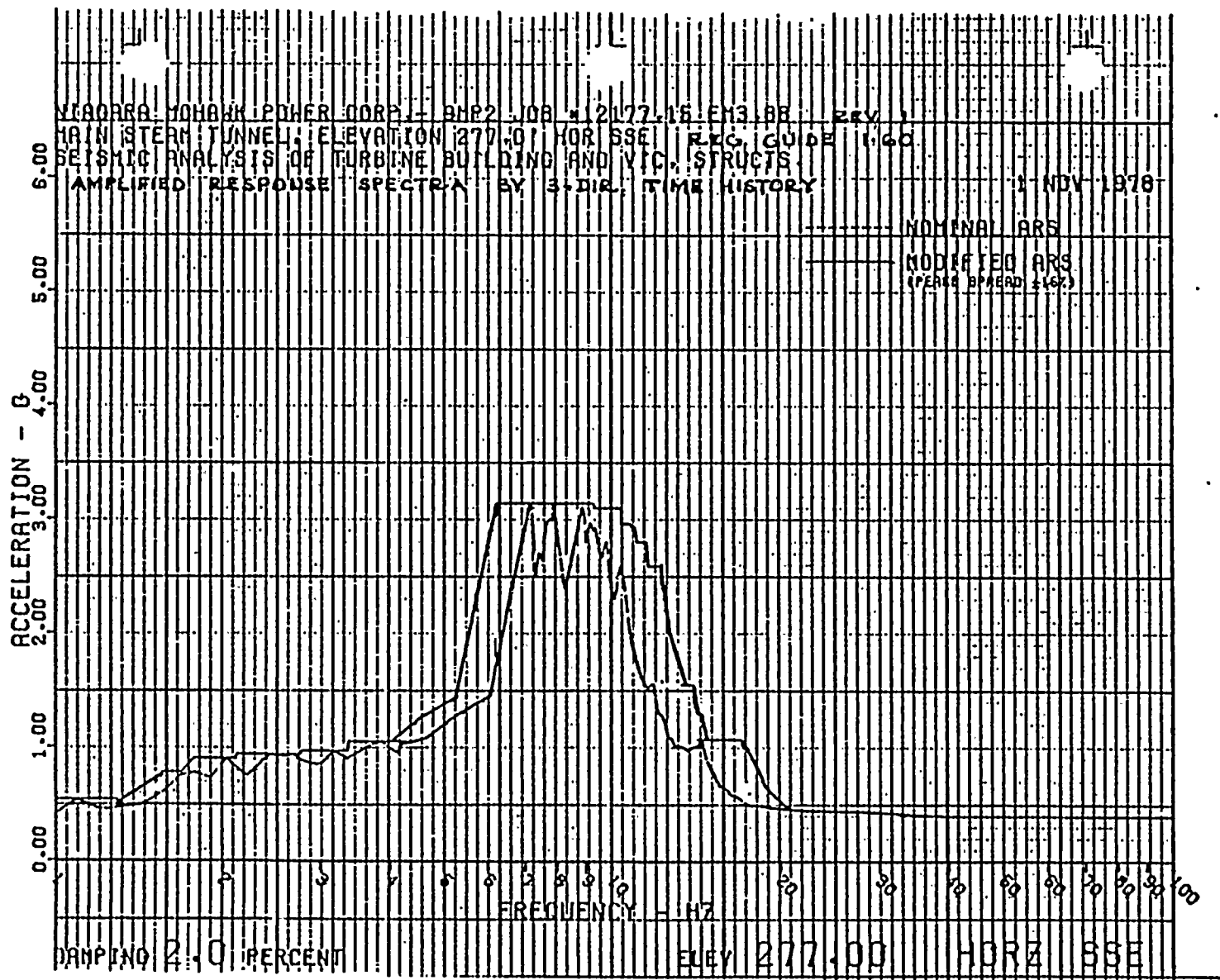
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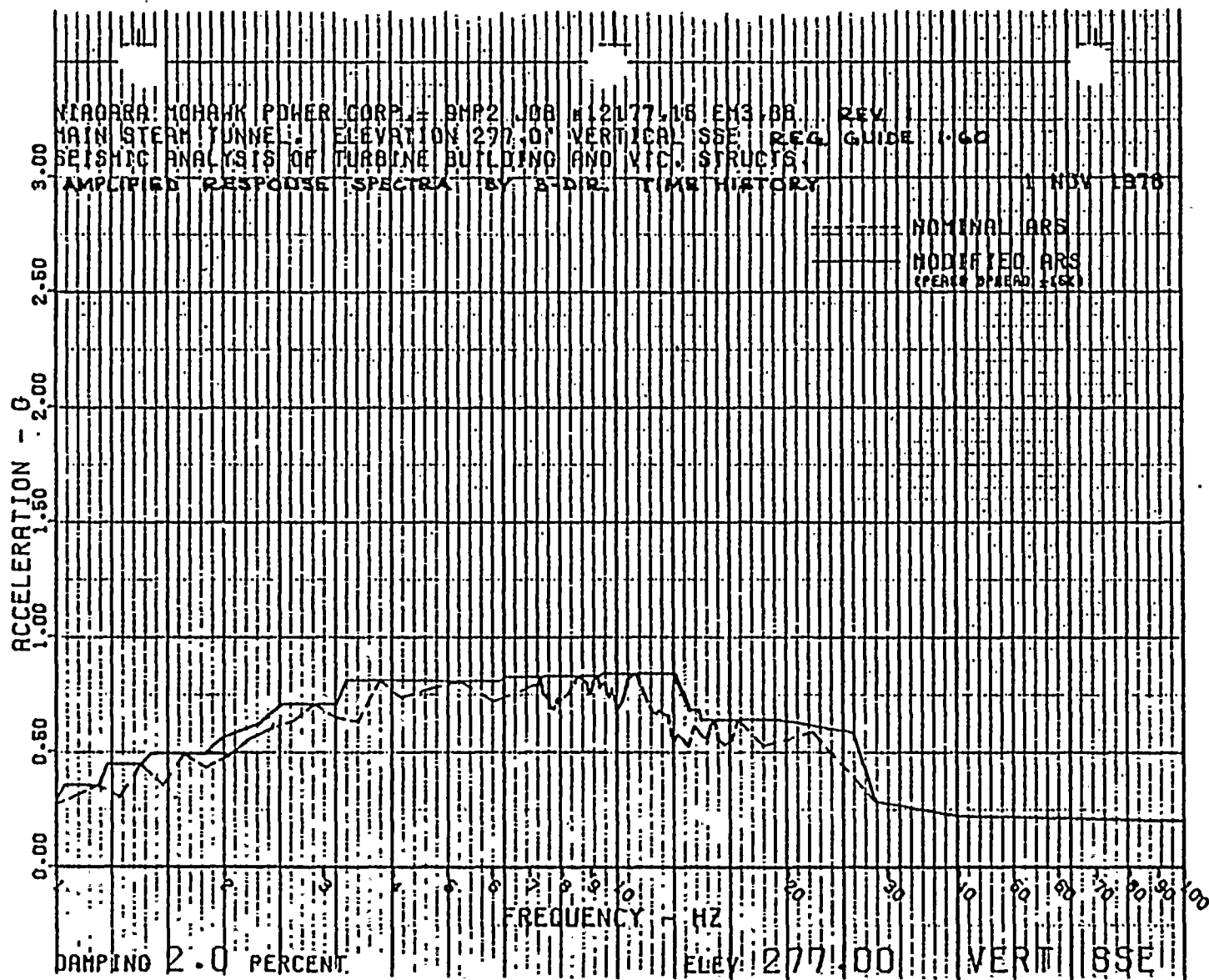
MS-1373 REV 10 REF 12
 12177





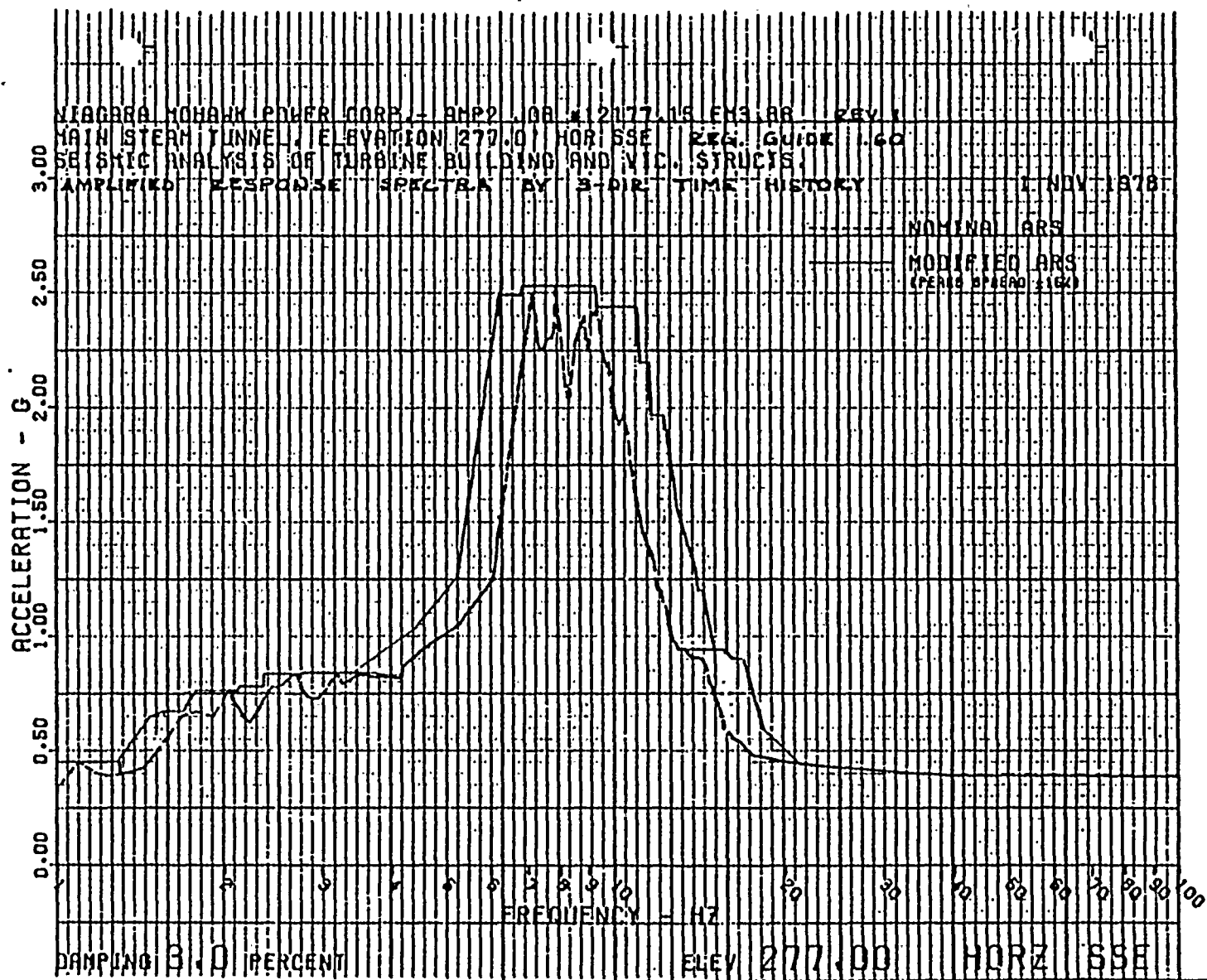
MS-1373 REV 0 REF 12
 12177





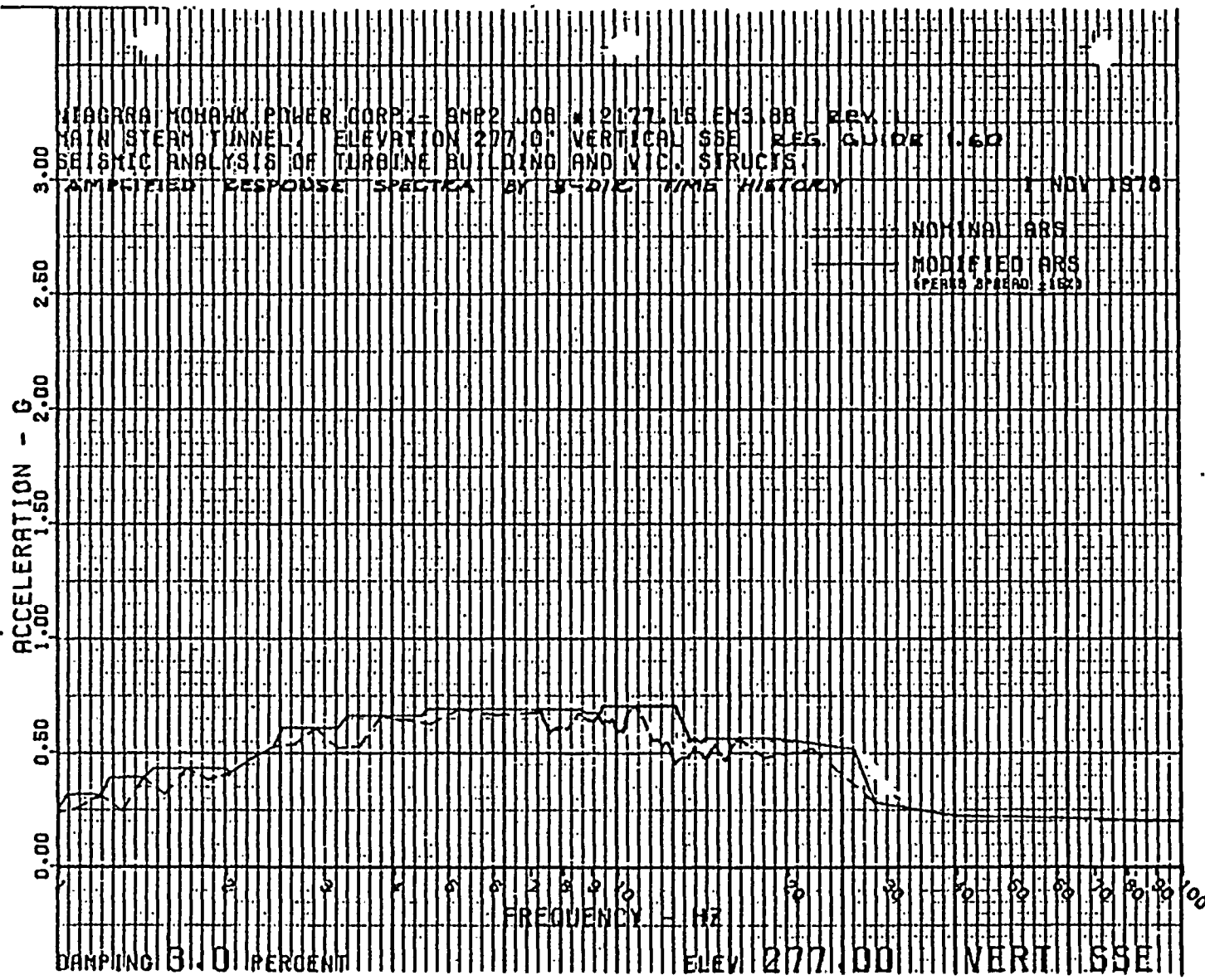
MS-1373 REV 0 REF 12
 12177





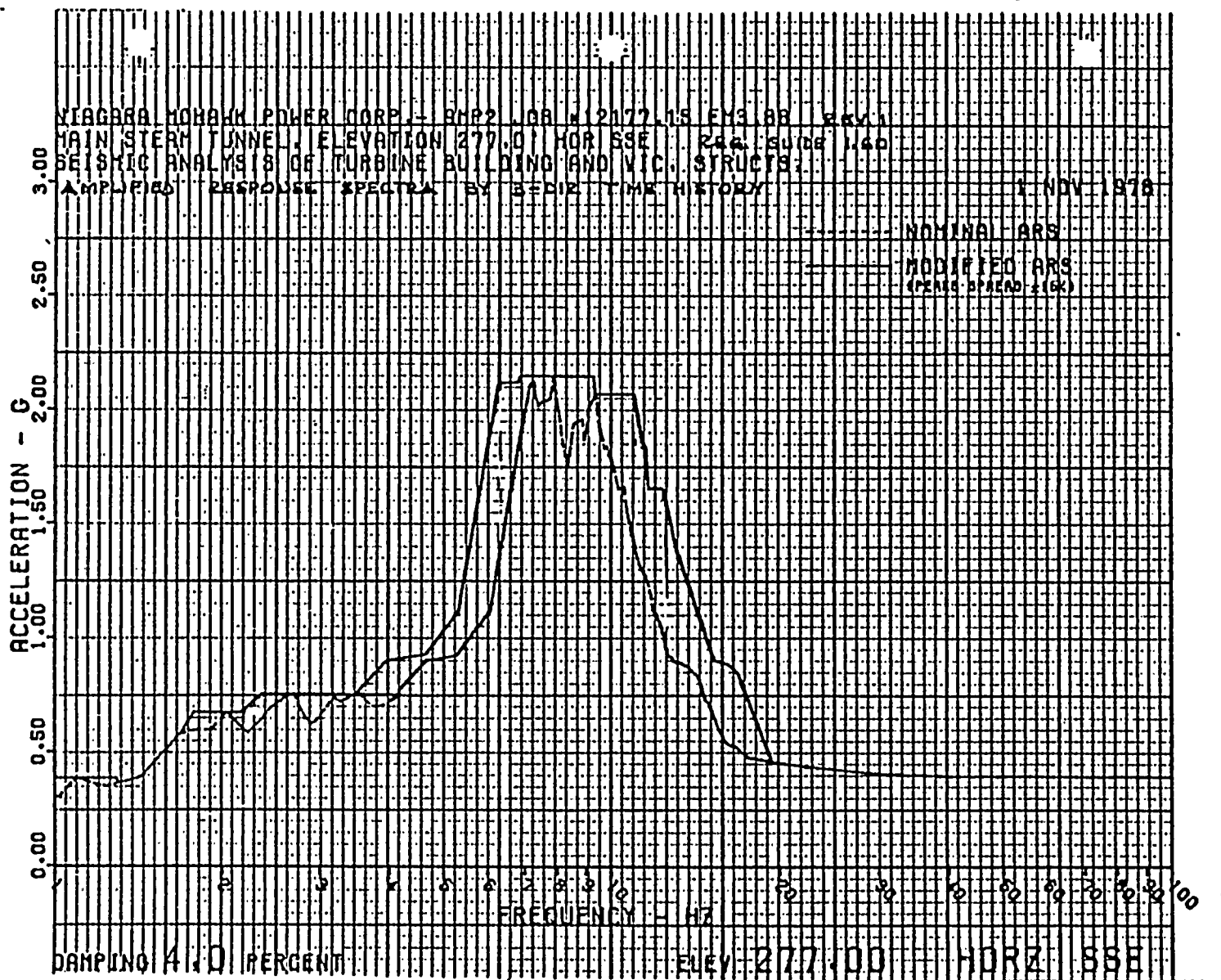
MS-1373 REV 0 REF 12
 12177





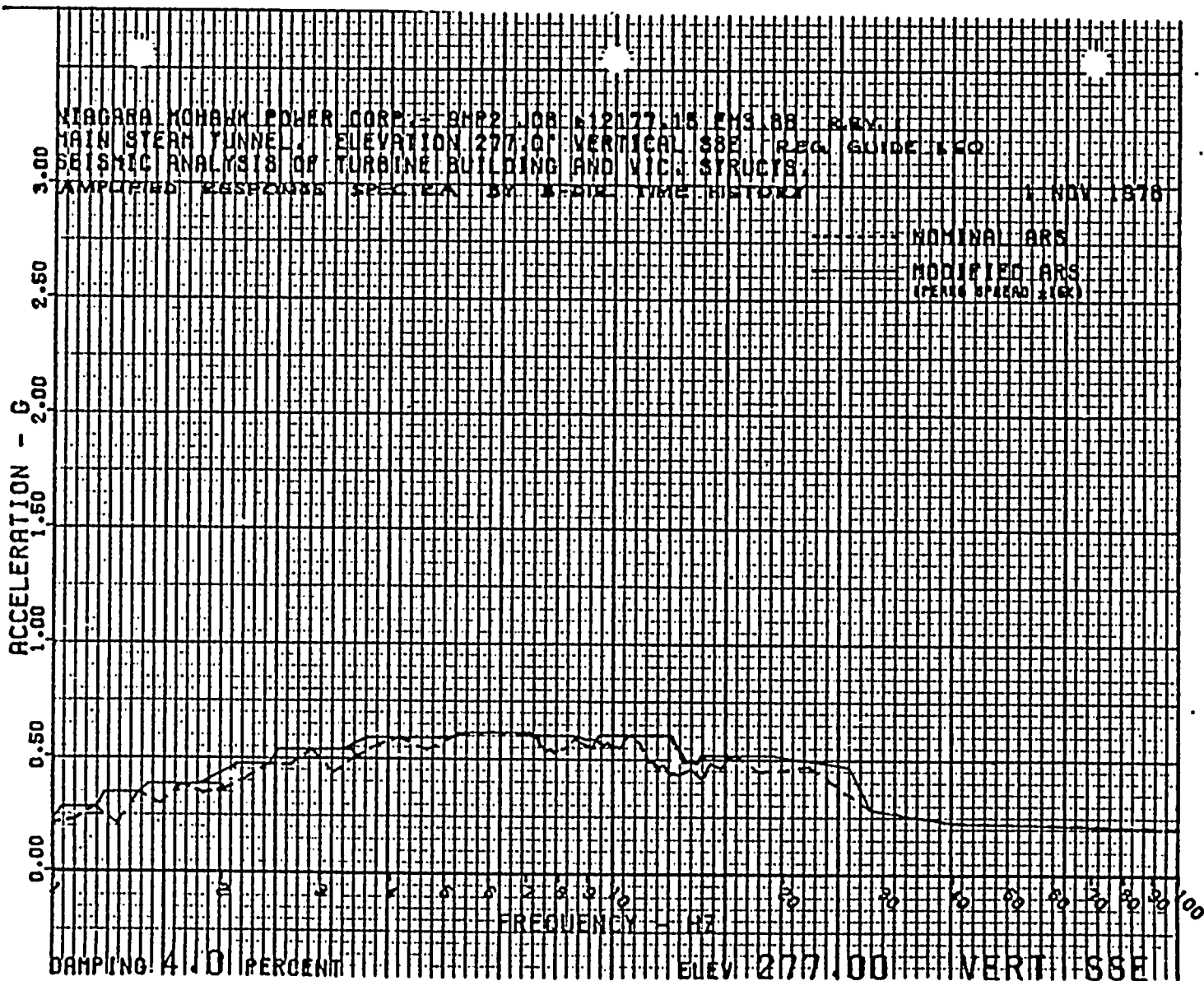
HS-1373 REV0 REF 12
 12.77





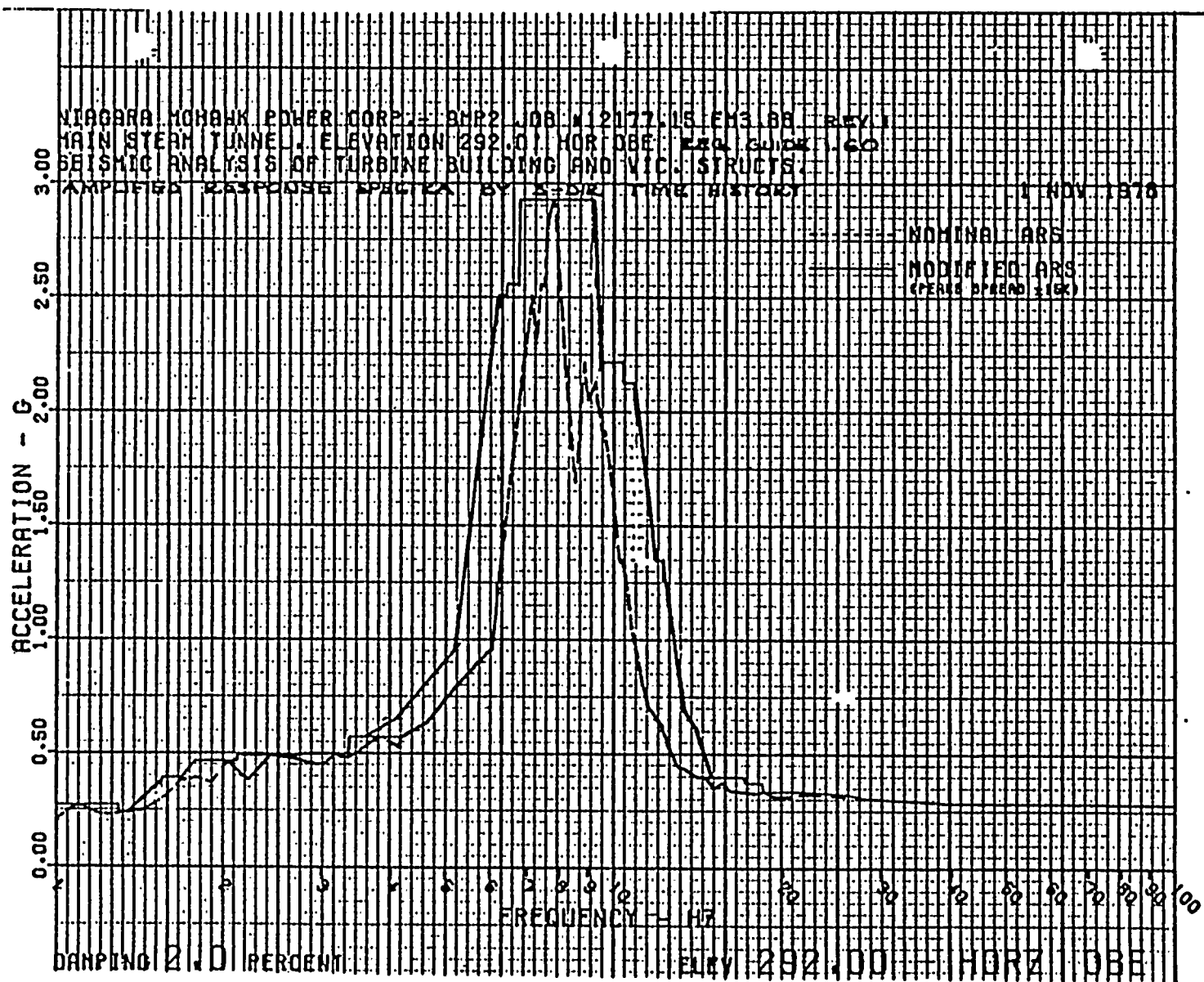
MS 1373 REV 0 REF 12
 12177





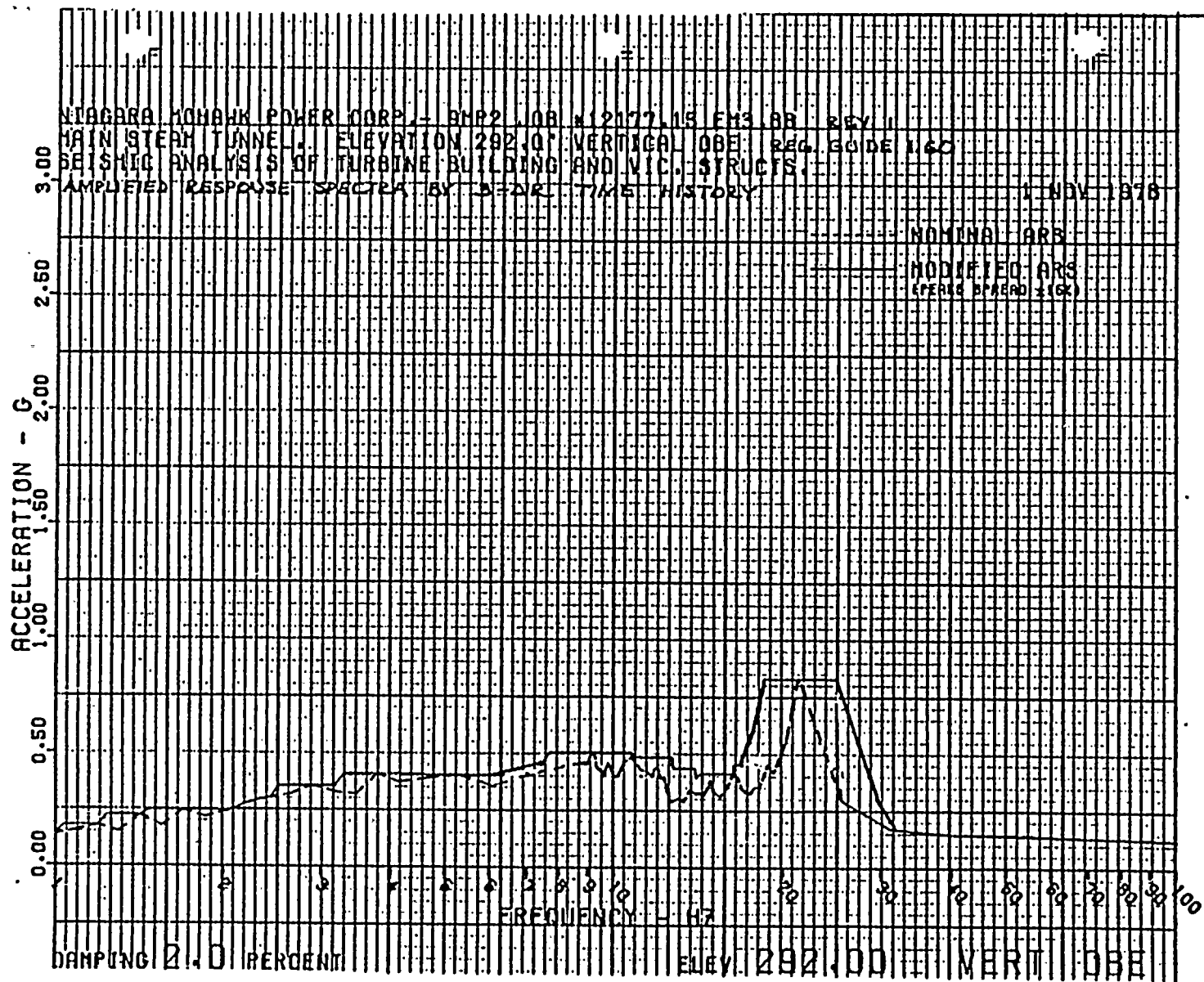
MS-1373 REV 0 REF 12
 12177





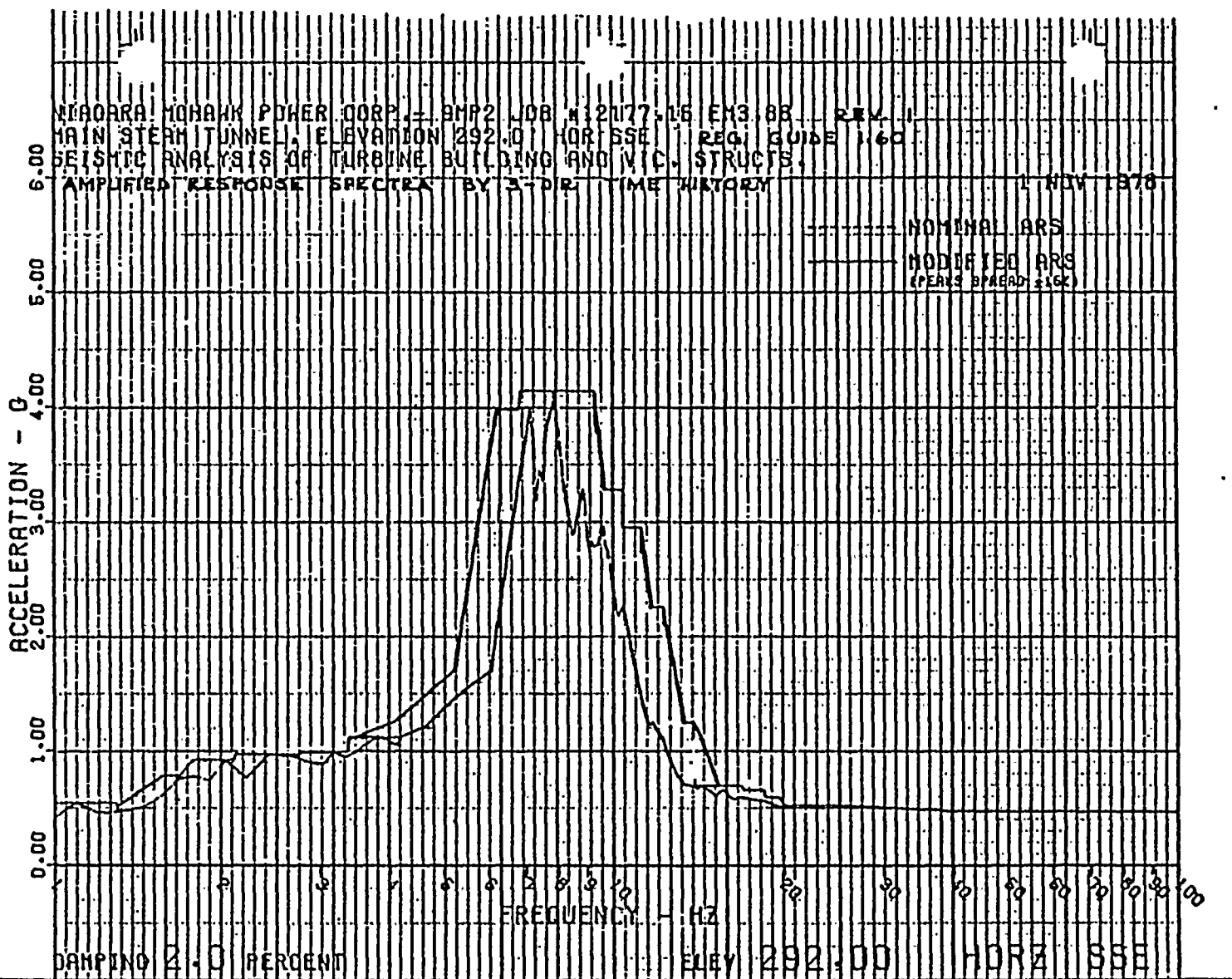
MS-1373 REV 0 REF 13
 12177





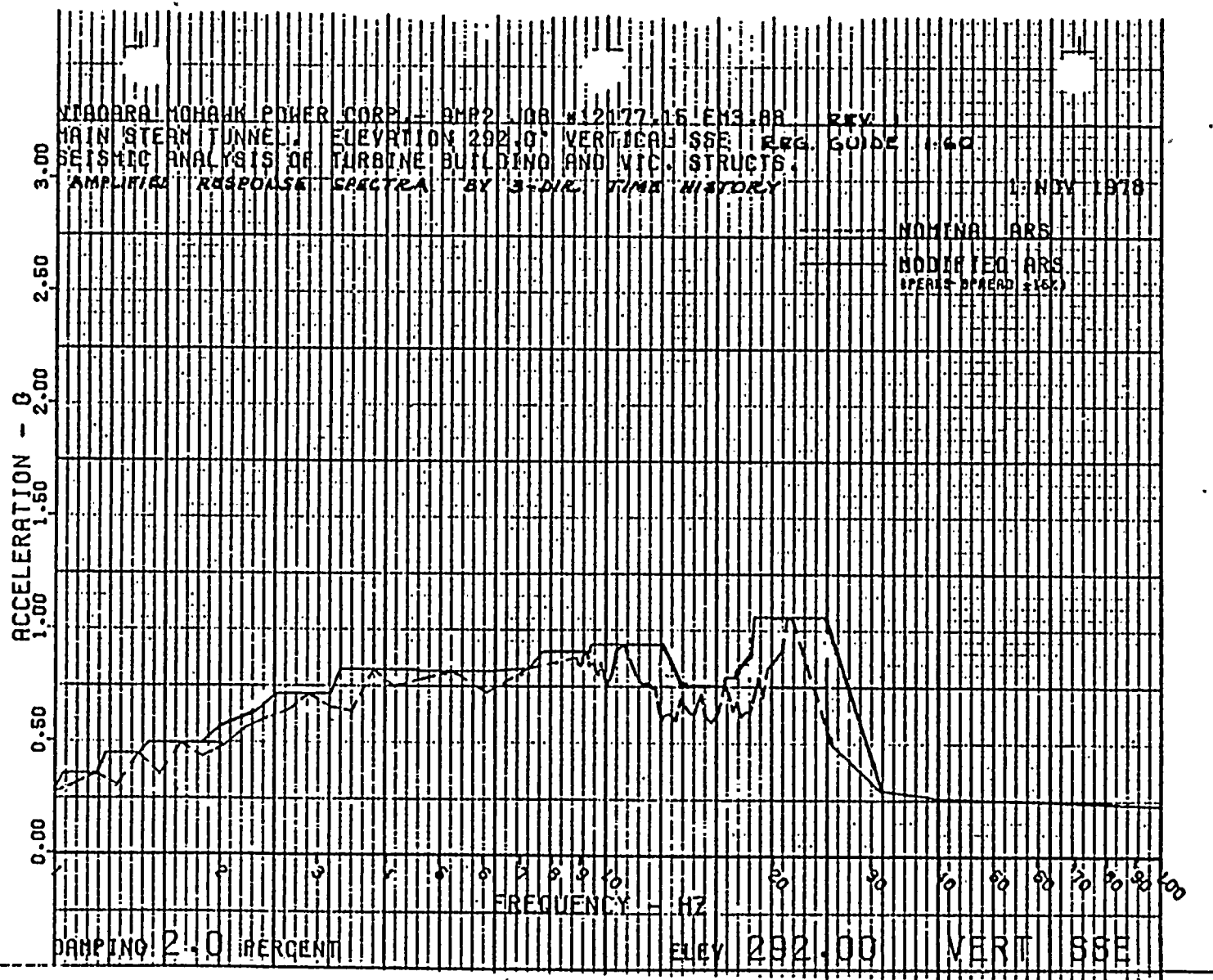
MS-1373 REV 0 REF 13
12/77





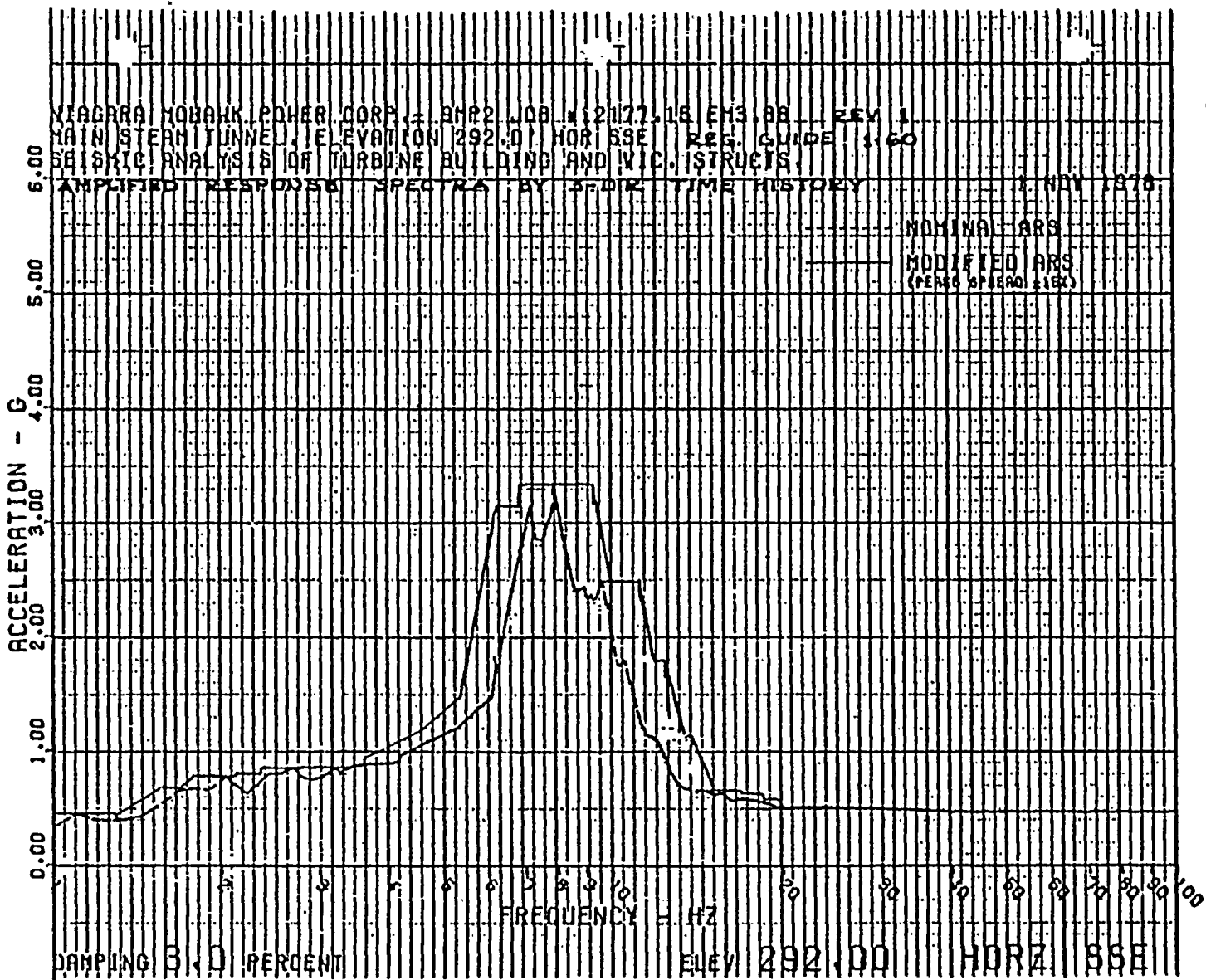
MS-1373 REV 0 REF 13
 1277





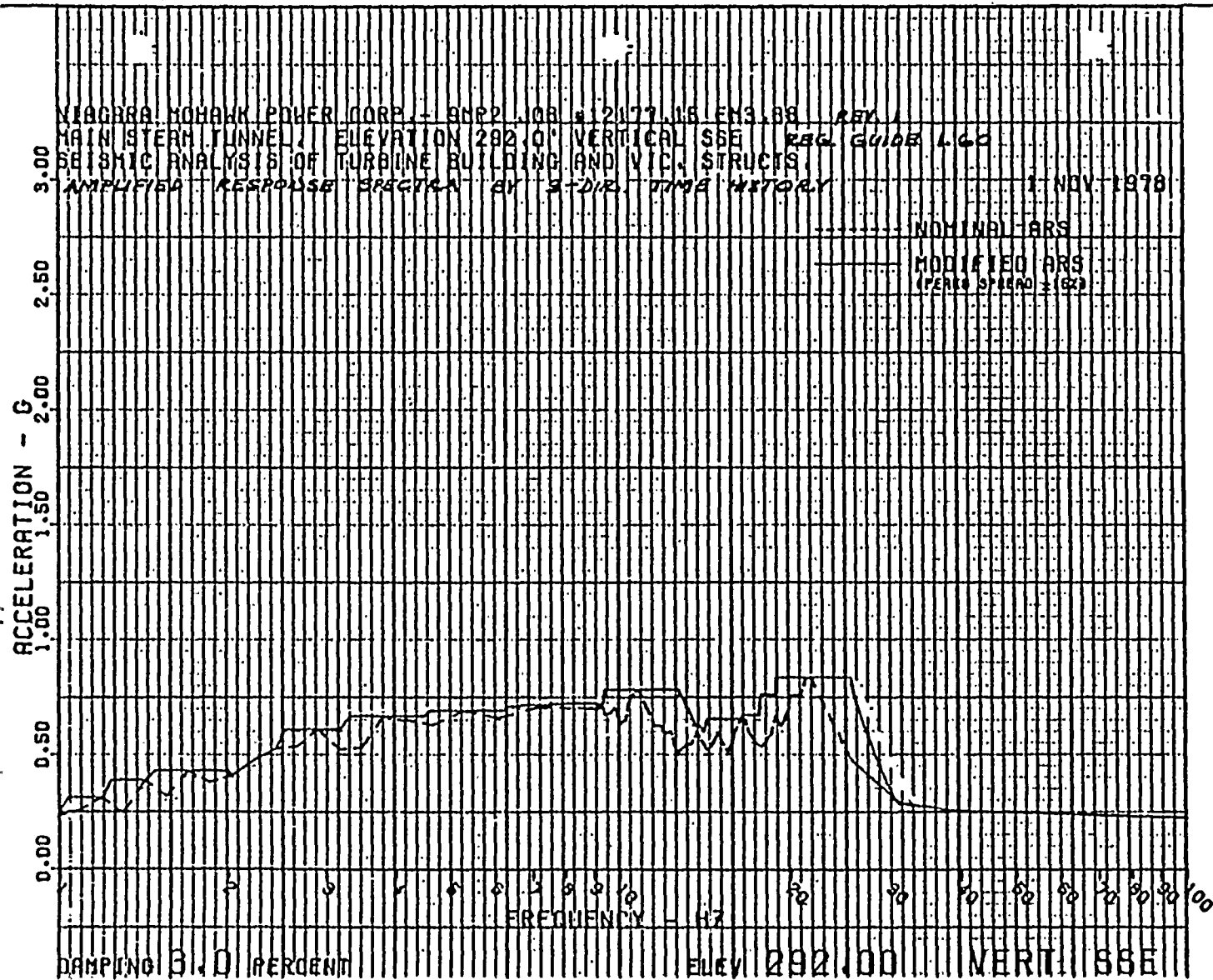
MS-1373 REV 0 REF 13
 12177





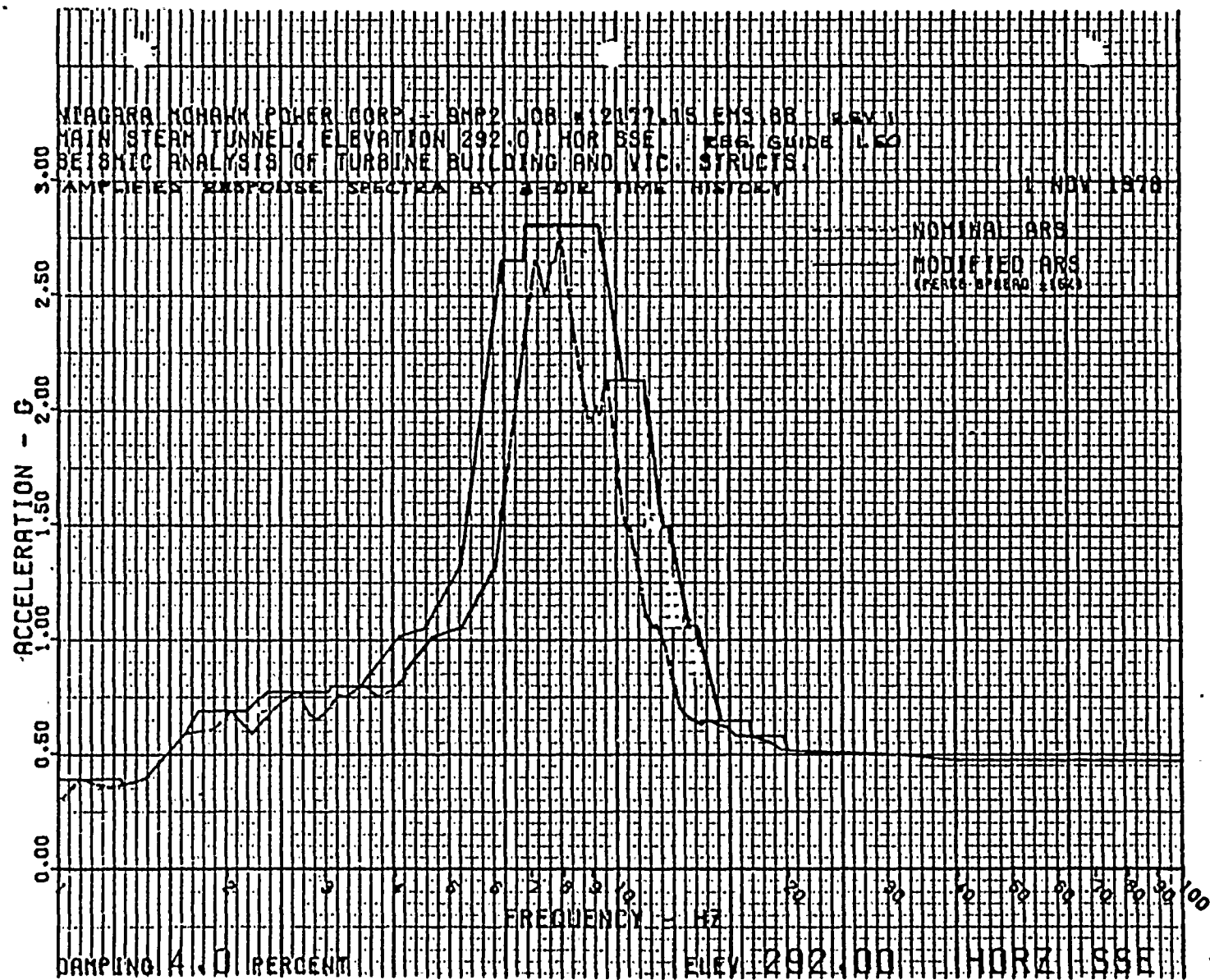
MS-1373 REV 0 REF 13
 12177





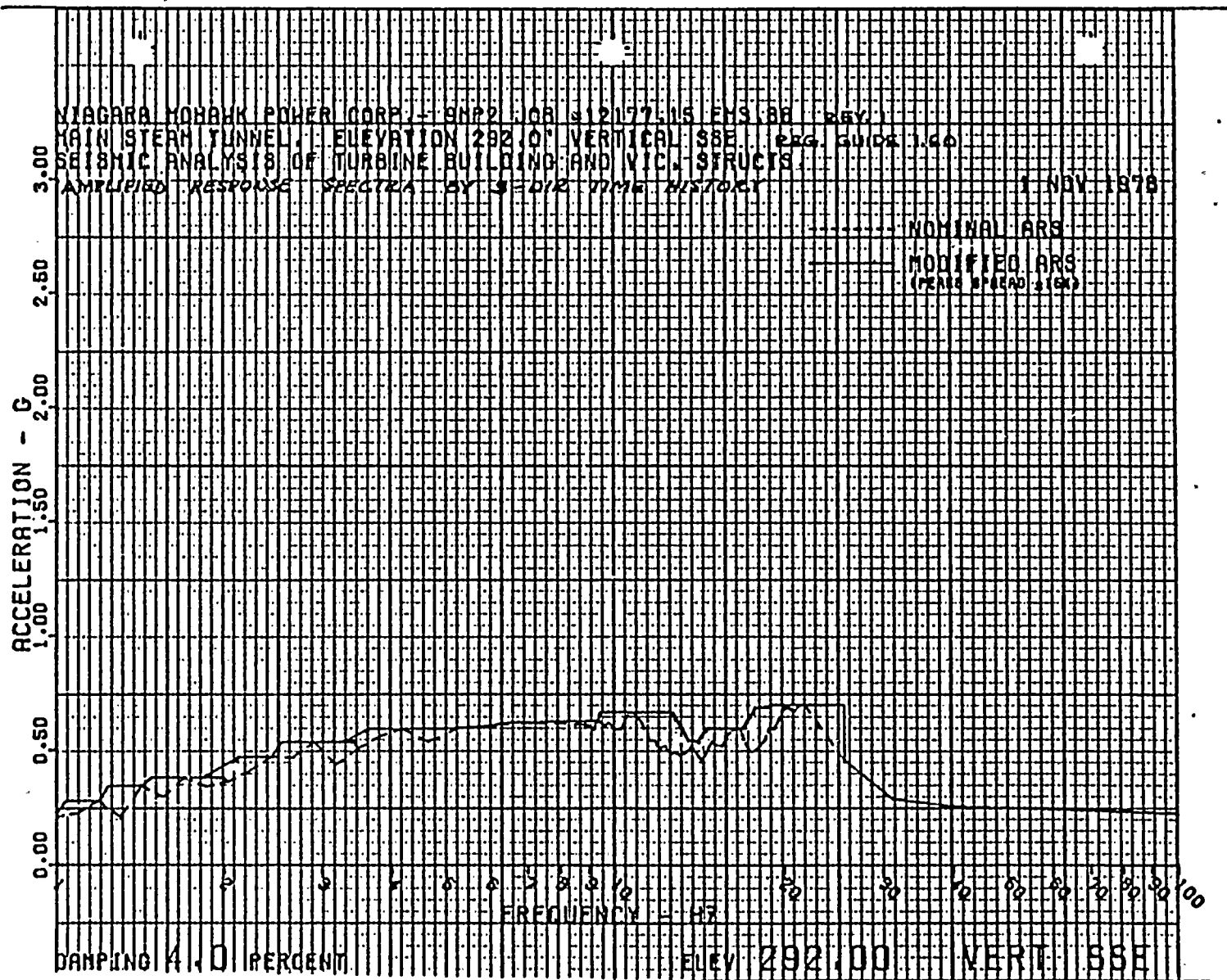
MS-1373 REV 0 REF 13
 12/77





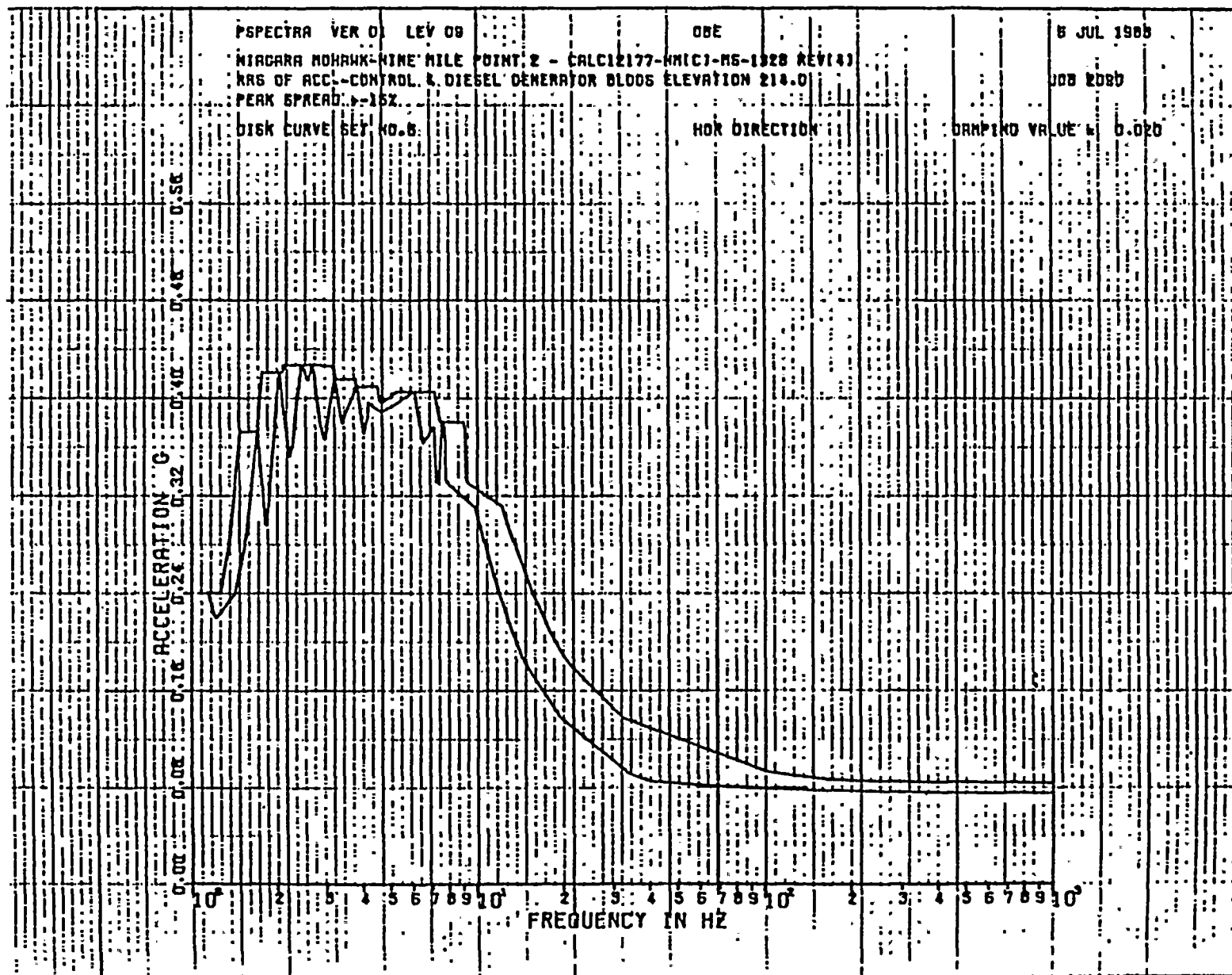
MS-1373 REV 0 REF 13
 12177





MS-1373 REV 0 REF 13
 12177





REF 14 1



PSPECTRA VER 01 LEV 08.

DBE

5 JUL 1989

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC 2177-NR1C3-MS-1928 REV143

JOB 2080

RMS OF ACC.-CONTROL & DIESEL GENERATOR 8008 ELEVATION 214.0

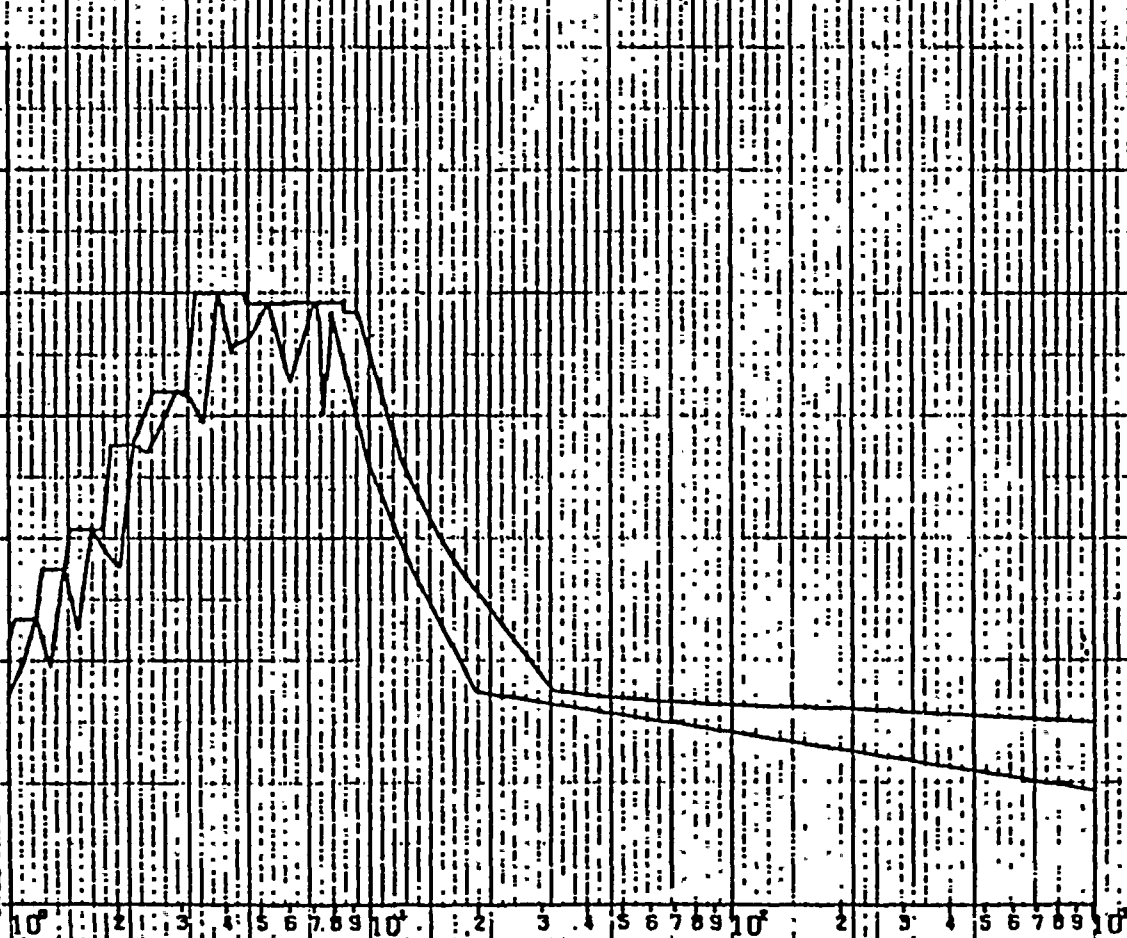
PEAK SPREAD +/-15%

DISK CURVE SET NO. 5.

VER: DIRECTION

DAMPING VALUE = 0.020

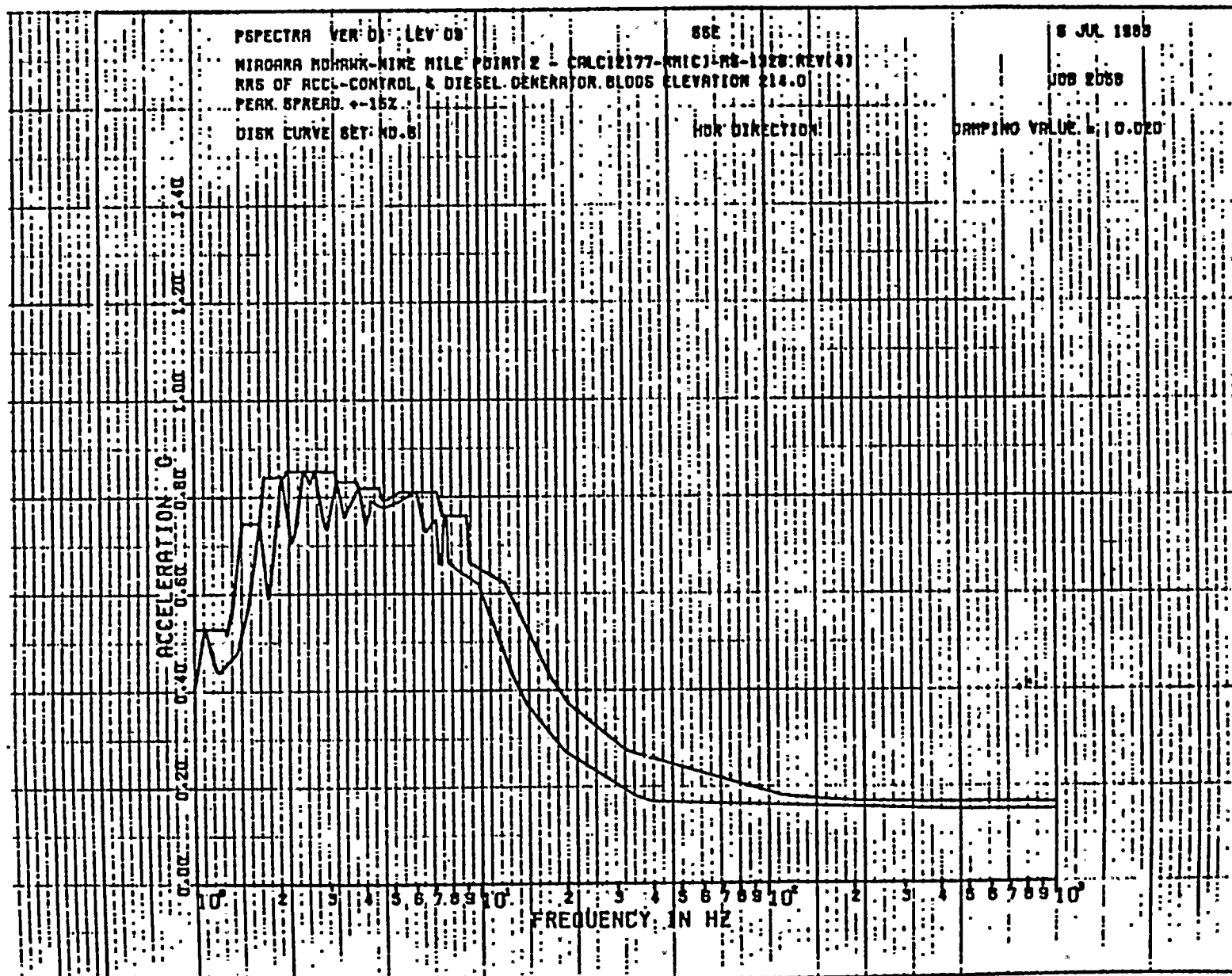
ACCELERATION: G
0.00 0.08 0.16 0.24 0.32 0.40 0.48 0.56



FREQUENCY: IN HZ

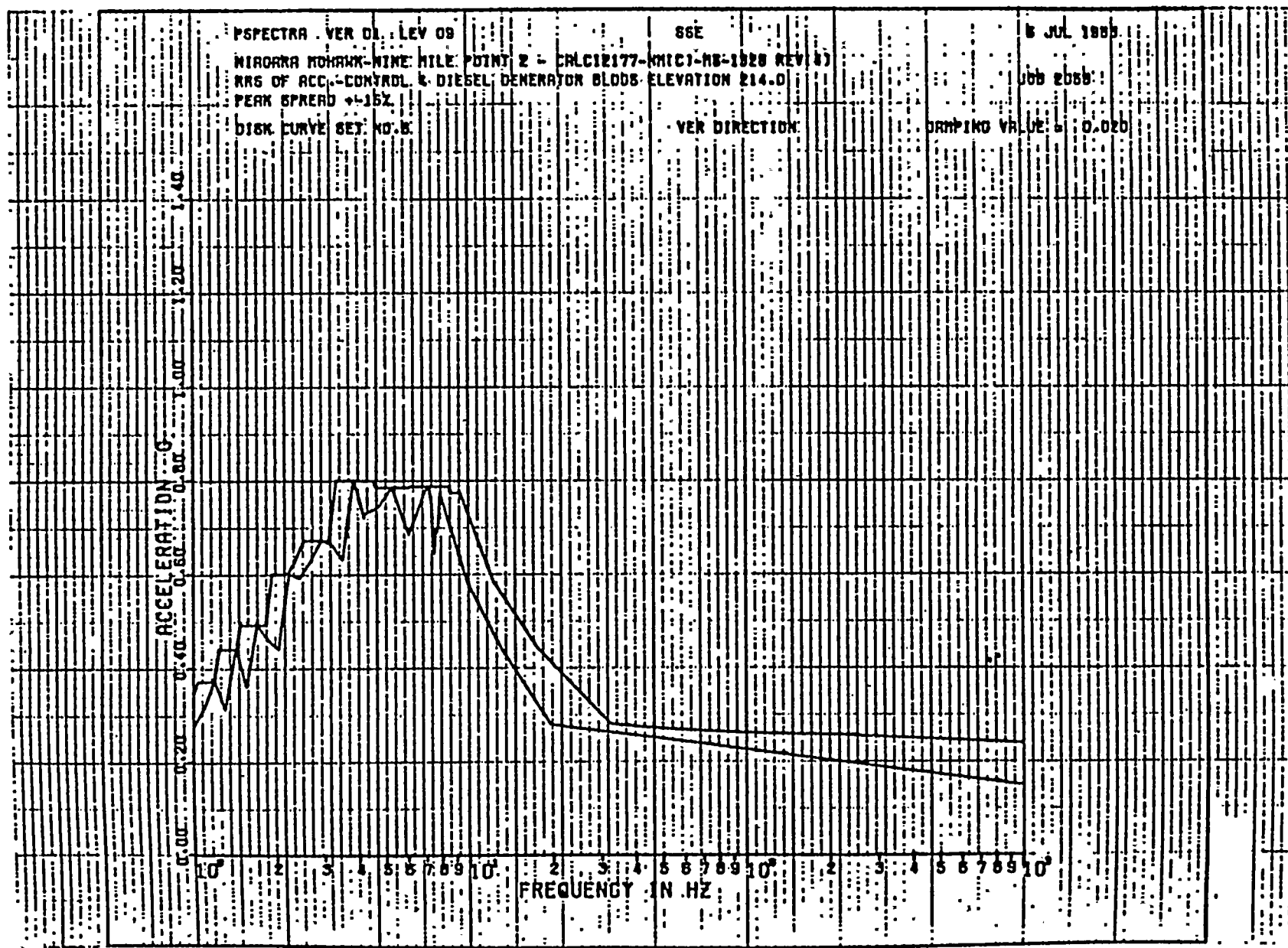
REF 14





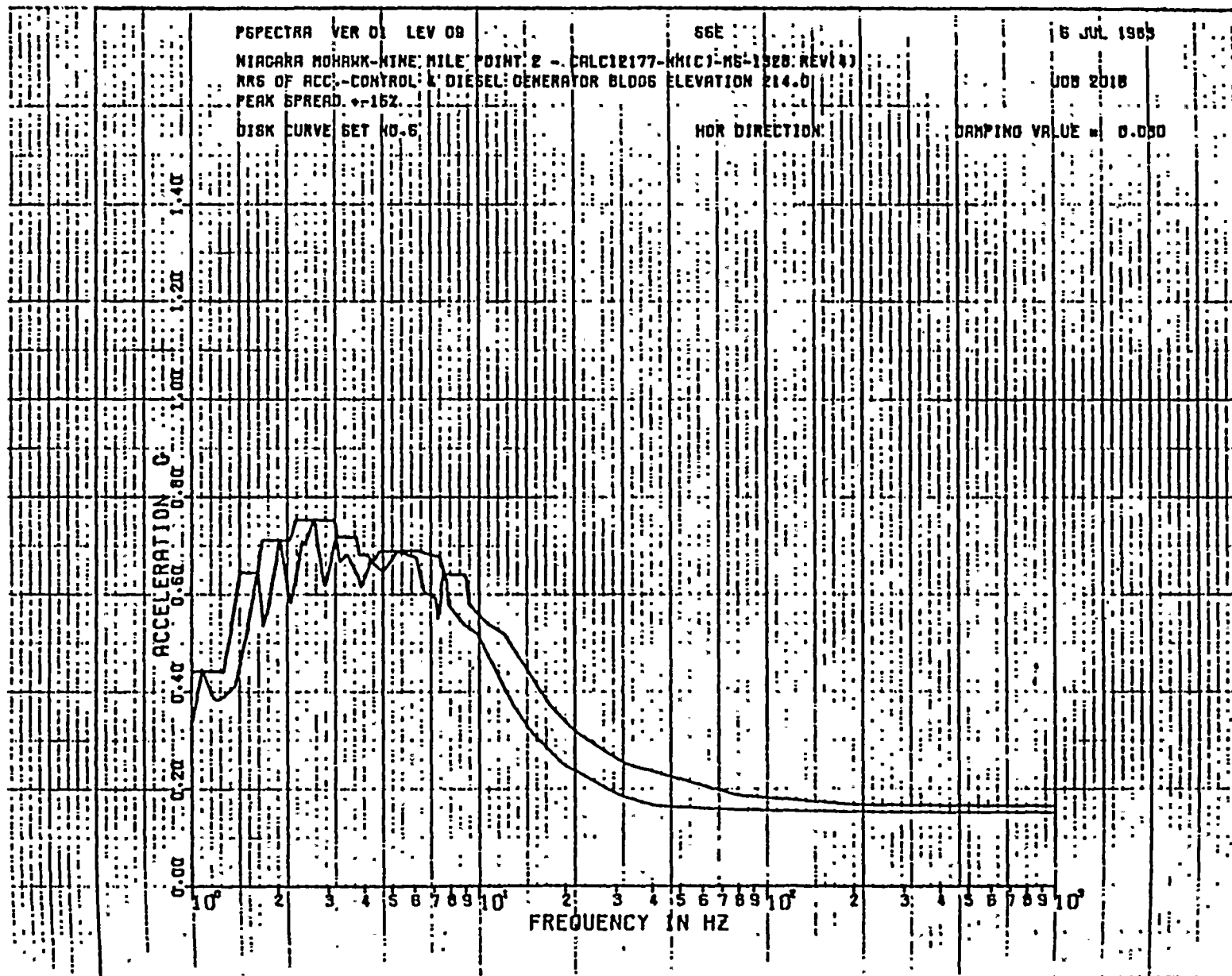
REF 14





REF 14





REF 14



PSPECTRA VER 01 LEV 09.

SEE

8 JUL 1989

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC(2177-MNICH) MS-1920 (REV 1.0)

RMS OF ACC--CONTROL & DIESEL GENERATOR BLOOD ELEVATION 214.0

JOB 201B

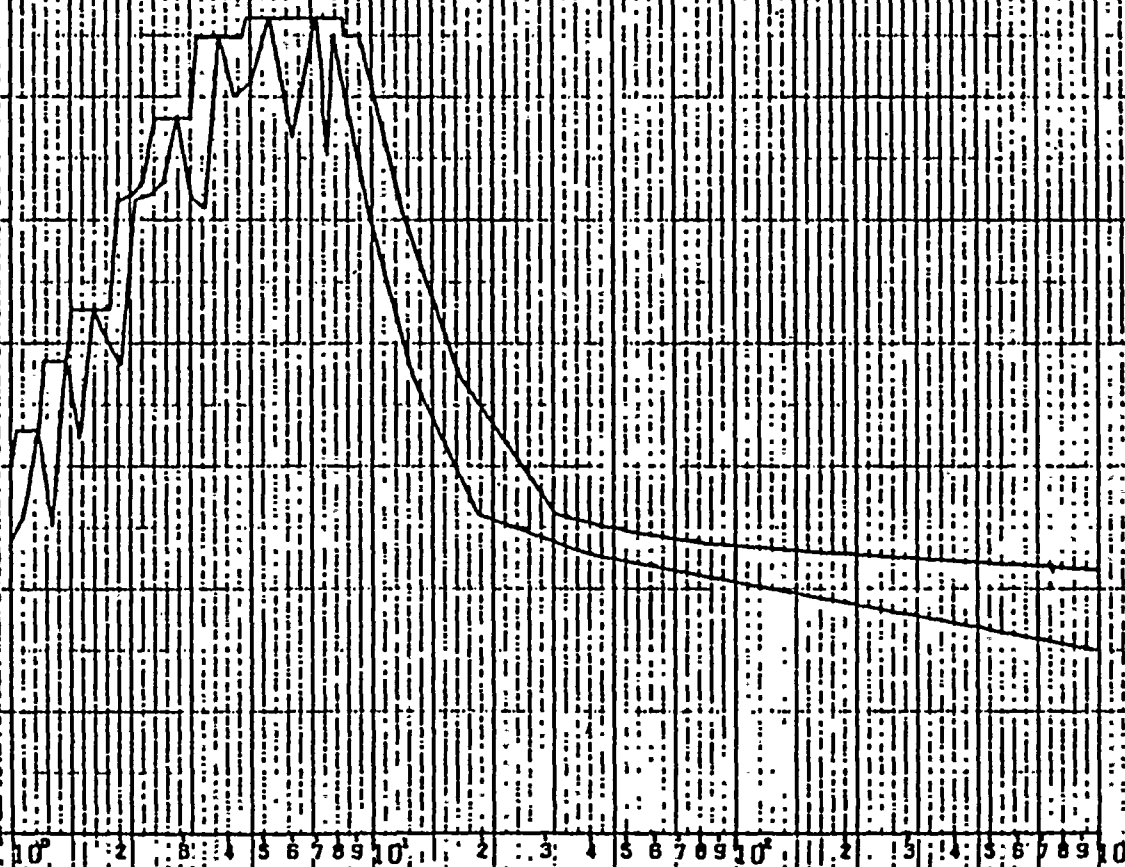
PEAK SPREAD $\pm 15\%$

DISK CURVE SET NO. B

VER DIRECTION

DAMPING VALUE = 0.050

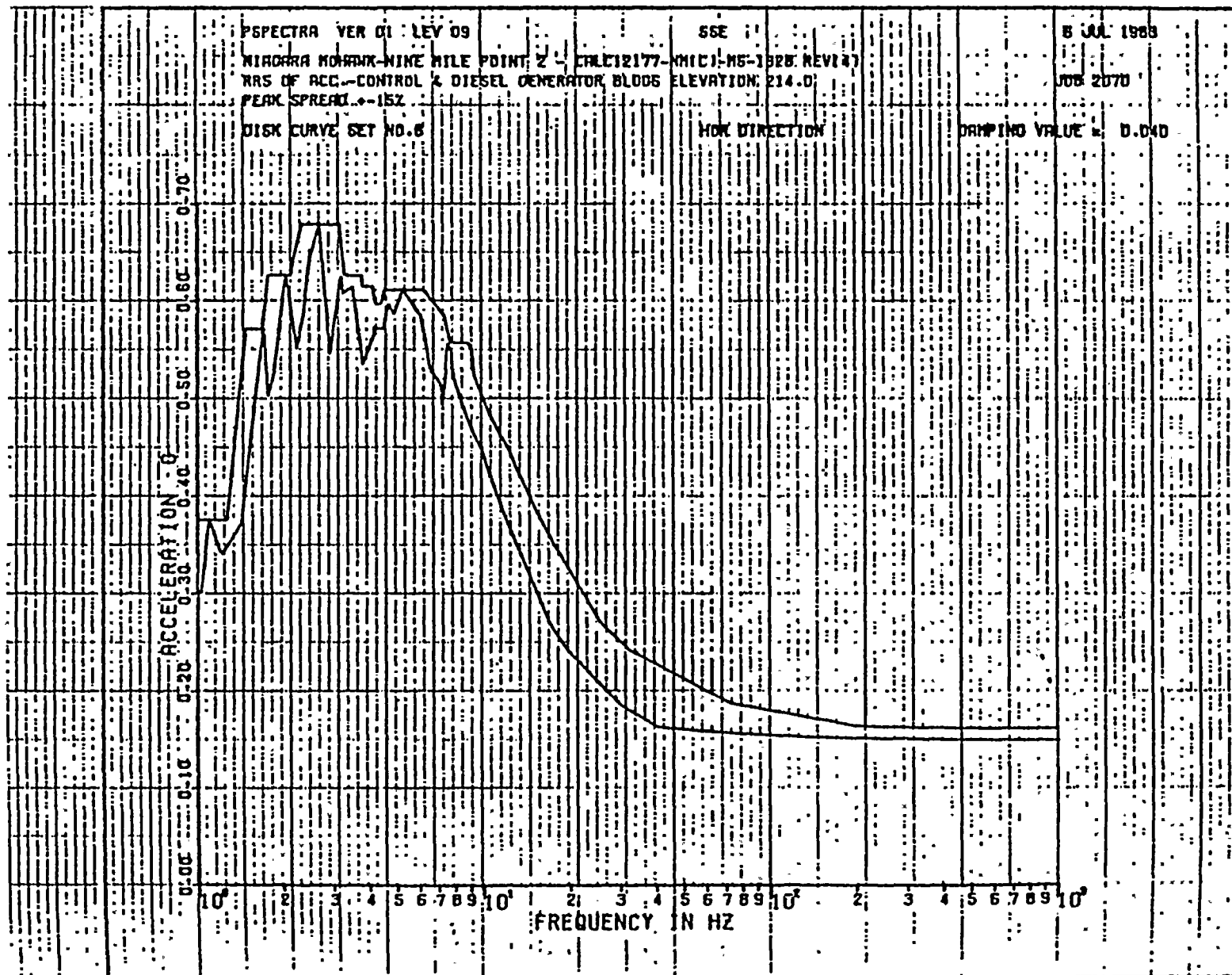
ACCELERATION - G
0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70



FREQUENCY IN HZ

REF 14





REF 14

PSPECTRA VER 01 LEV 09

SSE

5 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-KHIC146-1028 REV141

NAS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS ELEVATION 214.0

JOB 2070

PEAK SPREAD +-15%

DISK CURVE SET NO. 6

VER DIRECTION

DAMPING VALUE W 0.040

ACCELERATION G

0.70
0.60
0.50
0.40
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FREQUENCY IN HZ

REF 141

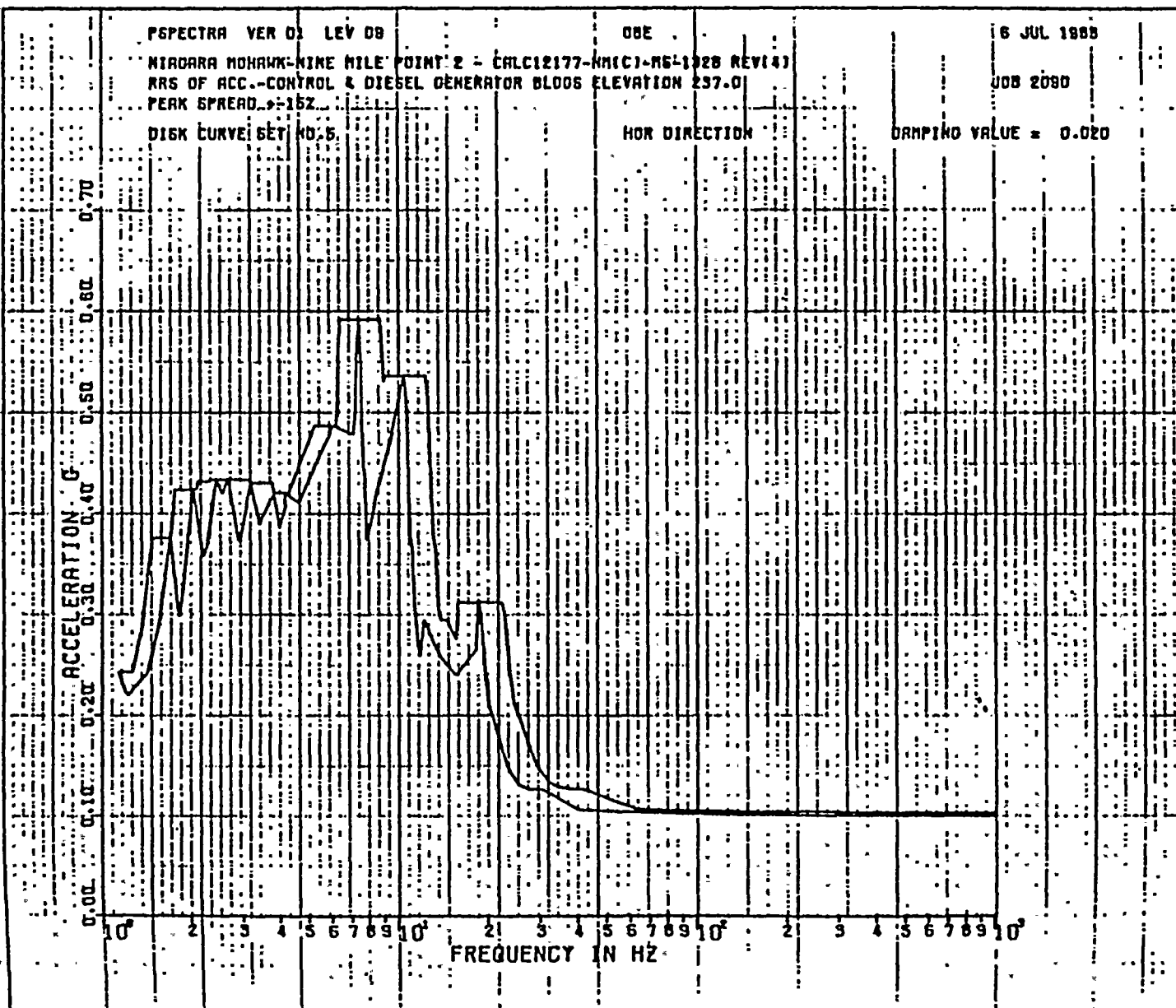
16 JUL 1988

408 2090

DAMPING VALUE = 0.020

HOR DIRECTION

DISK CURVE SET NO. 5.



REF 15 7

PSPECTRA VER 01 LEV 08

OBE

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT, 2 - CALC12177-MIC1-M5-1928 REV141

ARS OF ACC.-CONTROL & DIESEL GENERATOR BLOOS ELEVATION 237.0

DOB 2090

PEAK SPREAD. +/-15%

DISK CURVE SET NO.5

VER DIRECTION

DAMPING VALUE = 0.020

0.00 0.08 0.16 0.24 0.32 0.40 0.48 0.56
ACCELERATION - G

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

FREQUENCY IN HZ

REF 15



SPECTRA VER D1 LEV D9

85E

6 JUL 1959

NIAHARA MOHAWK-NINE MILE POINT 2 - CALC12177-KMIC)-MS-1328 REV183

RAS OF ACC.-CONTROL & DIESEL GENERATOR BLOODS ELEVATION 257.0

JOB 2058

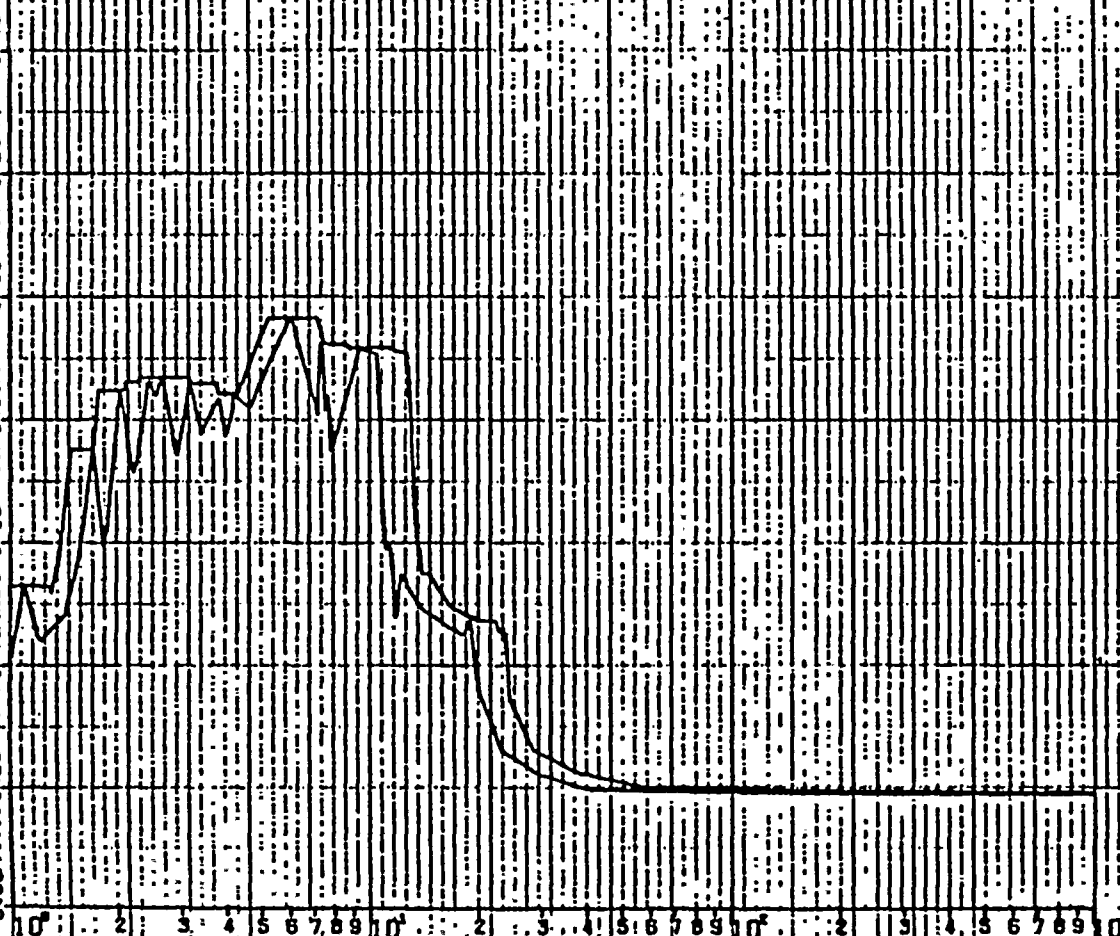
PEAK SPREAD 3-15%

DISK CURVE SET NO.5

WOK DIRECTION

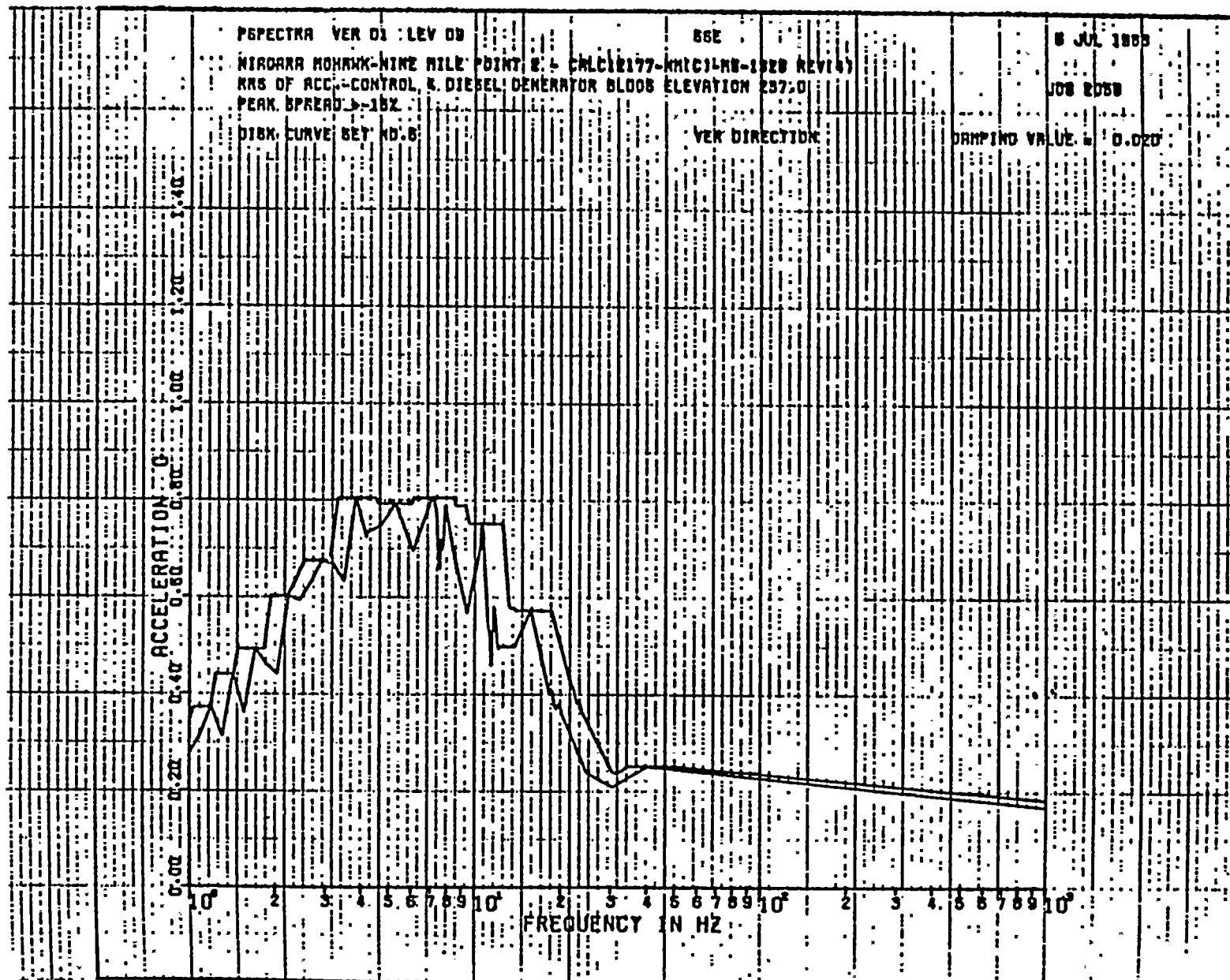
DAMPING VALUE 4 0.020

ACCELERATION - G
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



REF 15





REF 15



PSPECTRA VER 01 LEV 09

55E

6 JUL 1989

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC(2177-WNIC)-MS-1328 REV(4)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS ELEVATION 237.0

JOB 2018

PEAK SPREAD 1152

DISK CURVE 657 NO.5

HOR DIRECTION

DAMPING VALUE = 0.030

ACCELERATION G

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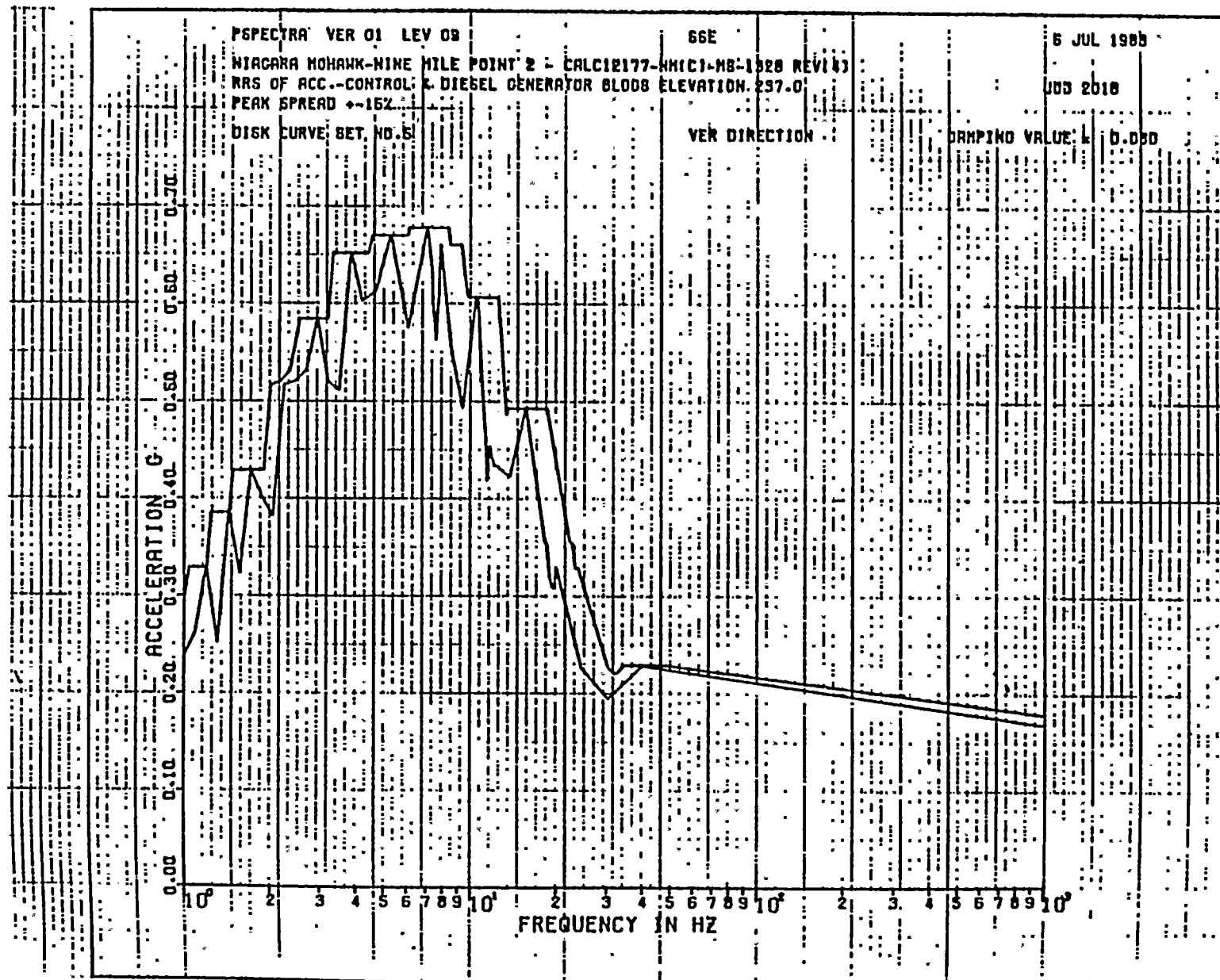
9

10²

FREQUENCY IN HZ

REF 15





REF 15



PSPECTRA VER 01 LEV 09

86E

8 JUL 1983

NIAOGARA MONARK-NINE MILE POINT 2 - CALC12177-KMICJ-N8-1928 REV14)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDG6 ELEVATION 237.0

JOB 2070

PEAK SPREAD 4-15Z

DISK CURVE SET NO.8

HOR DIRECTION

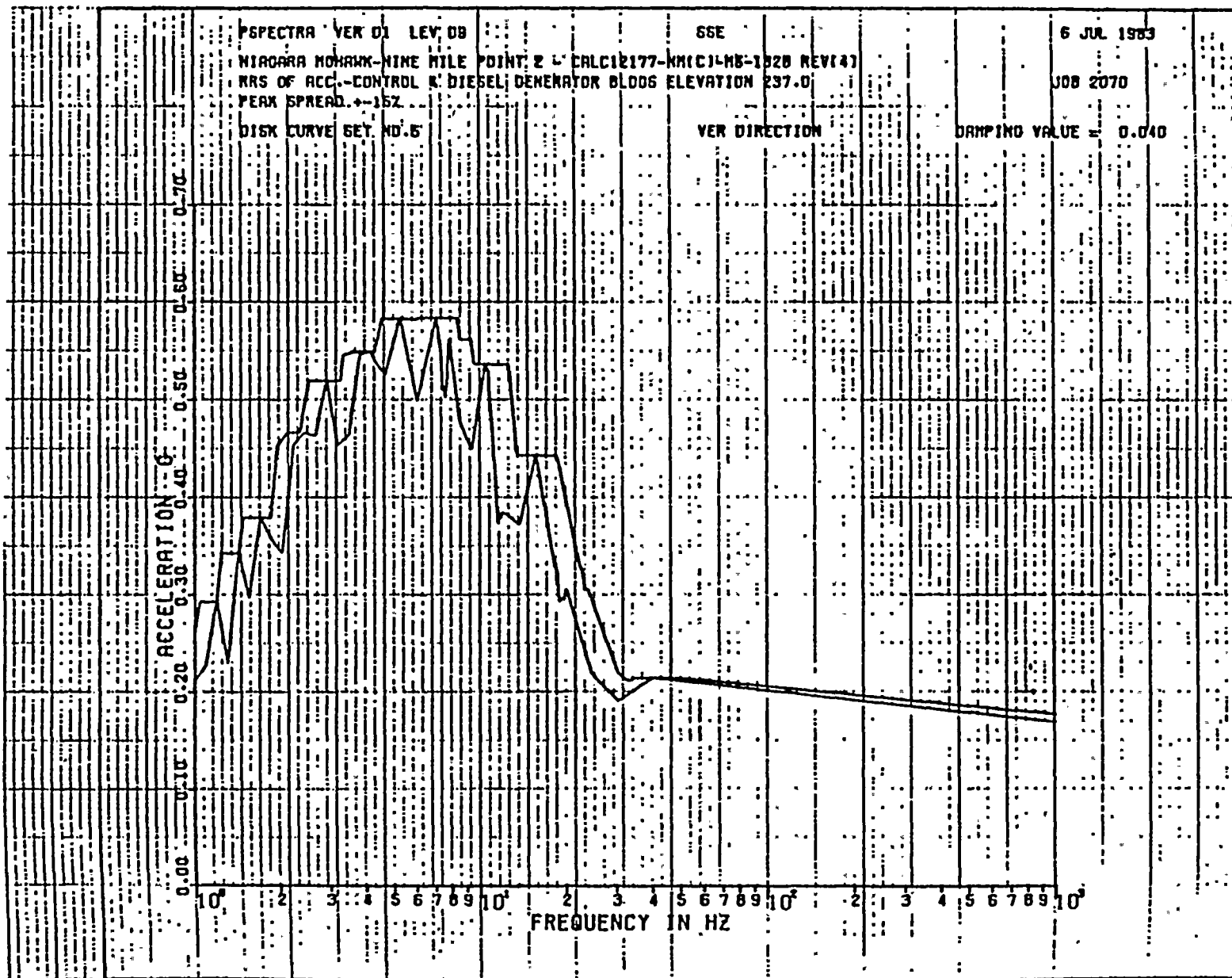
DAMPING VALUE = 0.040

ACCELERATION G
0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70

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

REF 15





REF 15



SPECTRA VER 01 LEV 00

00E

6 JUL 1969

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-NHIC1-MS-1328 REV133

NRS OF ACC.-CONTROL & DIESEL GENERATOR BLOOD ELEVATION 261.0

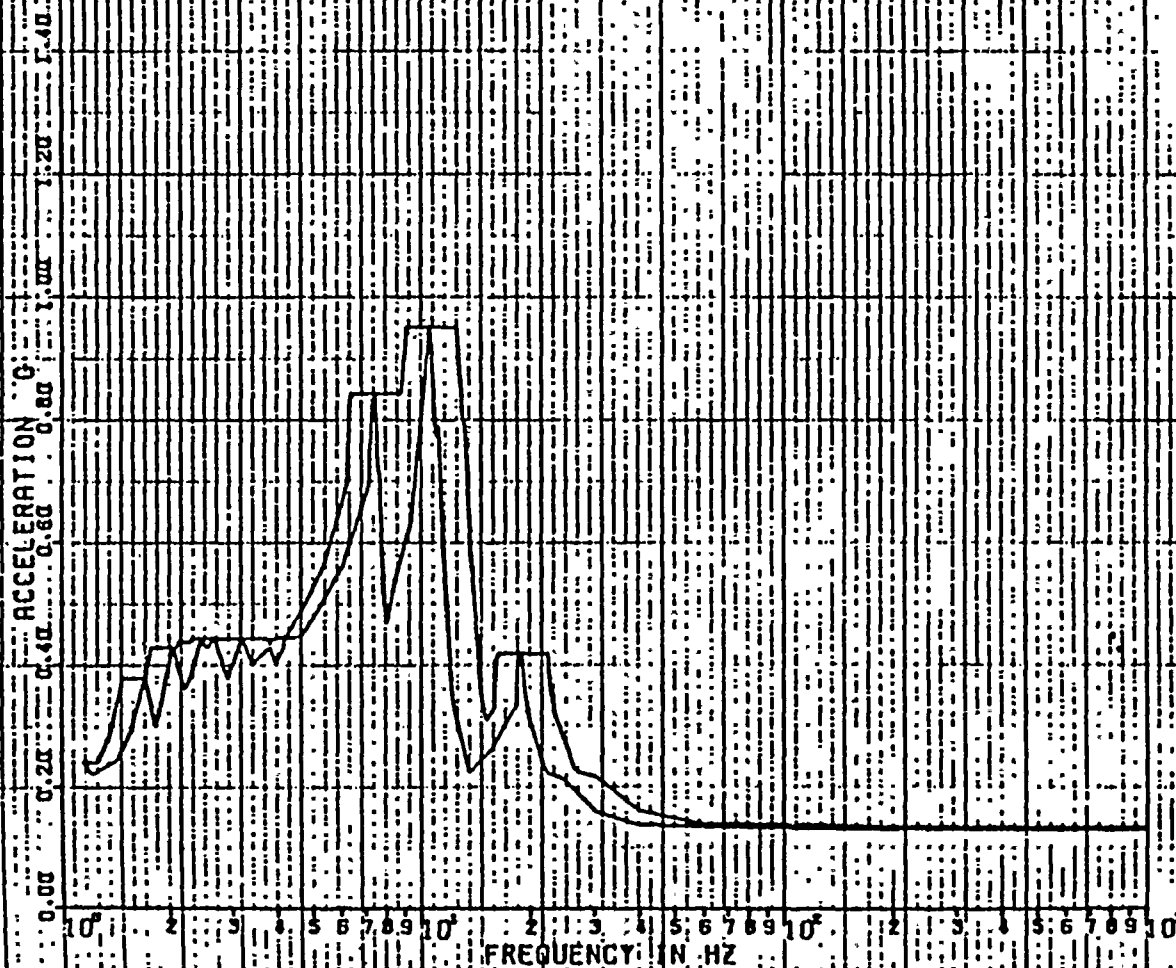
DOB 209D

PEAK SPREAD 9-16Z

DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUE 4.0.020



REF 16



PSPECTRA VER 01 LEV 09

OBE

6 JUL 1985

MIROARA MOHAWK-NINE MILE POINT 2 - CALC12177-MMIC1-HS-1928 REV(4)

RRS OF ACC--CONTROL & DIESEL GENERATOR BLOOD ELEVATION 261.0

DOB 2080

PEAK SPREAD: >-15%

DISK CURVE SET NO.4

VER DIRECTION

DAMPING VALUE = 0.020

ACCELERATION G

0.00 0.08 0.16 0.24 0.32 0.40 0.48 0.56

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FREQUENCY IN HZ

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REF 16



SPECTRA VER 01 LEV 00
 NIAORRA KOMARR-NINE MILE POINT 2 - CALC12177-MIC1-M8-1928-REV14)
 NRS OF ACC-CONTROL & DIESEL GENERATOR. 81008 ELEVATION 261.0
 PEAK SPREAD -152
 DISEN CURVE SET NO. 4

85E

6 JUL 1968

JOB 2058

WOK DIRECTION

DAMPING VALUE = 0.020

ACCELERATION - G

0.00 0.40 0.80 1.20 1.60 2.00 2.40 2.80

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FREQUENCY IN HZ

REF 16



PSPECTRA VER 01 LEV 08

SSR

6 JUL 1989

WINDARA MOHAWK-NINE MILE POINT, 2 - CALC12177-NM1C7-MS-1328 REV143

RAS OF ACC-CONTROL & DIESEL GENERATOR BLOOS ELEVATION 261.0

JOB 2059

PEAK SPREAD - 15%

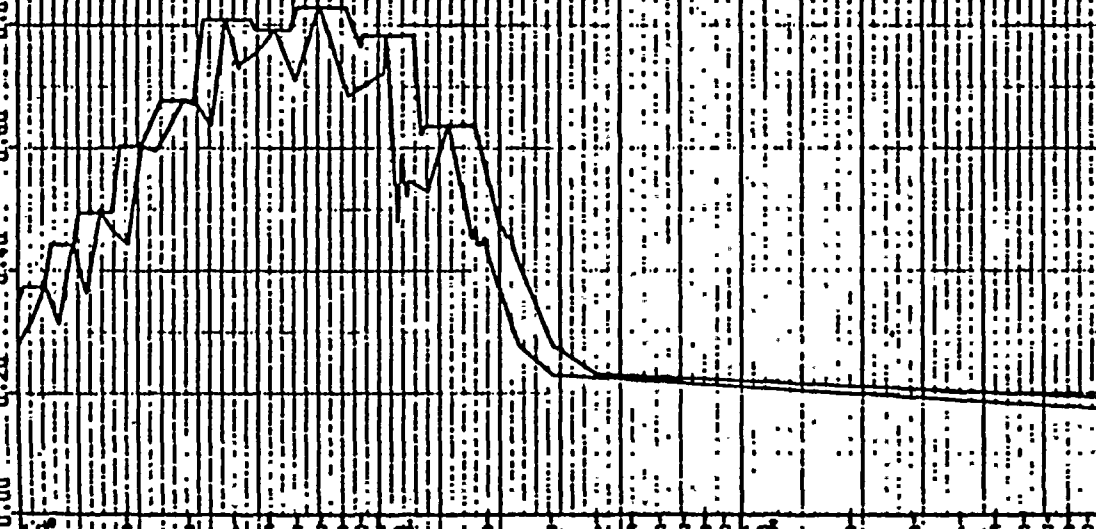
DISK CURVE SET NO. 41

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

REF 16



PSPECTRA VER 01 LEV 09

66E

6 JUL 1985

NIAHARA MONAWK-NINE MILE POINT 2 L. CALC 12177-KN1C1-MS-1928 REV 1.3

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS. ELEVATION 261.0

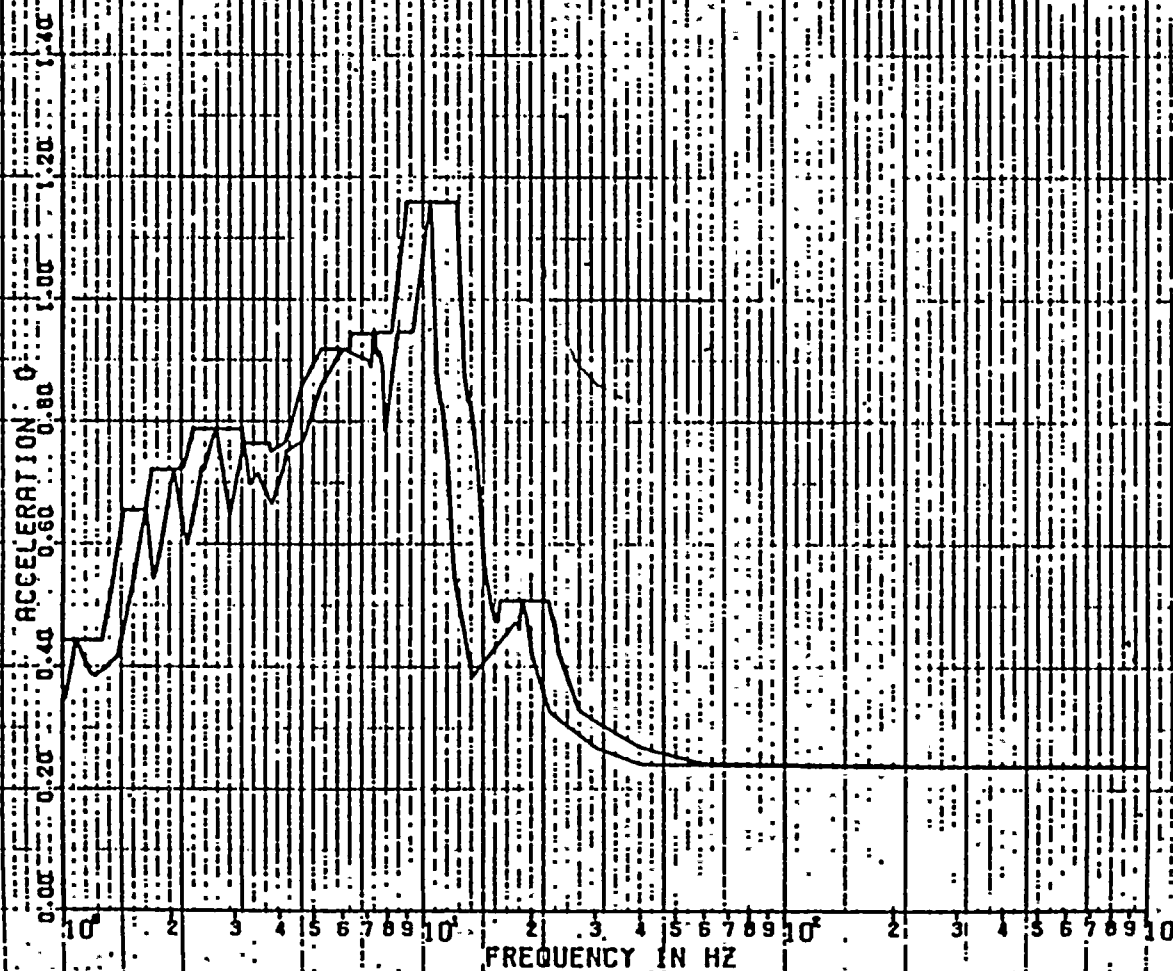
UDS 2010

PEAK SPREAD 15%

DISK CURVE SET NO. 4

HOR DIRECTION

DAMPING VALUE = 0.050



REF 16



PSPECTRA VER 01 LEV 09

56E

6 JUL 1989

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-NH(C1)-MS-1928 REV14)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS ELEVATION 261.0

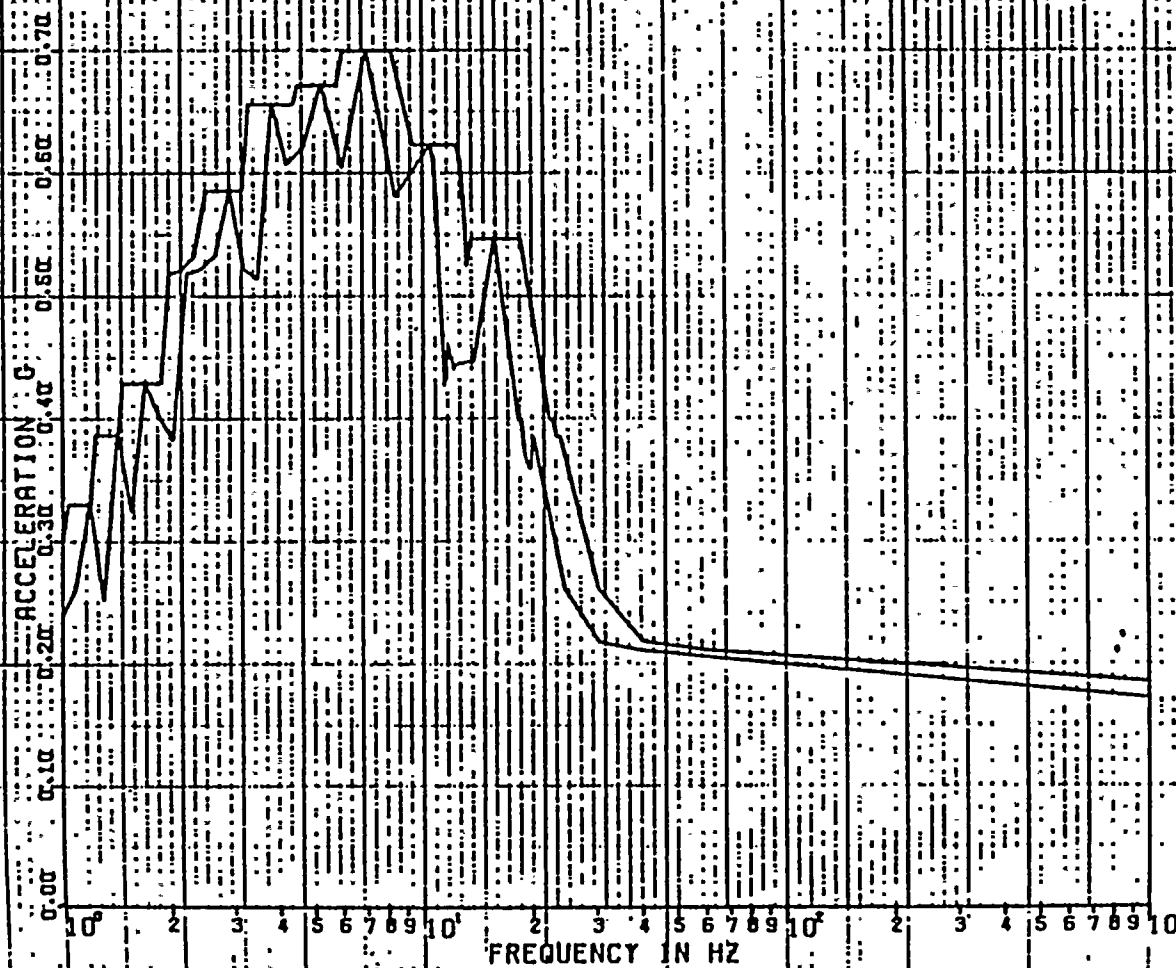
JOB 2018

PEAK SPREAD: $\pm 15\%$

DISK CURVE SET NO. 4

VER DIRECTION

DAMPING VALUE = 0.050



REF 16



PSPECTRA VER 01 LEV 09

SSE

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-NHIC1-R5-132B REV141

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS ELEVATION 261.0

JOB 2070

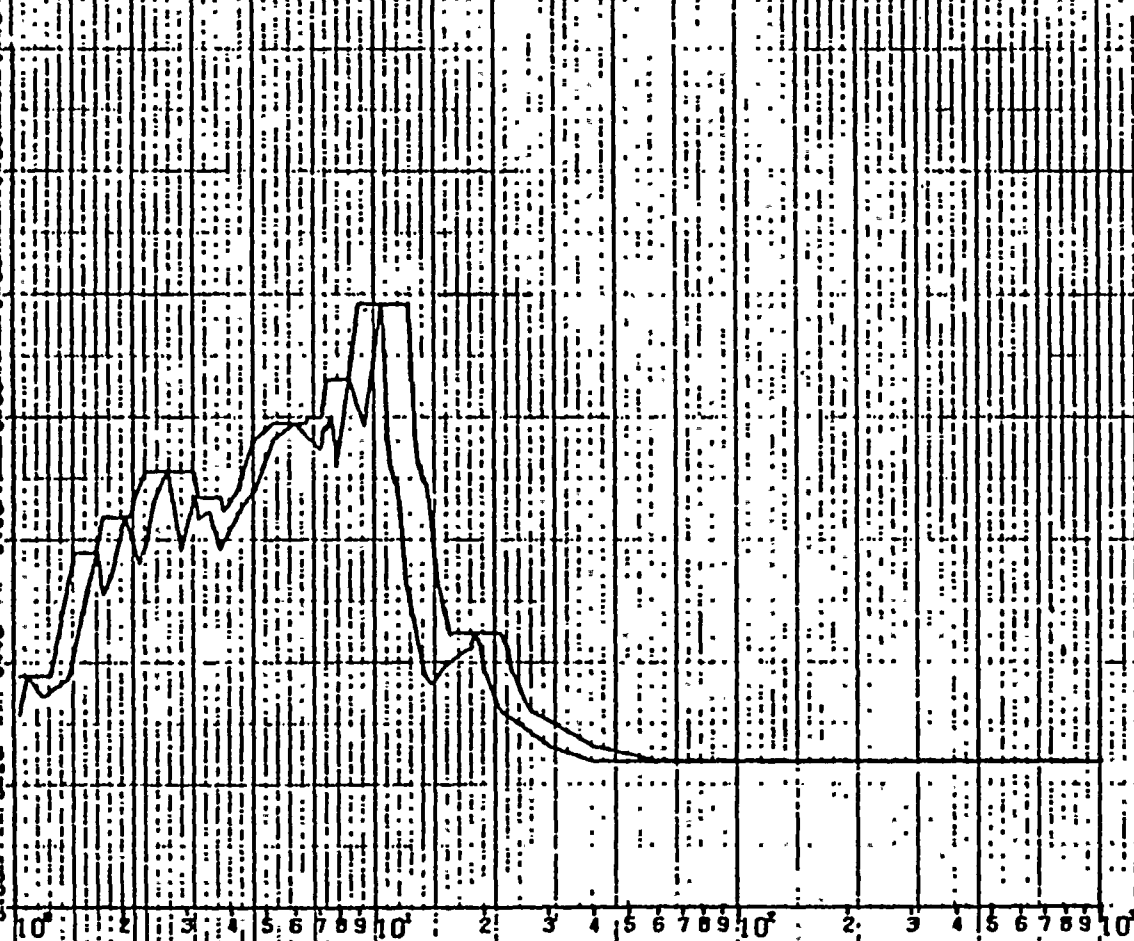
PEAK SPREAD +-15%

DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUE $\xi = 0.040$

ACCELERATION: G
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 16



PSPECTRA VER 01 LEV 09

56E

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT. 2 - CALC12177-KM(C)-H6-1983 REV141

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLOODS ELEVATION 261.0

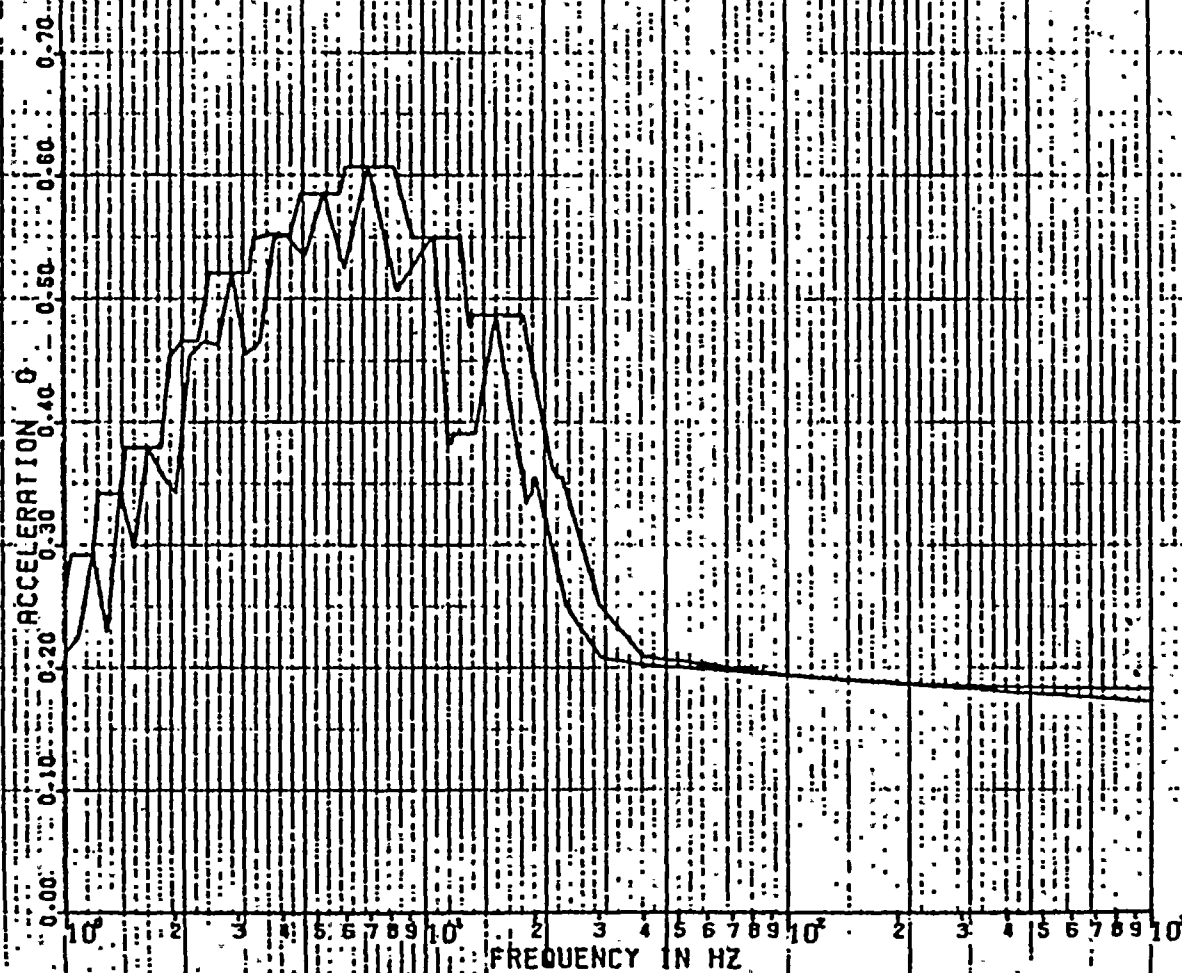
JOB 2070

PEAK SPREAD +-15%

DISK CURVE SET NO.4

VER DIRECTION

DAMPING VALUE = 0.040



Ref 16 1



PSPECTRA VER 01 LEV 09

08E

6 JUL 1983

NICARAGUA MOHAWK-NINE MILE POINT 2 - CALC12177-NHIC1-M5-1980 REV(4)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLOOD ELEVATION 287.5810

JOB 2090

PEAK SPREAD +-15%

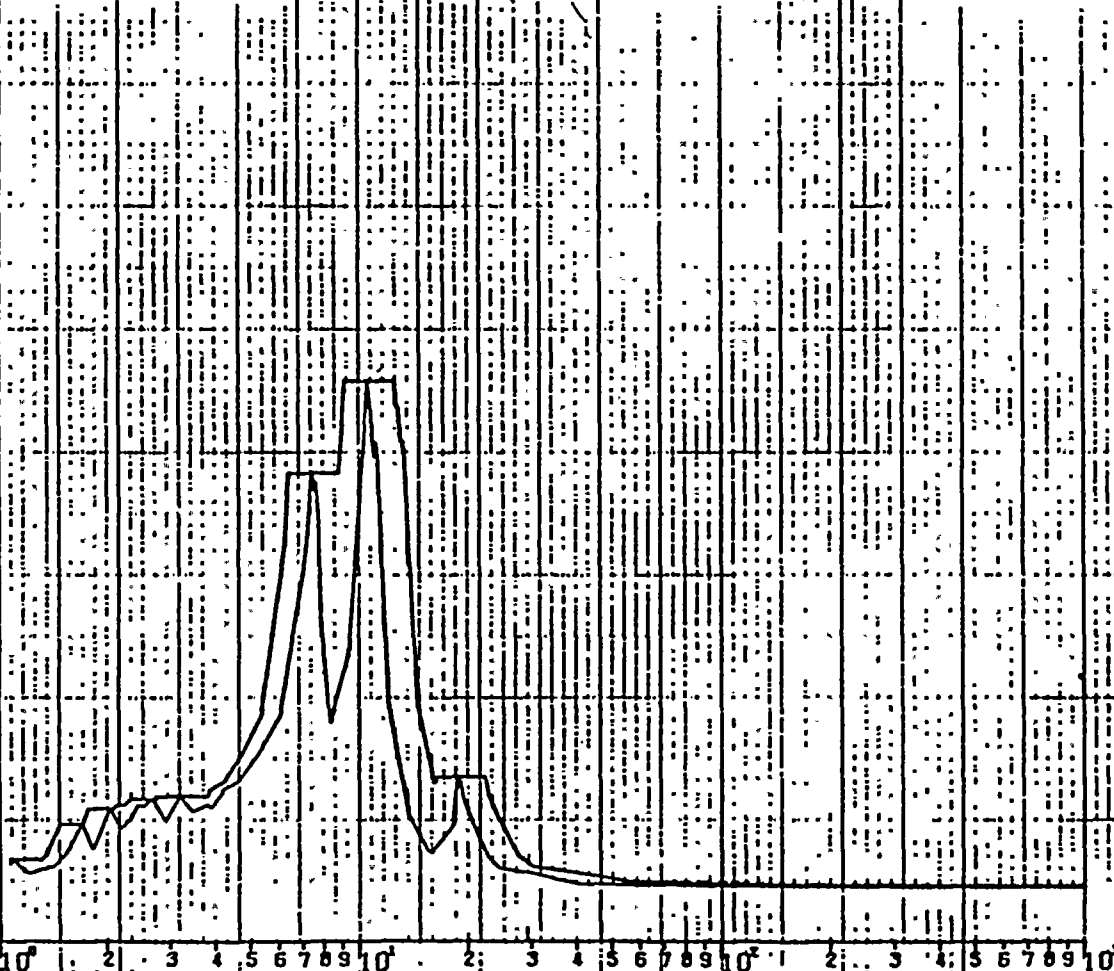
DISK CURVE SET NO.3

HOR DIRECTION

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

REF 17



PSPECTRA VER 01 LEV 00

OBE :

8 JUL 1980

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-MHIC1-M6-1320 REV(4)

RMS OF ACC.-CONTROL & DIESEL GENERATOR BLOOD ELEVATION 287.5810

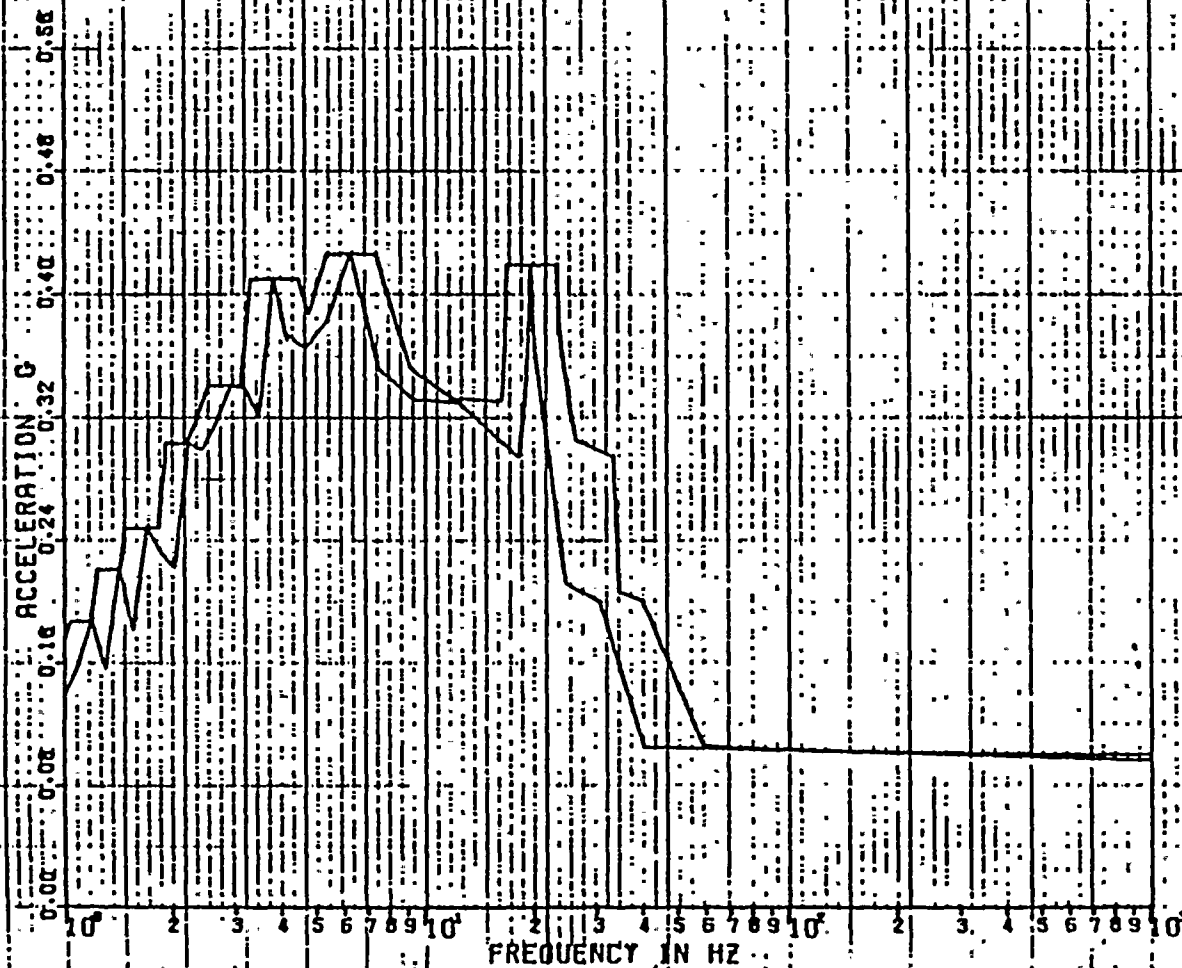
UOB 2090

PEAK SPREAD +/-15%

DISK CURVE SET NO.9

VER DIRECTION

DAMPING VALUE = .0020



REF 17



PSPECTRA VER 01: LEV 03

USE:

6 JUL 1965

NIAHARA MOHAWK-NINE MILE POINT 2 - CALC12177-KN1C1-MS-1920.REV14)

RMS OF ACCL-CONTROL & DIESEL GENERATOR BLODS ELEVATION 287.58+0

JOB 2058

PERK SPREAD 9-15X

DISK CURVE SET NO-9

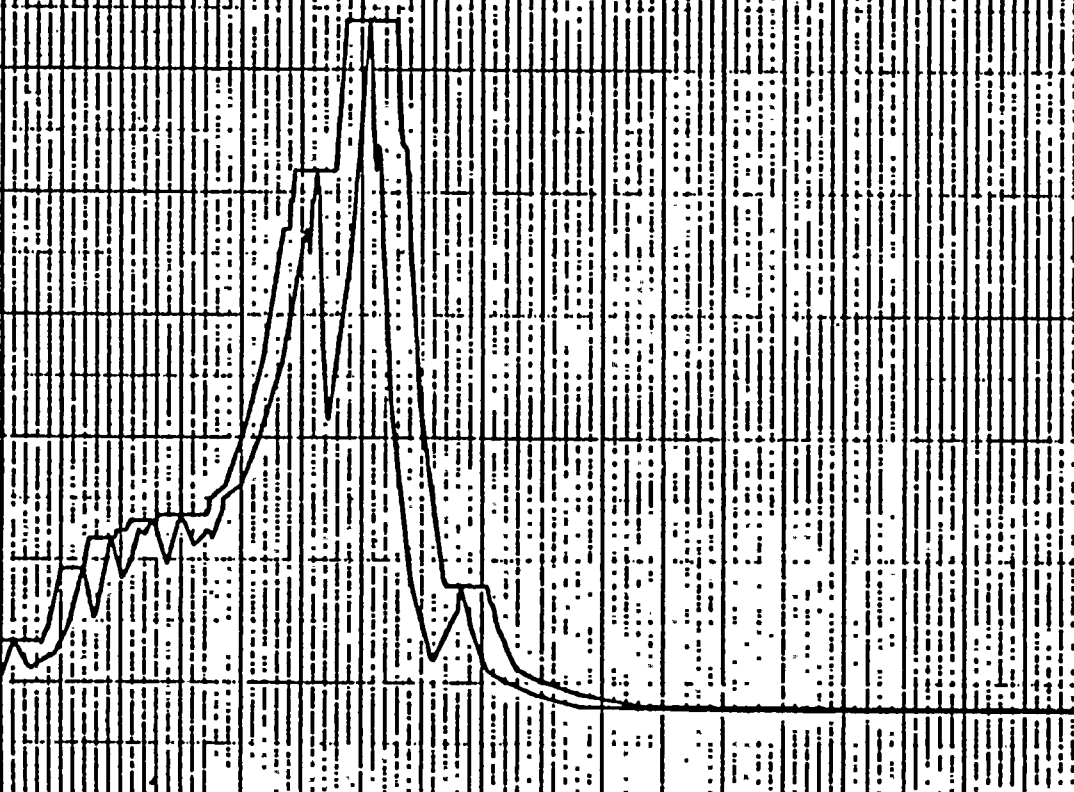
HON DIRECTION

DAMPING VALUE 0.020

ACCELERATION 0 0.40 0.80 1.20 1.60 2.00 2.40 2.80

0 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10²

FREQUENCY IN HZ



REF 17



PSPECTRA VER 01 LEV 09

85E

5 JUL 1985

NIAGARA MOHAWK-NINE MILE POINT, 2 - CALC 12177-KMICJ-MS-1928 REV 41

JOB 2058

RRS OF ACCL-CONTROL & DIESEL GENERATOR. 8.005 ELEVATION 287.5810

PEAK SPREAD: 15%

DISK CURVE SET NO. 8

VER DIRECTION

DAMPING VALUE: 0.020

ACCELERATION: 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

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FREQUENCY IN HZ

REF 17



PSPECTRA VER 01 LEV 09

55E

6 JUL 1983

NIRAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-KMIC)-MS-1028 REV(4)

RMS OF ACC.-CONTROL & DIESEL GENERATOR BLOODS ELEVATION 287.5810

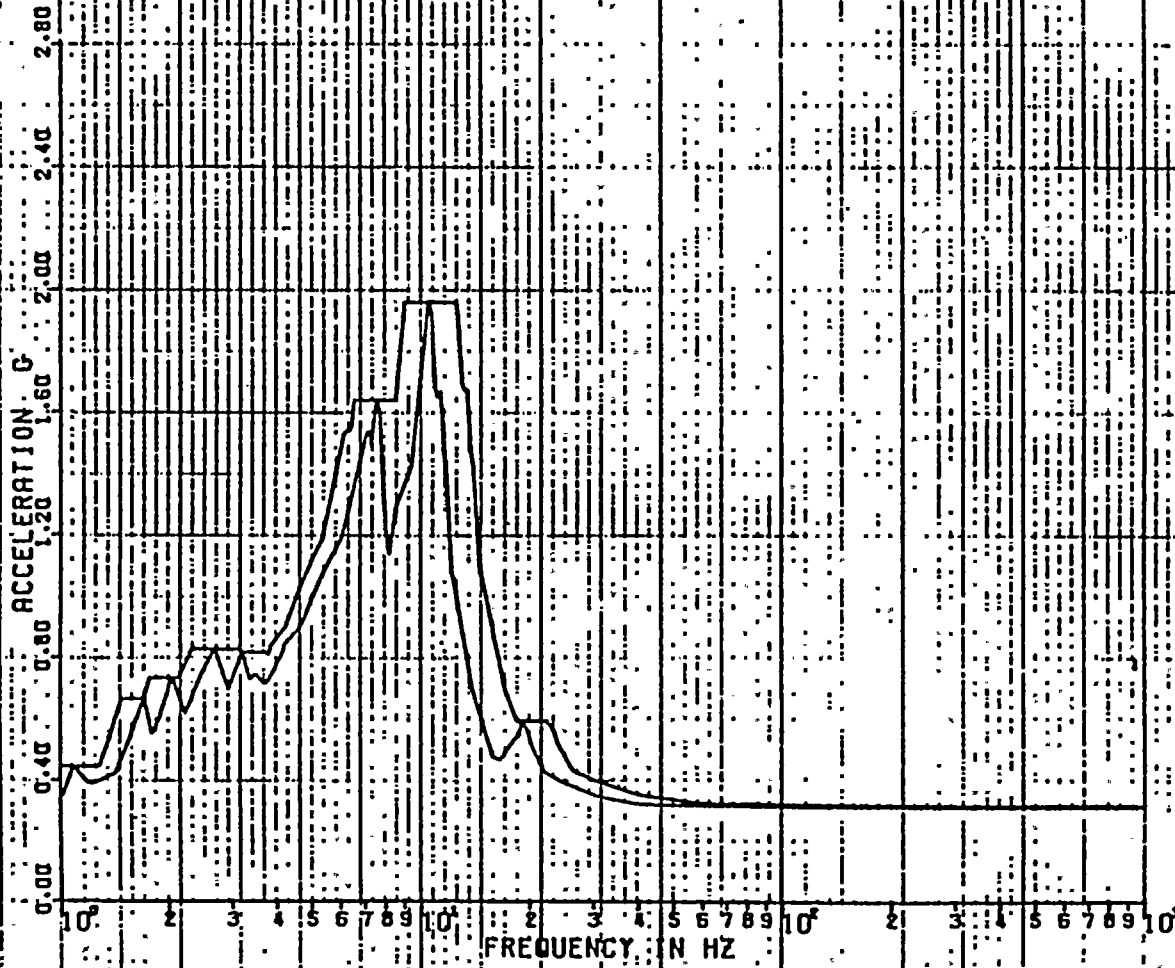
JOB 2018

PEAK SPREAD --15%

DISK CURVE SET NO.3

HOR DIRECTION

DAMPING VALUE = 0.030



REF 17



PSPECTRA VER 01: LEV 09

56E

6 JUL 1965

NIRADARA MOHAWK-NINE MILE POINT: 2 - CALC12177-KN1C1-M8-1928 REV141

MRS OF ACC.-CONTROL: DIESEL GENERATOR BLOODS ELEVATION: 287.58:0

UOB 201B

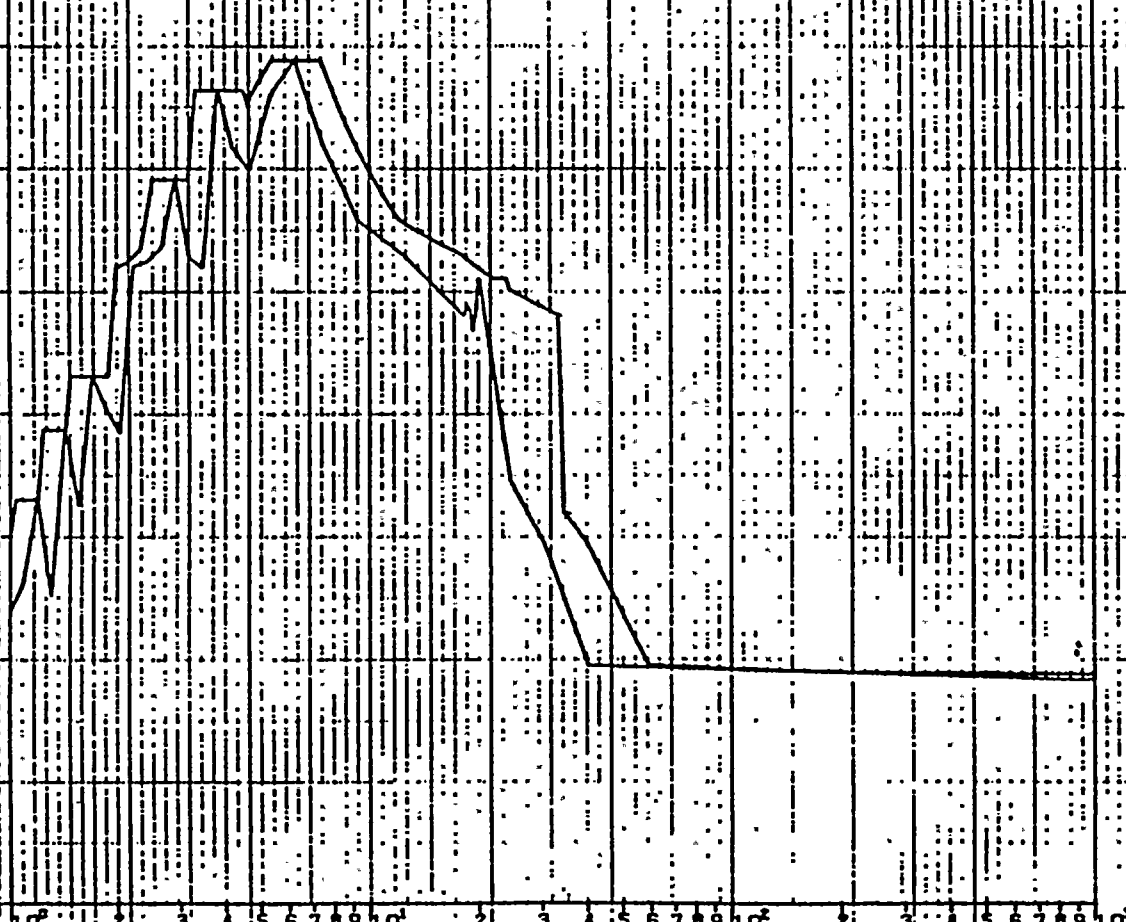
PEAK SPREAD $\pm 15\%$

DISK CURVE SET: 10:5

VER DIRECTION

DAMPING VALUE = 0.030

ACCELERATION: 0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70



FREQUENCY IN HZ

REF 17



PSPECTRA VER 01 LEV 09

SSE

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT Z - CALC12177-NHIC1-N5-1028 REV143

MAS OF ACC.-CONTROL & DIESEL GENERATOR BLOODS ELEVATION 287.6810

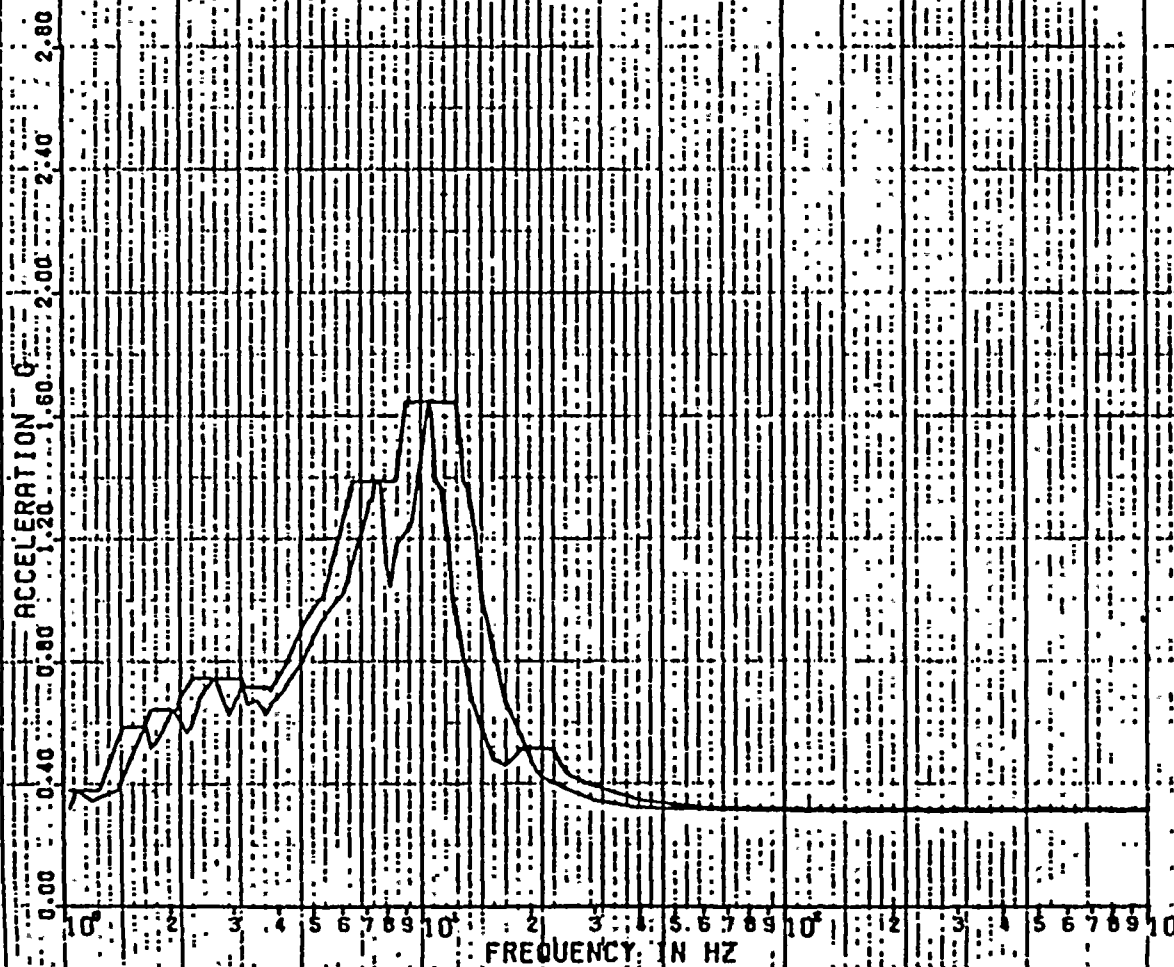
JOB 2070

PEAK SPREAD +/-15%

DISK CURVE SET NO.3

HOR DIRECTION

DAMPING VALUE = 0.040



REF 17



PSPECTRA VER D1 LEV 09

55E

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC(2177-NHIC)-MS-1328 REV(4)

NRS OF ACC. CONTROL & DIESEL GENERATOR BLOOS ELEVATION 287.68:0

U08 2070

PEAK SPREAD 15Z

DISK CURVE SET NO.3

VEK DIRECTION

DAMPING VALUE = 0.040

ACCELERATION G

0.00

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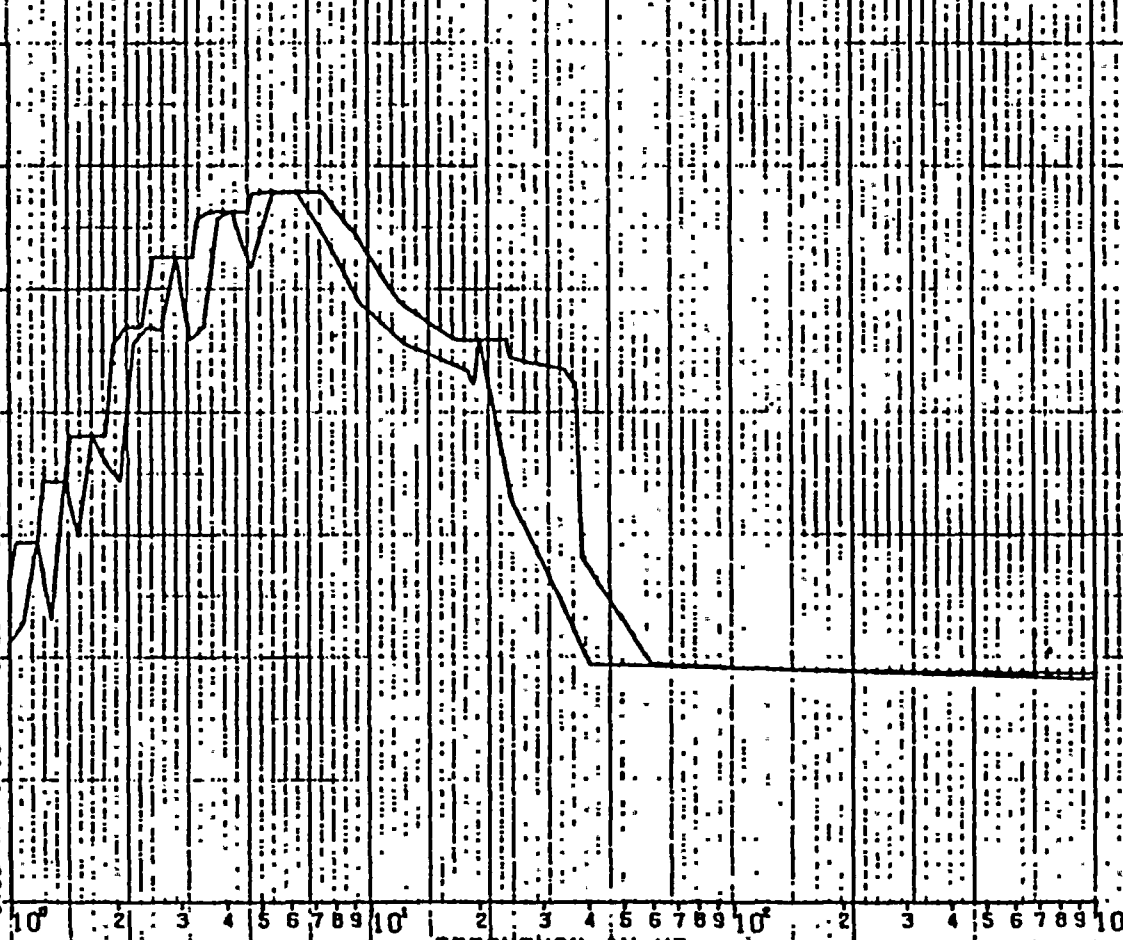
0.30

0.40

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FREQUENCY IN HZ

REF 17



PGSPECTRA VER 01 LEV 08

OBE

6 JUL 1983

NICARA MOHAWK-NINE MILE POINT 2 - CALC12177-MH(C)-MS-1928 REV(4)

JOB 2590

RMS OF ACC.-CONTROL & DIESEL GENERATOR BLOOS ELEVATION 906.0.

PEAK SPREAD +-15%

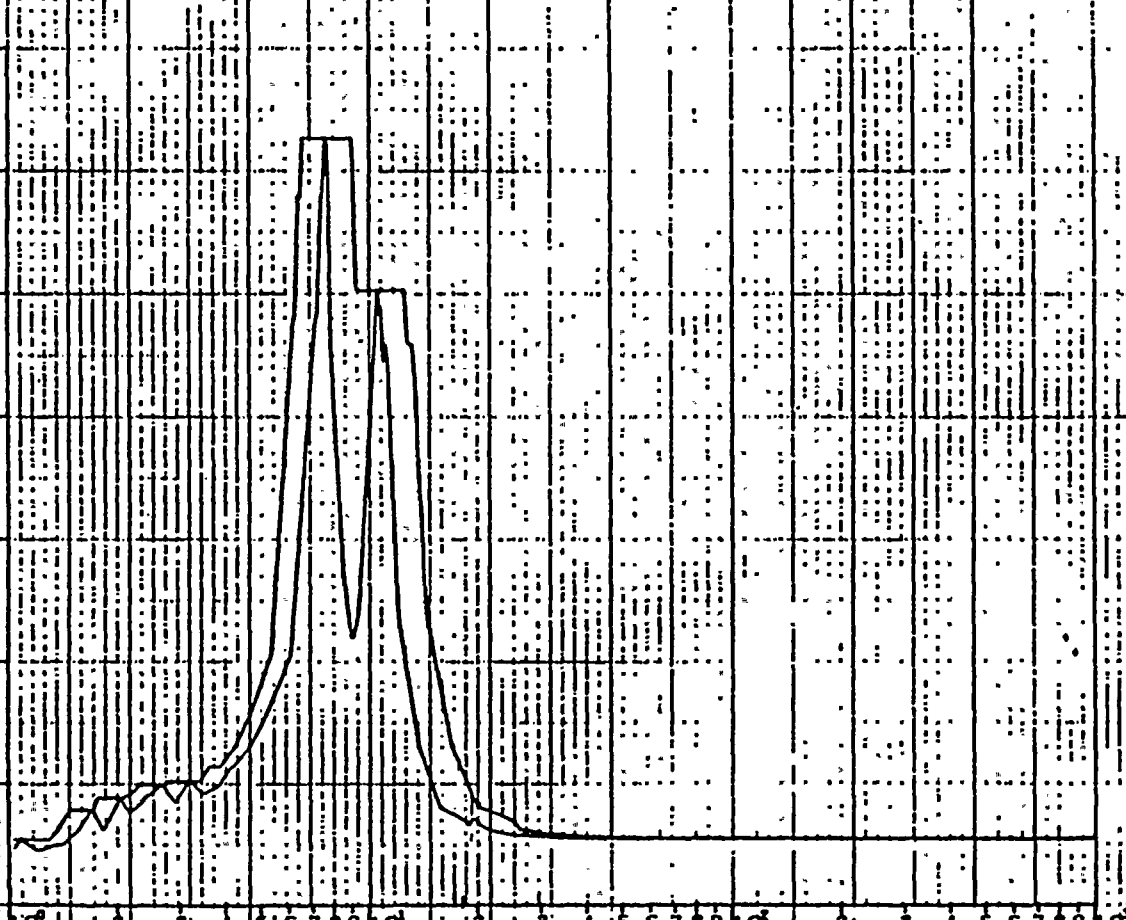
DISK CURVE SET NO.2

HOR DIRECTION

DAMPING VALUE = 0.020

ACCELERATION - G

0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50



FREQUENCY IN HZ

REF 18



PSPECTRA VER 01 LEV 00

NICARAGUA MOHAWK-NINE MILE POINT 2 - CALC 12177-AMIC3-MS-1328 REV(4)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLOODS ELEVATION 306.0

PEAK SPREAD +-15%

DISK CURVE SET NO.2

USE

VER DIRECTION

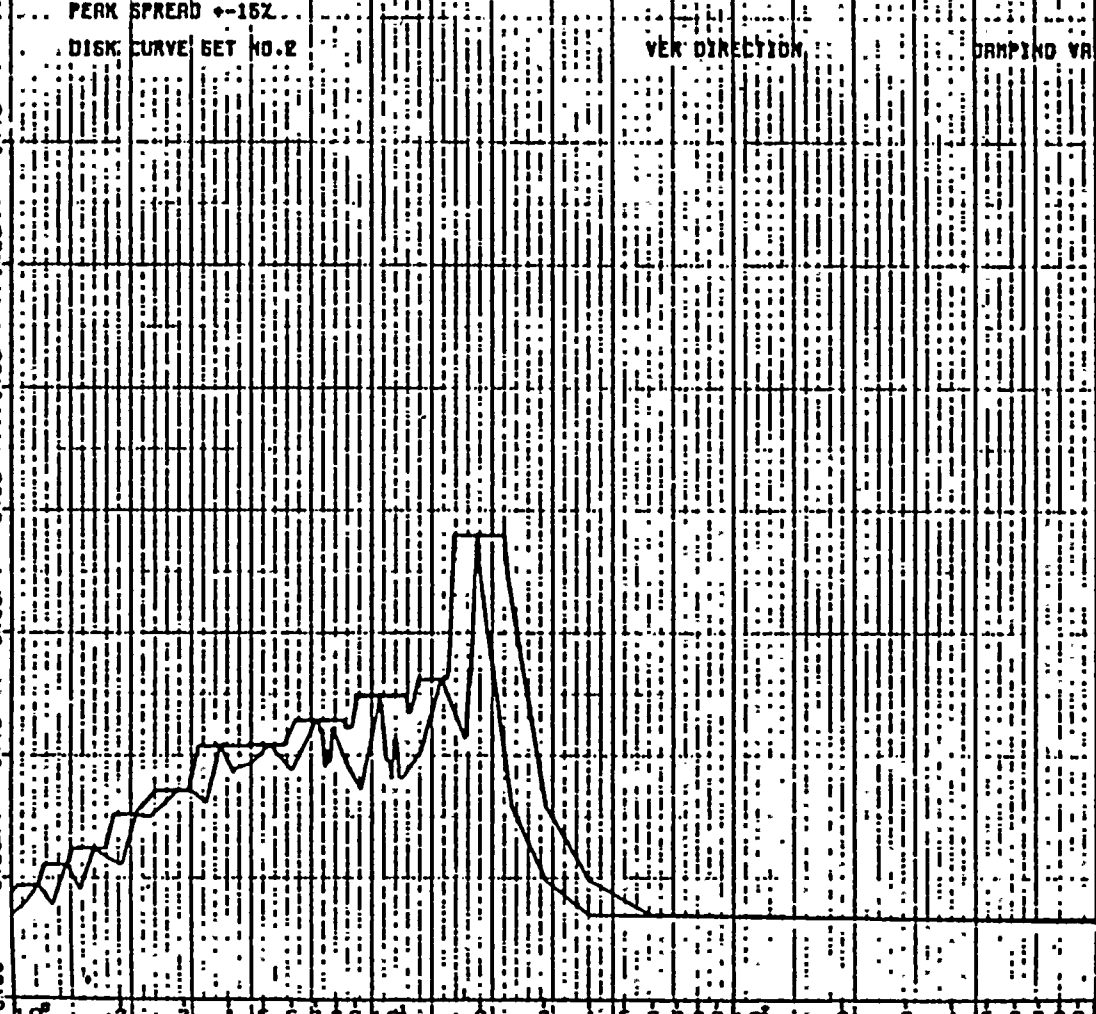
5 JUL 1969

JOB 2080

DAMPING VALUE = 0.020

ACCELERATION G

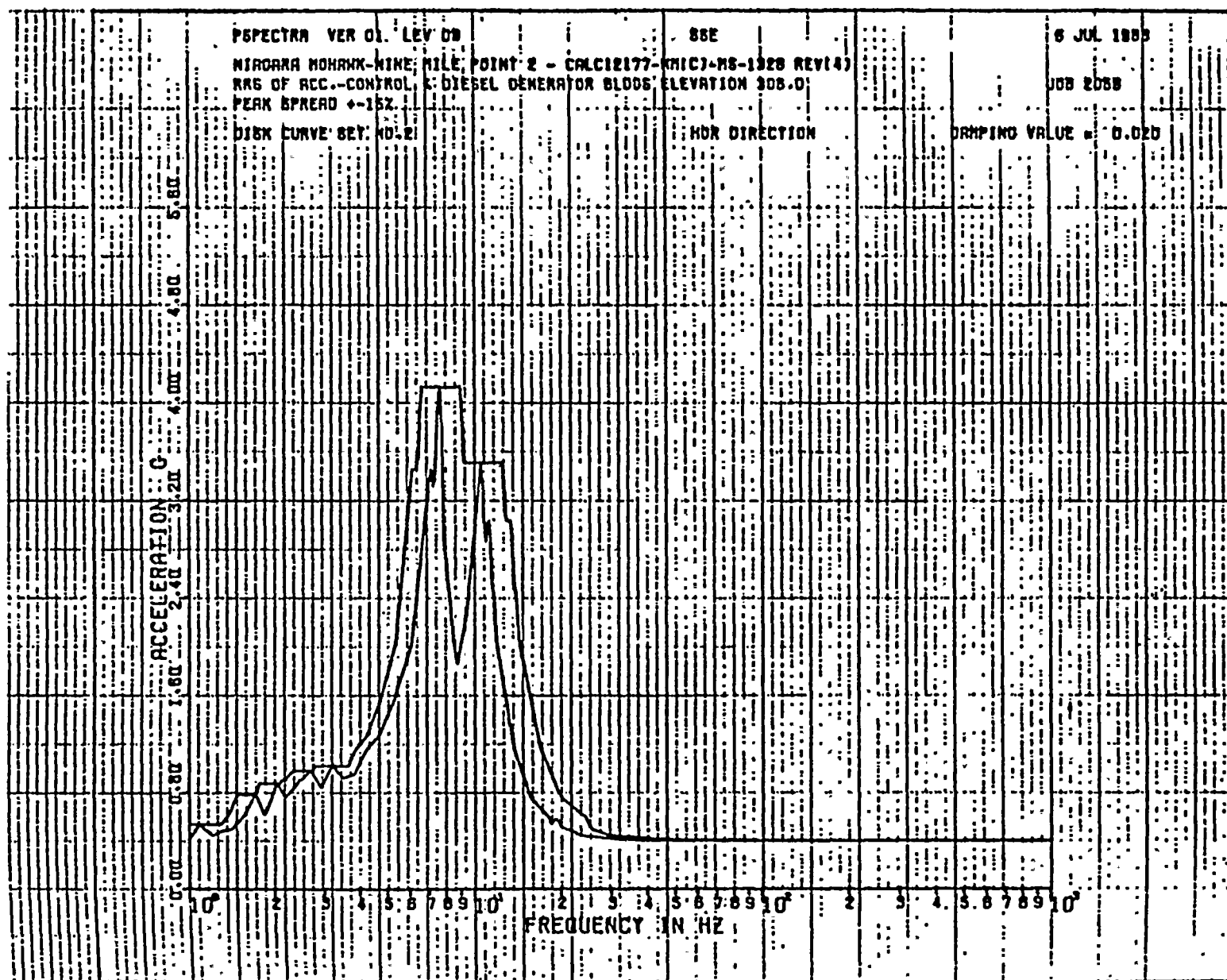
1.40 1.20 1.00 0.80 0.60 0.40 0.20 0.00



FREQUENCY IN HZ

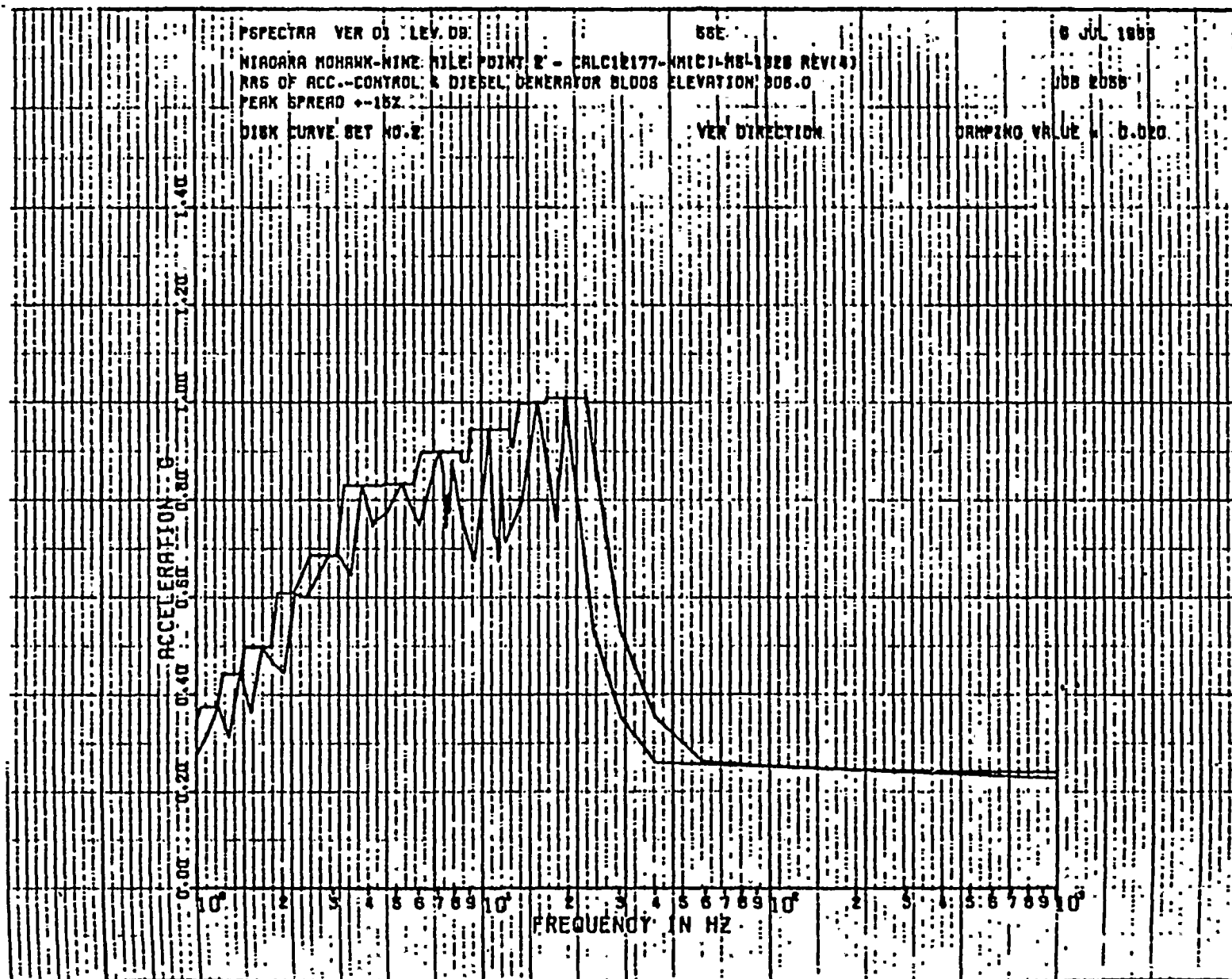
REF 1B





REF 18





REF 18



PSPECTRA VER 01. LEV. 09:

862

8 JUL 1985

NIRADARA MOHAWK-NINE MILE POINT 2 - CALC12177-KMICJ-MS-1328 REV143

NRS OF ACC.-CONTROL: 4 DIESEL GENERATOR BLOOD ELEVATION: 308.01

JOB 2018

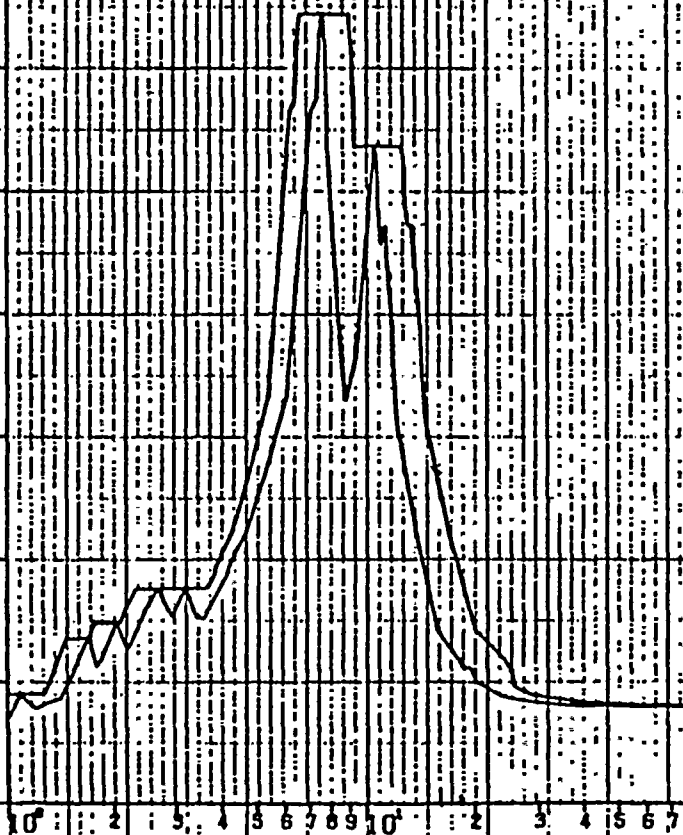
PEAK SPREAD +/-15%

DISK CURVE SET NO. 2

HOR DIRECTION

DAMPING VALUE = 0.050

ACCELERATION 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50



FREQUENCY IN HZ

RAP 18



PSPECTRA VER 01 LEV 08

562

6 JUL 1985

MIRAMAR MOHAWK-NINE MILE POINT 2 CALC12177-RHIC)-MS-1928 REV(4)

NRG OF ACC.-CONTROL & DIESEL GENERATOR. SLOOS ELEVATION 308.0

UDB 201b

PEAK SPREAD: 15%

DISK CURVE SET NO.2

VER DIRECTION

DAMPING VALUE = 0.030

ACCELERATION

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

2

3

4

5

6

7

8

9

10⁴

2

3

4

5

6

7

8

9

10⁵

FREQUENCY IN HZ

REF 18



PSPECTRA VER 01 LEV 09

SSC

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-NHIC1-HS-192B REV(4)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS ELEVATION 806.0

JOB 2070

PEAK SPREAD +-15%

DISK CURVE SET NO.2

HOR DIRECTION

DAMPING VALUE = 0.040

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

2

3

4

5

6

7

8

9

10³

FREQUENCY N.HZ

REF 18



PSPECTRA VER 01 LEV 09

SSE

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC(2177-NM(C)-MS-1928 REV14)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS ELEVATION 306.0

JOB 2070

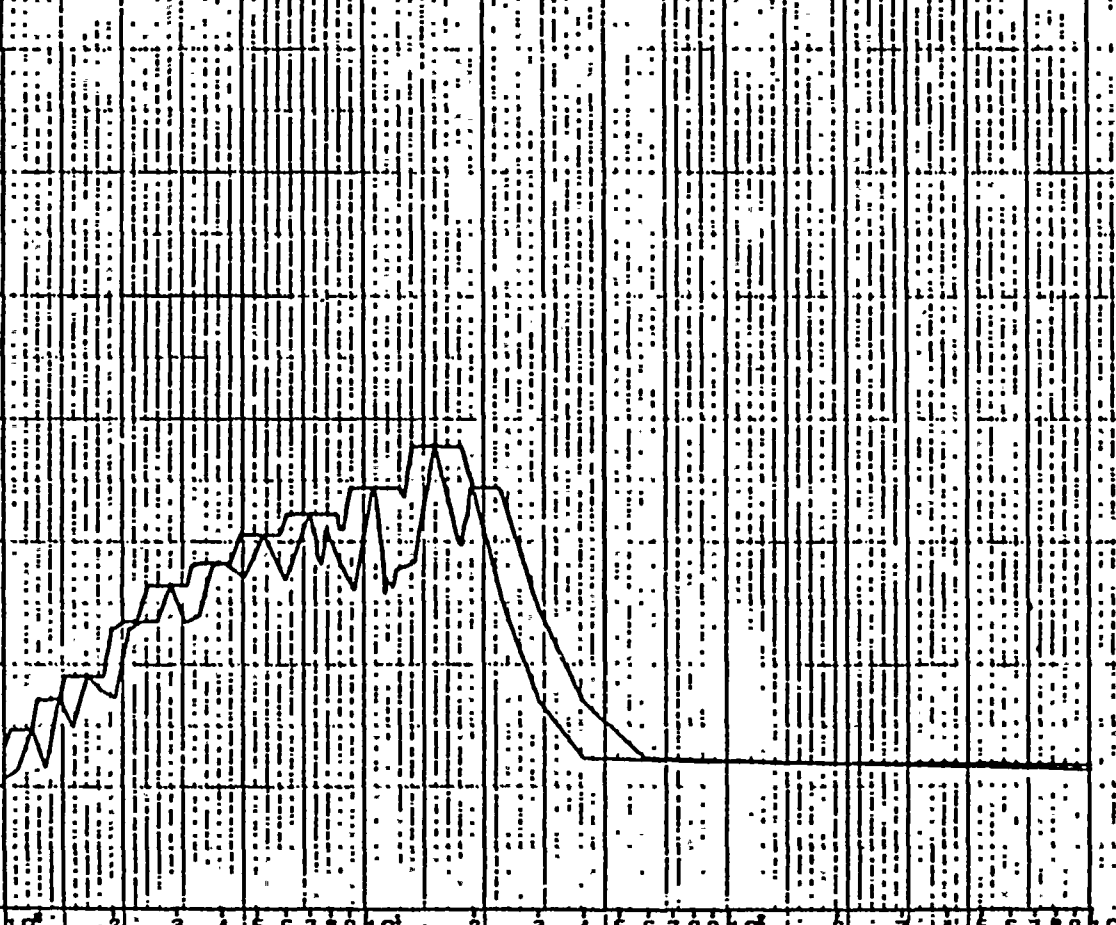
PEAK SPREAD +/-15%

DISK CURVE SET NO.2

VER DIRECTION

DAMPING VALUE = 0.040

ACCELERATION 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ

REF 18



PSPECTRA VER 01 LEV 08

OBE

6 JUL 1985

NIADARA MOHAWK-NINE MILE POINT 2 - CALC12177-KMICJ-M8-1928 REV(4)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLOOS ELEVATION 327.0

DOB 2080

PEAK SPREAD 6-15%

DISK CURVE SET 10%

HOR DIRECTION

DAMPING VALUE = 0.020

ACCELERATION G

0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60

10⁰

2

3

4

5

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7

8

9

10¹

2

3

4

5

6

7

8

9

10²

FREQUENCY IN HZ

REF 19



P5PECTRA VER 01 LEV 08

00E

6 JUL 1988

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-MHC1-M5-1828 REV143

MRS OF ACC--CONTROL & DIESEL GENERATOR BLDGS ELEVATION 927.0

JOB 2080

PEAK SPREAD--15%

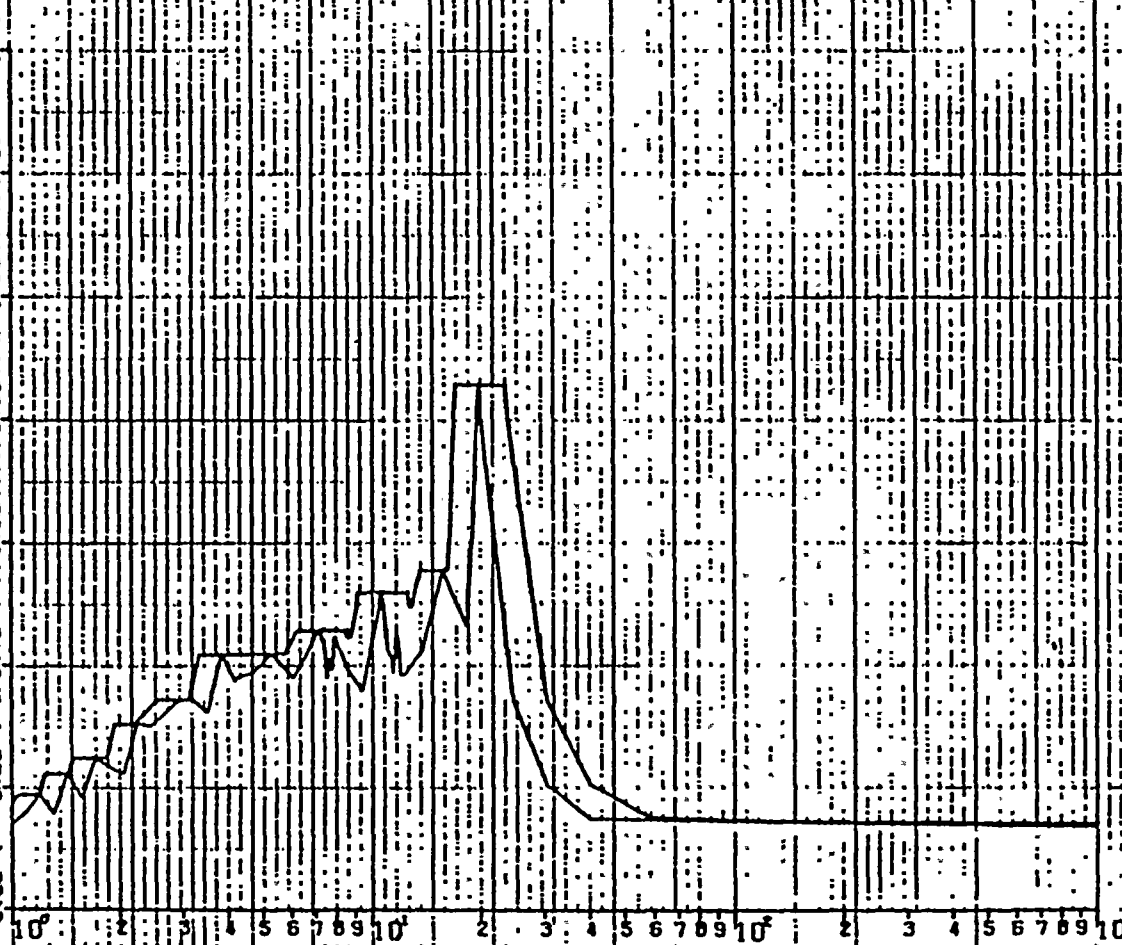
DISK CURVE SET NO.1

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

REF 19



SPECTRA VER. 01 - LEV 09

SEE

6 JUL 1989

NIAGARA MOHAWK-NINE MILE POINT 2 - CALCIE177-MHC)-MS-152B REV(4)

RMS OF ACC.-CONTROL & DIESEL GENERATOR 8008 ELEVATION 927.0

JOB 2588

PEAK SPREAD 1-152

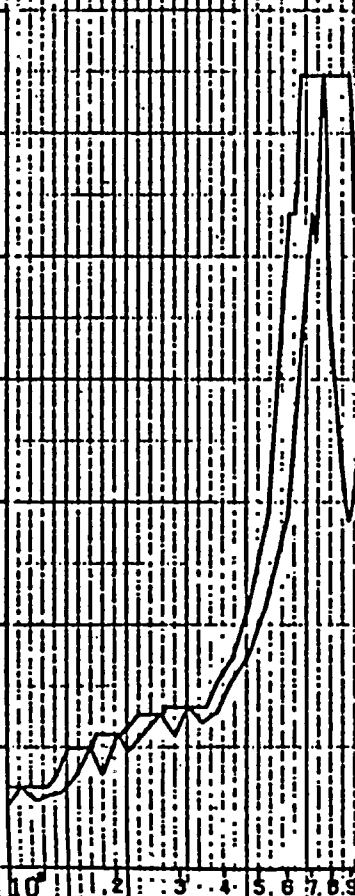
DISK CURVE SET NO.1

HON. DIRECTION

DAMPING VALUE & 0.020

ACCELERATION G

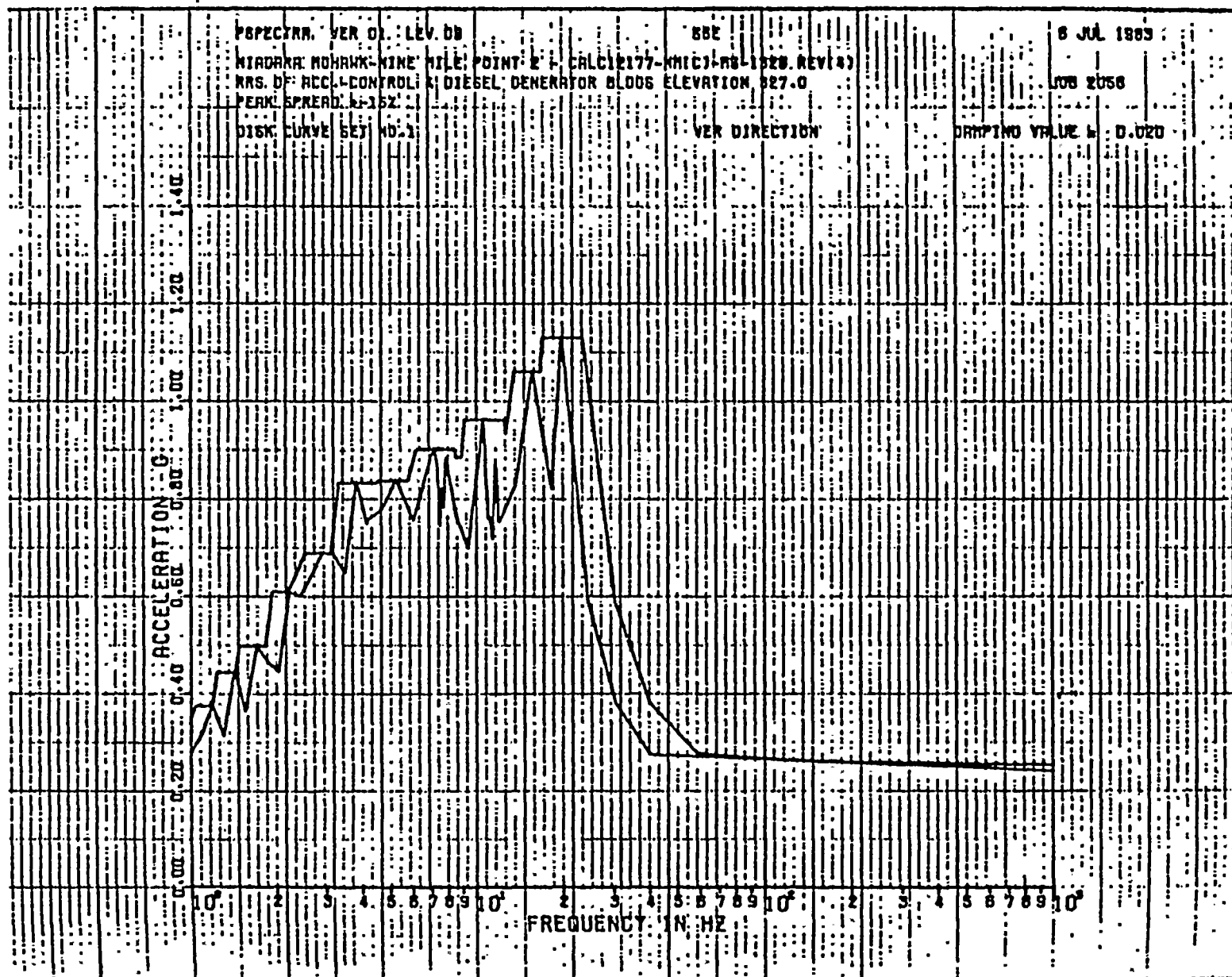
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60



FREQUENCY IN HZ

REF 19





REF 19



PSPECTRA VER 01 LEV. 03

55E

18 JUL 1983

MIADANA MOHAWK-NINE MILE POINT 2 - CALC12177-AMIC1-M8-1928 REV143

JOB 2019

RRS OF ACCL-CONTROL 2 DIESEL GENERATOR BLOOS ELEVATION 327.0

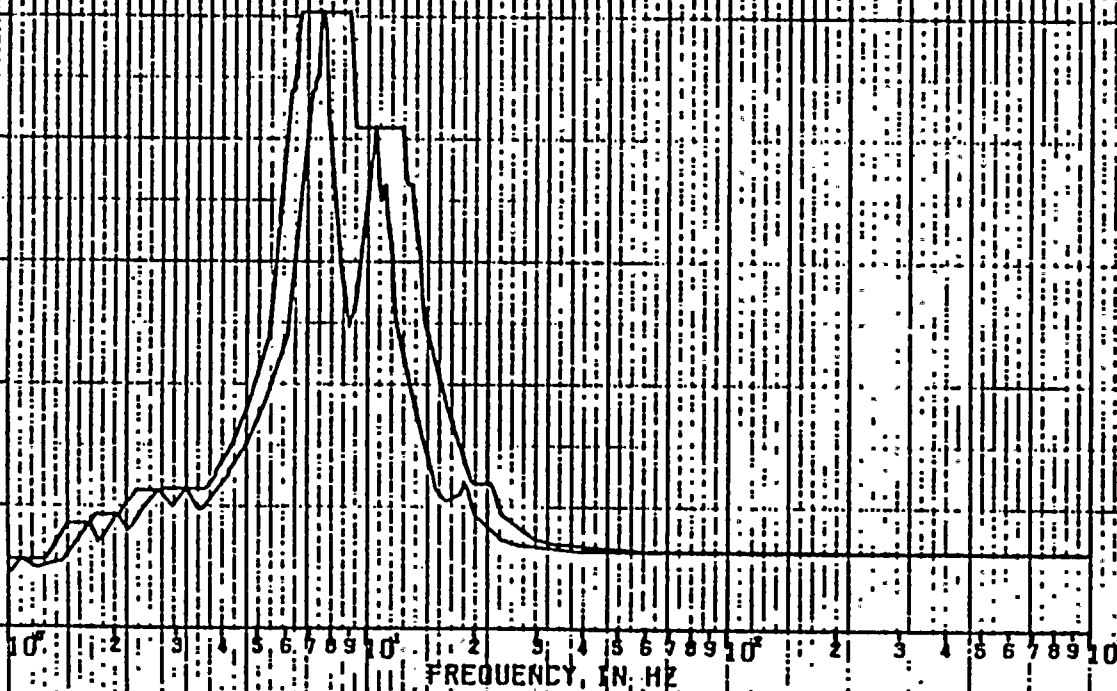
PEAK SPREAD 9-15%

DISK CURVE SET NO. 1

HOR DIRECTION

DAMPING VALUE 0.080

ACCELERATION 0
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60



REF 19



PSPECTRA VER 01 LEV 09

65E

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-KMIC1-HS-1928 REV(4)

RRS OF ACCL-CONTROL & DIESEL GENERATOR BLOODS ELEVATION 927.0

JOB 2018

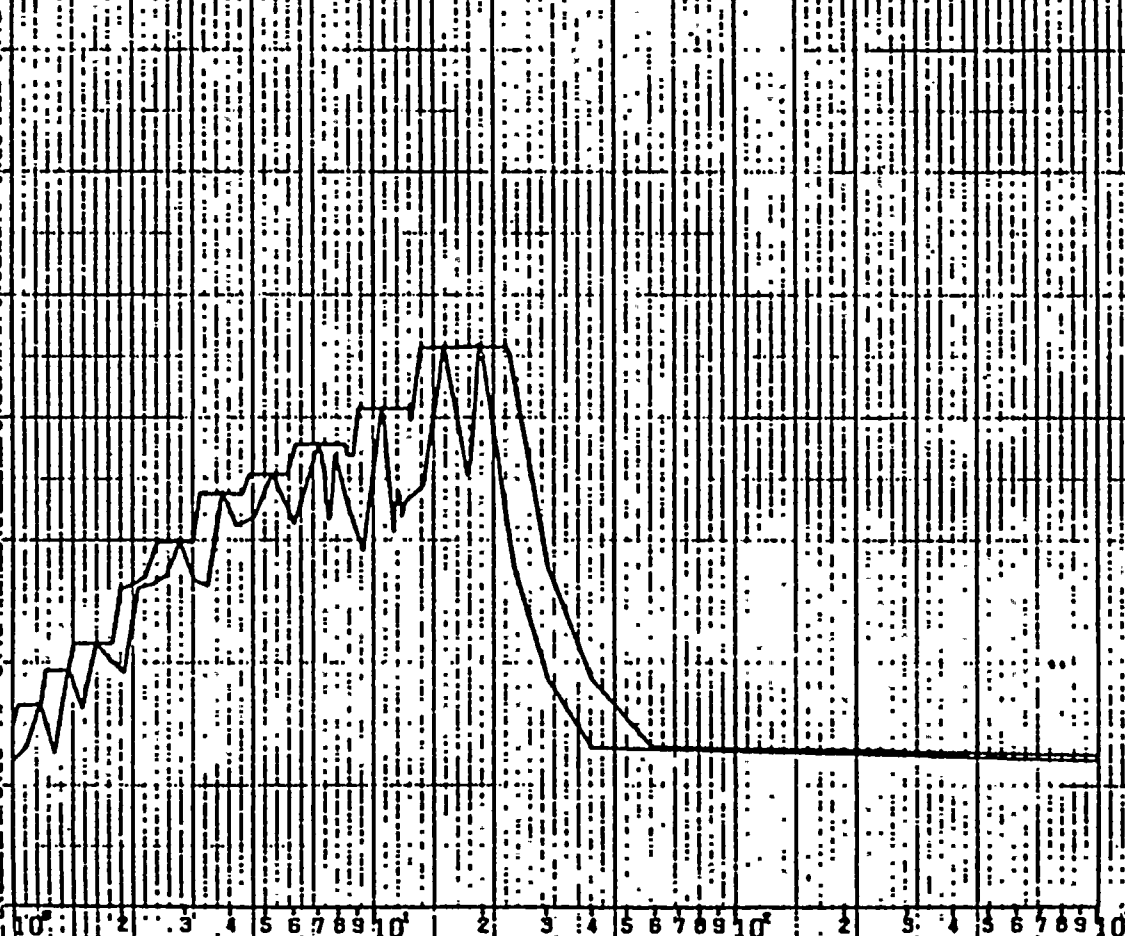
PEAK SPREAD: -16Z

DISK CURVE SET NO.1

VER DIRECTION

DAMPING VALUE: 0.030

ACCELERATION: 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



REF 19



PSPECTRA VER 01 LEV 09

55E

6 JUL 1983

NIADARA MOHAWK-NINE MILE POINT 2 - CALC(2177-NMIC)-MS-1020 REV(4)

RRS OF ACC.-CONTROL & DIESEL GENERATOR 8006 ELEVATION 827.0

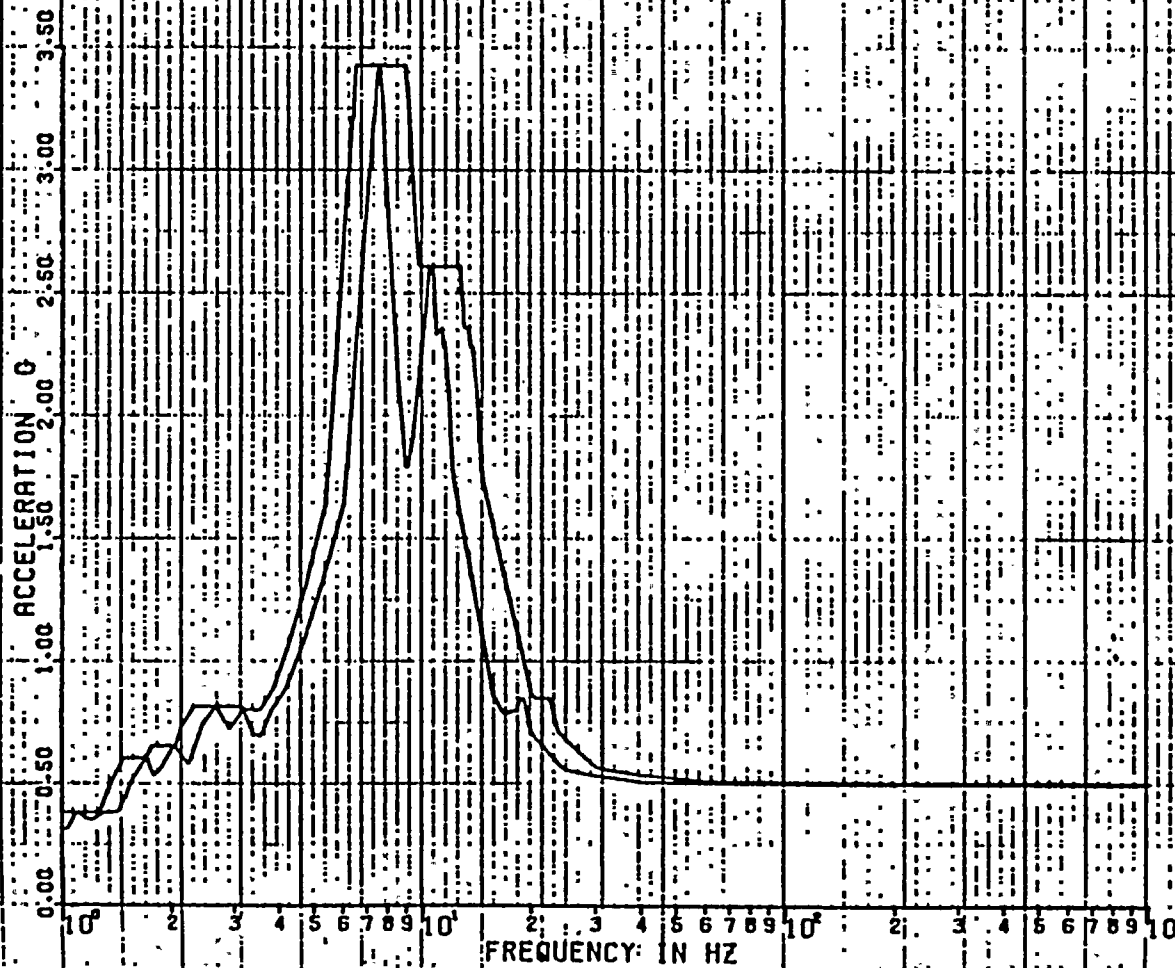
JOB 2070

PEAK SPREAD - 15%

DISK CURVE SET NO. 1

HOR DIRECTION

DAMPING VALUE = 0.040



REF 19



PSPECTRA VER 01 LEV 09

55E

6 JUL 1983

NIAGARA MOHAWK-NINE MILE POINT 2 - CALC12177-NHIC1-M5-1528 REV14)

RRS OF ACC.-CONTROL & DIESEL GENERATOR BLDGS ELEVATION 827.0'

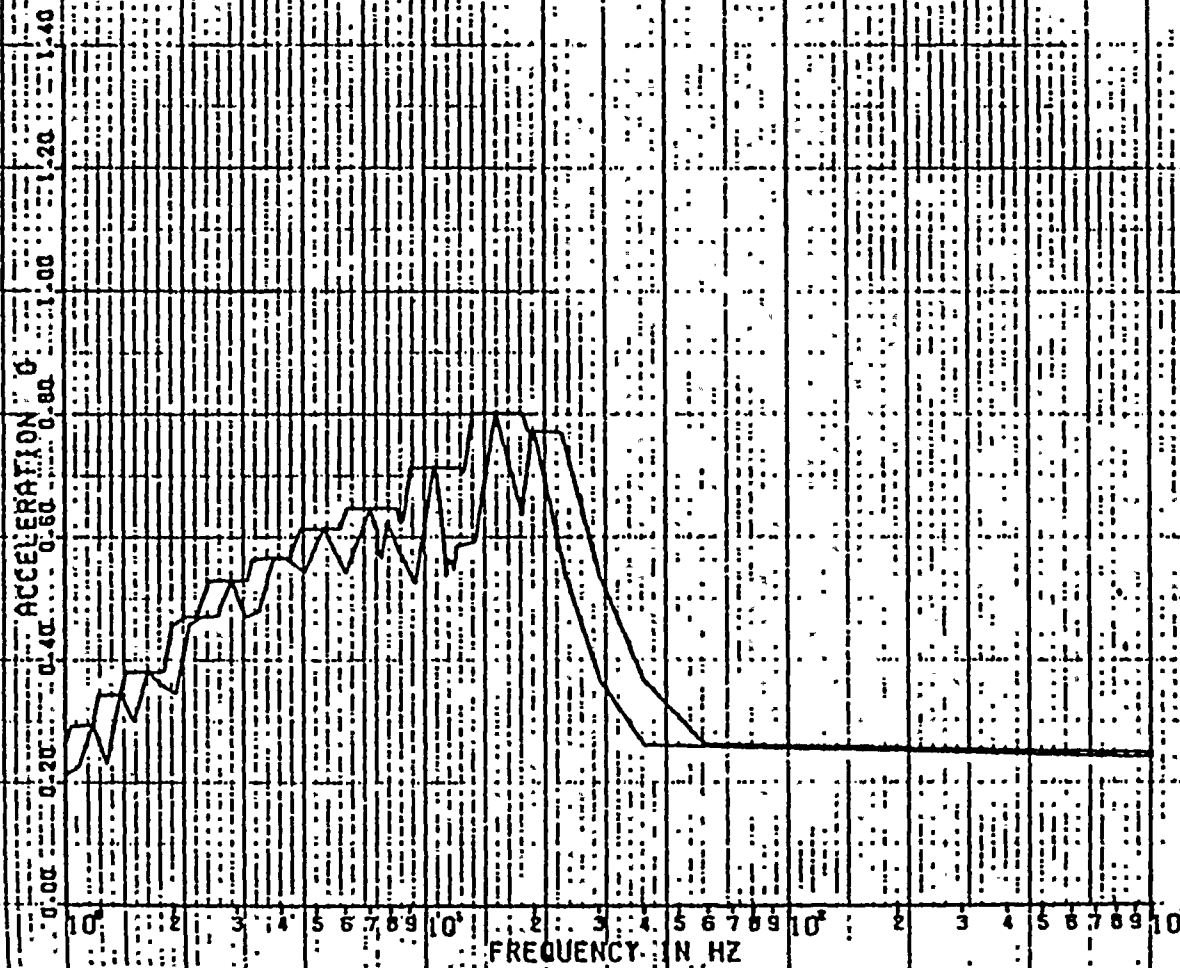
JOB 2070

PEAK SPREAD 15%

DISK CURVE SET NO.3

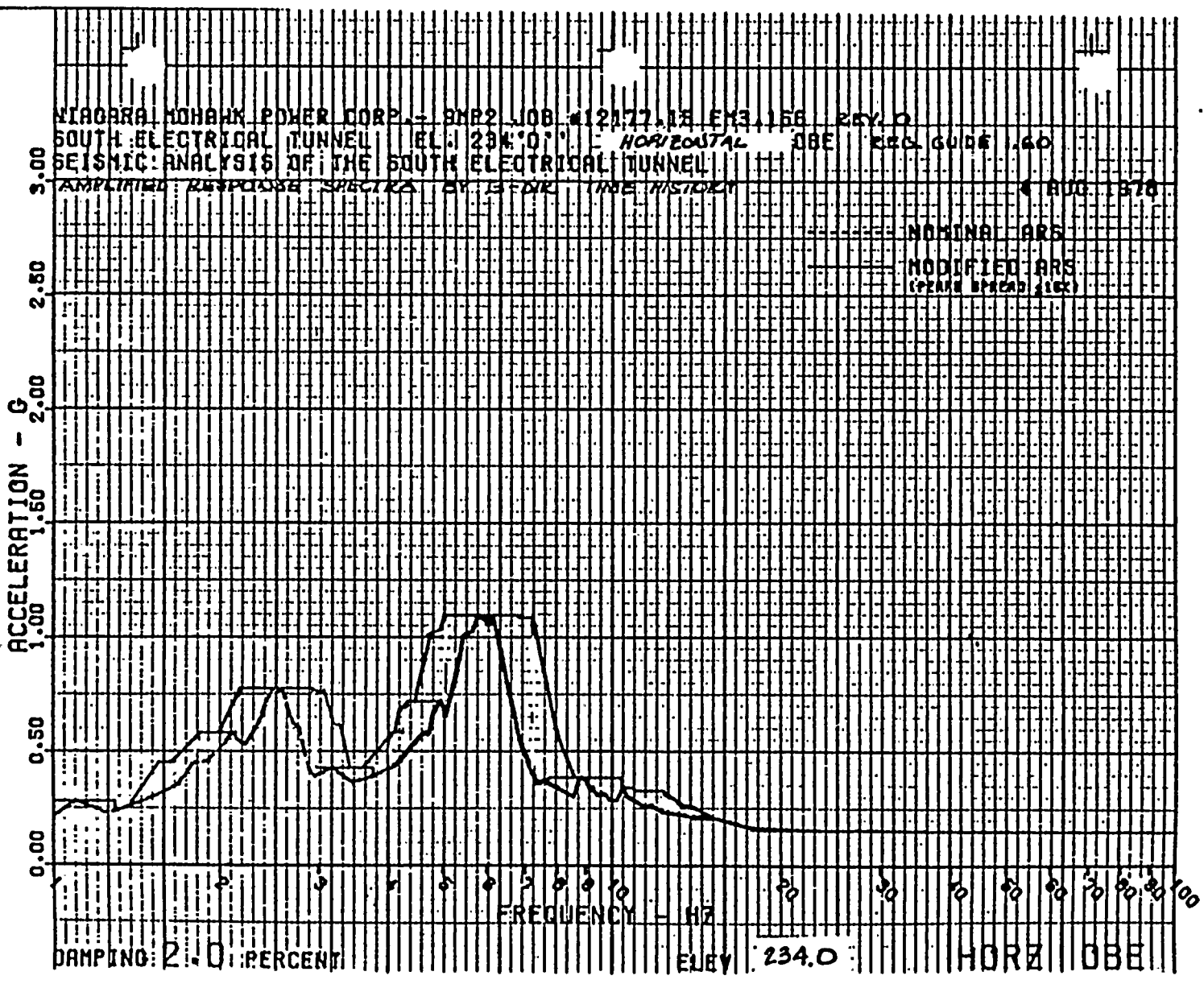
VER DIRECTION

DAMPING VALUE = 0.040

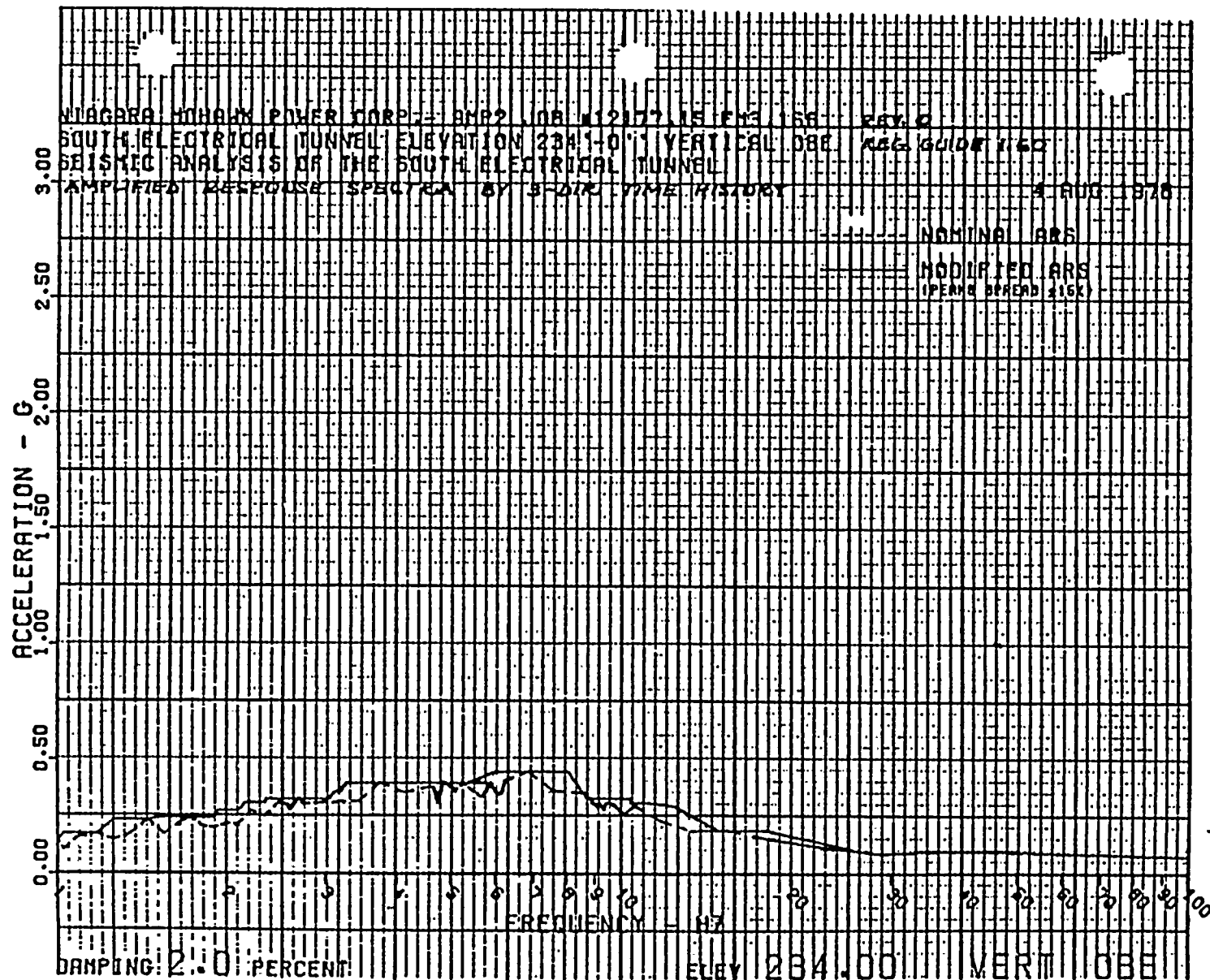


REF 19



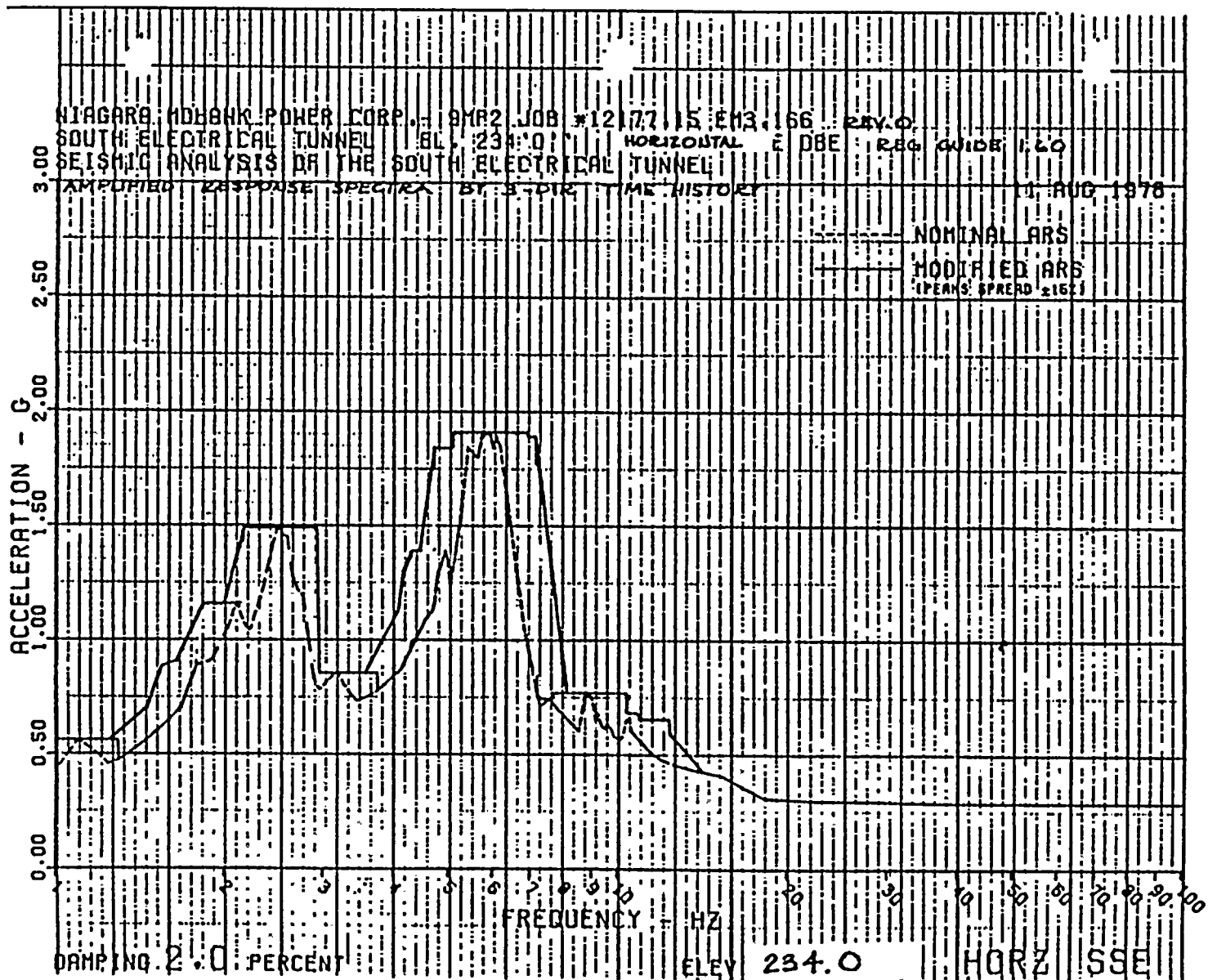


MS-1392 REV 0 REF 20
 12177
 121



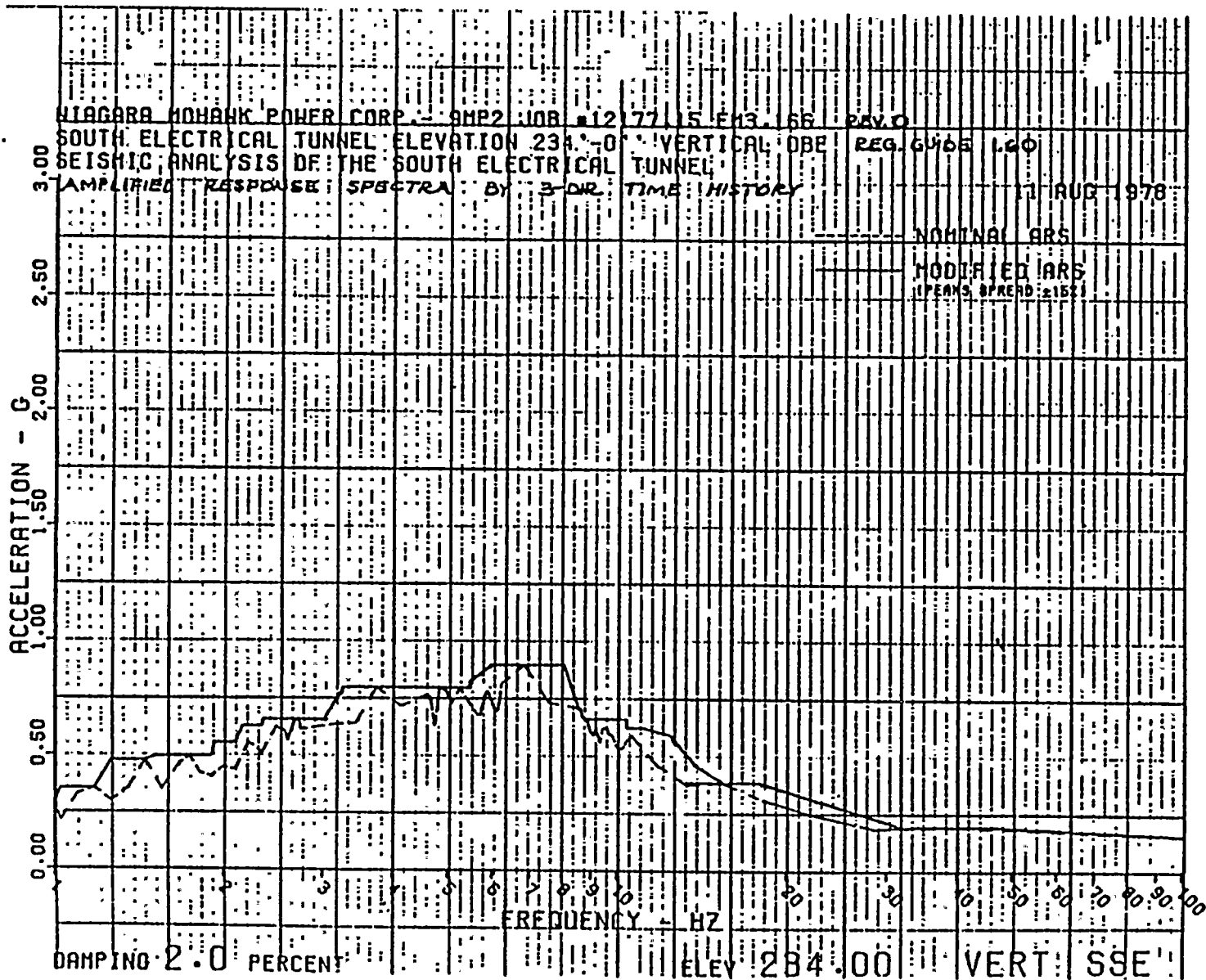
MS-1328 REV0 REF 20
 12177
 122





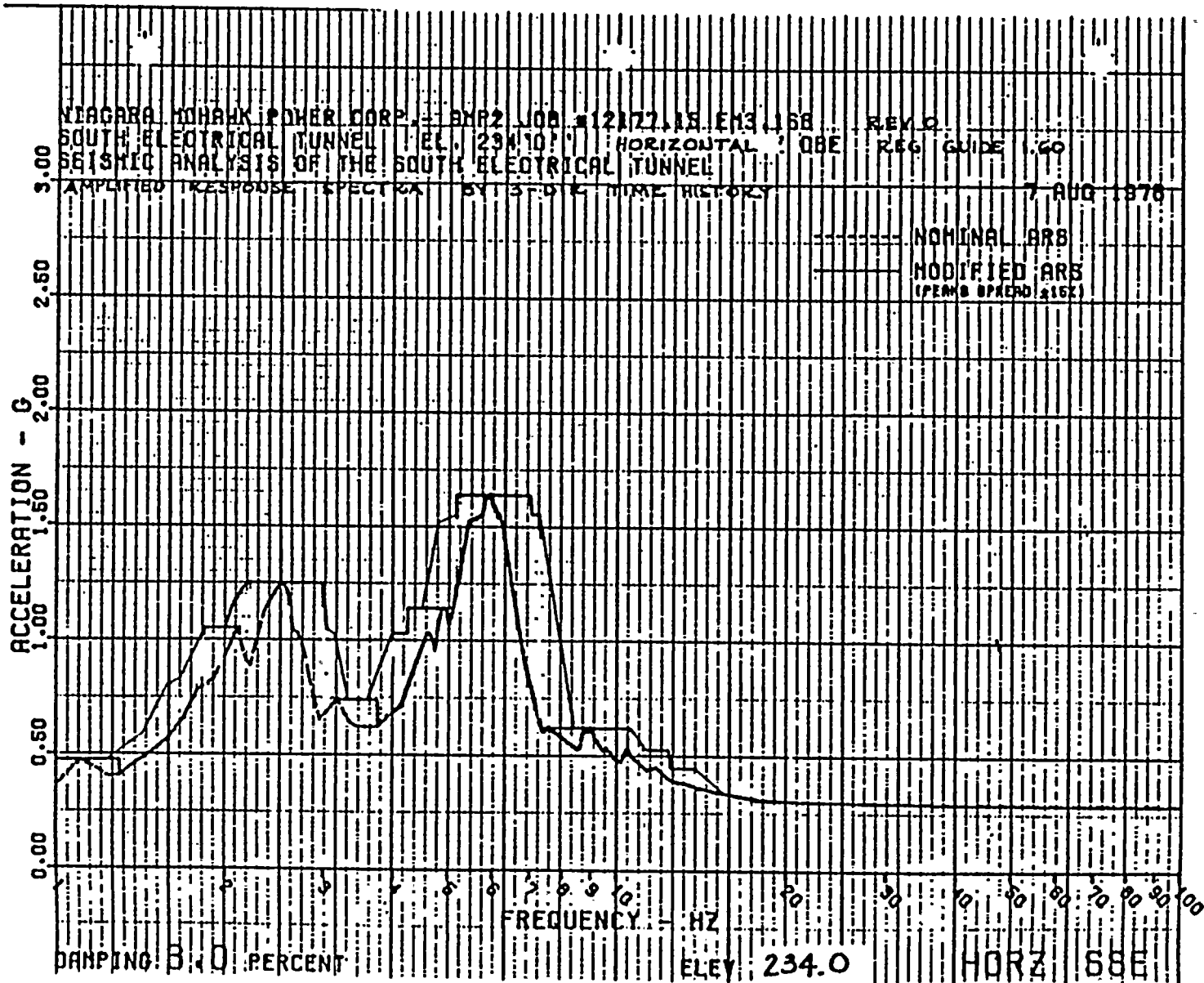
MS-1320 REV 0 REF 20
 12177
 117
 REV. 4





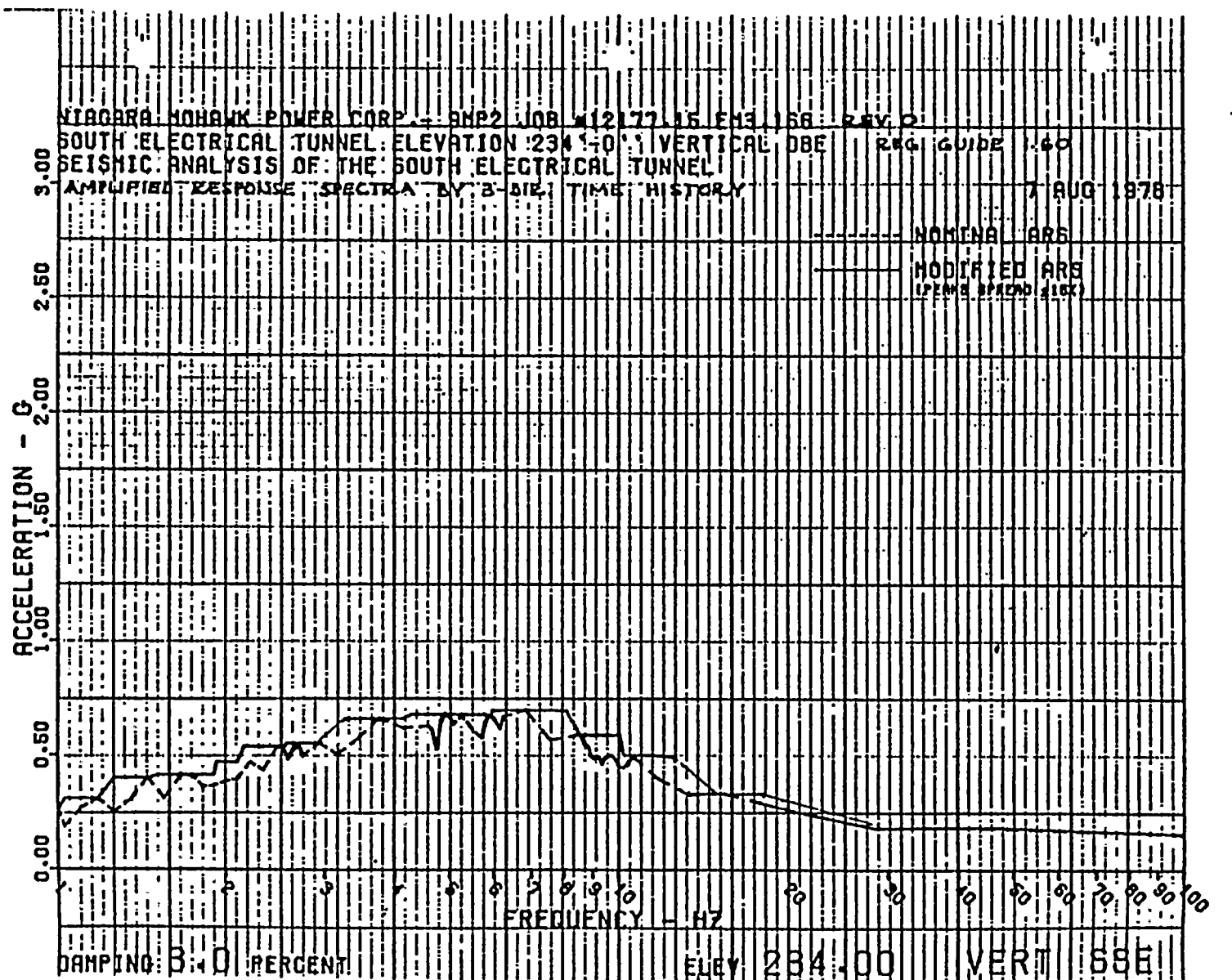
MS-1328 REV 0 REF 20
 12177
 118
 REV. 4





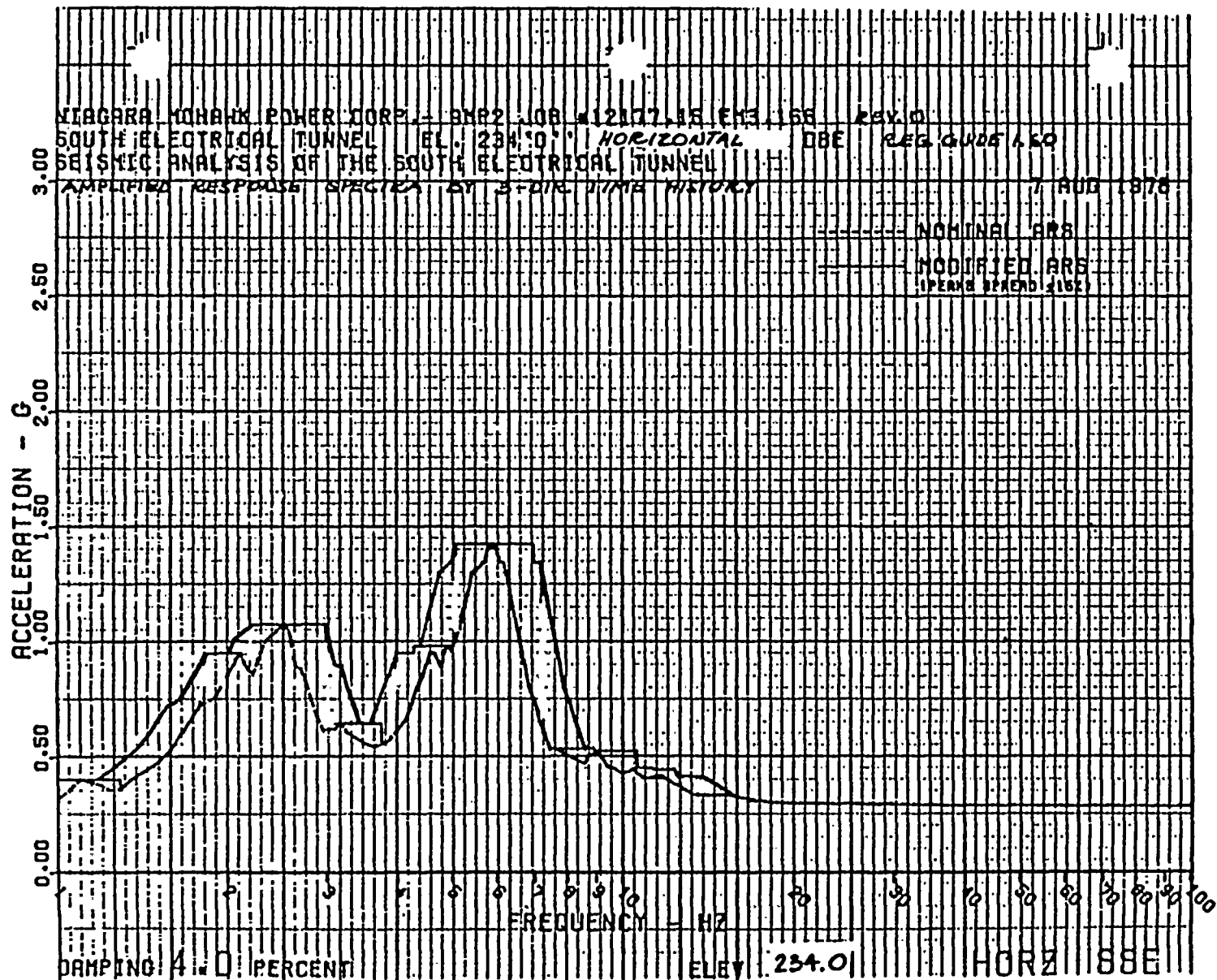
MS 1328 REV 0 REF 20
 1277
 119
 REV. 4





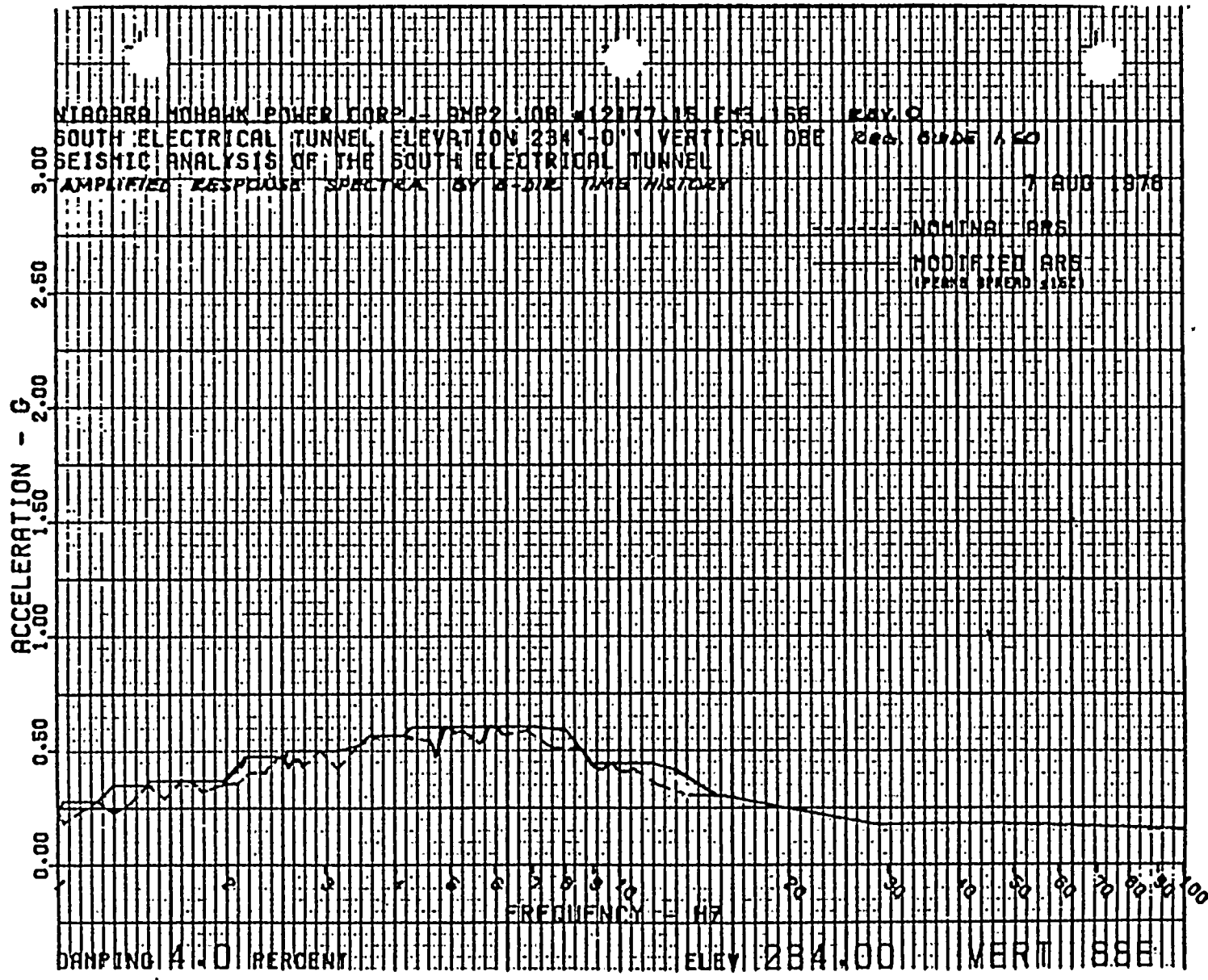
MS-1328 REV 0 REF 20
 1277
 128
 REV 4





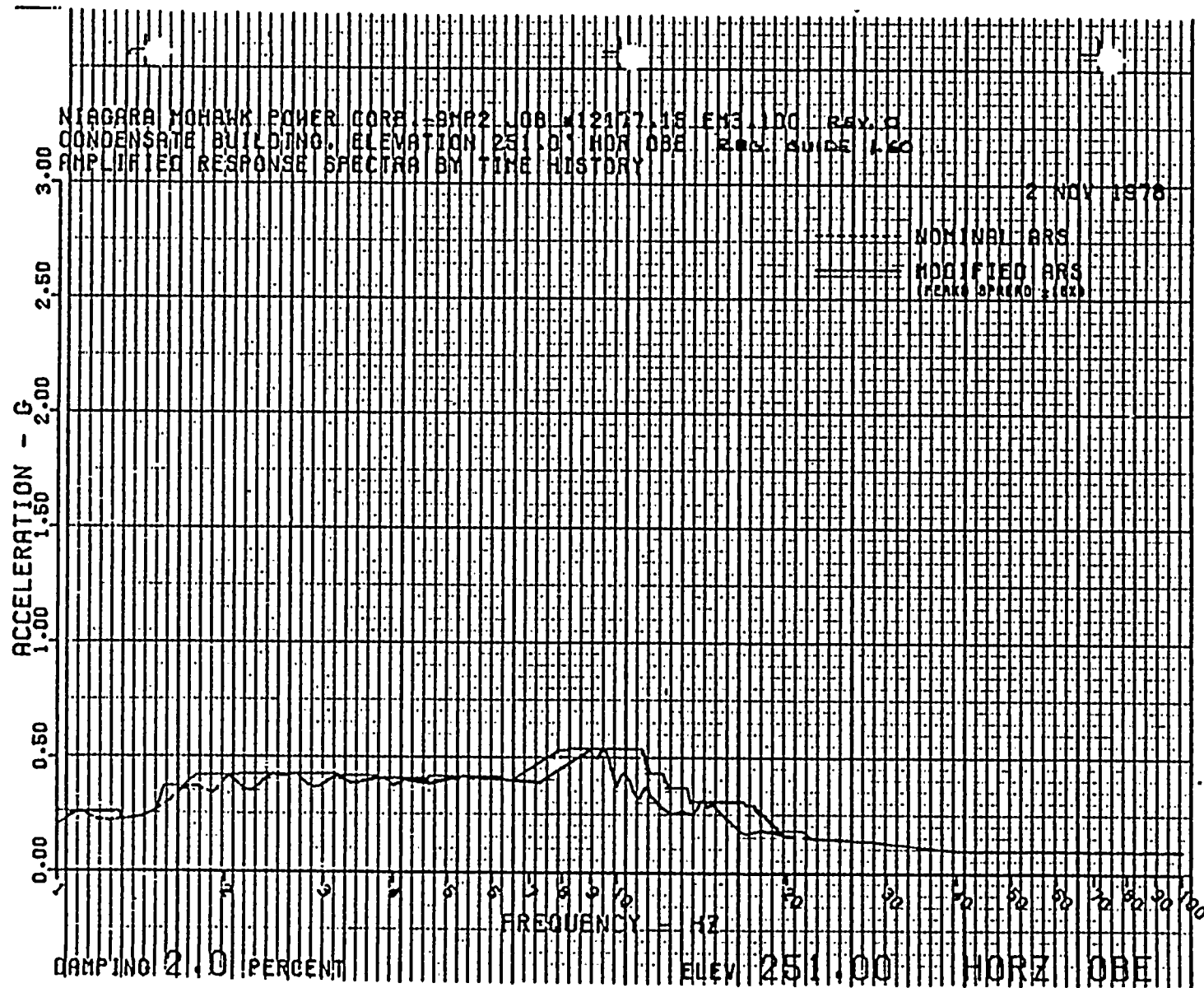
MS-1328 REV 0 REF 20
 12177
 123
 REV.





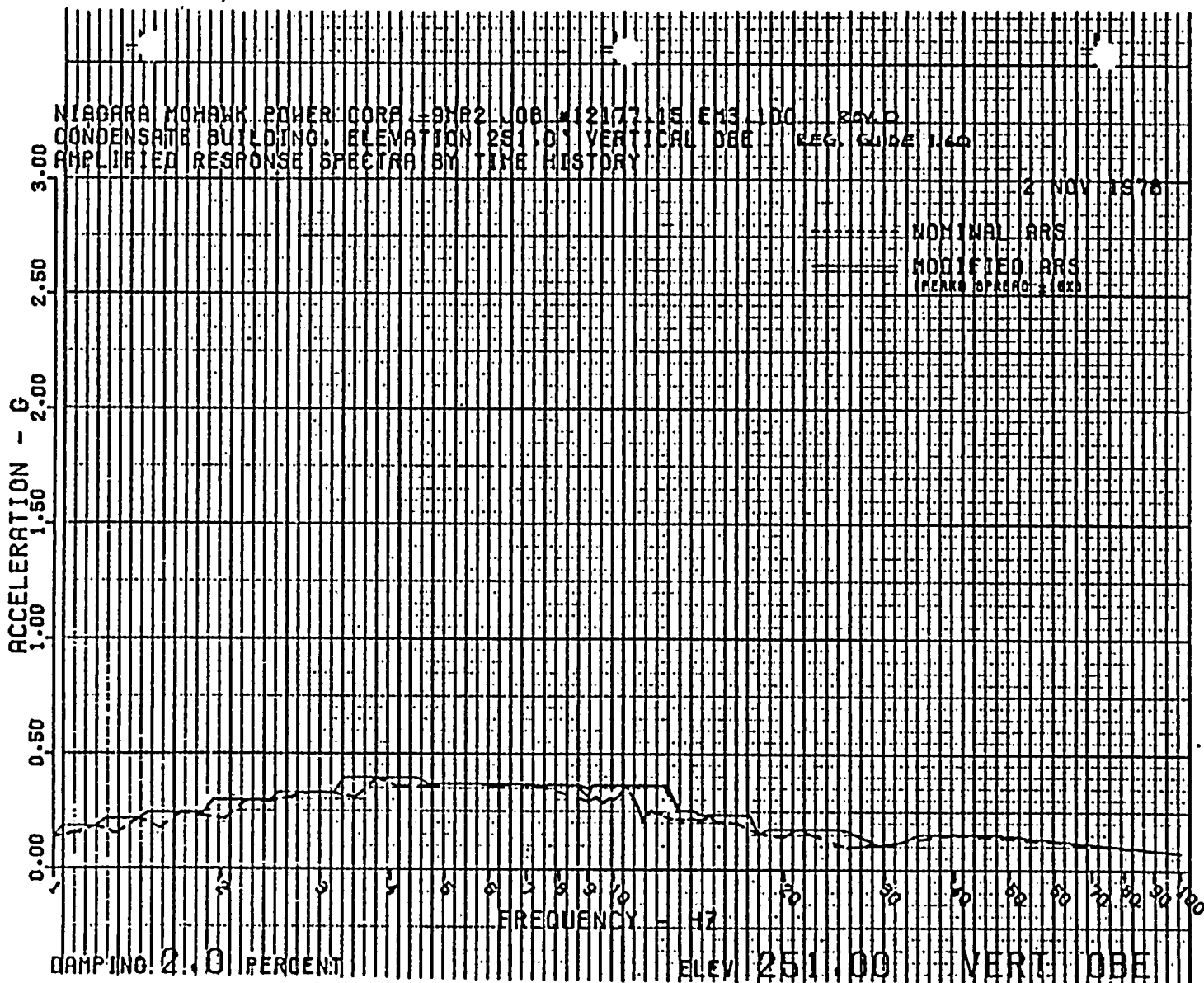
MS-1328 REV0 REF 20
 12177
 124
 REV. 4





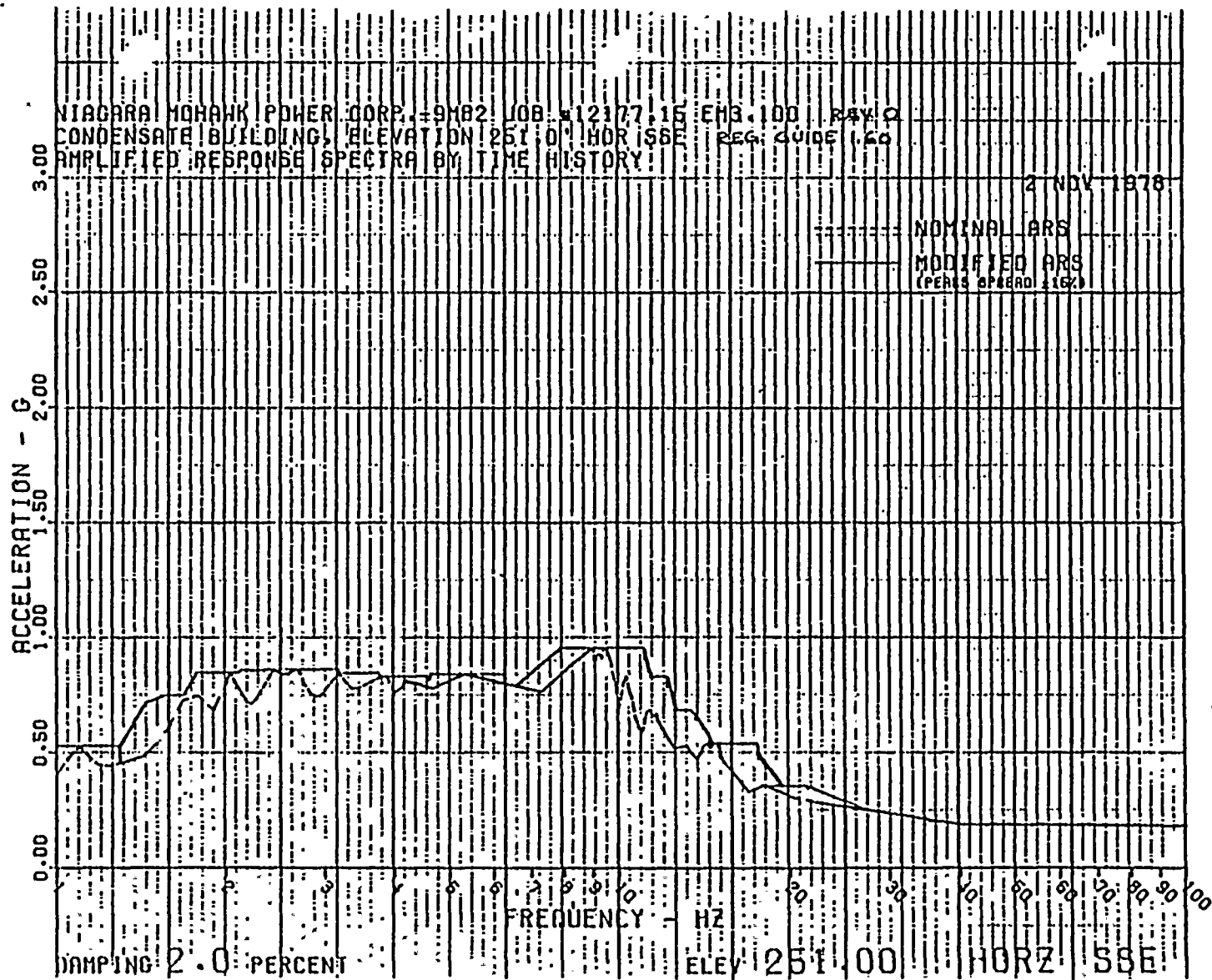
MS-1374 REV 0 REF 21
12177





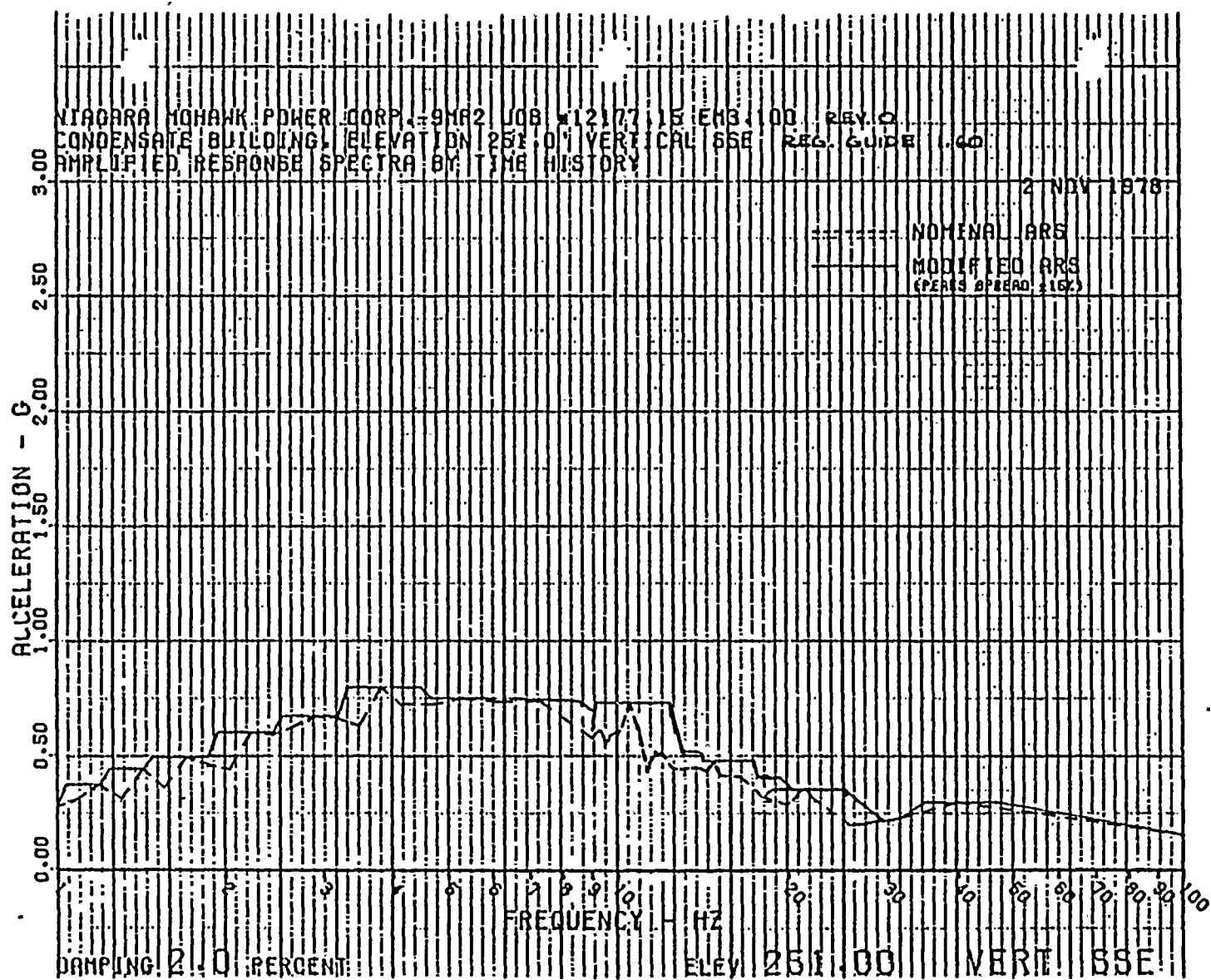
MS-1374 REV 0 REF 21
12177





MS-1374 REV 0 REF 21
 12177





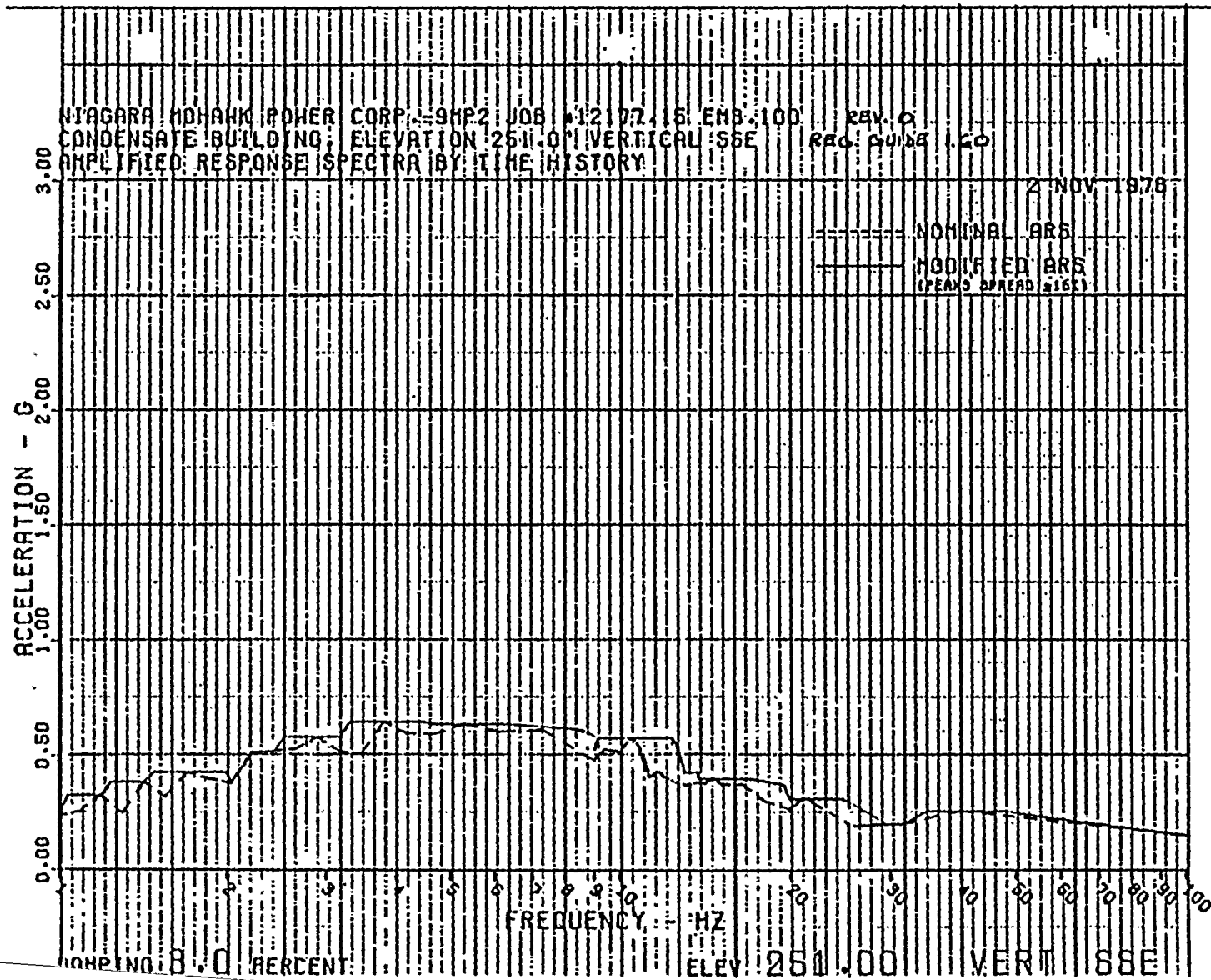
MS-1374 REV 0 REF 21
 12/77





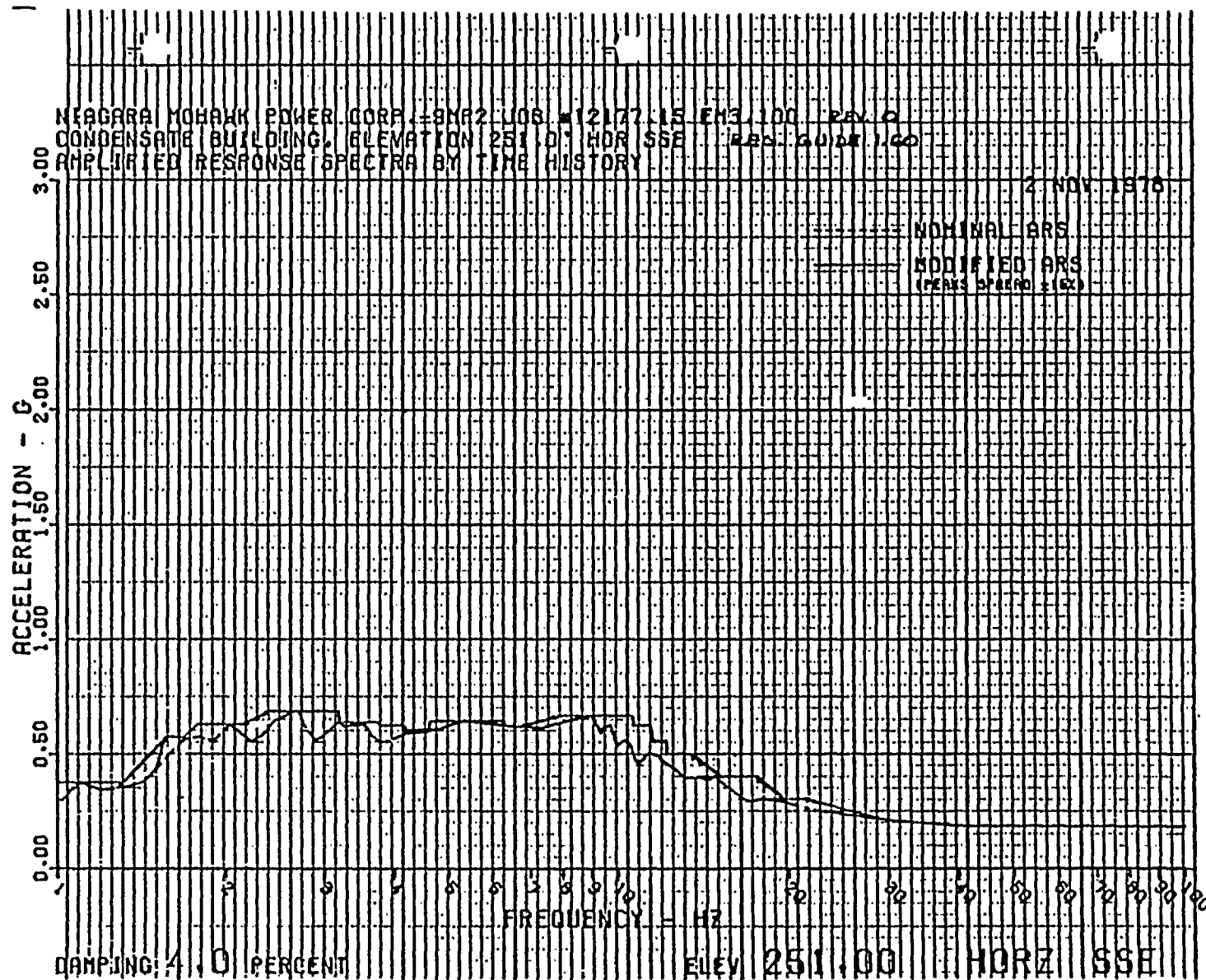
MS-1374 REV 0 REF 21
12177





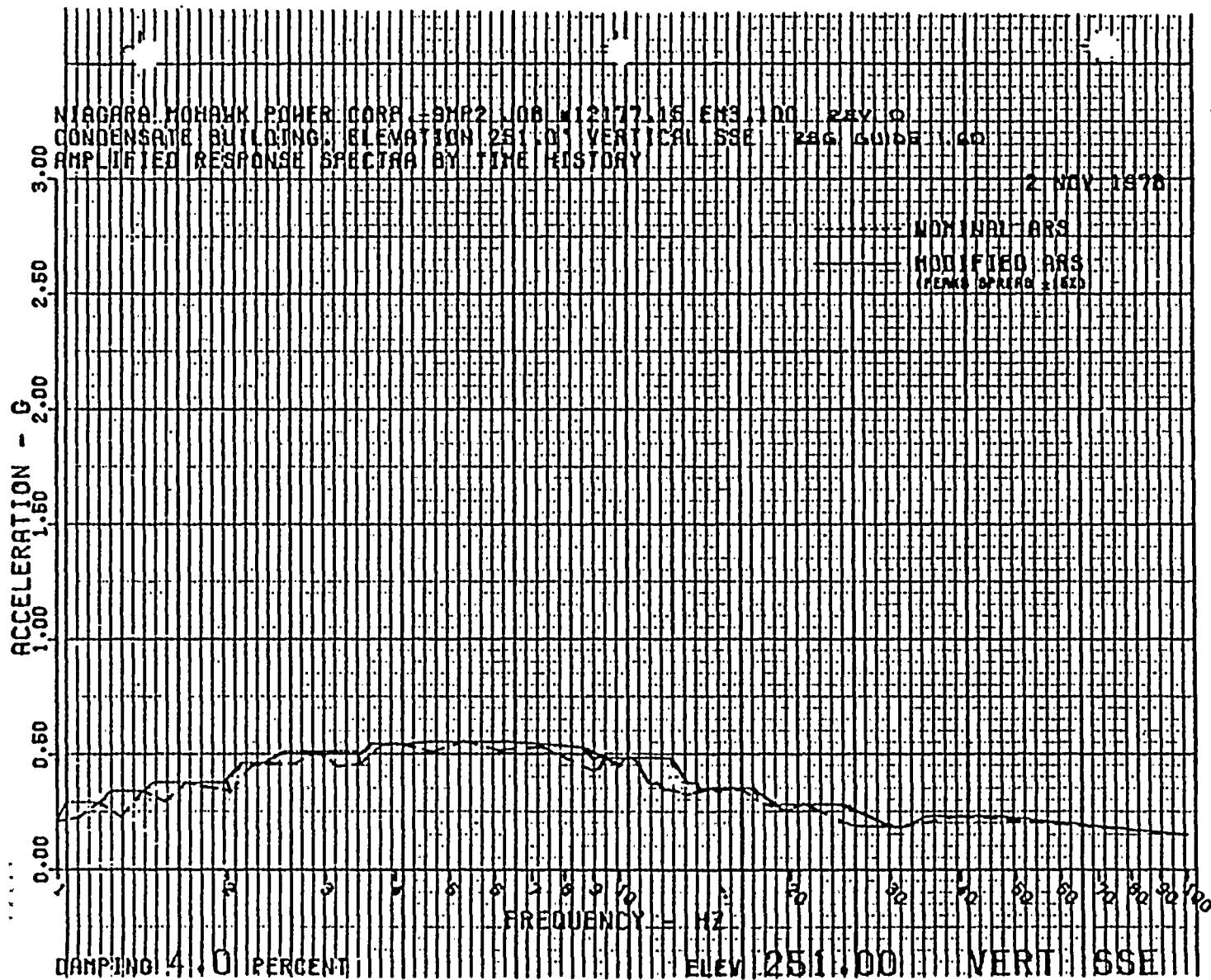
MS-1374 REV 0 REF 21
 12177





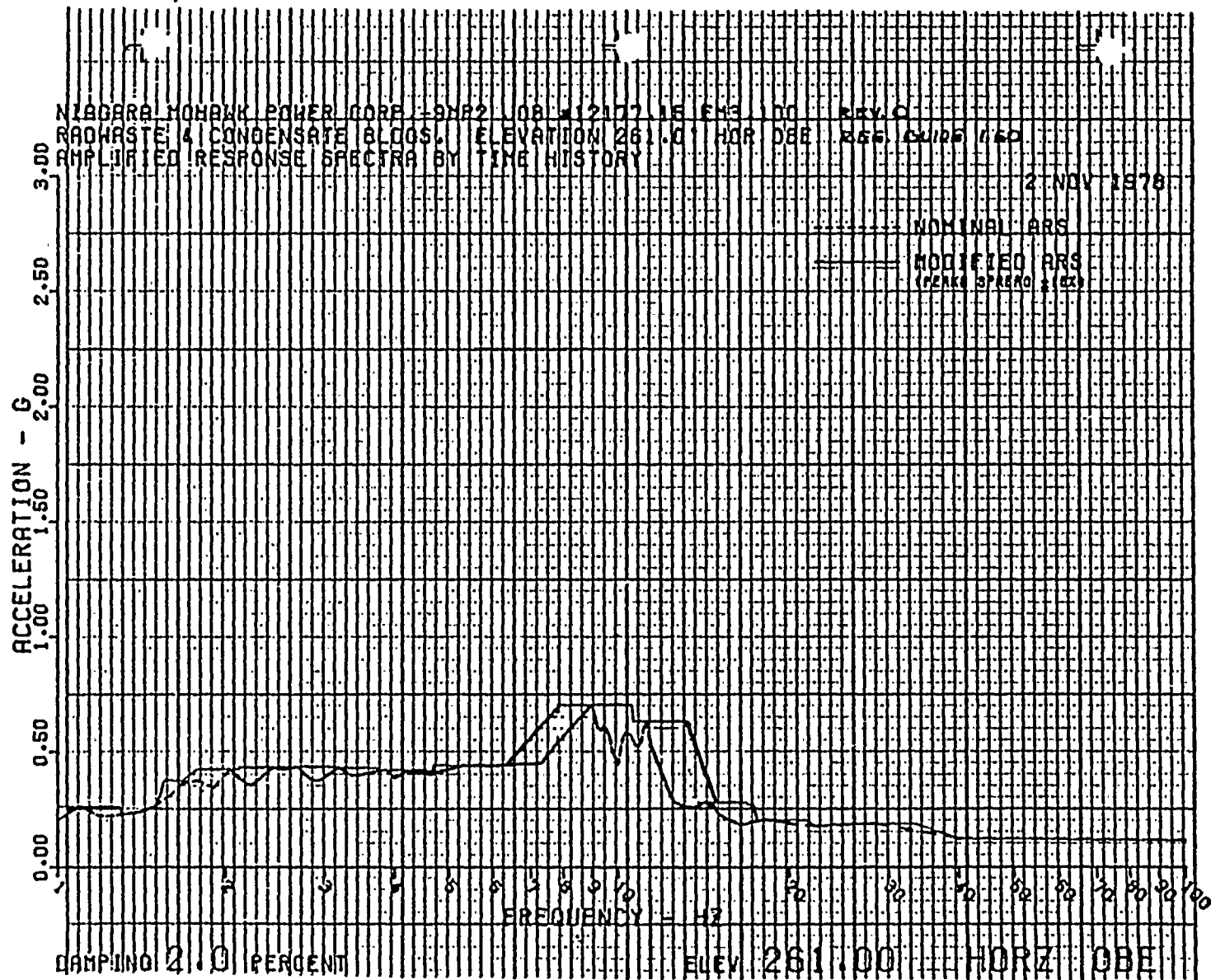
MS-2374 REV 0 REF 21
12177





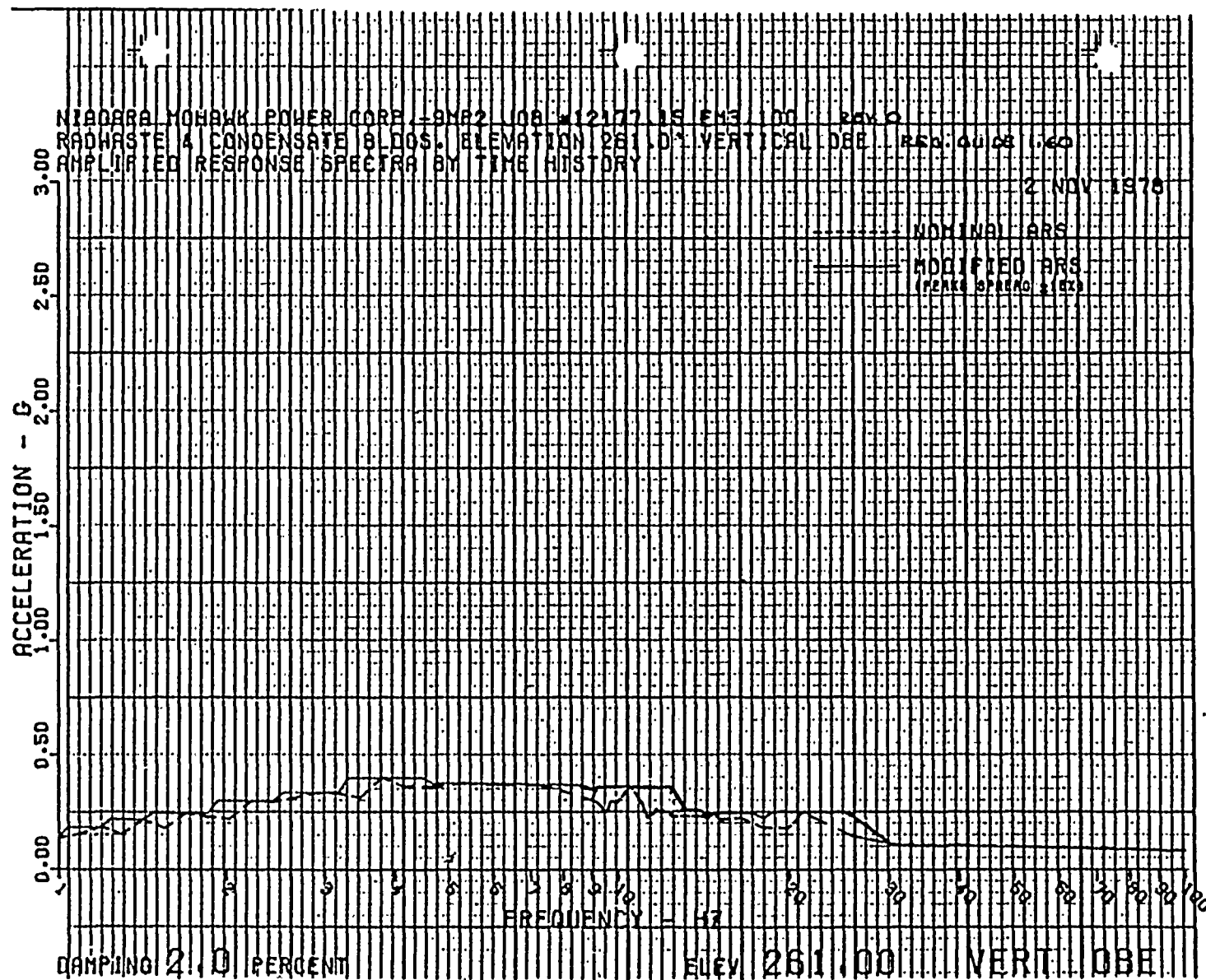
MS-1374 REV 0 REF 21
 12177





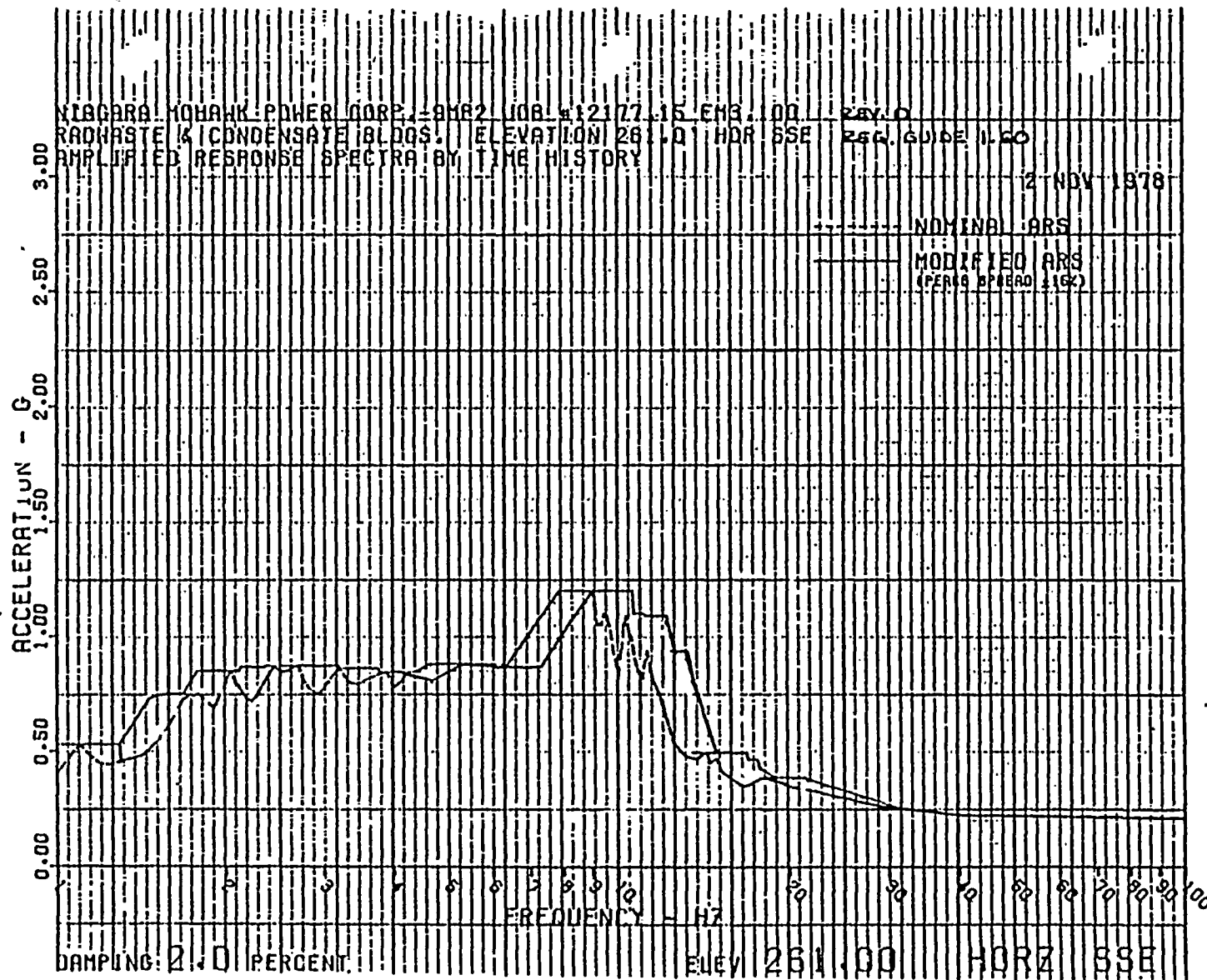
MS-1374 REV 0 REF 22
 12177





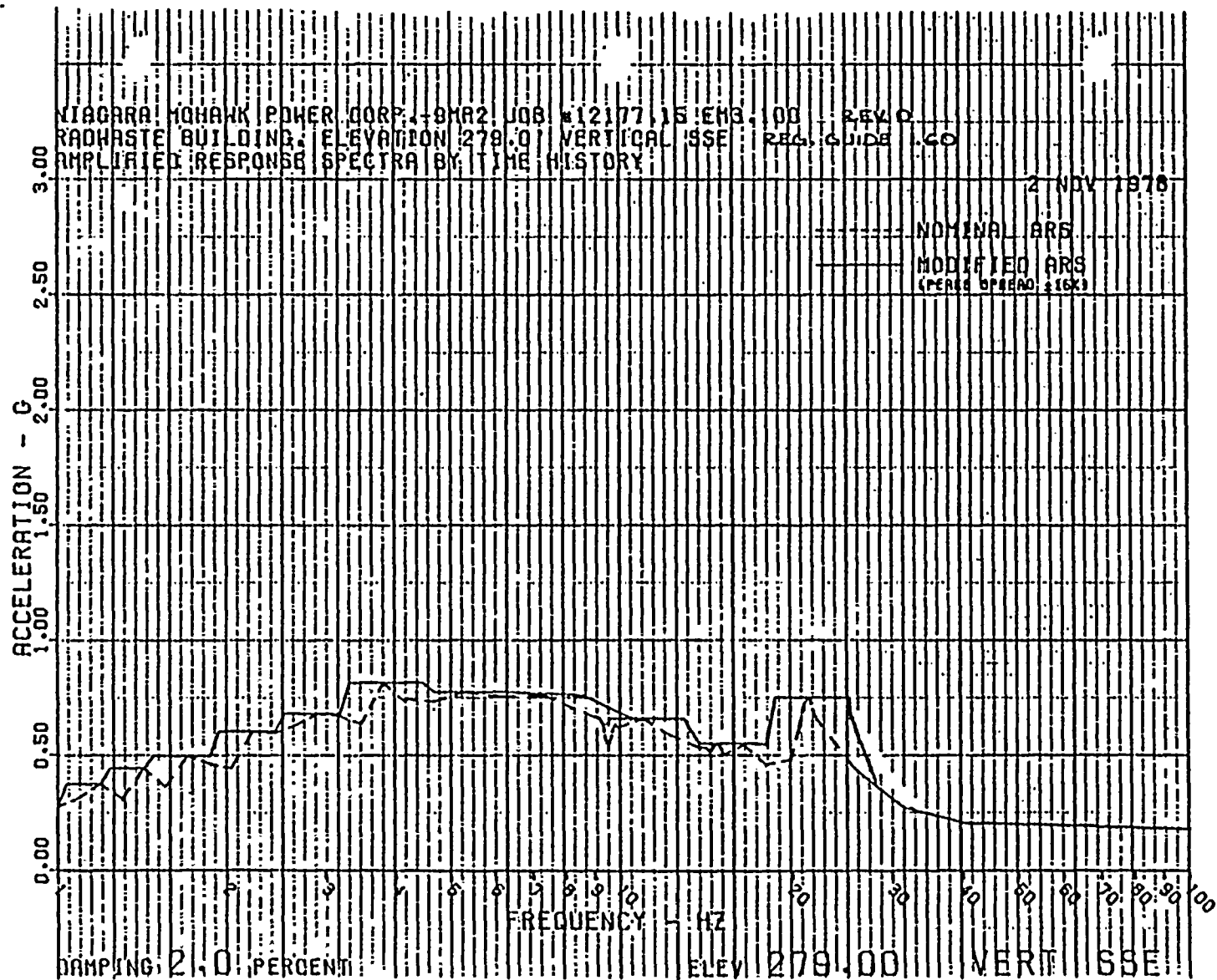
MS-1374 REV 0 REF 22
12177





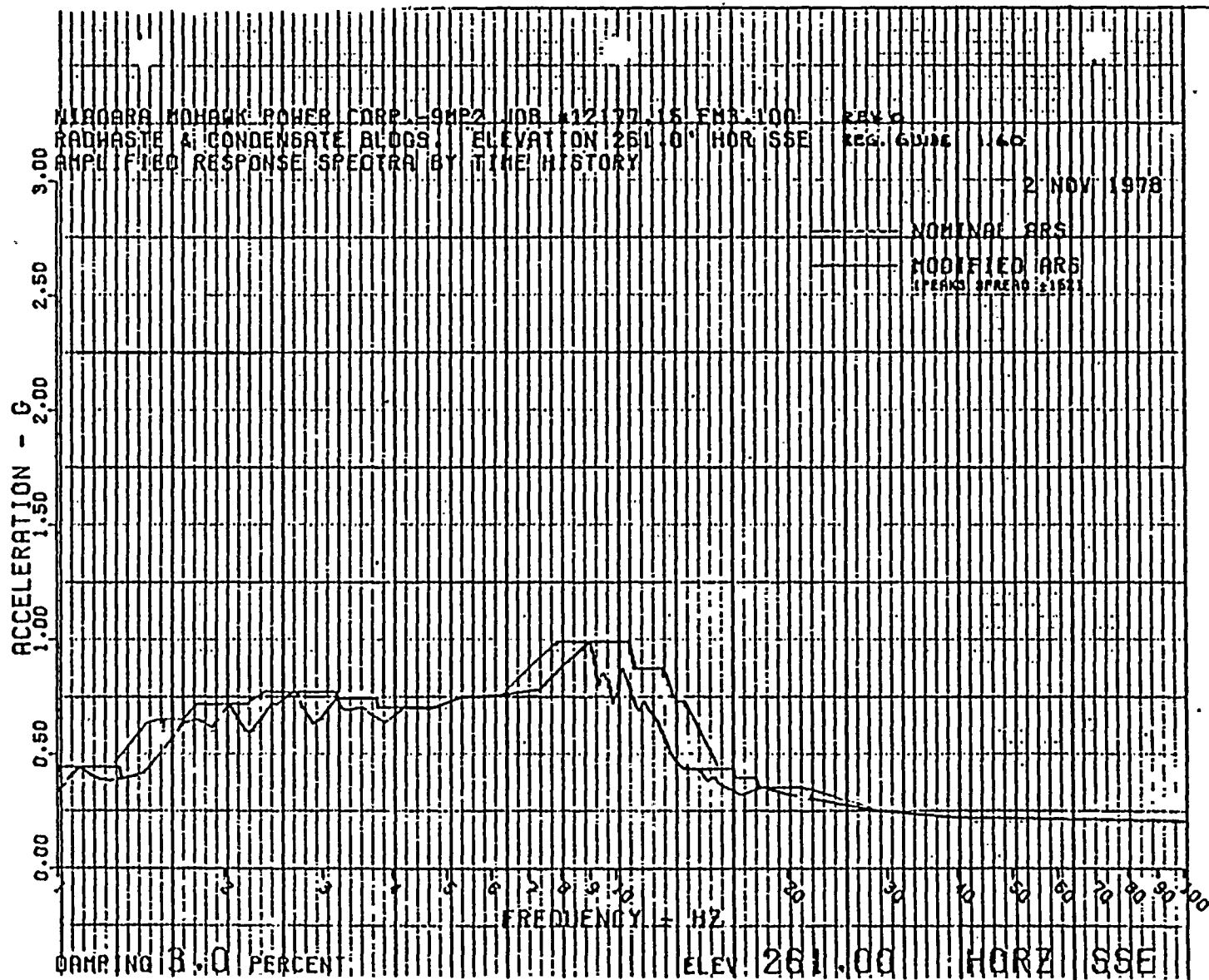
MS-1374 REV 0 REF 22
 12177





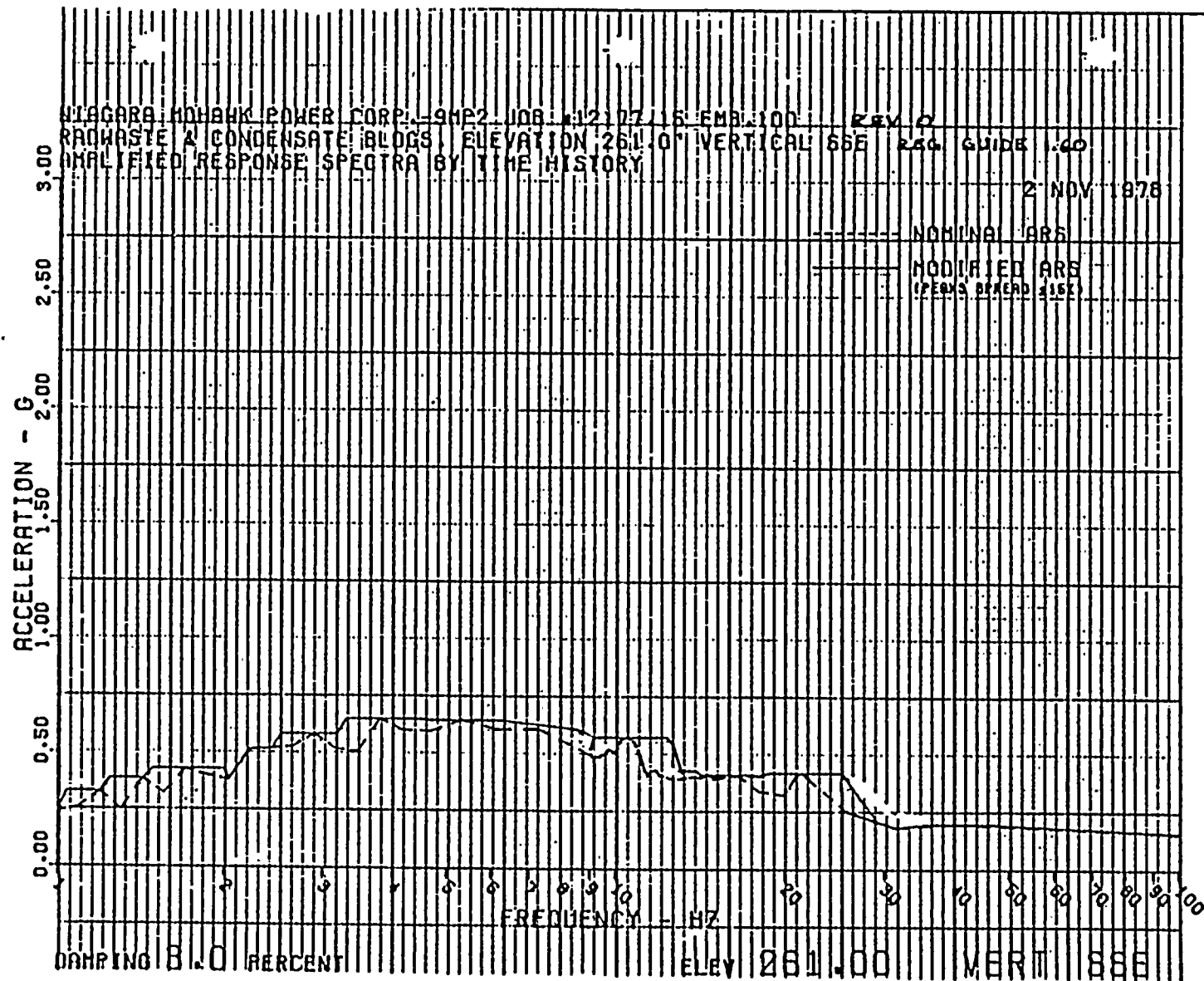
MS 1374 REV 0 REF 22
 12177





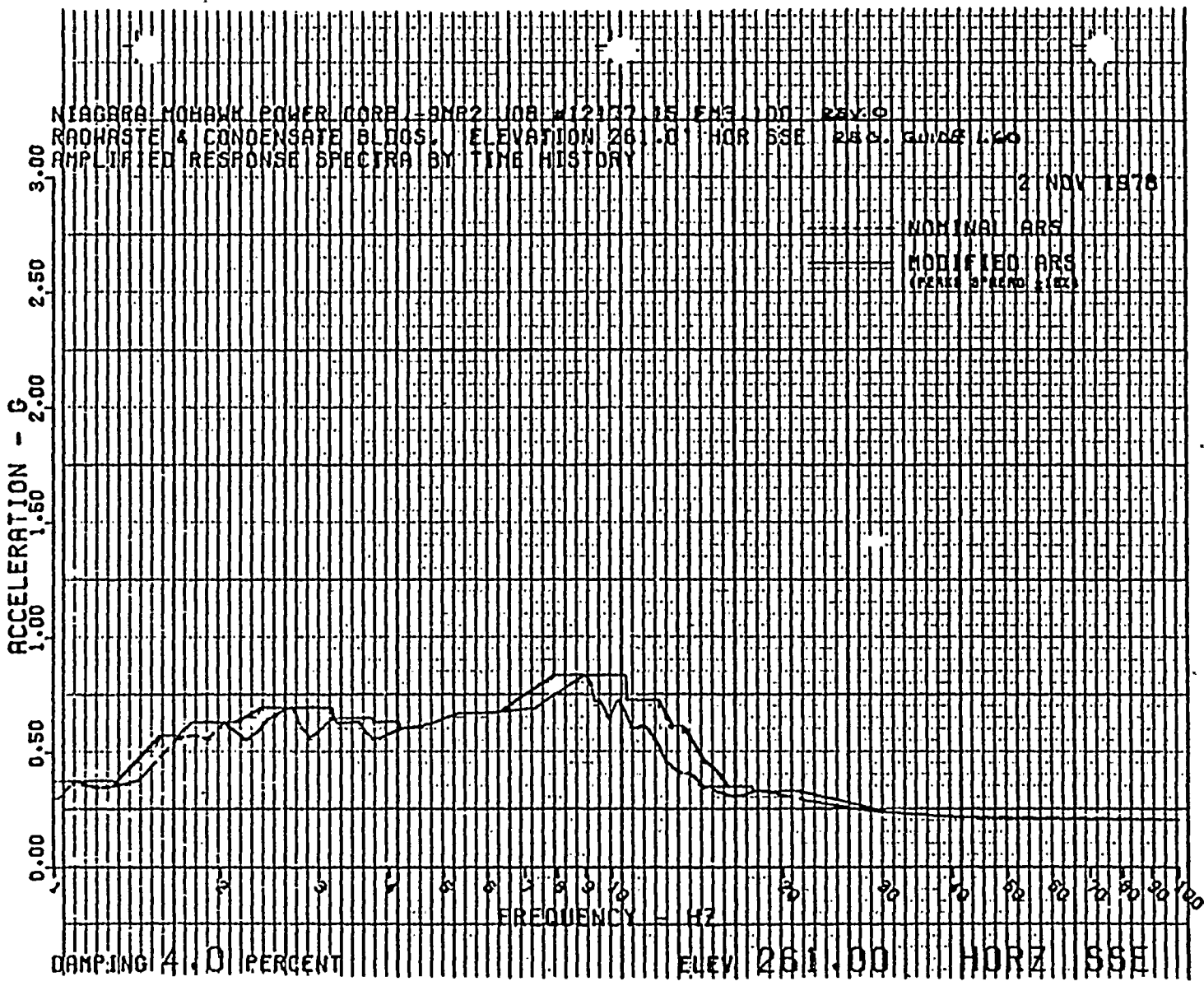
MS-1374 REV 0 REF 22
 12/77





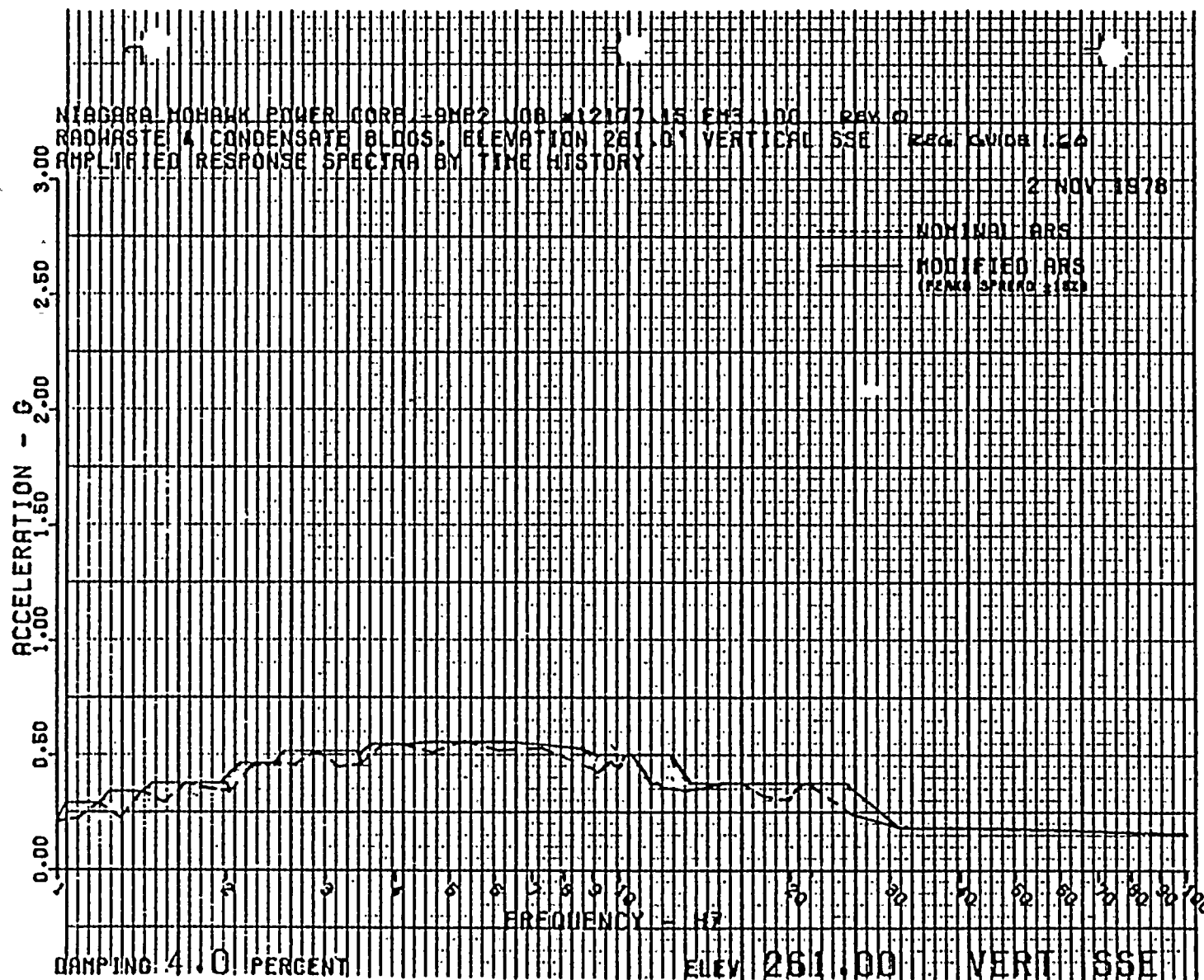
MS-1374 REV 0 REF 22
 12177





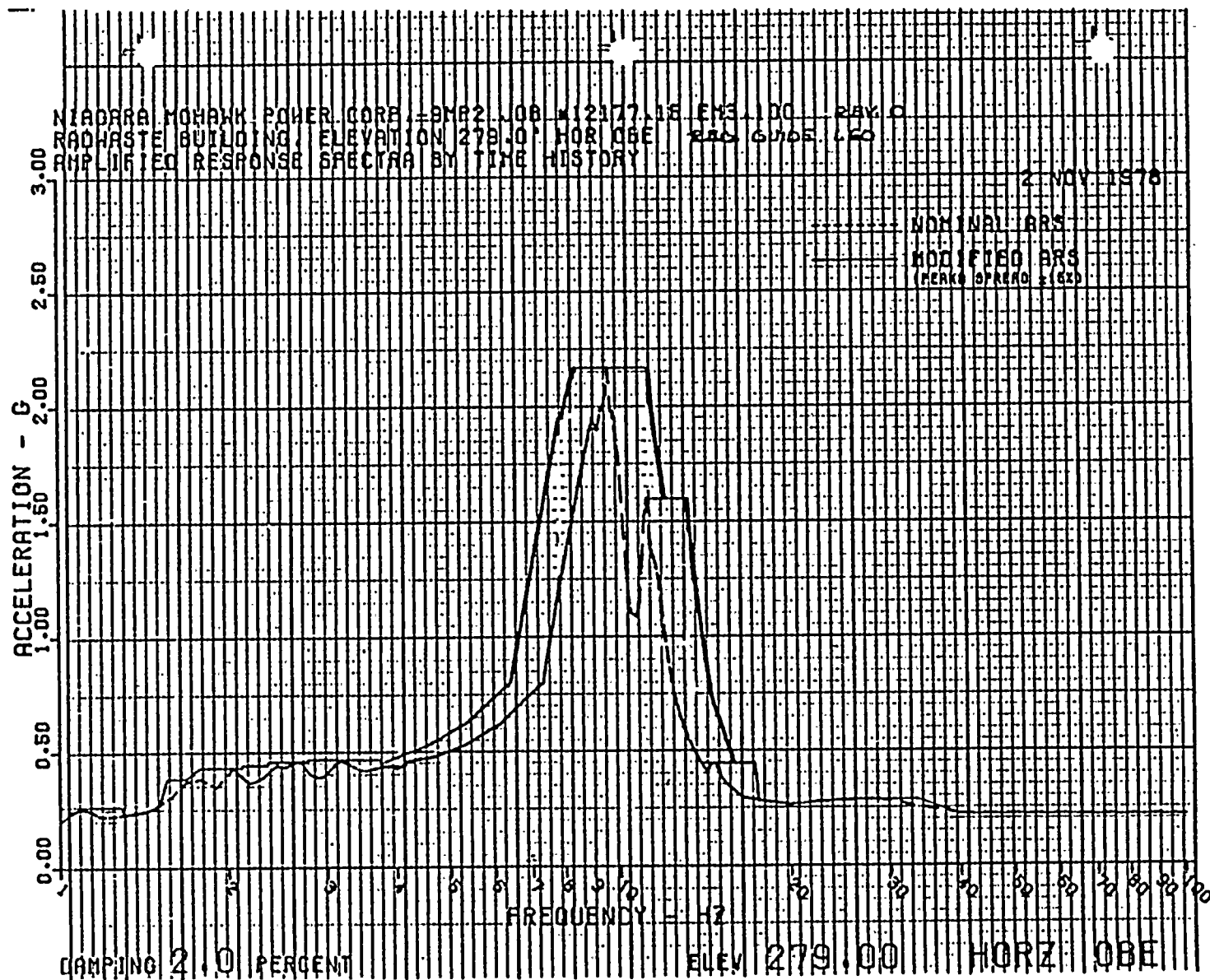
HS-1374 REV 0 REF 22
12/77





MS-1374 REV 0 REF 22
 12177



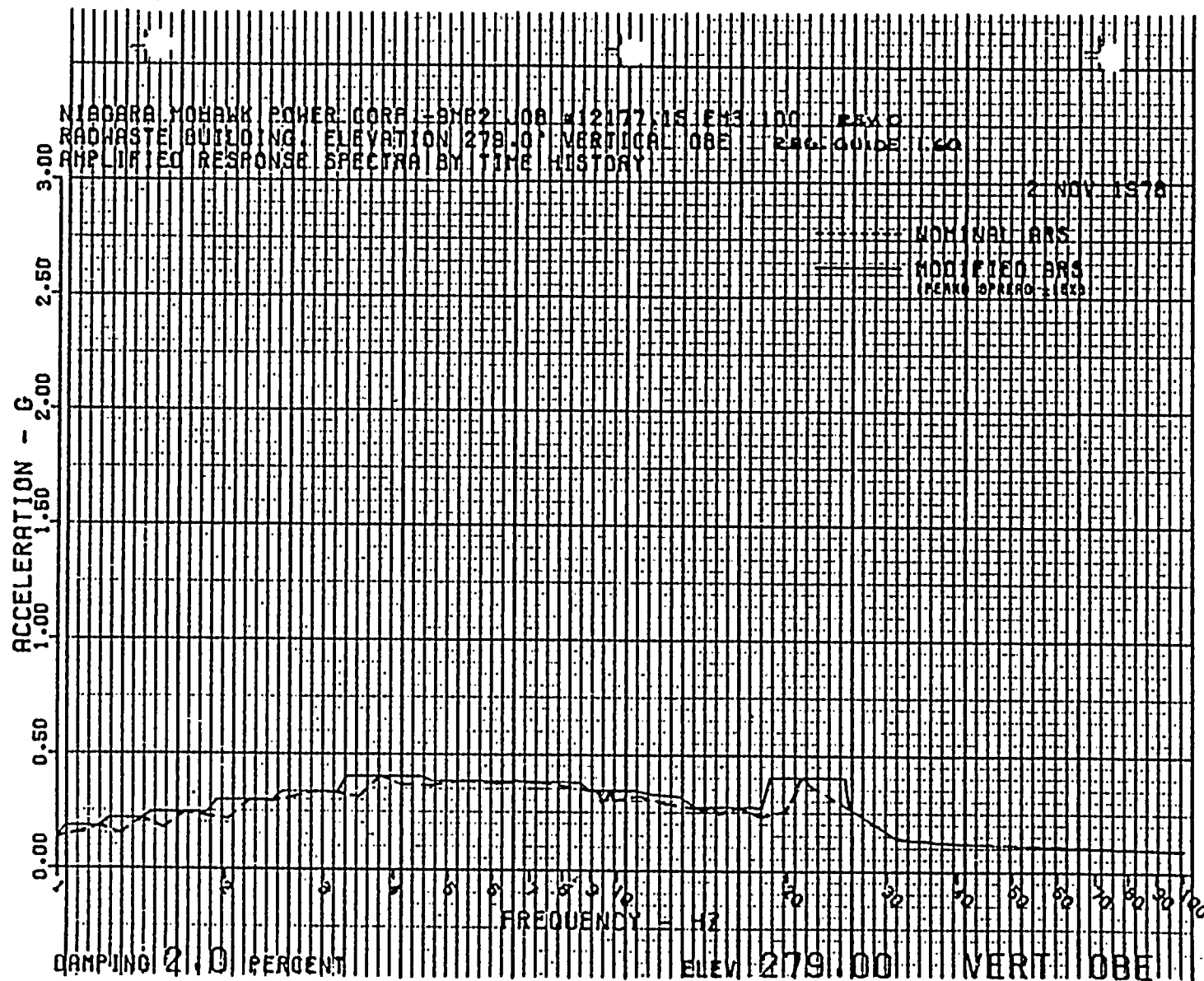


MS-1374 REV 0 REF 23
 12177



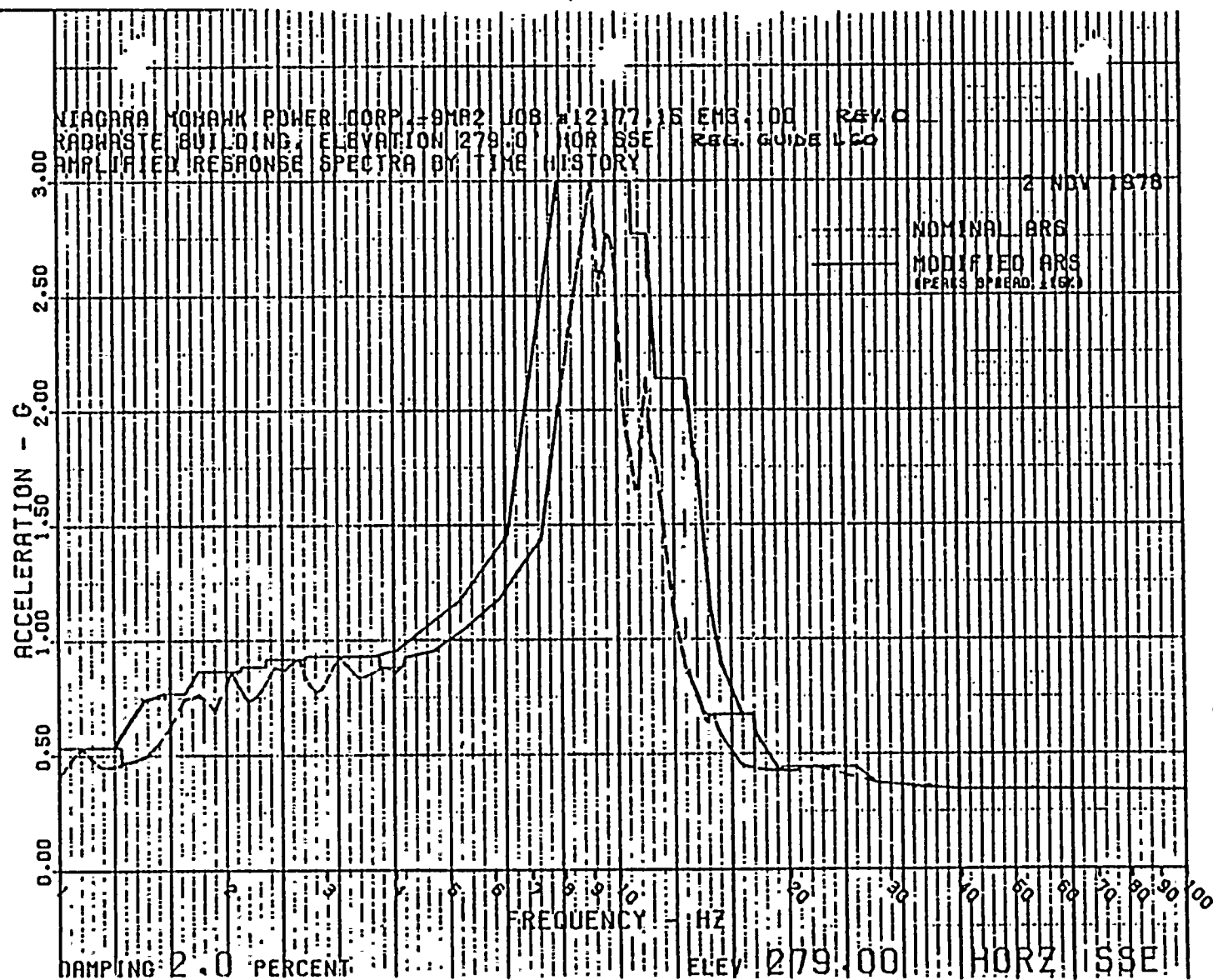
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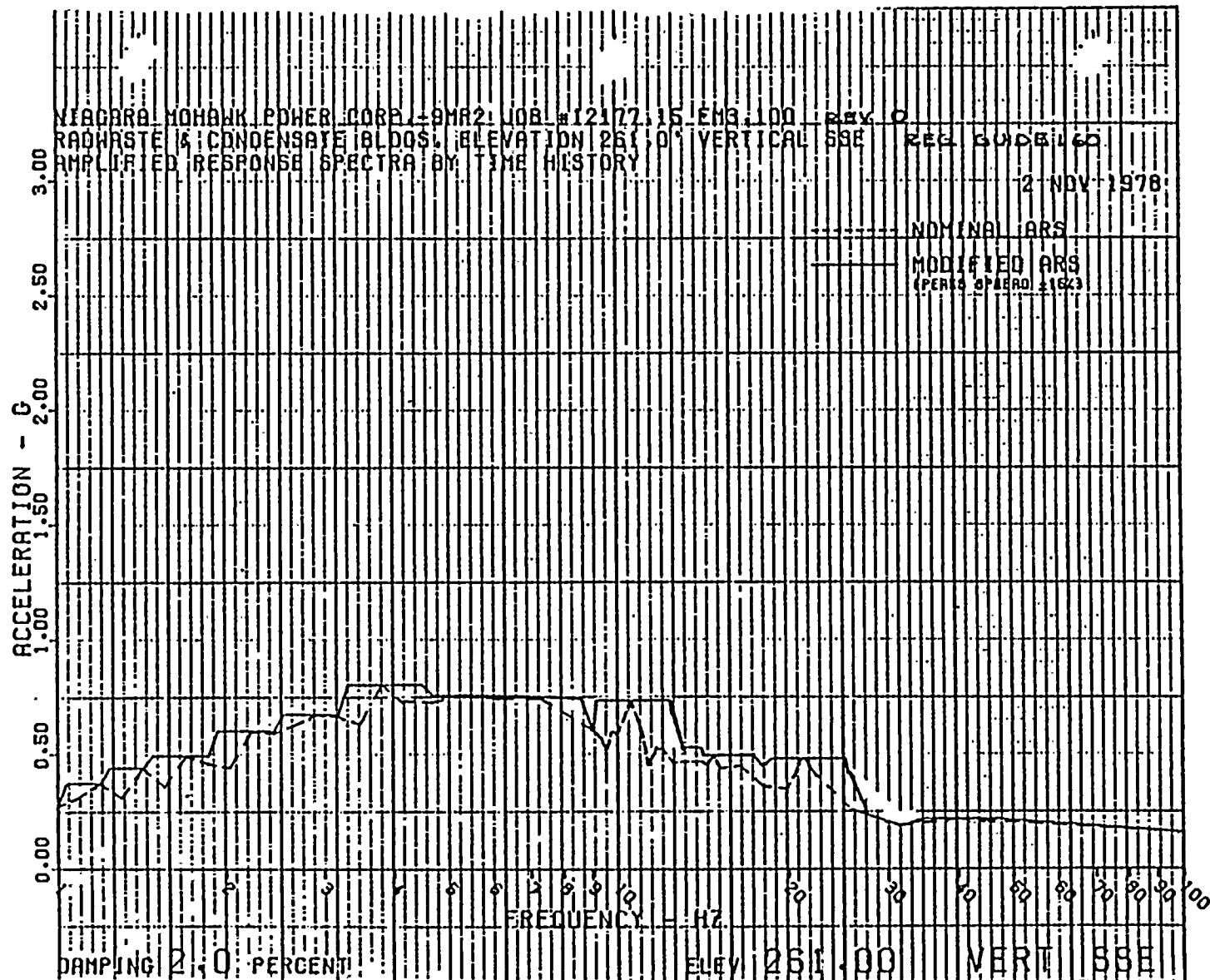
HS-1374 REV 0 REF 23
 12177





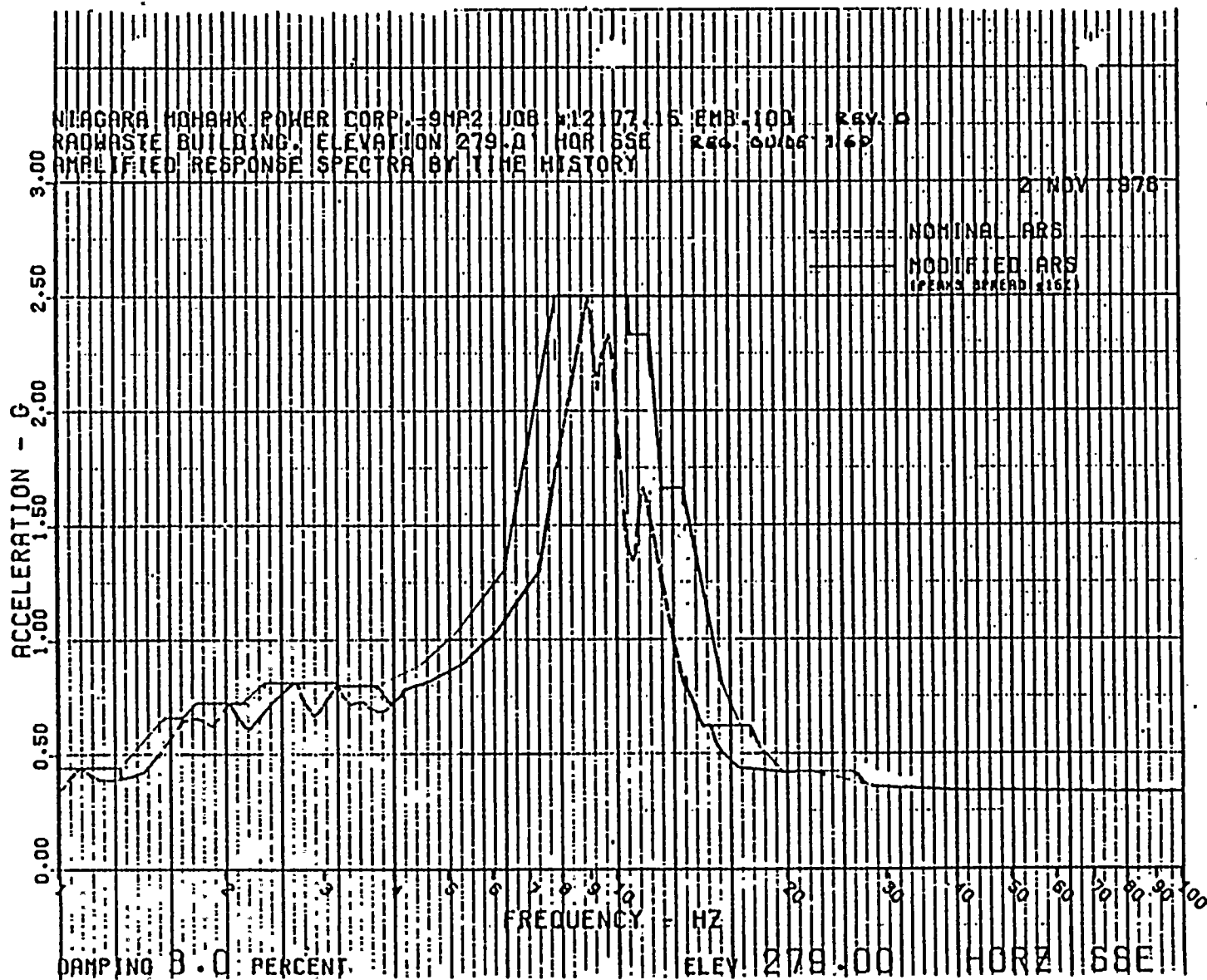
MS-1374 REV 0 REF 23
12177





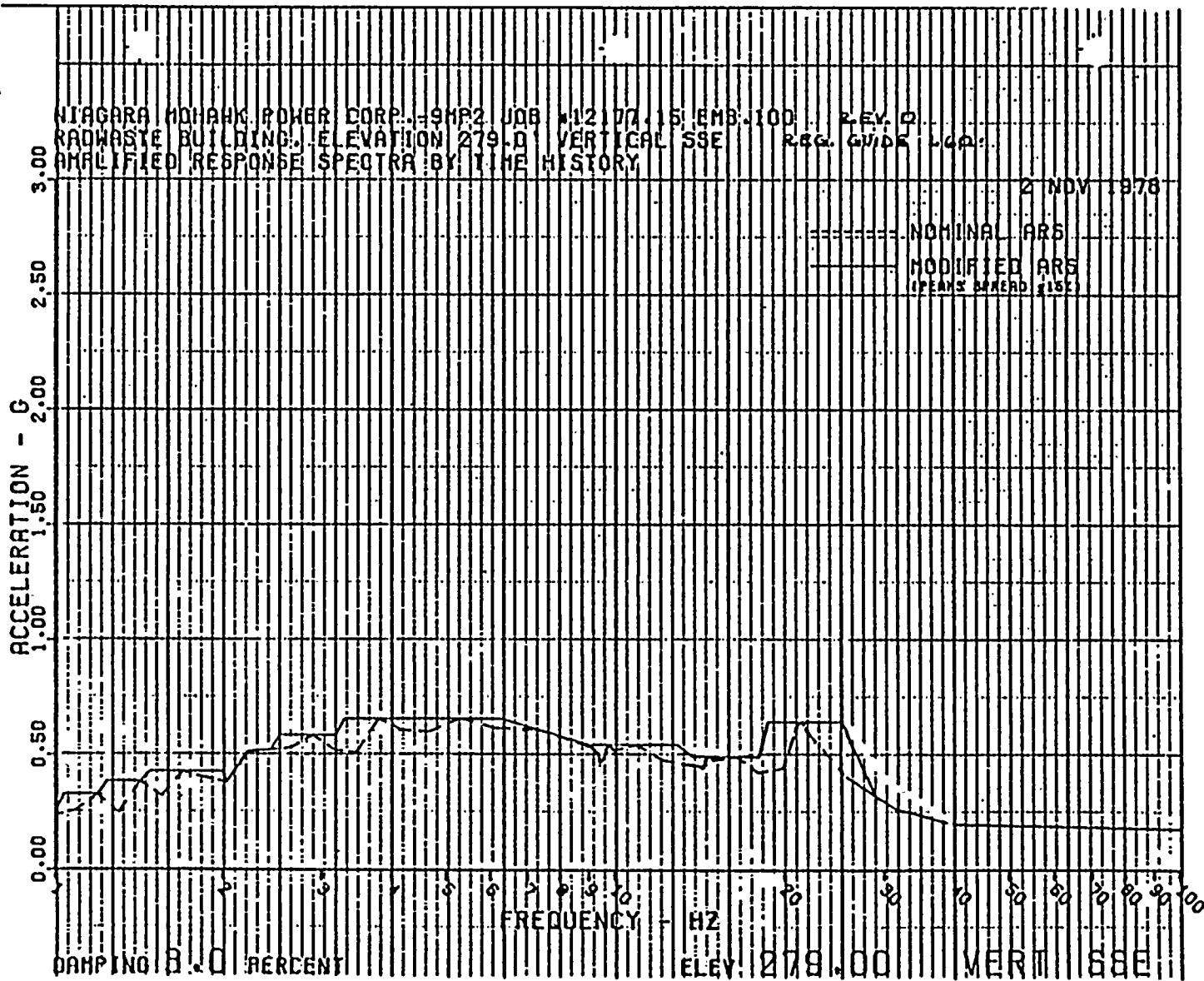
MS-1374 REV 0 REF 23
 12/77





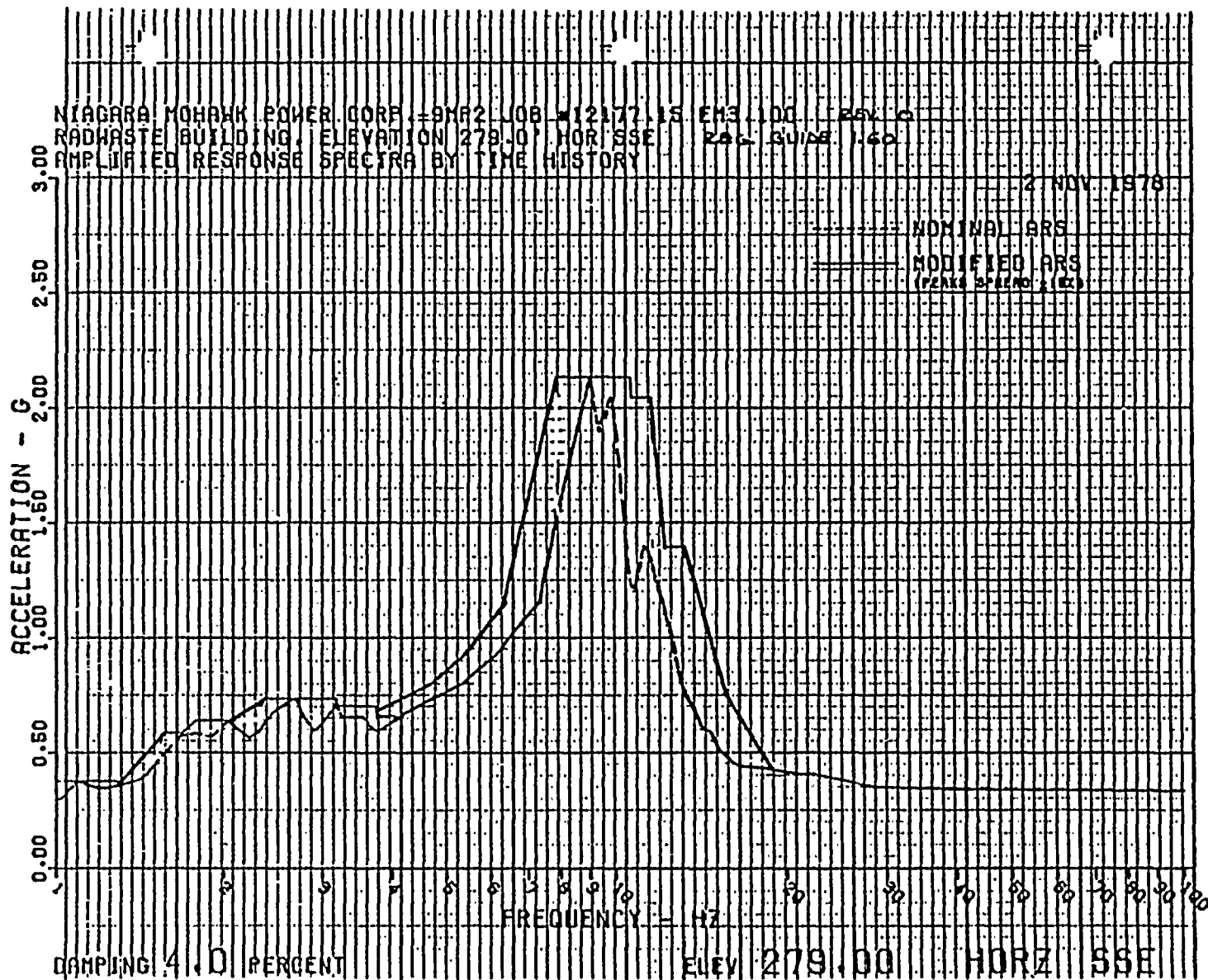
MS-1374 REV 0 REF 23
 12177





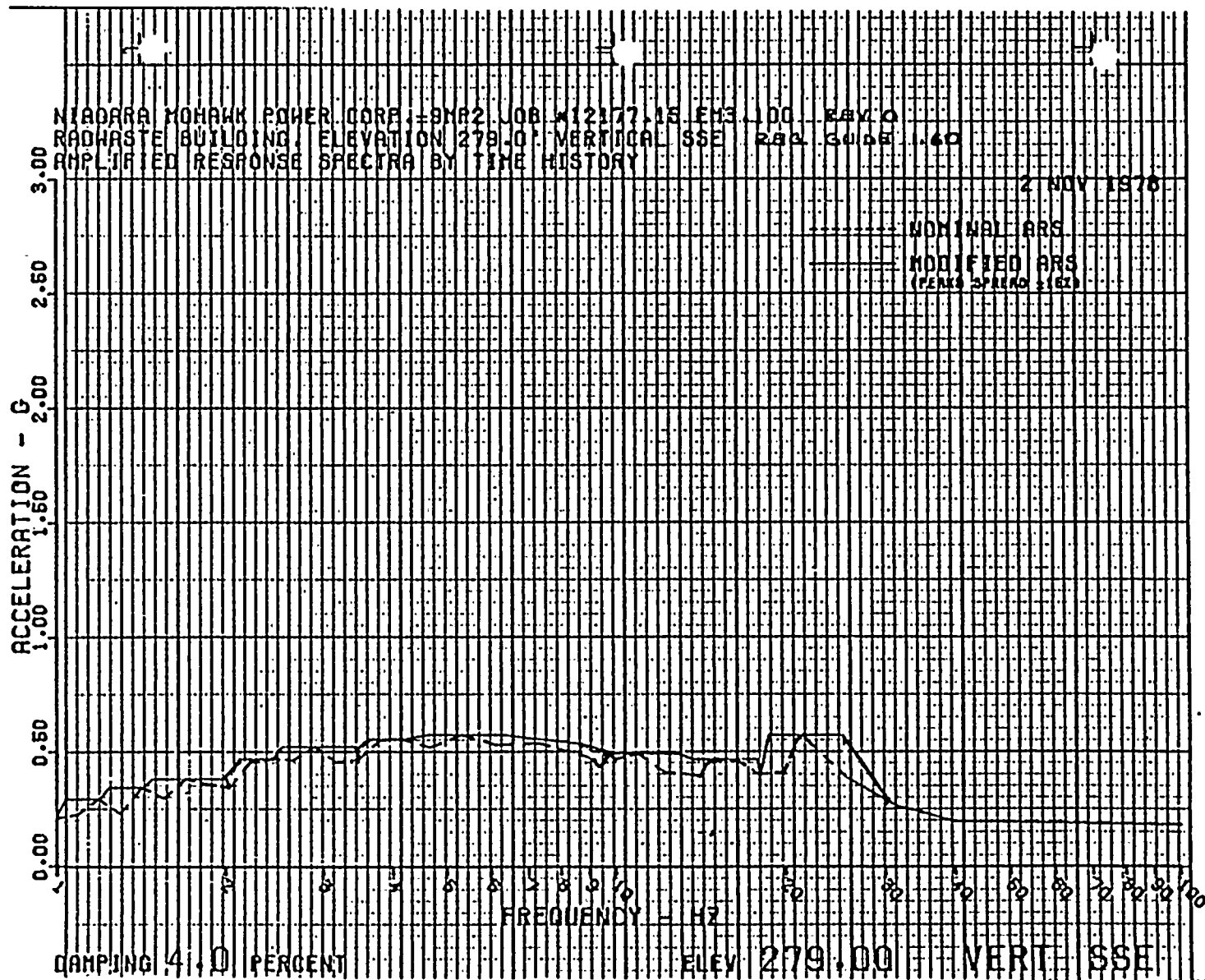
MS-1374 REV 0 REF 23
 12177





MS-1374 REV 0 REF 23
 12177



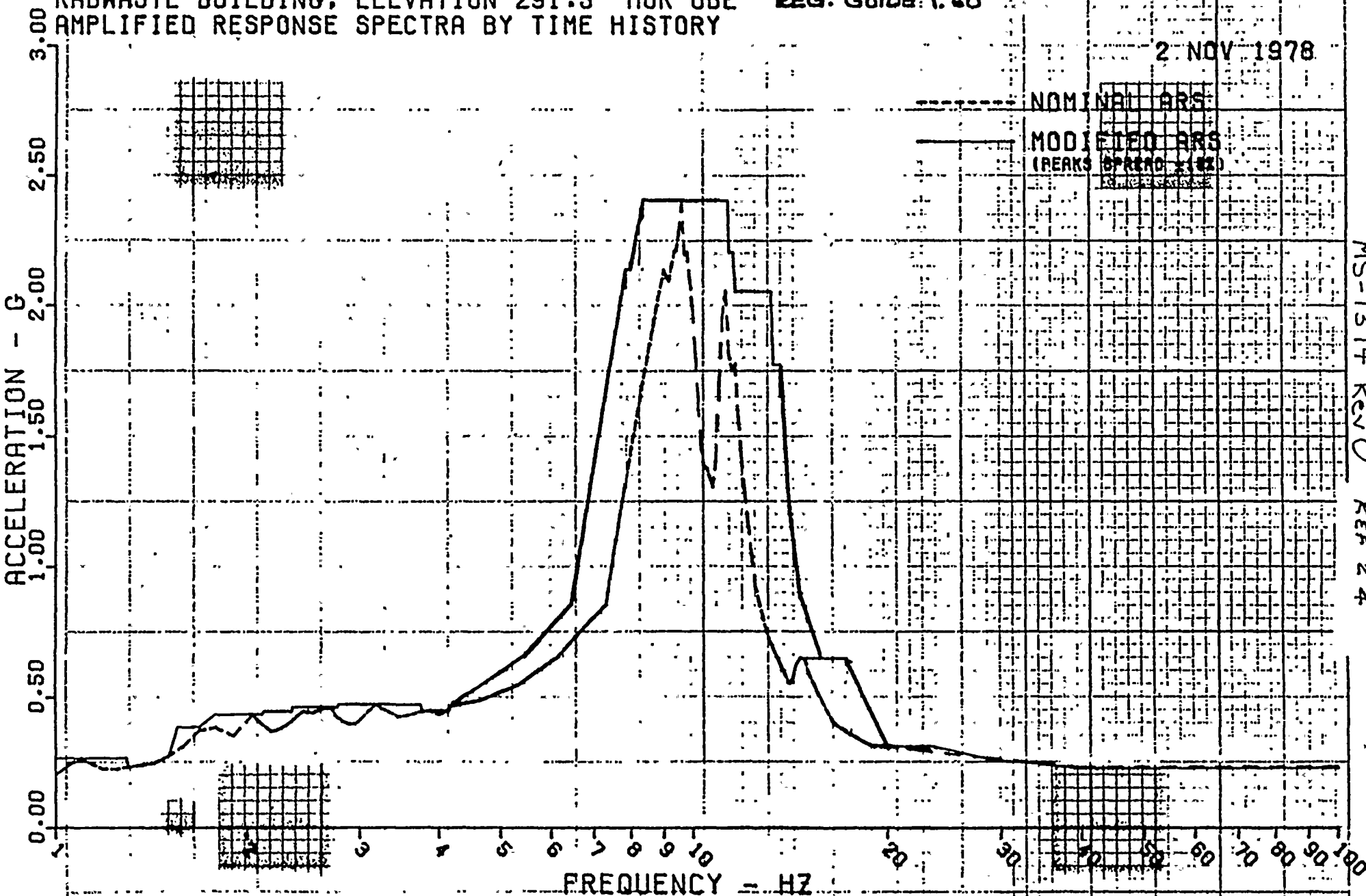


MS-1374 REV 0 REF 23
12177



NIAGARA MOHAWK POWER CORP.-9MP2 JOB #12177.15 EM3.100 ... REV. 0
 RADWASTE BUILDING, ELEVATION 291.5' HOR OBE REG. GUIDE 1.60
 AMPLIFIED RESPONSE SPECTRA BY TIME HISTORY

2 NOV 1978

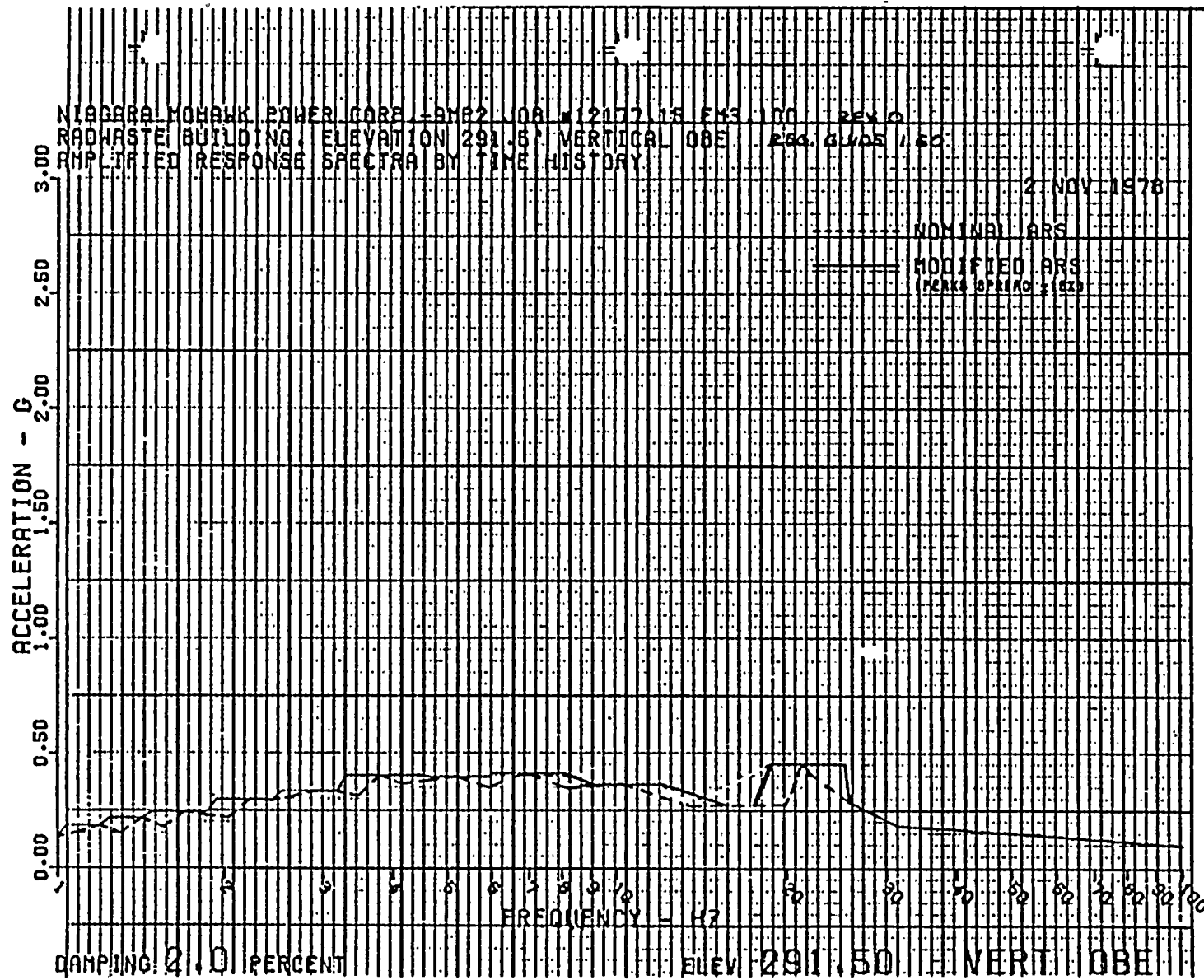


MS-1374 Rev 0 Ref 2 4

DAMPING 2.0 PERCENT

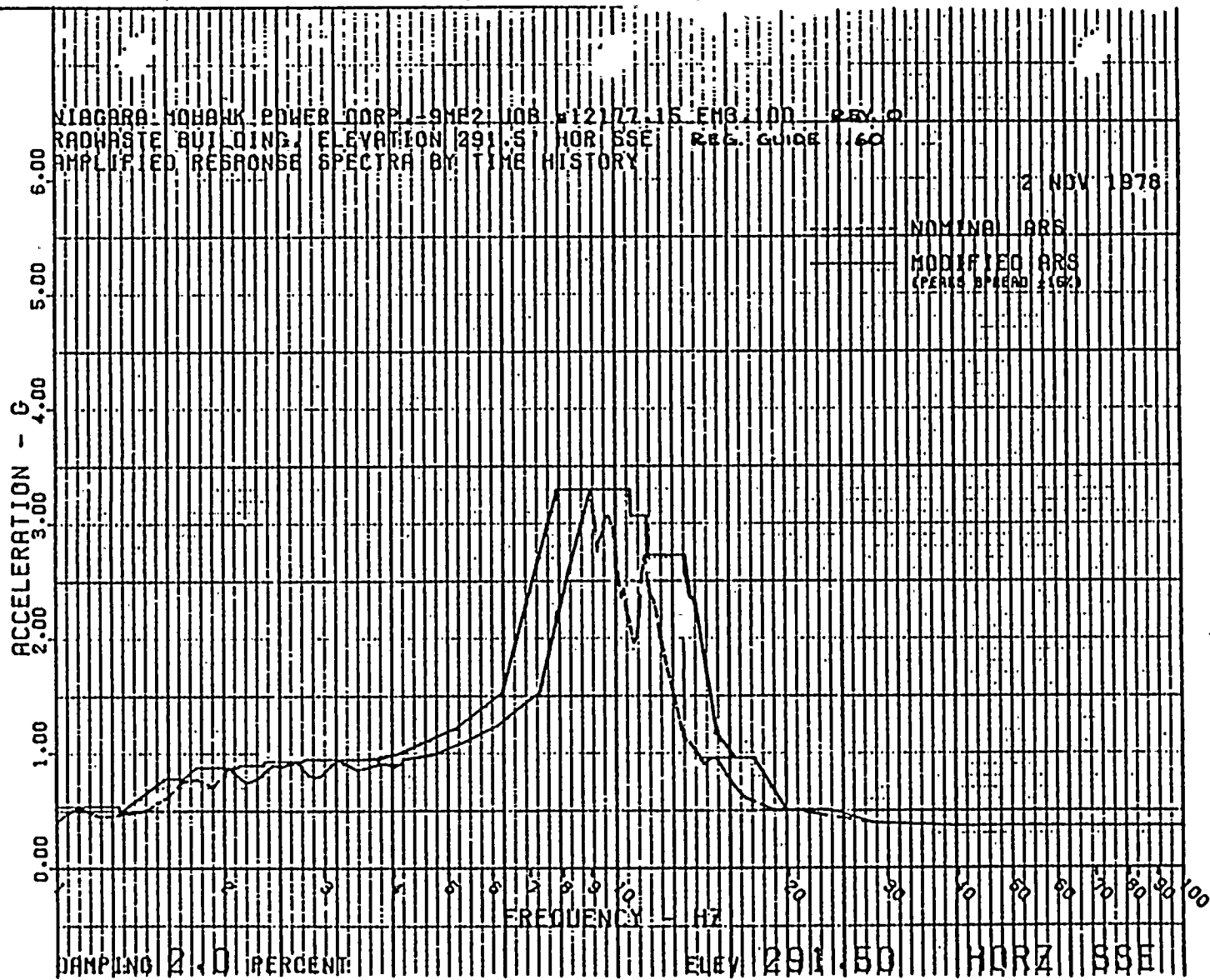
ELEV 291.50 HORZ OBE





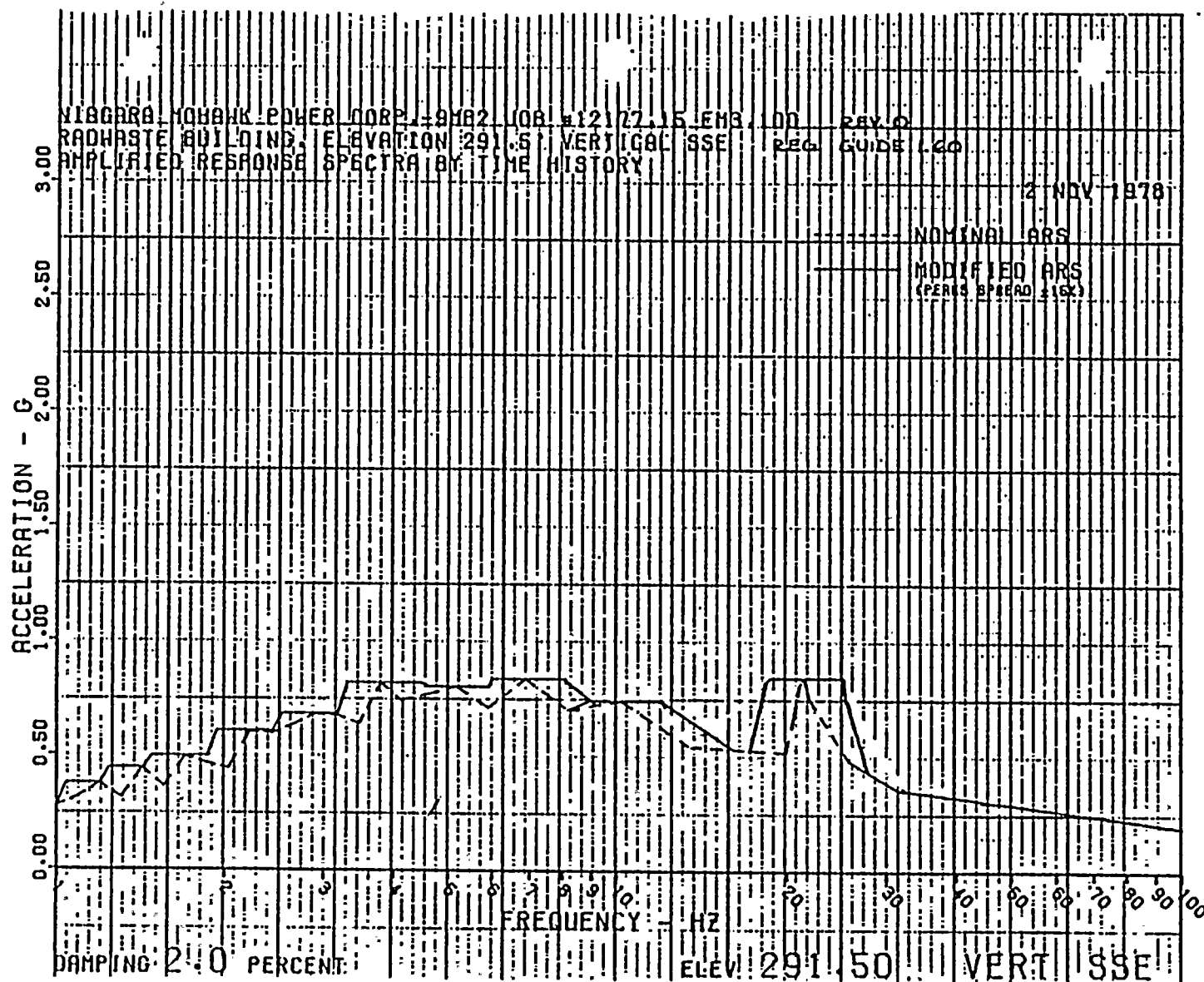
MS-1374 REV 0 REF 24
12177





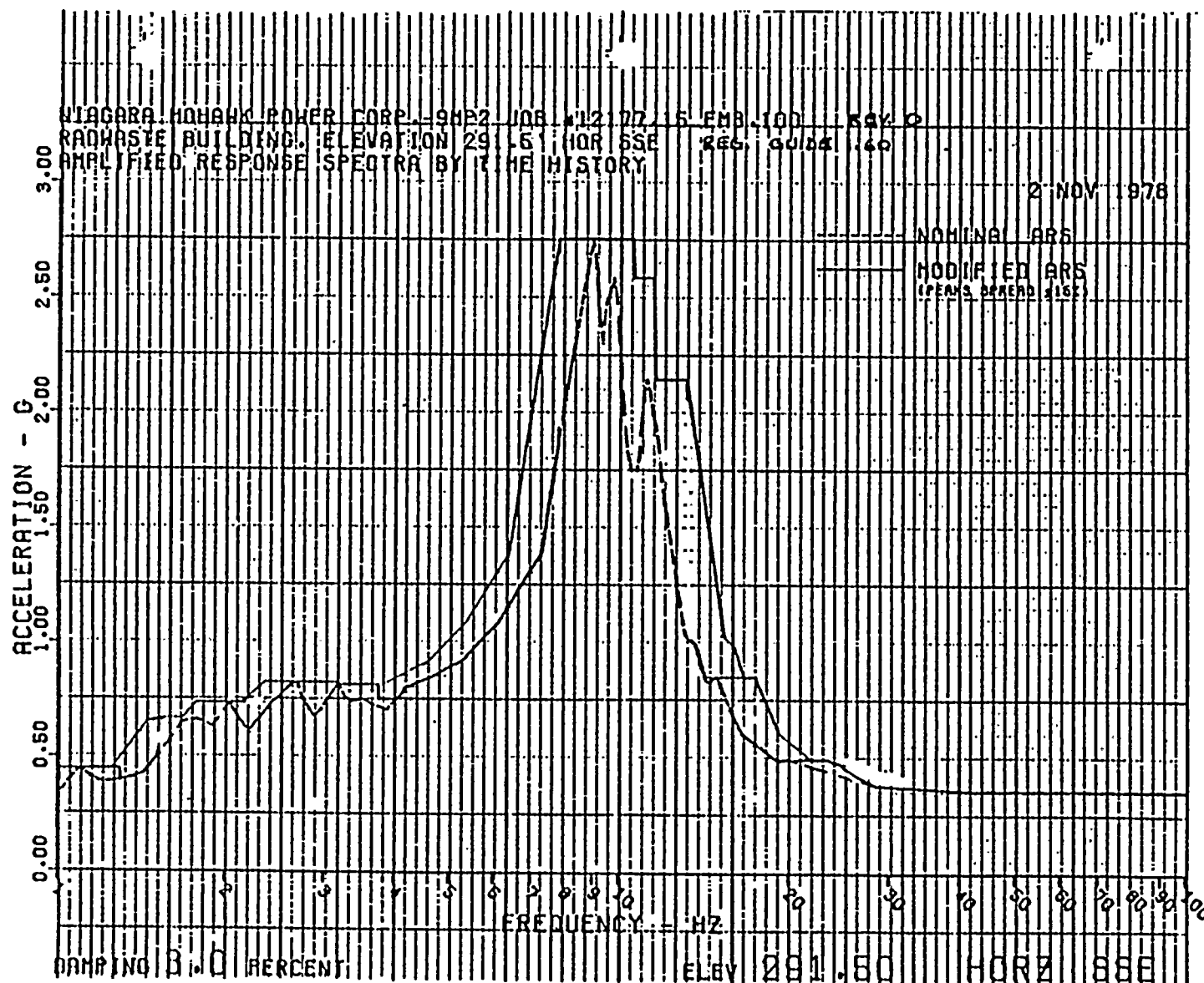
MS-1374 REV 0 REF 24
 12/77





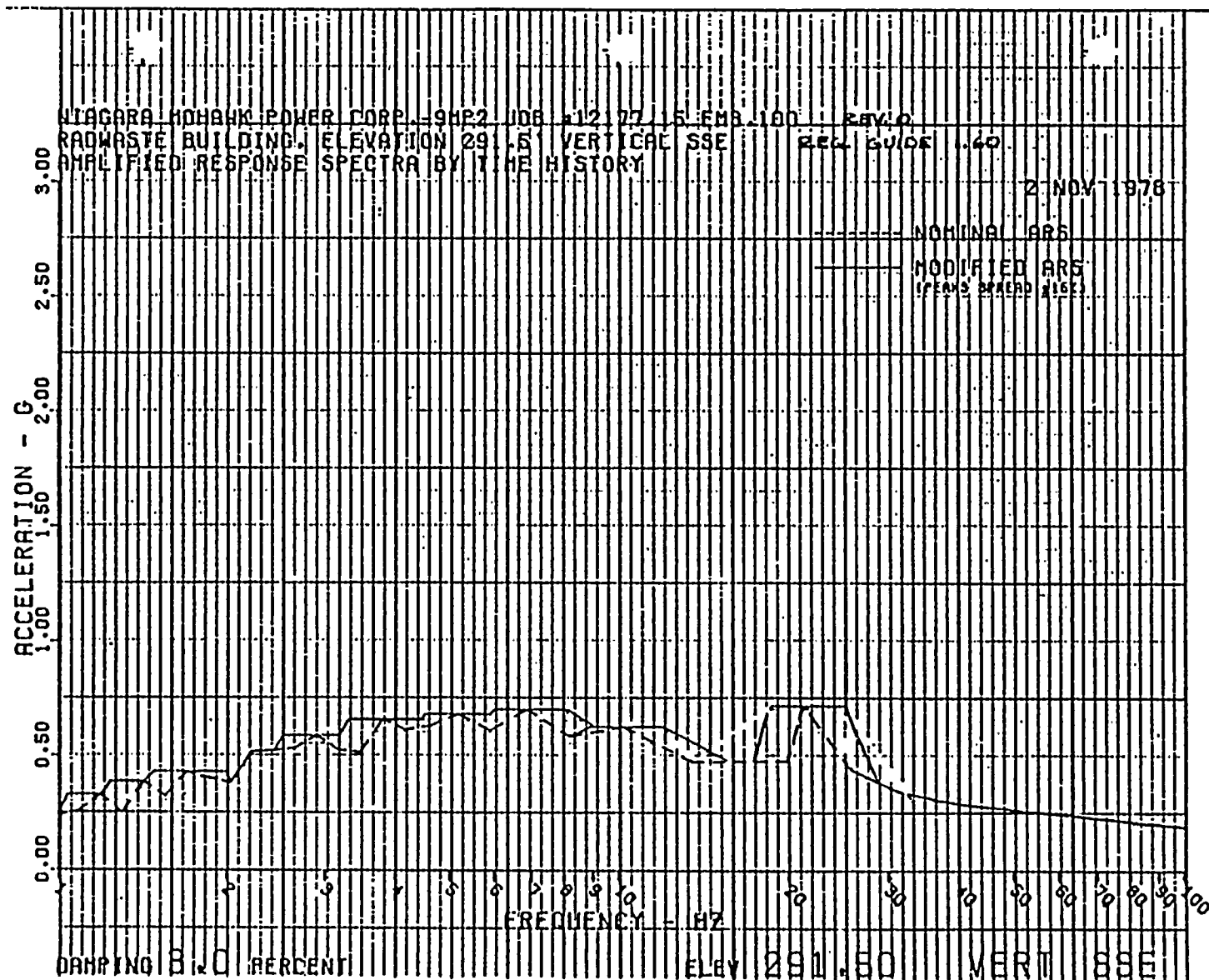
MS-1374 REV 0 REF 24
 12/77





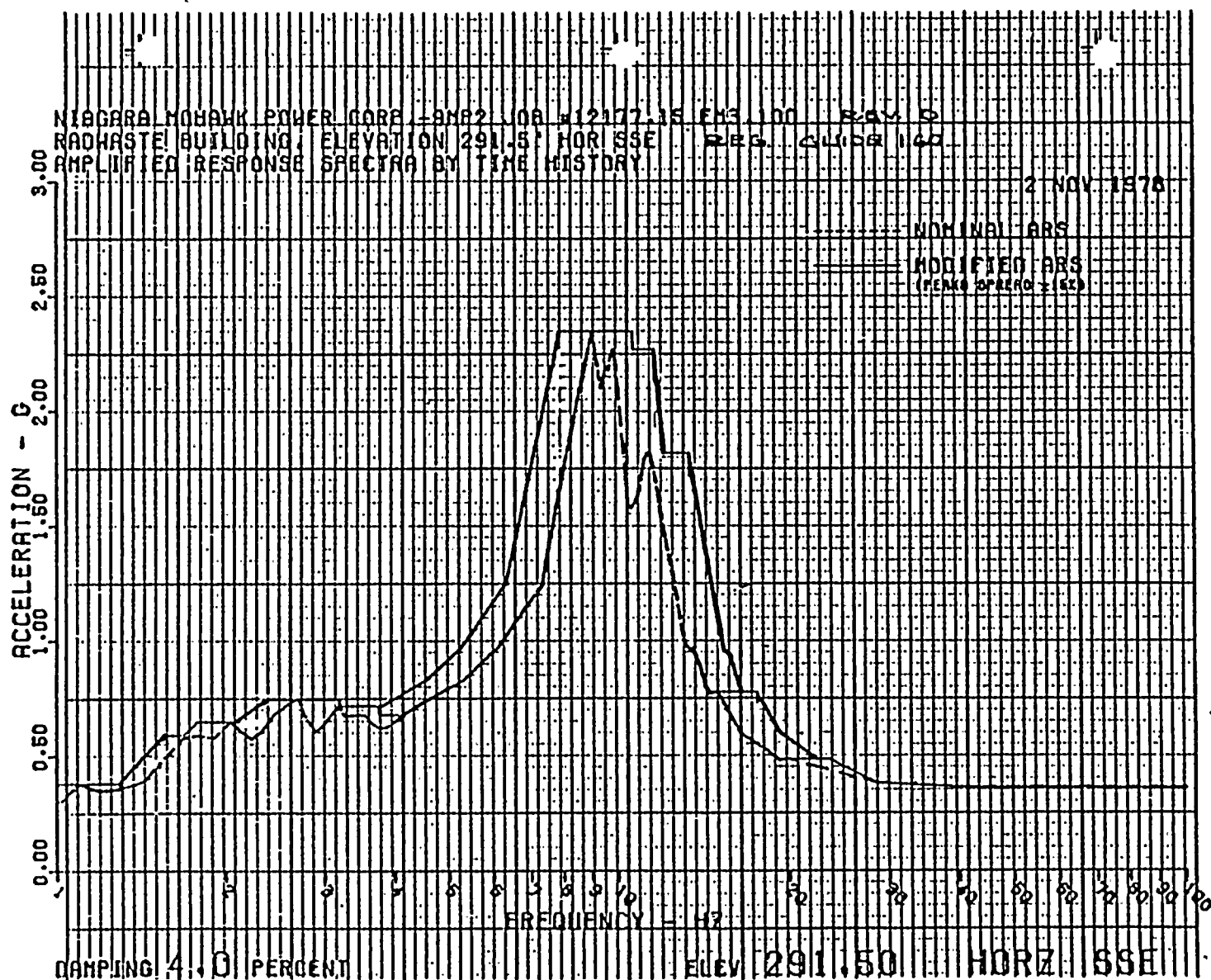
MS-1374 REV 0 REF 24
 12177





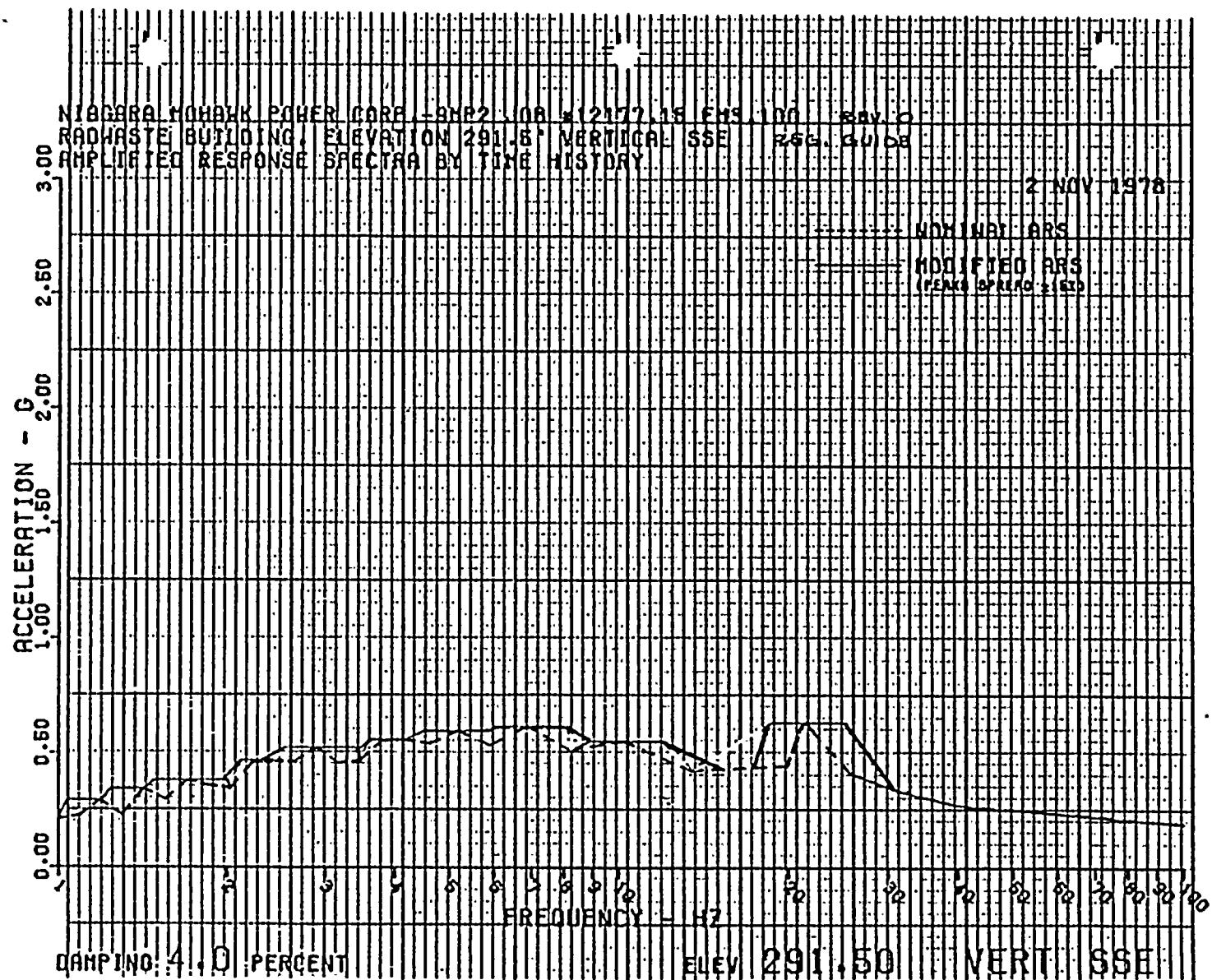
MS-1374 REV 0 REF 24
 12/77





MS-1374 REV 0 REF 24
 12177



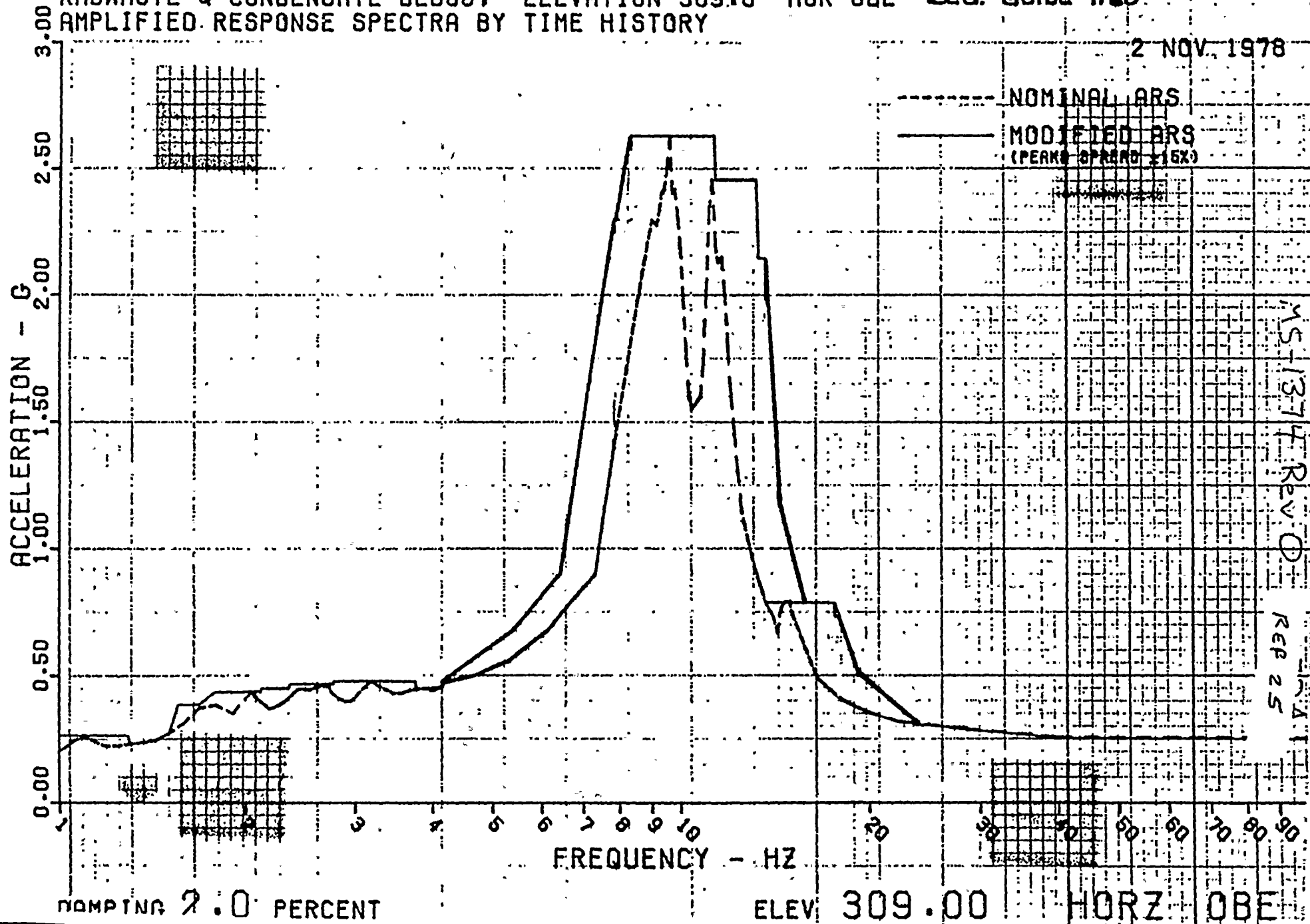


MS-1374 REV 0
 12/77
 REF 24



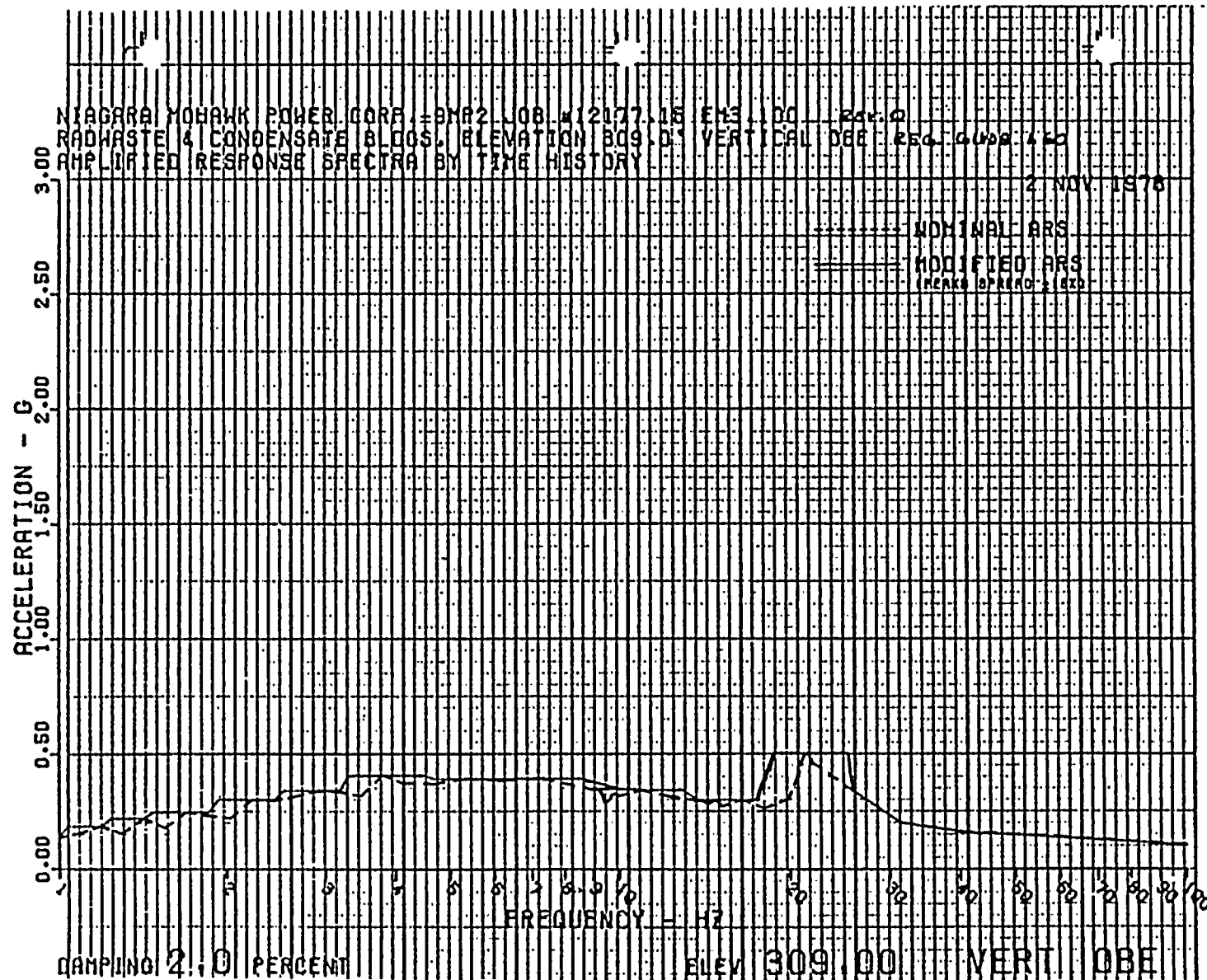
NIAGARA MOHAWK POWER CORP.-9MP2 JOB #12177.15 EM3.100 REV. O
 RADWASTE & CONDENSATE BLOCS, ELEVATION 309.0' HOR OBE REG. GUIDE 1.60
 AMPLIFIED RESPONSE SPECTRA BY TIME HISTORY

2 NOV. 1978



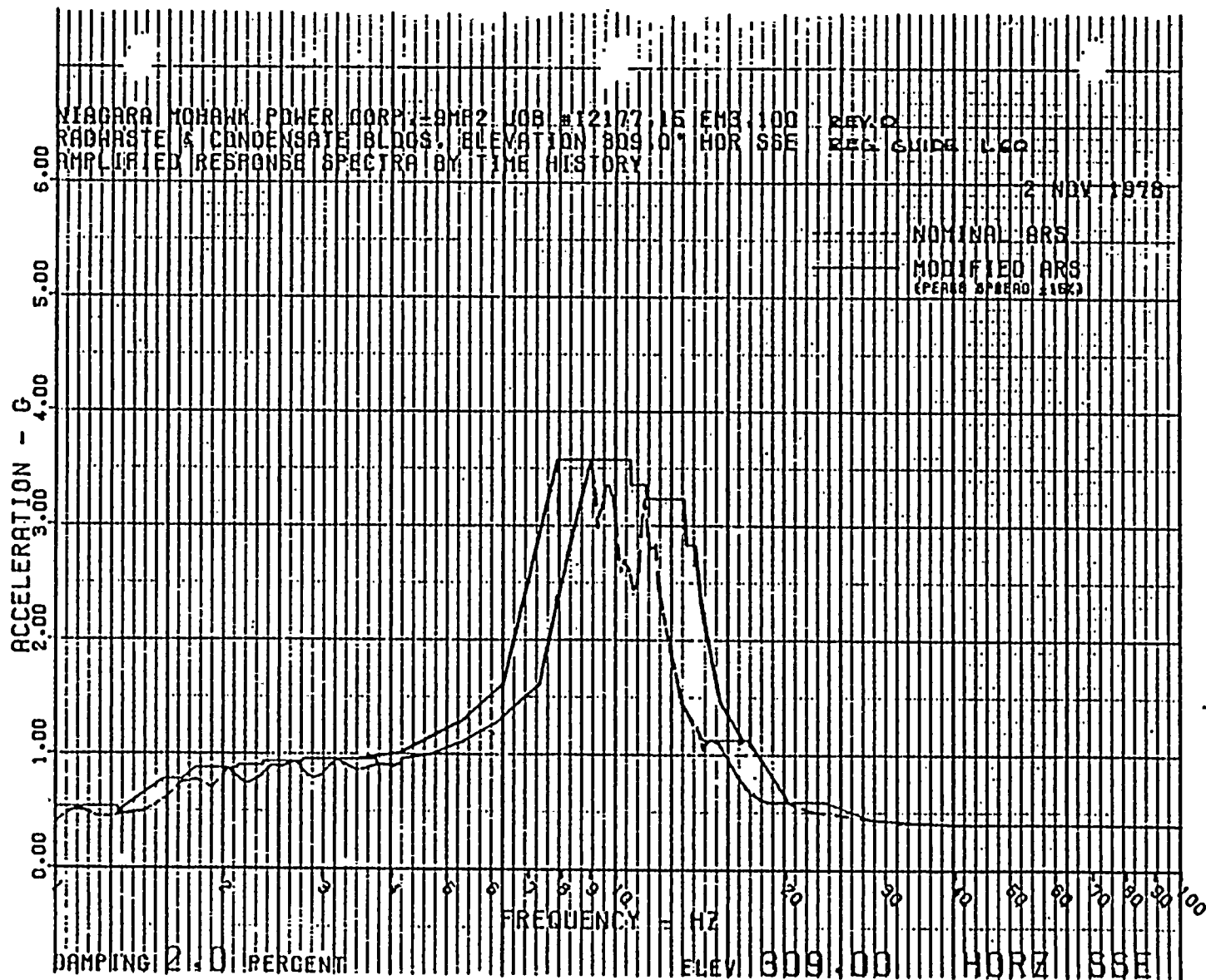
MS-1374 Rev O REF 25





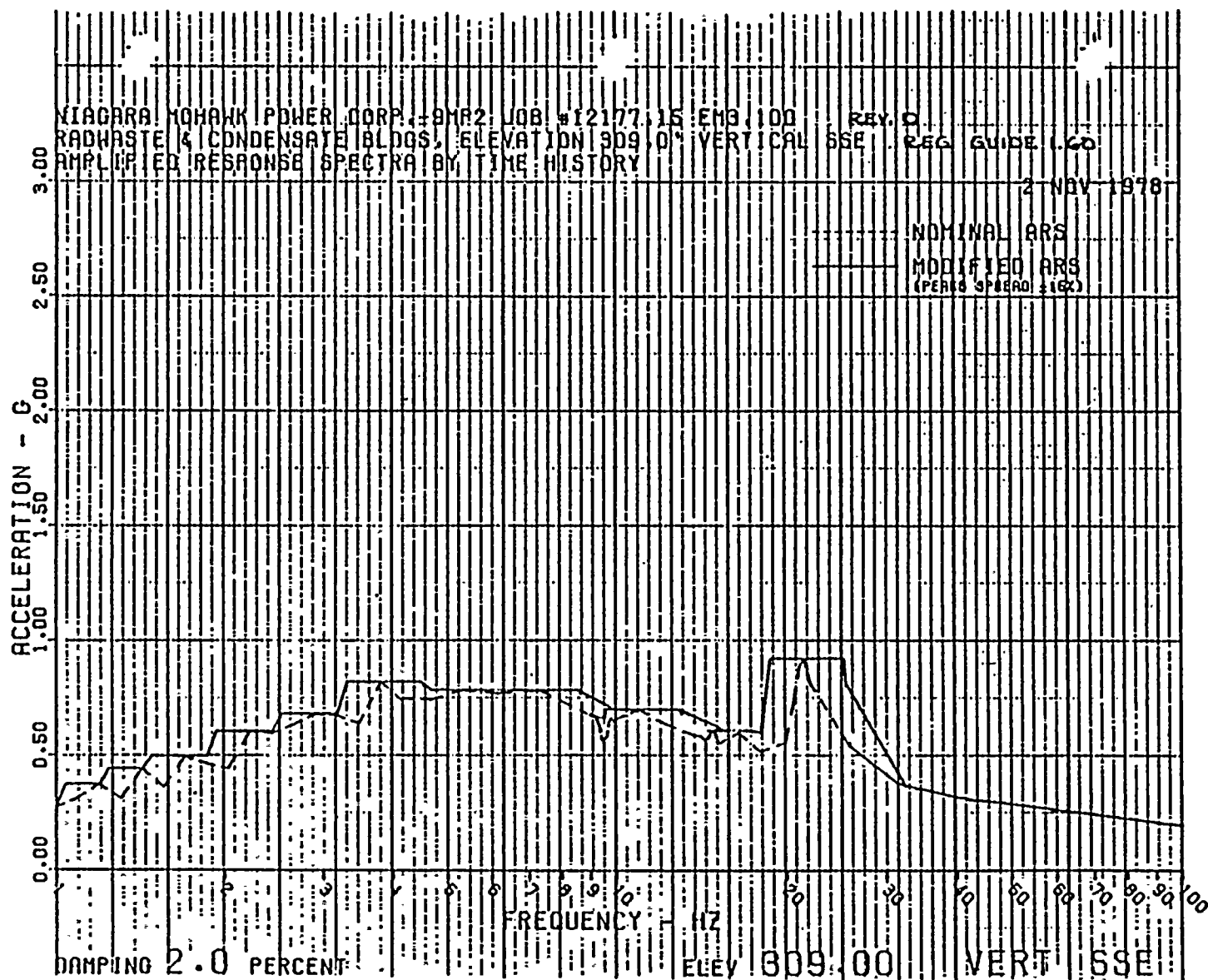
NS-1374 REV 0 REF 25
 12177





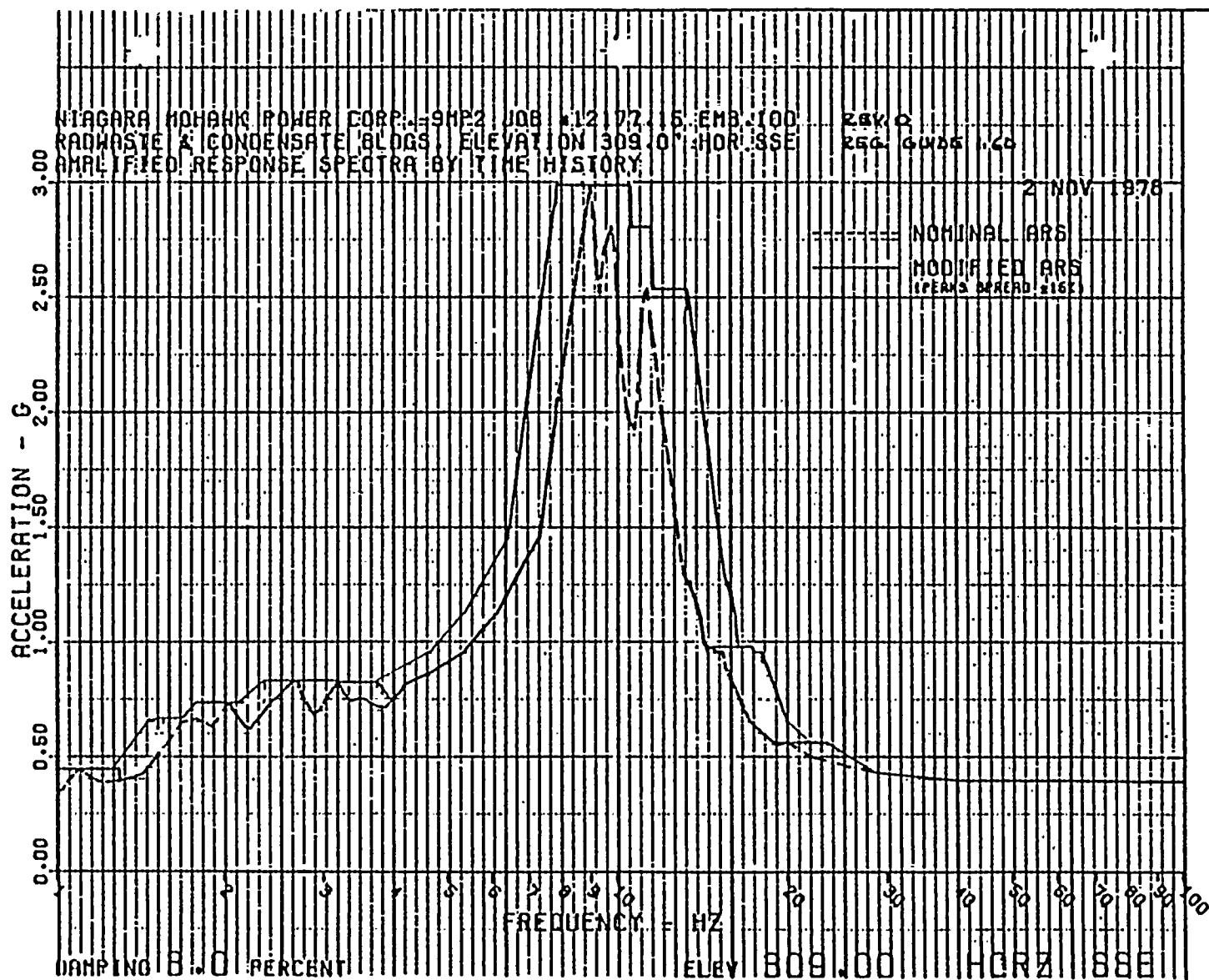
MS-1374 REV 0 REF 25
 1277





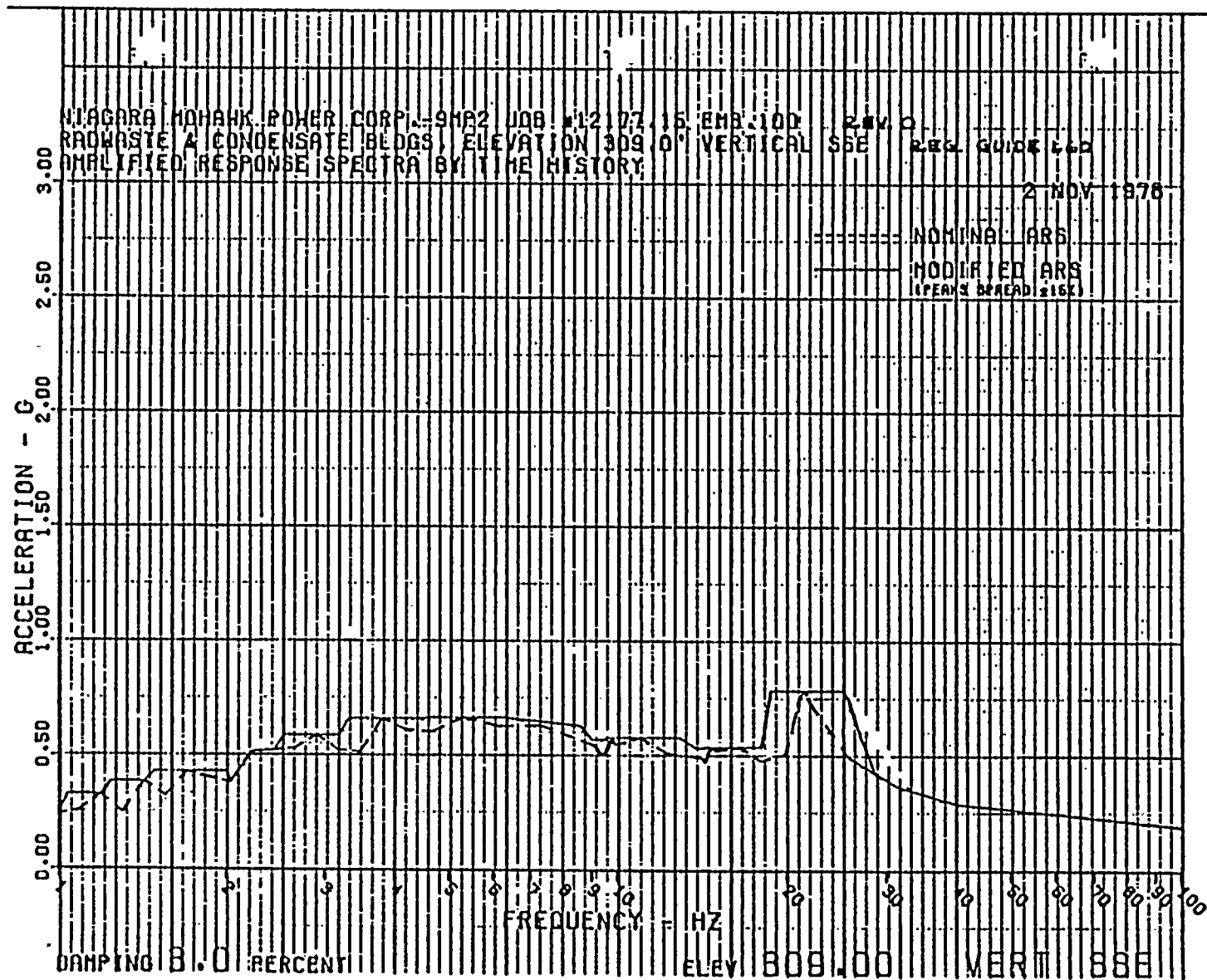
MS-1374 REV 0 REF 25
 12/77





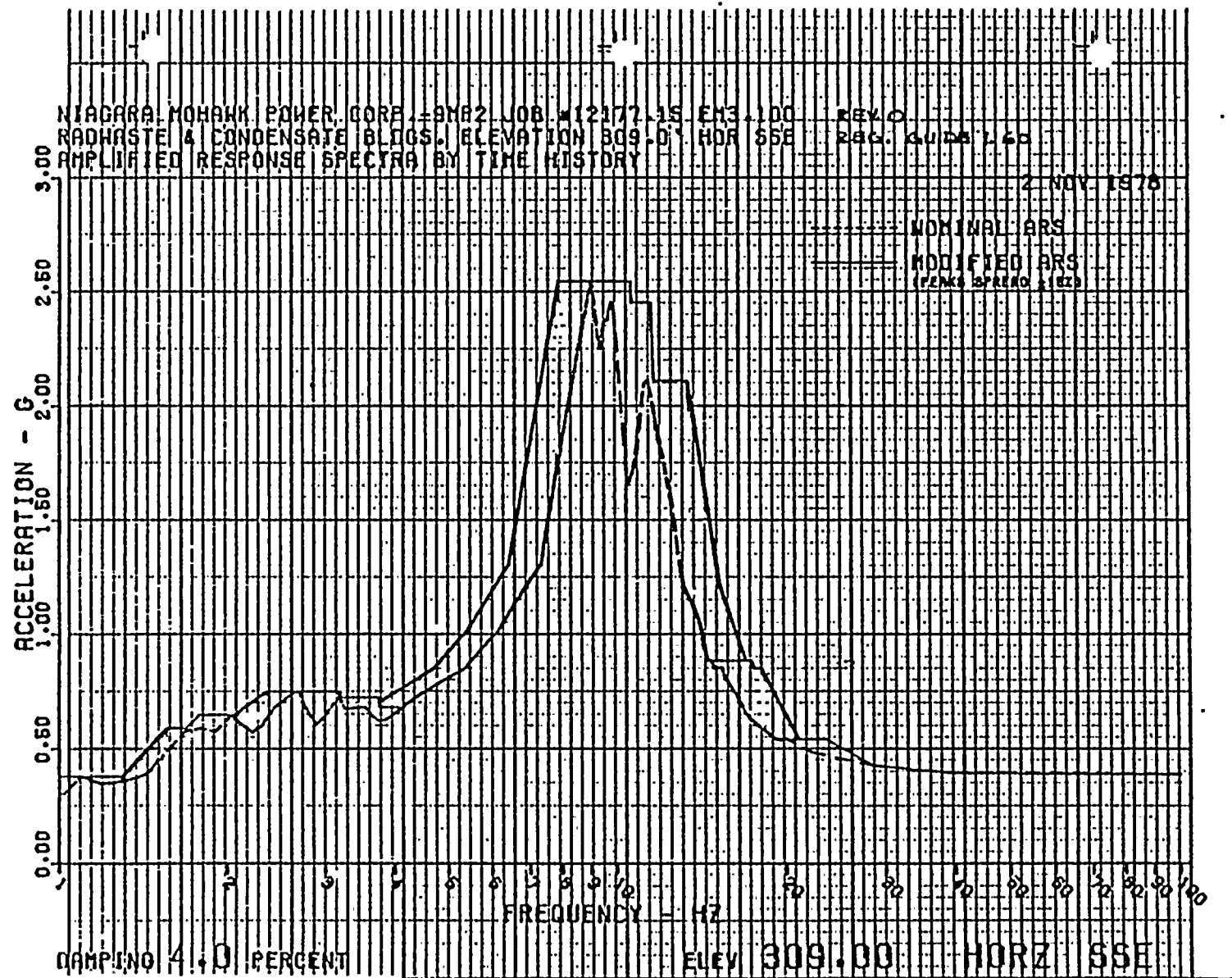
MS-1374 REV 0 REF 25
 12177





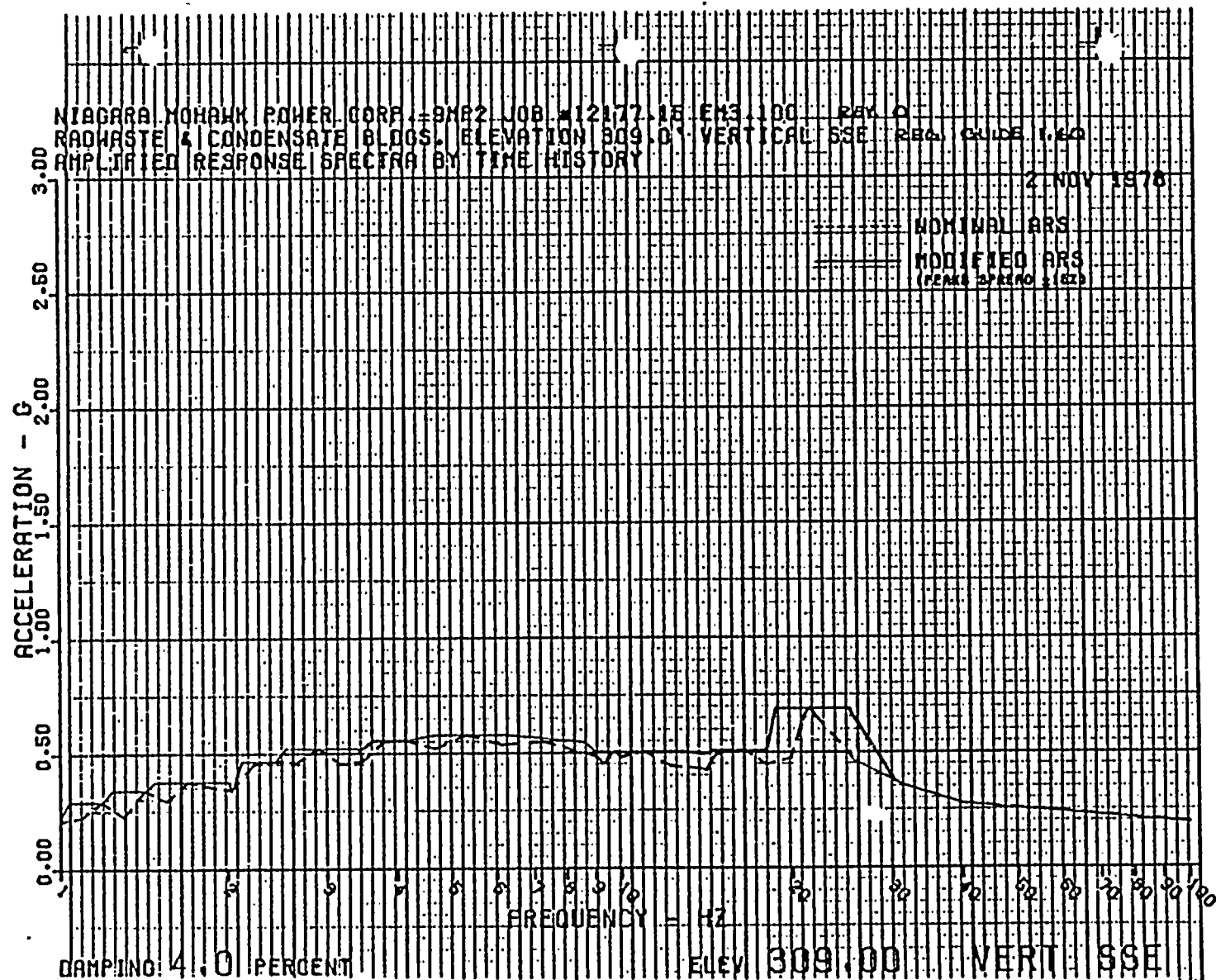
45-1374 REV 0 Ref 25
12/77



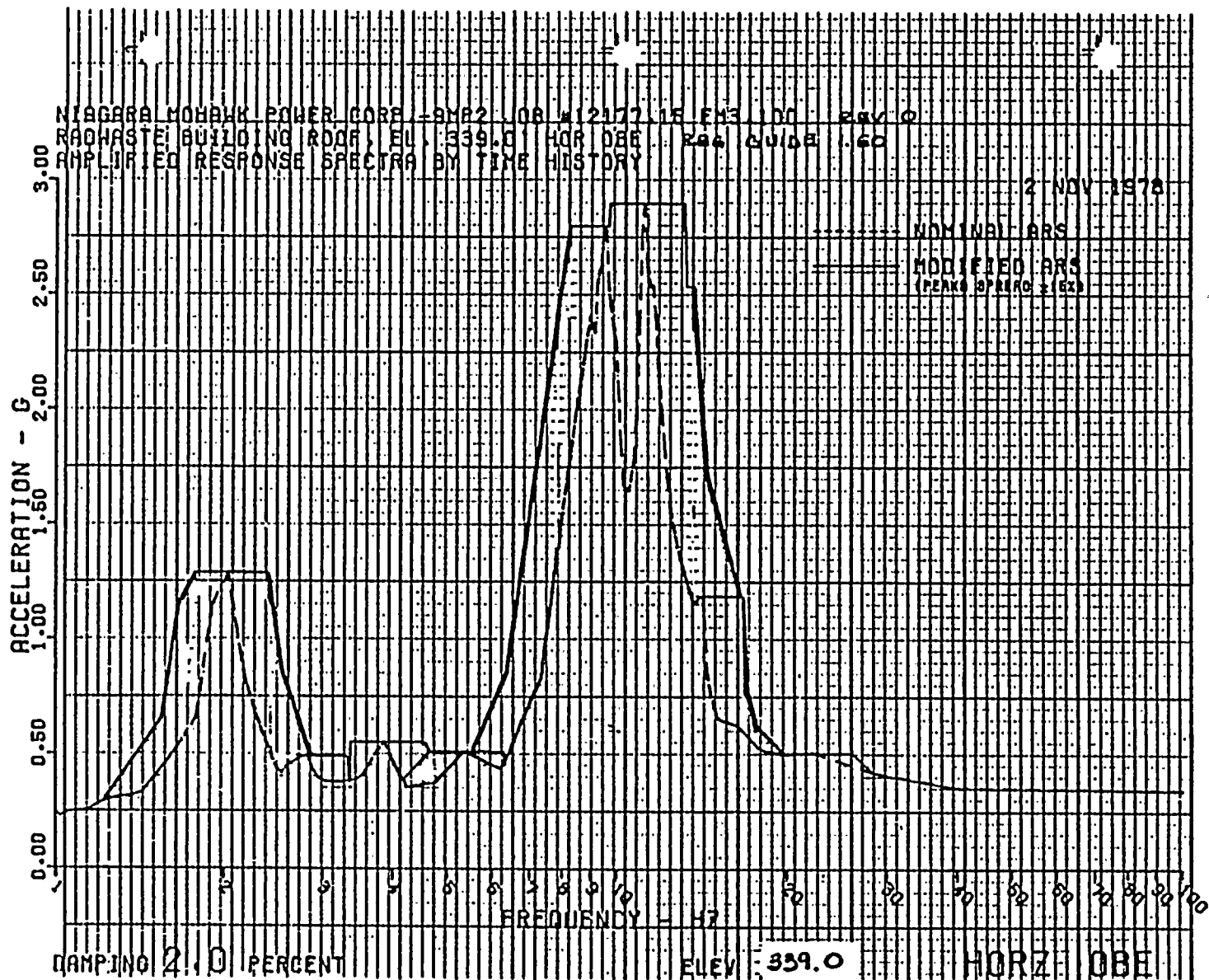


MS-1374 REV 0 REF 25
 12/77



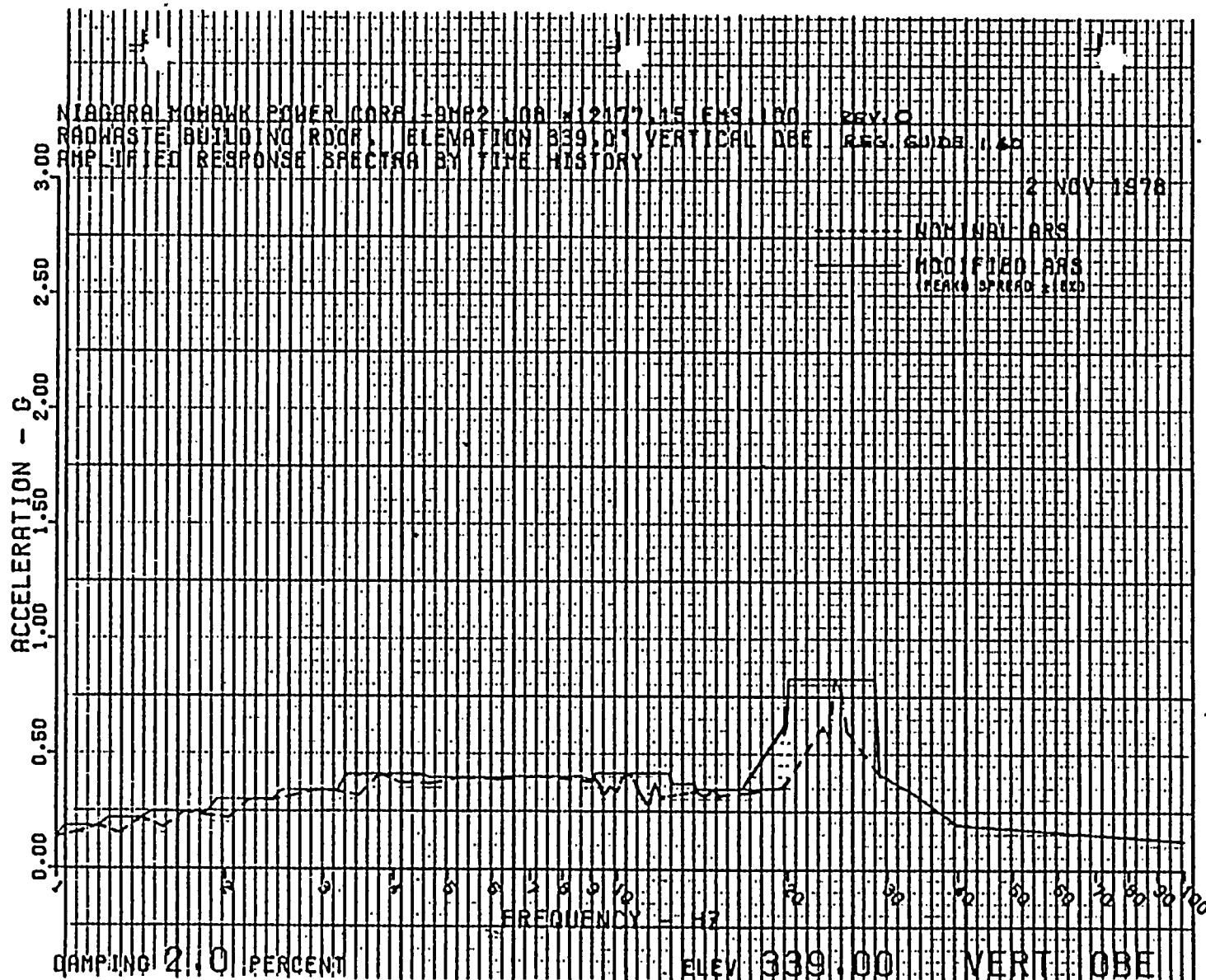






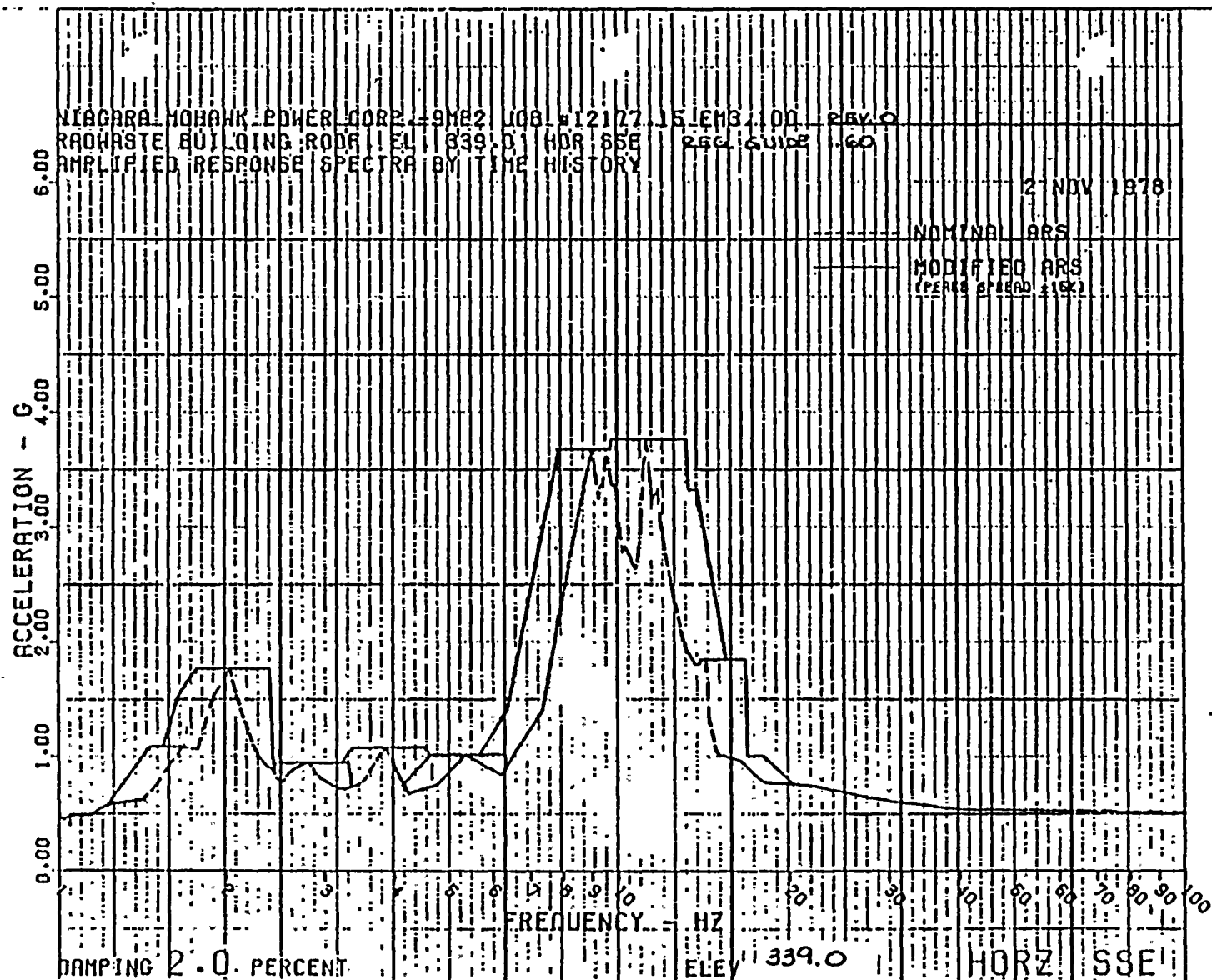
MS-1374 REV 0 REF 26
 12177





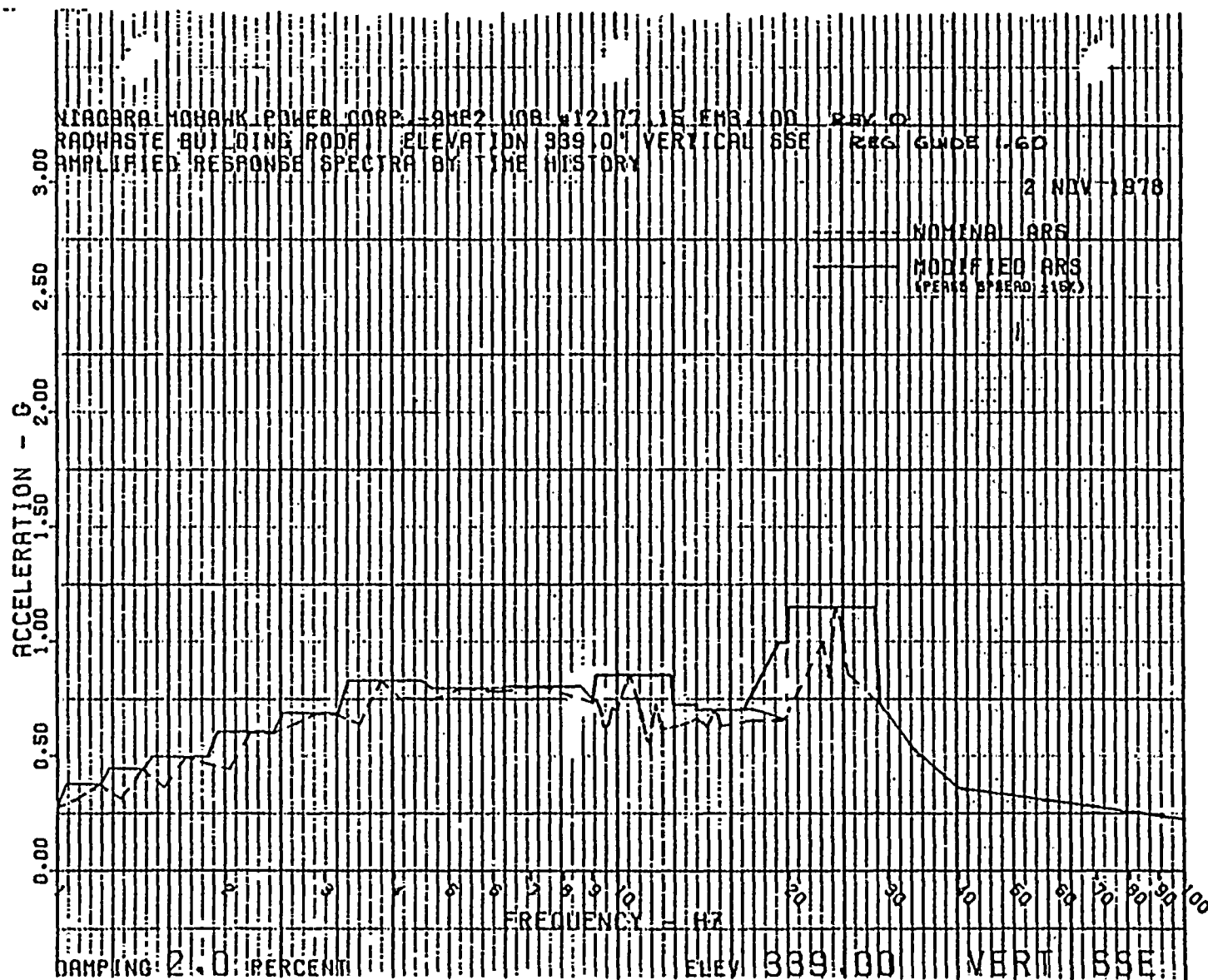
NS-1374 REV 0 REF 26
 12177





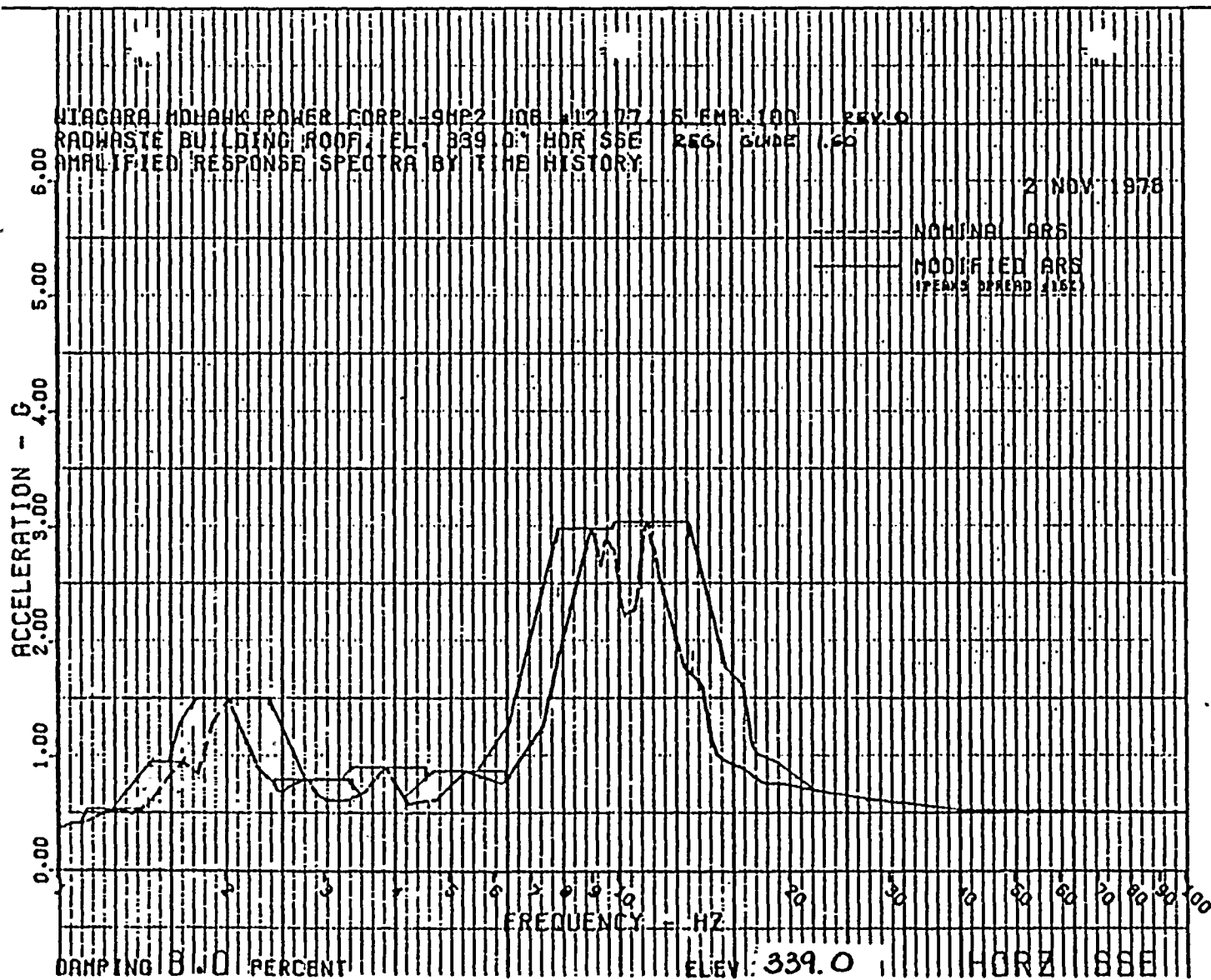
MS-1374 REV 0 REF 26
 12177





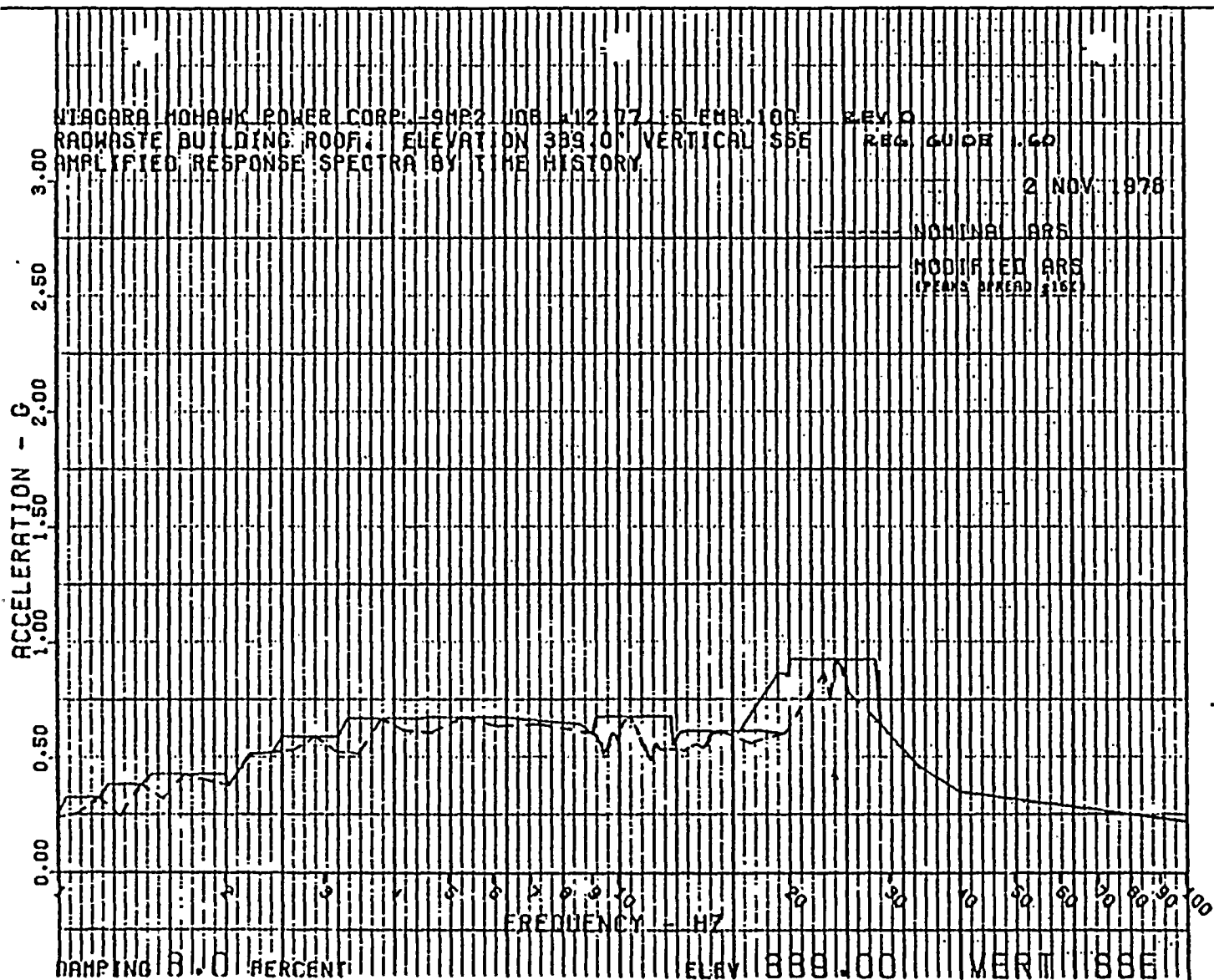
NS-1374 REV 0 Ref 26
 12177





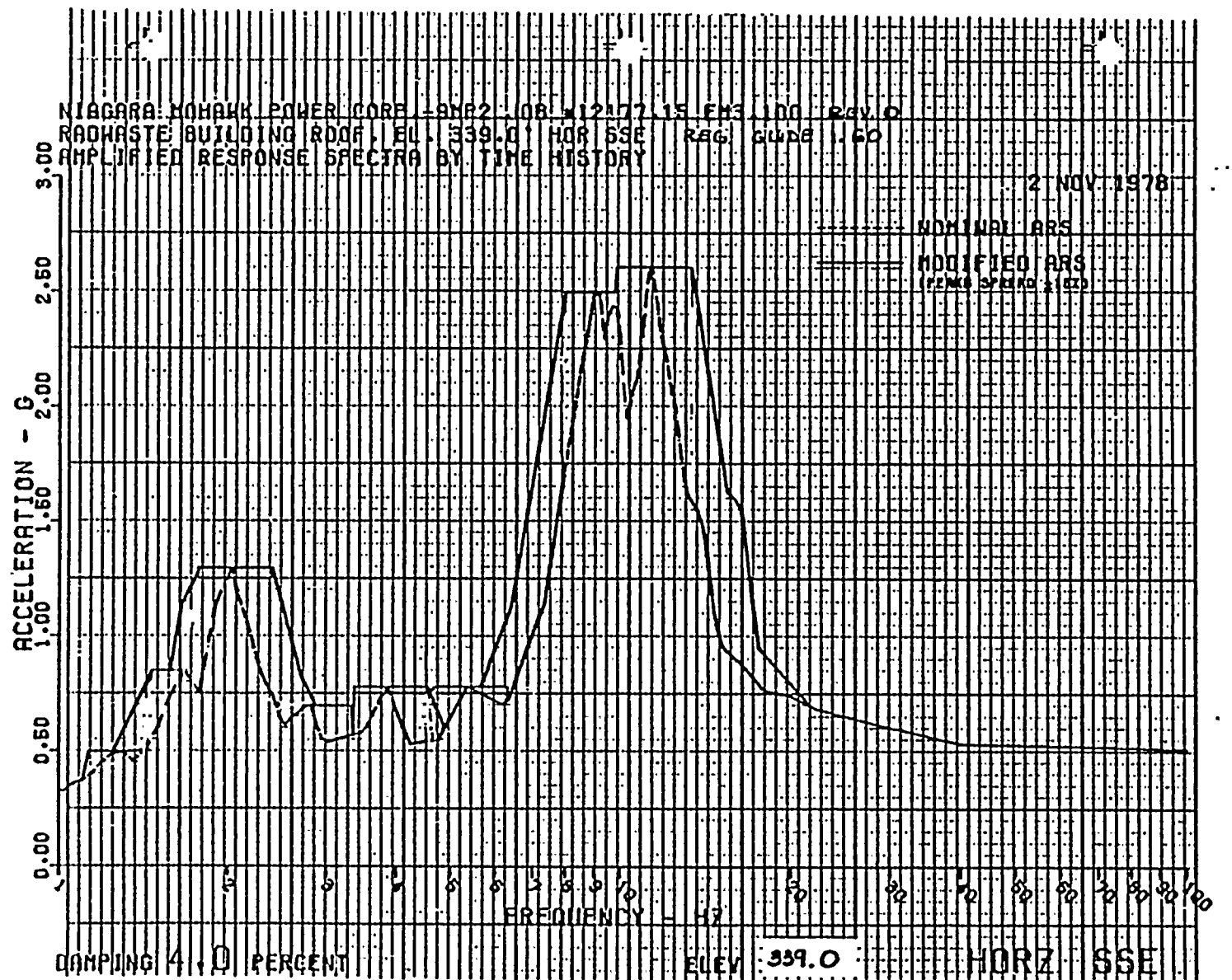
MS-1374 REV 0 REF 26
 12177





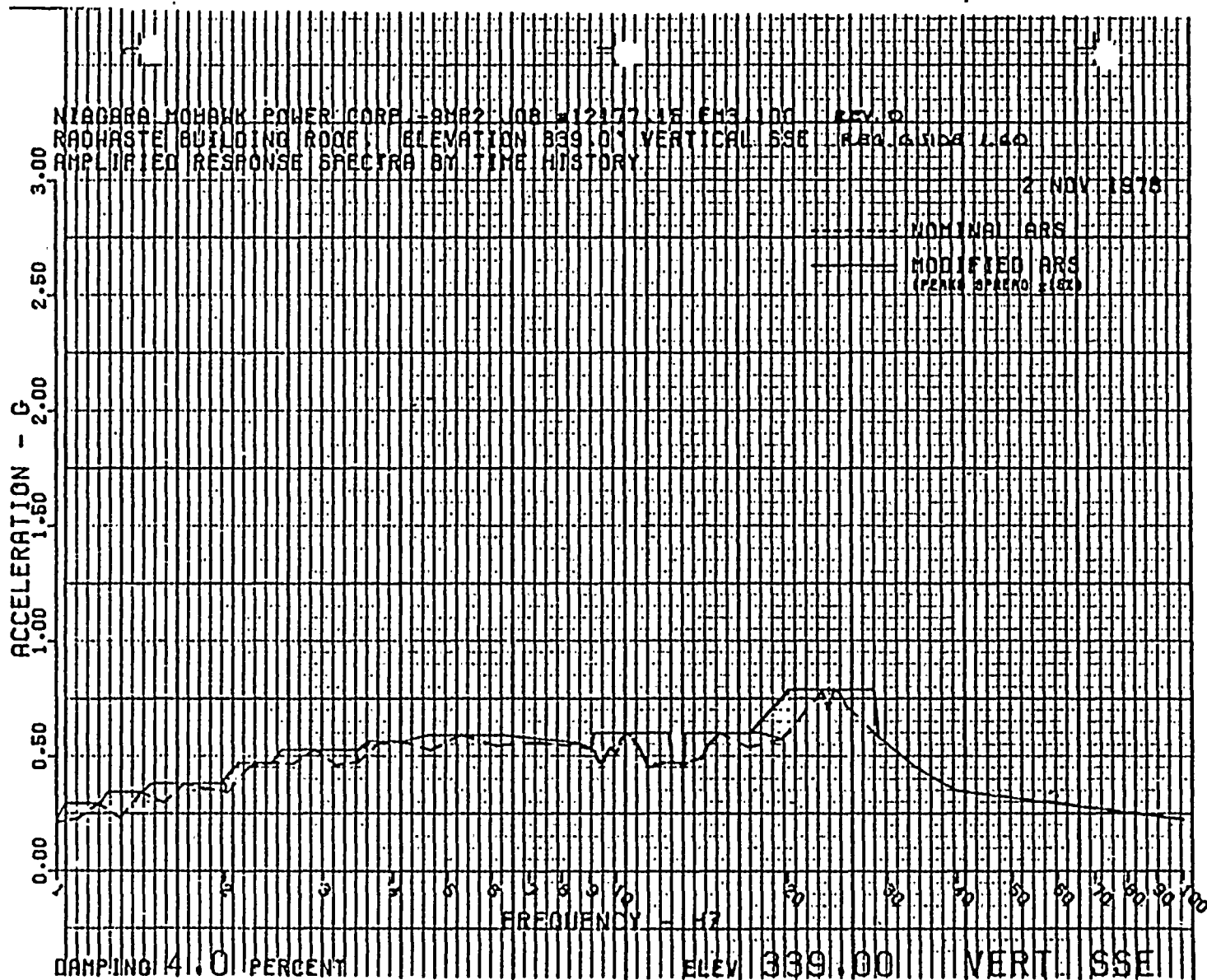
MS-1374 REV 0 Ref 26
 12177





MS-1374 REV 0 Ref 26
12177



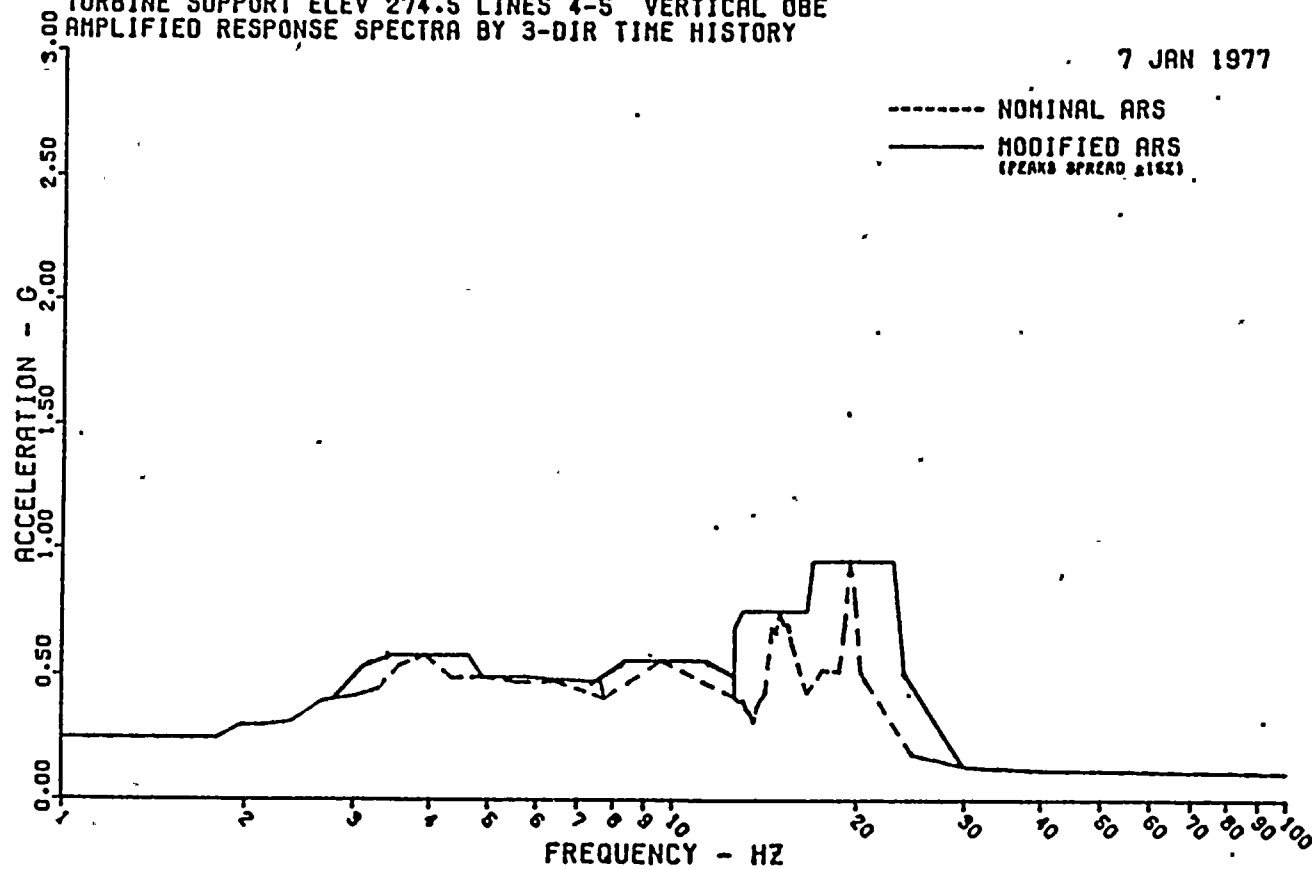


MS-1374 REV 0 REF 26
 12/77



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 274.5 LINES 4-5 VERTICAL OBE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 1.0 PERCENT

ELEV 274.50
 LINES 4-5

VERT OBE

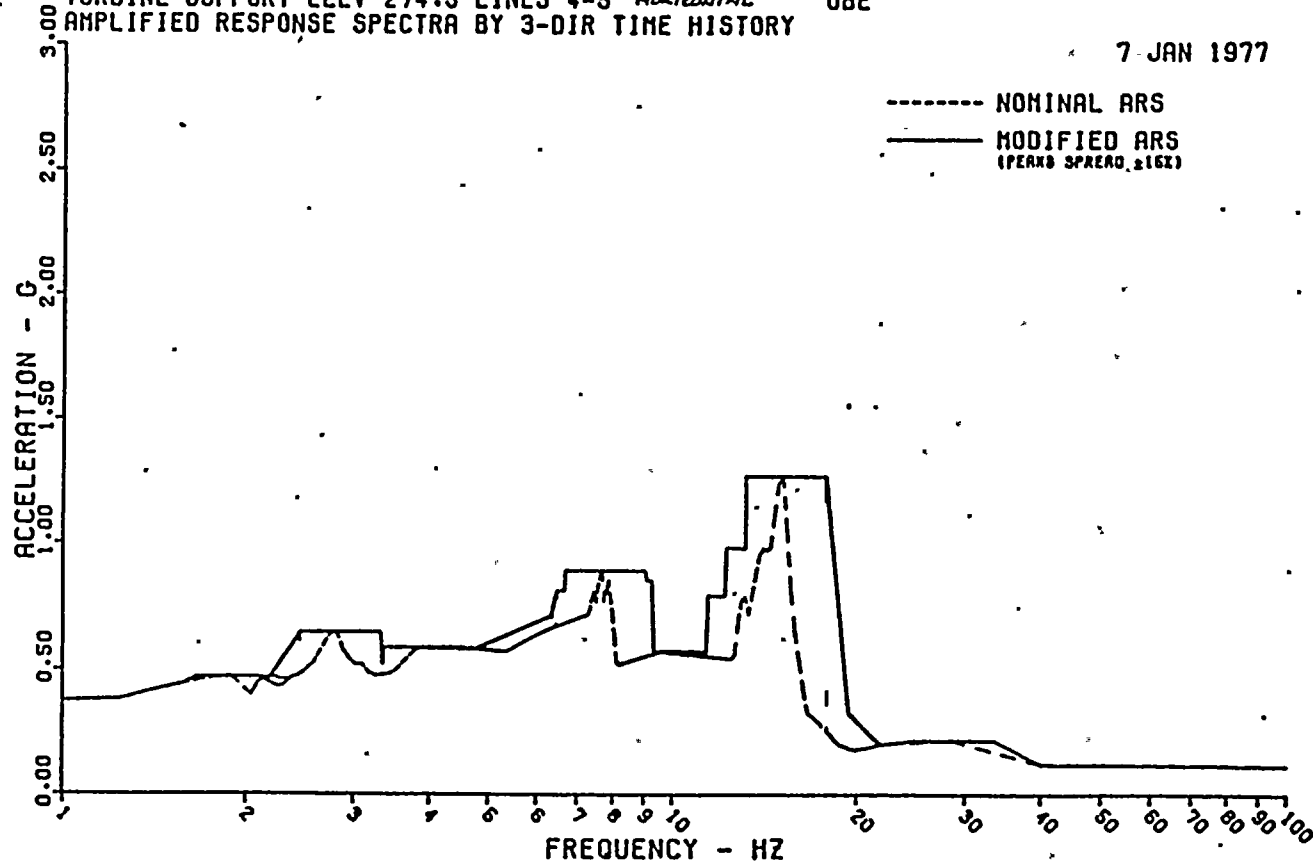
MS1386 REV. 0 Ref 27

J.O.12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REQ GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 274.5 LINES 4-5 HORIZONTAL OBE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 1.0 PERCENT

ELEV 274.50
 Lines 4e5

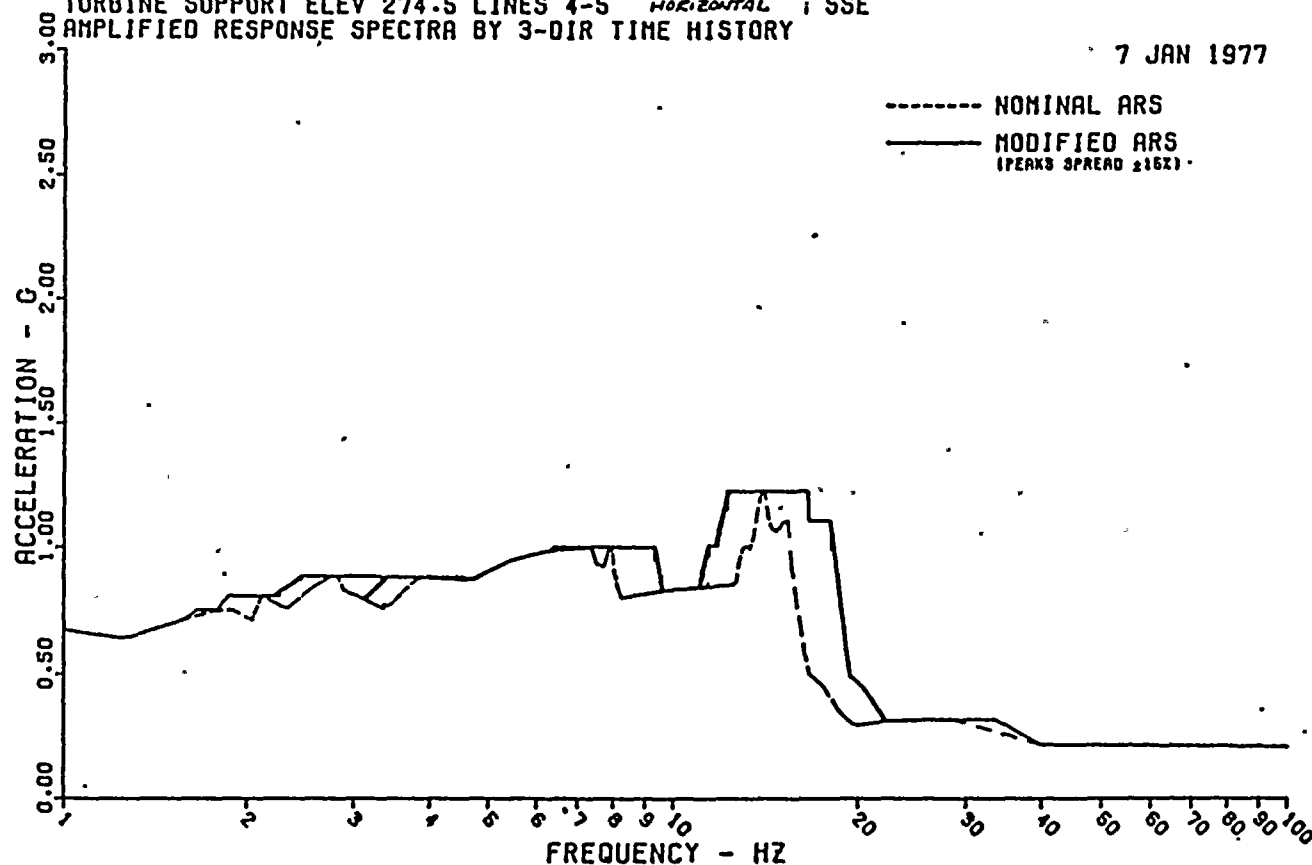
HORZ OBE

MS1386 REV. 0 Ref 27 J.O. 12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 274.5 LINES 4-5 HORIZONTAL SSE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 2.0 PERCENT

ELEV 274.50
 LINES 4 & 5

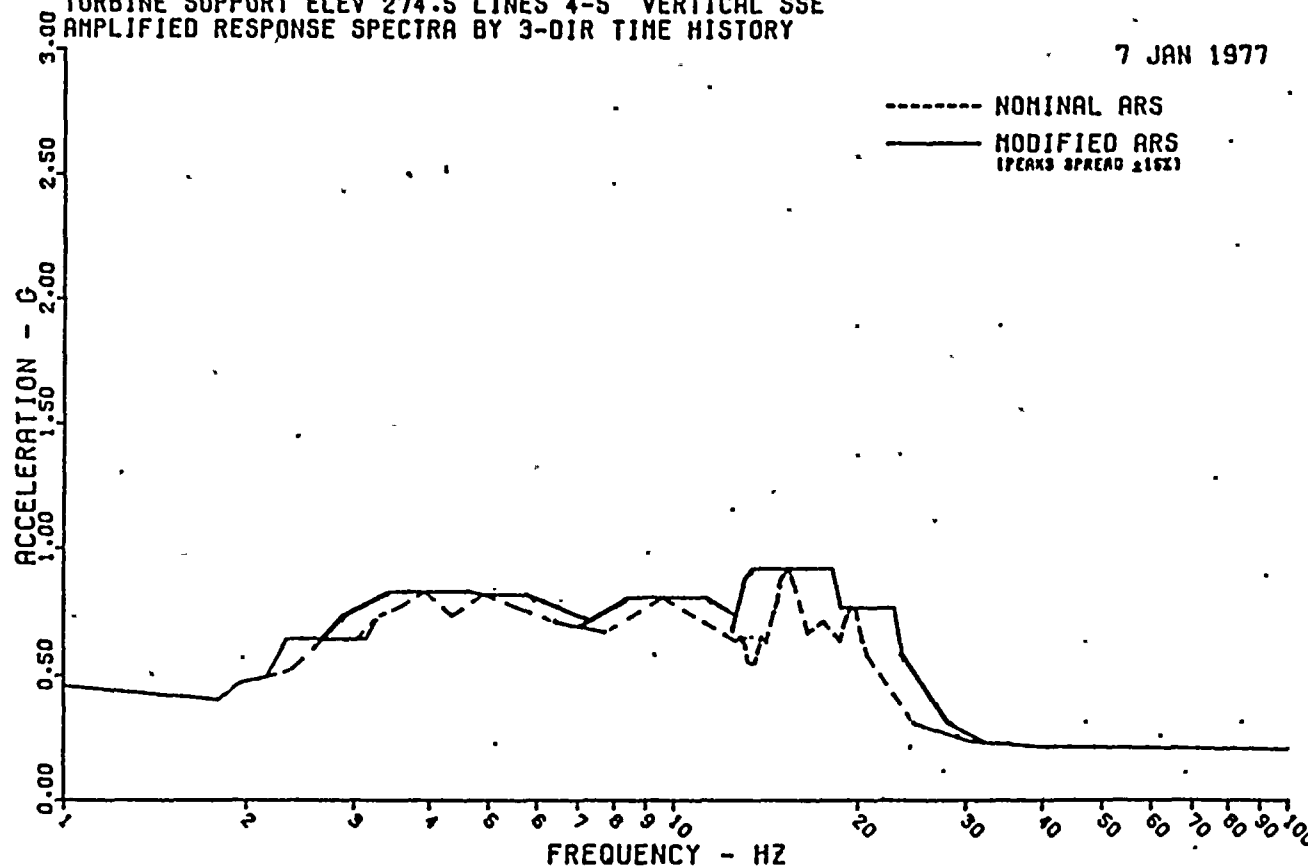
HORZ SSE

MS1386 REV. 0 REF 27
 J.O. 12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 RAY.1
 TURBINE SUPPORT ELEV 274.5 LINES 4-5 VERTICAL SSE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 2.0 PERCENT

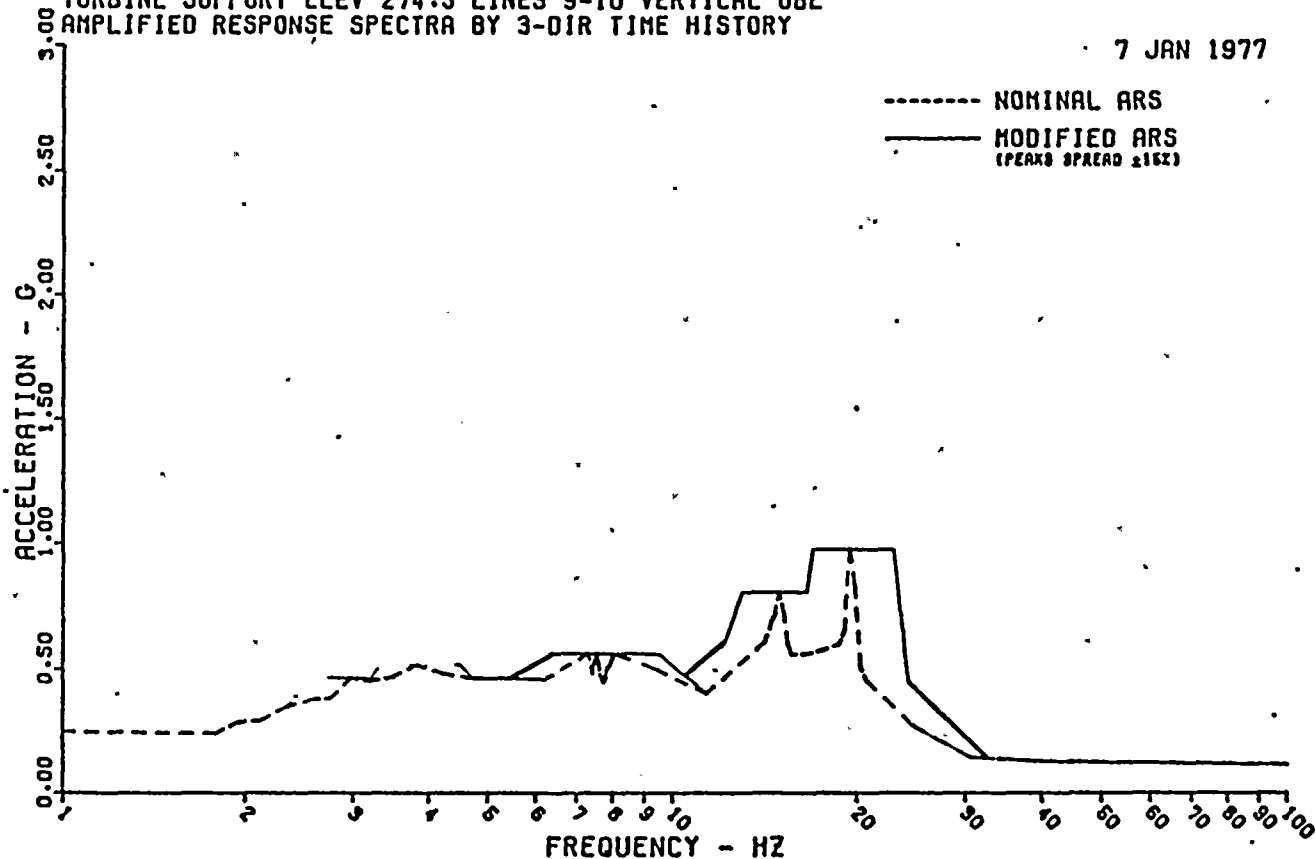
ELEV 274.50 VERT SSE
 LINES 4-5

MS1386 REV. U REF 27
 J.O. 12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 274.5 LINES 9-10 VERTICAL OBE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 1.0 PERCENT

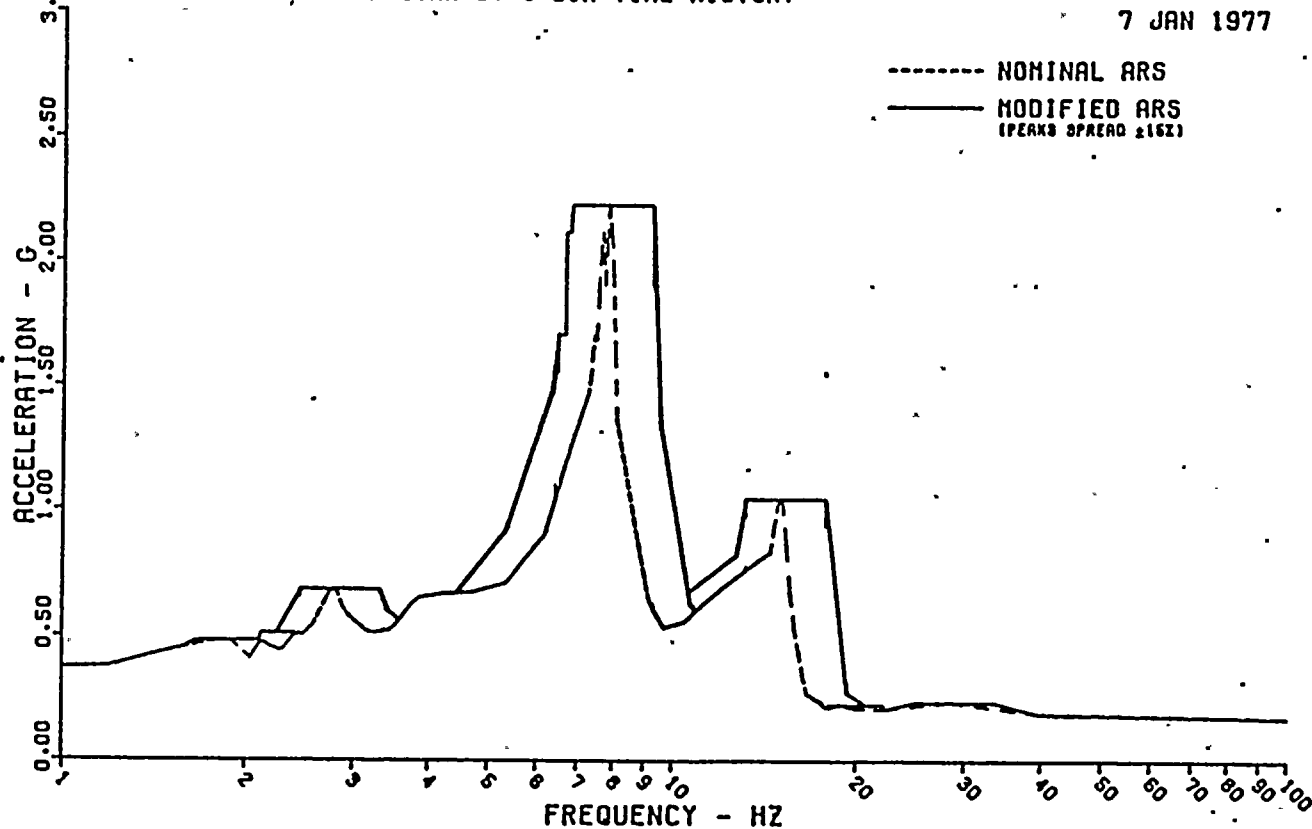
ELEV 274.50 VERT OBE
 LINES 9-10

MS 1386 REV. 0 REF 28 J.O. 12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 274.5 LINES 9-10 HORIZONTAL OBE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977

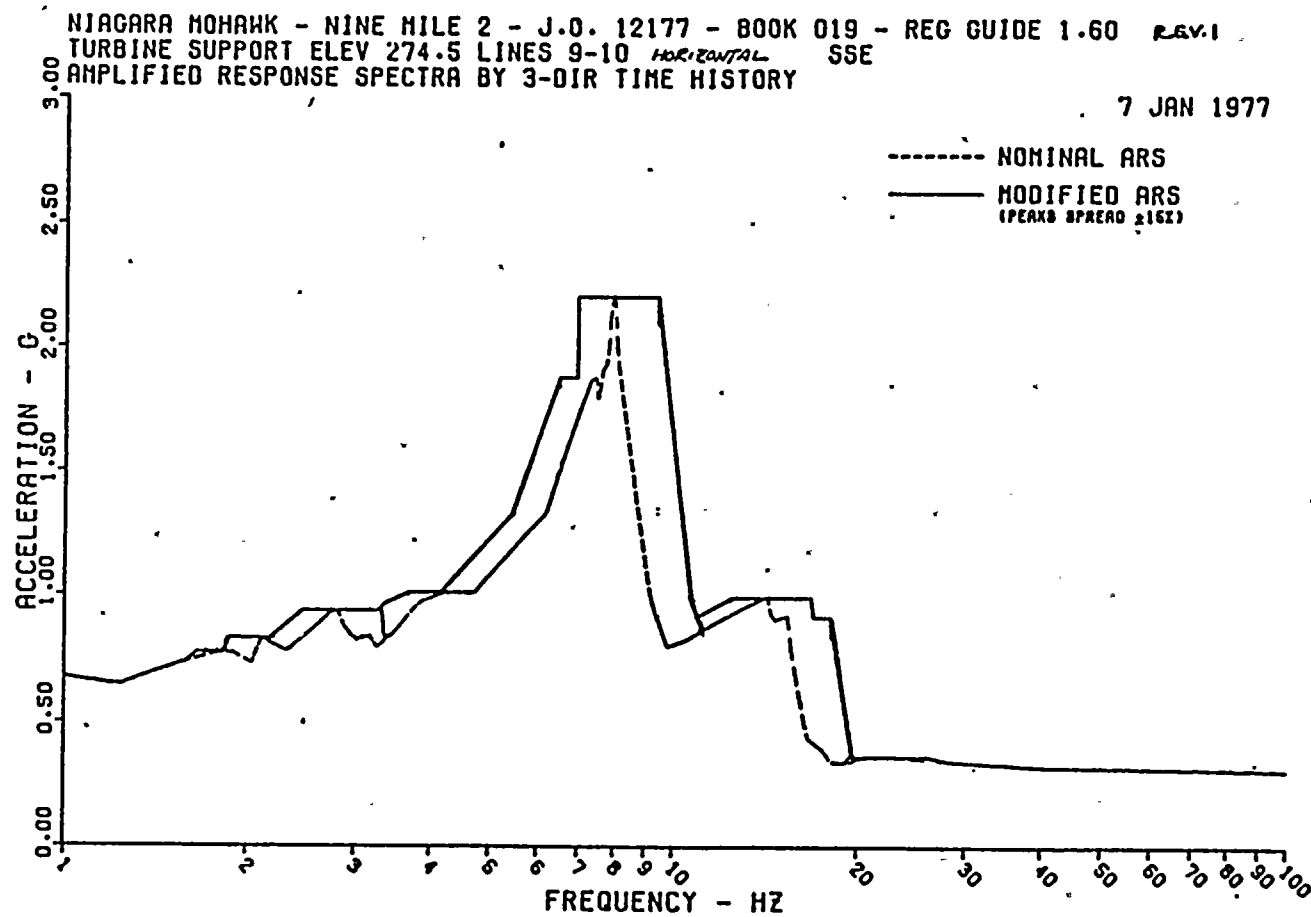


DAMPING 1.0 PERCENT

ELEV 274.50 HORZ OBE
 LINES 9-10

MS1386 REV. 0 Ref 28
 J.O. 12177





DAMPING 2.0 PERCENT

ELEV 274.50
 LINES 9-10

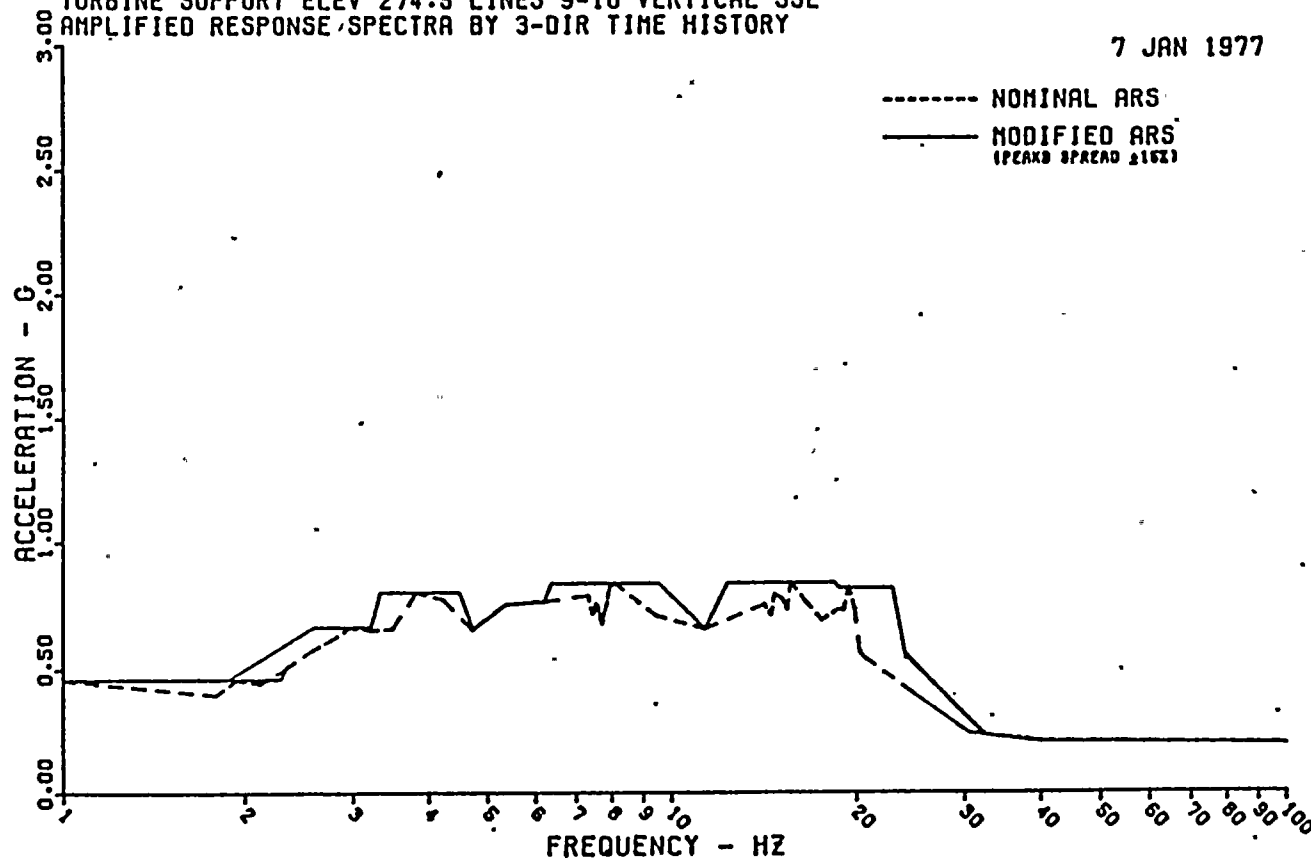
HORZ SSE

MS1386 REV. 0 Ref 28
 J.O. 12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 274.5 LINES 9-10 VERTICAL SSE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 2.0 PERCENT

ELEV 274.50
 LINES 9 & 10

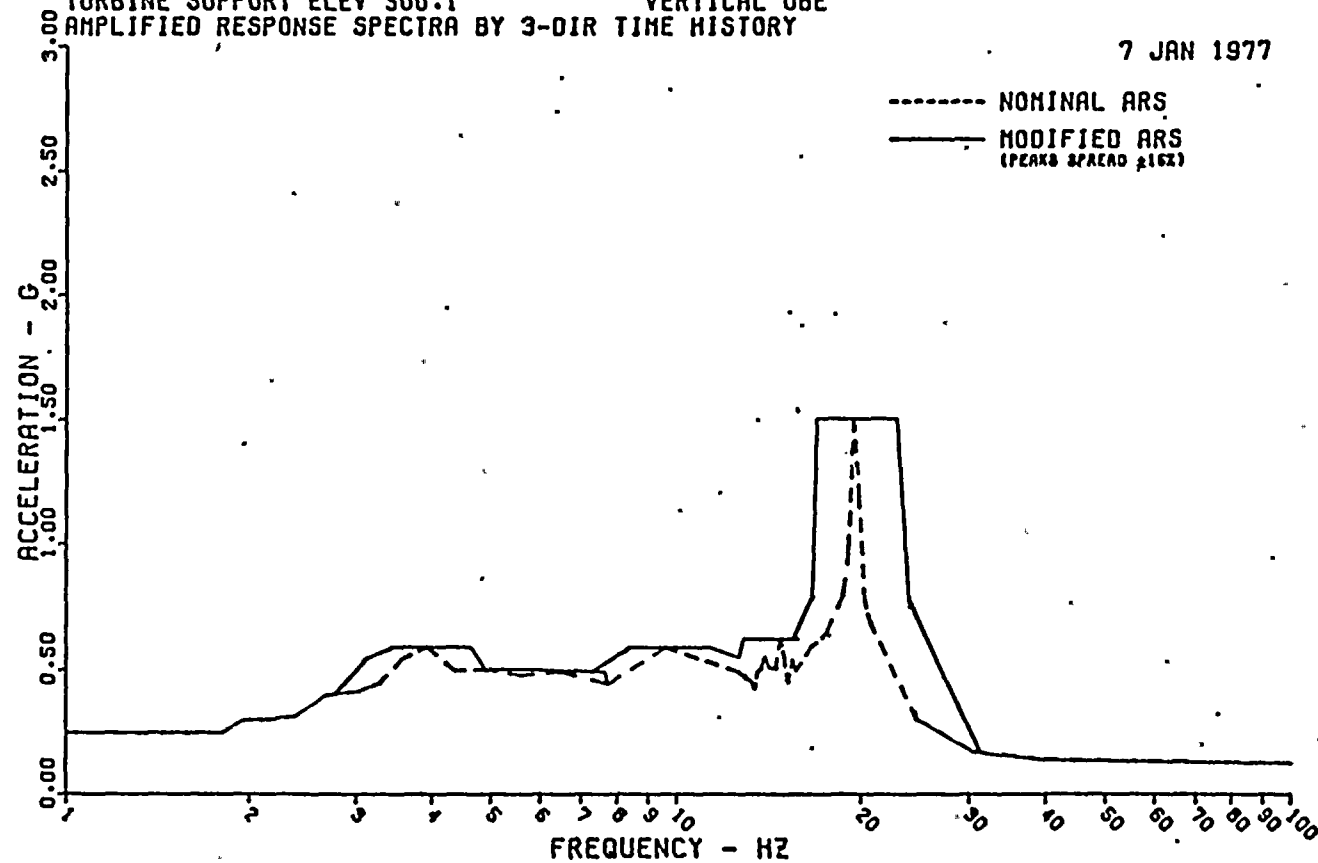
VERT SSE

MS1386 REV. 0 REF 28 J.O. 12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 300.1 VERTICAL OBE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 1.0 PERCENT

ELEV 300.10 VERT OBE

MS1386 REV. 0 REF 29

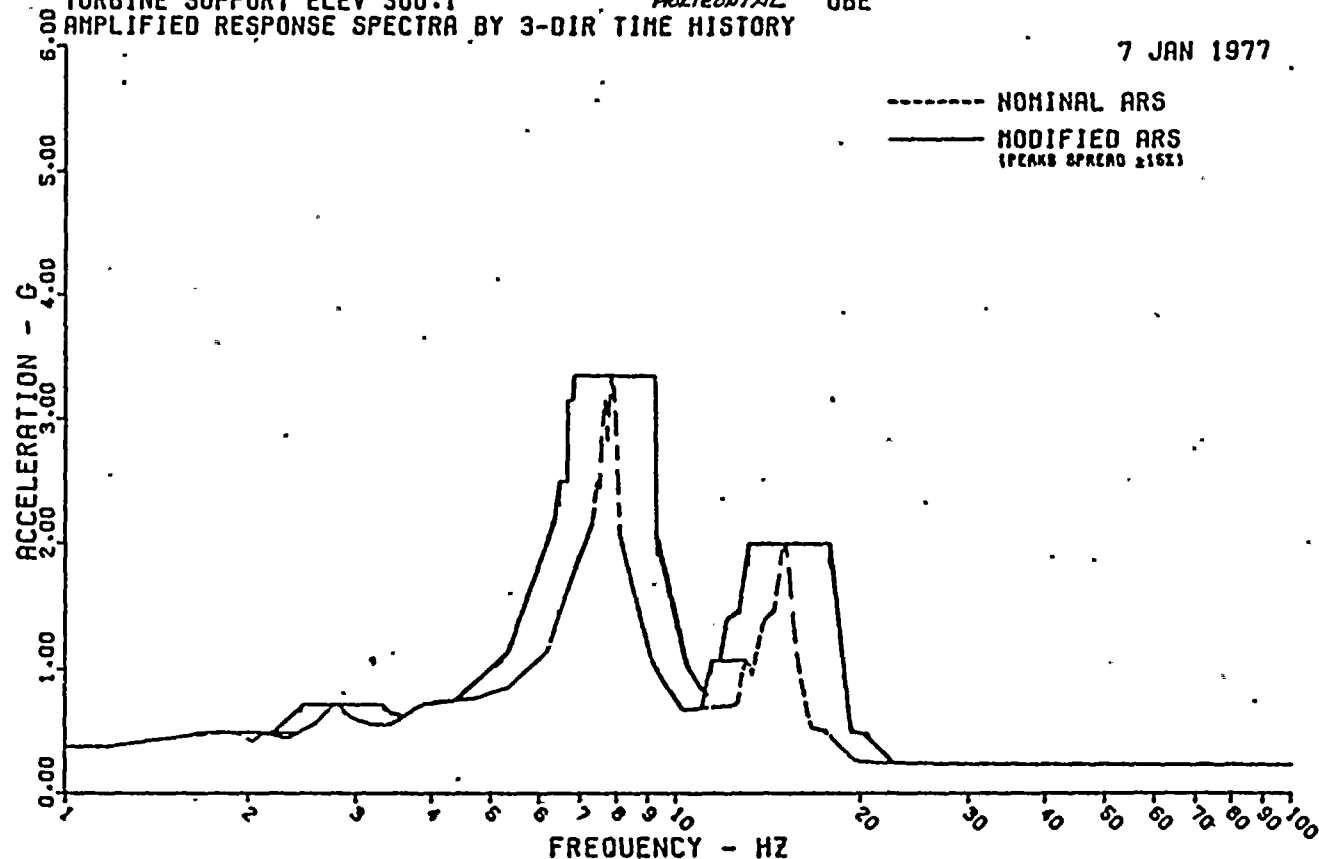
J.O.12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1
 TURBINE SUPPORT ELEV 300.1
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

HORIZONTAL OBE

7 JAN 1977



DAMPING 1.0 PERCENT

ELEV 300.10 HORIZ OBE

MS1386 REV. (1) REF 29

J.O. 12177

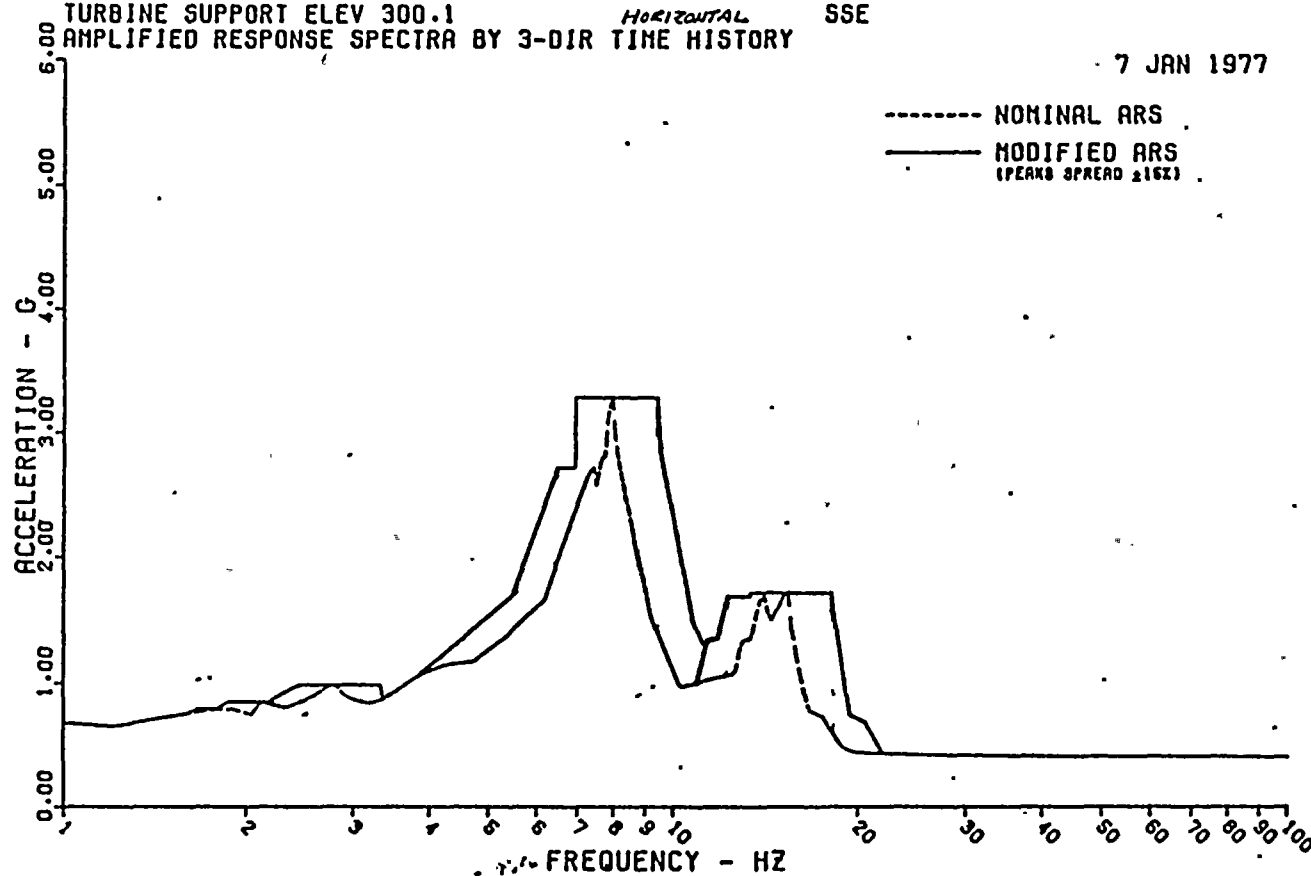


NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.1.
 TURBINE SUPPORT ELEV 300.1
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

HORIZONTAL

SSE

7 JAN 1977



DAMPING 2.0 PERCENT

ELEV 300.10

HORZ SSE

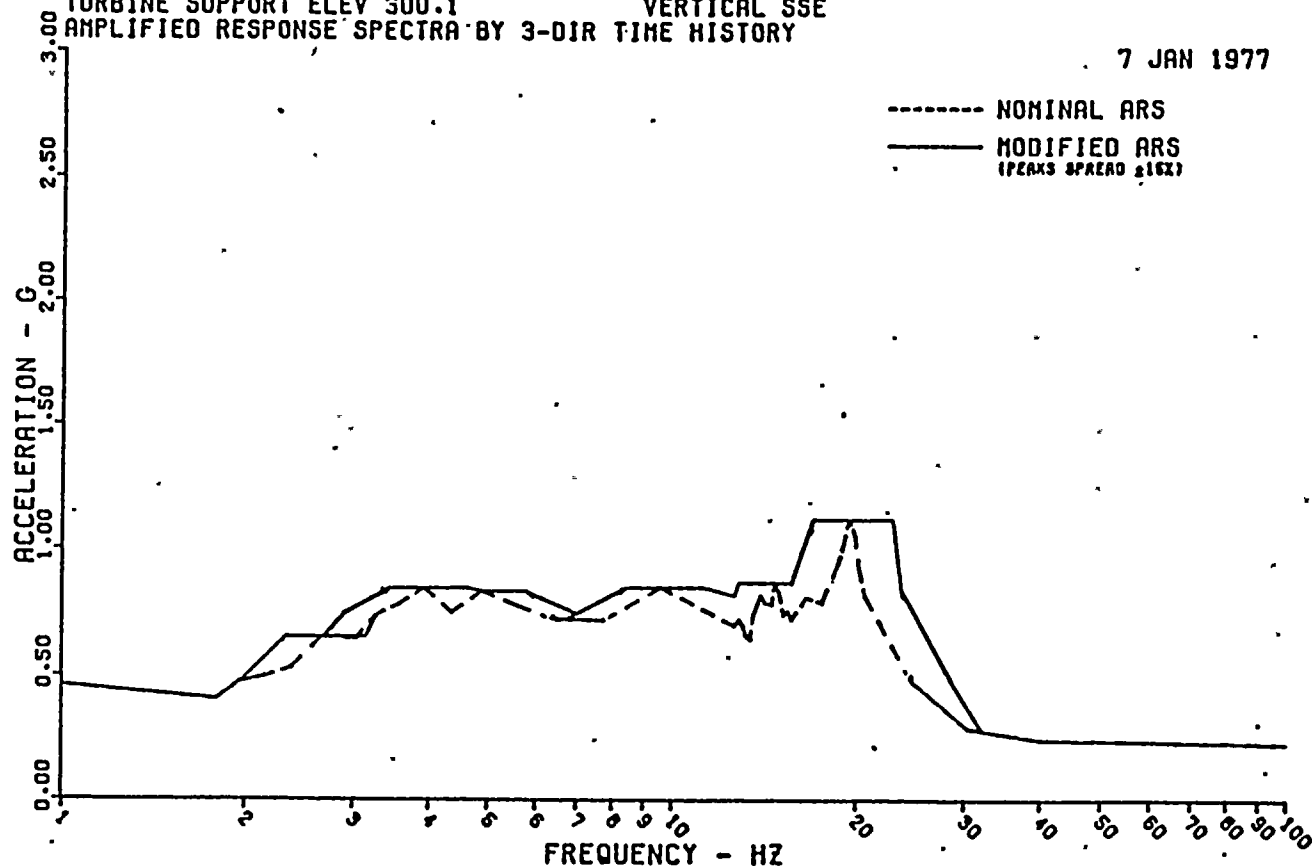
MS1386 REV. 1 REF 29

J.O. 12177



NIAGARA MOHAWK - NINE MILE 2 - J.O. 12177 - BOOK 019 - REG GUIDE 1.60 REV.
 TURBINE SUPPORT ELEV 300.1 VERTICAL SSE
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

7 JAN 1977



DAMPING 2.0 PERCENT

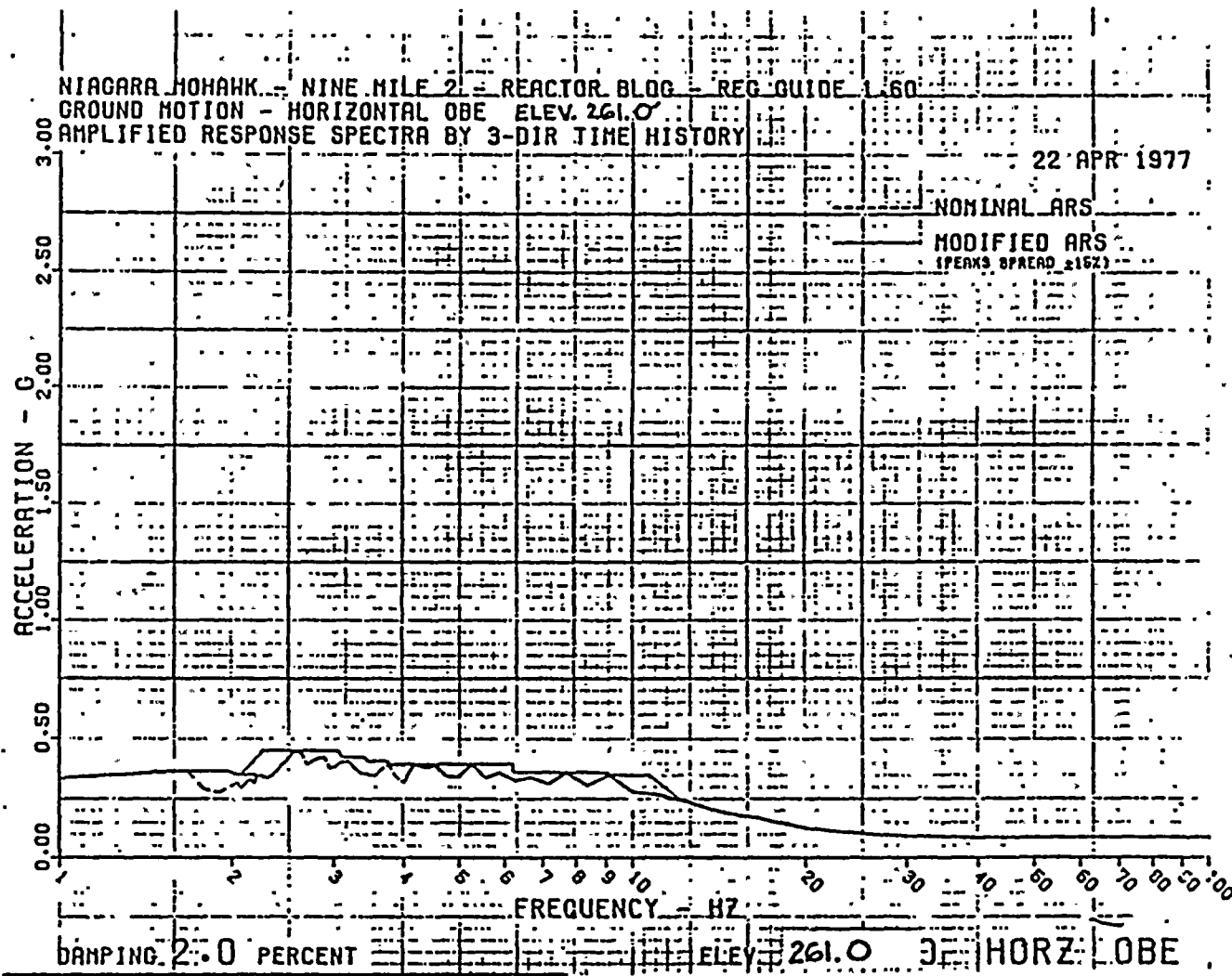
ELEV 300.10

VERT SSE

MS1386 REV. 0 REF 29

J.O. 12177

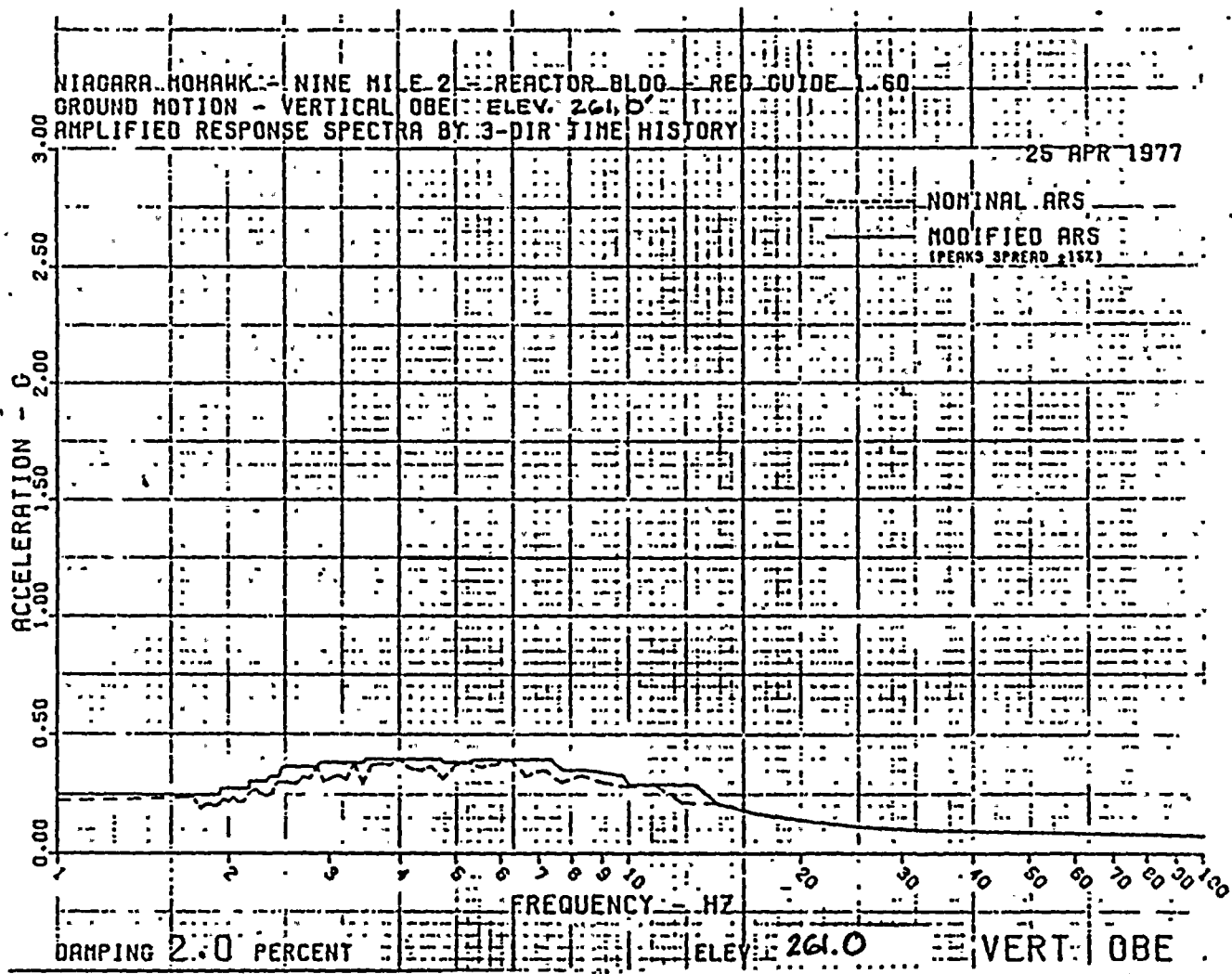




MS1386 REV. 0 REF 30

5012177



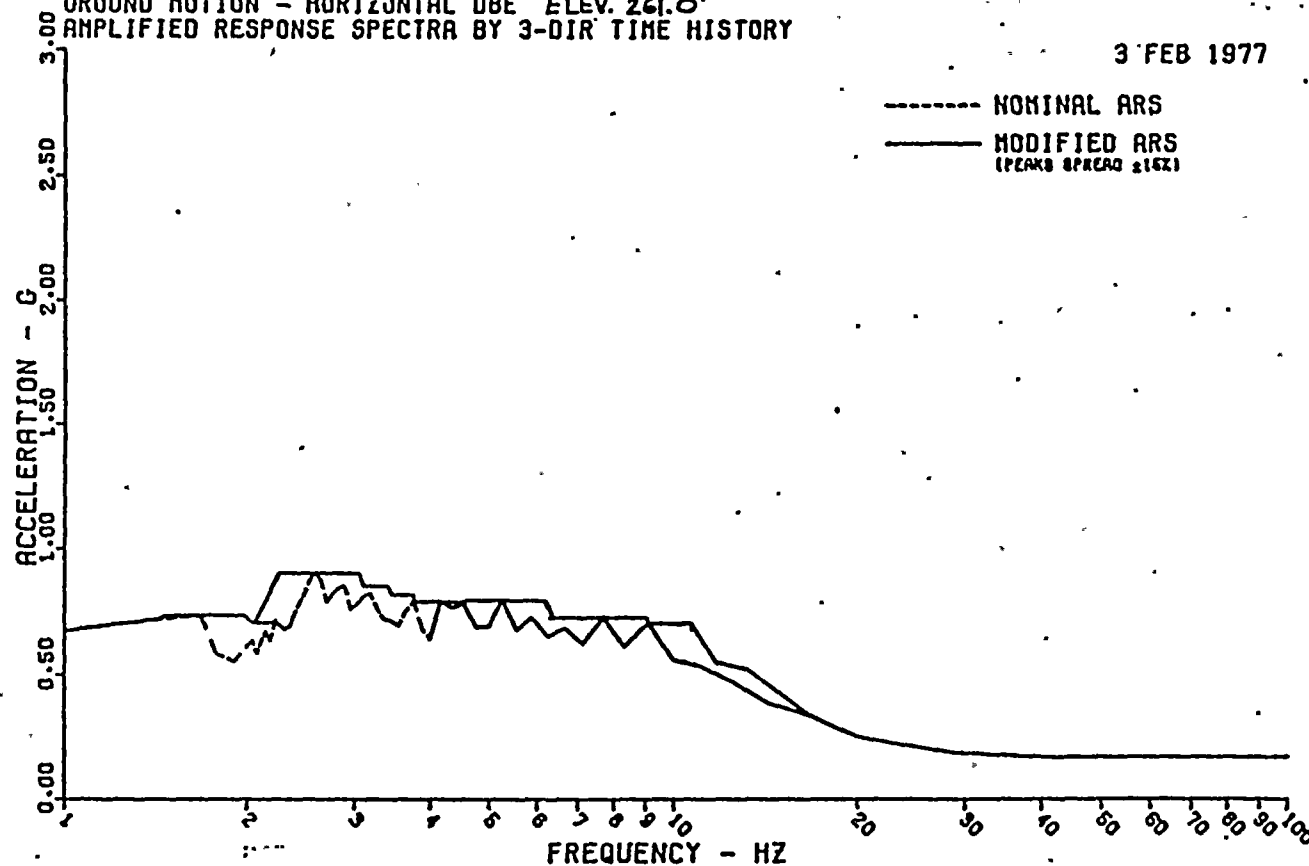


MS1386 REV. 0 REF 50
J.O. 12177



NIAGARA MOHAWK - 9MP2 J0812177. REACTOR BLDG - REQ GUIDE 1.60
 GROUND MOTION - HORIZONTAL DBE ELEV. 261.0
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

3 FEB 1977



DAMPING 2.0 PERCENT

ELEV. 261.0

HORZ SSE

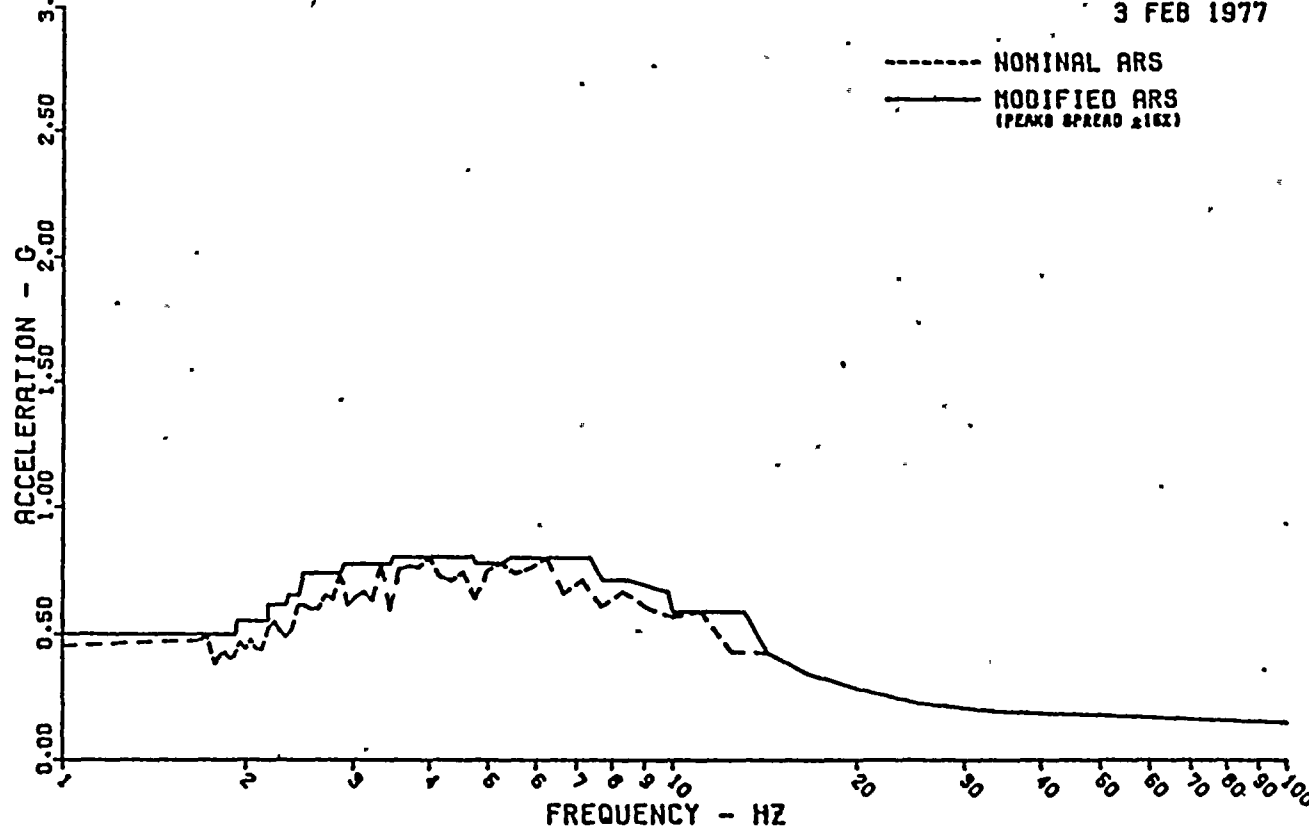
MS1.386 REV. 0 REF 30

J.0 12177



NIAORRA MOHAWK 9MP2 JOB#12177 - REACTOR BLDG - REQ GUIDE 1.60
 GROUND MOTION - VERTICAL OBE ELEV. 261.0'
 AMPLIFIED RESPONSE SPECTRA BY 3-DIR TIME HISTORY

3 FEB 1977



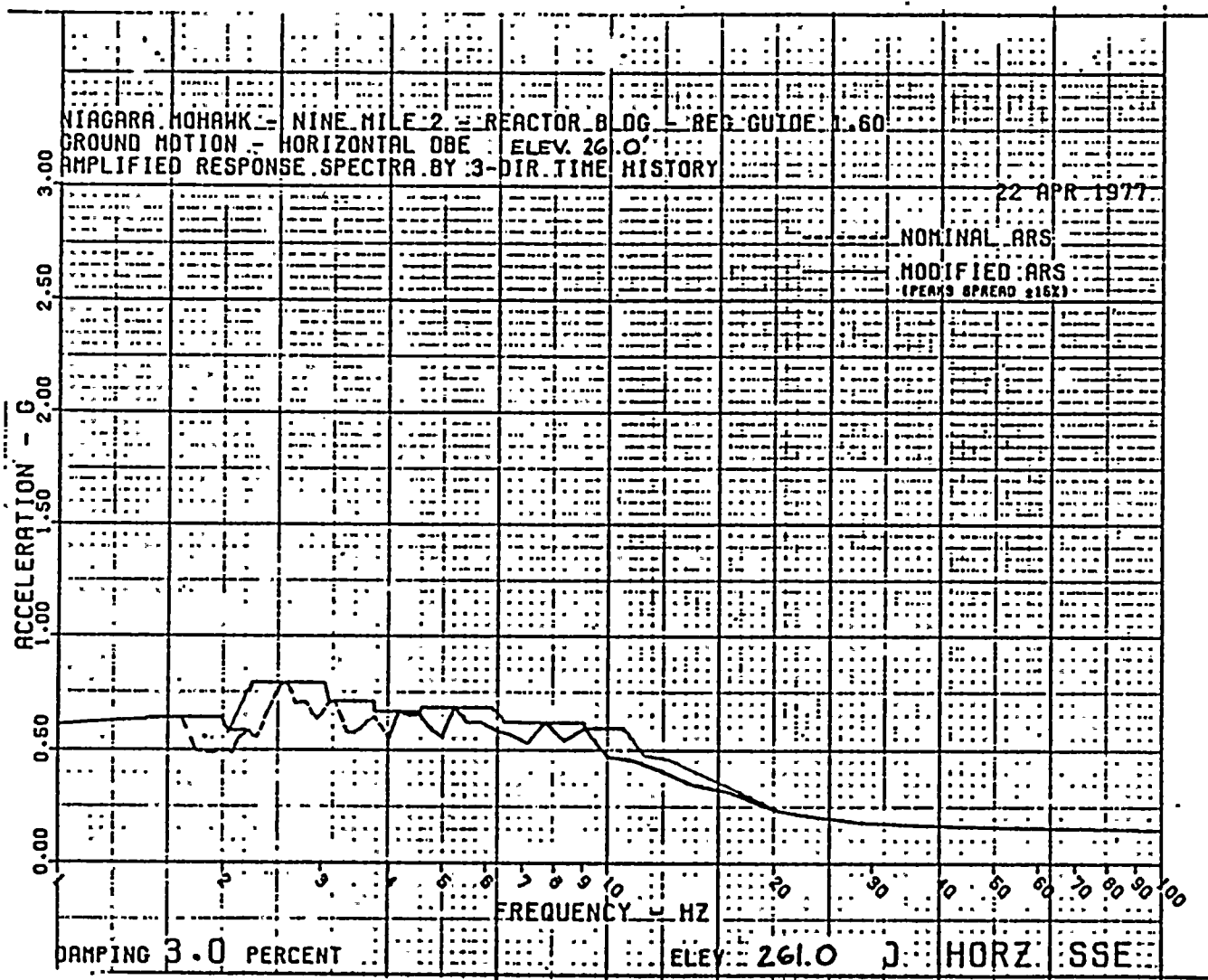
DAMPING 2.0 PERCENT

ELEV 261.00

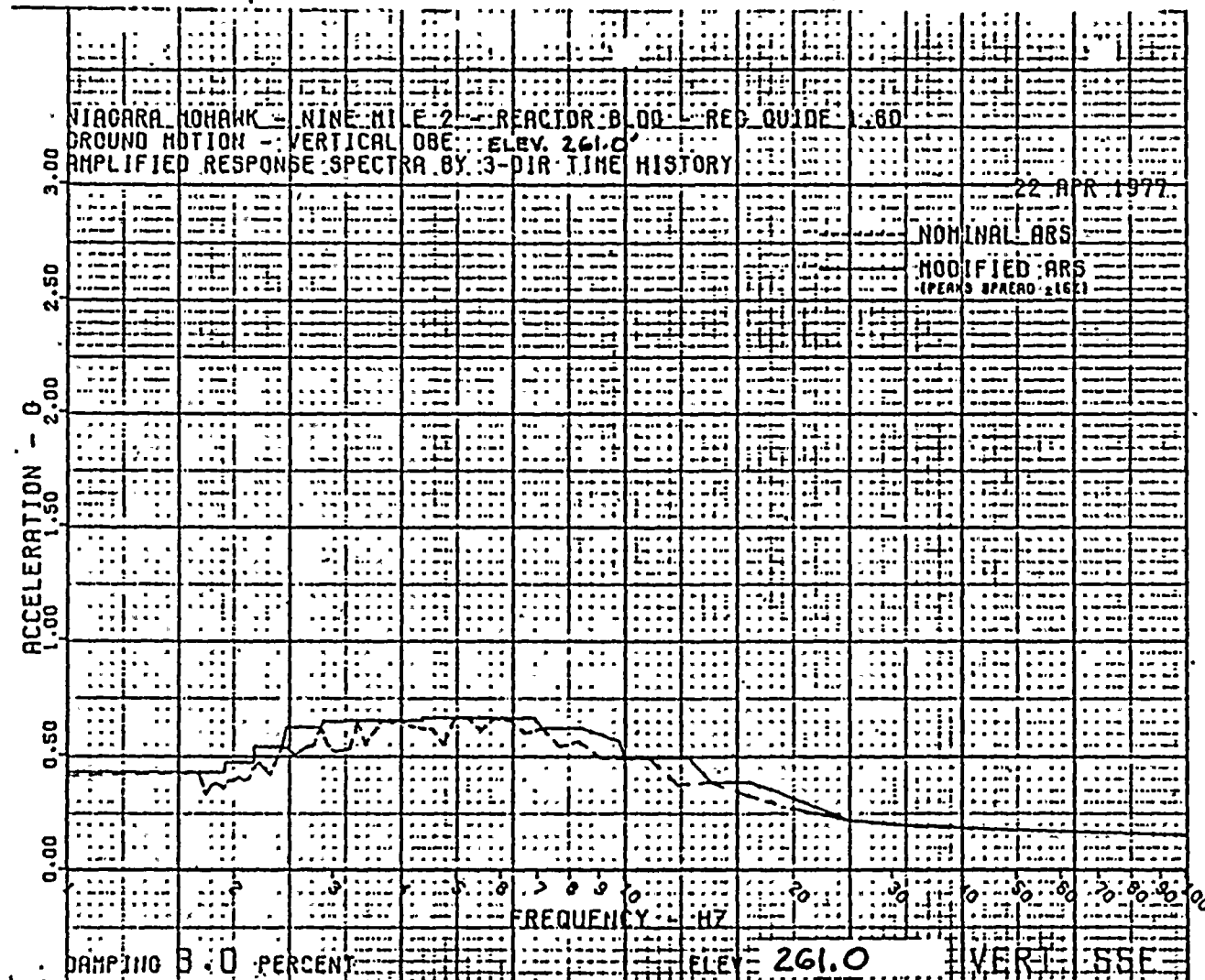
VERT SSE

MS1386 REV. 1) REF 30
 J.O. 12177





MS1386 REV. 0 REF 30
 J.O.121777



MS1 386 REV. 0 REF 30

J:O 12177



FP2

SEISMIC ORE AND SSE
REQUIRED RESPONSE SPECTRA FOR THE
REACTOR BUILDING



Seismic OBE and SSE

Required Response Spectra (RRS) for the Reactor Building

<u>Mass Point - Location</u>	<u>Elev (ft)</u>	<u>Reference No.*</u>
1 - Primary Containment	330.08	65
2 - Primary Containment	315.08	66
3 - Primary Containment	302.50	67
4 - Primary Containment	286.83	68
5 - Primary Containment	271.25	69
6 - Primary Containment	255.67	70
7 - Primary Containment	238.00	71
8 - Primary Containment	218.33	72
9 - Primary Containment	196.67	73
10 - Shield Wall	315.09	74
11 - Shield Wall	302.75	75
12 - Shield Wall	290.79	76
13 - Shield Wall	278.65	77
14 - RPV Shell	332.70	78
15 - RPV Shell	315.08	79
16 - RPV Shell	297.17	80
17 - RPV Shell	278.00	81
18 - Drywell Floor	238.00	82
19 - Pedestal	266.50	83
20 - Pedestal	253.13	84
21 - Pedestal	238.00	85
22 - Pedestal	217.50	86
23 - Pedestal	196.25	87
24 - Base Mat	175.00	88
25 - Secondary Containment	416.83	89
26 - Secondary Containment	387.83	90
27 - Secondary Containment	353.83	91
28 - Secondary Containment	328.83	92
29 - Secondary Containment	289.00	93
30 - Secondary Containment	261.00	94
31 - Secondary Containment	240.00	95
32 - Secondary Containment	215.00	96
33 - Secondary Containment	198.00	97
34 - Secondary Containment	175.00	98

*Each reference number includes the following:

1. Horizontal and vertical direction OBE condition at 1, 2, and 4 percent damping.
2. Horizontal and vertical direction SSE condition at 2, 3, 4, and 7 percent damping.



0000000015

PSPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.D.12177
RRS OF ACC. PRIMARY CONT. (ELEV 330.08 FT)

MS1765

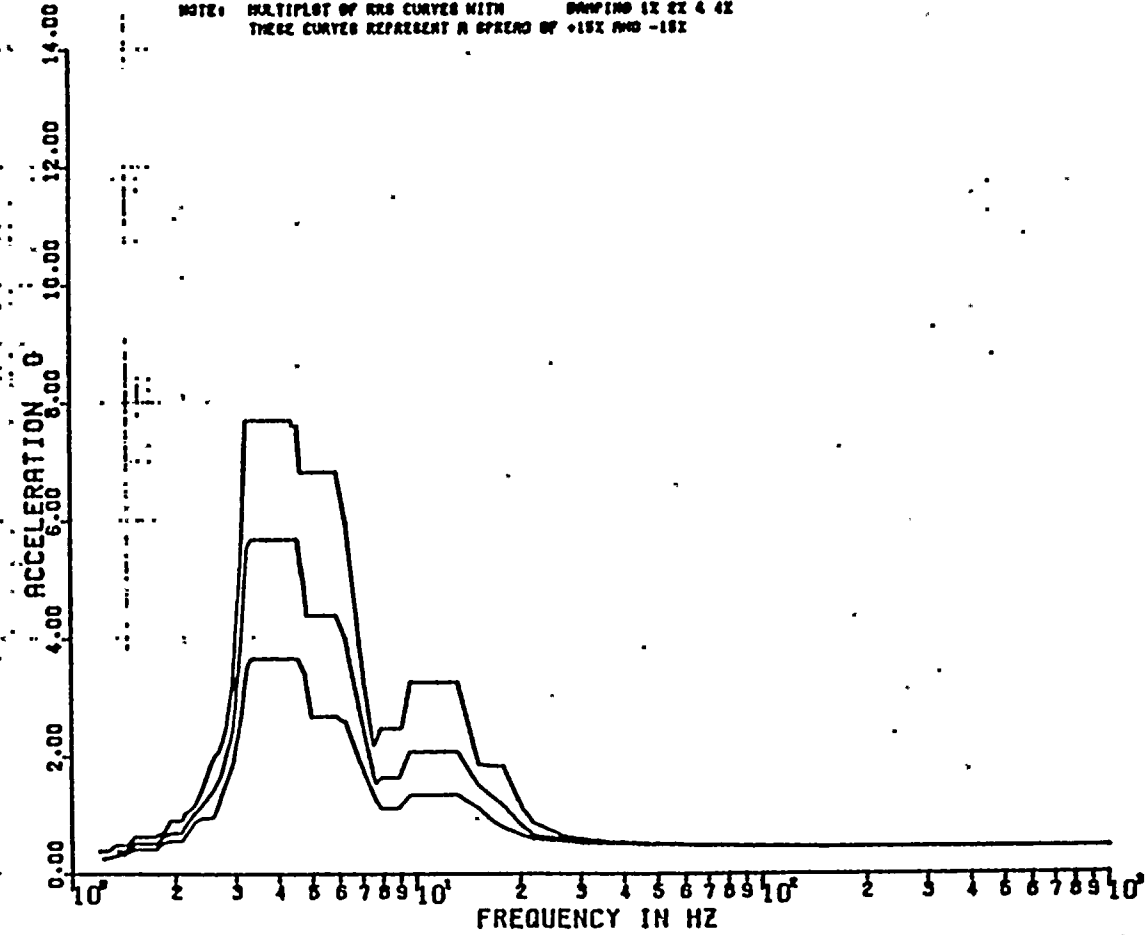
MICHAEL K 00

DISK CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 65



0000000016

PSPECTRA VER D1 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PRIMARY CONT. (ELEV 330.08 FT)

MS1765

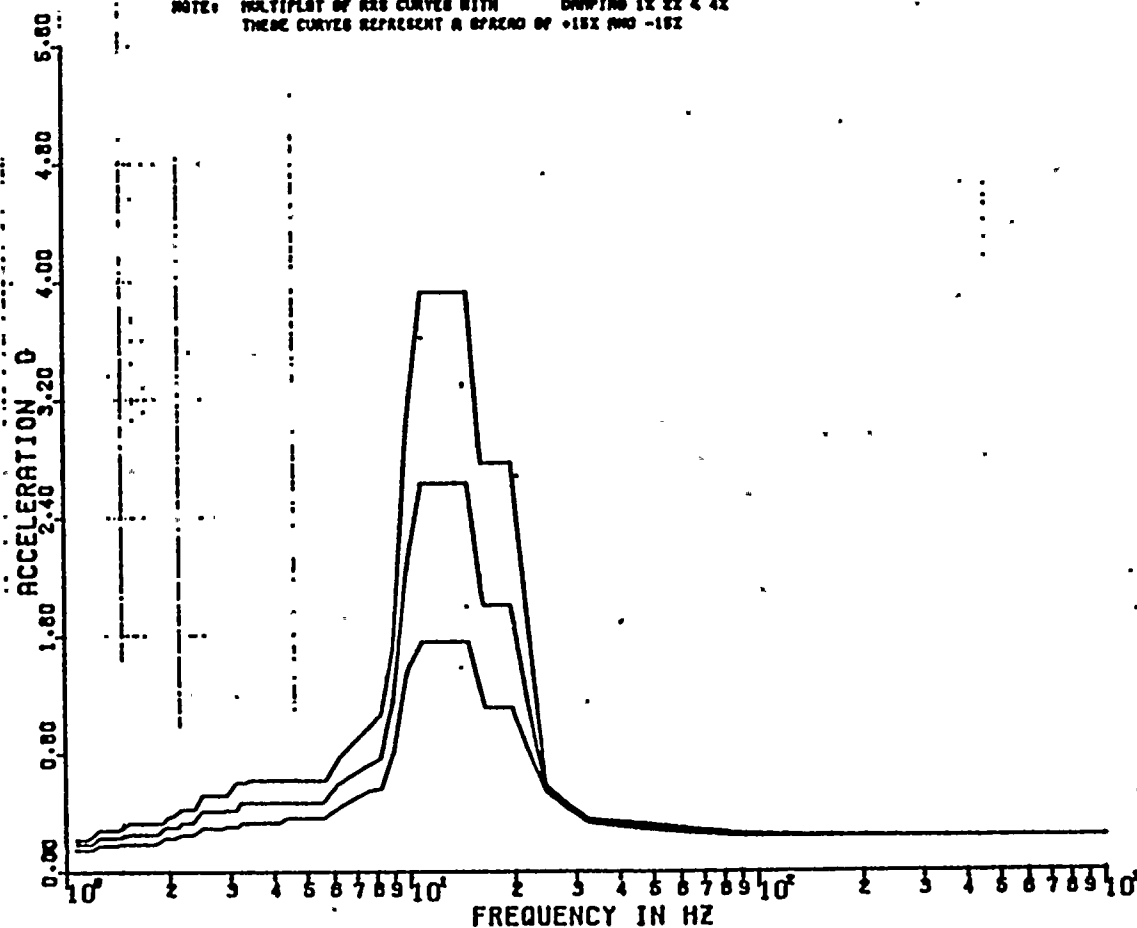
MICHAEL K 00

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF

65

PSPECTRA VER 01 LEV 08

SEISMIC (SSE)

11 DEC 1982

1500000080

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 930.00 FT)

MS1765

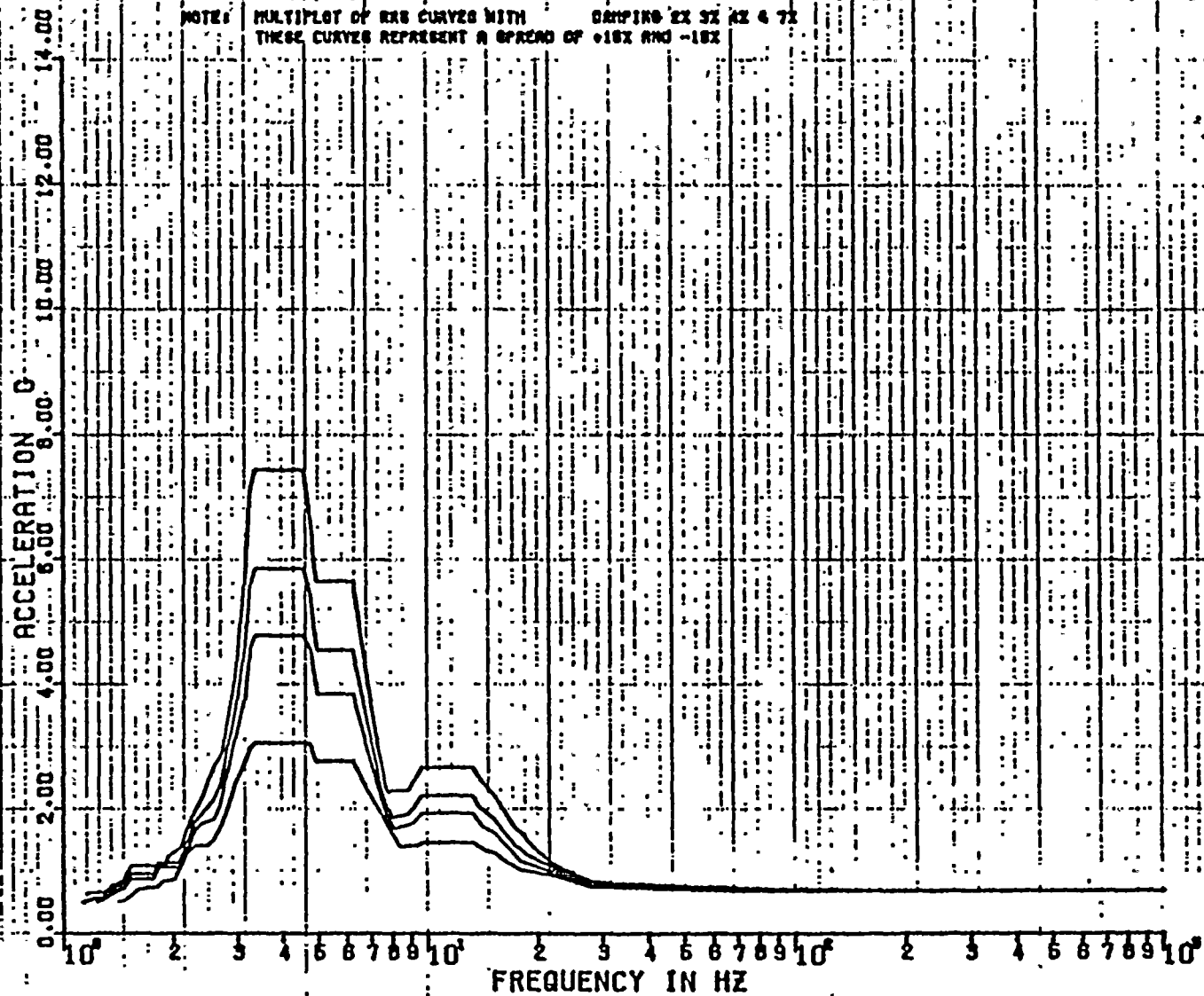
MICHAEL R DO

DISK CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 45



PSPECTRA VER 01 LEV 00

SEISMIC (88E)

11 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 330.00 FT)

MS1765

0000000081

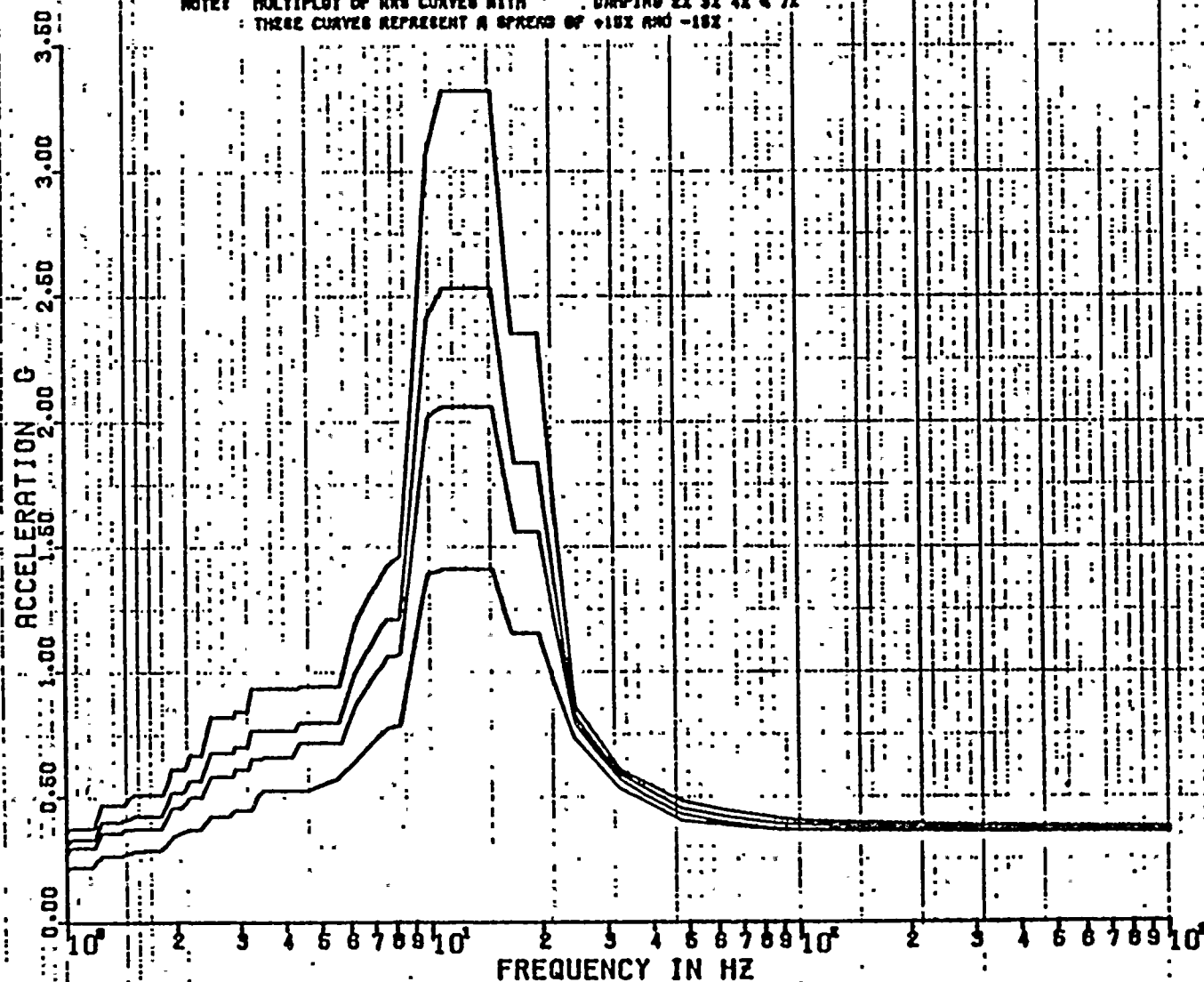
DISK CURVE SET NO.8

VER DIRECTION

MICHAEL K DO

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: MULTILOT OF RRS CURVES WITH DAMPING 2% 3% 4% & 7%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 65



0000000017

SPECTRA VER 01 LEV 08

SEISMIC (082)

9 DEC 1982

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.D.12177
RAB OF ACC. PRIMARY CONT. (ELEV 315.08 FT)

MS1765

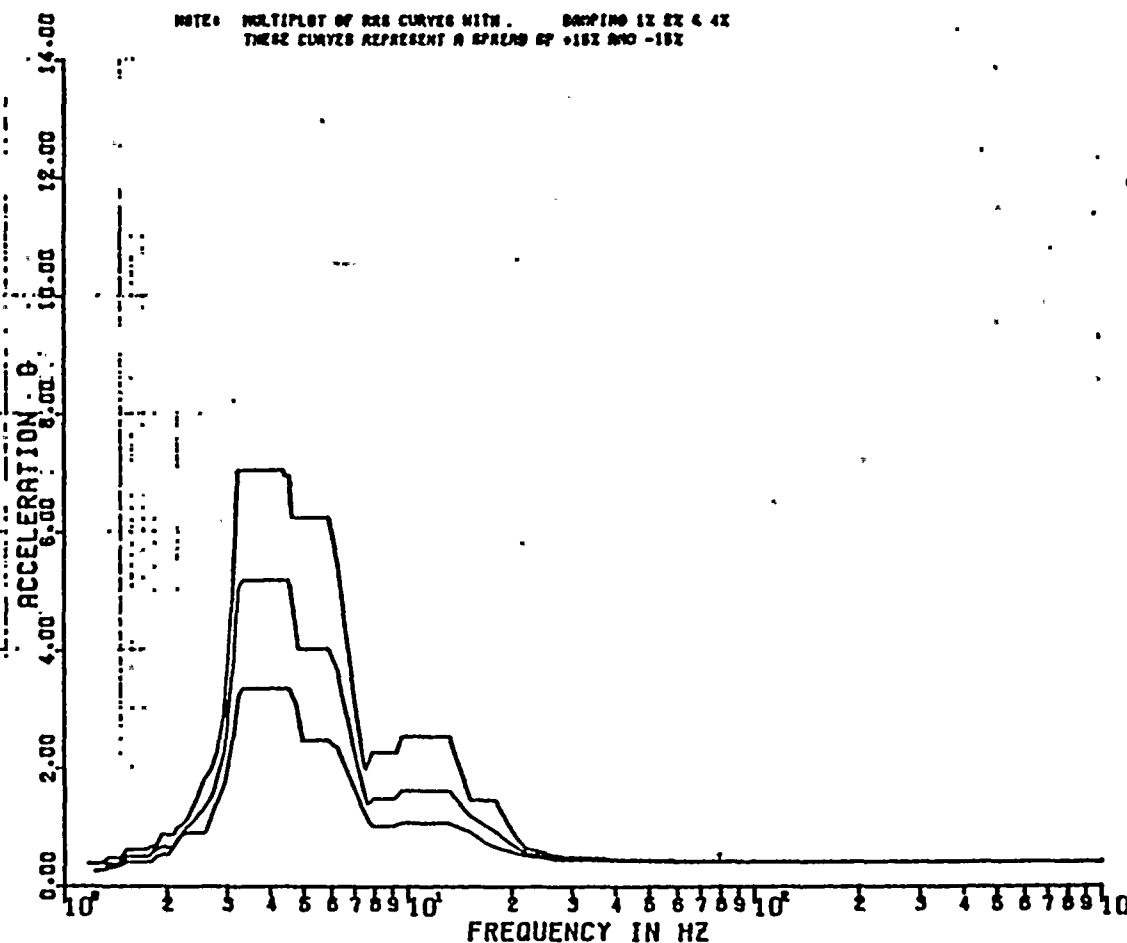
MICHAEL K 00

DISK CURVE SET NO.5

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLOT OF RAB CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 66



0000000018

PSPECTRA VER 01 LEV 00

SEISMIC (08E)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 915.08 FT)

MS1765

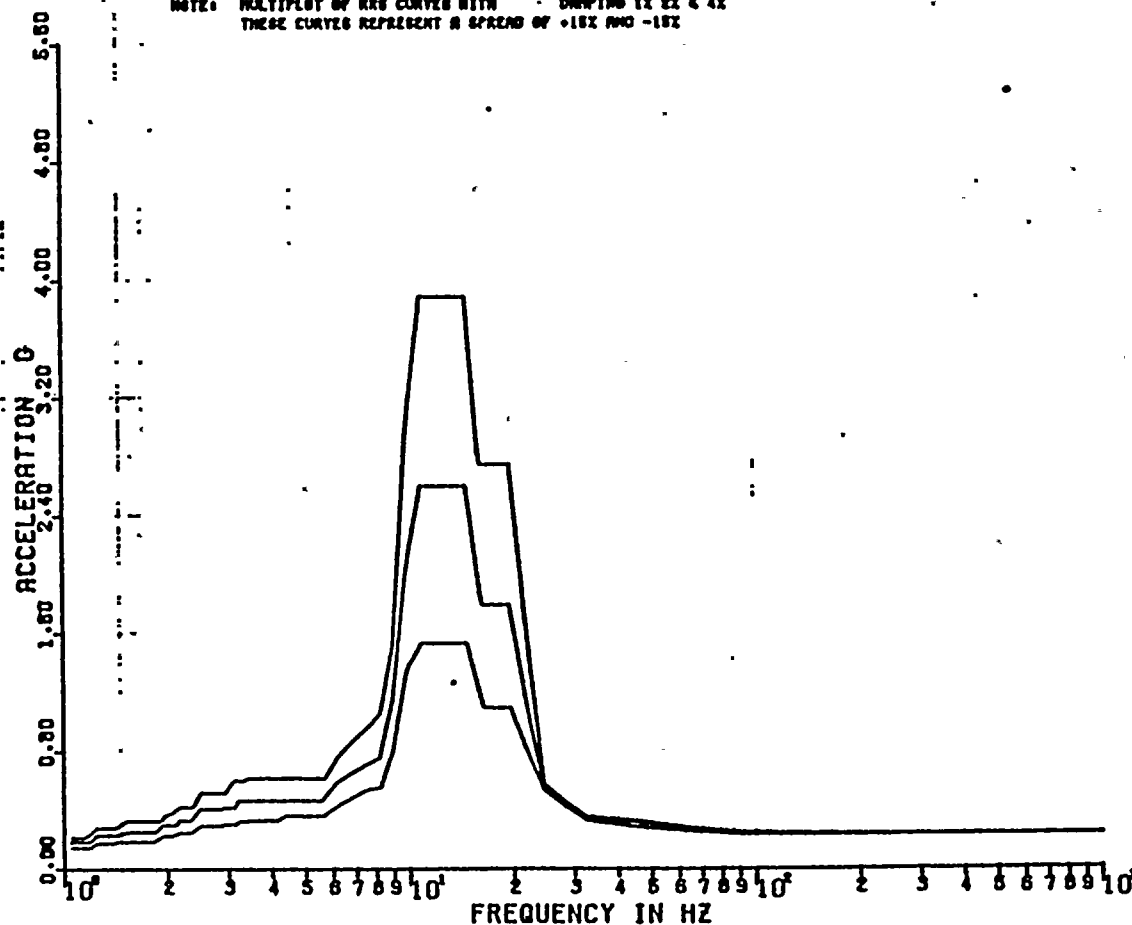
MICHAEL K 00

DISK CURVE SET NO.6

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 12 SZ 4 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 66



PSPECTRA VER 01 LEV 08

SEISMIC (88E)

11 DEC 1982

000000082

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 315.08 FT)

MS1765

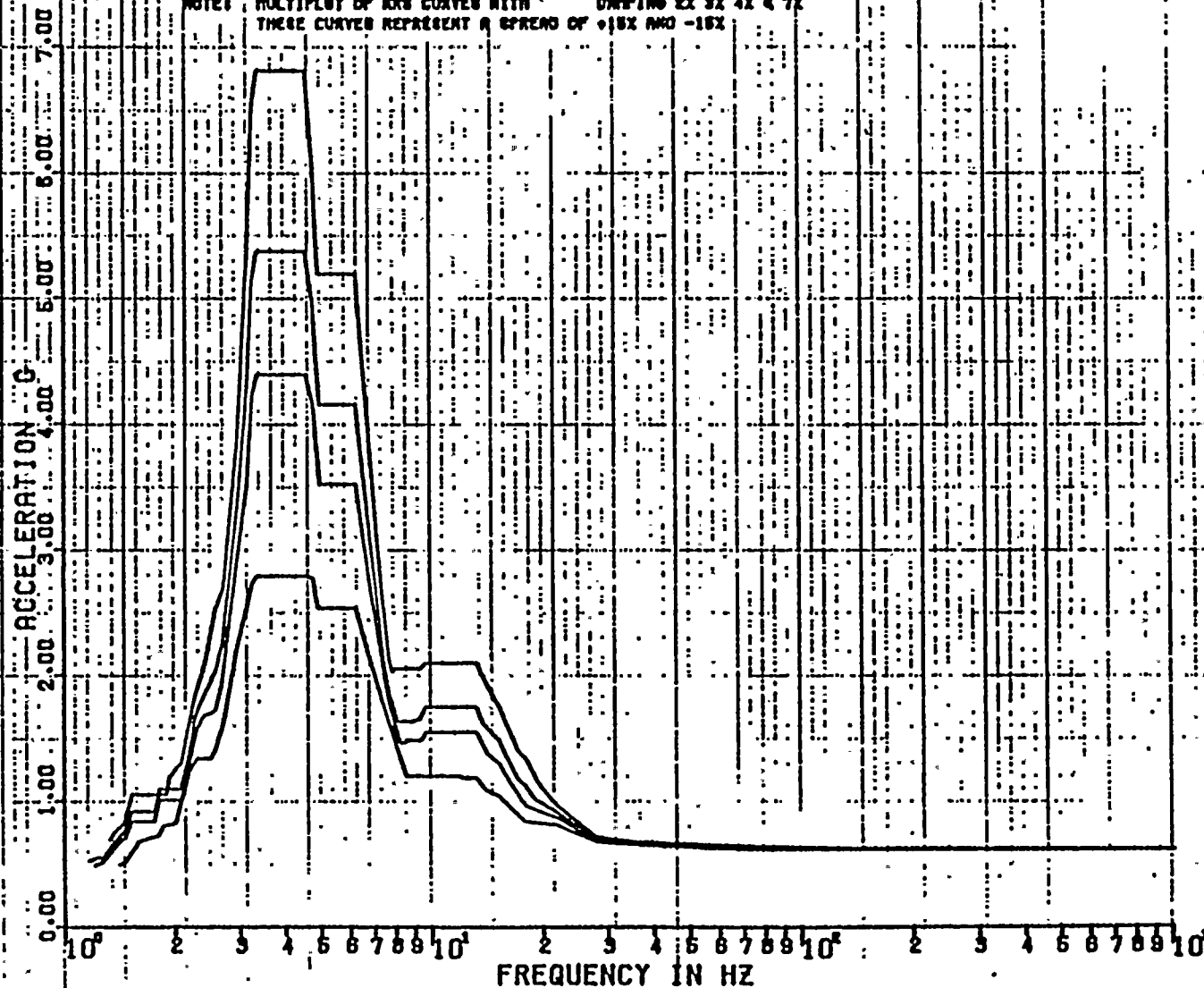
MICHAEL K 00

DISK CURVE SET NO.5

HOR DIRECTION

DAMPING VALUES : 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15X AND -15X



REF. 66



PSPECTRA VER 01 LEV 00

SEISMIC (SSE)

11 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RR8 OF ACC. PRIMARY CONT. (ELEV 915.00 FT)

MS1765 000000083

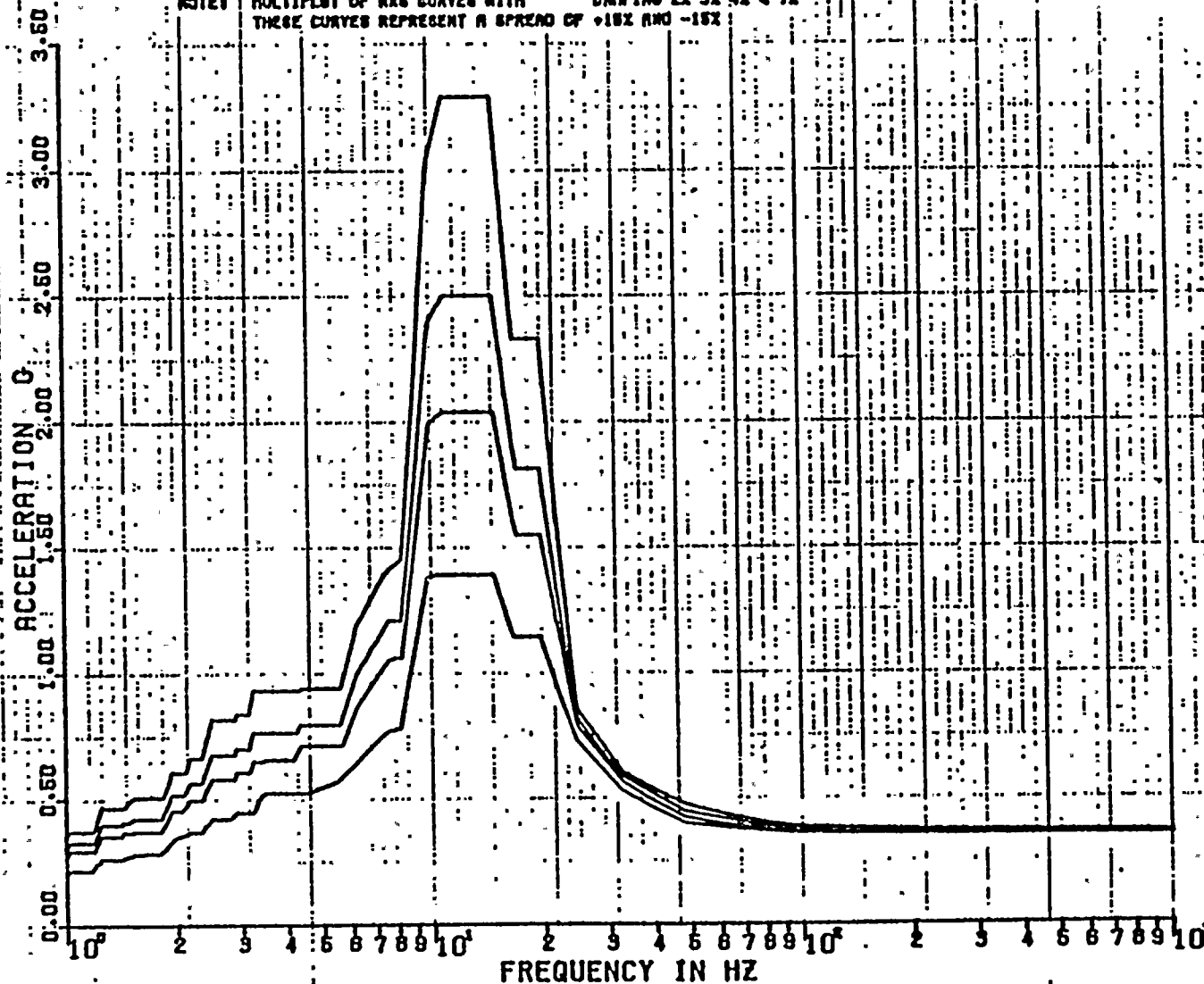
MICHAEL K 00

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 66



0000000019

PSPECTRA VER 01 LEV 08

SEISMIC (OBE,)

9 DEC 1992

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RRS OF ACC. PRIMARY CONT. (ELEV 302.50 FT)

MS1765

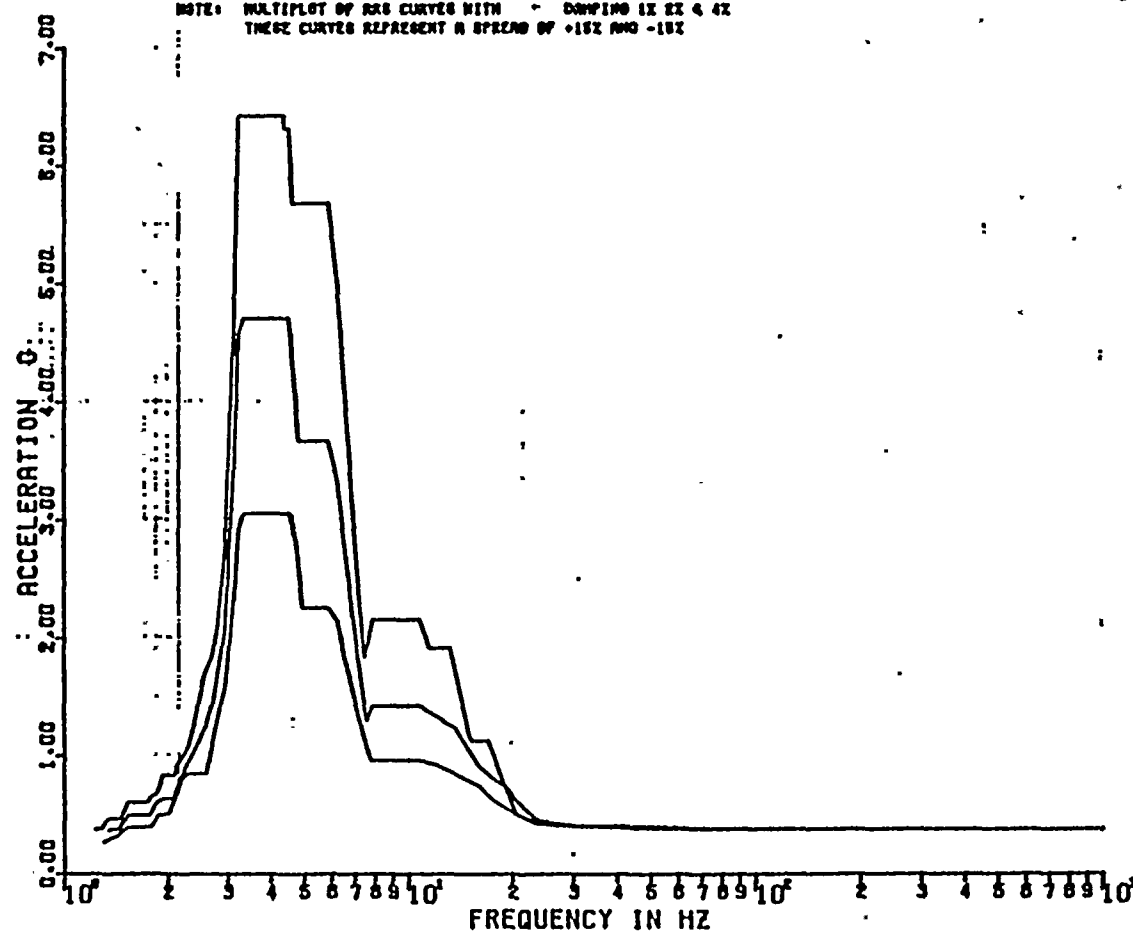
MICHAEL K 00

DISK CURVE SET NO.9

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 67



0000000020

PSPECTRA VER 01 LEV 00

SEISMIC (ONE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 302.50 FT)

MS1765

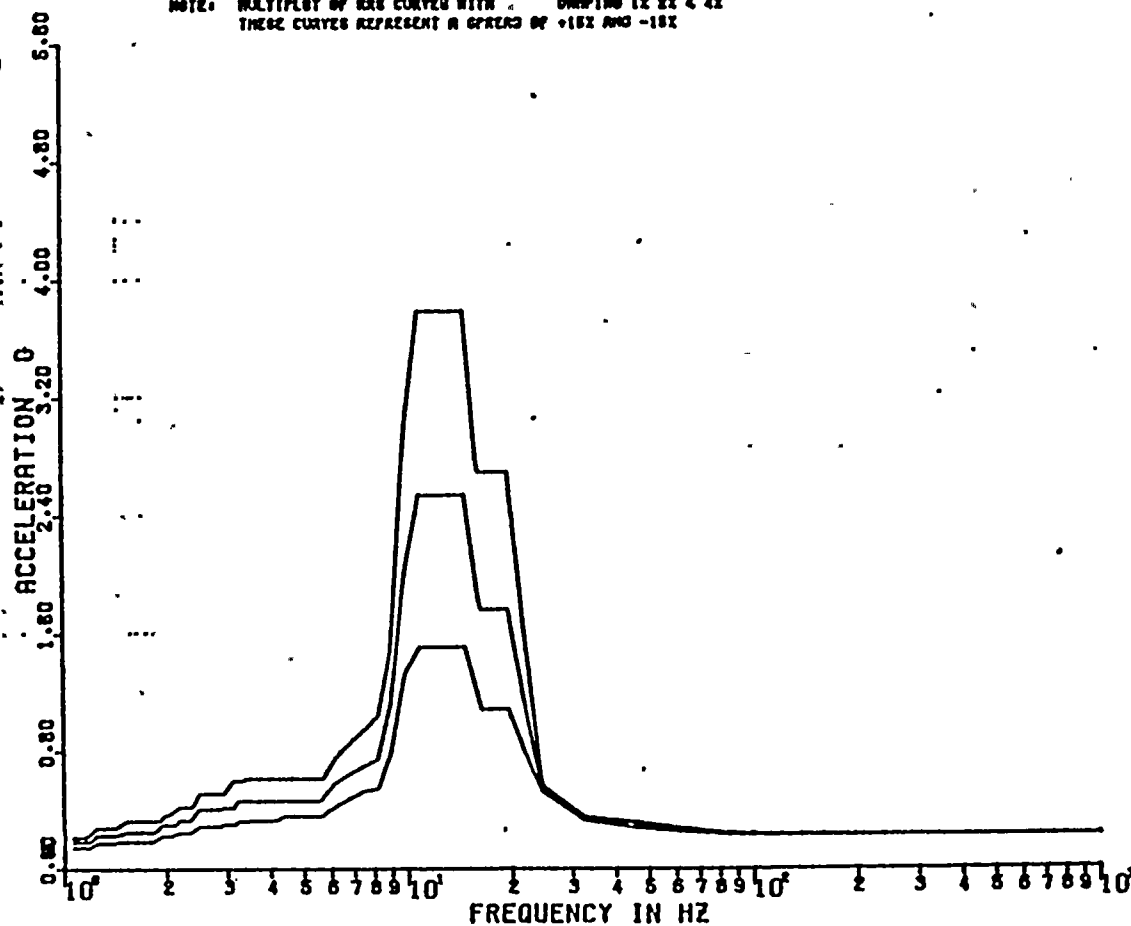
DISK CURVE SET NO.9

VER DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 67



PSPECTRA VER 01 LEV 00

SEISMIC (88E)

11 DEC 1982

00000084

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PRIMARY CONT. (ELEV 302.50 FT)

MS1765

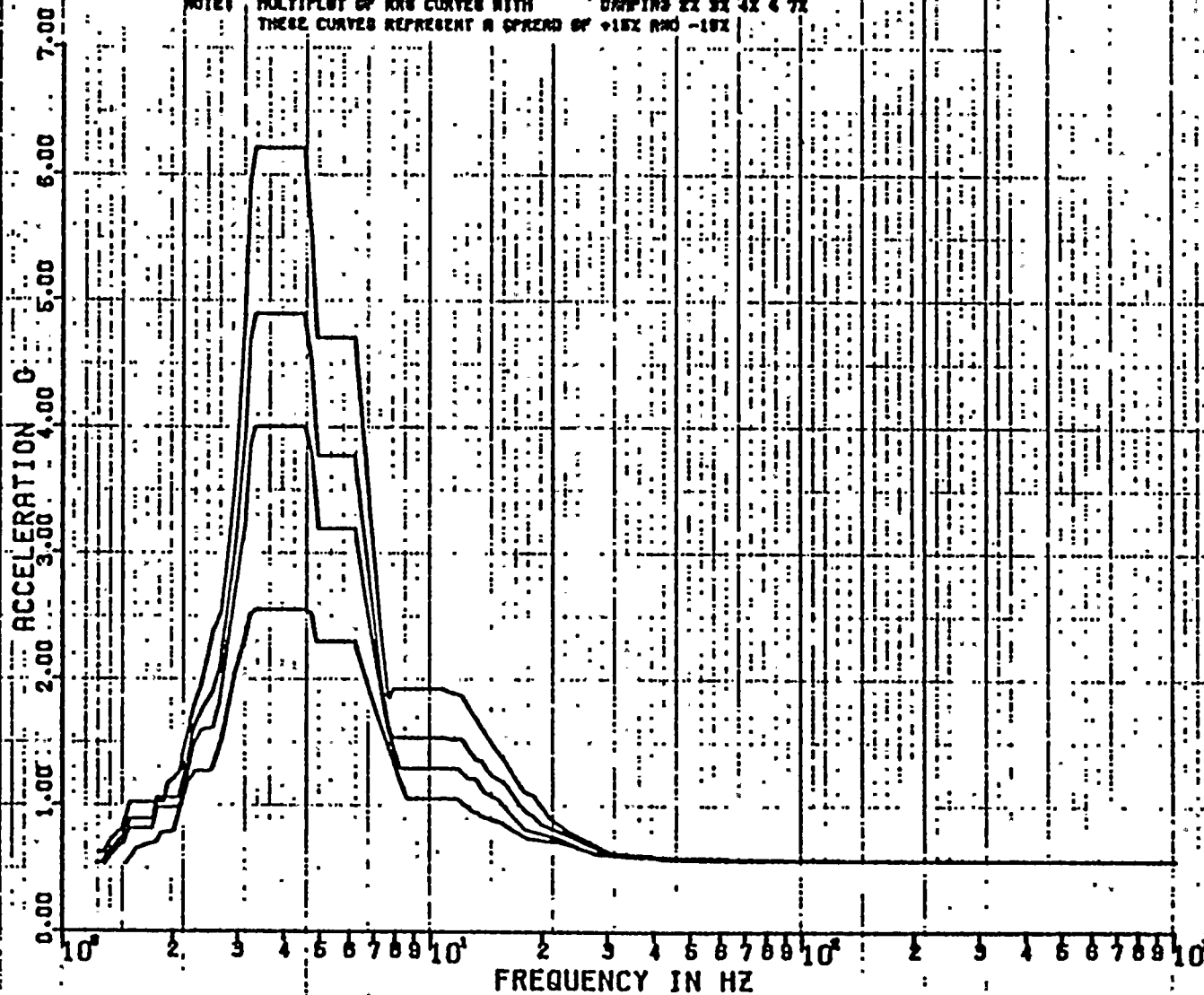
MICHAEL K 00

DISK CURVE SET NO.9

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING XX 32 42 6 72
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 67



PSPECTRA VER 01 LEV 00

MIC (88E)

11 DEC 1962

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RAS OF ACC. PRIMARY CONT. (ELEV 302.50 FT)

MS1765

00000 0085

DISK CURVE SET NO.9

VER DIRECTION

MICHAEL K DO

DAMPING VALUES

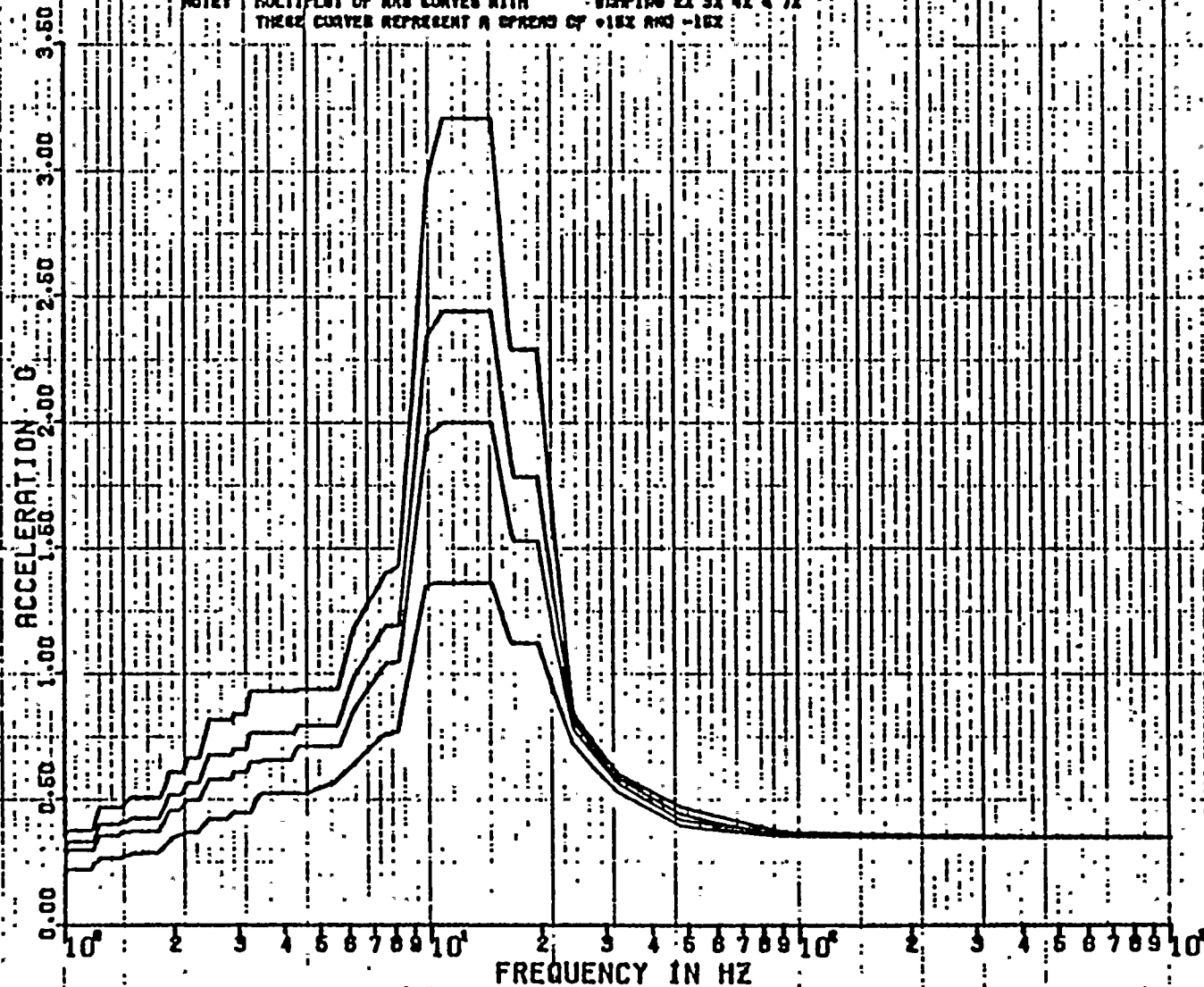
0.020

0.030

0.040

0.070

NOTE: MULTIPLY OF RAS CURVES WITH DAMPING 2% 3% 4% 7%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 67



0000000621

SPECTRA VER 01 LEV 00

SEISMIC (00E)

9 DEC 1982

MIRARRA MOHAWK-NINE MILES POINT UNIT2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 286.83 FT)

MS1765

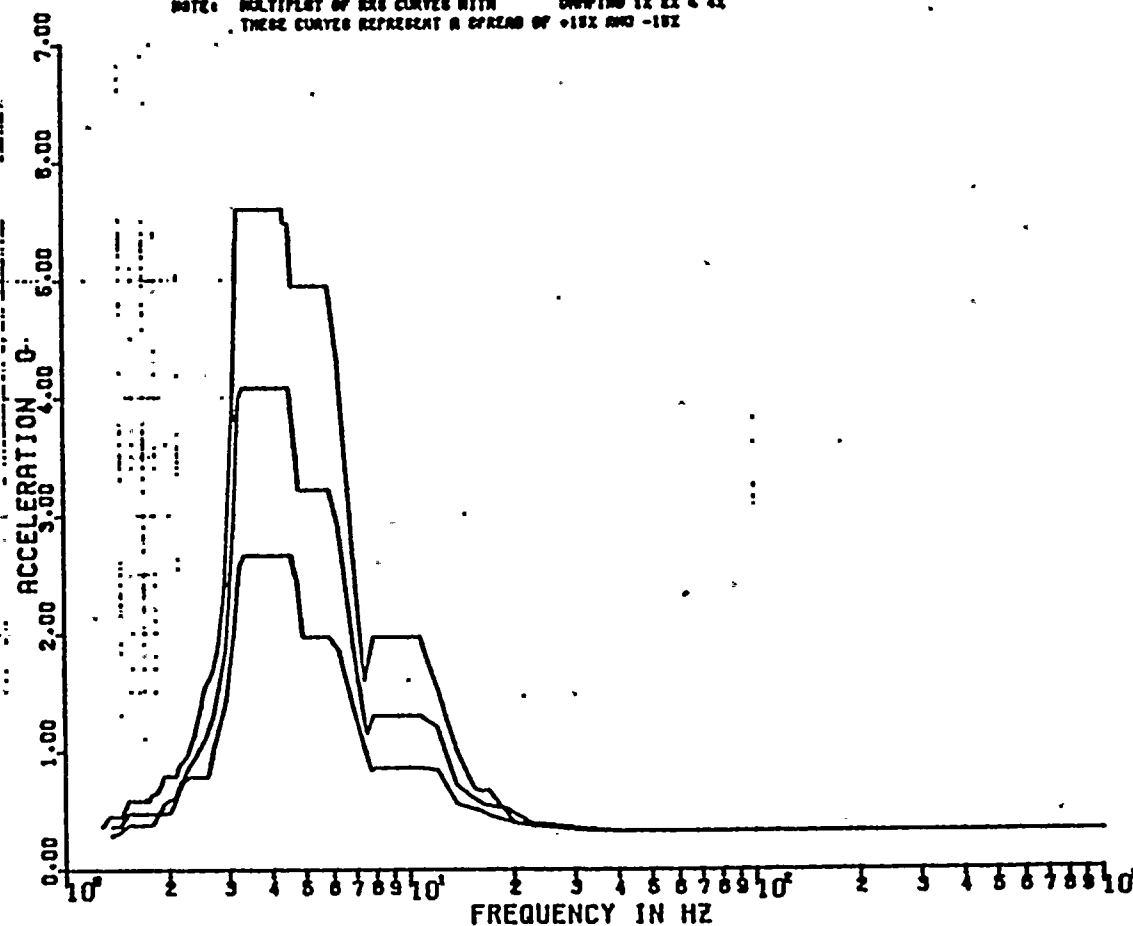
MICHAEL K 00

DISK CURVE SET NO.12

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% EX & 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF. 68



PSPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIADARA MOHAWK-NINE MILES POINT UNITZ J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 288.05 FT)

MS 1765

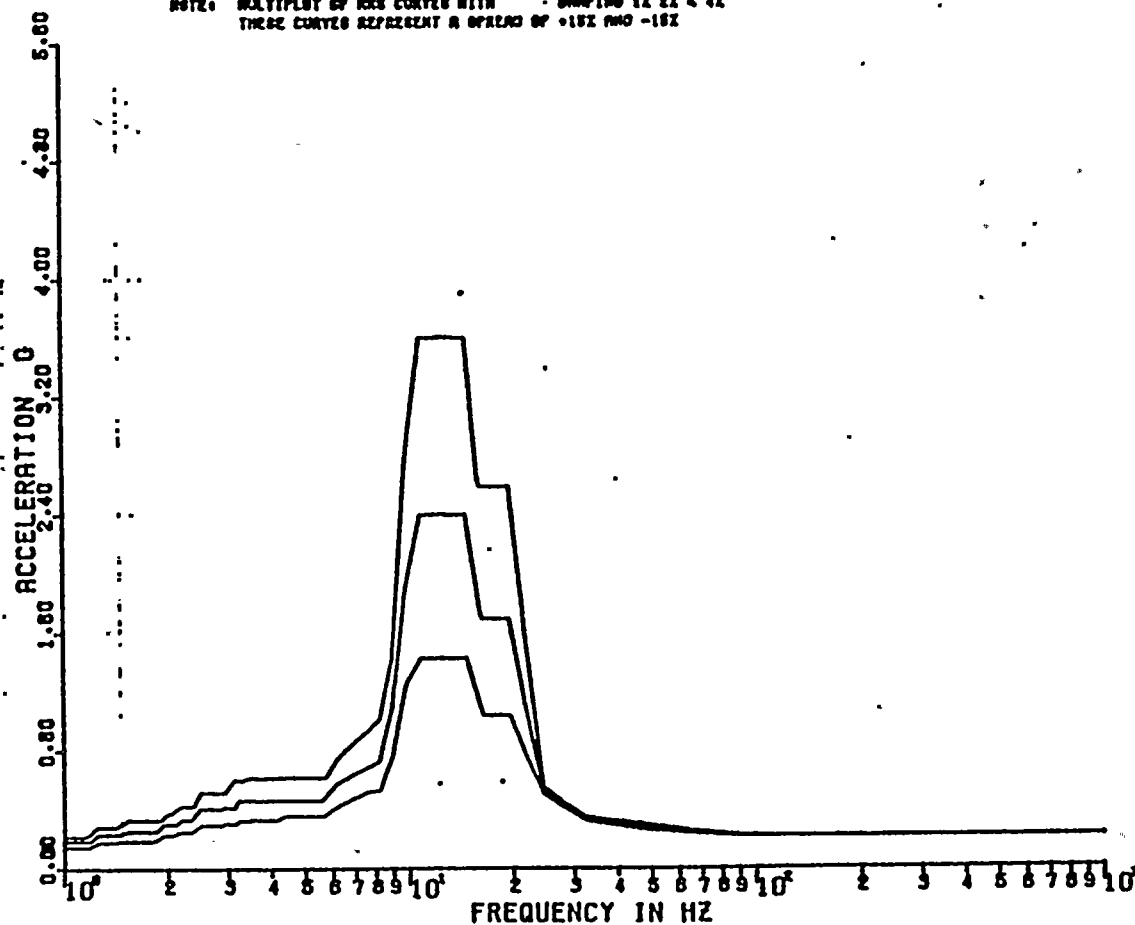
MICHAEL K DO

DISK CURVE SET NO.12

VER DIRECTION,

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH . DAMPING 1X 2X & 4X
THREE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 68



PSPECTRA VER 01 LEV 00

85.11C (88E)

11 DEC 1982

NIAOARA MOHAWK=NINE MILES POINT UNIT2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 288.83 FT)

MS17650000000086

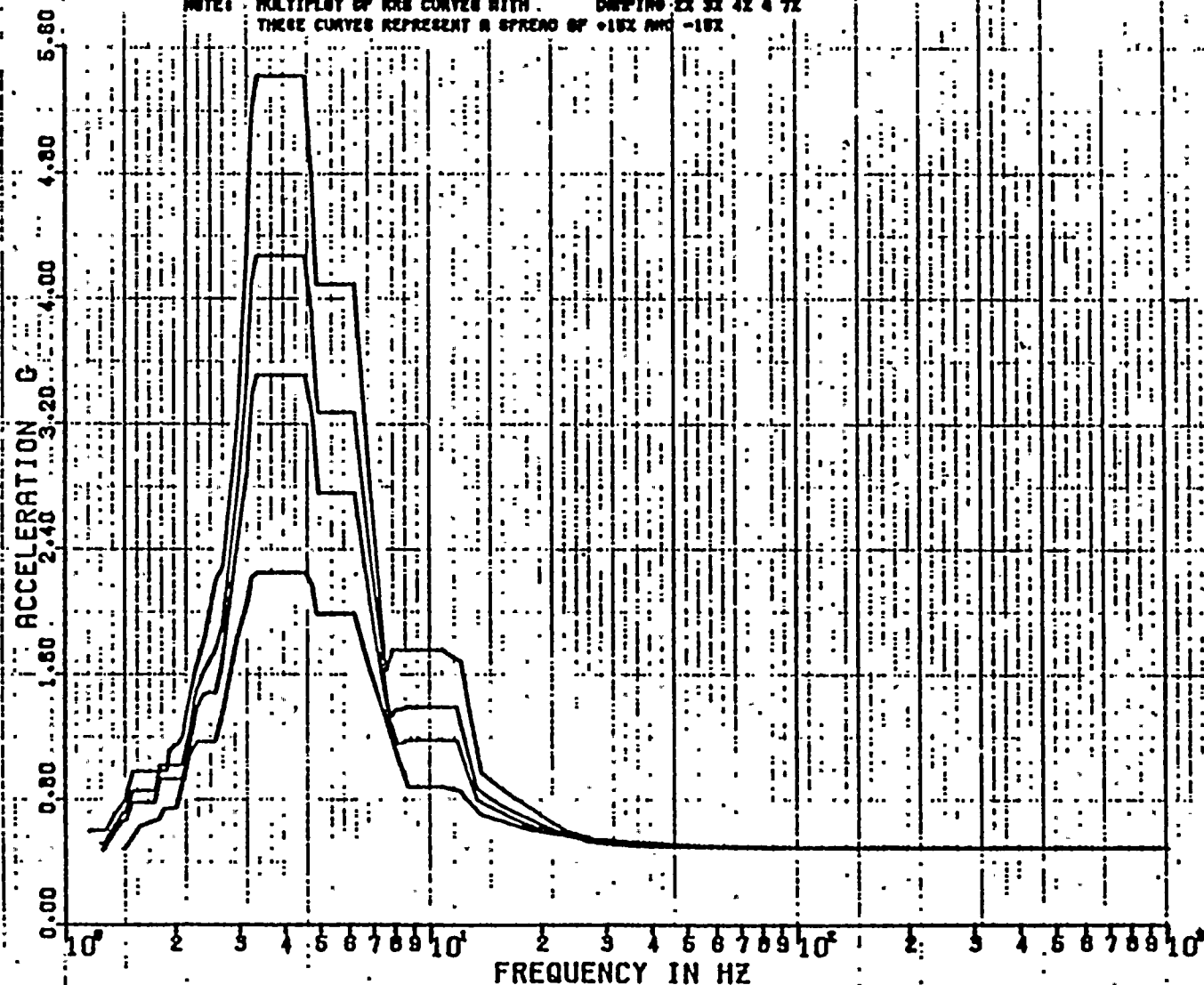
MICHAEL K DO

DISK CURVE SET NO.12

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X 4 7X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF-68



PSPECTRA VER 01 LEV 00

SEISMIC (88E)

11 DEC 1962

0000000037

NIAOGARA MOHAWK=NINE MILES POINT UNIT2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 285.83 FT)

MS1765

MICHAEL K. DO

DISK CURVE SET NO.12

VER DIRECTION

DRAWING VALUES =

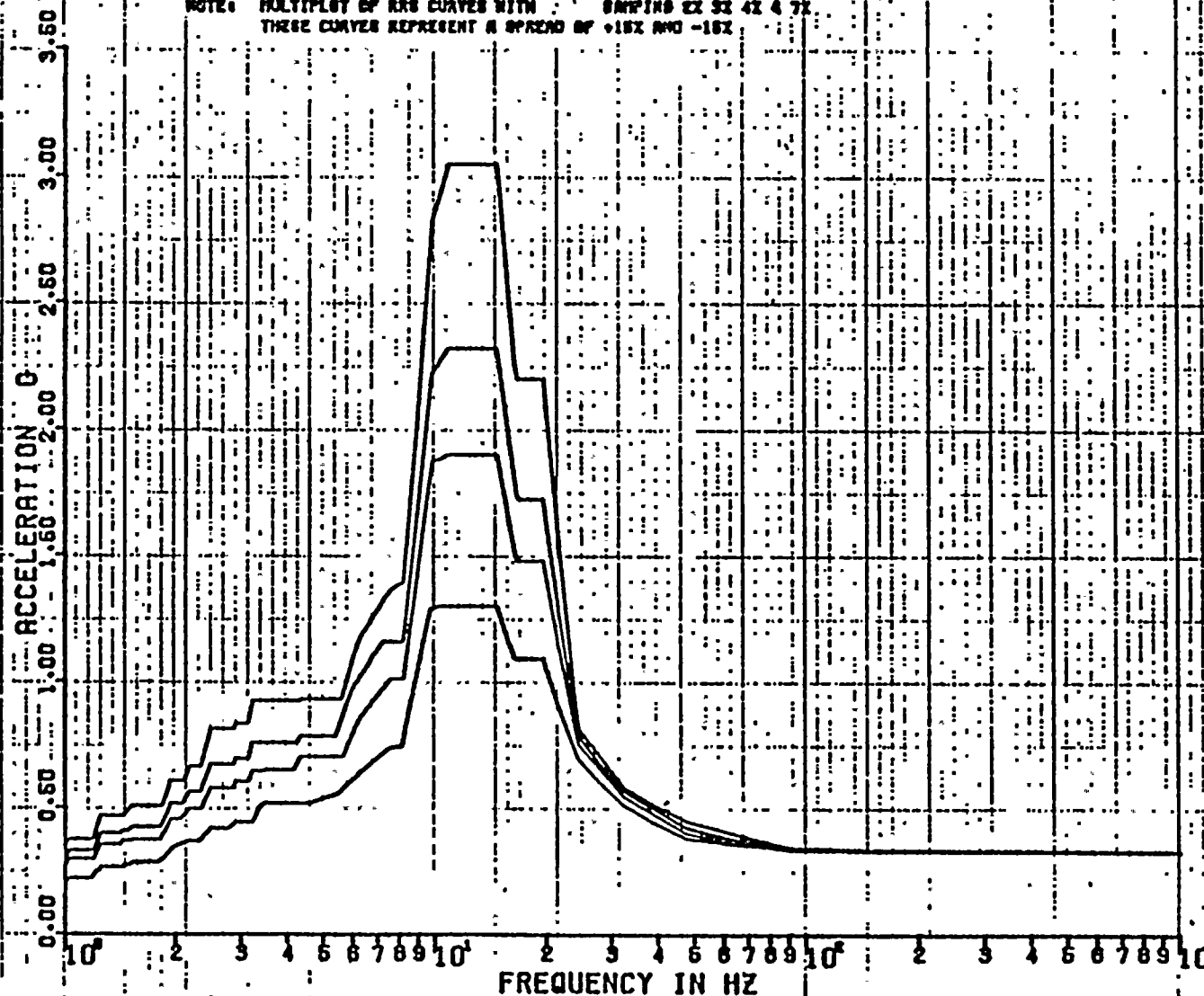
0.020

0.030

0.040

0.070

NOTE: MULTIPLY OF RRS CURVES WITH SAMPLING EX 32 42 4 72
THESE CURVES REPRESENT A SPREAD OF +18% AND -18%



REF 68



0000000023

SPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RBS OF ACC. PRIMARY CONT. (ELEV. 271.25 FT)

MS1765

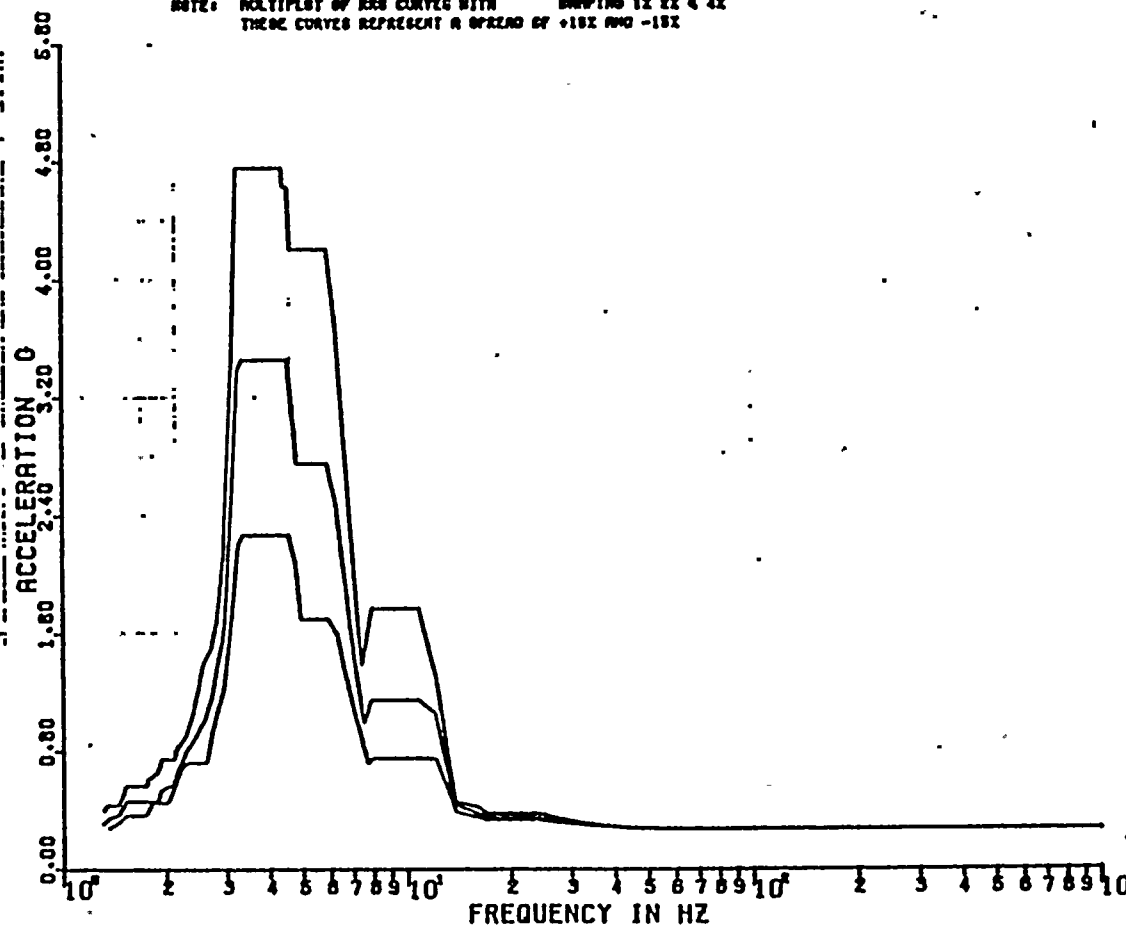
MICHAEL K DO

DISK CURVE SET NO.14

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RBS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 69



0000000024

PSPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PRIMARY CONT. (ELEV. 271.25 FT)

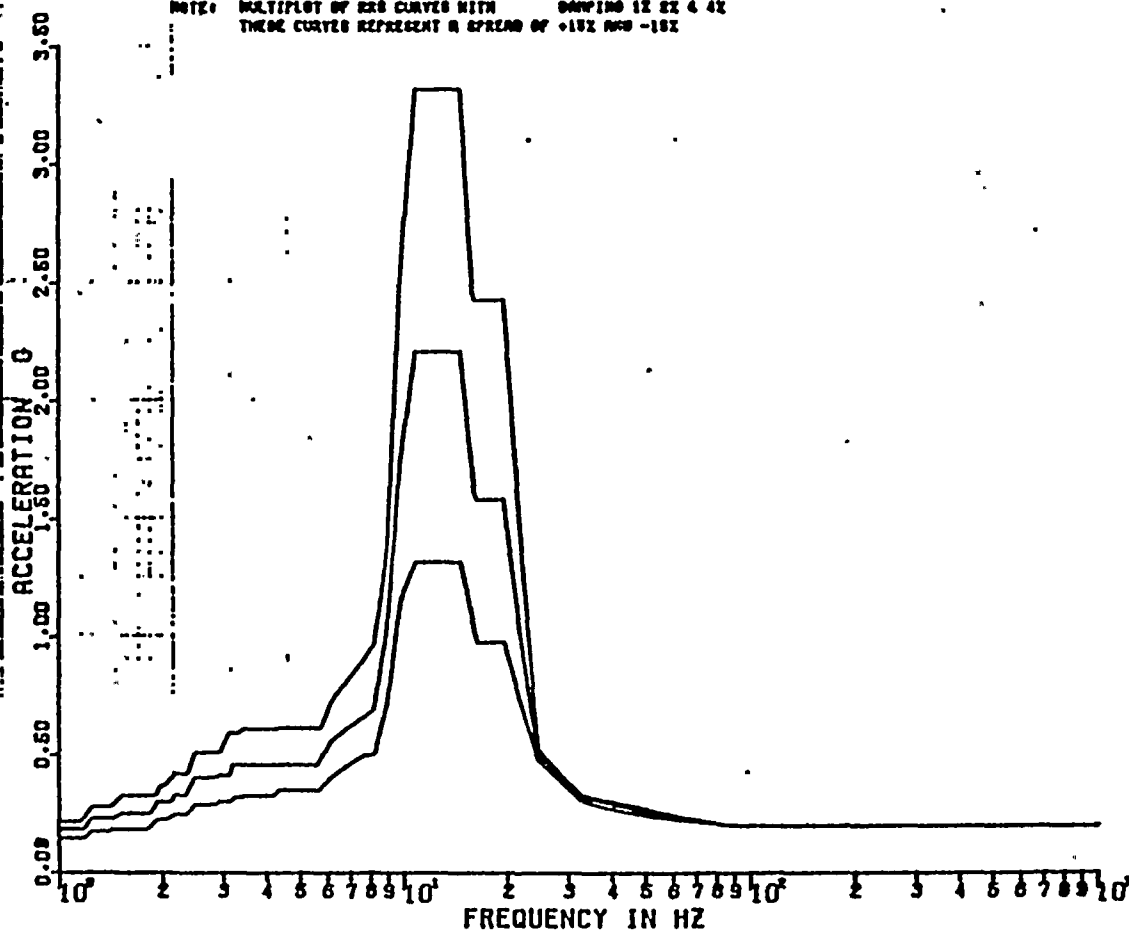
MS1765
MICHAEL K OO

DISK CURVE SET NO.14

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1% BY 4 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 69

PSPECTRA VER 01 LEV 08

SEISMIC (SSE)

11 DEC 1982

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RRS OF ACC. PRIMARY CONT. (ELEV. 271.25 FT)

MS1765

0000000088

DISK CURVE SET NO.14

HOR DIRECTION

MICHAEL K. DO.

DAMPING VALUES =

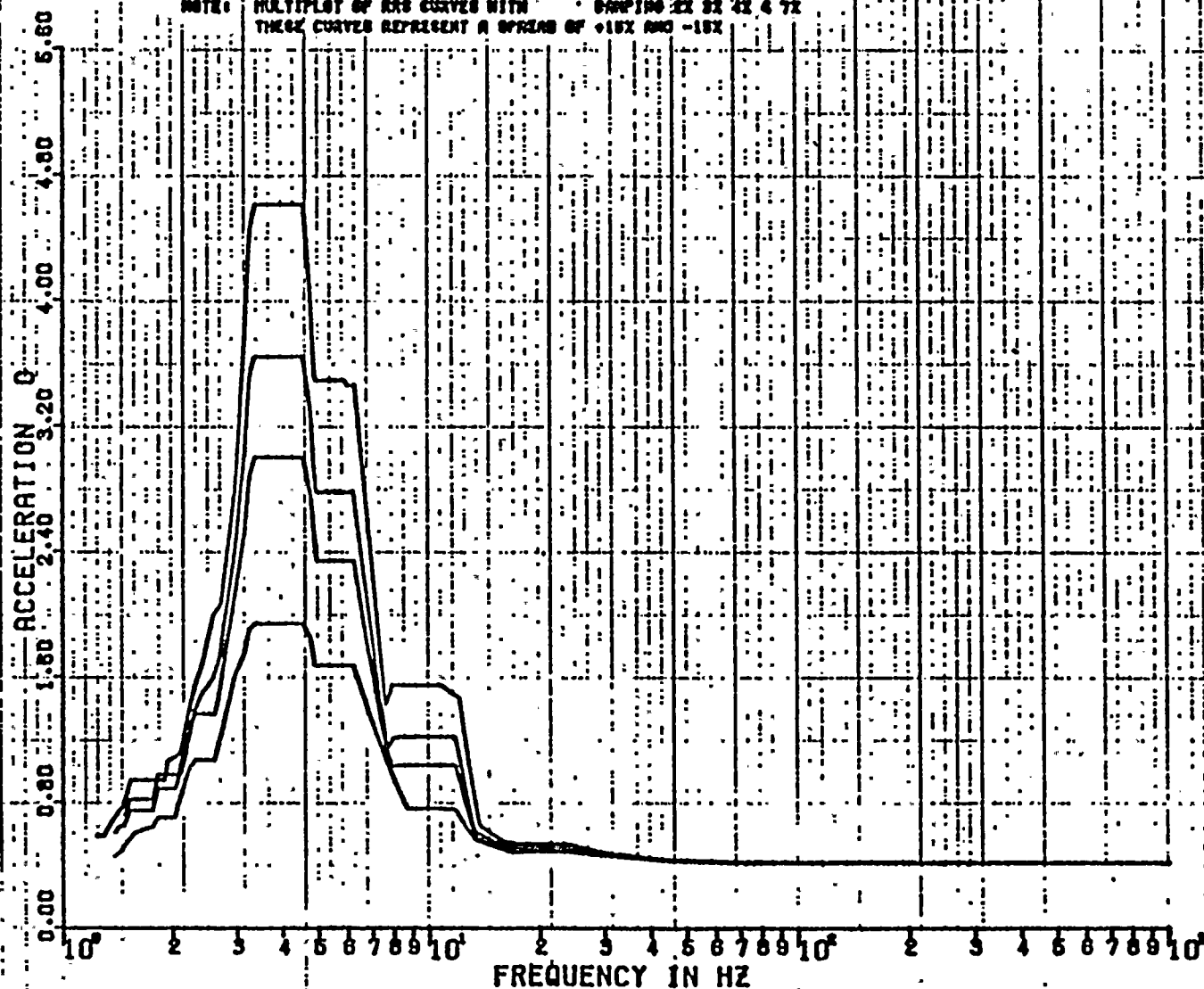
0.020

0.030

0.040

0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X 6 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 69

PSPECTRA VER 01 LEV 00

SMIC (85E)

11 DEC 1982

NIAORRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV. 271.25 FT)

MS1765

0000000089

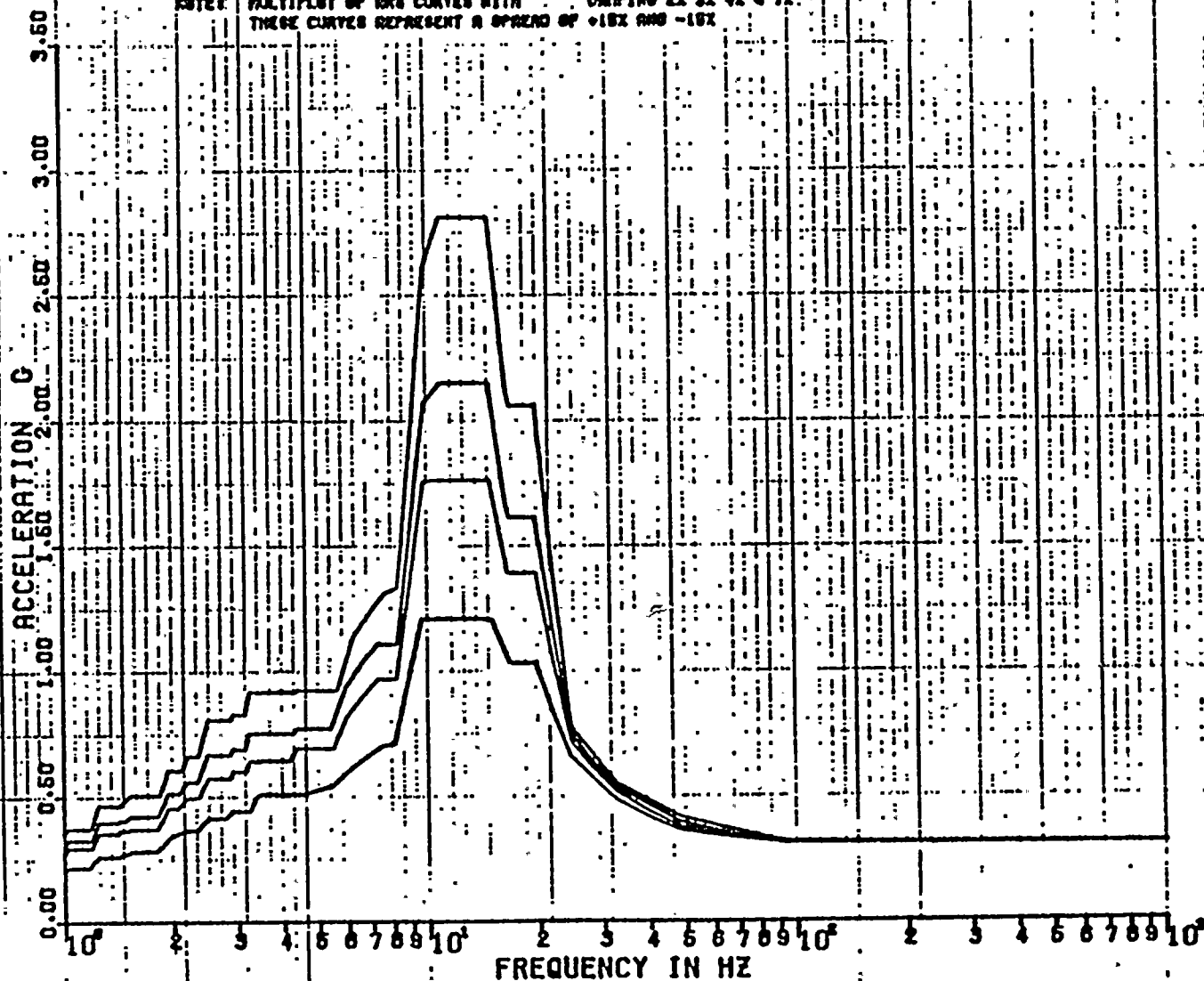
DISK CURVE SET NO.14

VER DIRECTION

MICHAEL M 00

DAMPING VALUES : 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF DIS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 69



0000020025

SPECTRA VER 01 LEV 03

SEISMIC (03E)

9 DEC 1982

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 255.87 FT)

MS1765

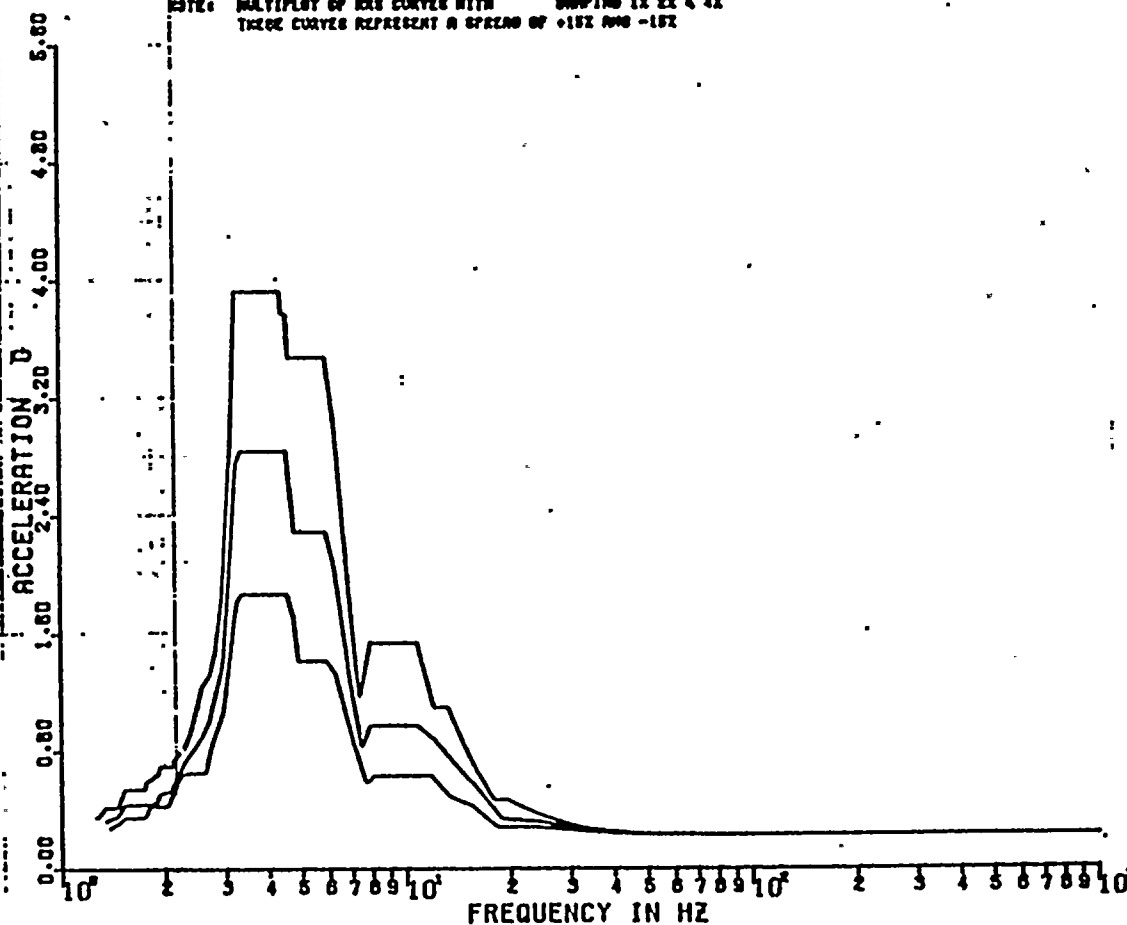
MICHAEL K 00

DISK CURVE SET NO.18

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 70



0000000026

PSPECTRA VER 01 LEV 08

SEISMIC (DBE)

9 DEC 1982

NIRAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PRIMARY CONT. (ELEV 255.67 FT)

MS1765

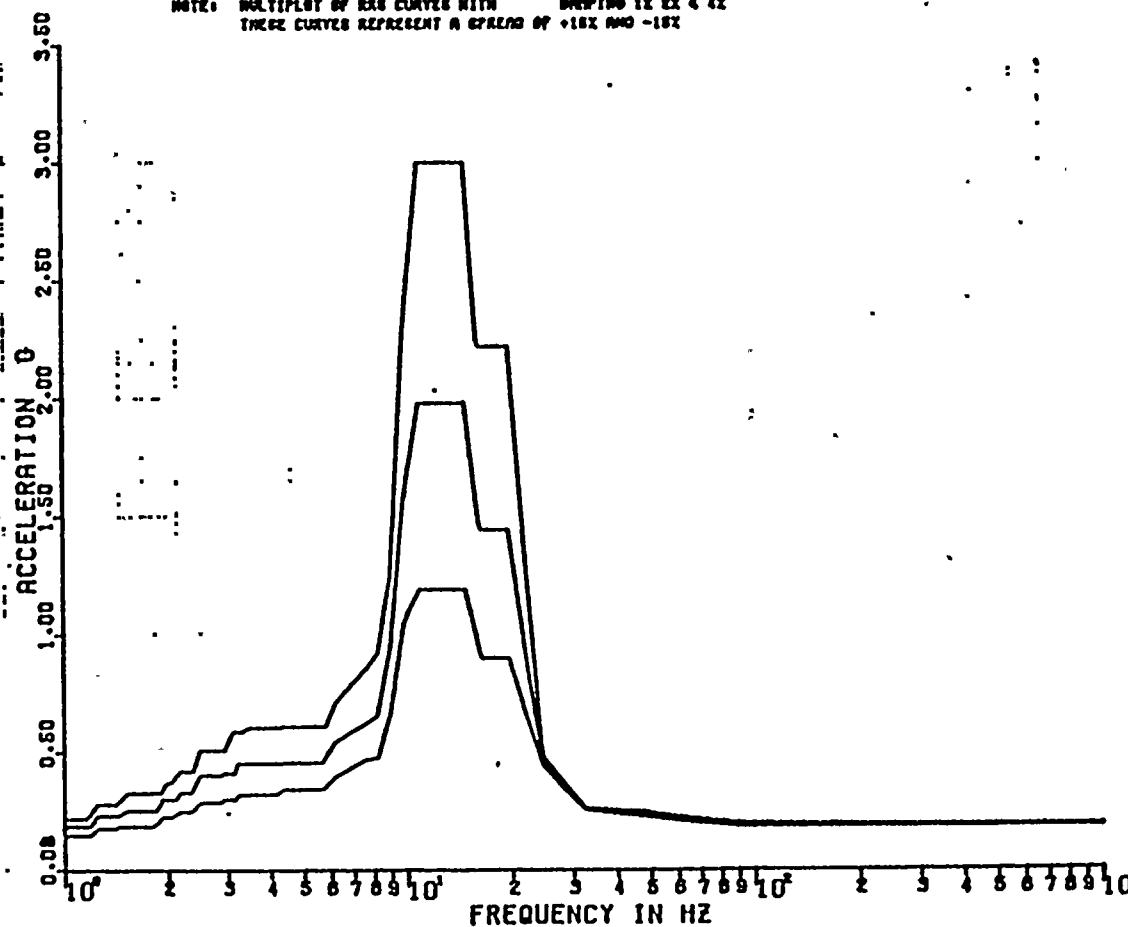
DISK CURVE SET NO.16

VER DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1% EX 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 70



PSPECTRA VER 01 LEV 08

IC (88E)

11 DEC 1982

00000000

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 255.87 FT)

MS1765

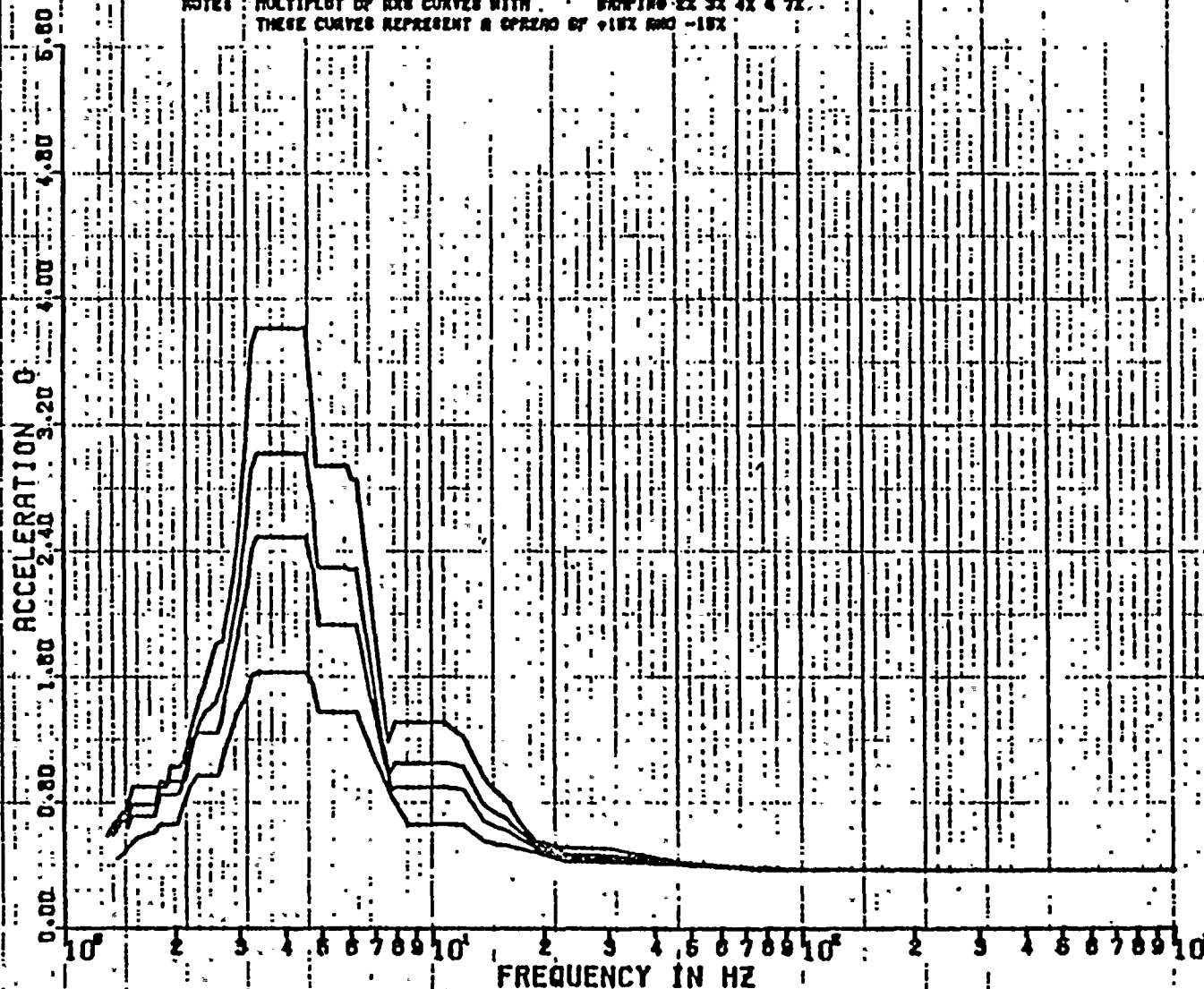
DISK CURVE SET NO.18

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



01-132



PSPECTRA VER 01 LEV 00

AIC (88E)

11 DEC 1982

HIAOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 28.87 FT)

MS1765

00000000091

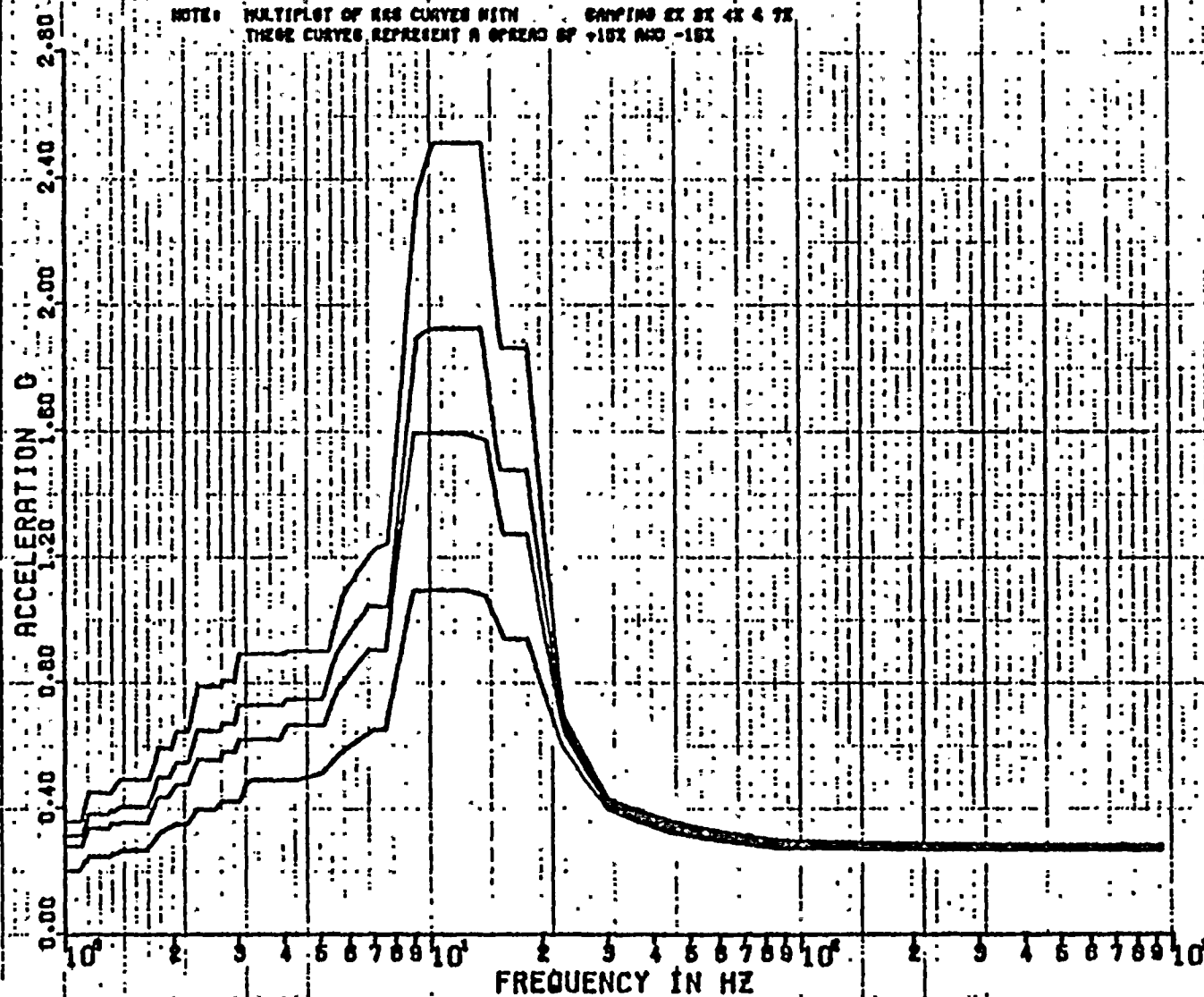
DISK CURVE SET NO.10

VER DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.050
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING EX BY 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 70



0000000027

SPECTRA VER 01 LEV 08

SEISMIC (08E)

9 DEC 1982

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. DRYWELL FLOOR (ELEV 238.0 FT)

MS1765

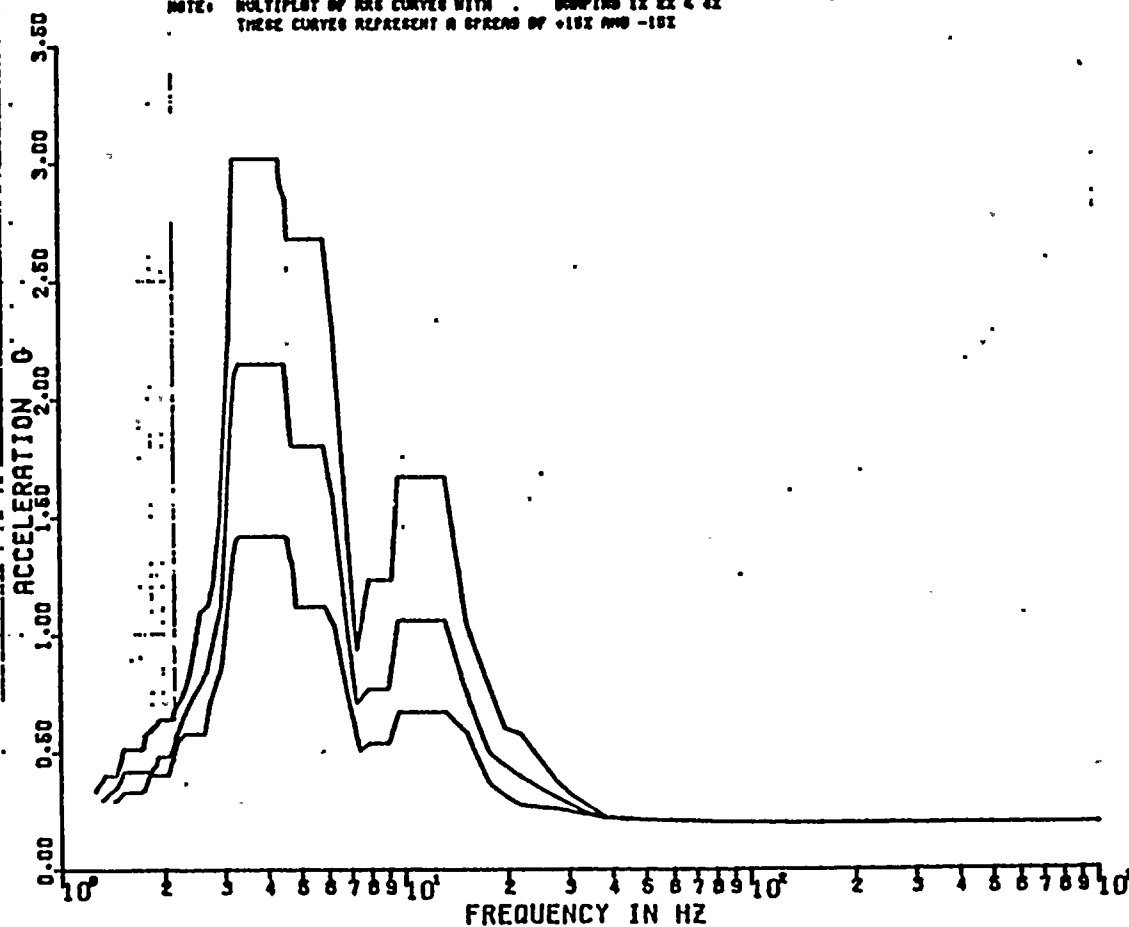
MICHAEL K 00

DISK CURVE SET NO.17

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



Ref 71



0000000028

SPECTRA VER 01 LEV 08

SEISMIC (08E)

8 DEC 1982

NIAORRA MOHAWK-NINE MILES POINT UNIT-2 J.O.-12177
RAB OF ACC. DRYWELL FLOOR (ELEV 238.0 FT)

MS1765

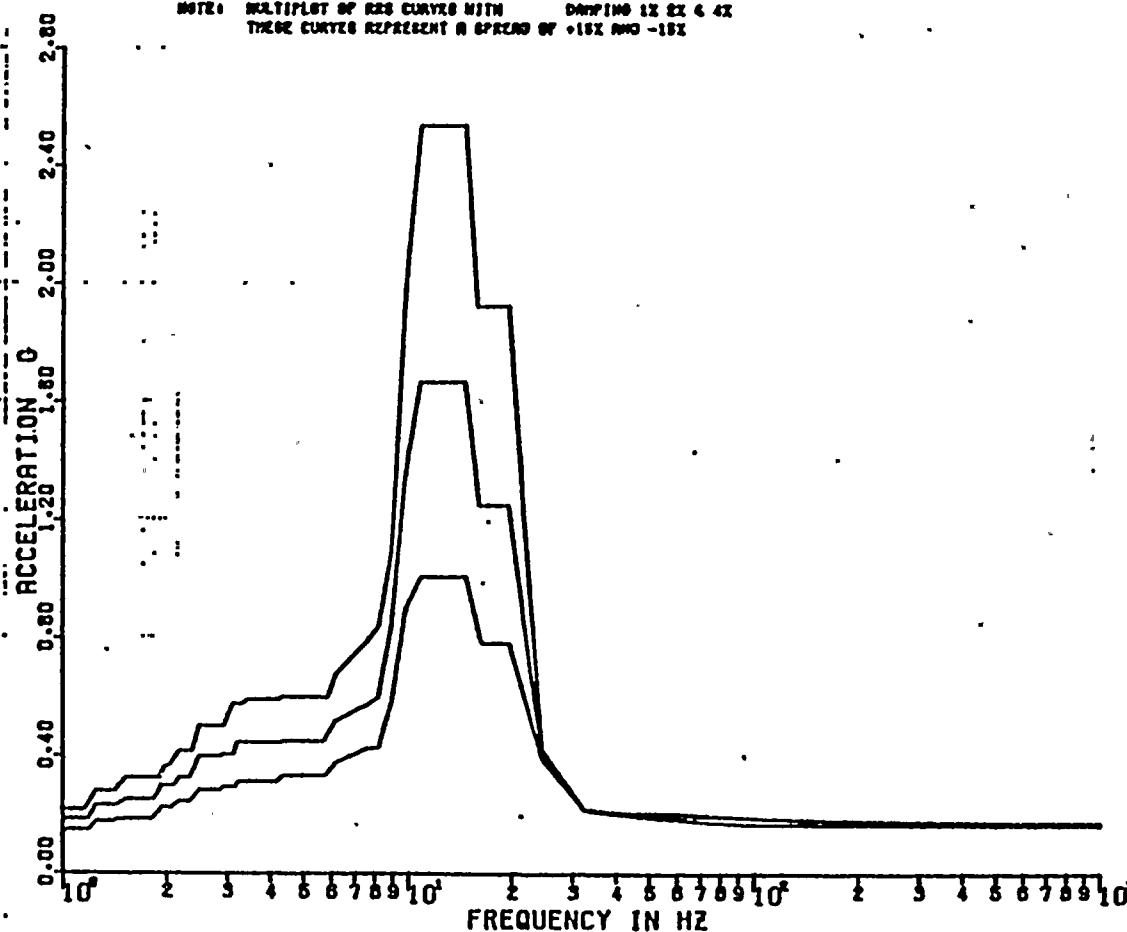
MICHAEL K DO

DISK CURVE SET NO.17

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RES CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 71



PSPECTRA VER 01. LEV 03

SEISMIC (SSE)

11 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. DRYWELL FLOOR (ELEV 233.0 FT)

MS1765

0300000092

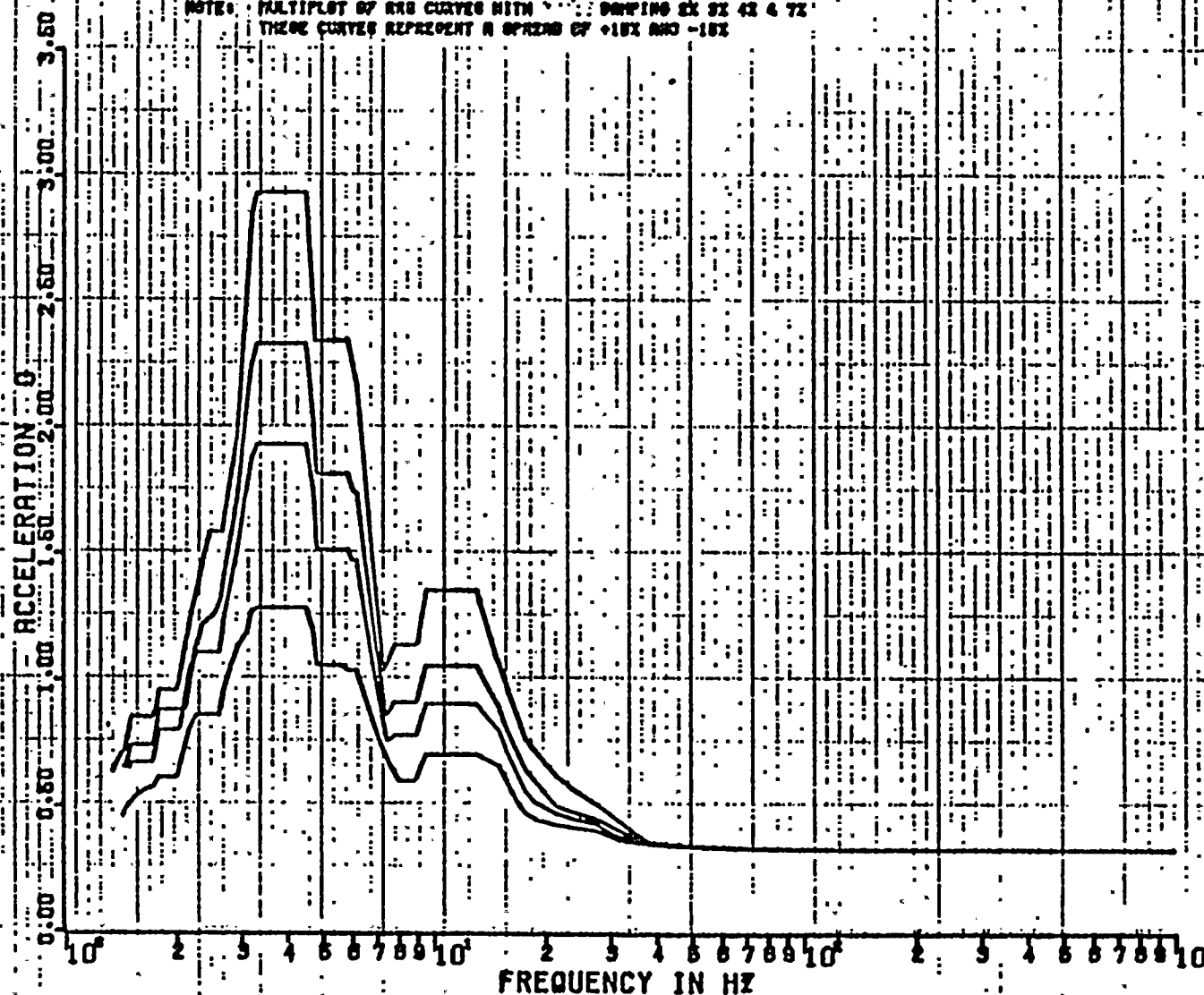
DISK CURVE SET NO.17

HOR DIRECTION

MICHAEL K CO

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 4X 7X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REC 71



PSPECTRA VER 01 LEV 08

SEISMIC (66E)

11 DEC 1982

0000000033

NIAOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. DRYWELL FLOOR (ELEV 298.0 FT)

MS1765

DISK CURVE SET NO.17

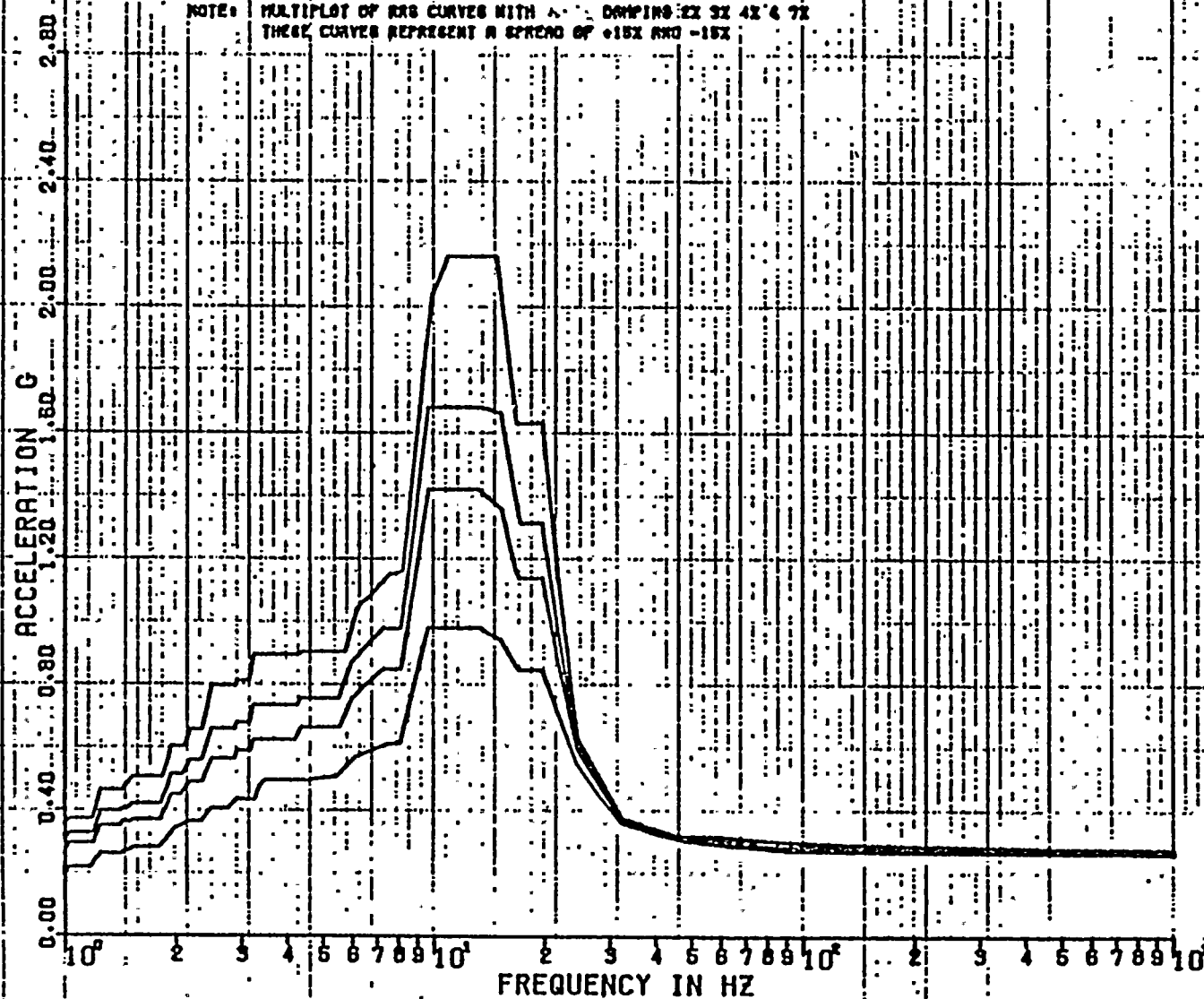
VER DIRECTION

MICHAEL K DO

DAMPING VALUES

0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH A DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15X AND -15X



REF 71



0000000029

SPECTRA VER 01 LEV 08

SEISMIC (DBE)

9 DEC 1982

NIRORRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 218.33 FT)

MS1765

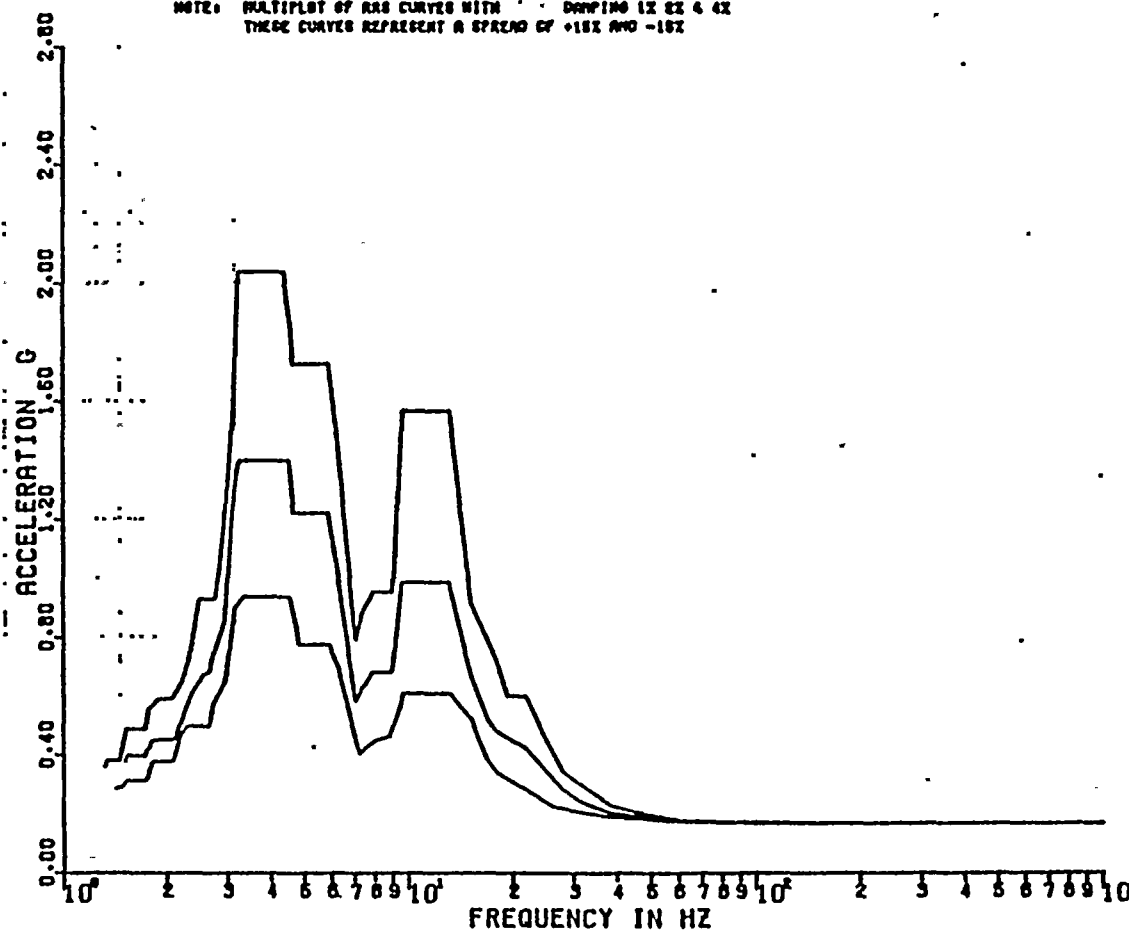
MICHAEL K 00

DISK CURVE SET NO.19

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF

72



0000000030

SPECTRA VER 01 LEV 08

SEISMIC (DBE)

8 DEC 1982

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 218.33 FT)

MS1765

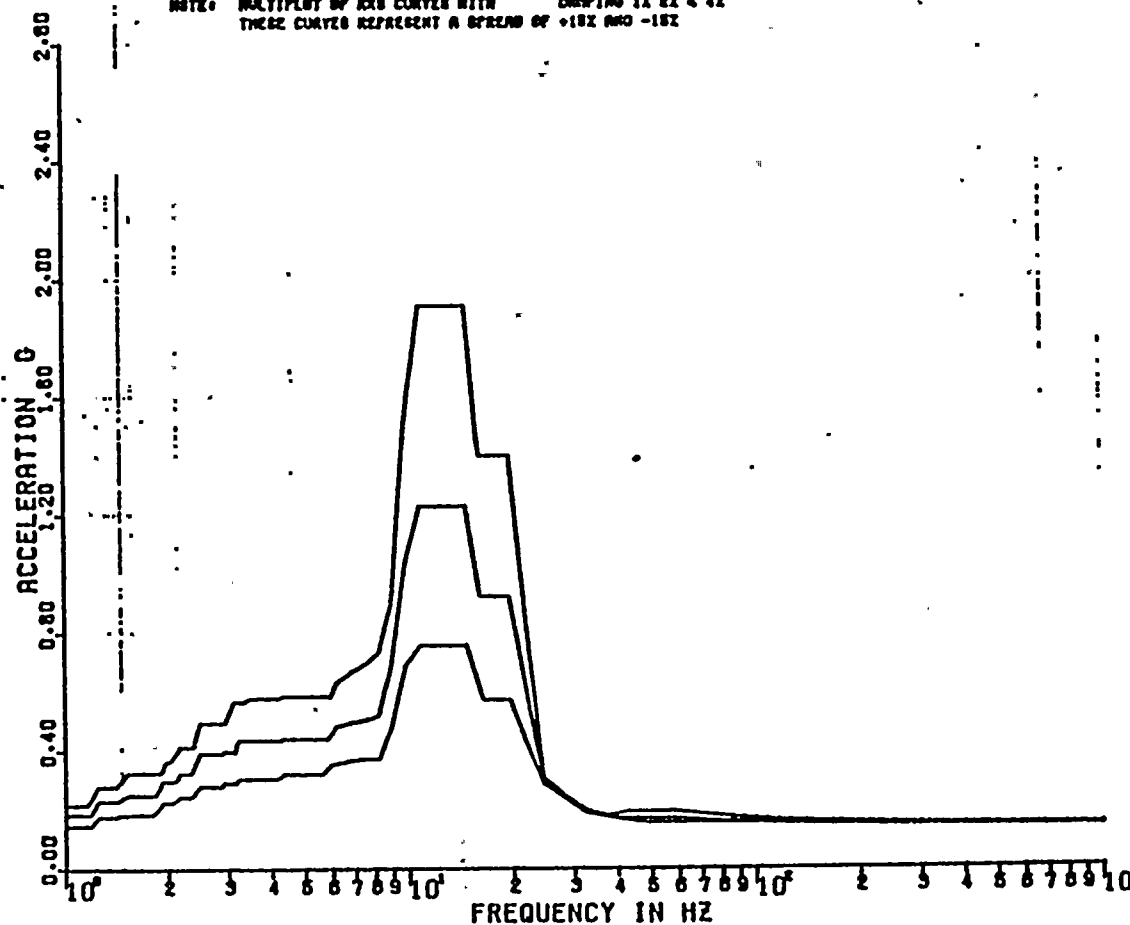
MICHAEL K 00

DISK CURVE SET NO.18

VER DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +18% AND -18%



REF 72



SPECTRA VER 01 .LEV 08 .

SEISMIC (SSE)

11 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 218.33 FT)

MS176500000034

MICHAEL K.00

DISK CURVE SET NO.19

HOR DIRECTION

DAMPING VALUES

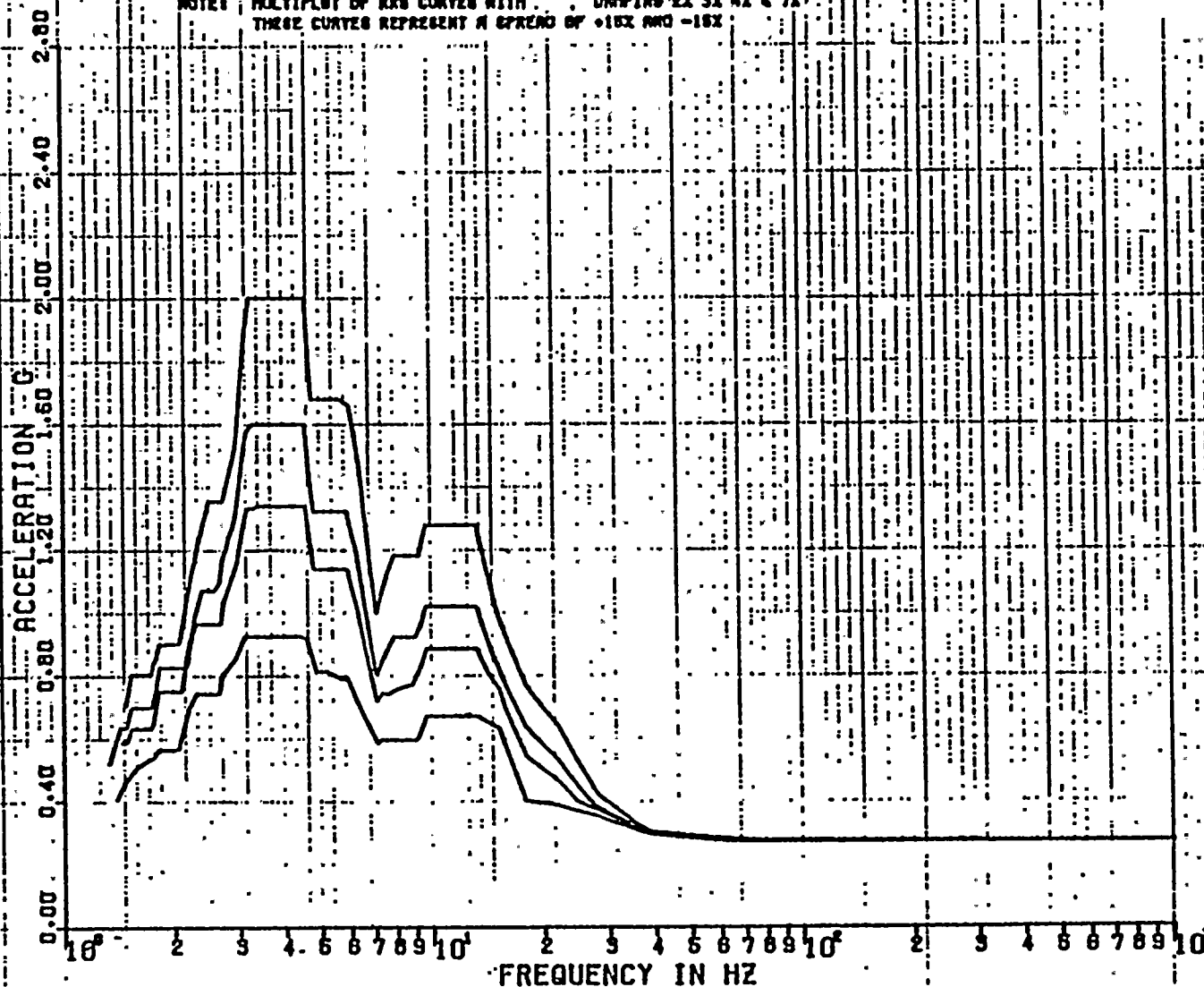
0.020

0.030

0.040

0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THREE CURVES REPRESENT A SPREAD OF +15X AND -15X



REF 72



PSPECTRA VER 01 LEV 00

SEISMIC (88E)

11 DEC 1982

NIOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 218.99 FT)

MS1765 0000000095

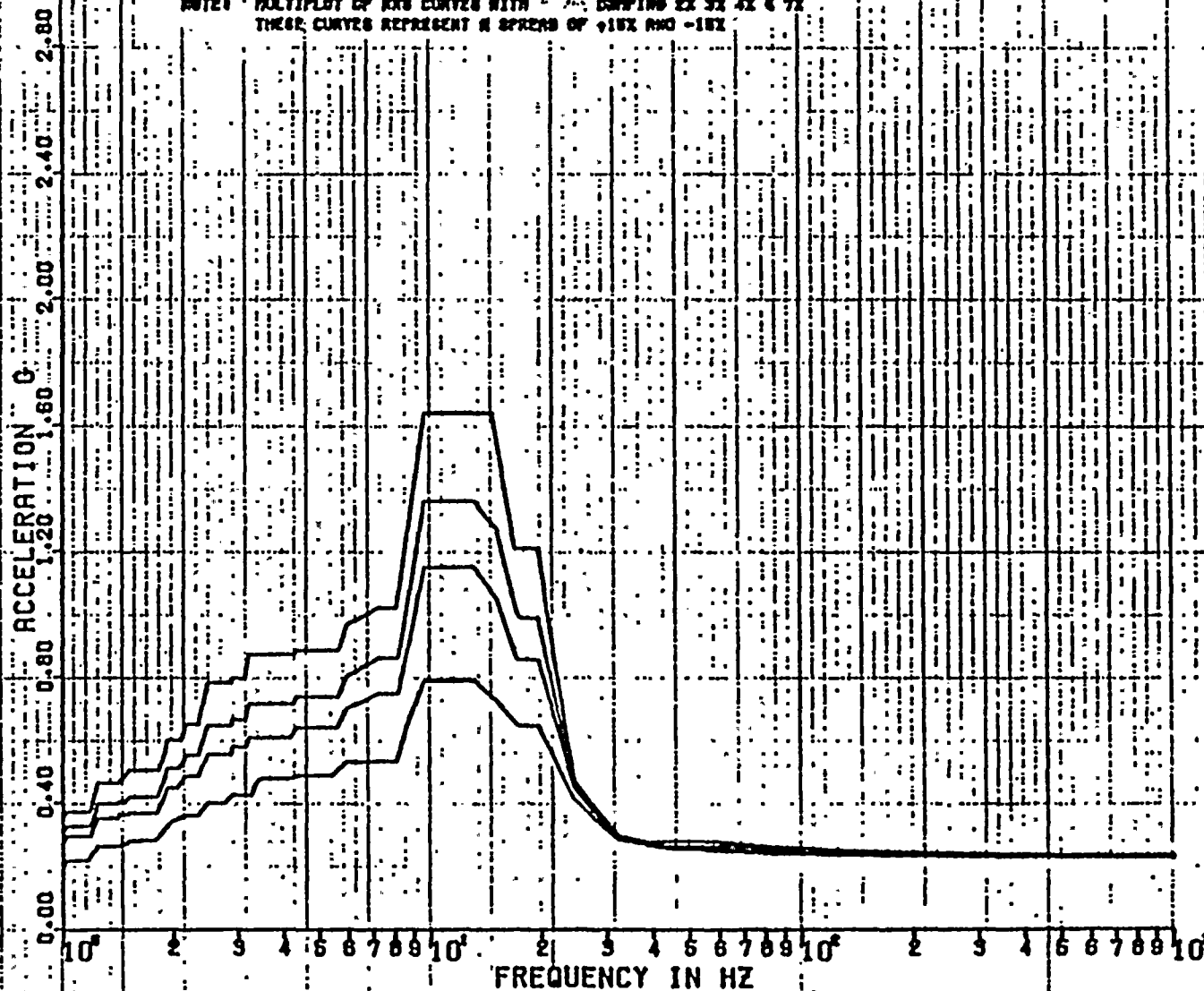
MICHAEL K 00

DISK CURVE SET NO.19

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X 6 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 72



0000000031

PSPECTRA VER 01 LEV 00

SEISMIC (OBE)

9 DEC 1982

NIGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PRIMARY CONT. (ELEV 198.87 FT)

MS1765

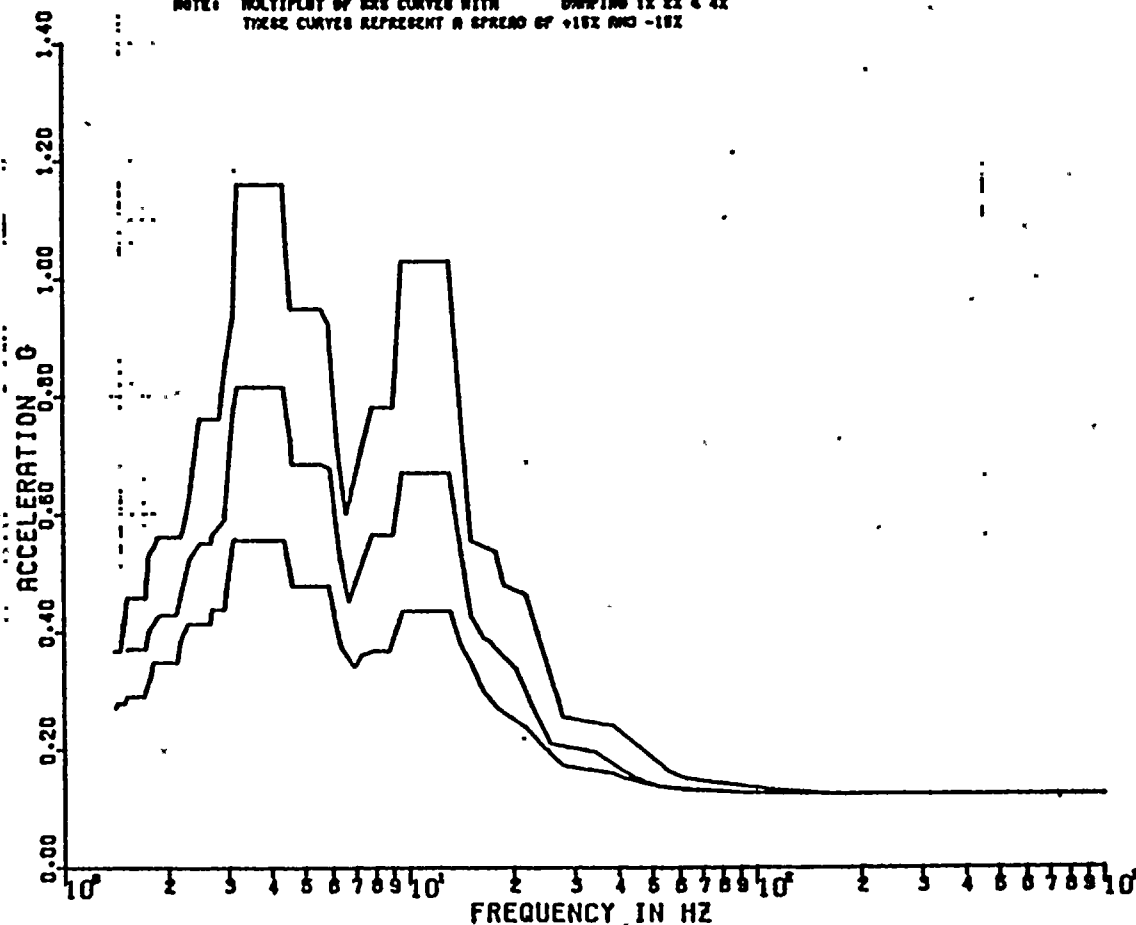
MICHAEL K 00

DISK CURVE SET NO.21

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 12 22 & 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 73



0000000032

SPECTRA VER 01 LEV 00

SEISMIC (00E)

9 DEC 1982

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 196.87 FT)

MS1765

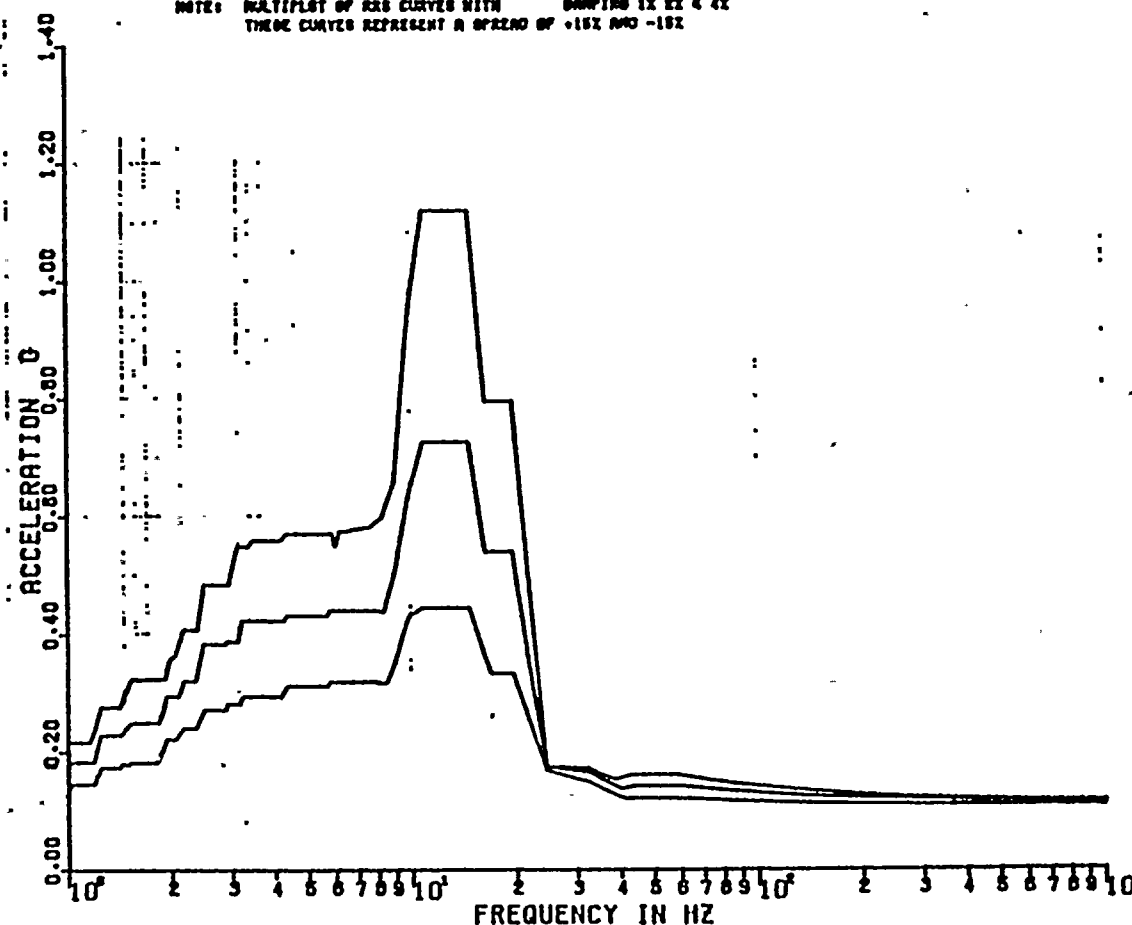
MICHAEL K 00

DISK CURVE SET NO.21

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% BY 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 13



PSPECTRA VER 01 LEV 08

SMIC (86E)

11 DEC 1982

NIAOGRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 186.87 FT)

MS1763 0000000096

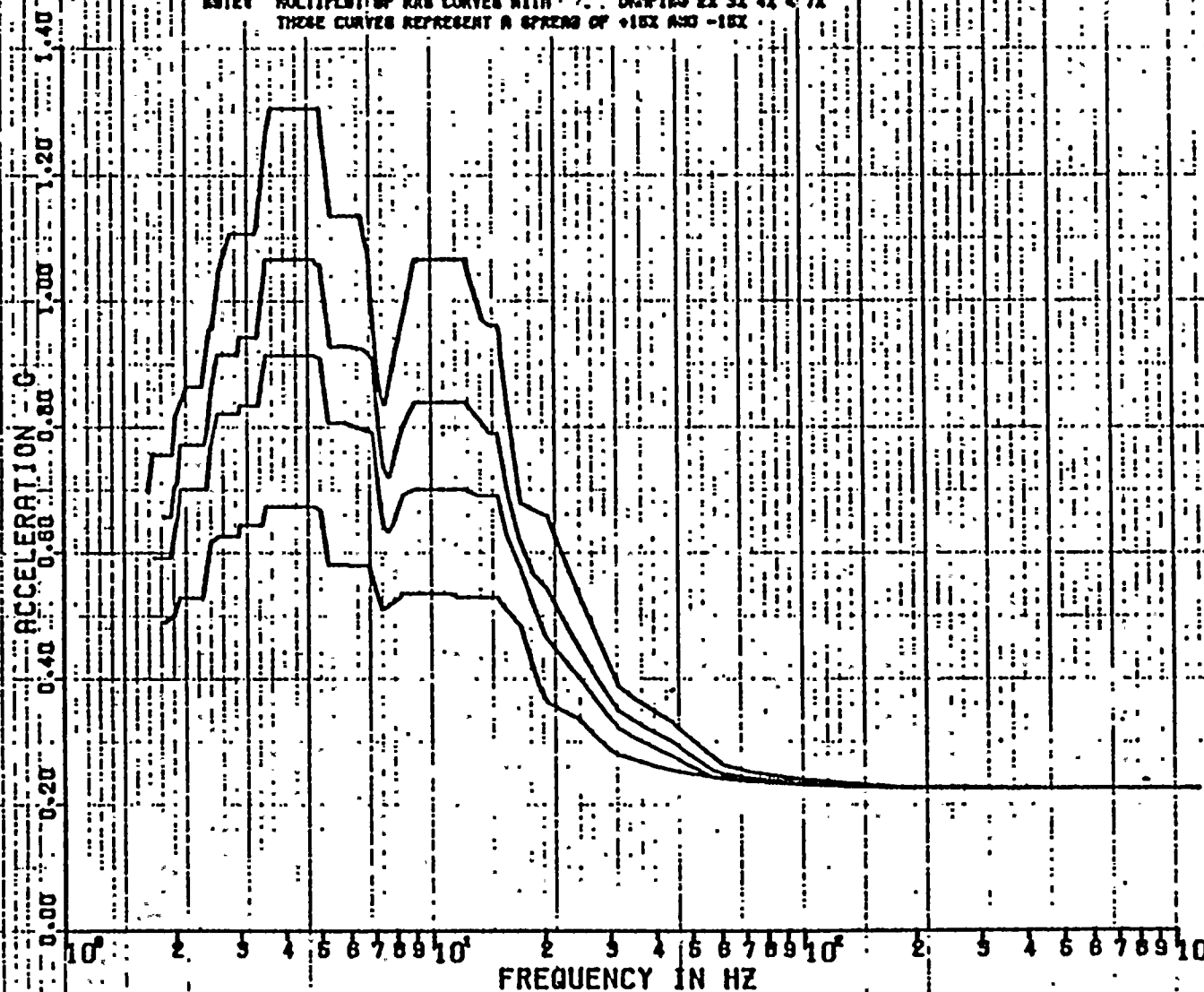
DISK CURVE SET NO.21

HOR DIRECTION

MICHAEL K QD

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DOWNS 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 73



PSPECTRA VER 01 LEV 08

SEISMIC (SEE)

11 DEC 1982 000800097

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PRIMARY CONT. (ELEV 196.67 FT)

MS1765

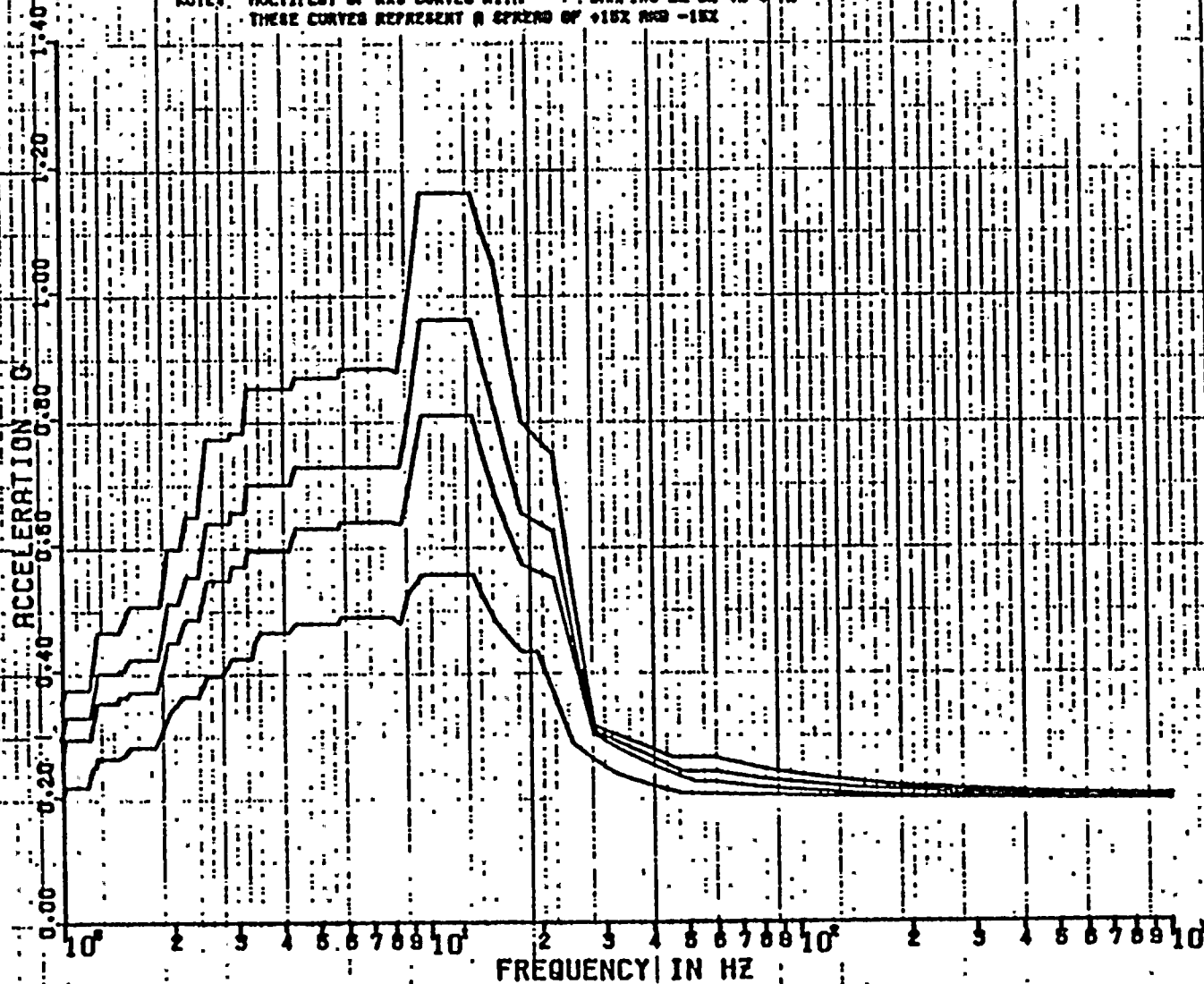
MICHAEL K OD

DISK CURVE SET NO.21

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 22 32 42 6 72
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 93



0000000033

PSPECTRA VER 01 LEV 00

SEISMIC (00E)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. SHIELD WALL (ELEV.915.00 FT.)

MS1765

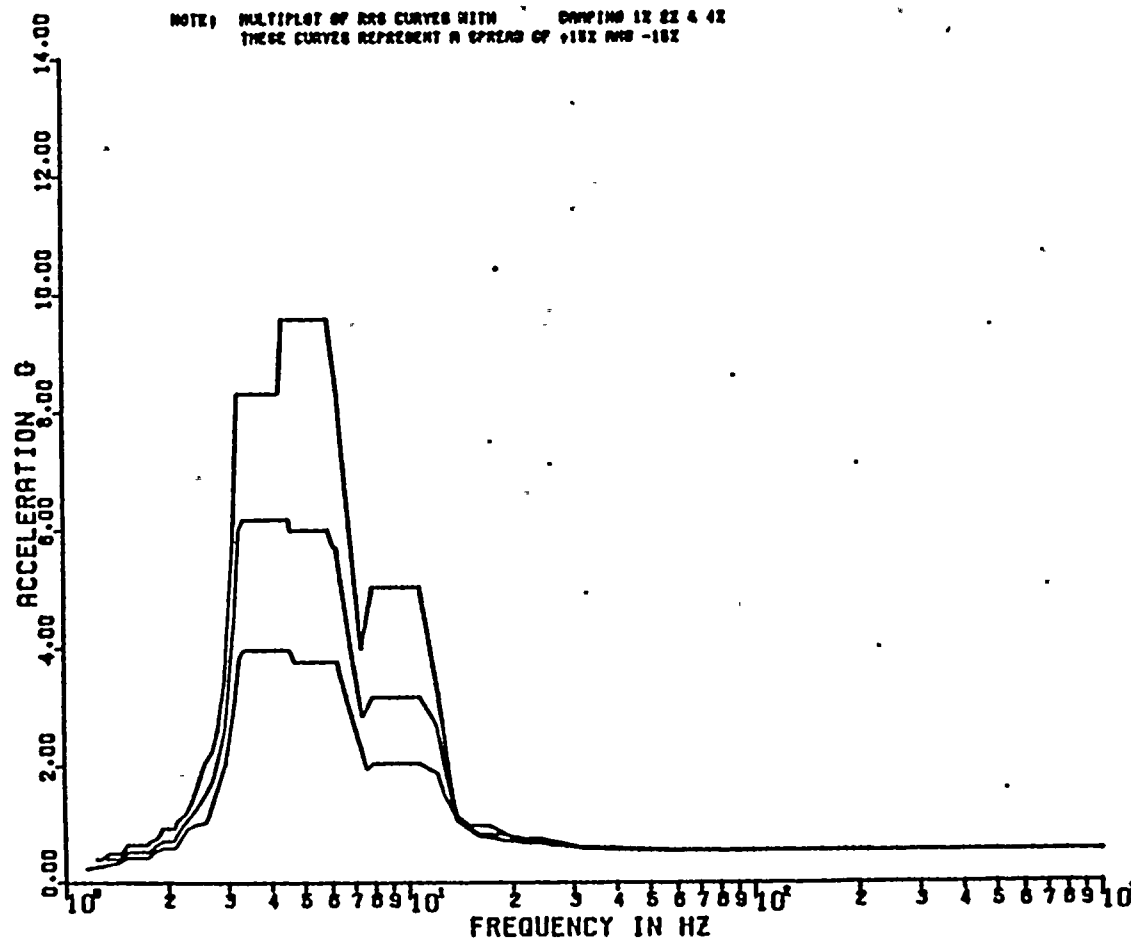
MICHAEL K 00

DISK CURVE SET NO.1

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 12 22 & 42
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 74



0000000034

SPECTRA VER 01 LEV 00

SEISMIC (OBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RMS OF ACC. SHIELD WALL (ELEV.915.00 FT.)

MS1765

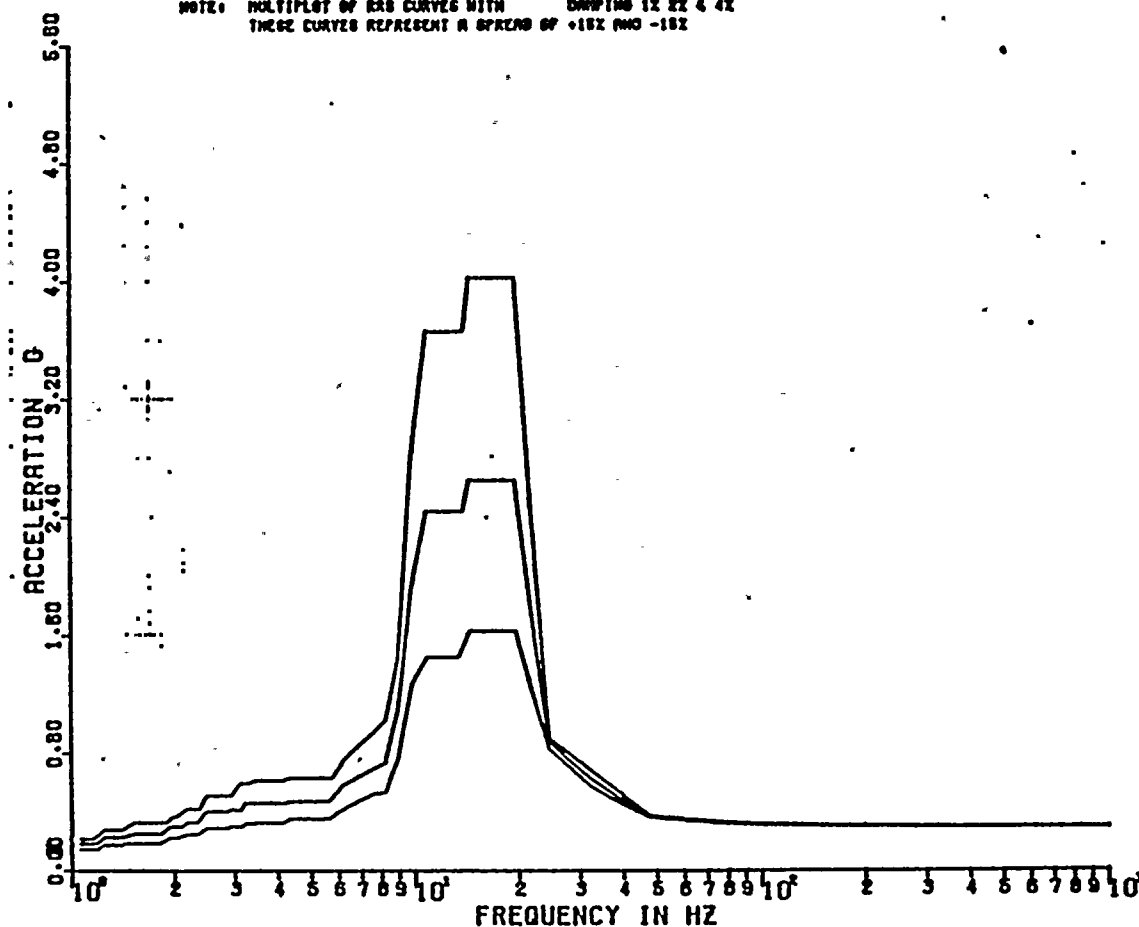
MICHAEL K 00

DISK CURVE SET NO.1

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 74



PSPECTRA VER 01 LEV 00

IC (88E)

11 DEC 1982

500-0098

NIAOARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. SHIELD WALL (ELEV.915.00 FT.)

MS1765

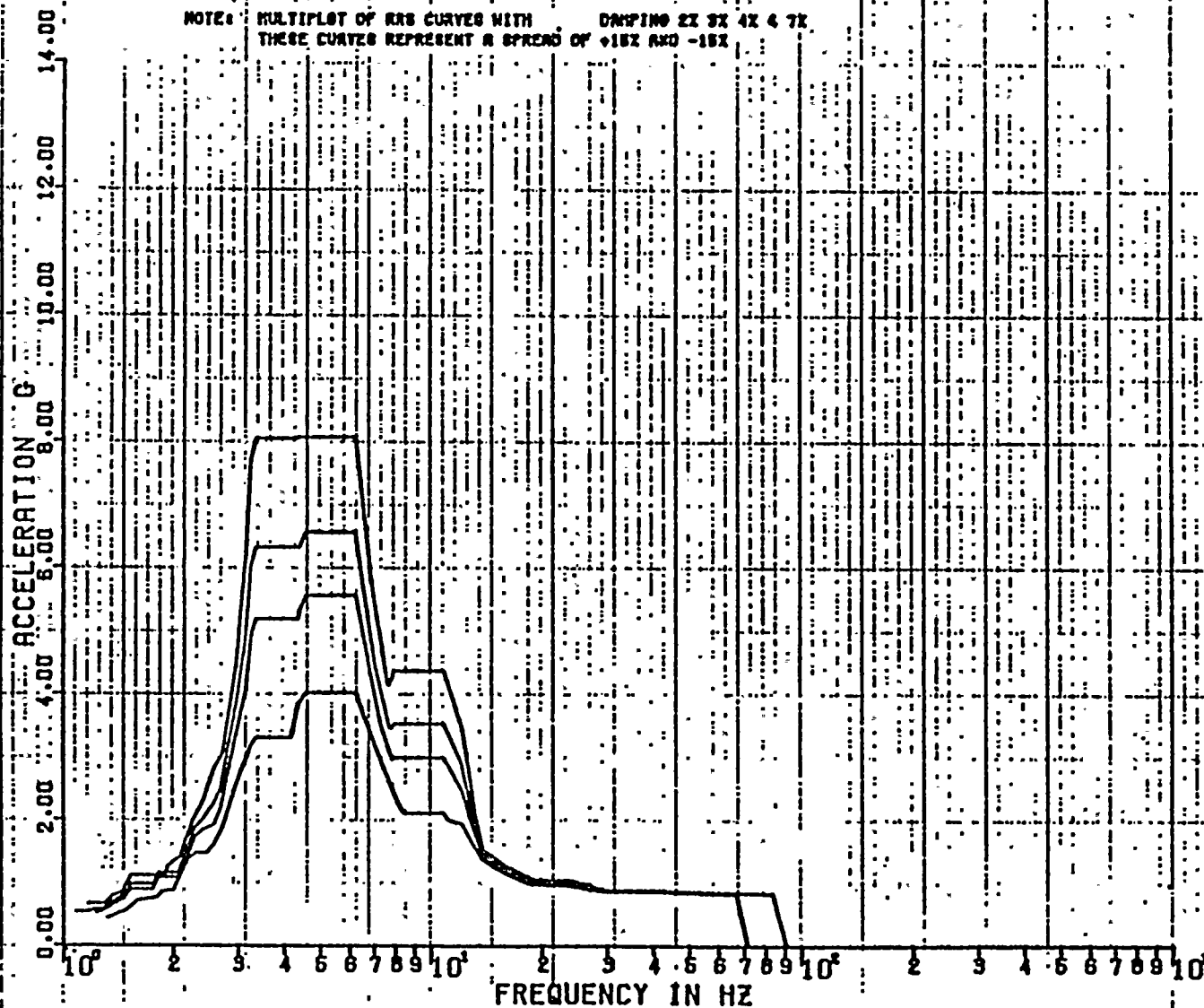
DISK CURVE SET NO.1

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES =
0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF. 74

PSPECTRA VER 01 LEV 08

8 DEC 1 88E)

11 DEC 1982

00000099

NIAOARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRB OF ACC. SHIELD WALL (ELEV.318.08 FT.)

MS1765

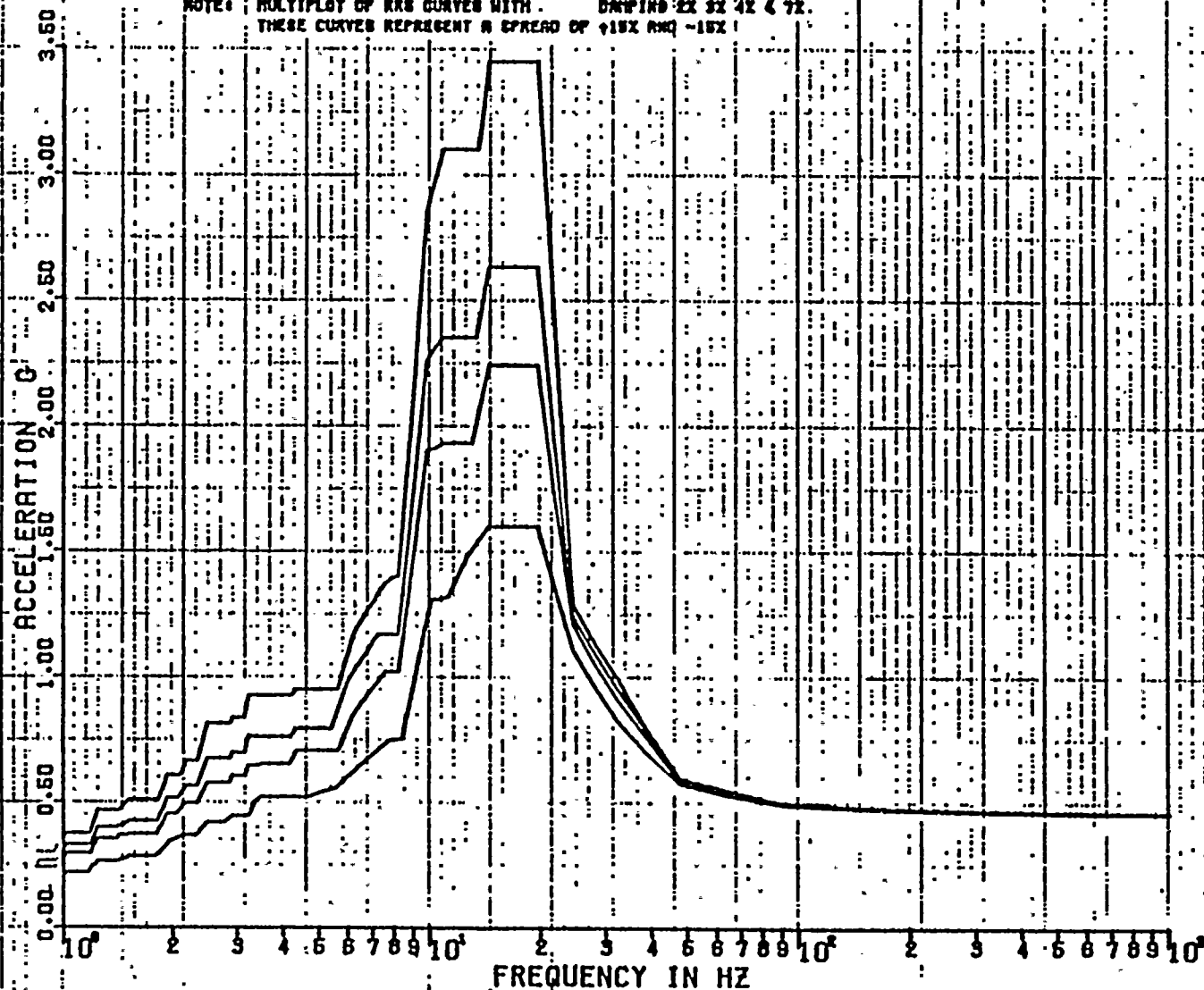
DISK CURVE SET NO.1

VER DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRB CURVES WITH DAMPING 2X 3X 4X & 7X.
THESE CURVES REPRESENT A SPREAD OF +15X AND -15X



REF 24



0000000035

PSPECTRA VER 01 LEV 08 -

SEISMIC (OBE)

9 DEC 1982

NIAQARA MOHAWK-NINE MILES POINT UNIT 2-J.O.-12177
RRS OF ACC. SHIELD WALL (ELEV 302.75 FT)

MS1765

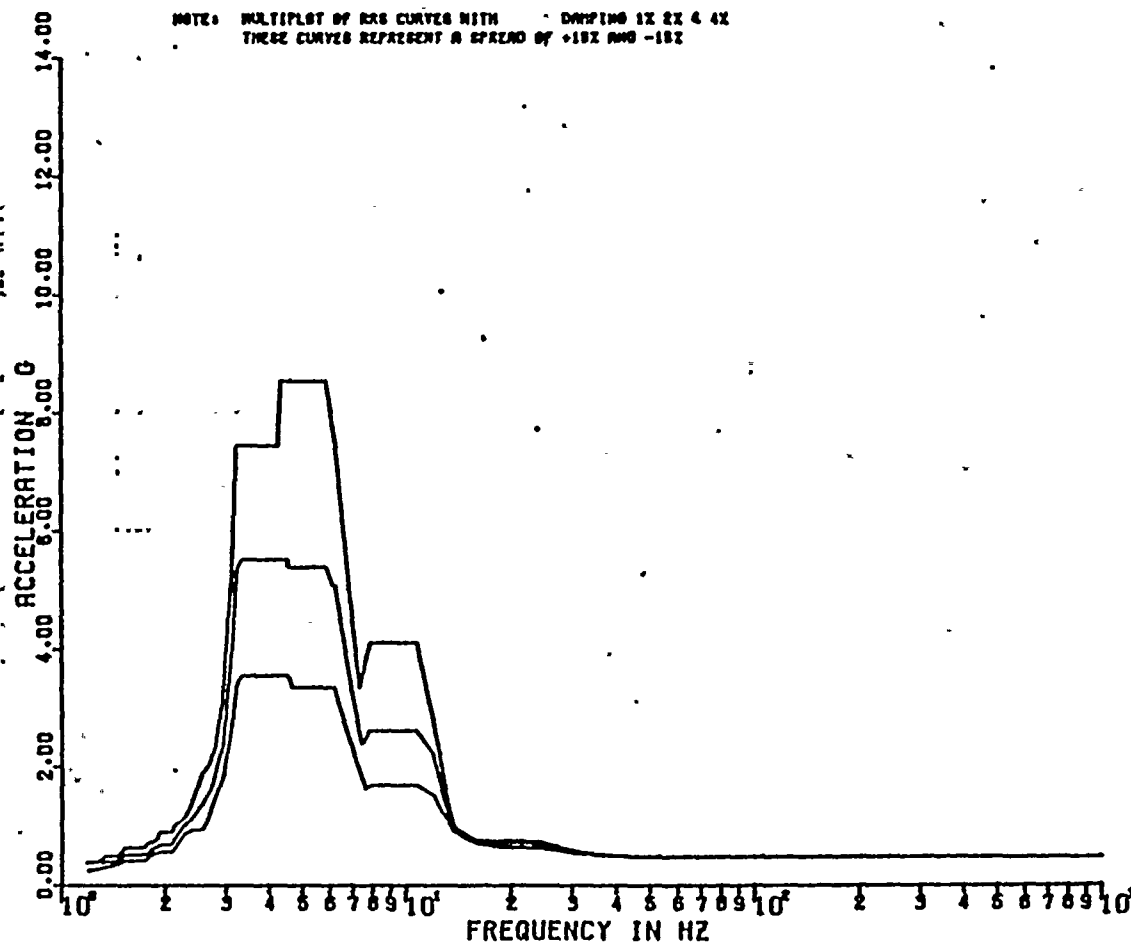
MICHAEL K OO

DISK CURVE SET NO.3

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 75



0000000036

PSPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

MIRARRA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. SHIELD WALL (ELEV 302.75 FT)

MS1765

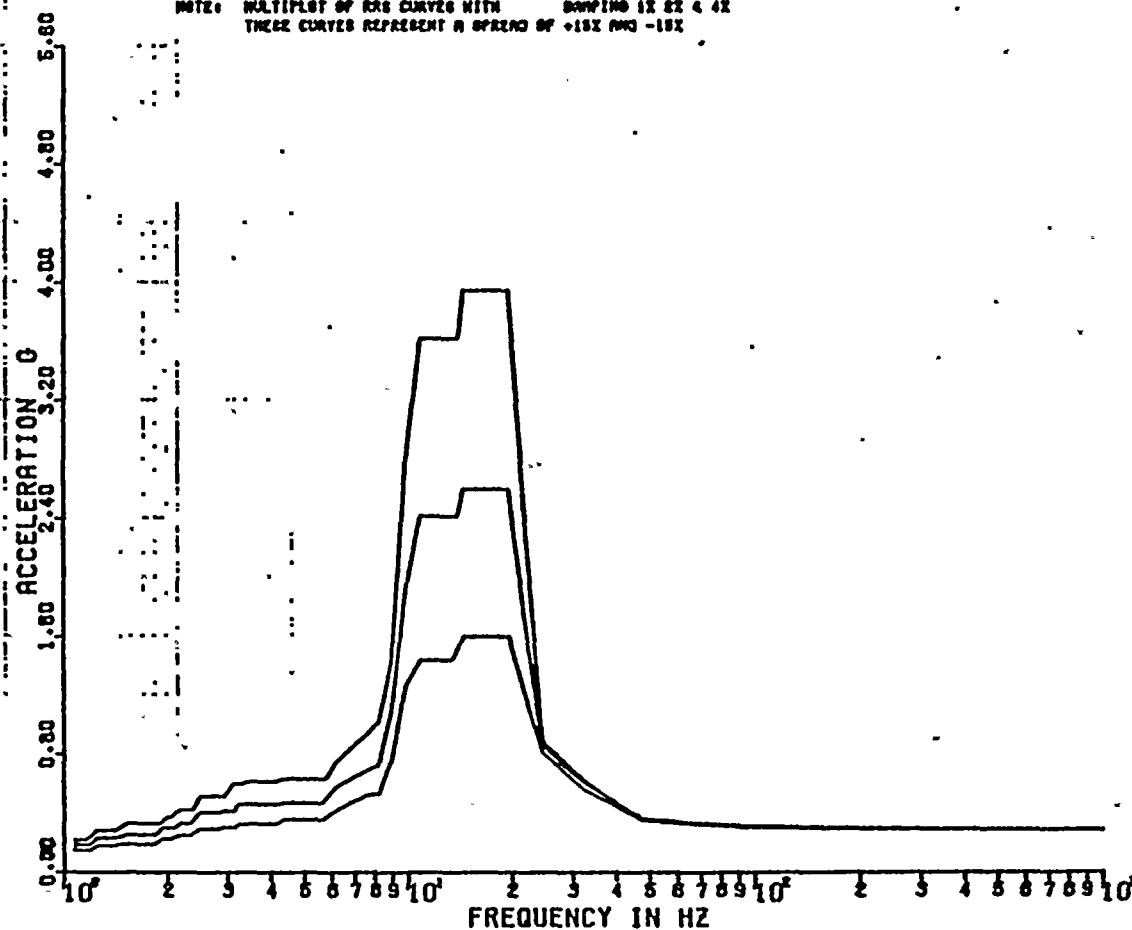
MICHAEL K 80

DISK CURVE SET NO.3

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X BY 4 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 75



PSPECTRA VER 01 LEV 00

SEISMIC (SSE)

11 DEC 1982

0000000100

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. SHIELD WALL (ELEV 302.75 FT)

MS1765

MICHAEL K 00

DISK CURVE SET NO.3

HOR DIRECTION

DAMPING VALUES =

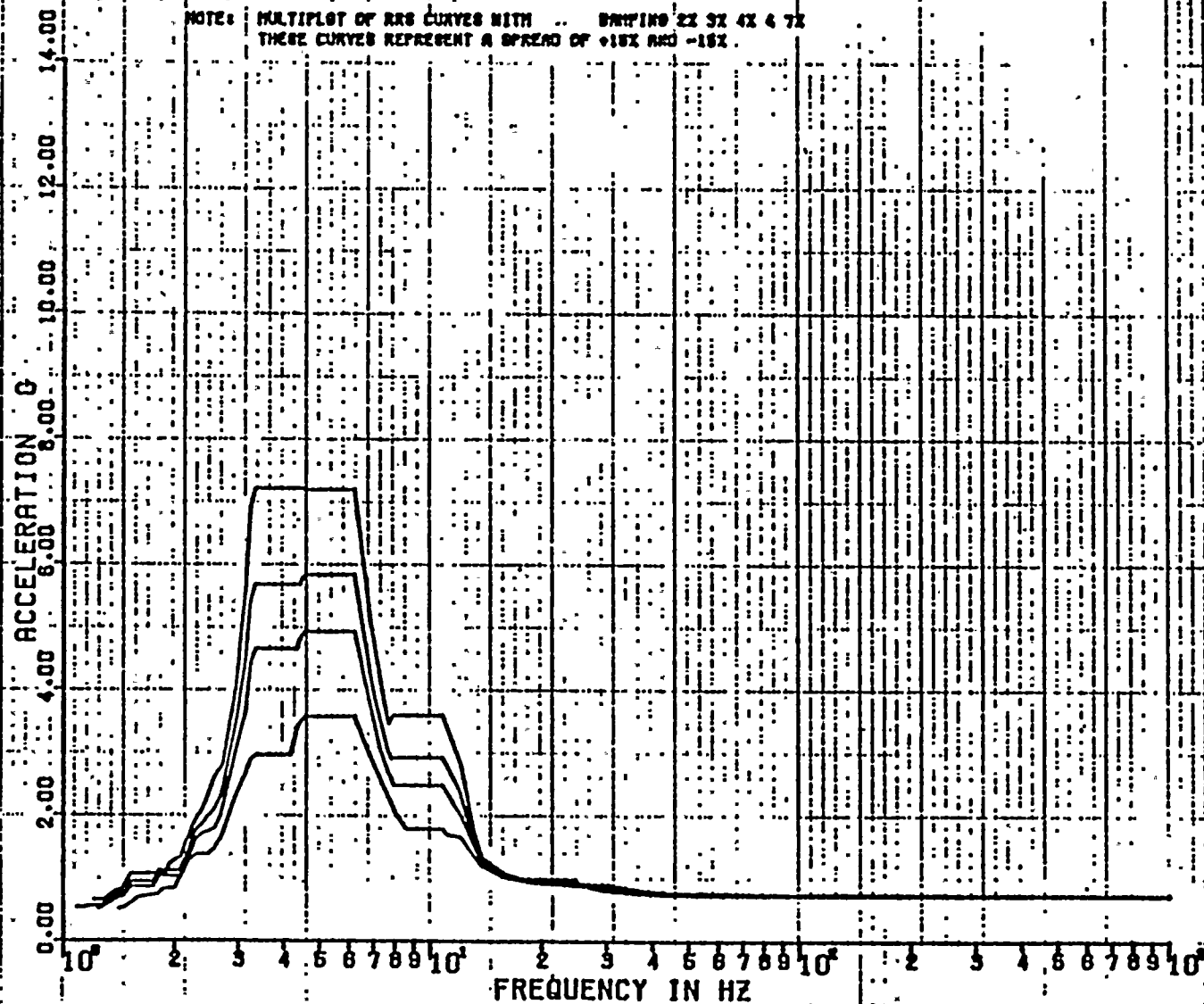
0.020

0.030

0.040

0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2% 3% 4% & 7%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%.



REF. 75



PSPECTRA VER 01 LEV 08

SEI (SSE)

11 DEC 1982

0000101

NIAOARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. SHIELD WALL (ELEV 302.75 FT)

MS1765

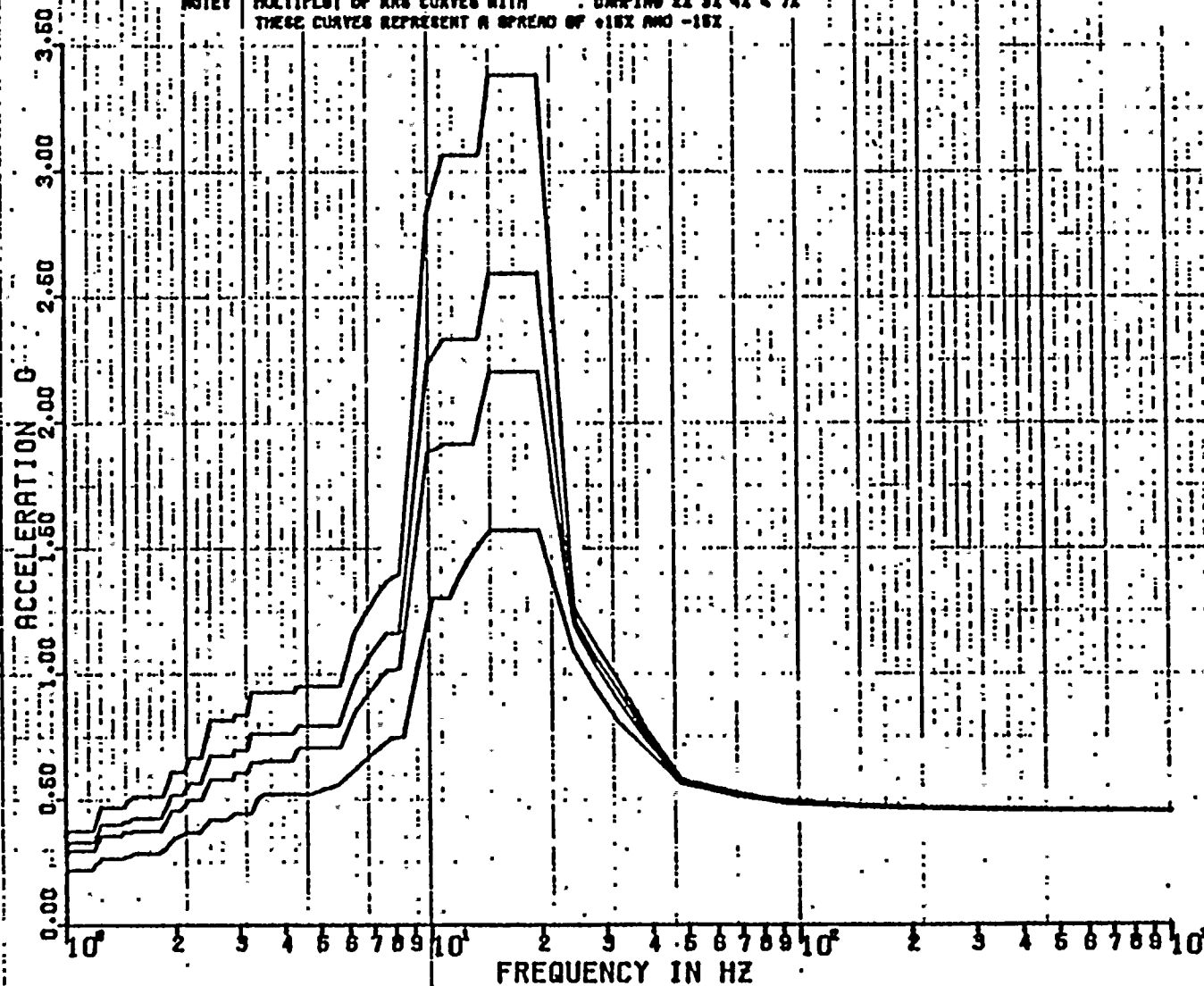
MICHAEL K 00

DISK CURVE SET NO.3

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 22 32 42 & 72
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 75



000000037

PSPECTRA VER 01 LEV 08

SEISMIC (08Z)

9 DEC 1982

NIRAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
 NRS OF ACC. SHIELD WALL (ELEV 290.78 FT)

MS1765

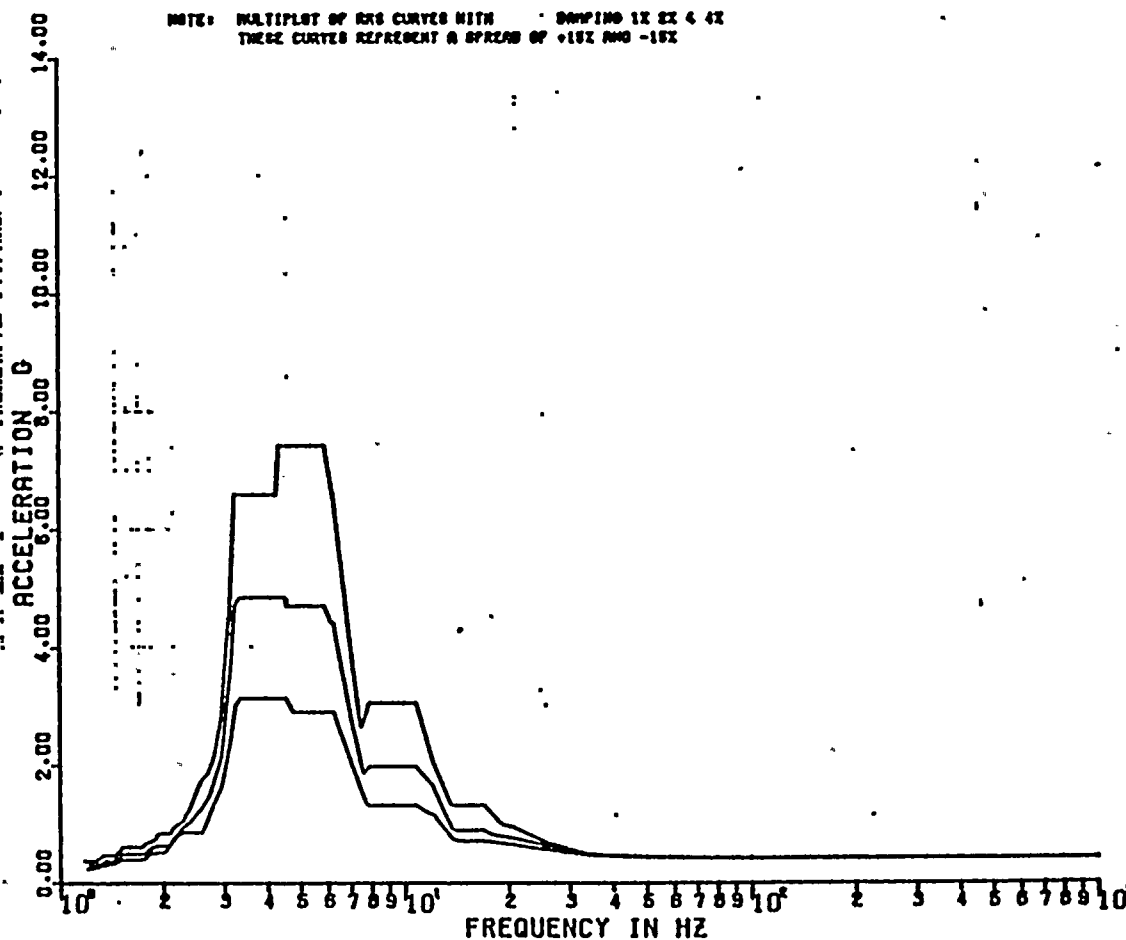
MICHAEL K 00

DISK CURVE SET NO.7

HOR DIRECTION

DAMPING VALUES = 0.010
 0.020
 0.040

NOTE: MULTIPLY OF NRS CURVES WITH DAMPING 1X 2X 4X
 THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF

76

0000000038

PSPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. SHIELD WALL (ELEV 280.79 FT)

MS1765

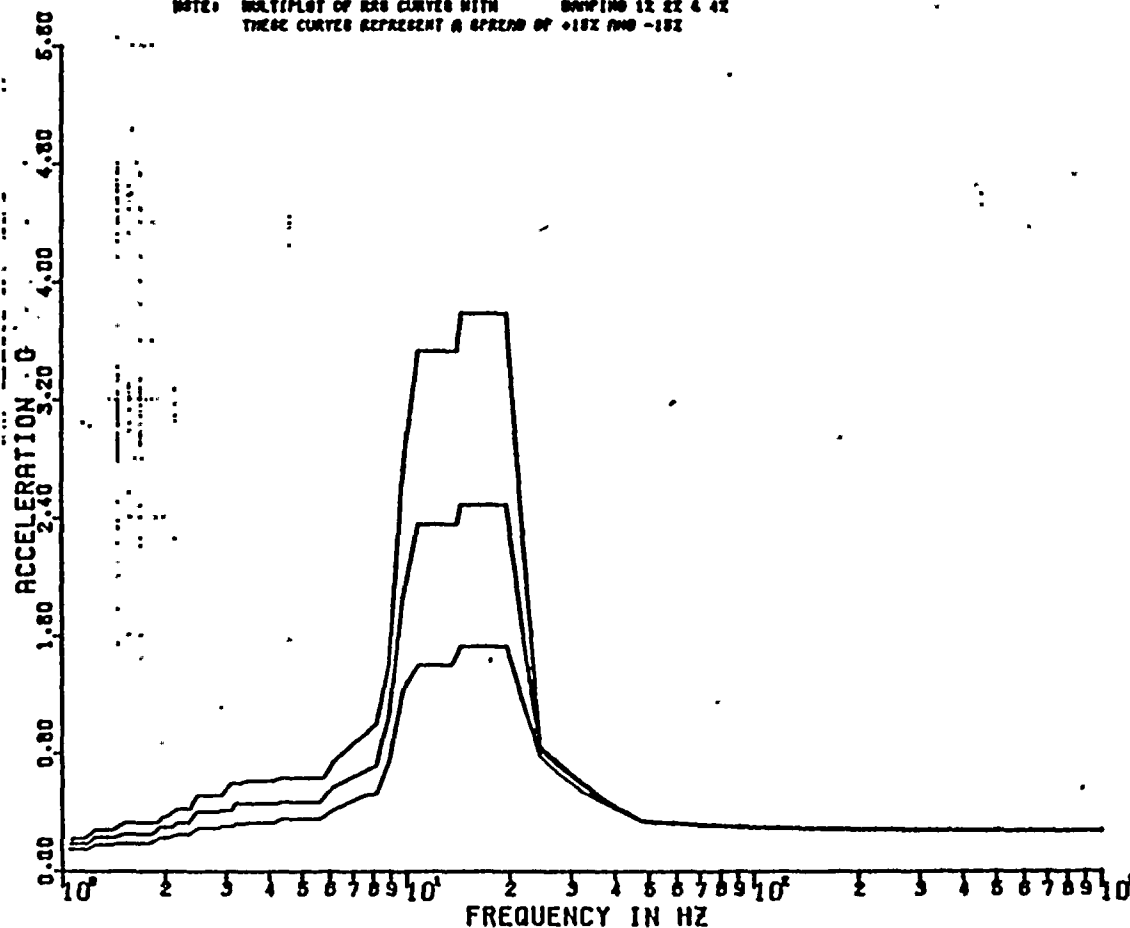
DISK CURVE SET NO.7

VER DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 76



PSPECTRA VER 01 LEV 00

CHIC (88E)

11 DEC 1982

NIAOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. SHIELD WALL (ELEV 290.70 FT)

MS1765

0102

DISK CURVE SET NO.7

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES

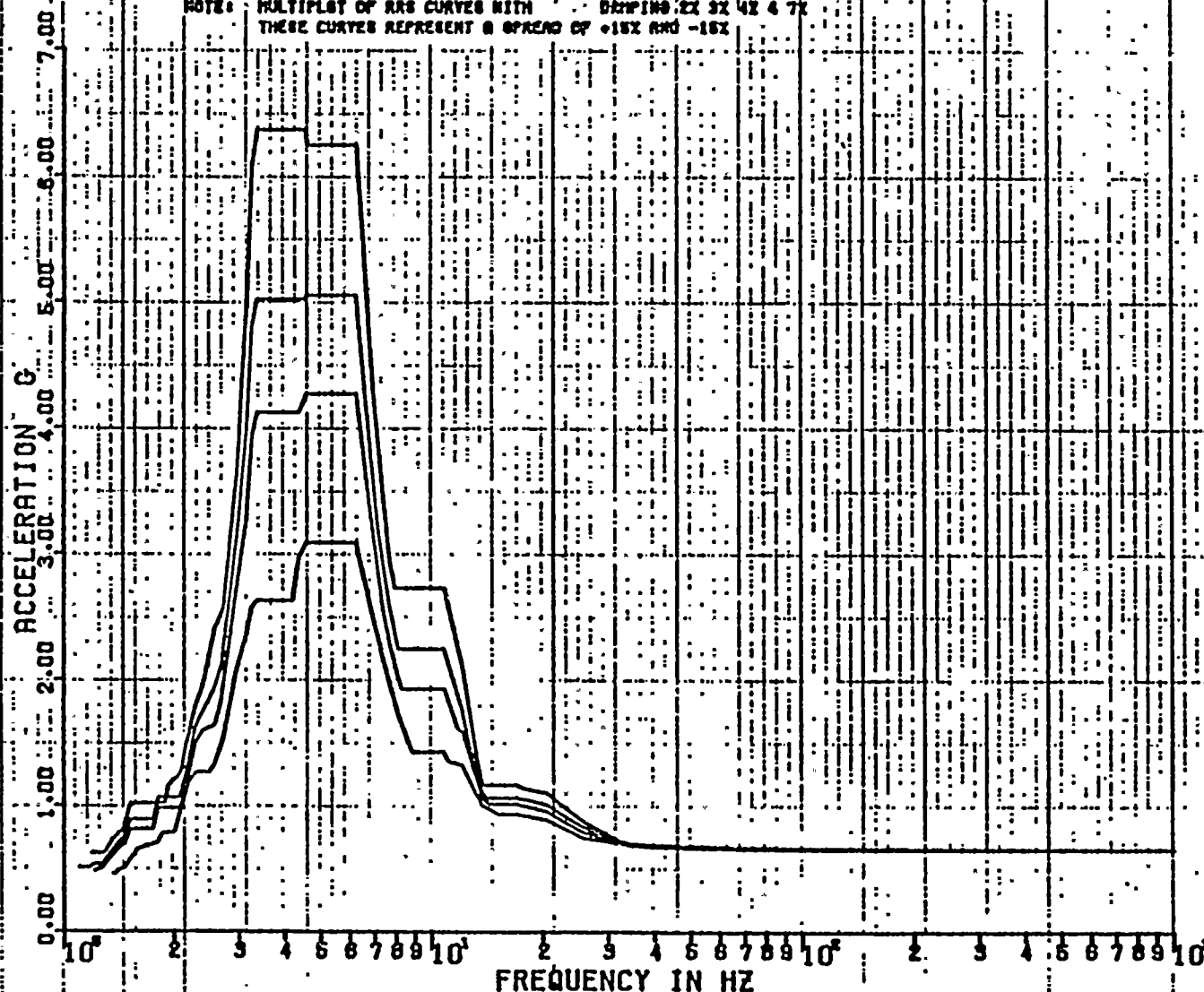
0.020

0.030

0.040

0.070

NOTE: MULTIPLST OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 76



SPECTRA VER 01 LEV 00

CHIC (85E)

11 DEC 1982

000100103

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. SHIELD WALL (ELEV 280.78 FT)

MS1765

DISK CURVE SET NO.7

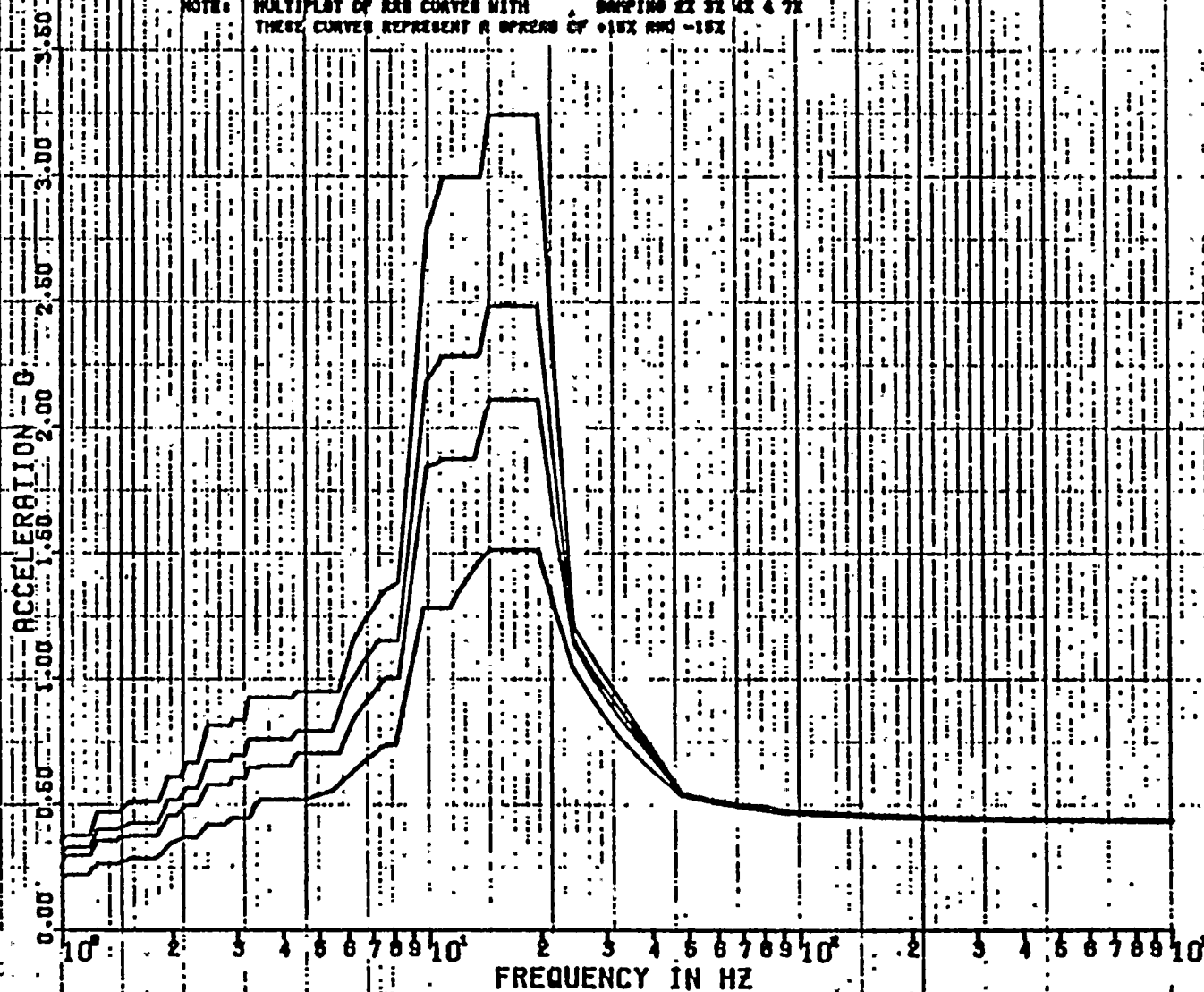
VER DIRECTION

MICHAEL K DO

DAMPING VALUES

0.020
0.030
0.040
0.070

NOTE: MULTIPLT OF RRS CURVES WITH DAMPING 21 32 43 6 72
THESE CURVES REPRESENT A SPREAD OF 15X AND -15X



REF 76



000000039

PSPECTRA VER 01 LEV 08

SEISMIC (DBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.D.12177
RRS OF ACC. SHIELD WALL (ELEV. 278.65 FT)

MS1765

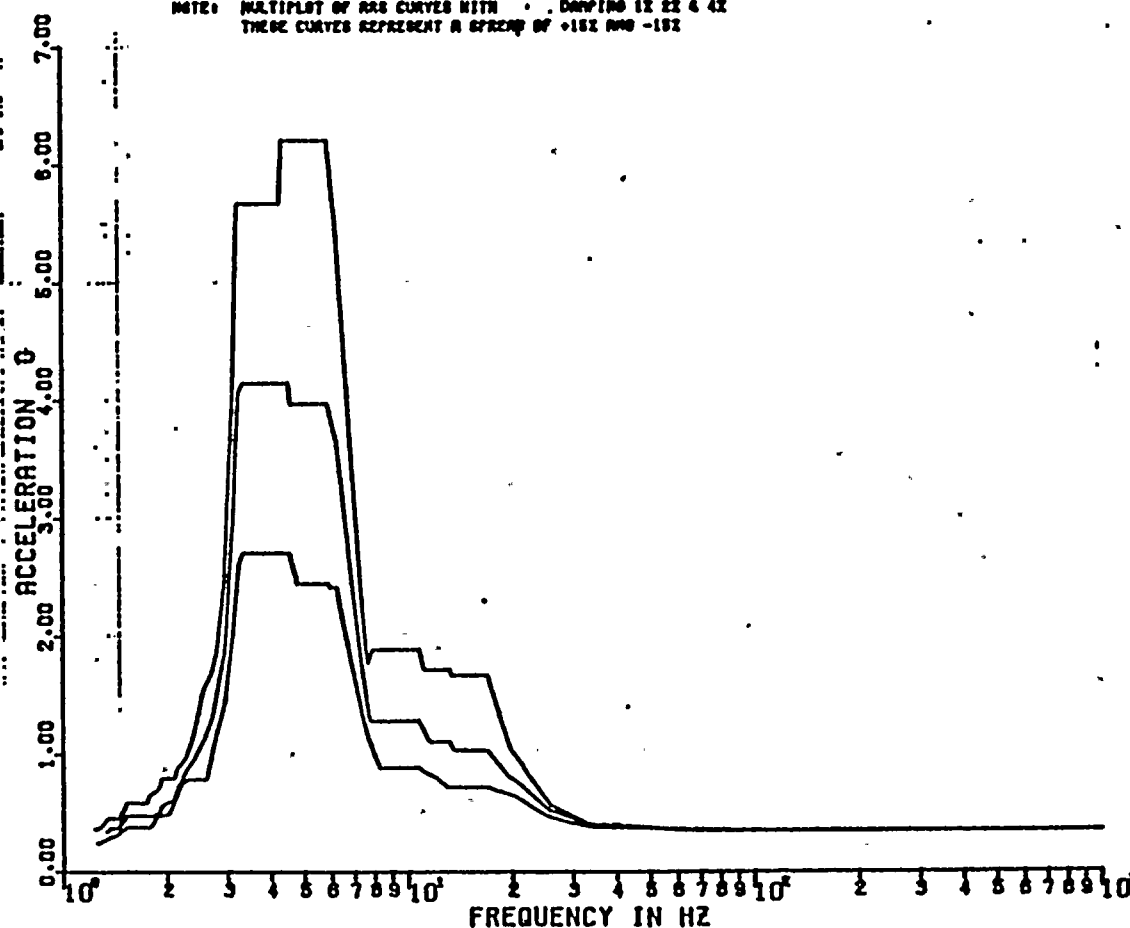
MICHAEL K GO

DISK CURVE SET NO.11

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 77



000000040

SPECTRA VER 01 LEV 08

SEISMIC (08E)

9 DEC 1992

MIRARRA MONAHK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. SHIELD WALL (ELEV. 278.65 FT)

MS1765

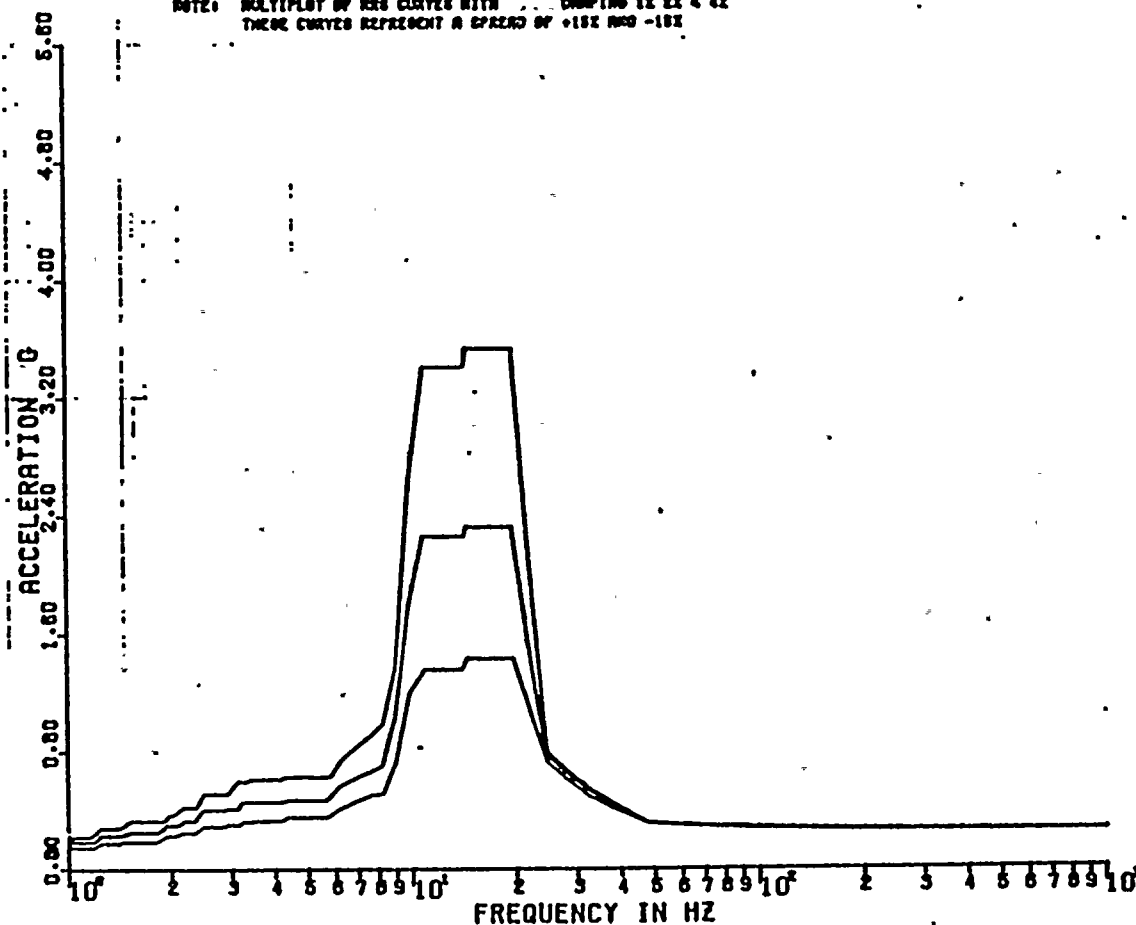
MICHAEL K 00

DISK CURVE SET NO.11

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY BY RMS VALUES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 77



PSPECTRA VER 01 LEV 03

SEISMIC (SSE)

11 DEC 1982 00000104

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. SHIELD WALL (ELEV. 278.85 FT)

MS1765

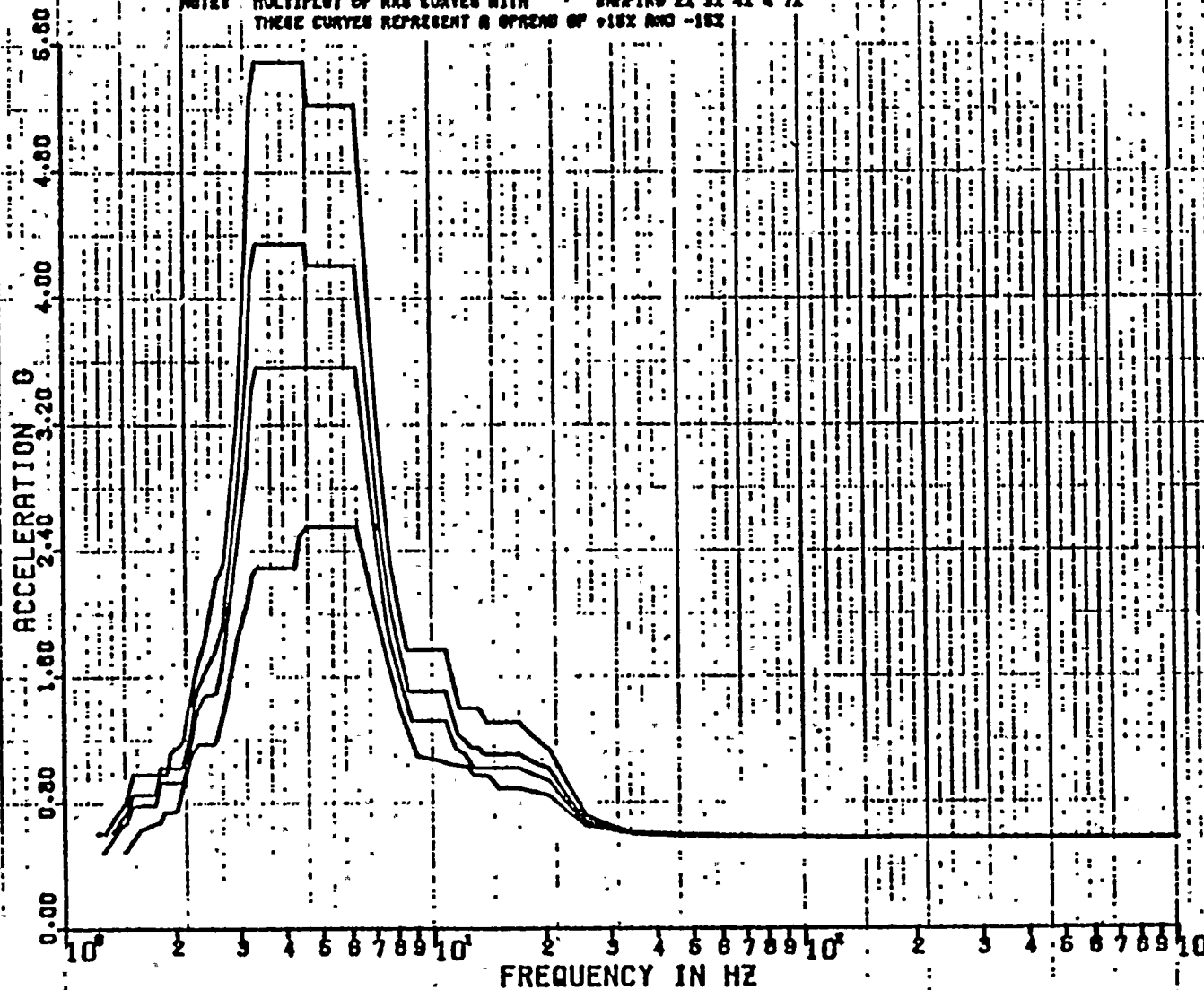
MICHAEL K DO

DISK CURVE SET NO.11

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF. 77



PSPECTRA VER 01 LEV 00 :

SMIC (SSE)

11 DEC 1982 0000 105

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. SHIELD WALL (ELEV. 278.85 FT)

MS1765

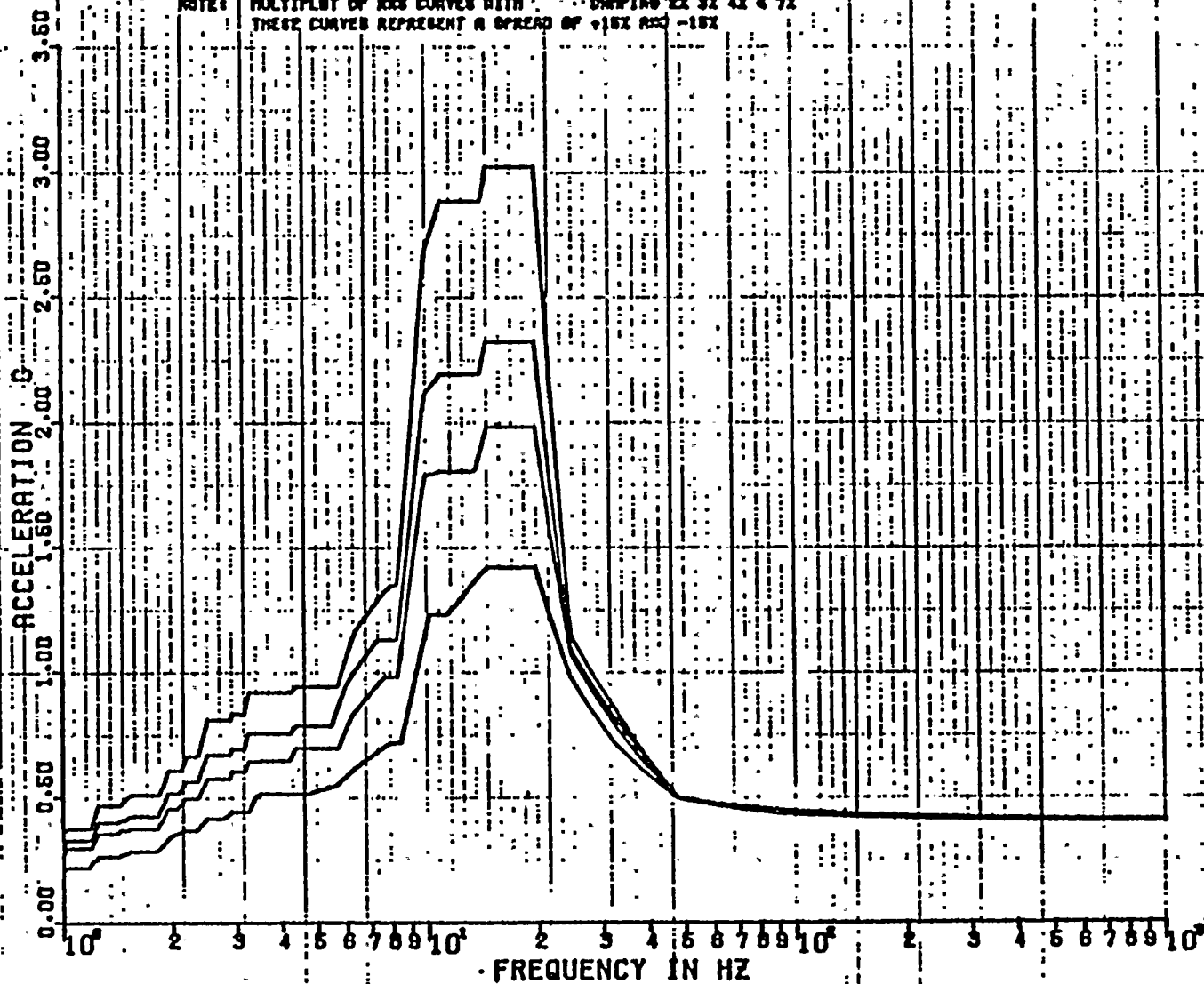
MICHAEL K 00

DISK CURVE SET NO.11

VER DIRECTION

DAMPING VALUES : 0.020
0.030
0.040
0.070

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 22 32 42 & 72
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 77



0300000041

PSPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RAS OF ACC. RPV SHELL (ELEV 332.70 FT)

MS1765

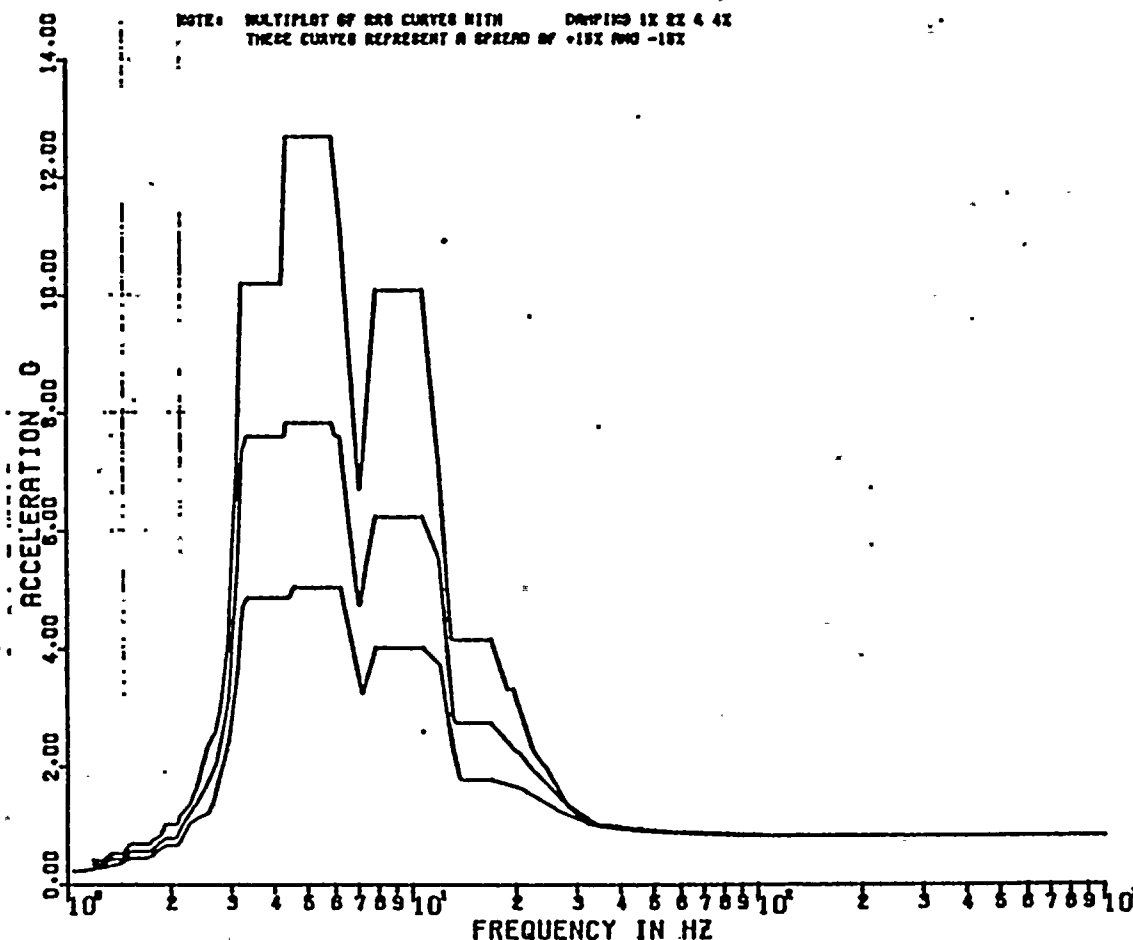
MICHAEL R 00

DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLOT OF RAS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 78



000000042

SPECTRA VER 01 LEV 08

SEISMIC (08Z)

9 DEC 1982

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. RPV SHELL (ELEV 332.70 FT)

MS1765

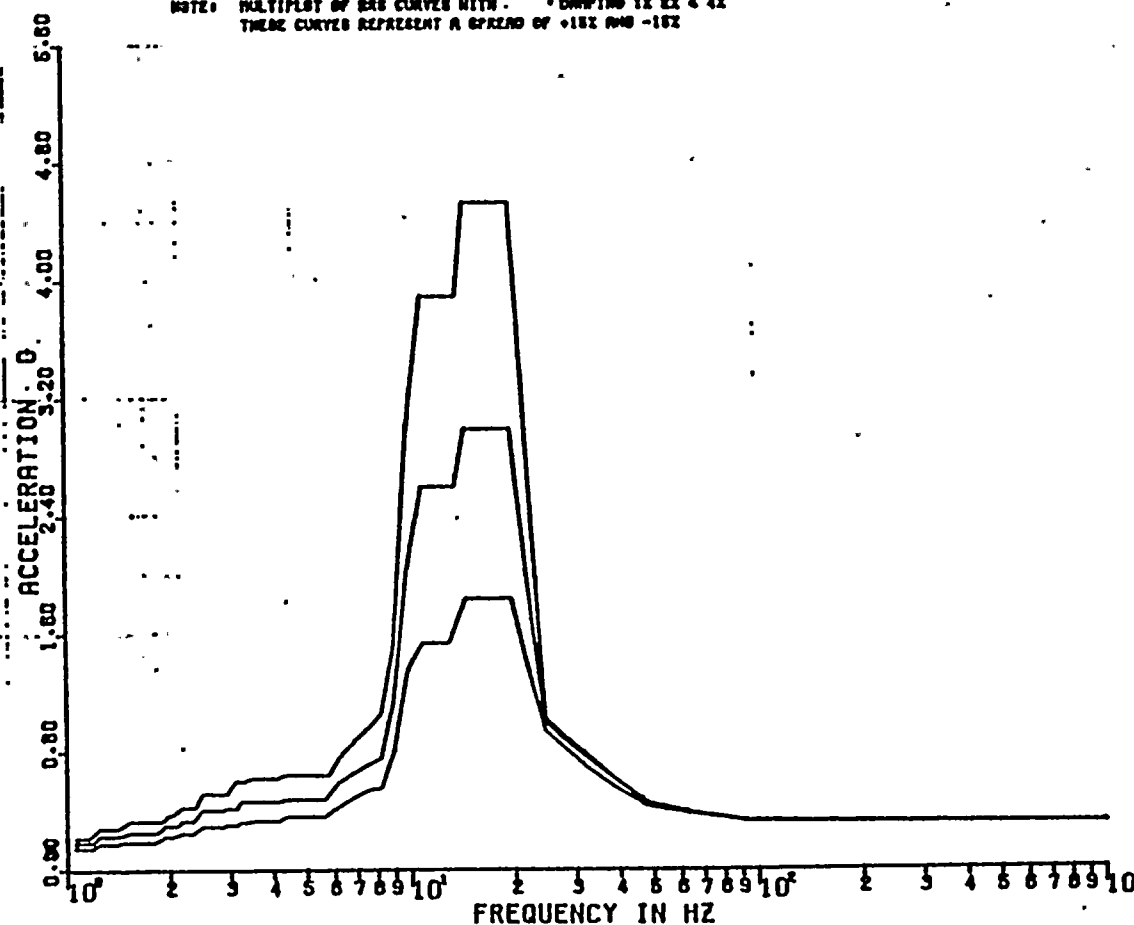
MICHAEL K 80

DISK CURVE SET NO.4

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH * DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 78



PSPECTRA VER 01 LEV 00

8 (SSE)

11 DEC 1982

0106

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. RPY SHELL (ELEV 932.70 FT)

MS1765

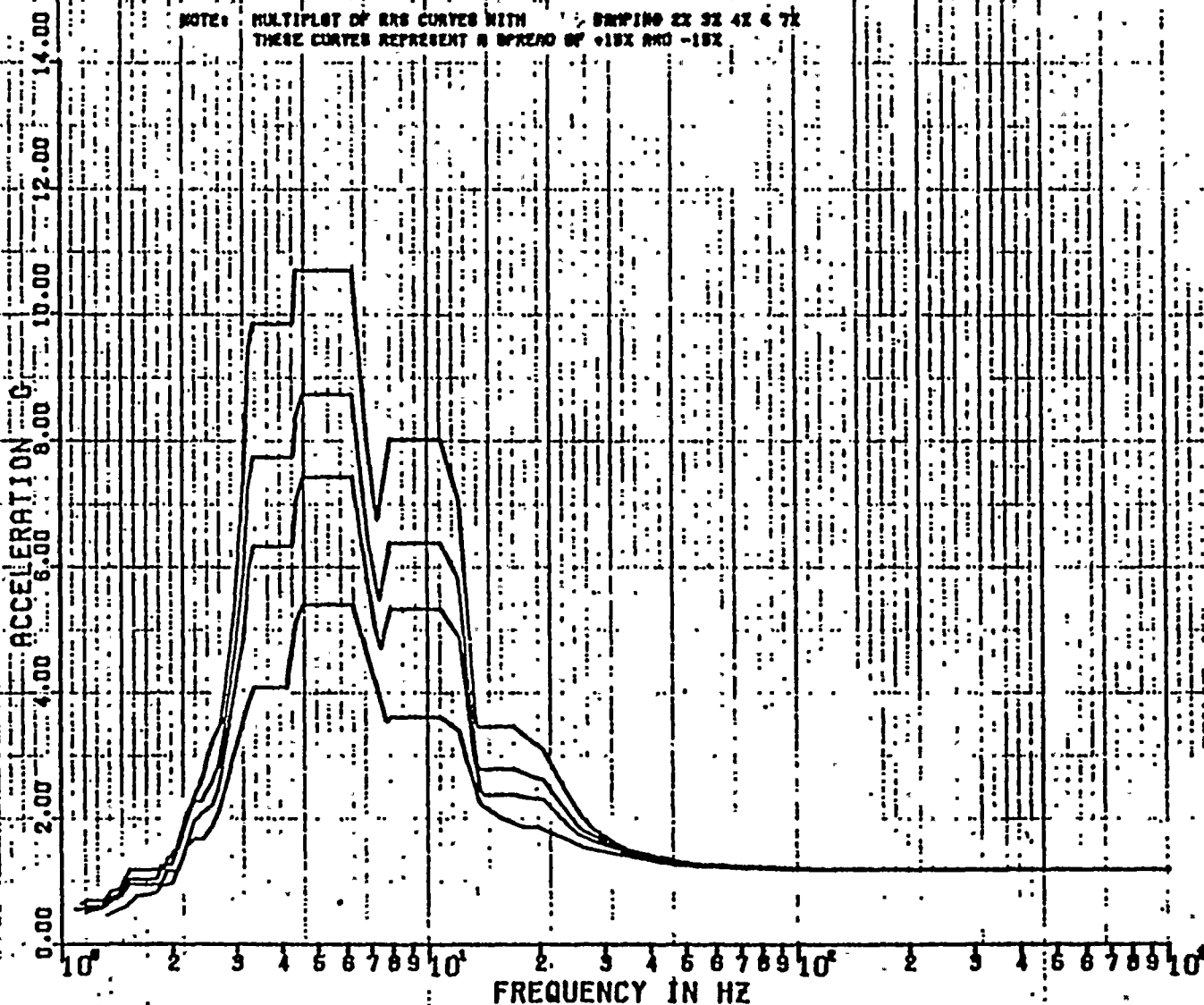
MICHAEL K 00

DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 32 4X 6 7X
THESE CURVES REPRESENT A SPREAD OF +15X AND -15X



Ref 78



PSPECTRA VER 01 LEV 00

SL 100 (88E)

11 DEC 1982

0000000107

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. RPV SHELL (ELEV 332.70 FT)

MS1765

MICHAEL K 00

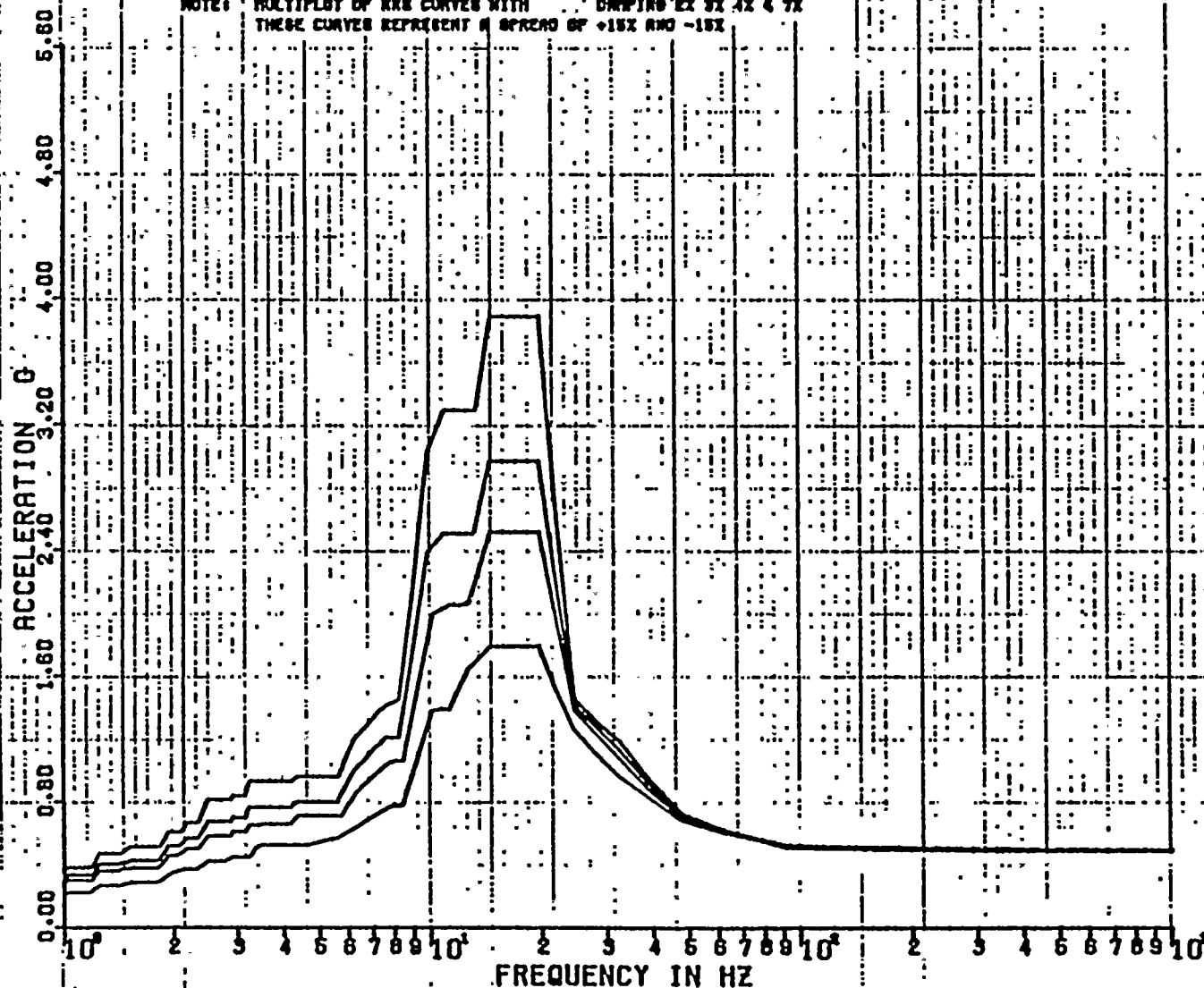
DISK CURVE SET NO.4

VER DIRECTION

DAMPING VALUES

0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 0.02 0.03 0.04 & 0.07
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 79

000000043

PSPECTRA VER 01 LEV 08

SEISMIC (08E)

9 DEC 1982

NIAOARA MOHAWK-NINE MILES POINT UNIT 2-J.G.12177
RRS OF ACC. RPV SHELL (ELEV 915.08 FT)

MS1765

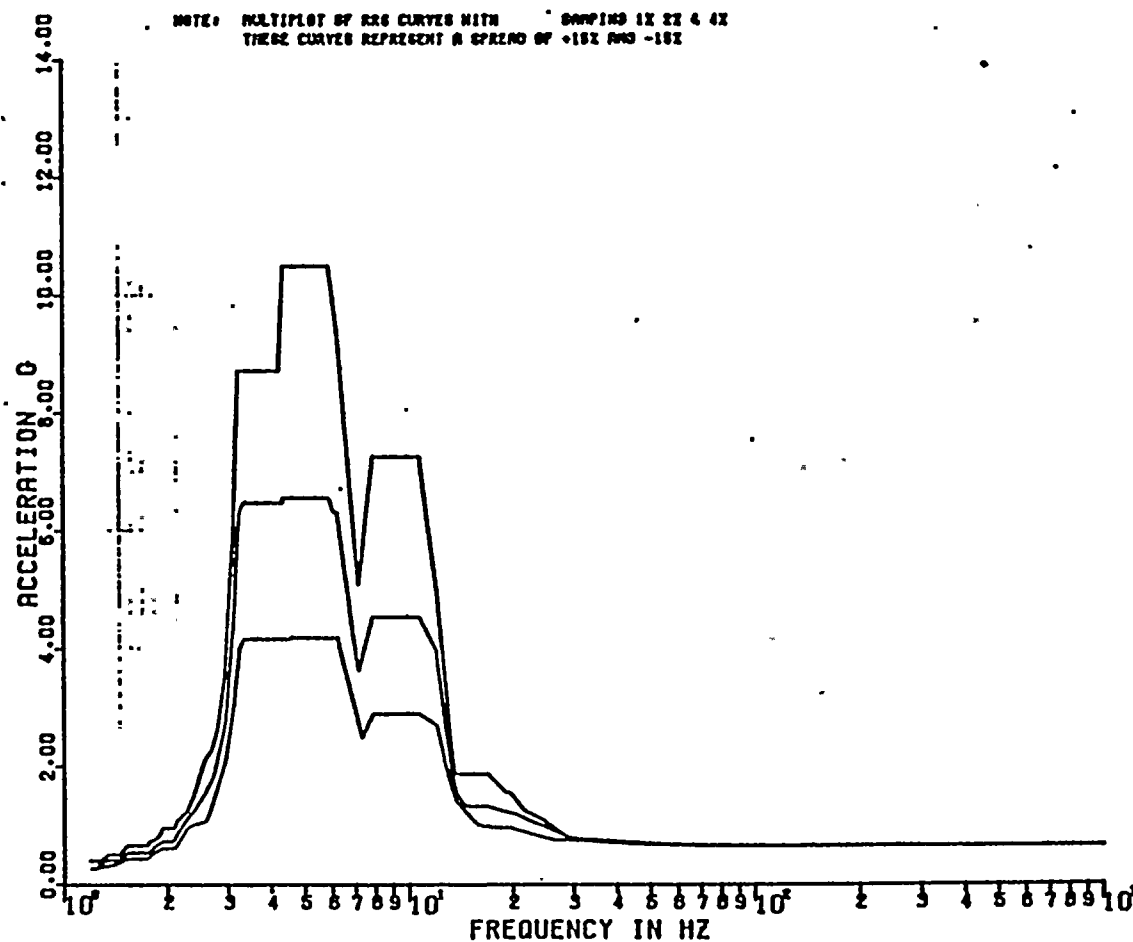
MICHAEL K 00

DISK CURVE SET NO.2

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPECTRA OF +15% AND -15%



Ref 79



0000020044

PSPECTRA VER 01 LEV 08

SEISMIC (DBE)

9 DEC 1982

NIAHARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. RPV SHELL (ELEV 315.08 FT)

MS1765

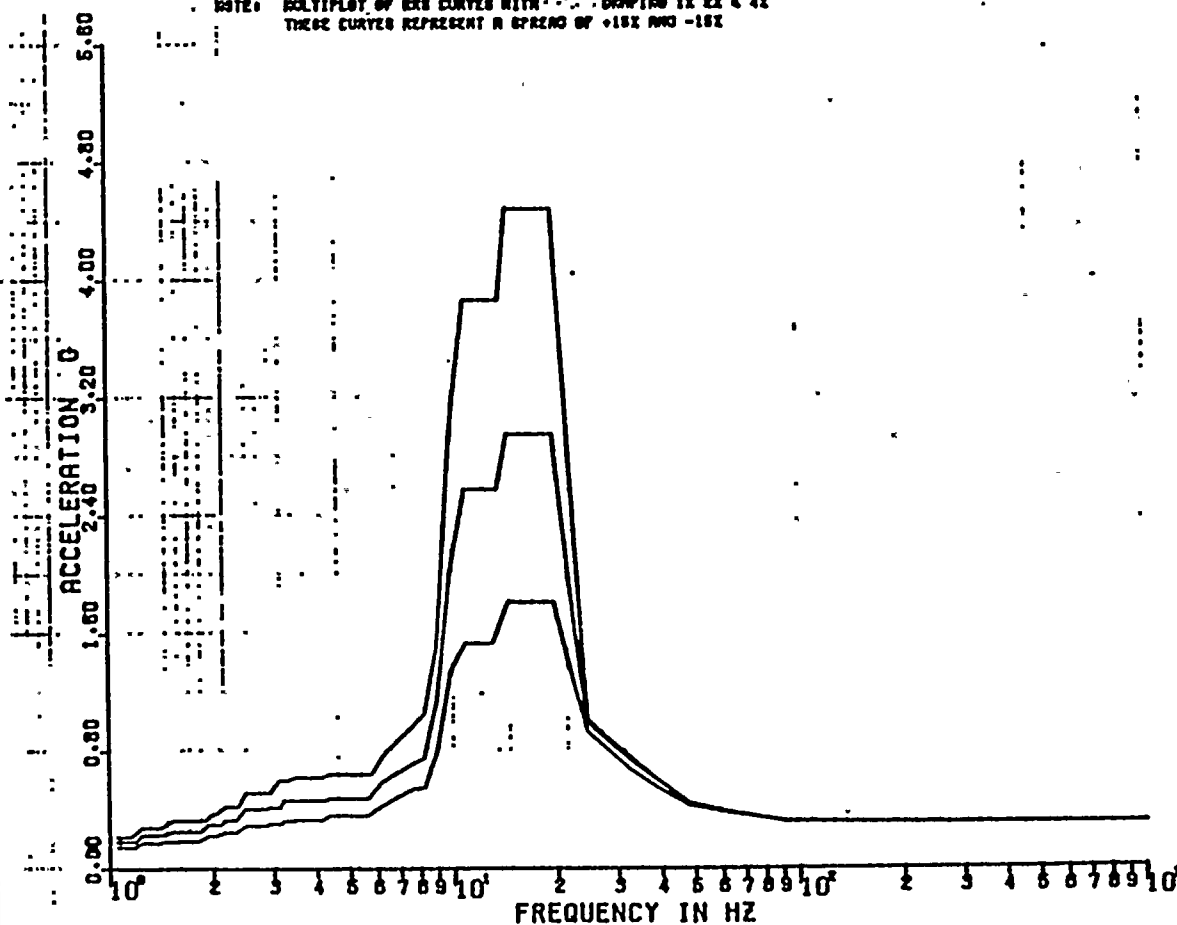
MICHAEL K DO

DISK CURVE SET NO.2

VER DIRECTION,

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 79



PSPECTRA VER 01 LEV 08

8221C (86E)

11 DEC 1982

0000000108

NIAHARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. RPV SHELL (ELEV 315.08 FT)

MS1765

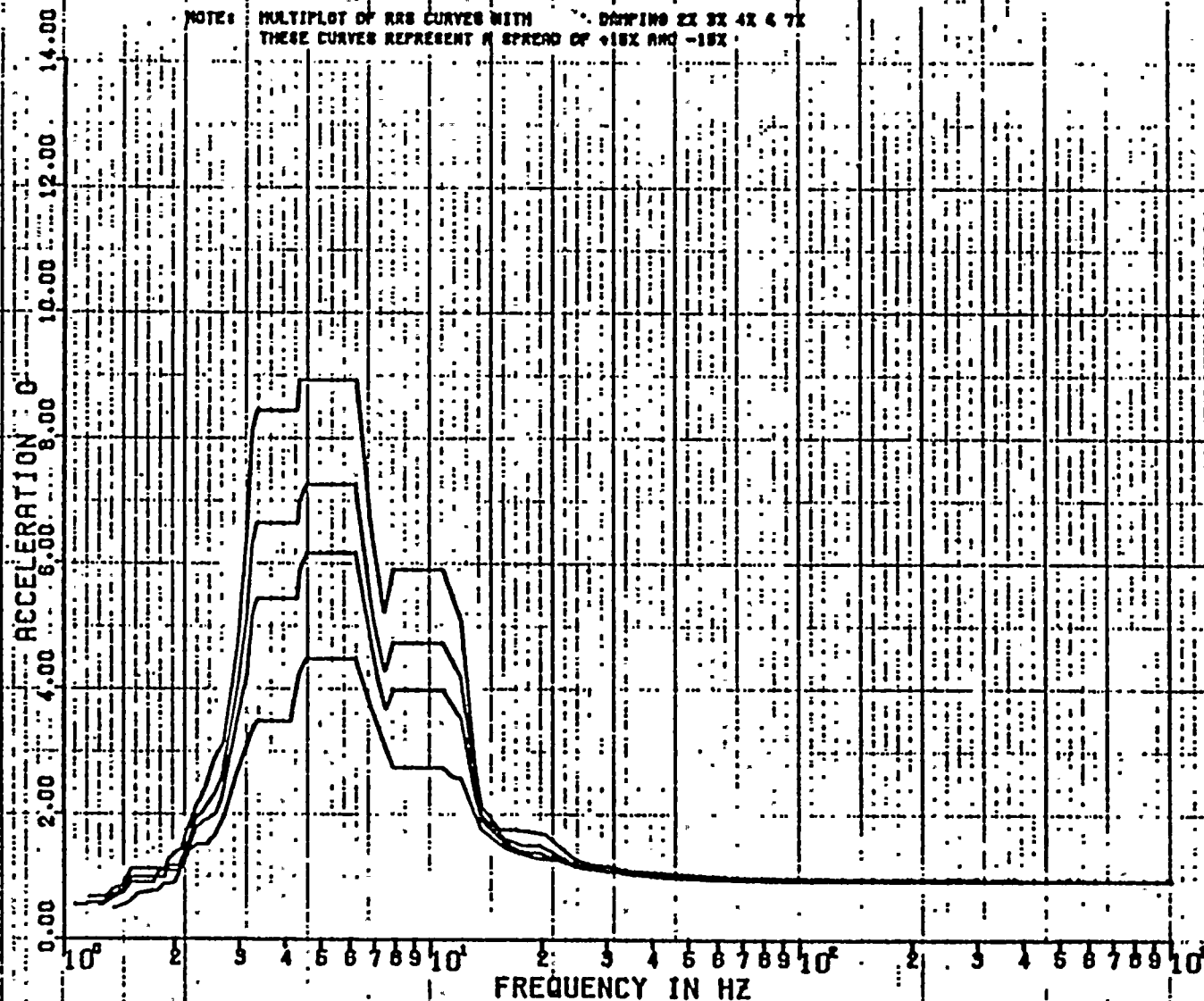
DISK CURVE SET NO.2

HOR DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15X AND -15X



124 79



PSPECTRA VER 01 LEV 00

MIC (88E)

11 DEC 1982

00000109

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RMS OF ACC. RPV SHELL (ELEV 915.00 FT)

MS1765

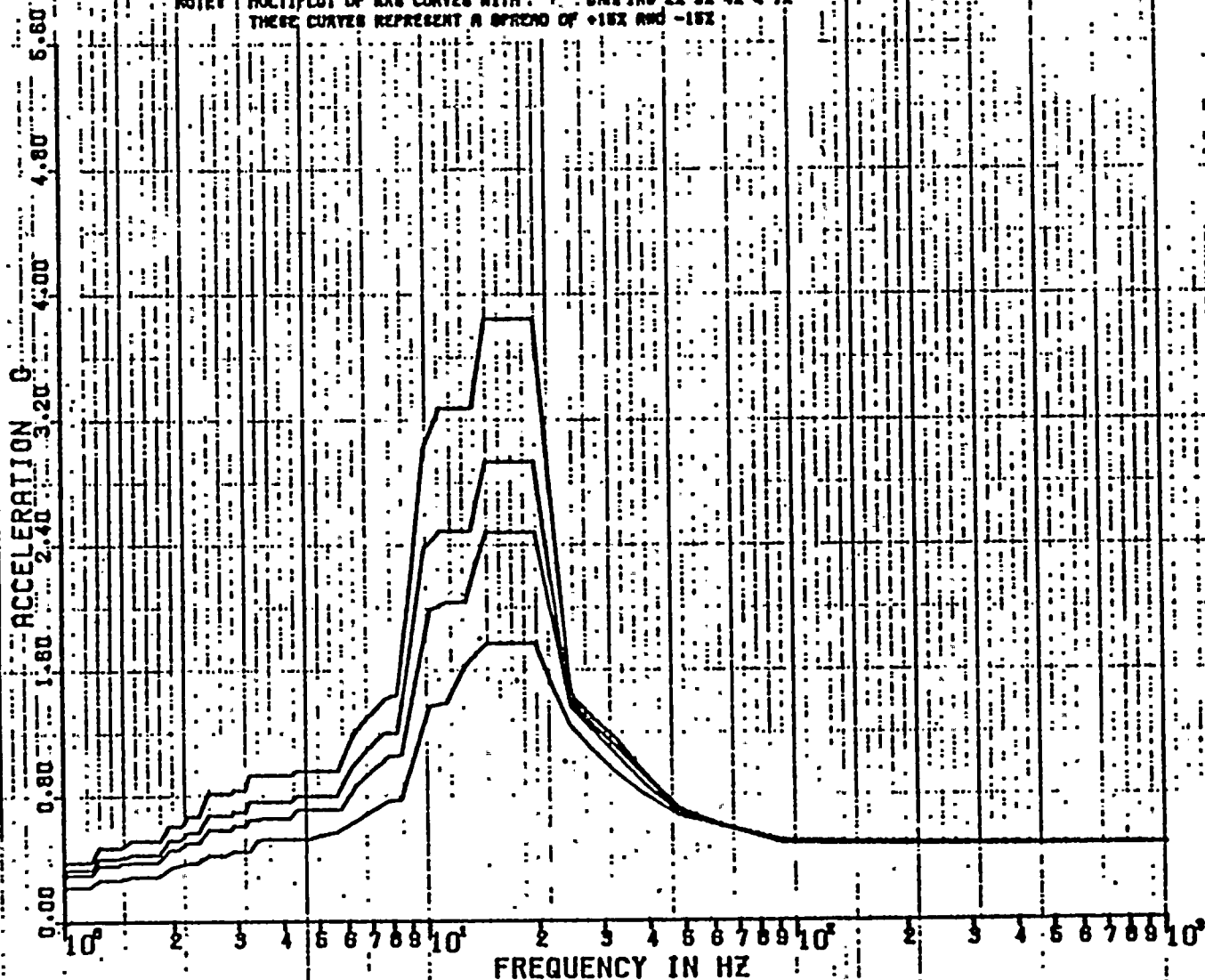
DISK CURVE SET NO.2

VER DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTI-PLOT OF RMS CURVES WITH DAMPING 2X 3X 4X 6 7X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



64-155-79

000000045

PSPECTRA VER 01 LEV 08

SEISMIC (ODE)

8 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RBS OF ACC. RPY SHELL (ELEV 297.17 FT)

MS1765

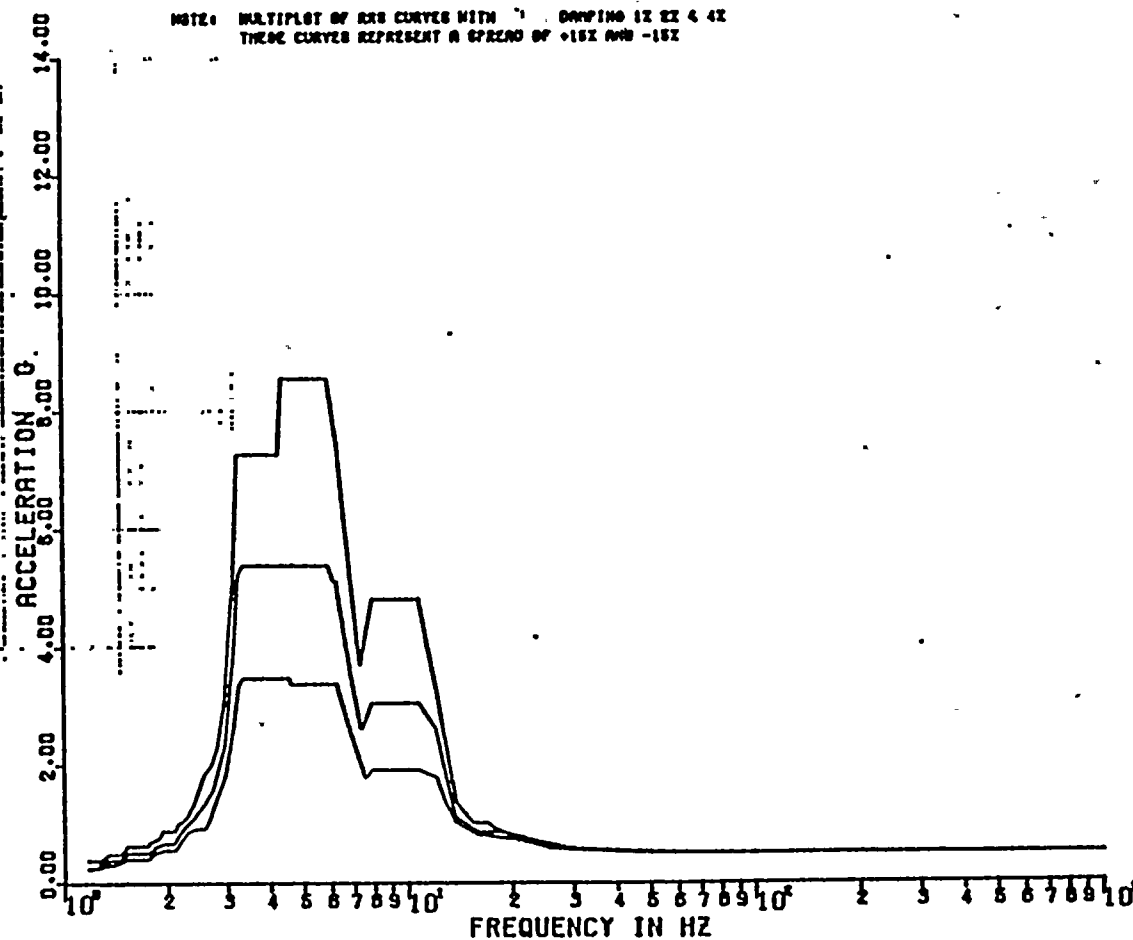
MICHAEL K 00

DISK CURVE SET NO.6

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY BY RBS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 80

10501046

PSPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. RPV SHELL (ELEV 287.17 FT)

MS1765

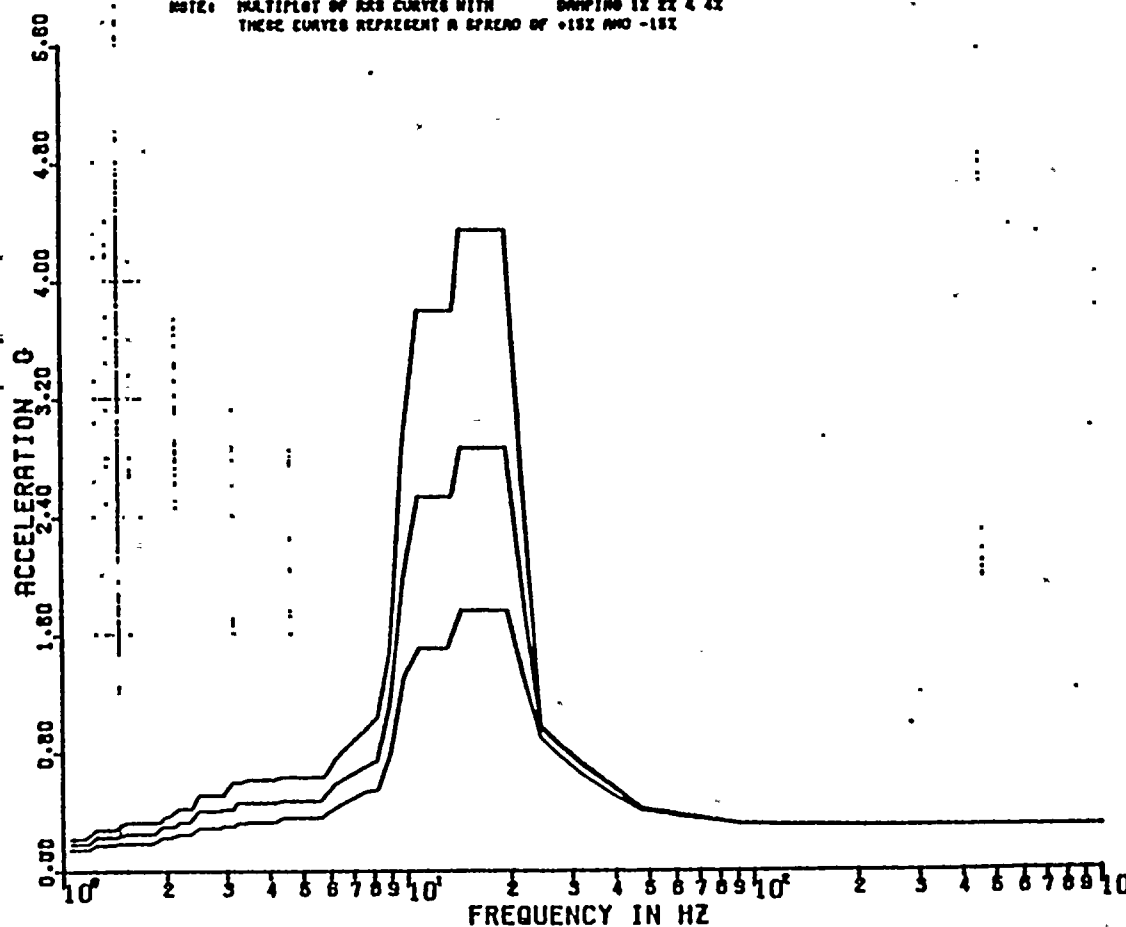
MICHAEL K 00

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 80



PSPECTRA VER 01 LEV 08

SEISMIC (88E)

11 DEC 1982 000000110

NIAORRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. RPV SHELL (ELEV 297.17 FT)

MS1765

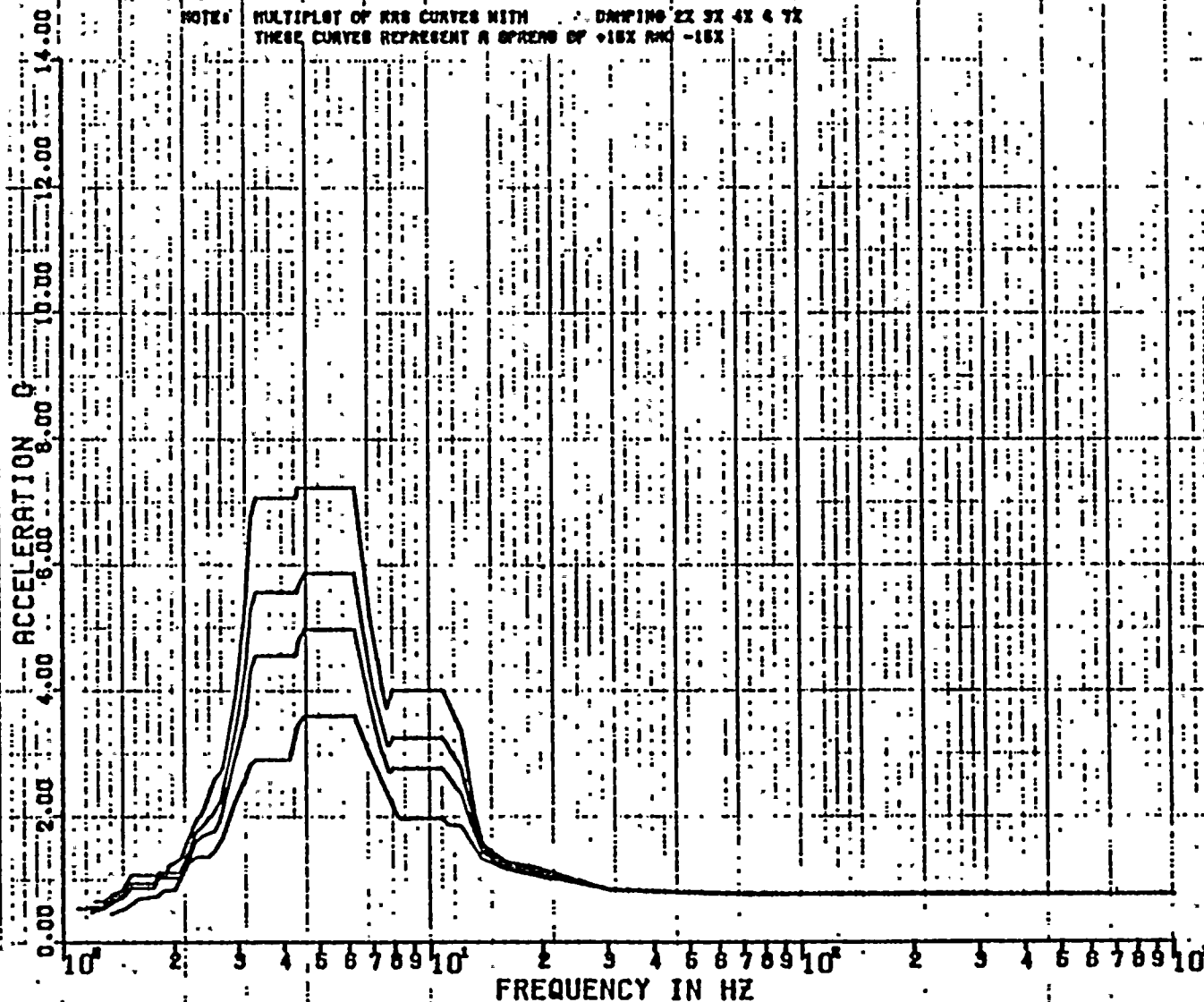
MICHAEL K OO.

DISK CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 22 32 42 & 72
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF. 80



PSPECTRA VER 01 LEV 00

81.01C (86E)

11 DEC 1982

000000111

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. RPV SHELL (ELEV 297.17 FT)

MS1765

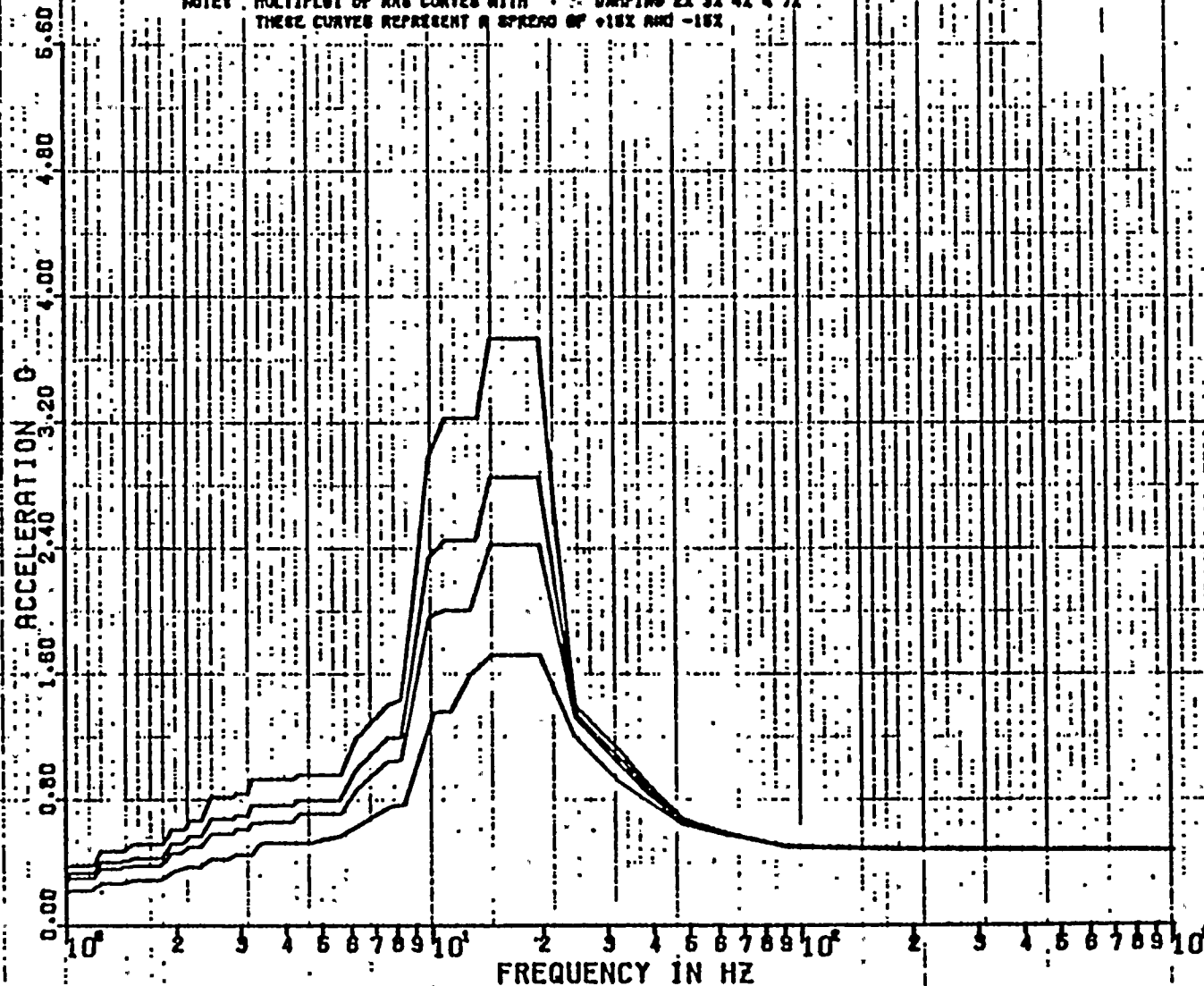
MICHAEL K 00

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X 6 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 80



0000000047

PSPECTRA VER 01 LEV 00

SEISMIC (05E)

8 DEC 1982

MIRADARA MOHAWK-NINE MILES POINT UNIT-2 J.D.12177

RRS OF ACC. RPY SHELL (ELEV. 278.00 FT)

MS1765

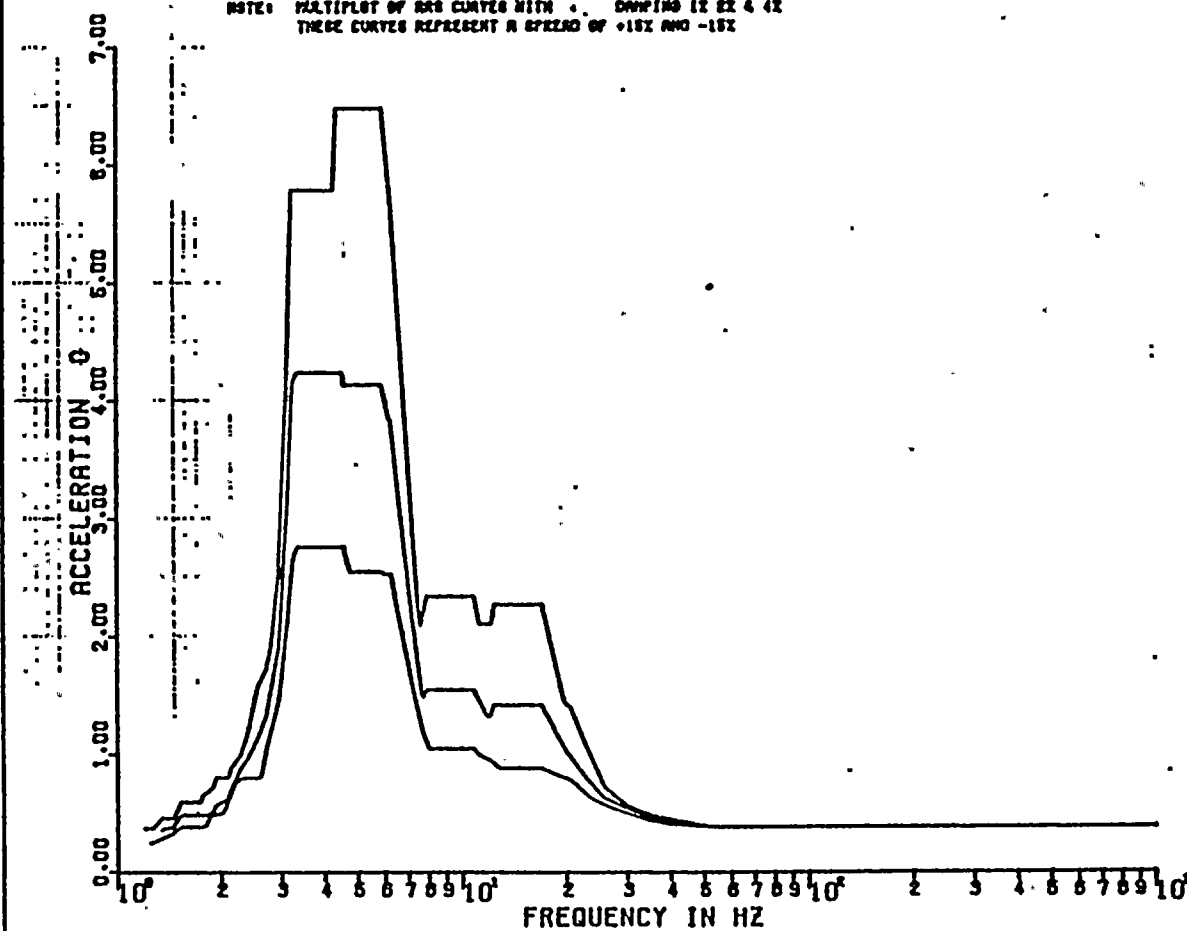
MICHAEL K 00

DISK CURVE SET NO.10

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH . . DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 81



0000000018

SPECTRA VER 01 LEV 00

SEISMIC (ODE)

9 DEC 1982

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RMS OF ACC. RPV SHELL (ELEV. 275.00 FT)

MS17.65

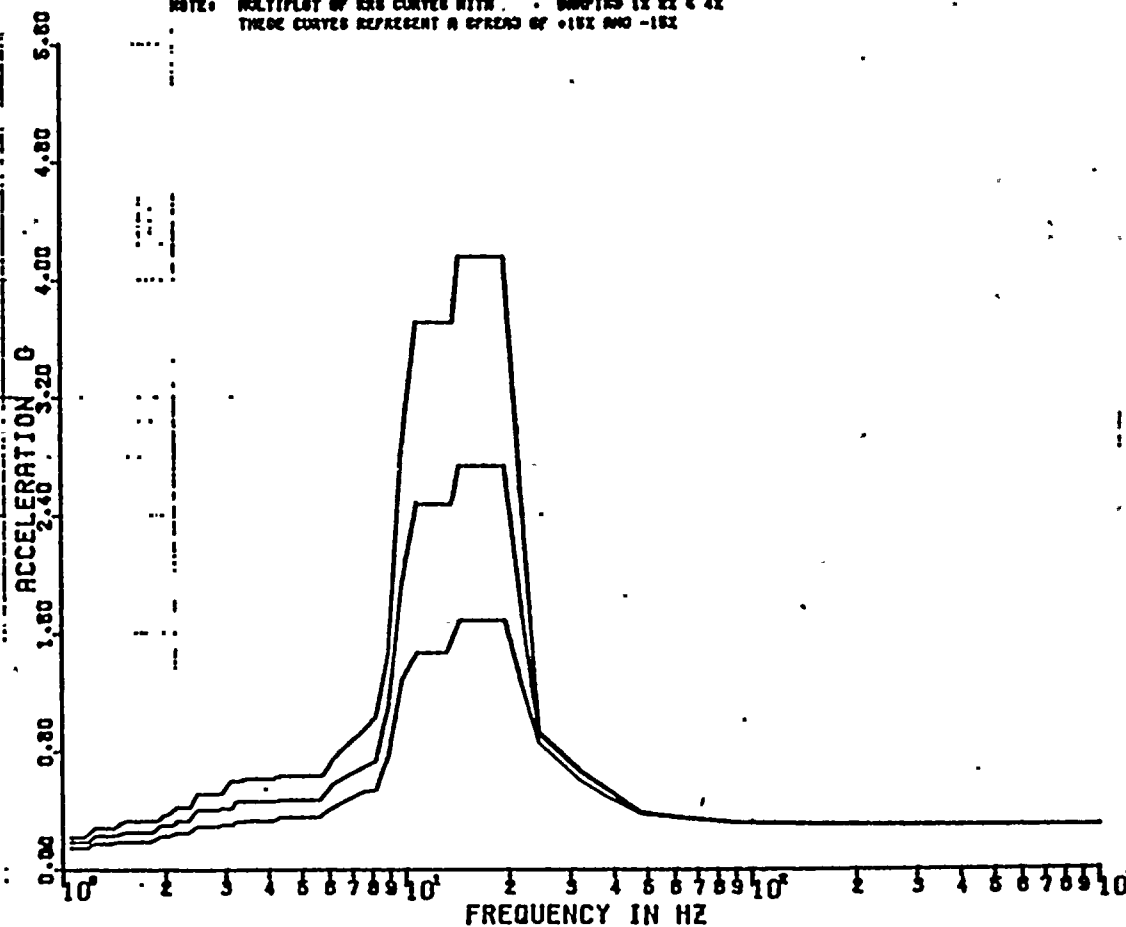
MICHAEL K 00

DISK CURVE SET NO.10

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH . . DAMPING IS 22 & 42
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 81



PSPECTRA VER 01 LEV 08

SEISMIC (SSE)

11 DEC 1982

00000112

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. RPV SHELL (ELEV. 278.00 FT)

MS1765

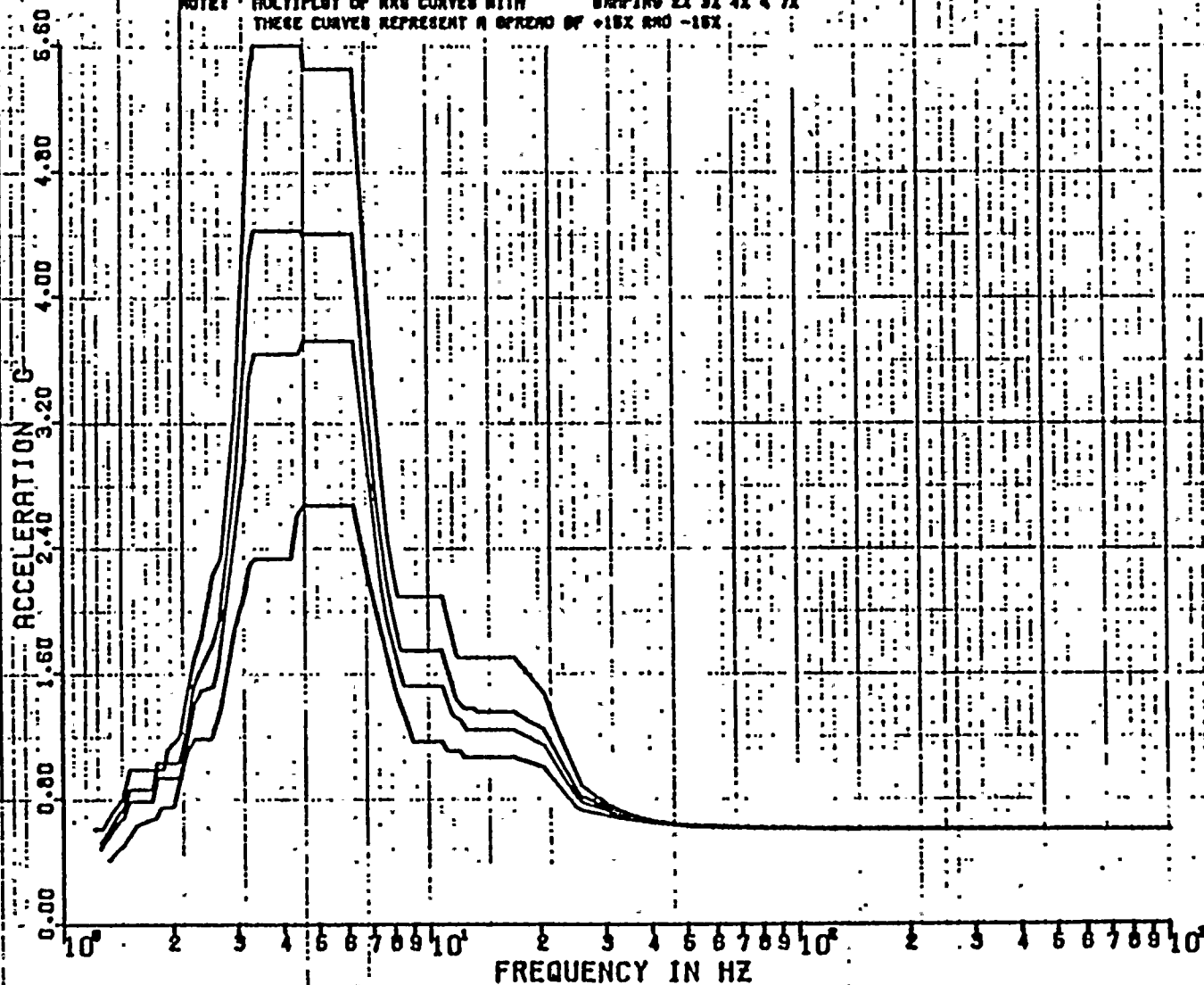
DISK CURVE SET NO.10

HOR DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 2% 3% 4% 7%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref-81



PSPECTRA VER 01 LEV 00

ISMIC (88E)

11 DEC 1982

00113

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. RPV SHELL (ELEV. 278.00 FT)

MS1765

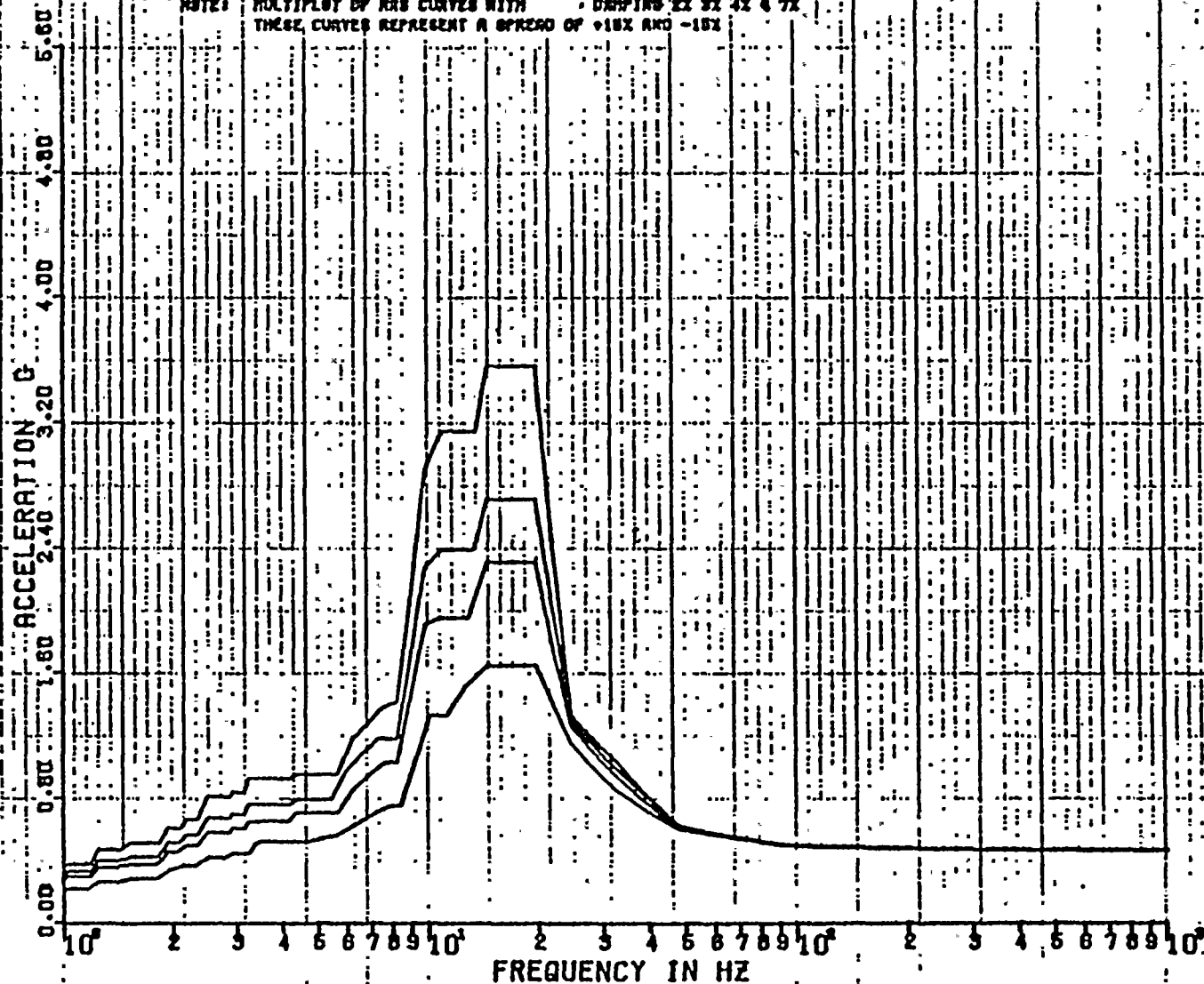
MICHAEL R 00

DAMPING VALUES = 0.020
0.030
0.040
0.070

DISK CURVE SET NO.10

VER DIRECTION

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING XX XX 42 & 72
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



845-81



000000027

SPECTRA VER 01 LEV 08

SEISMIC (OBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. DRYWELL FLOOR (ELEV 238.0 FT)

MS1765

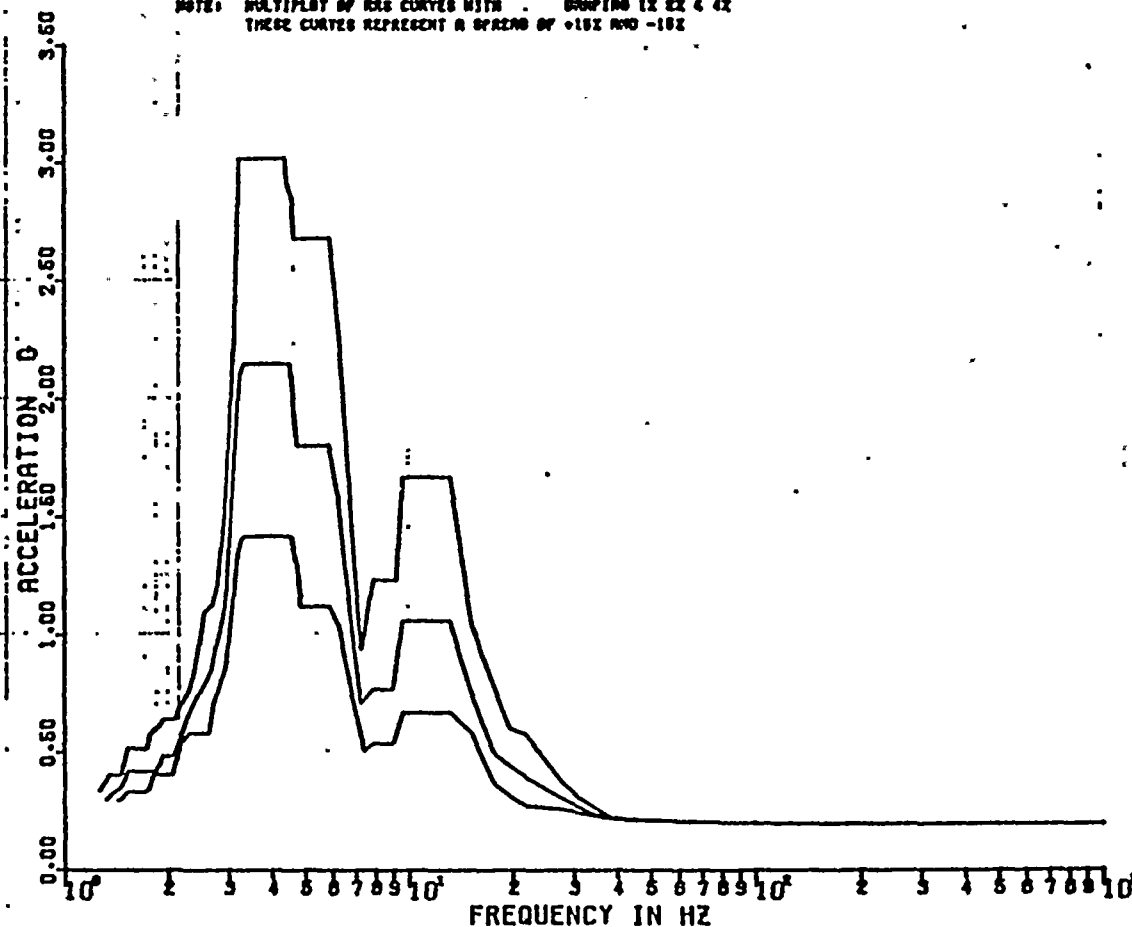
MICHAEL K DO

DISK CURVE SET NO.17

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY BY RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 82



0000020028

PSPECTRA VER 01 LEV 08

SEISMIC (DBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RRS OF ACC. DRYWELL FLOOR (ELEV 230.0 FT)

MS1765

MICHAEL K 00

DISK CURVE SET NO.17

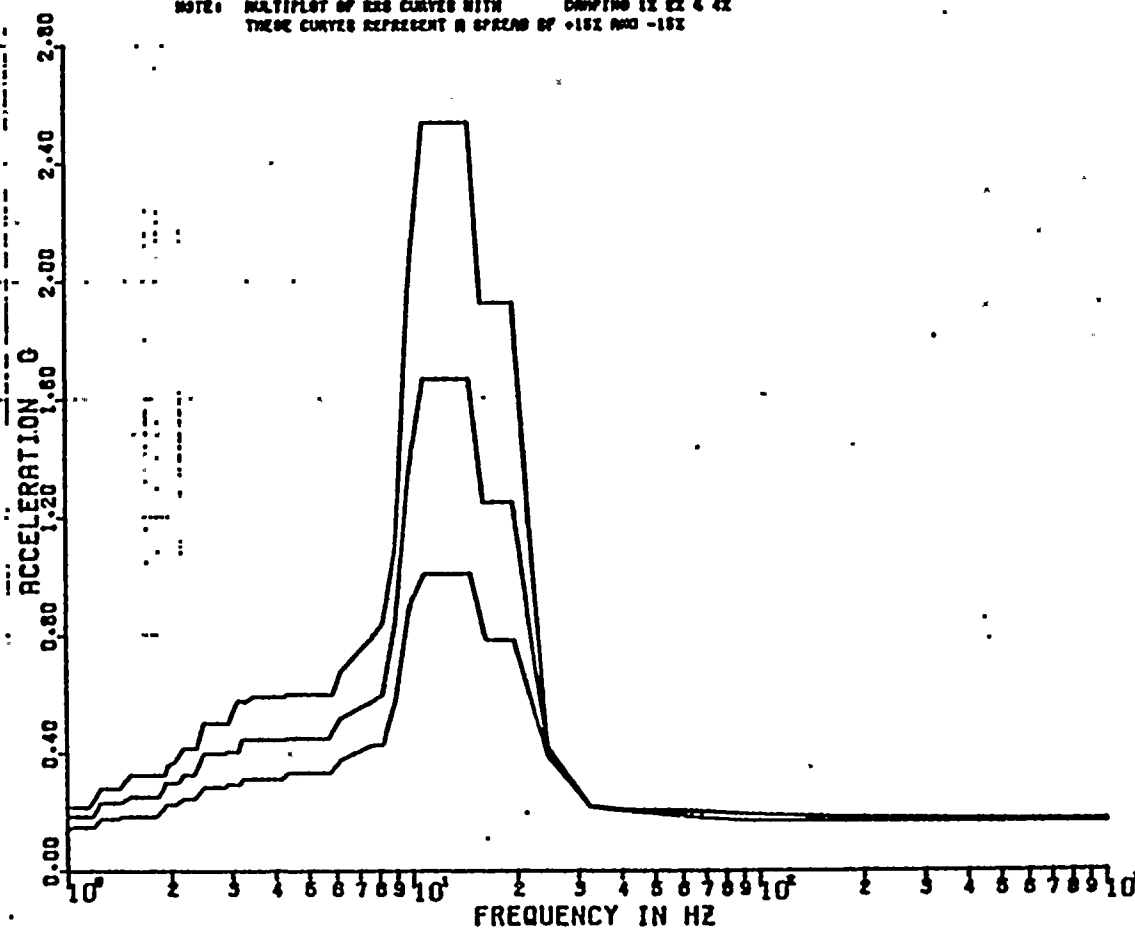
VER DIRECTION

DAMPING VALUES = 0.010

0.020

0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% 4% 8%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF

82



PSPECTRA VER 01 LEV 08

SEISMIC (SSE)

11 DEC 1982

000000032

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. DRYWELL FLOOR (ELEV 238.0 FT)

MS1765

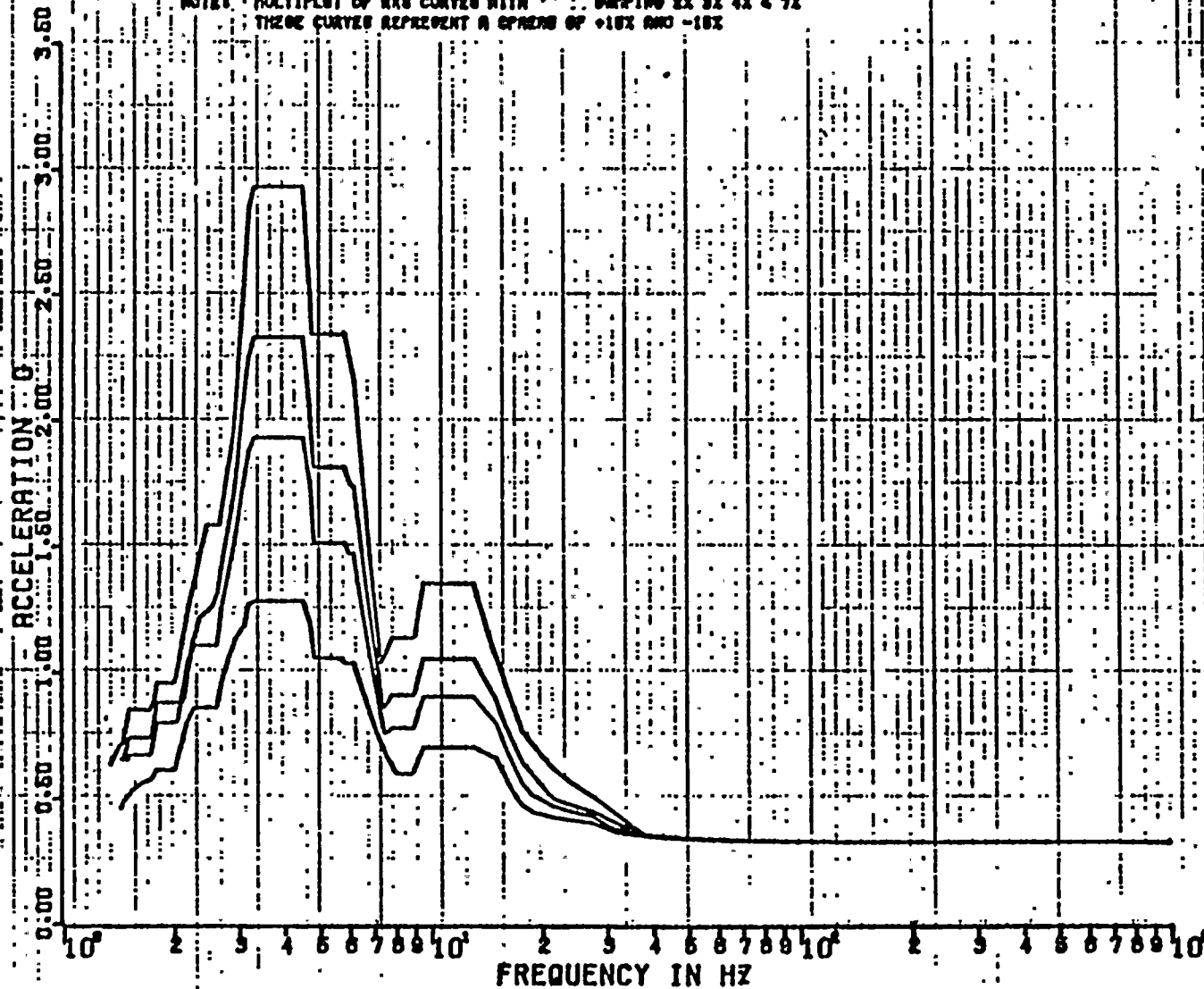
MICHAEL M 00

DISK CURVE SET NO.17

HOR DIRECTION

DAMPING VALUES =
0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 2X 3X 4X 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 82



PSPECTRA VER 01 LEV 00

SEISMIC (86E)

11 DEC 1982

0300000093

NIAORRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. DRYWELL FLOOR (ELEV 298.0 FT)

MS1765

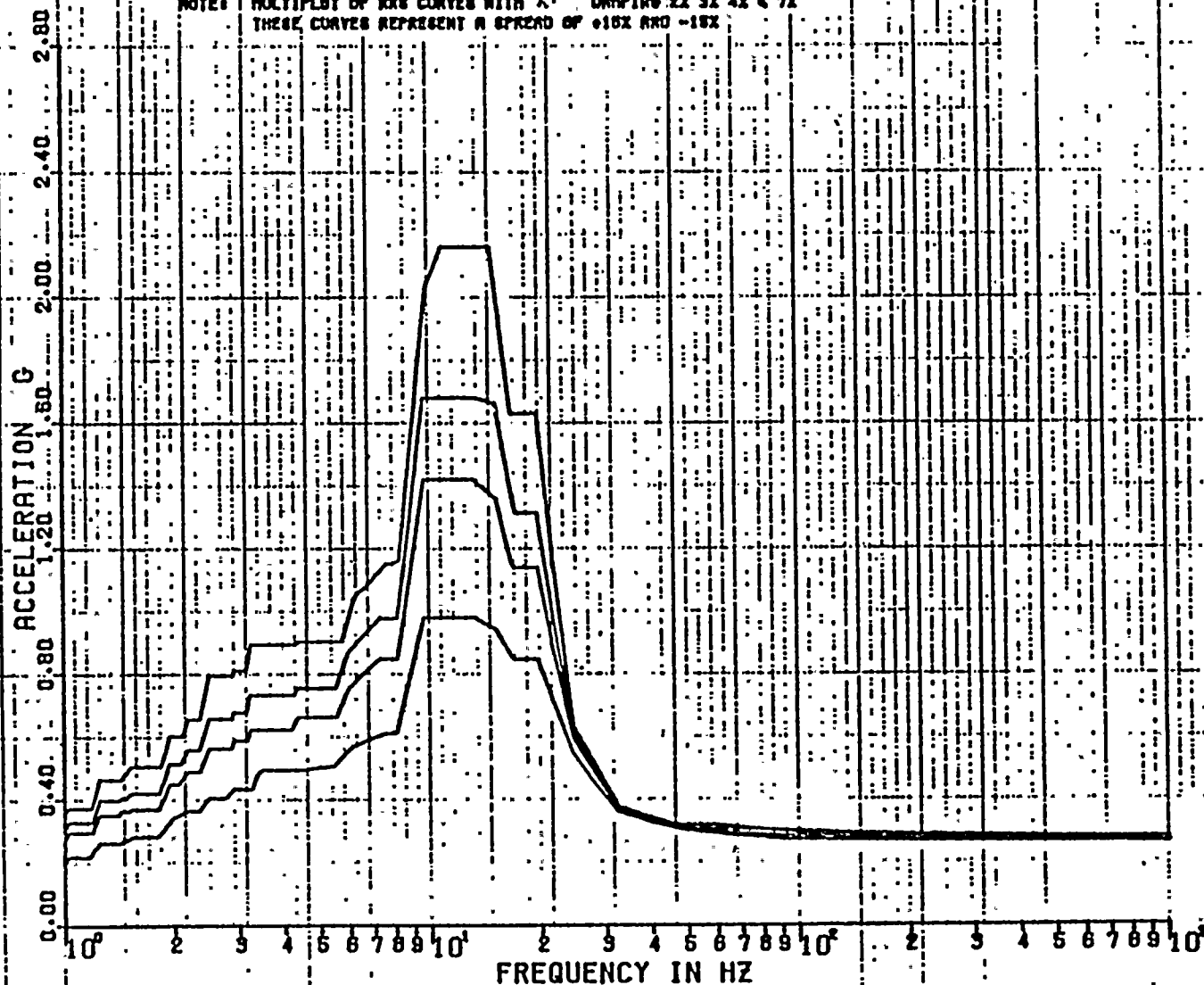
MICHAEL K DO

DISK CURVE SET NO.17

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH λ DAMPING 2X 3X 4X 6 7X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 88



0000000049

PSPECTRA VER 01 LEV 08

SEISMIC (DBE)

9 DEC 1982

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RRS OF ACC. PEDestal (ELEV. 288.50 FT)

MS1765

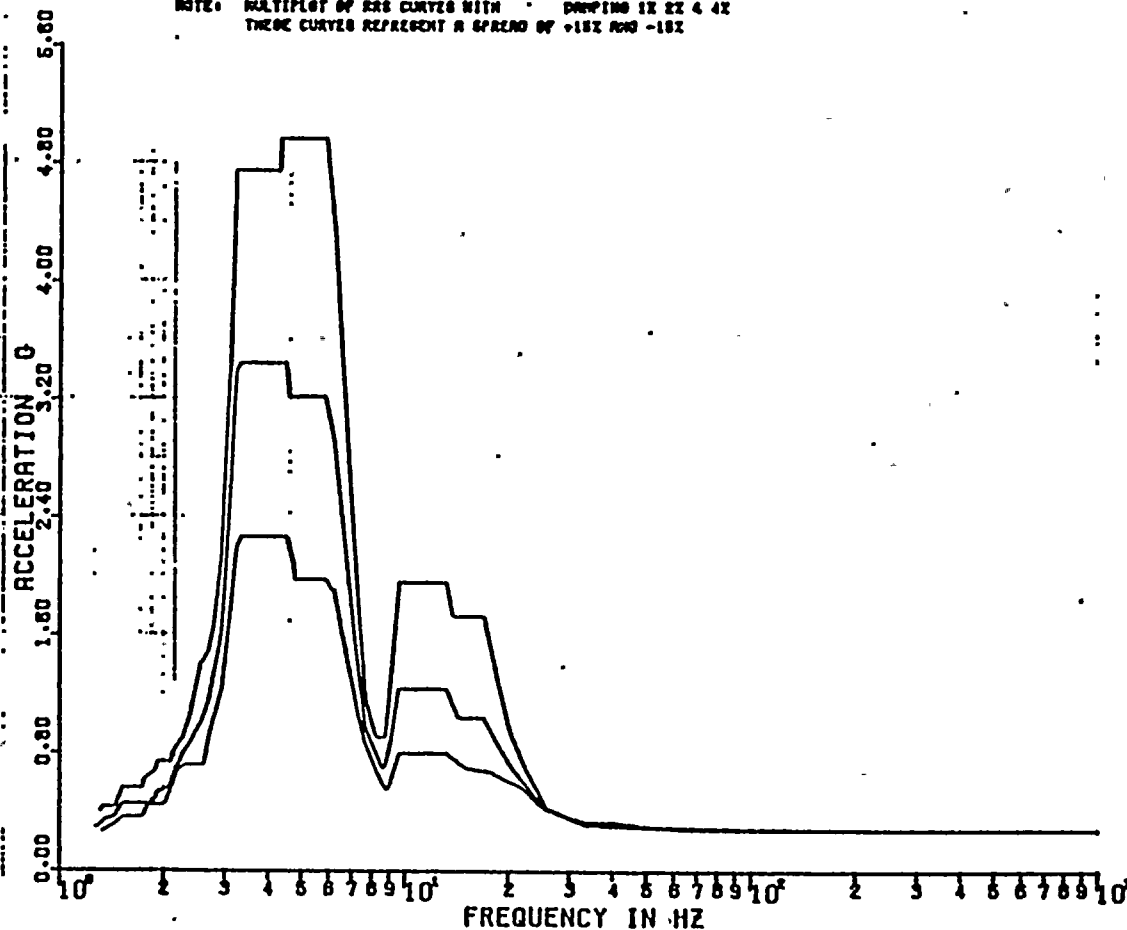
DISK CURVE SET NO.13

HOR DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 83



000000050

SPECTRA VER 01 LEV 08

SEISMIC (OBE)

8 DEC 1992

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.-12177
RRS OF ACC. PEDESTAL (ELEV. 285.50 FT)

MS1765

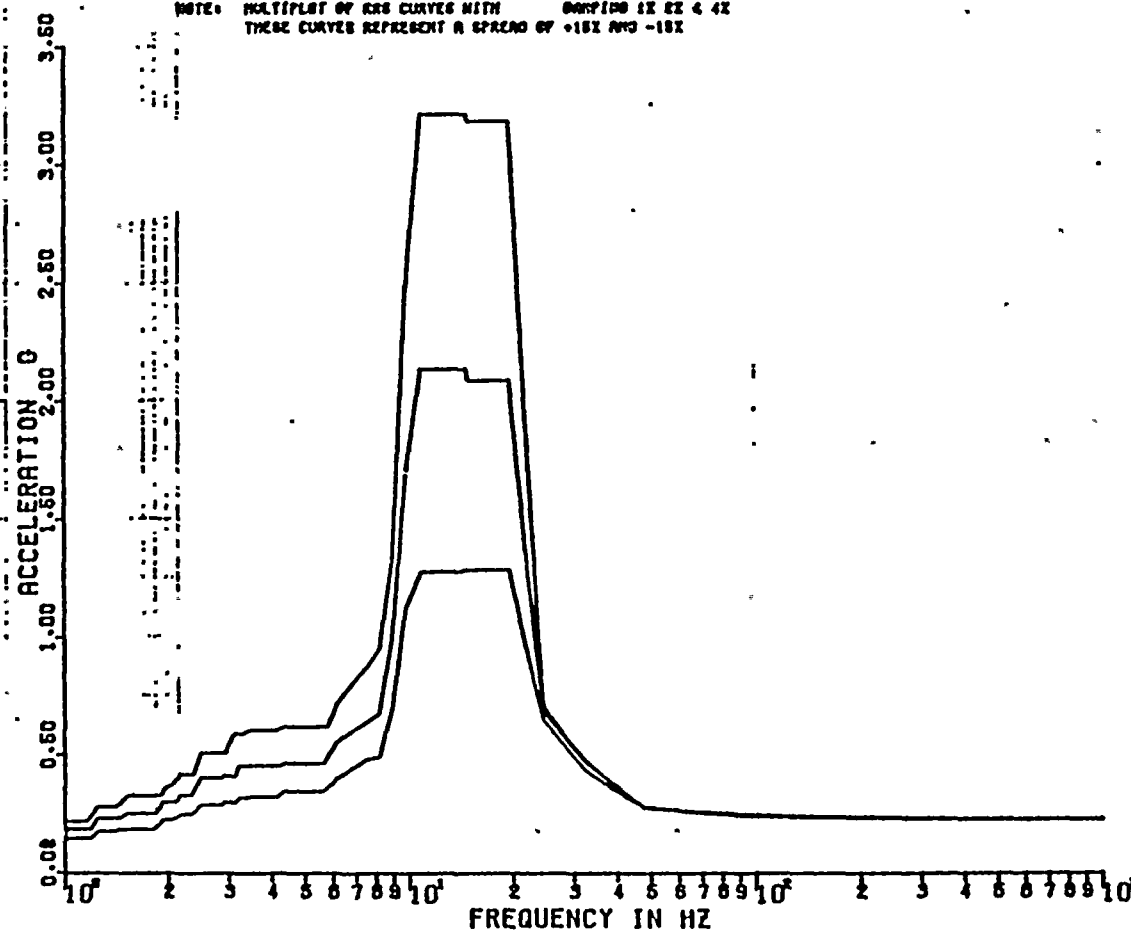
MICHAEL K DO

DISK CURVE SET NO.13

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLT OF RRS CURVES WITH DAMPING IS 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 83



PSPECTRA VER 01 LEV 00

SEISMIC (SSE)

11 DEC 1982

00000114

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PEDESTAL (ELEV. 286.50 FT)

MS1765

MICHAEL K 00

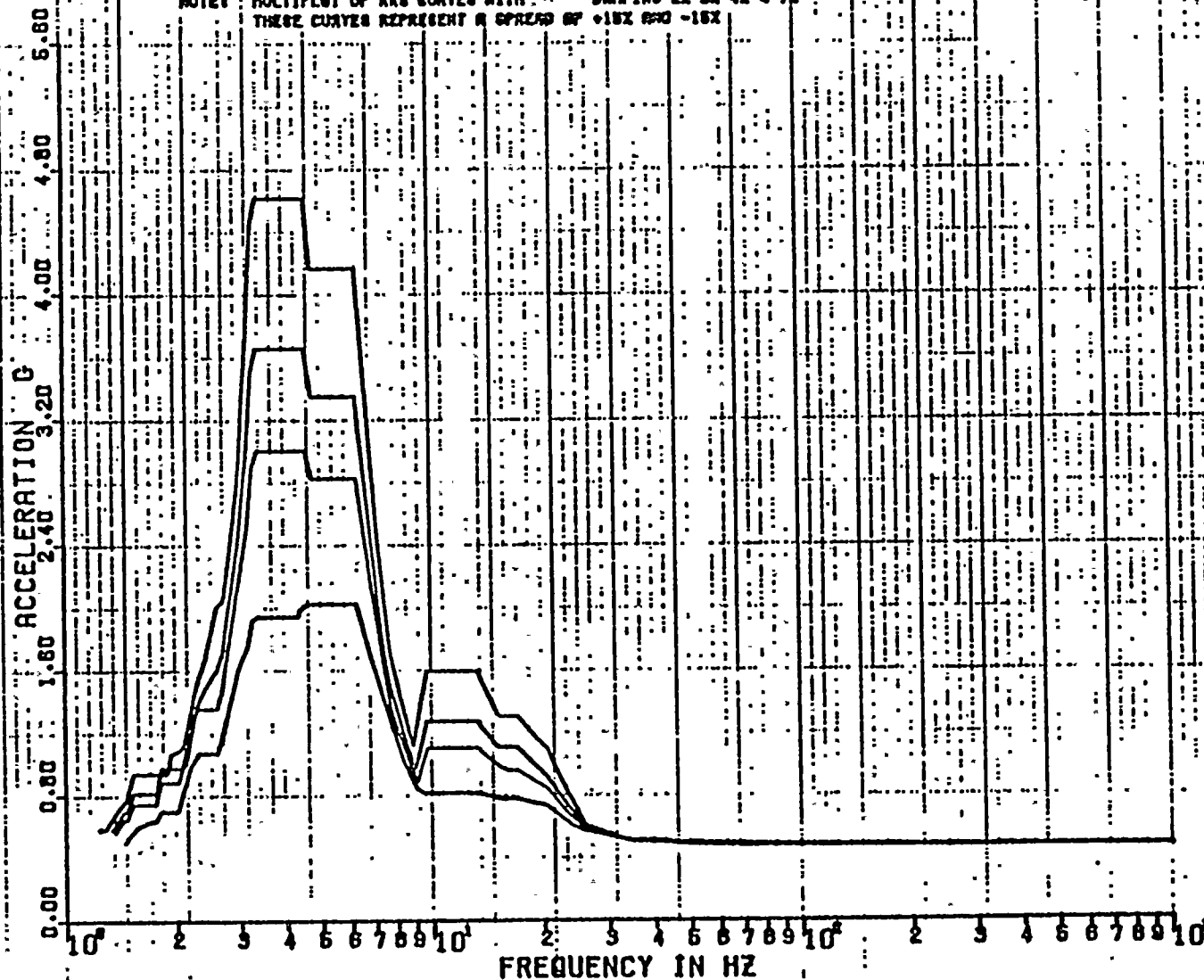
DISK CURVE SET NO.13

HOR DIRECTION

DAMPING VALUES

0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2% 3% 4% & 7%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 83



PSPECTRA VER 01 LEV 00

SEISMIC (66E)

11 DEC 1962

000100115

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PEDESTAL (ELEV. 266.50 FT)

MS1765

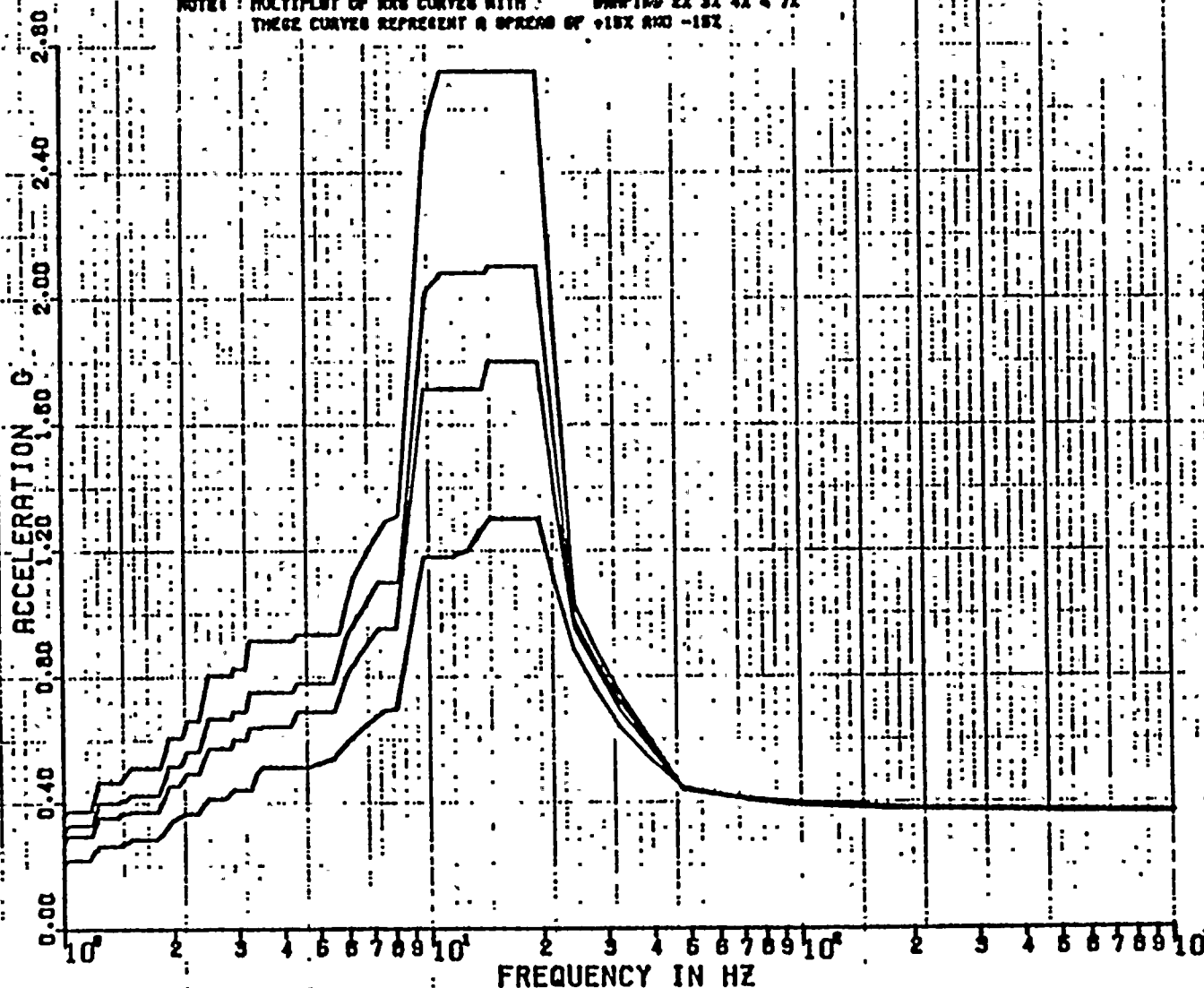
DISK CURVE SET NO.13

VER DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLT OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REC-83



0000000051

PSPECTRA VER 01 LEV 08

SEISMIC (DBE)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.D.12177

RAS OF ACC. PEDESTAL (ELEV.259.15 FT)

MS1765

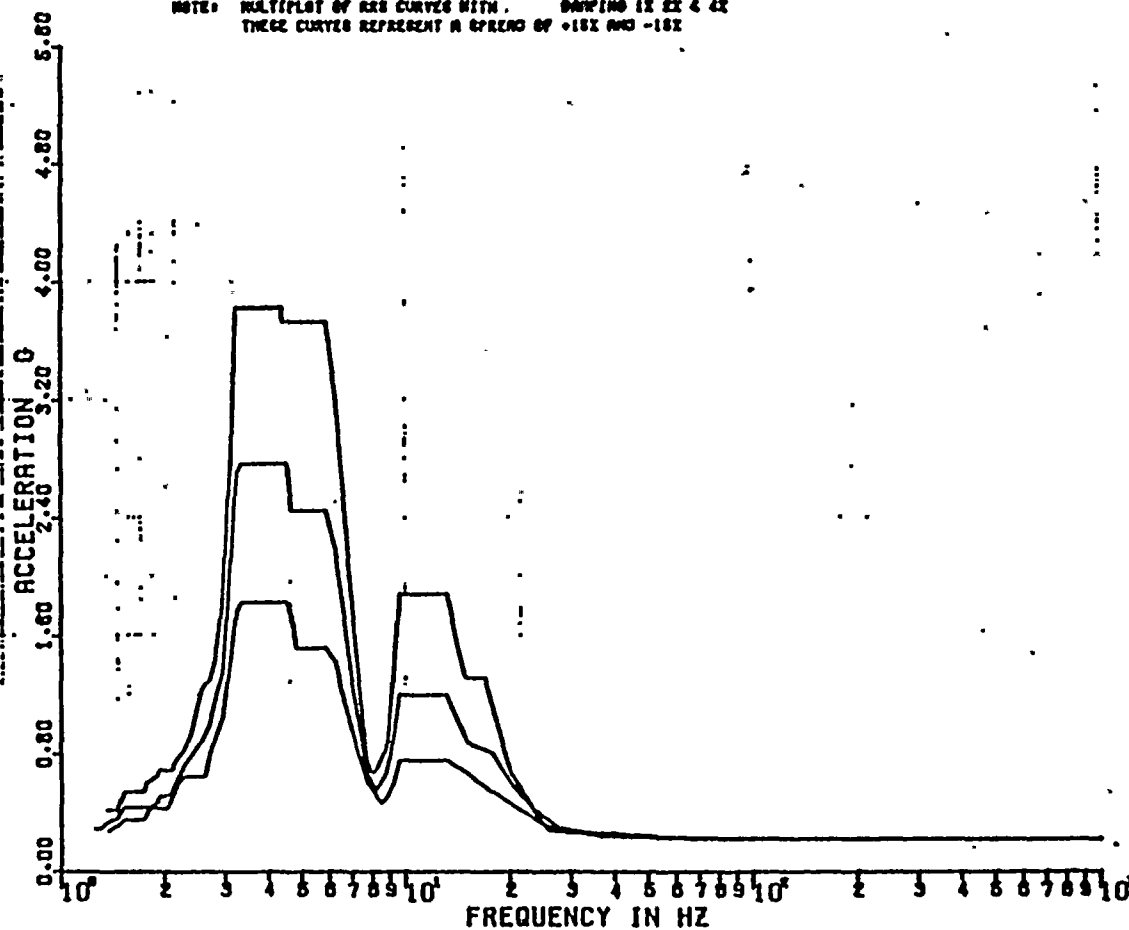
MICHAEL K 00

DISK CURVE SET NO.18

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RES CURVES WITH . DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 84



030000052

SPECTRA VER 01 LEV 08

SEISMIC (08E)

8 DEC 1982

MIRARRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RMS OF ACC. PEDestal (ELEV.253.13 FT)

MS1765

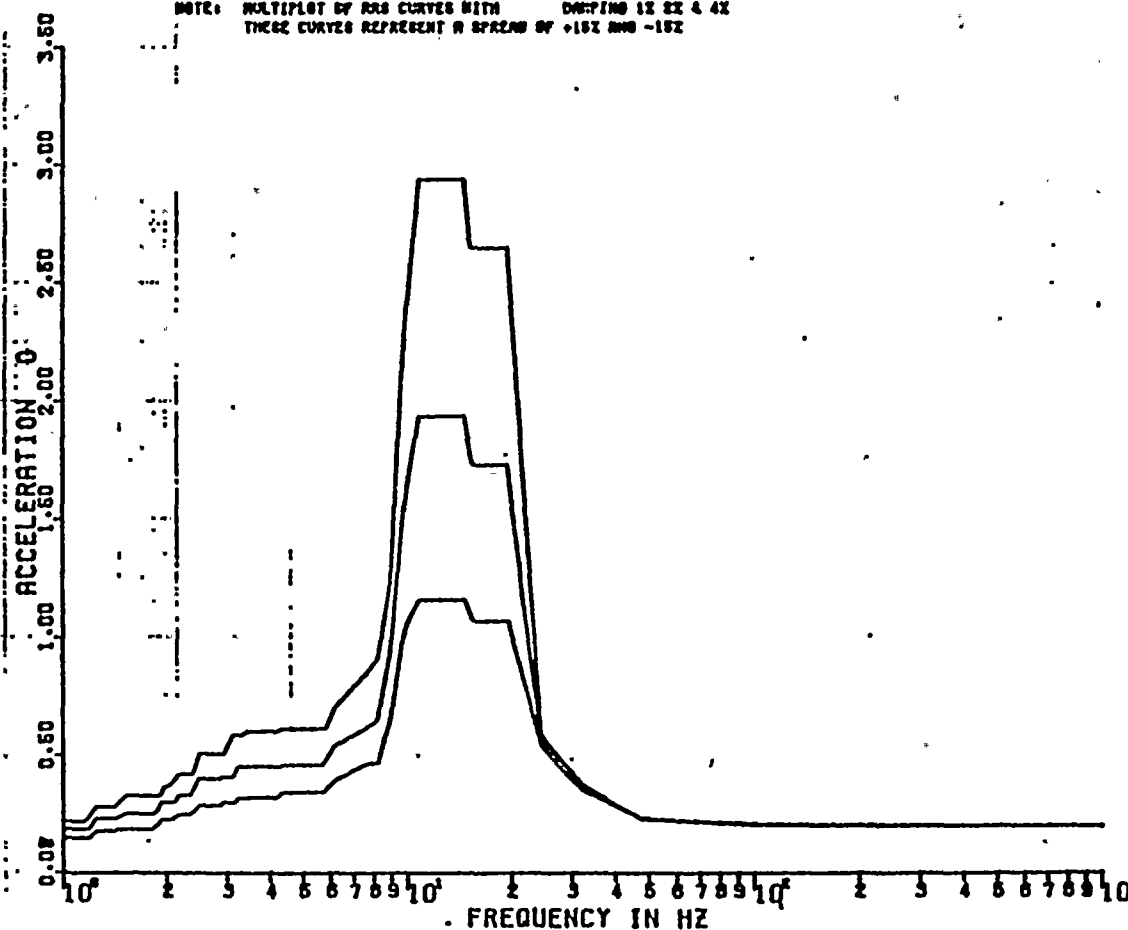
MICHAEL K 00

DISK CURVE SET NO.15

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 84



PSPECTRA VER 01 LEV 08

SEISMIC (SEE)

11 DEC 1982

00000116

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RAS OF ACC. PEDESTAL (ELEV.259.19 FT)

MS1765

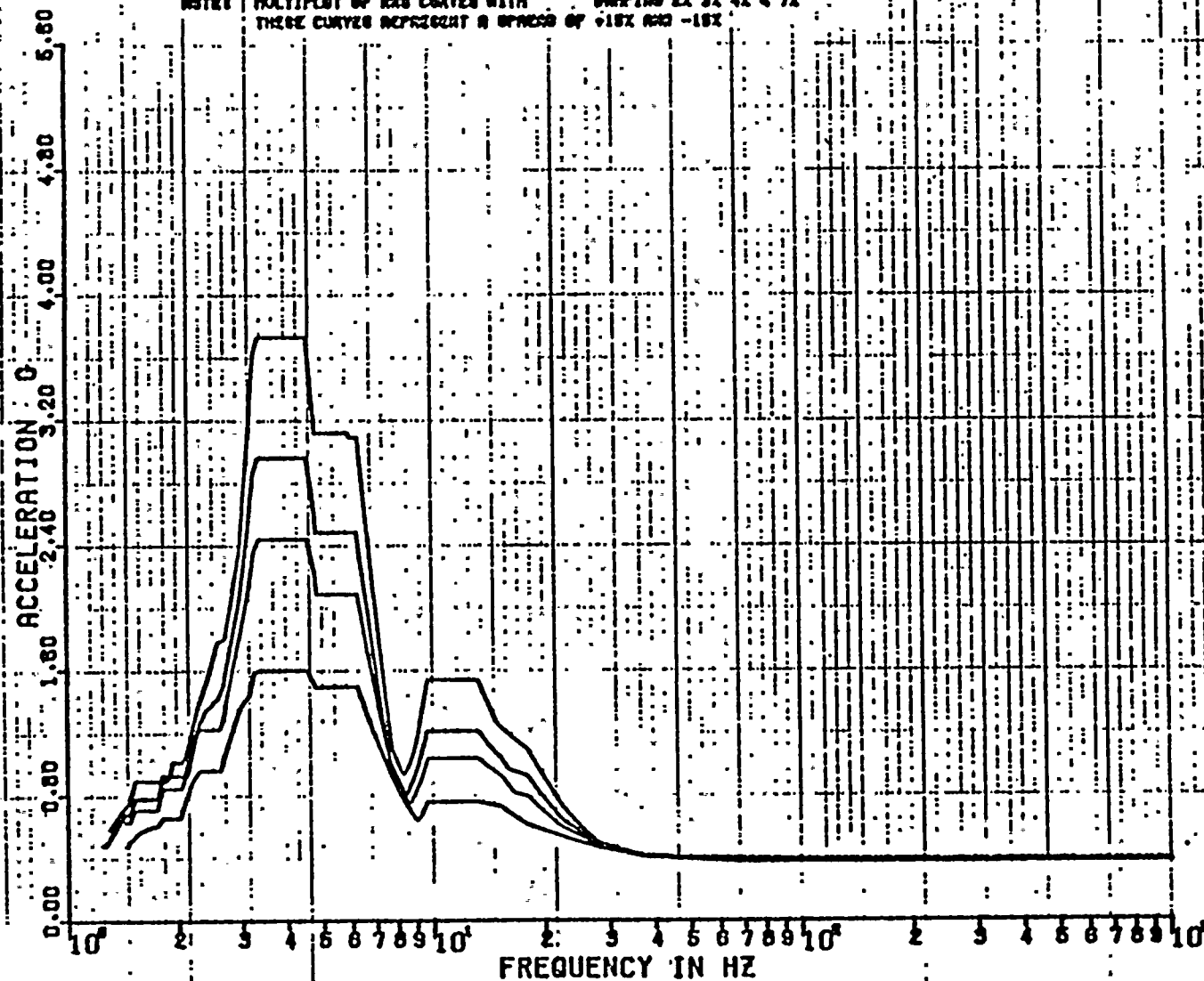
MICHAEL K 00

DISK CURVE SET NO.15

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLT OF RAS CURVES WITH DAMPING 2% 3% 4% 6 7%
THESE CURVES REPRESENT A SPAN OF +15% AND -15%



48 338



PSPECTRA VER 01 LEV 00

LOC (88E)

11 DEC 1982

000000117

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PEDESTAL (ELEV.289.19 FT)

MS1765

MICHAEL R 00

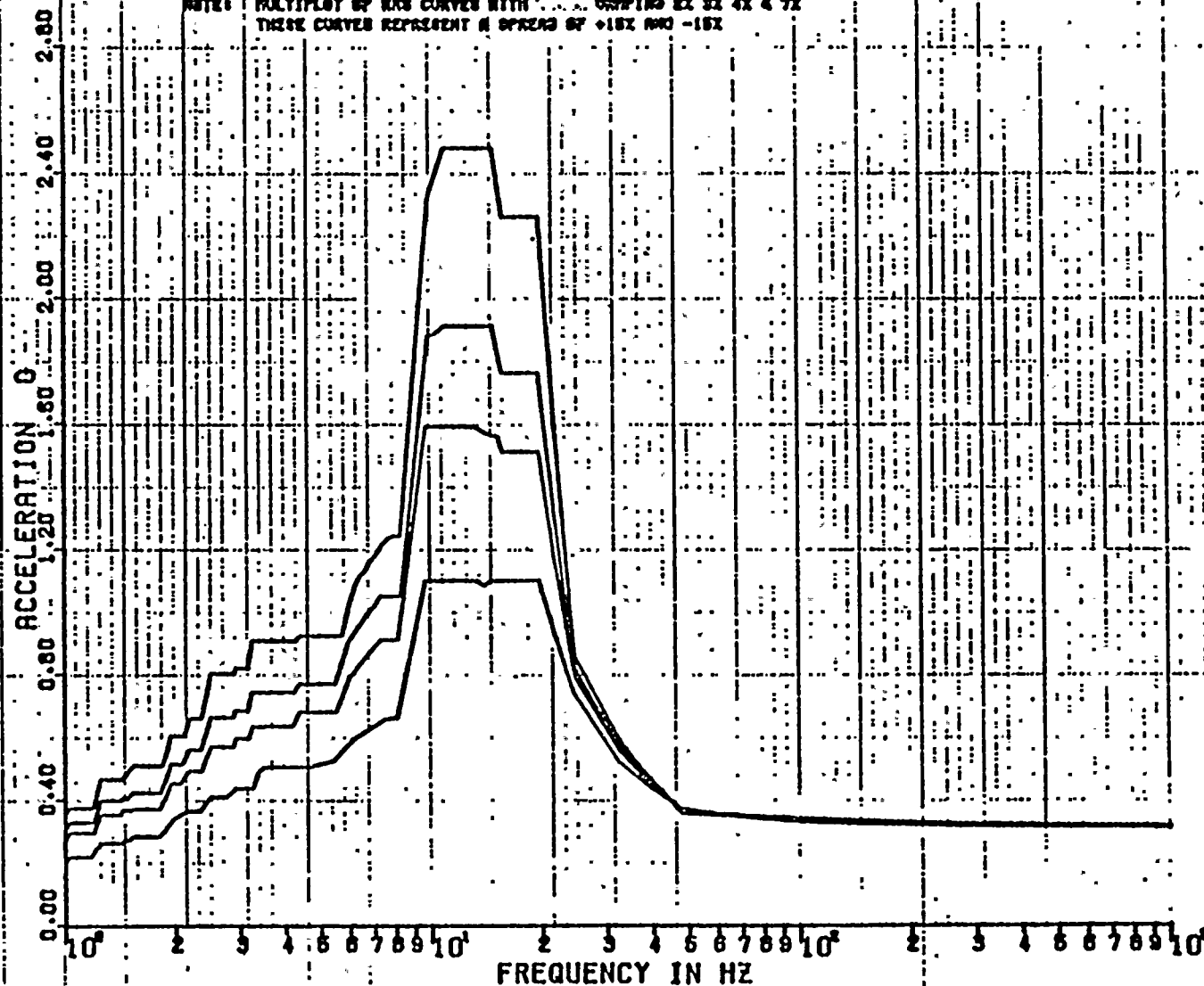
DISK CURVE SET NO.15

VER DIRECTION

DAMPING VALUES

0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 0.02 0.03 0.04 0.07
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 84



0000020027

SPECTRA VER 01 LEV 08

SEISMIC (08E)

9 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. DRYWELL FLOOR (ELEV 238.0 FT)

MS1765

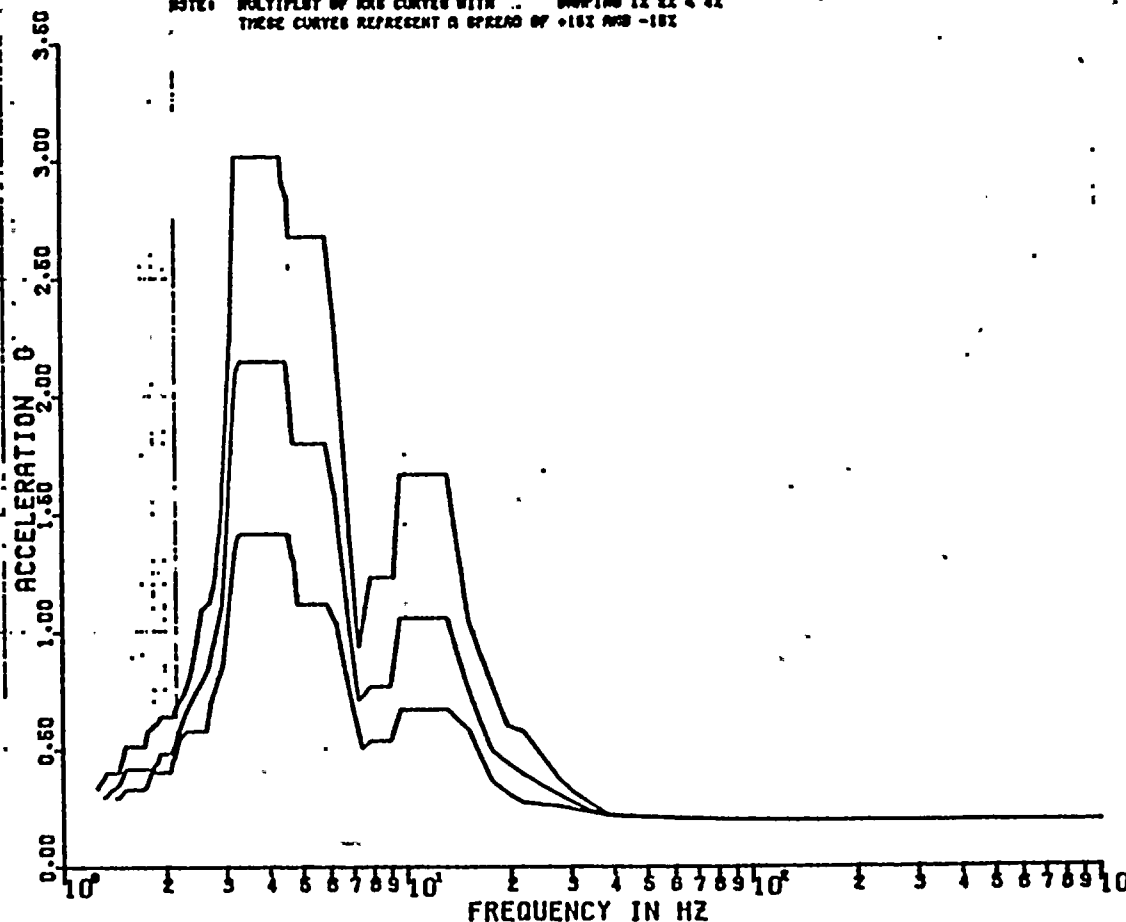
MICHAEL K DO

DISK CURVE SET NO-17

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH ... DAMPING 1% 2% 4%
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 85



0000000028

PSPECTRA VER 01 LEV 08

SEISMIC (ODE)

9 DEC 1982

MIRARRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. DRYWELL FLOOR (ELEV 239.0 FT)

MS1765

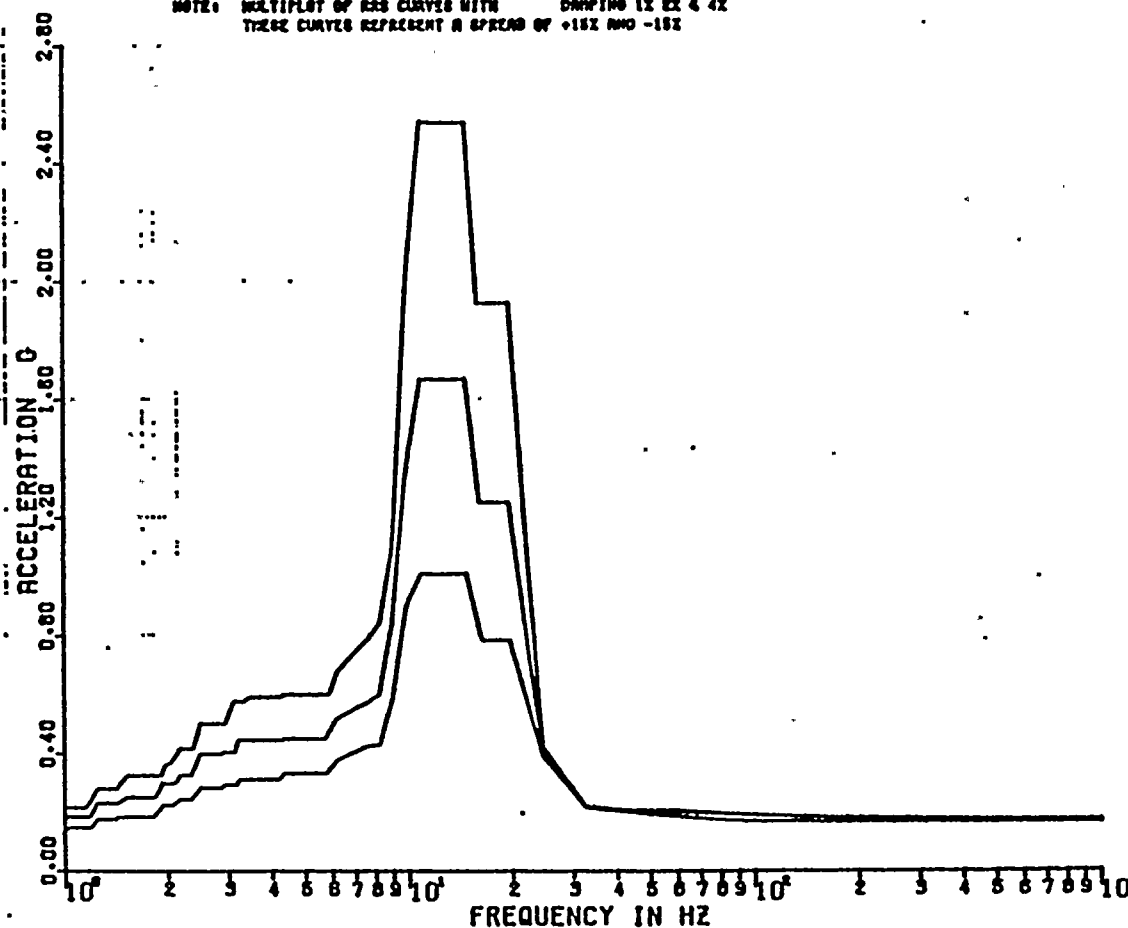
MICHAEL K OO

DISK CURVE SET NO.17

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 85



PSPECTRA VER 01. LEV 00

SEISMIC (88E)

11 DEC 1982

03000 0092

NIAOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. DRYWELL FLOOR (ELEV 258.0 FT)

MS1765

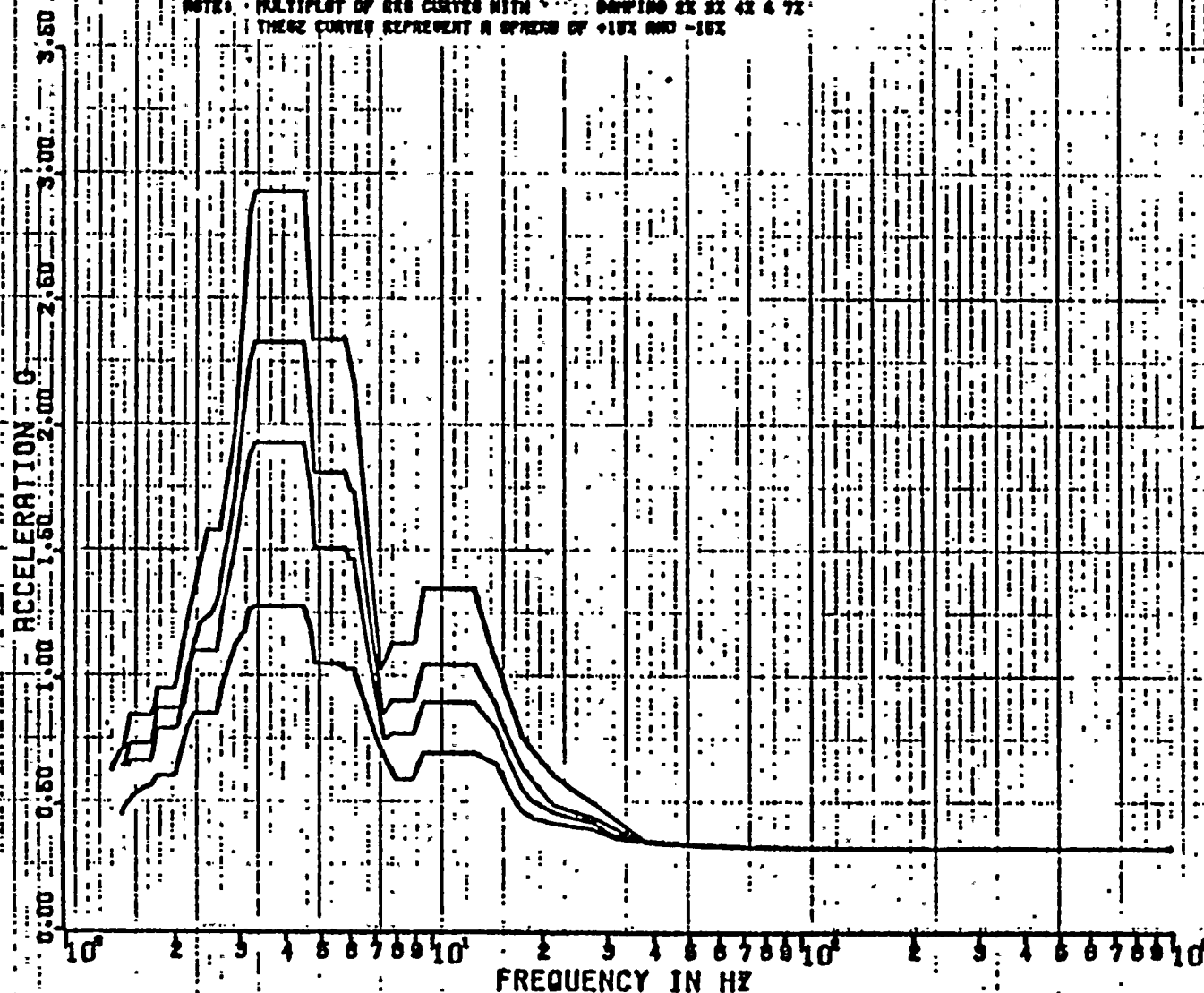
DISK CURVE SET NO.17

HOR DIRECTION

MICHAEL N CO

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DRYING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPECTRUM OF +10% AND -10%



REF 8.5



PSPECTRA VER 01 LEV 08

SEISMIC (86E)

11 DEC 1982

0300000093

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. DRYWELL FLOOR (ELEV 298.0 FT)

MS1765

DISK CURVE SET NO.17

VER DIRECTION

MICHAEL K DO

DAMPING VALUES

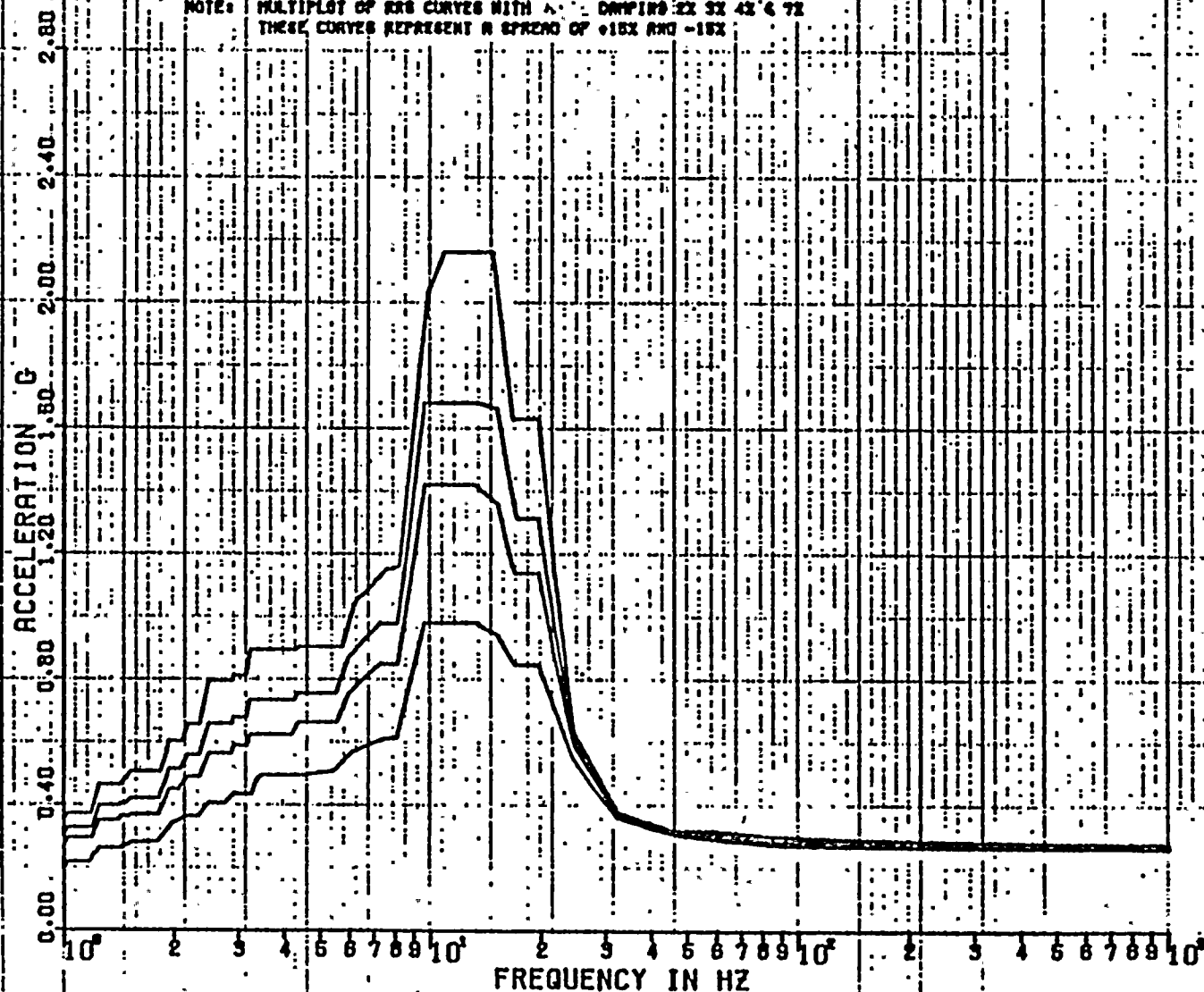
0.020

0.030

0.040

0.070

NOTE: MULTIPLY OF RMS CURVES WITH A DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 85



000000053

PSPECTRA VER 01 LEV 00

SEISMIC (OBE)

9 DEC 1992

NIAOKA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177

RAS OF ACC. PEDESTAL (ELEV. 217.50 FT)

MS1765

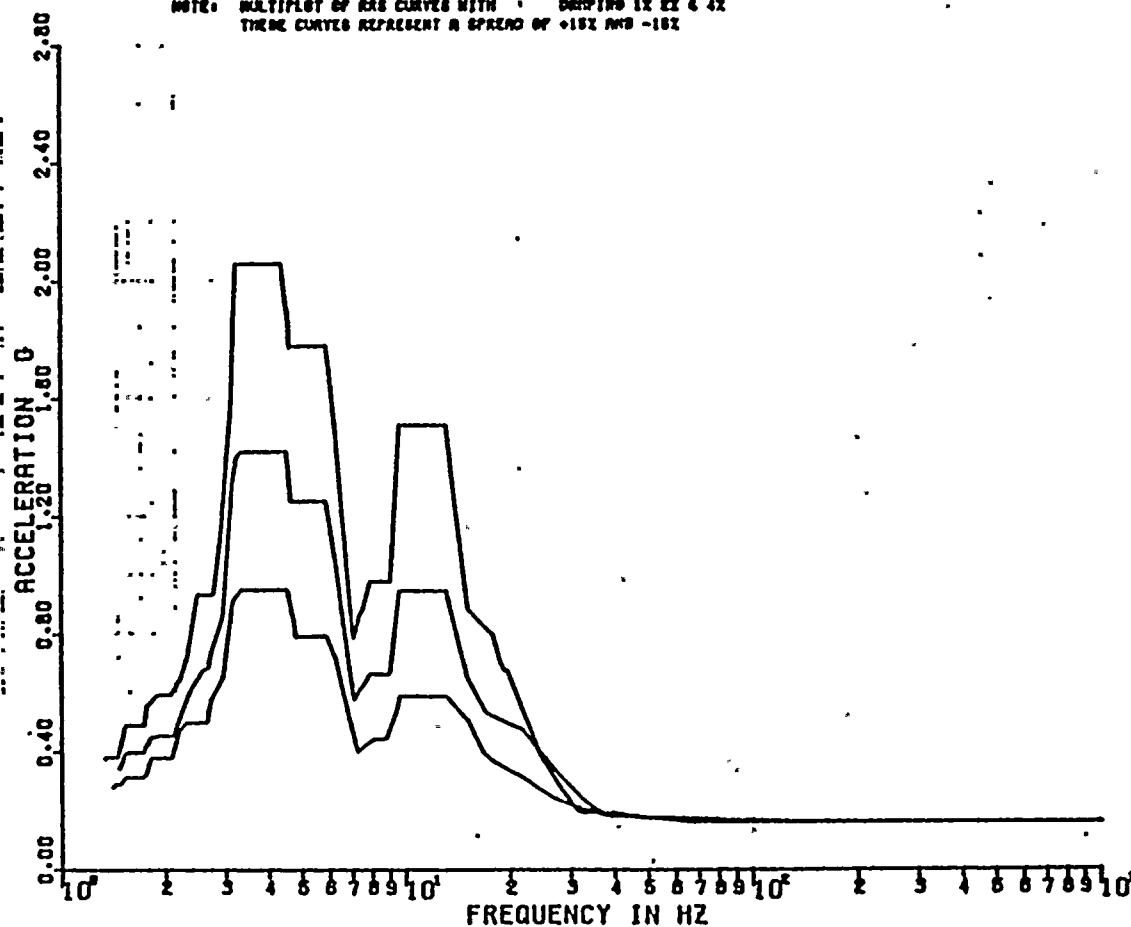
MICHAEL K 00

DISK CURVE SET NO.10

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RAS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 86



000000054

PSPECTRA VER 01 LEV 08

SEISMIC (DBE)

8 DEC 1982

NIRAKA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PEDESTAL (ELEV. 217.50 FT)

MS1765

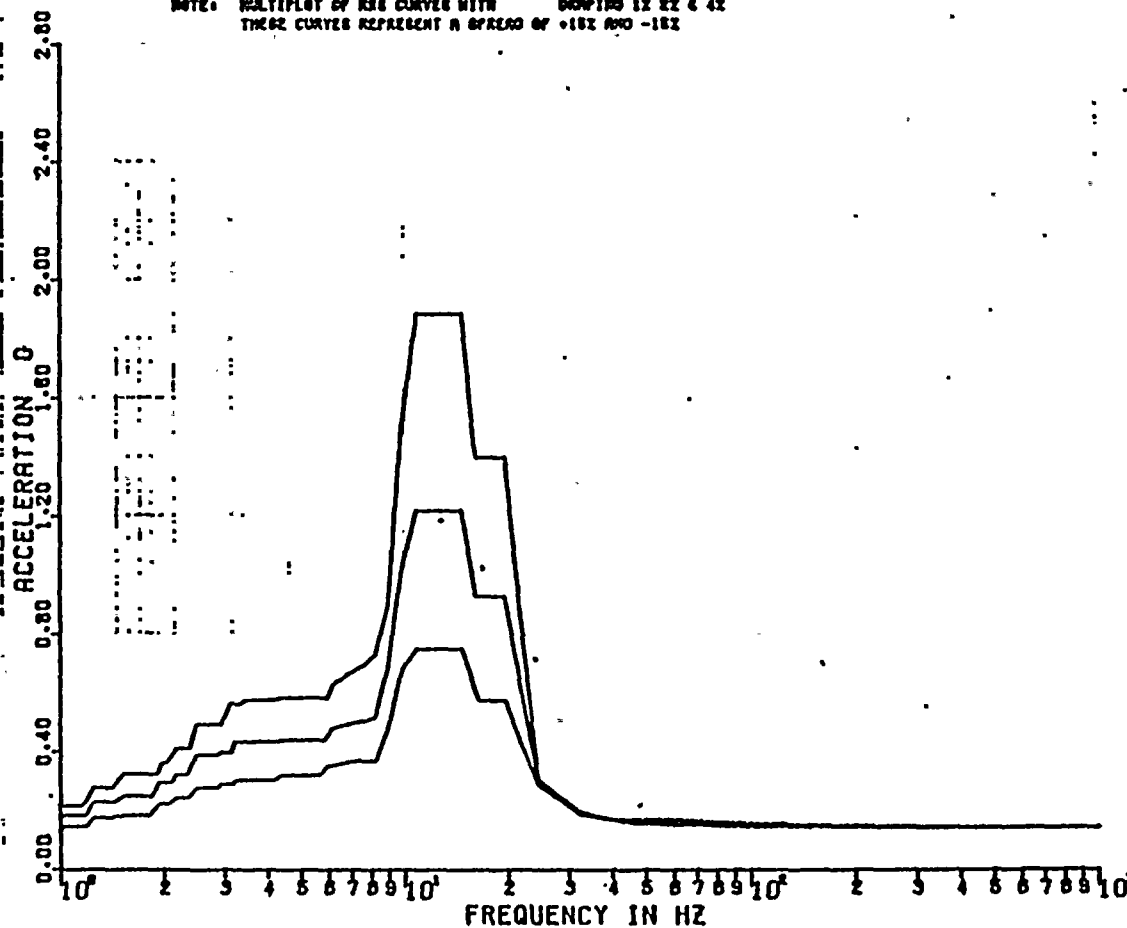
MICHAEL K 00

DISK CURVE SET NO.18

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 86



PSPECTRA VER 01 LEY 00

SEISMIC (88E)

11 DEC 1982 000 0118

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PEDESTAL (ELEV. 217.50 FT)

MS1765

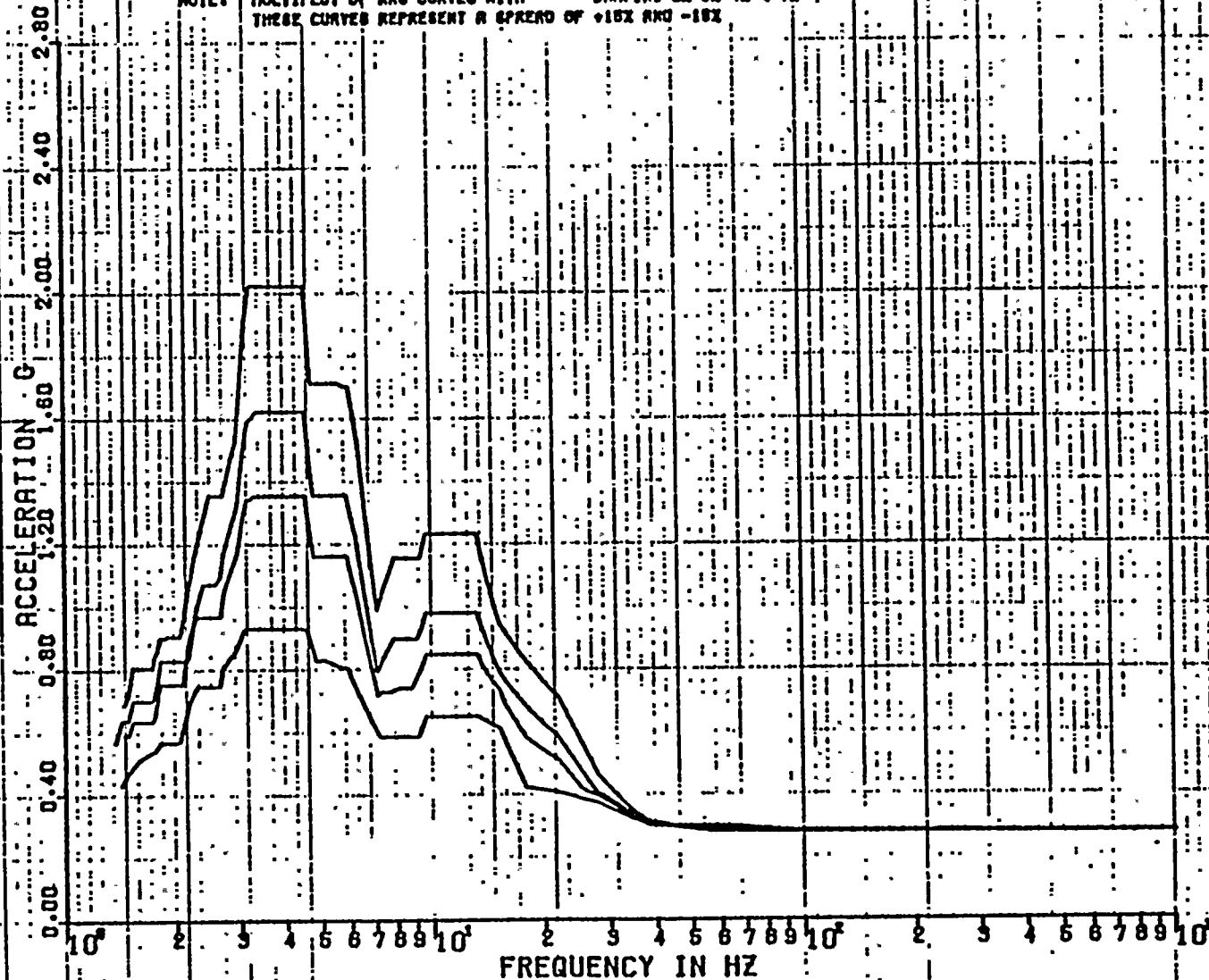
MICHAEL K 00

DISK CURVE SET NO.10

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 86



PSPECTRA VER 01 LEV 00

BEIGAC (88E)

11 DEC 1982

00000119

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RR8 OF ACC. PEDESTAL (ELEV. 217.50 FT)

MS1765

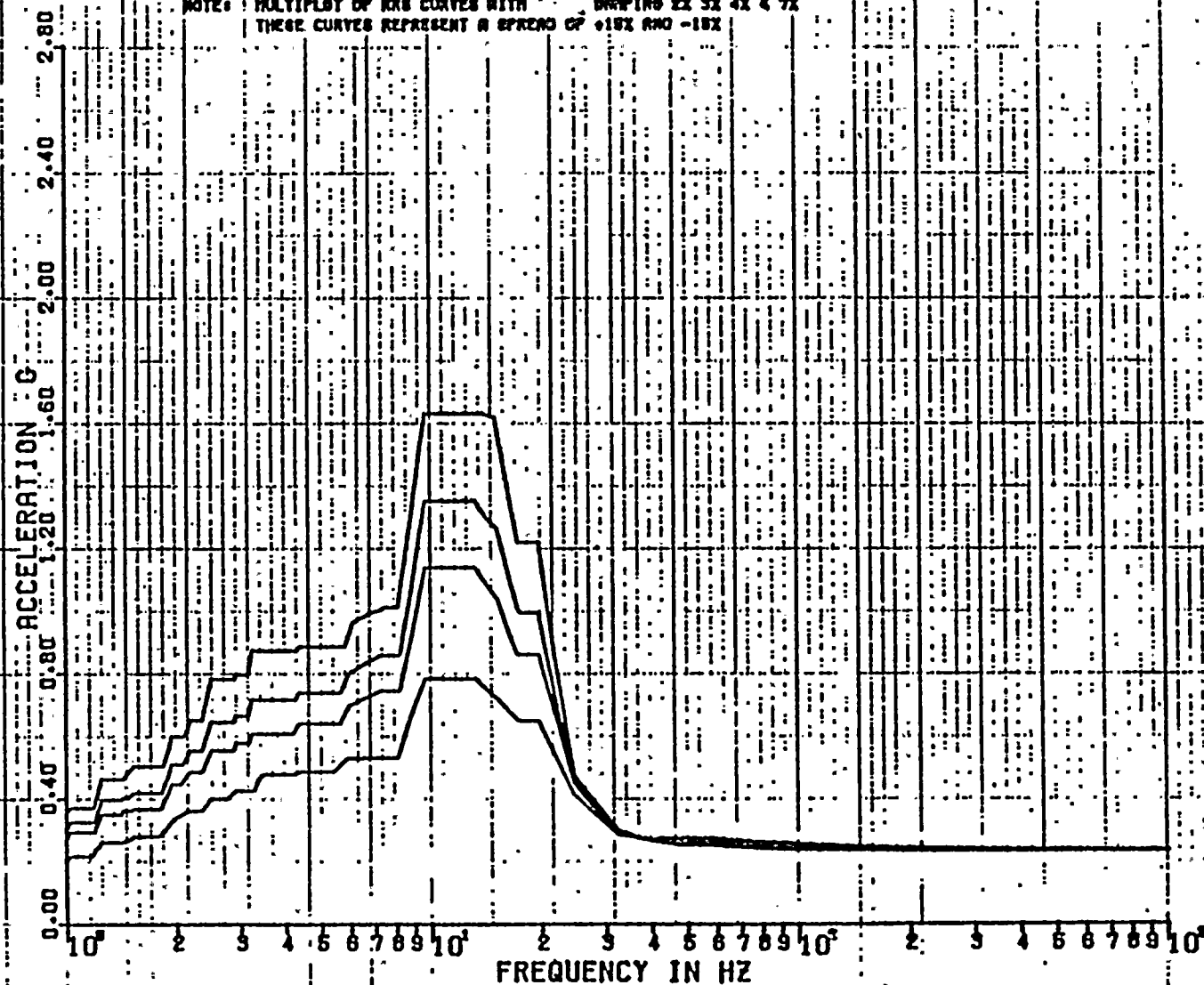
MICHAEL K 00

DISK CURVE SET NO.10

VER DIRECTION

DAMPING VALUES : 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RR8 CURVES WITH DAMPING 2X 3X 4X 6 7X
THESE CURVES REPRESENT A SPREAD OF +10X AND -10X



225
86



4 3



000000055

PSPECTRA VER 01 LEV 00

SEISMIC (OBE)

9 DEC 1982

MIRAMAR MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PEDESTAL (ELEV. 195.25 FT)

MS1765

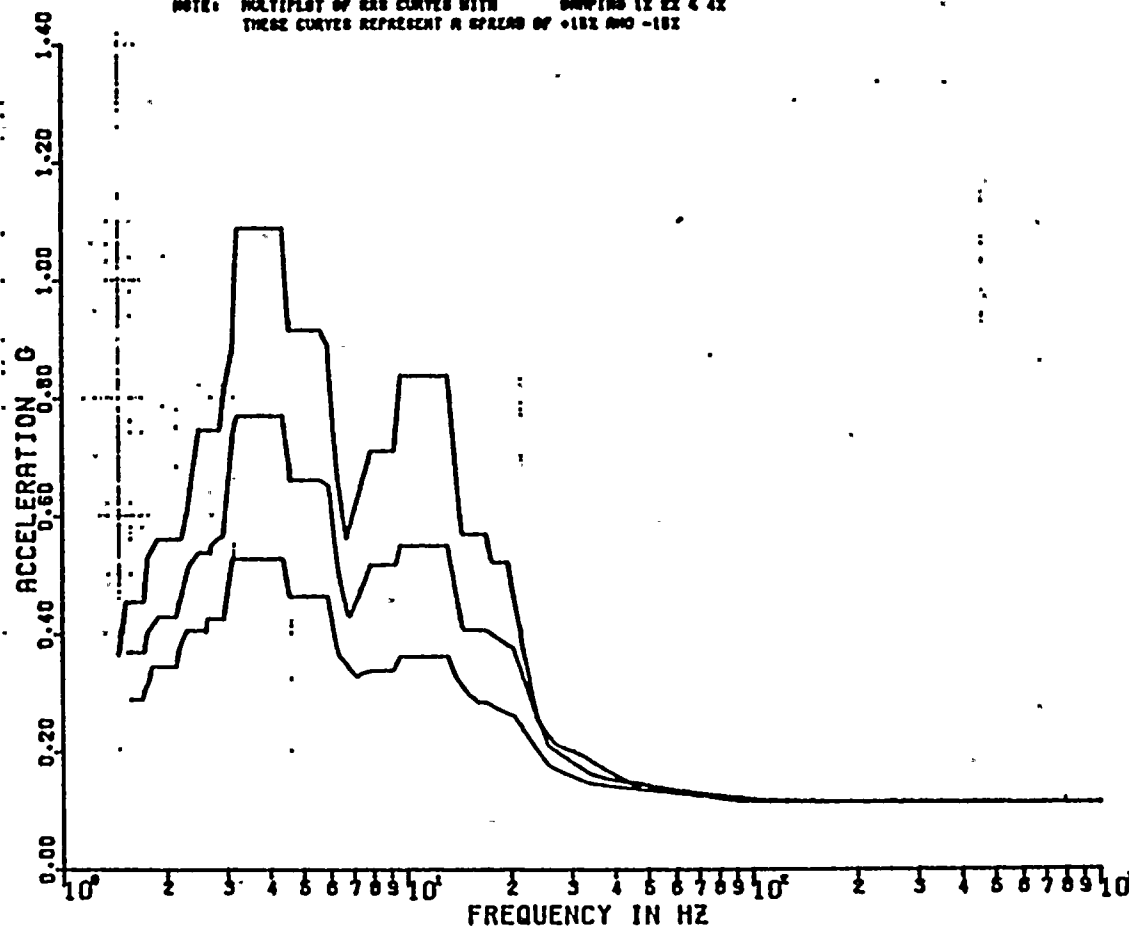
MICHAEL H 00

DISK CURVE SET NO.20

HOR DIRECTION,

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 87



0000020056

PSPECTRA VER 01 LEV 00

SEISMIC (00E)

9 DEC 1982

NIAODARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. PEDESTAL (ELEV. 188.25 FT)

MS1765

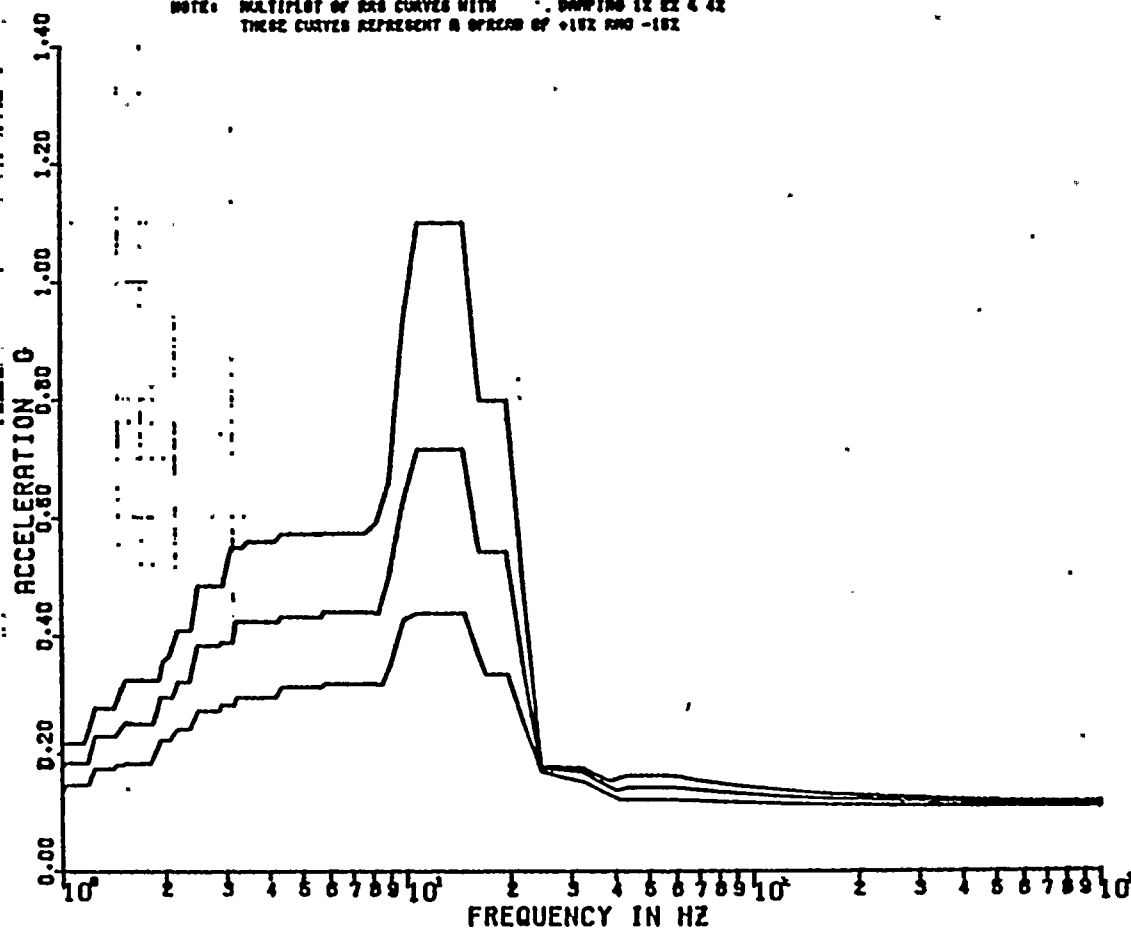
MICHAEL K 00

DISK CURVE SET NO.20

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +10% RMS -10%



REF 87



PSPECTRA VER 01 LEV 08 :

SEISMIC (88E)

11 DEC 1982 000609120

HIADARA MOHANN-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PEDESTAL (ELEV. 188.25 FT)

MS1765

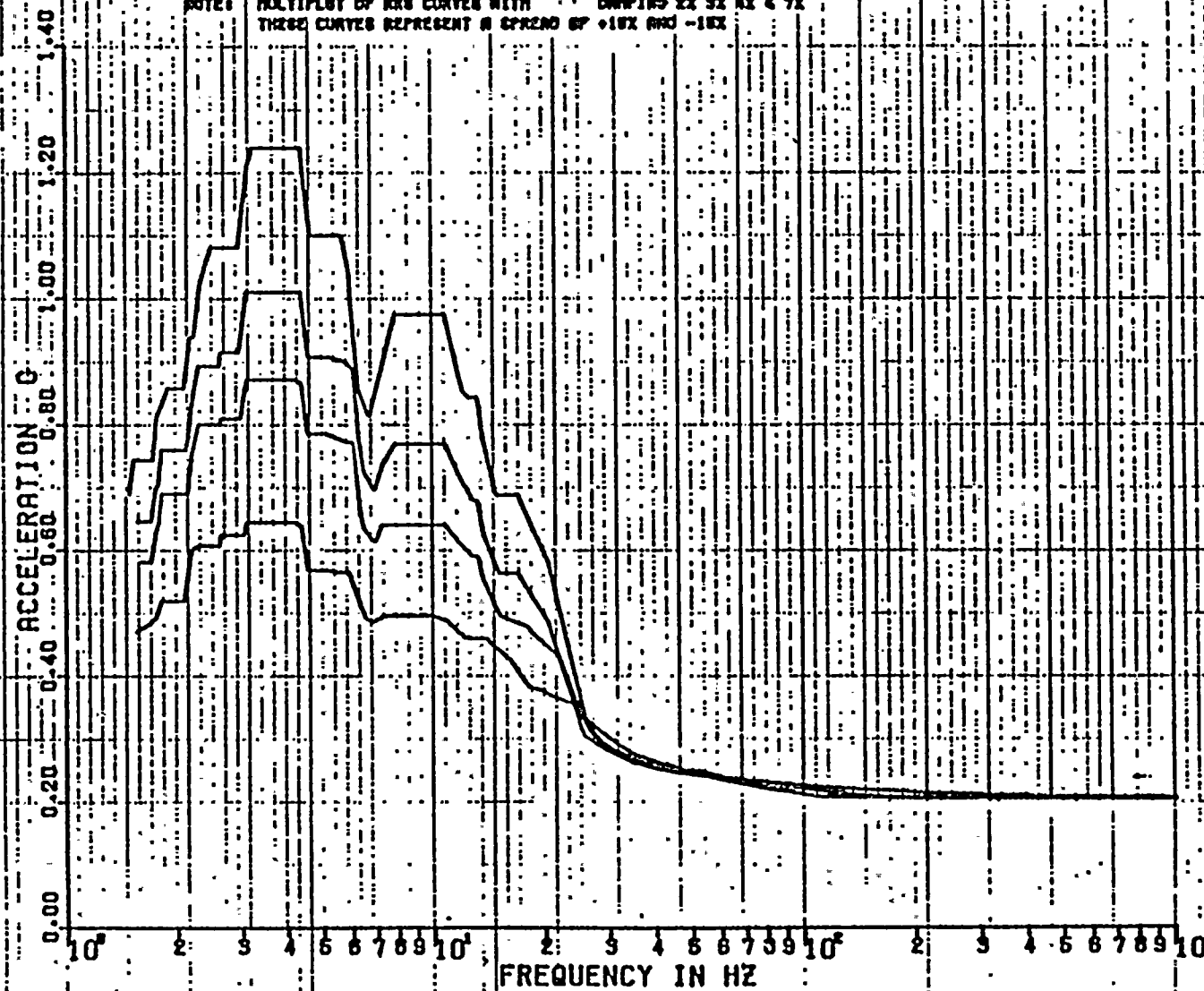
DISK CURVE SET NO.20

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES : 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 5X 1X & 7X
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 87



PSPECTRA VER 01 LEV 00

SEISMIC (86E)

11 DEC 1982

NIGARAA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. PEDESTAL (ELEV. 198.25 FT)

MS1765

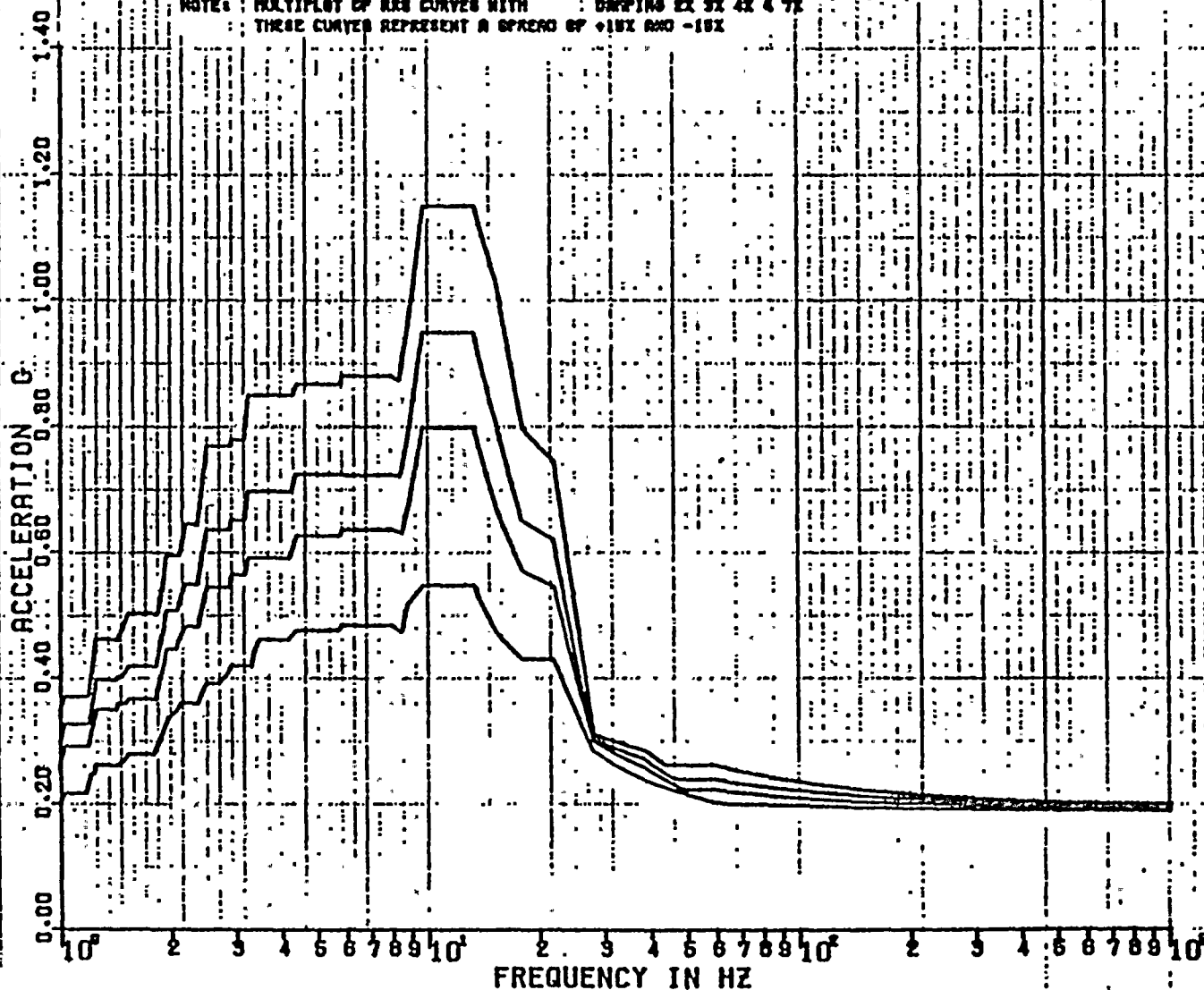
MICHAEL K 00

DISK CURVE SET NO.20

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X & 7X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 87

0000000057

PSPECTRA VER 01 LEV 00

SEISMIC (00E)

9 DEC 1982

MIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. BASE MAT (ELEV 175.0 FT)

MS1765

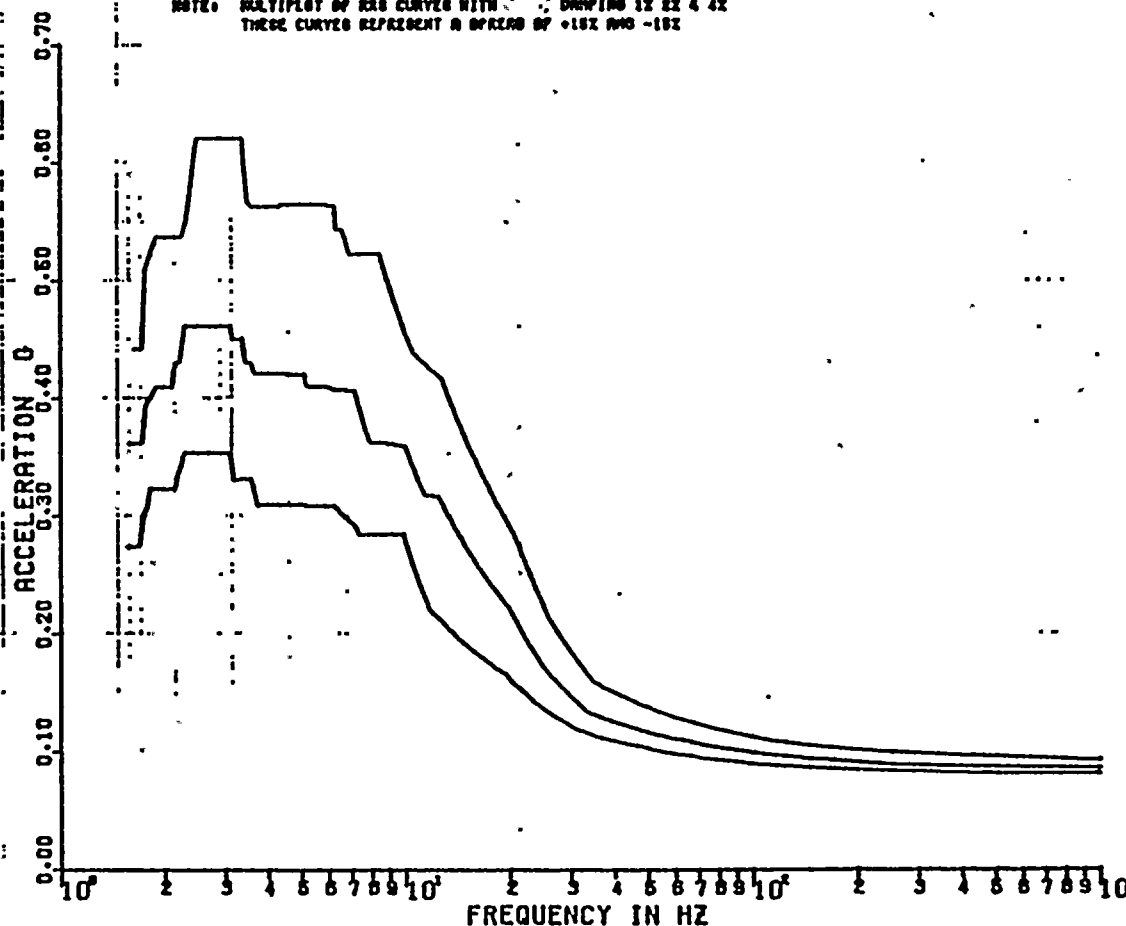
MICHAEL K 00

DISK CURVE SET NO.22

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 1% 2% 4%
THESE CURVES REPRESENT A DIRECTION OF +10% AND -10%



22F 88



030000058

SPECTRA VER 01 LEV 08

SEISMIC (08E)

9 DEC 1982

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RMS OF ACC. BASE MAT (ELEV 175.0 FT)

MS1765

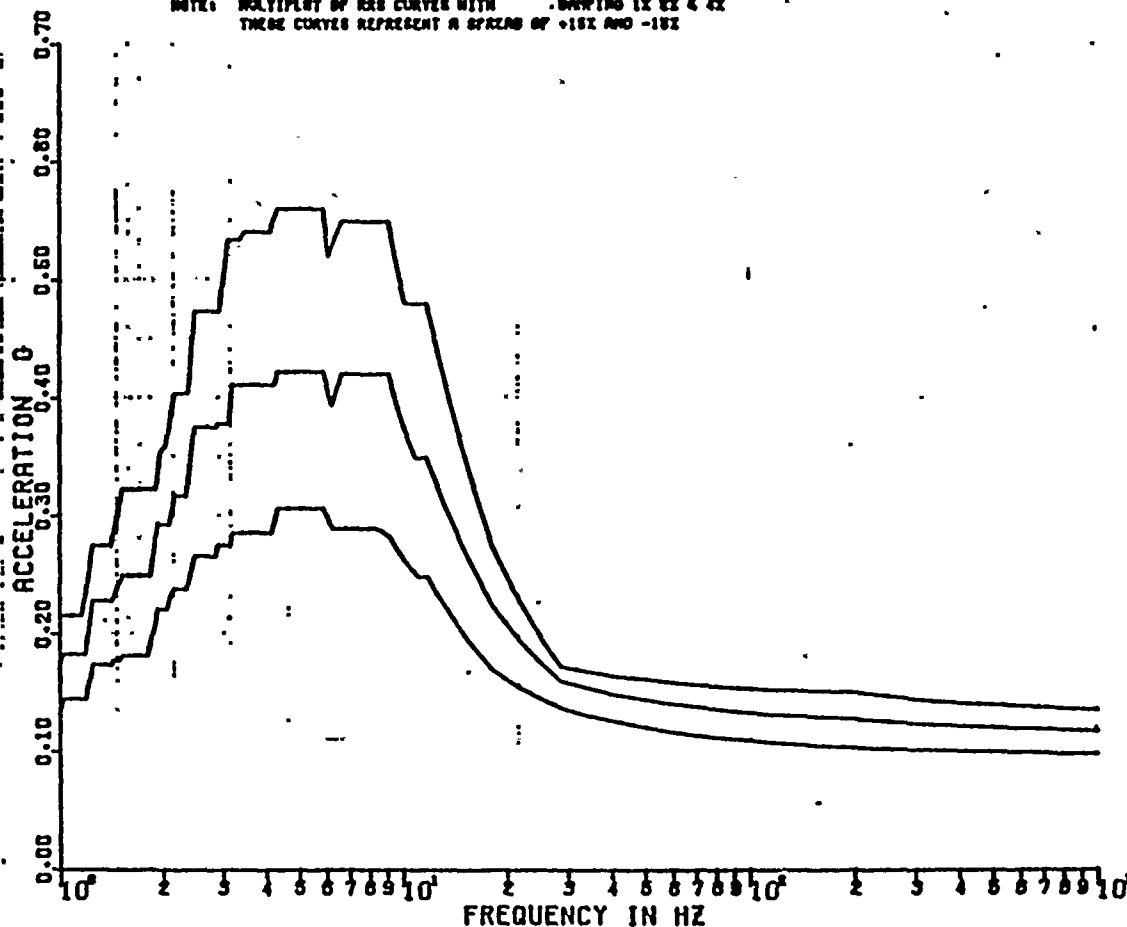
MICHAEL K 00

DISK CURVE SET NO.22

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPACING OF +15% AND -15%



REF 88



PSPECTRA VER:01 LEV:00

CHIC (88E)

11 DEC 1982

0000122

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. BASE MAT (ELEV 175.0 FT)

MS1765

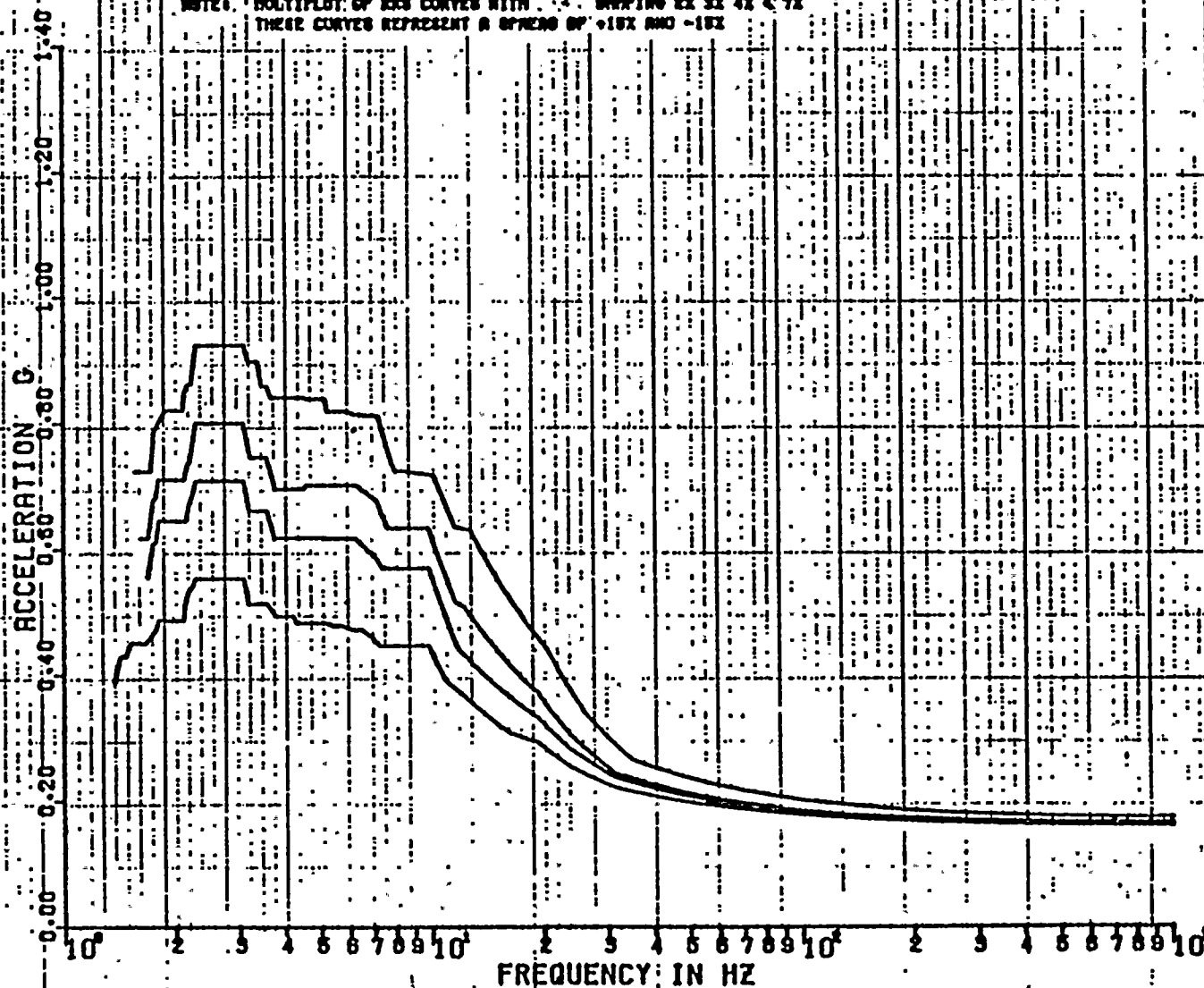
DISK CURVE SET NO.22

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 22 32 42 & 72
THESE CURVES REPRESENT A SPECTRUM OF +10% AND -10%



88



PSPECTRA VER 01 LEV 00

NIC (88E)

11 DEC 1982

00123

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177
RRS OF ACC. BASE MAT (ELEV. 175.0 FT)

DISK CURVE SET NO.22

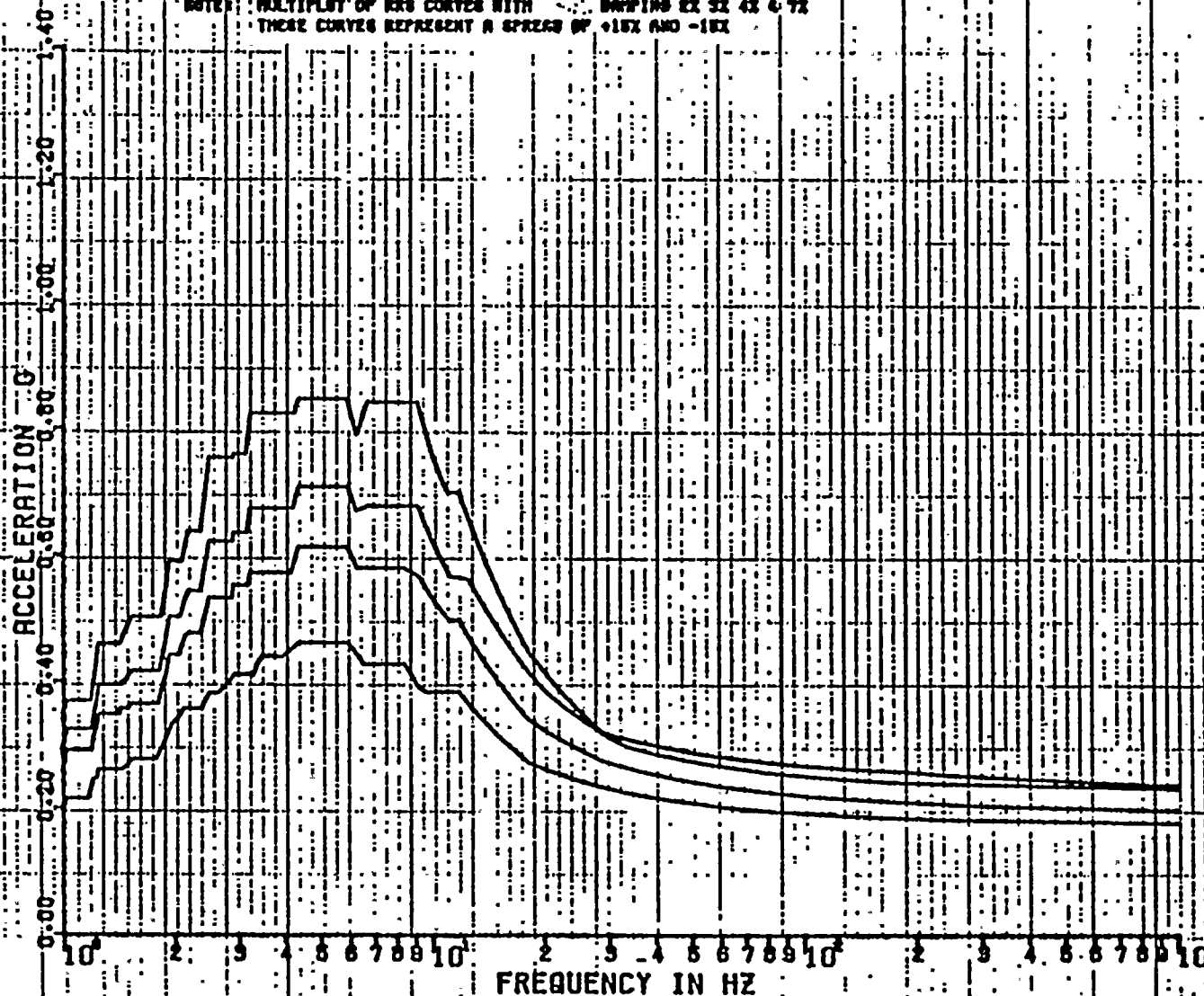
VER DIRECTION

MS1765

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING EX 32 42 6 72
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 88

PSPECTRA VER 01 LEV 08

SEISM. (006)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 416.89 FT.)

MS1765

DISK CURVE SET NO.1

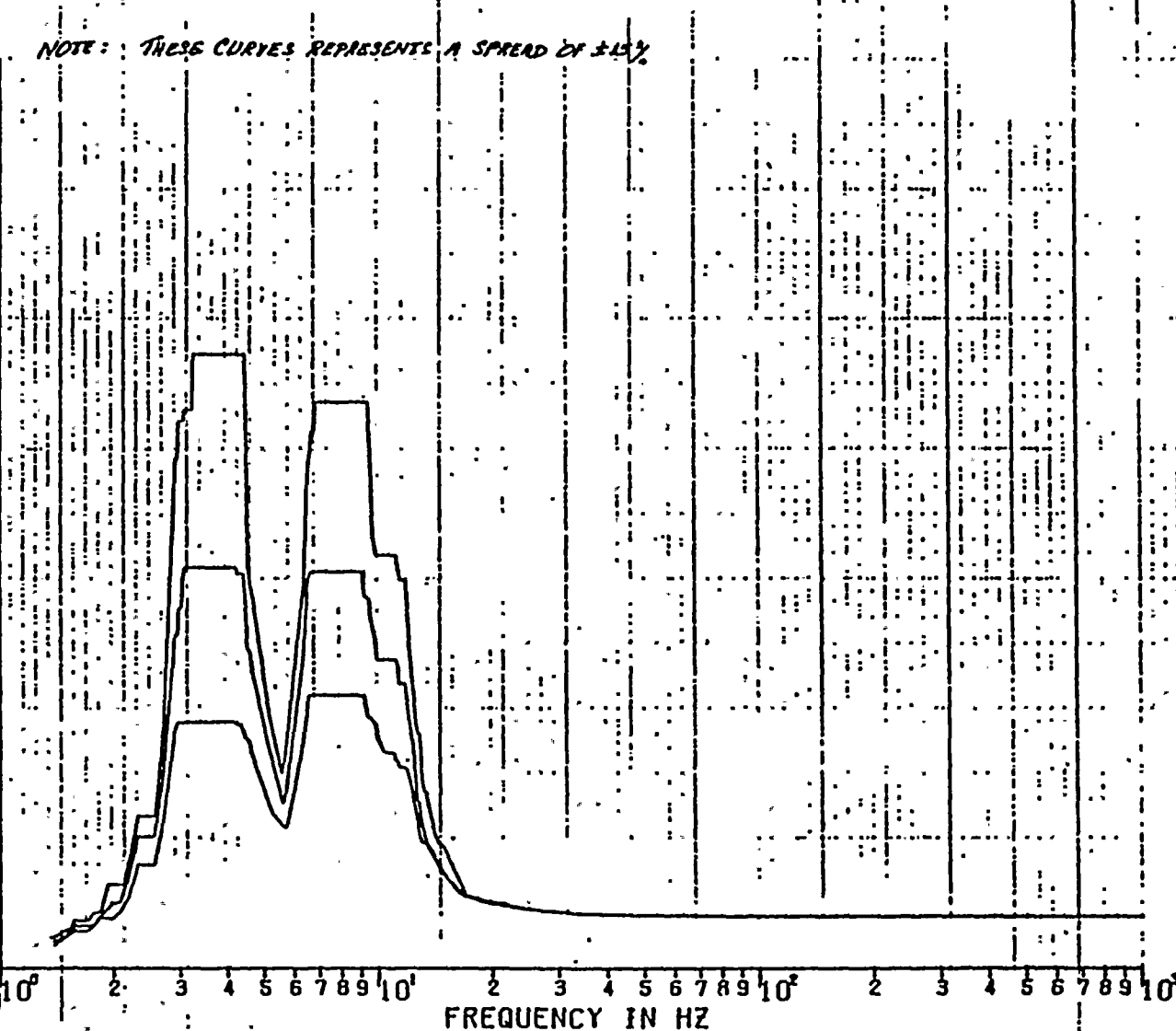
HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

ACCELERATION - G

14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00

NOTE: THESE CURVES REPRESENTS A SPREAD OF $\pm 15\%$



FREQUENCY IN HZ

REF 89



PSPECTRA VER 01 LEV 08

SEISMIC (86)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 418.83 FT.)

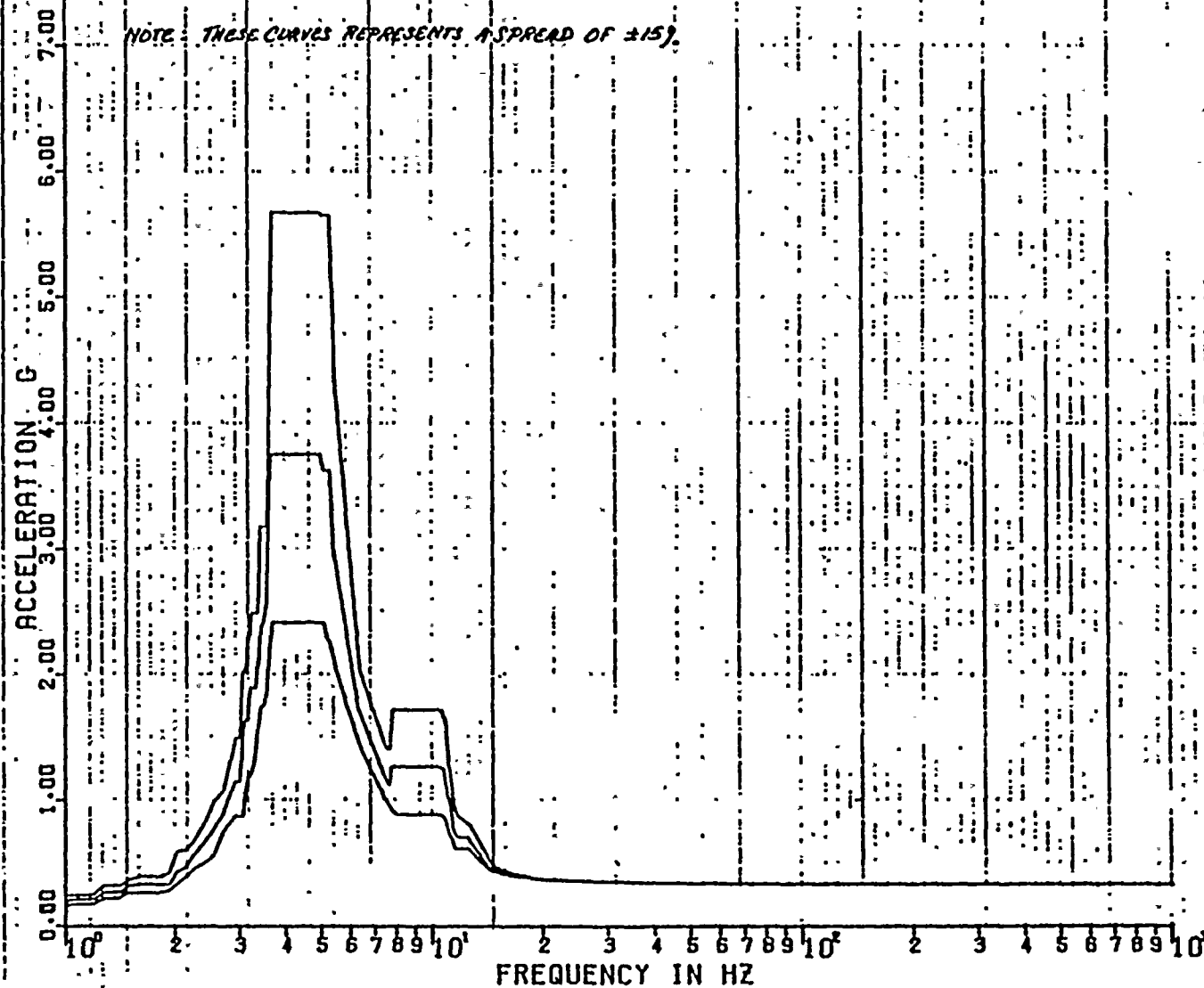
MS1765

DISK CURVE SET NO.1

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENTS A SPREAD OF $\pm 15\%$



REF 89



PSPECTRA VER 01 LEV 08

SEIS (SE)

27 DEC 1982

NIOGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 418.83 FT.)

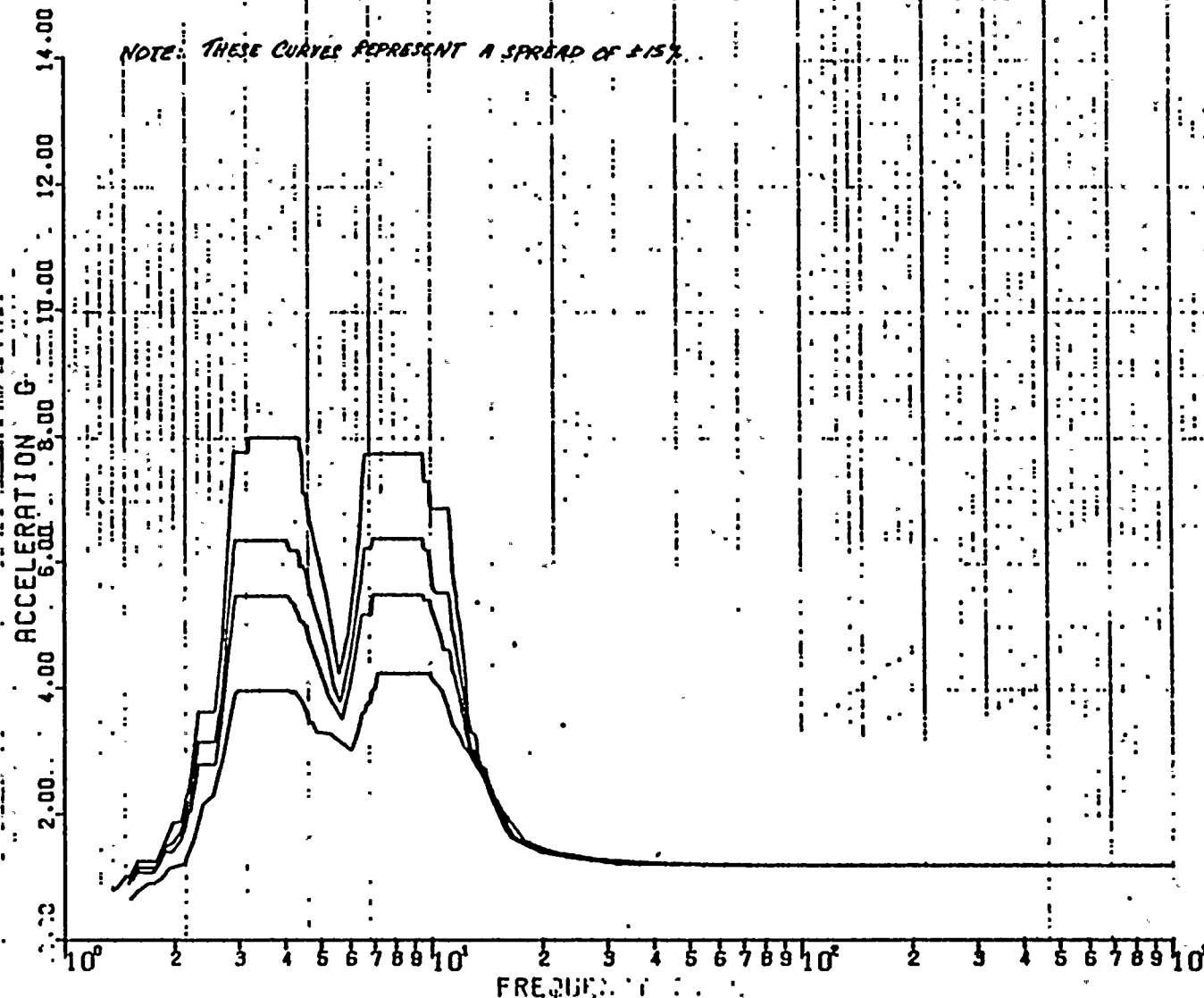
MS1765

DISK CURVE SET NO.1

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 89



PSPECTRA VER 01 LEV 08

SEISMIC (SSE)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 416.89 FT.)

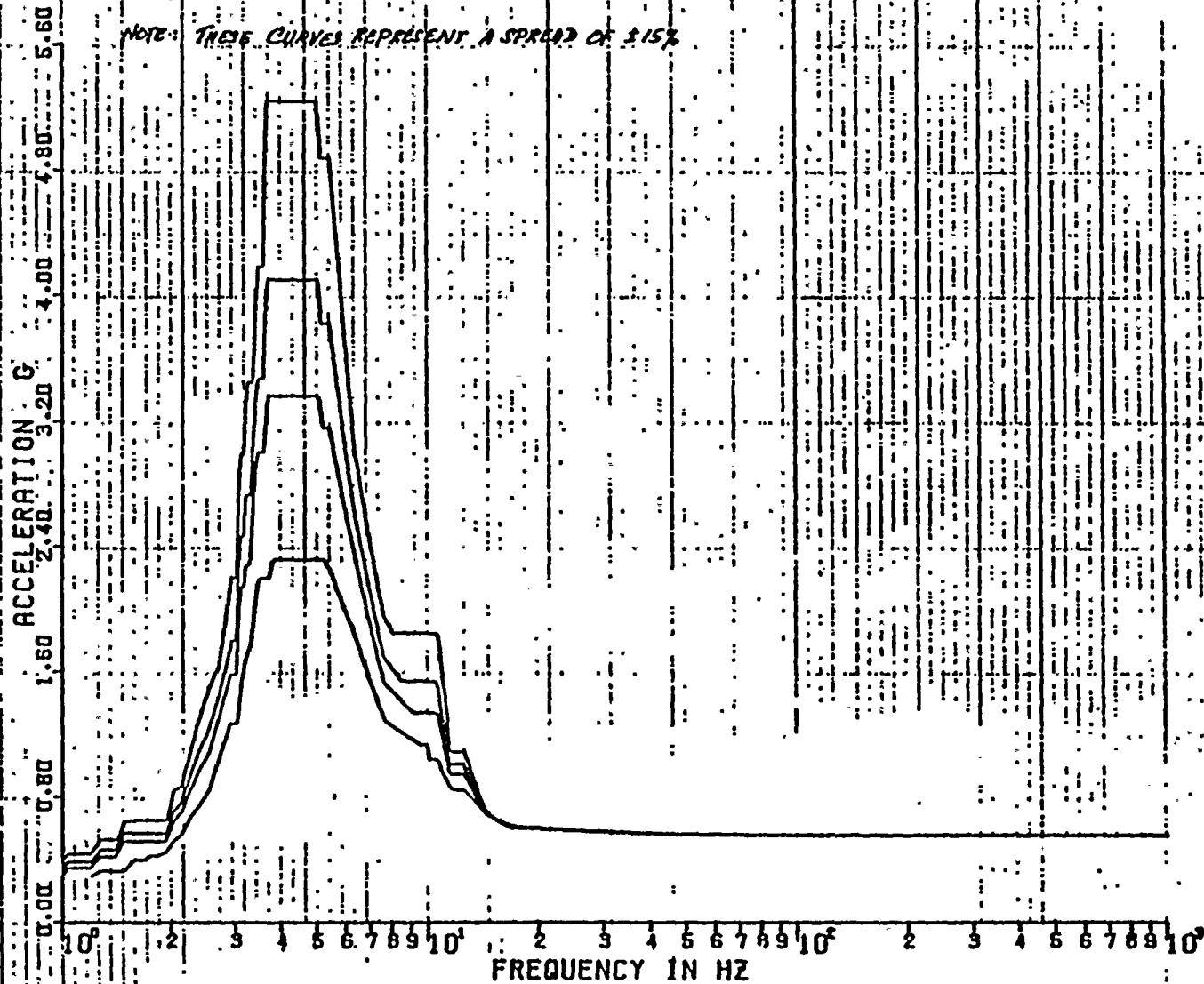
MS1765

DISK CURVE SET NO.1

VER DIRECTION

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



25
89



PSPECTRA VER 01 LEV 08

SEISMIC (C)

27 DEC 1982

NIAORRA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 988.89 FT).

MS1765

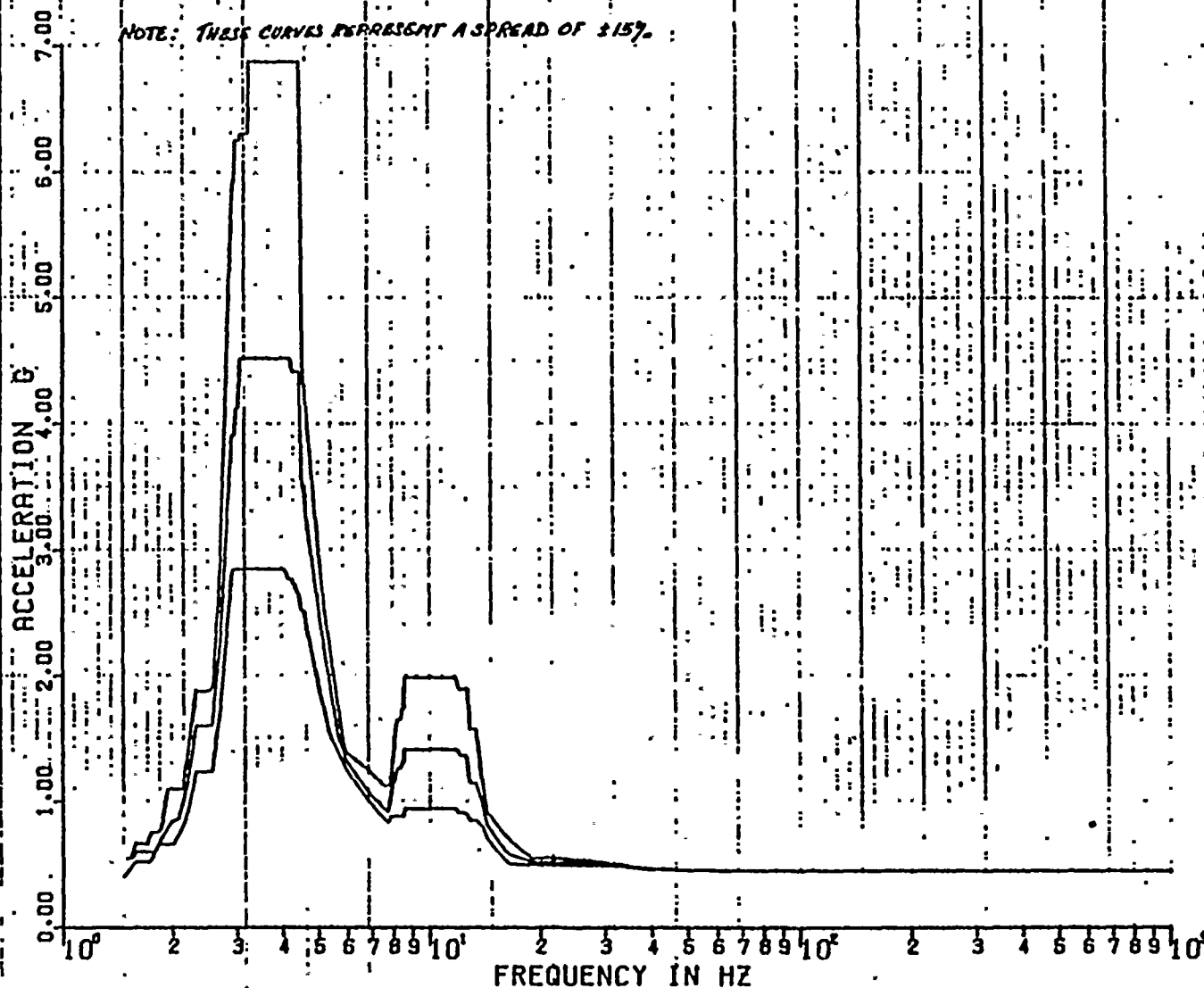
DISK CURVE SET NO.2

HOR DIRECTION

DAMPING VALUES:

D.010
D.020
D.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$.



REF 90



PSPECTRA VER 01 LEV 08

SEISMIC (01)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 988.89 FT)

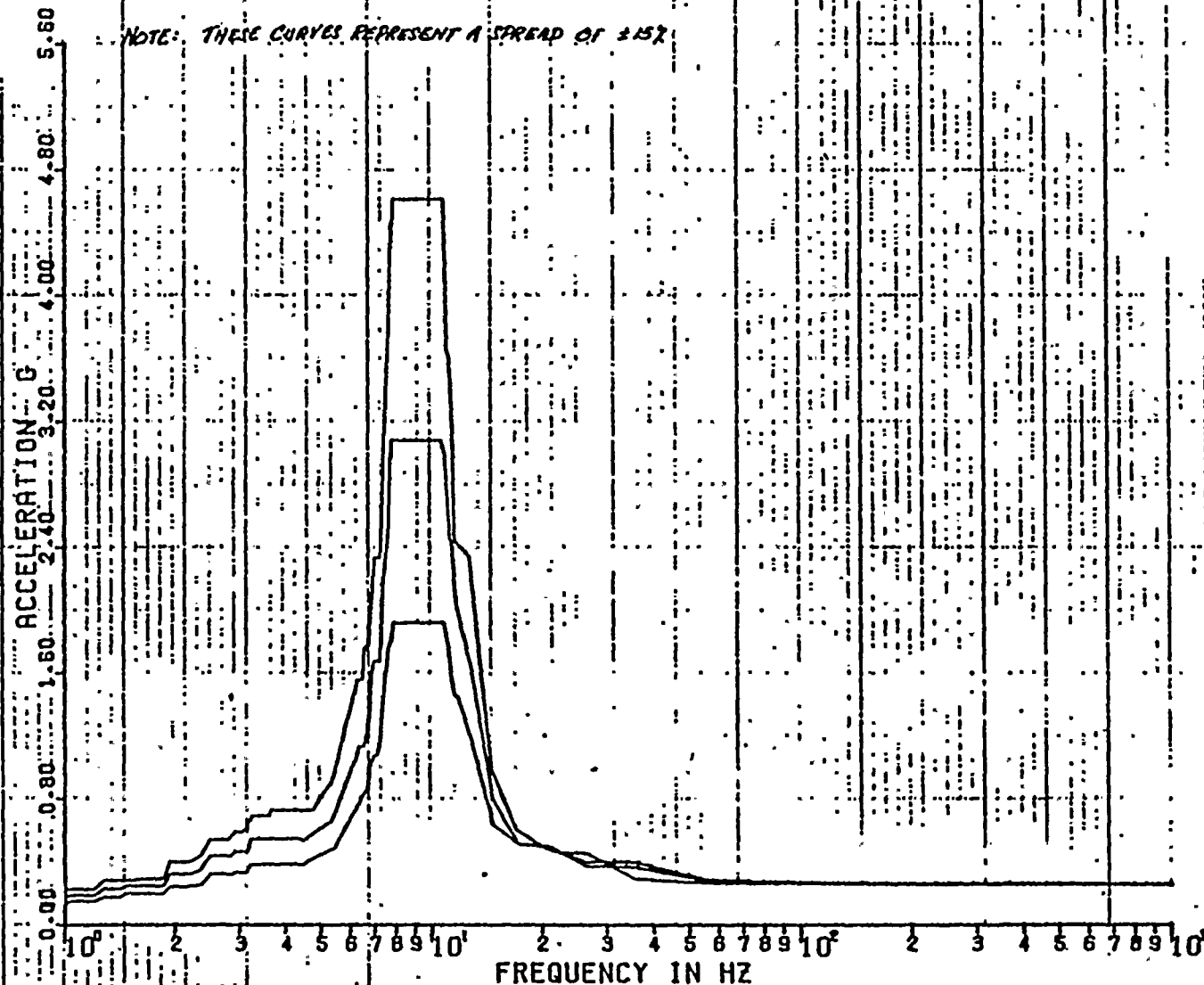
MS1765

DISK CURVE SET NO.2

VER DIRECTION

DAMPING VALUES =
0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



Ref 90



PSPECTRA VER 01 LEV 08

56 (SSG)

27 DEC 1982

NIAHARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 988.89 FT)

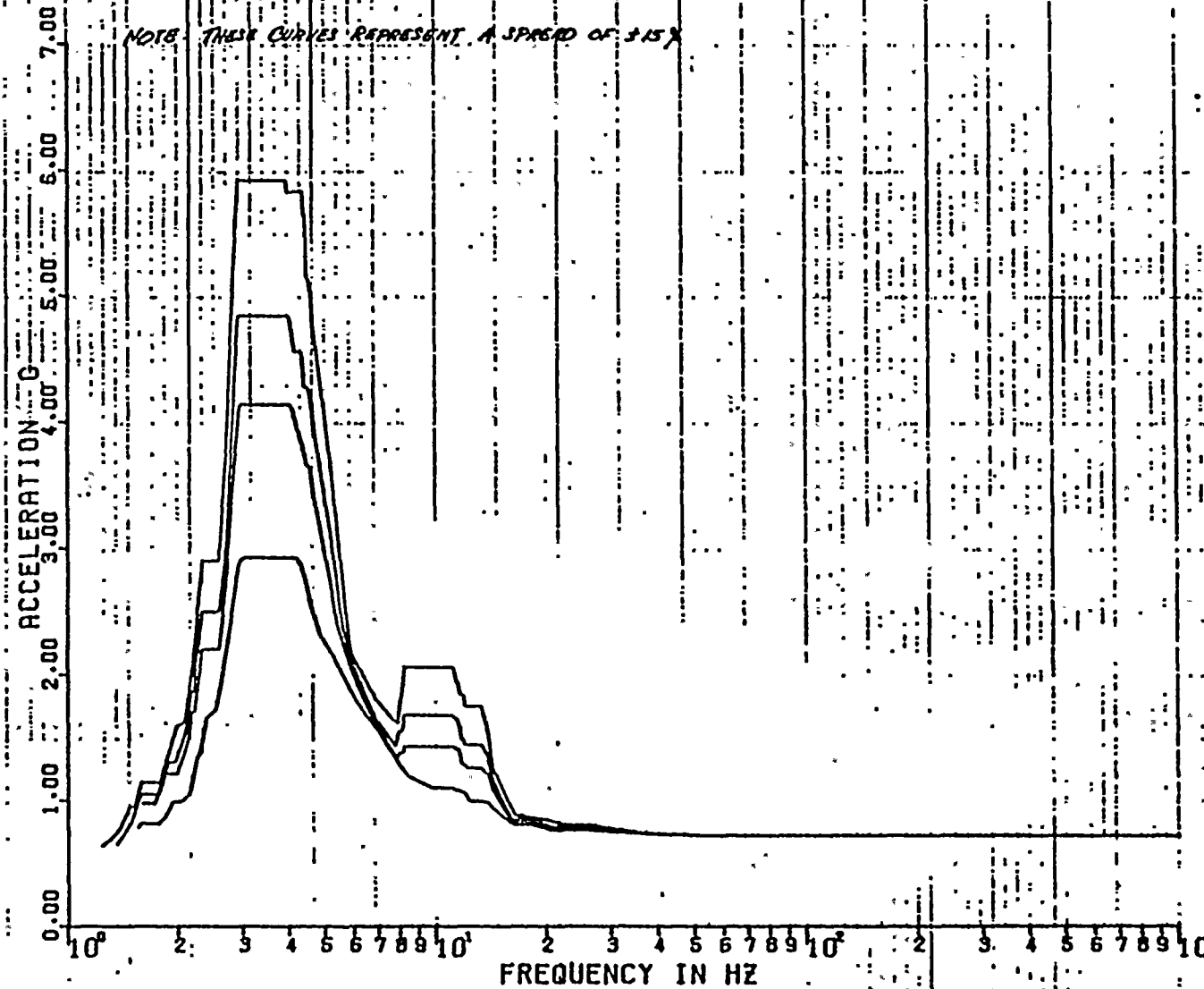
MS1765

DISK CURVE SET: NO. 2

HOR DIRECTION

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 90

PSPECTRA VER 01 LEV 08

SEISM

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O. 12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 986.83 FT)

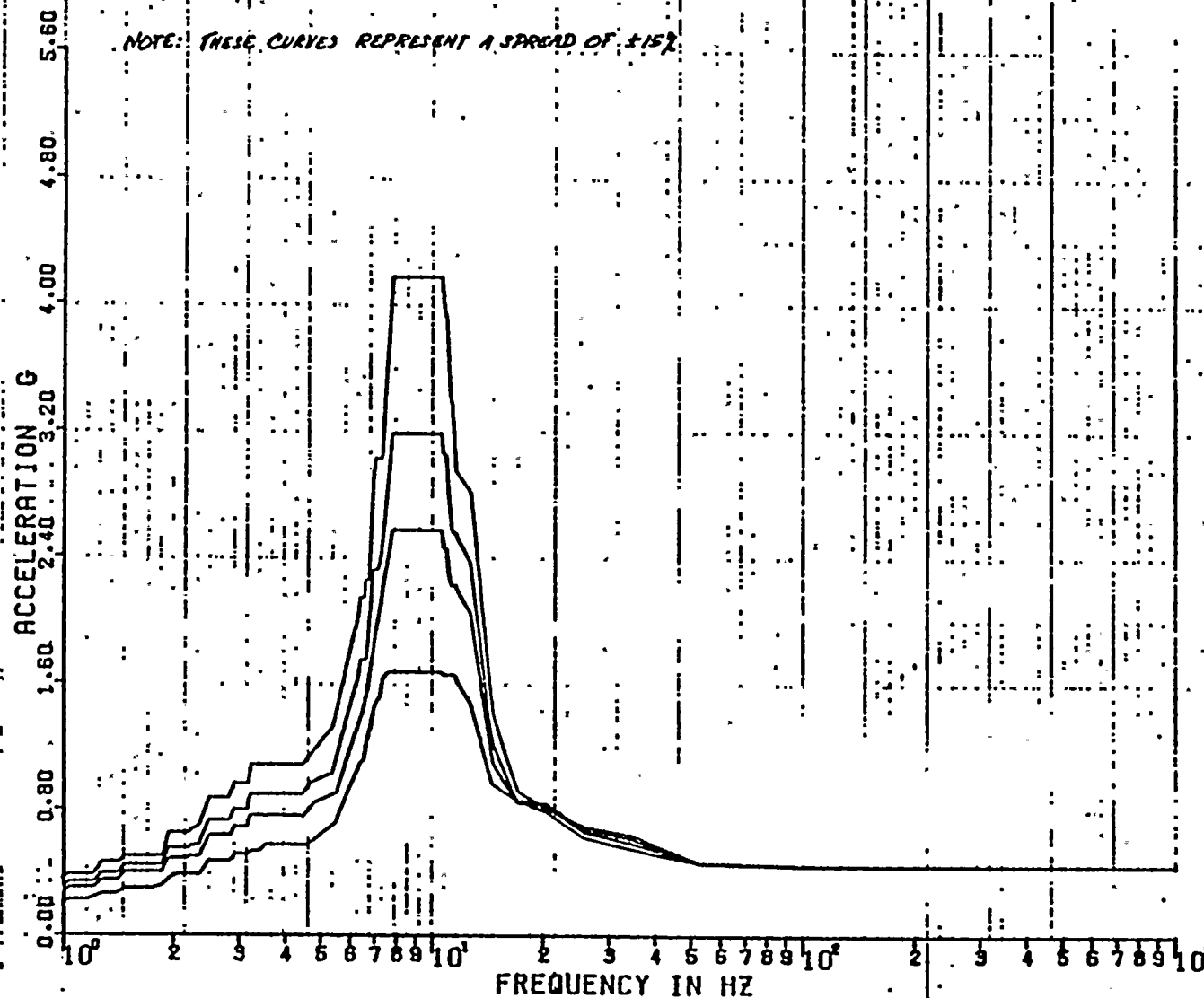
MS1765

DISK CURVE SET NO.2

VER DIRECTION

DAMPING VALUES =
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF. 90



PGPECTRA VER 01 LEV 08

SEISMIC (OL)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177
RRS OF ACC. SECONDARY CONT. (ELEV. 959.89 FT)

18-1765-0

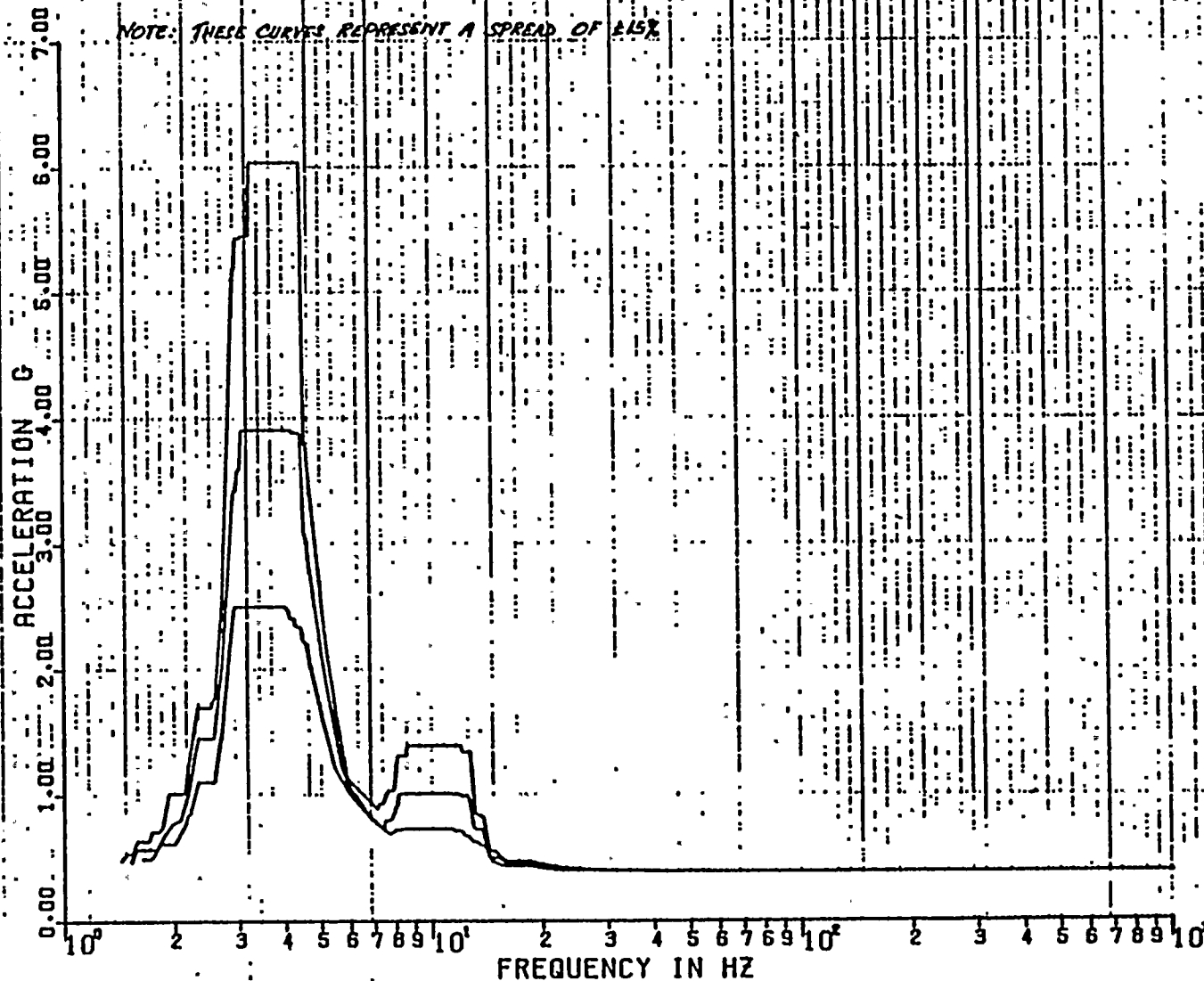
DISK CURVE SET NO.3

HOR DIRECTION

MS-1765

DAMPING VALUES = 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



Ref 91



PSPECTRA VER 01 LEV 08

SEISMIC

27 DEC 1982

HIIOARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 HS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 959.89 FT)

MS1765

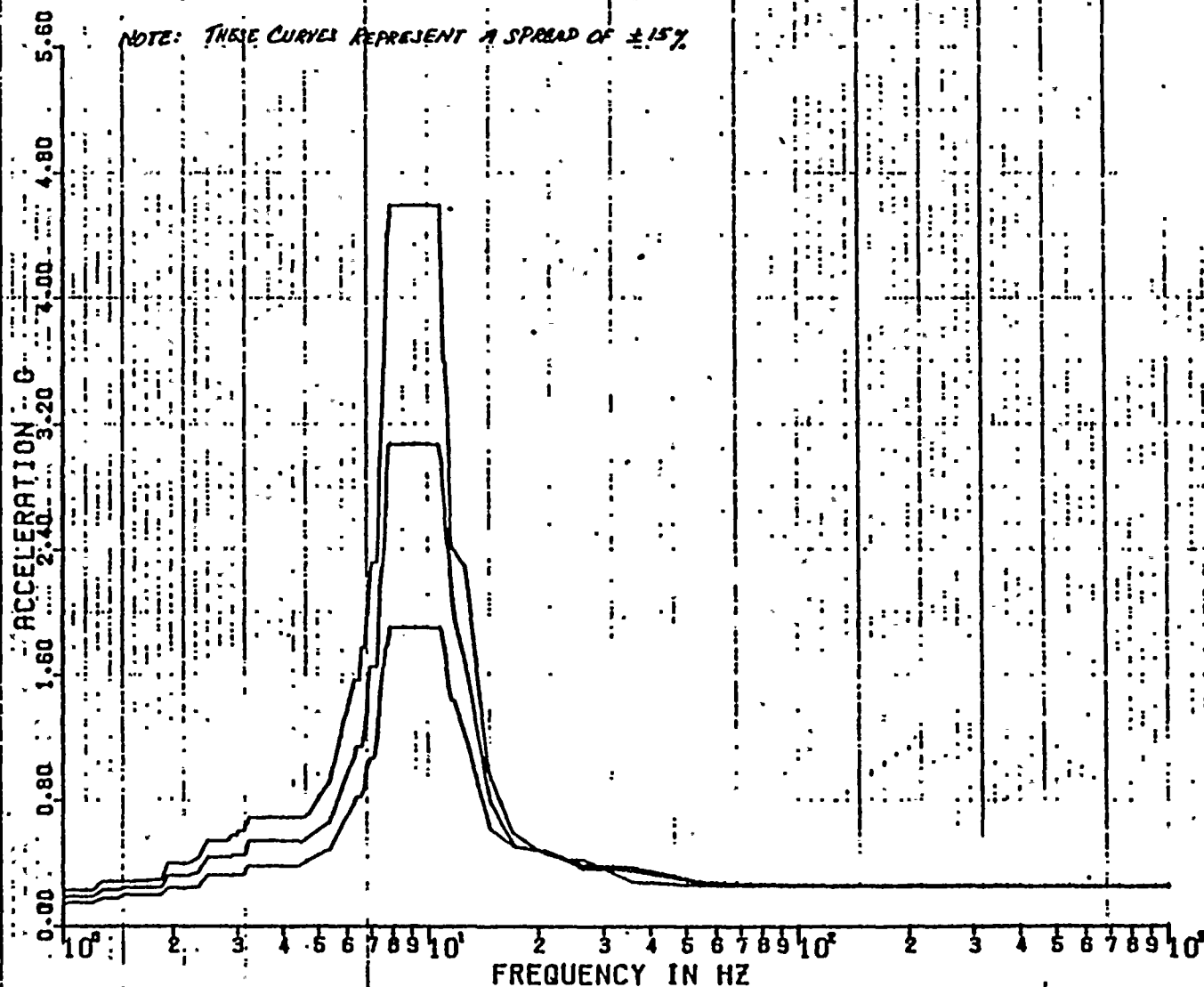
DISK CURVE SET NO.3

VER DIRECTION

DAMPING VALUES

0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 91



SPECTRA VER 01 LEV 00 SEISMIC (SG)

27 DEC 1982

NIOARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RBS OF ACC. SECONDARY CONT. (ELEV. 959.89 FT)

MS1765

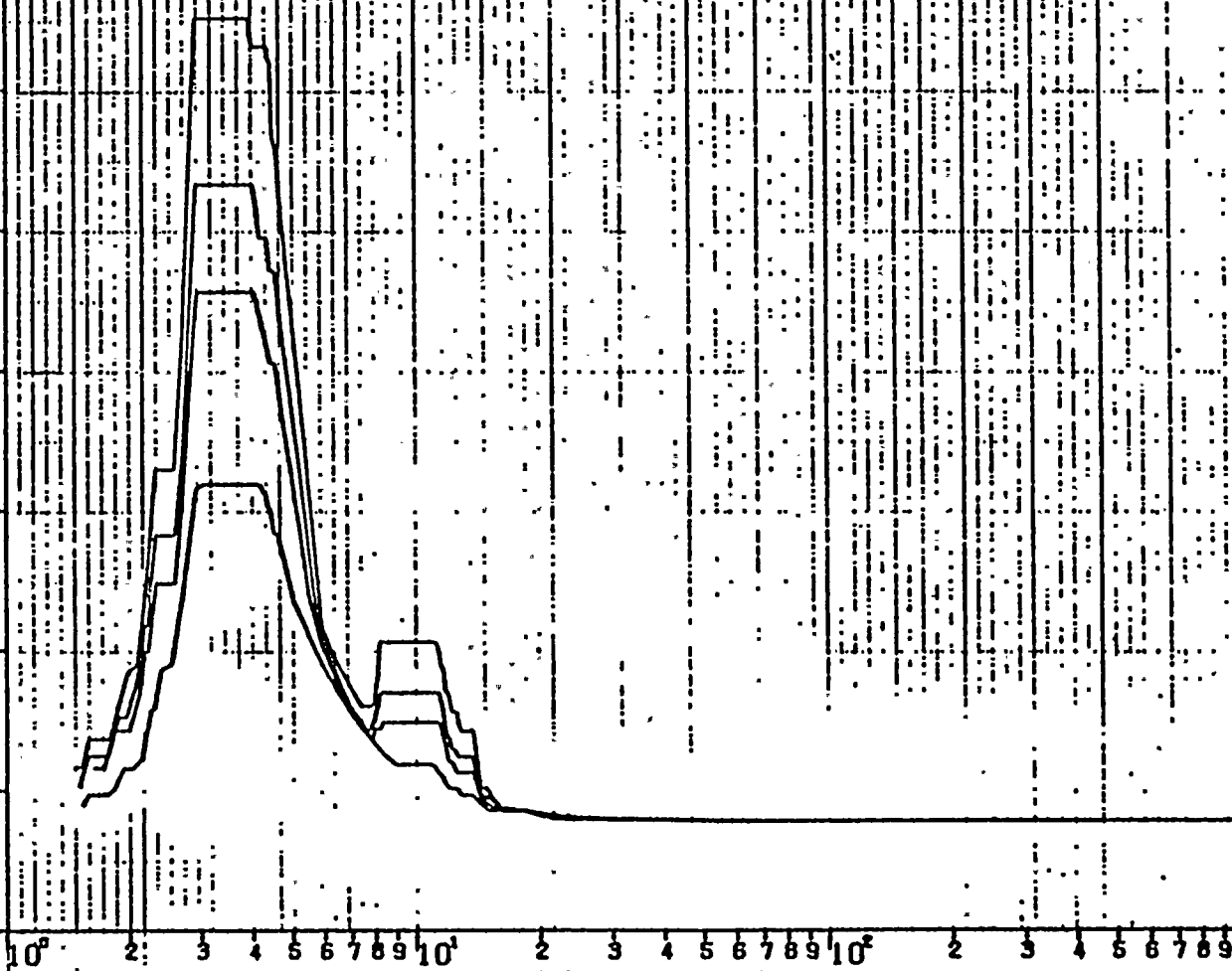
DISK CURVE SET NO. 9

HOR DIRECTION

DAMPING VALUES: 0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$

ACCELERATION - G
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60



FREQUENCY IN HZ

Ref 91



SPECTRA VER D1 LEV 00 SEISMIC (2.3)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12.77 H6-1765-0
RMS OF ACC. SECONDARY CONT. (ELEV. 959.09 FT)

MS1765

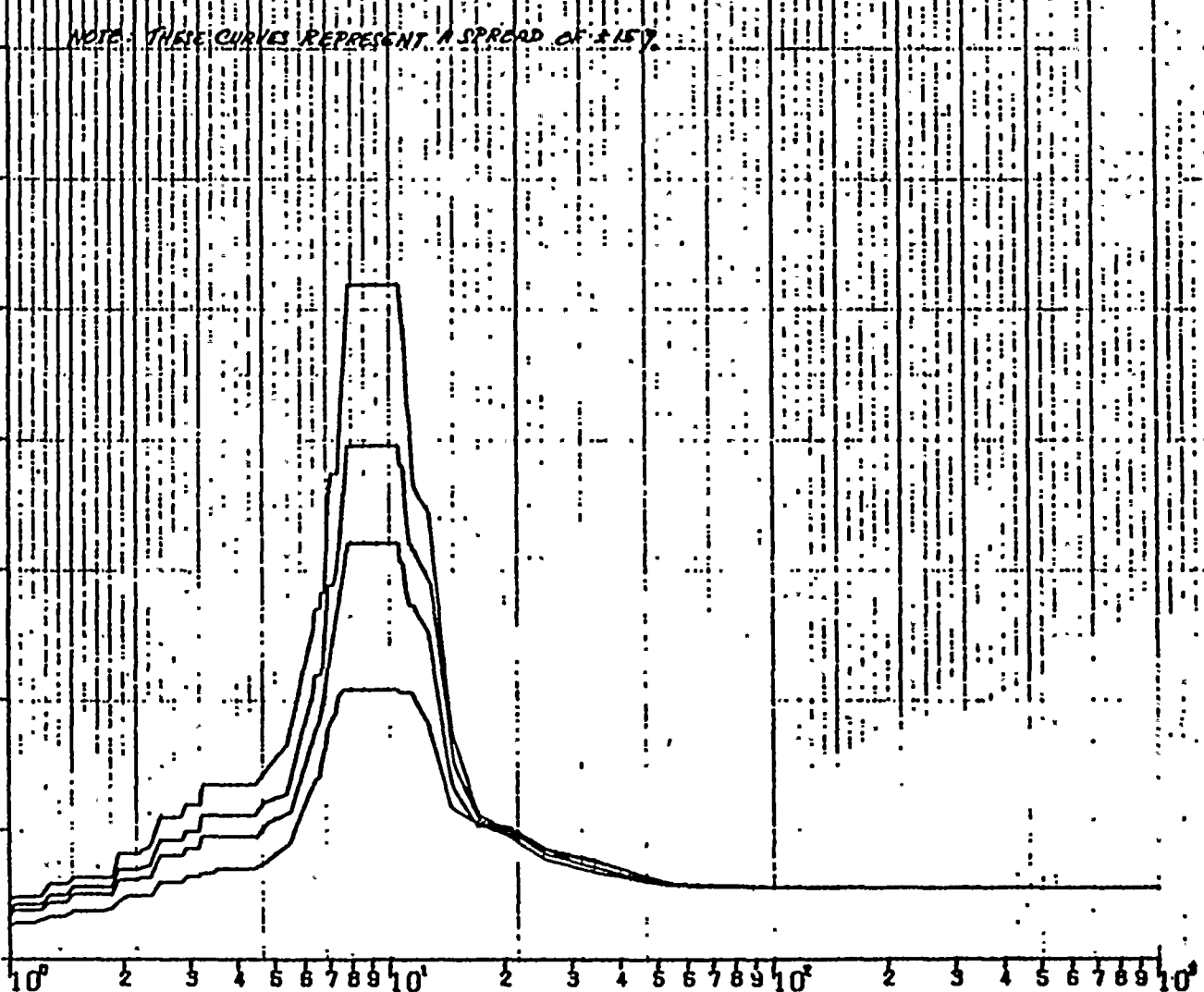
DISK CURVE SET NO.5

VER DIRECTION

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPECTRA OF 1.57

ACCELERATION - G
0.00
0.80
1.60
2.40
3.20
4.00
4.80
5.60



FREQUENCY IN HZ

425-01



PSPECTRA VER 01 LEV 00

SEISMIC LOG

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 928.89 FT)

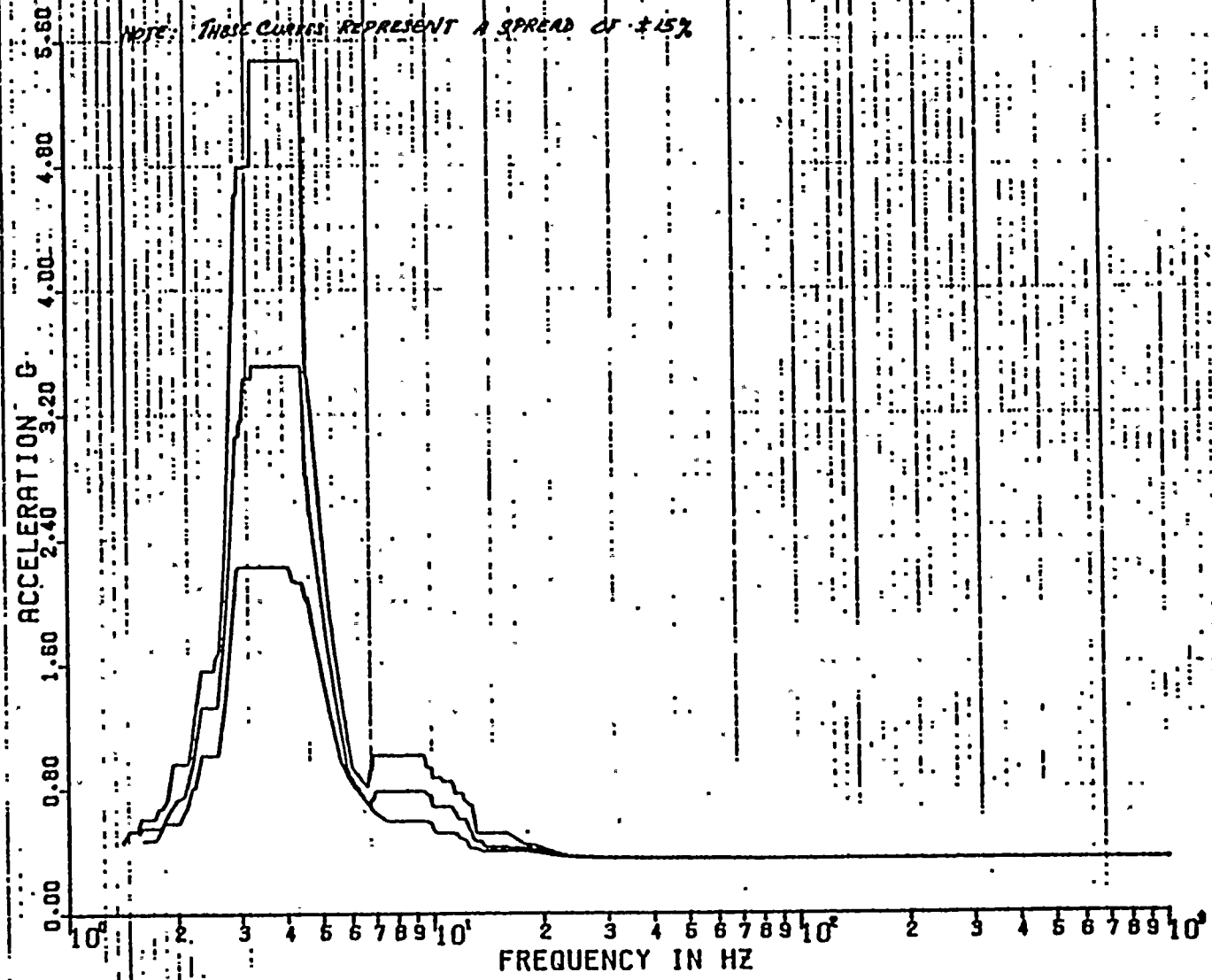
MS1765

DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 92



PSPECTRA VER 01 LEV 08

SEISMIC

27 DEC 1982

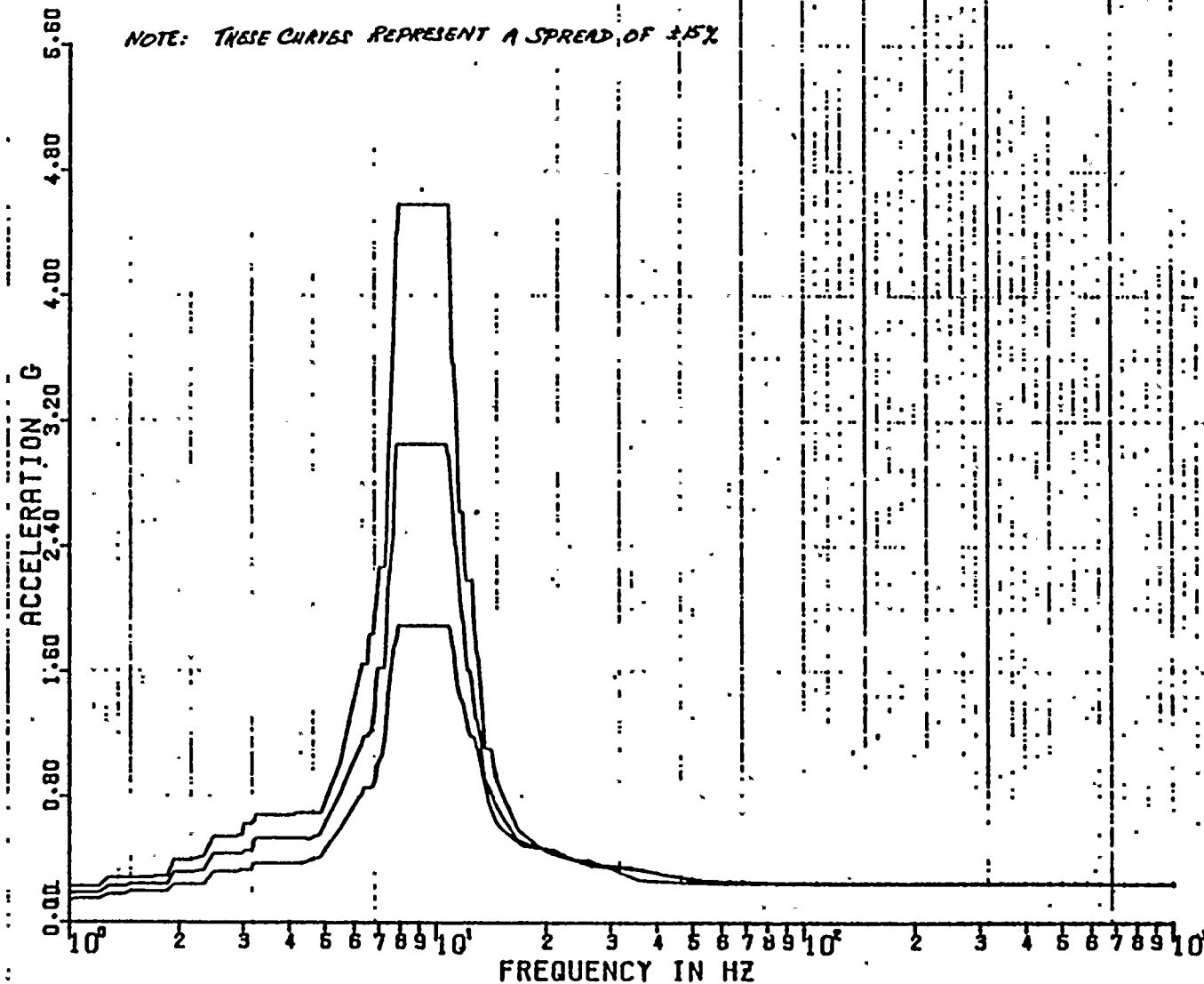
NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 HS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 926.89 FT)

MS1765

DISK CURVE SET NO.4

VER DIRECTION

DAMPING VALUES

D.010
D.020
D.040NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 5\%$ 

26 92



PSPECTRA VER 01 LEV 00

SEISMIC

27 DEC 1982

MIADANA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 M5-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 320.83 FT)

MS1765

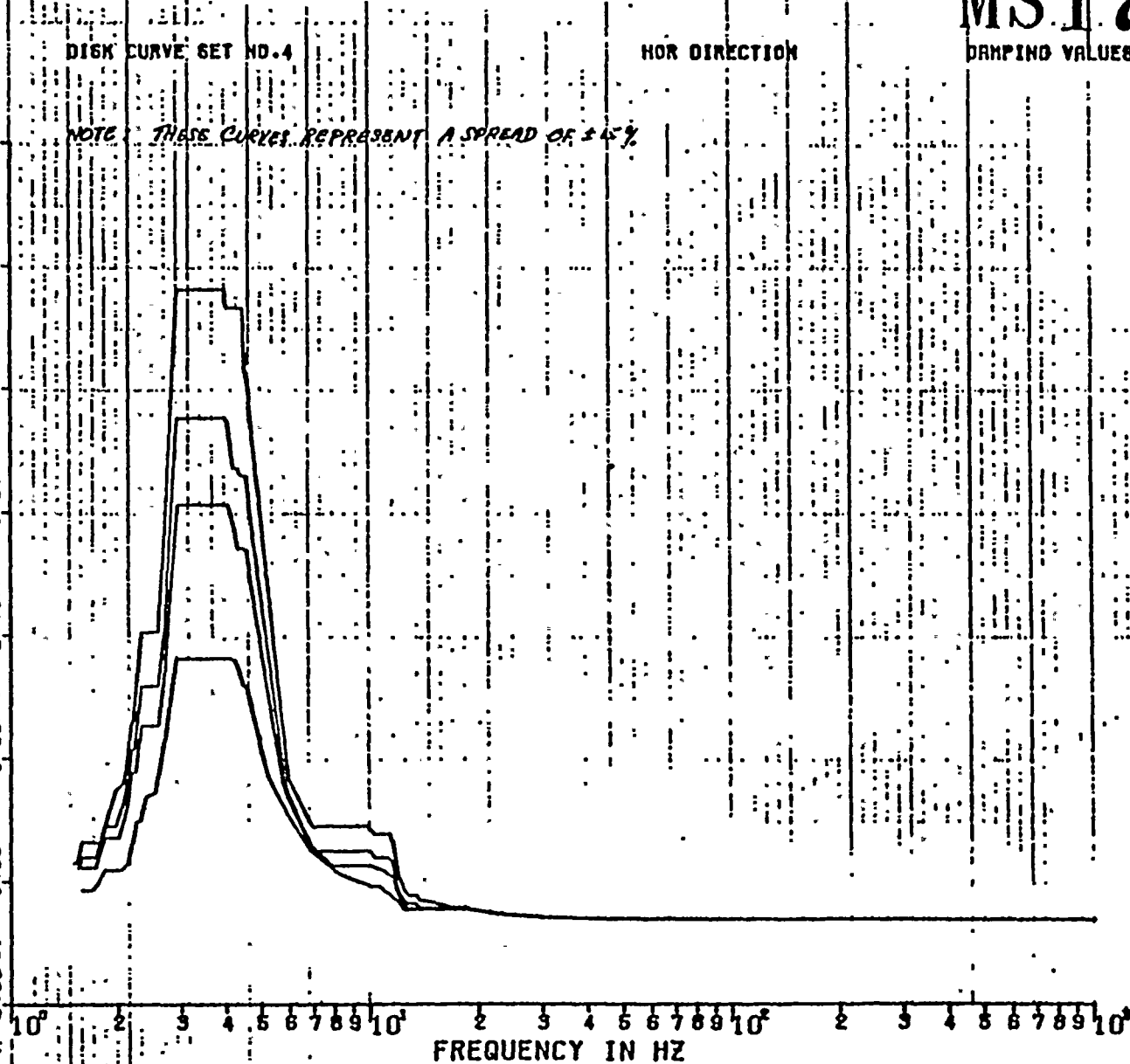
DISK CURVE SET NO.4

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$

ACCELERATION G
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60



REF 92

PSPECTRA VER 01 LEV 00

SEISMIC

27 DEC 1982

NIAOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 NS-1765-0
RR6 OF ACC. SECONDARY CONT. (ELEV..928.89 FT)

MS1765

DISK CURVE SET NO.4

VER DIRECTION

DAMPING VALUES

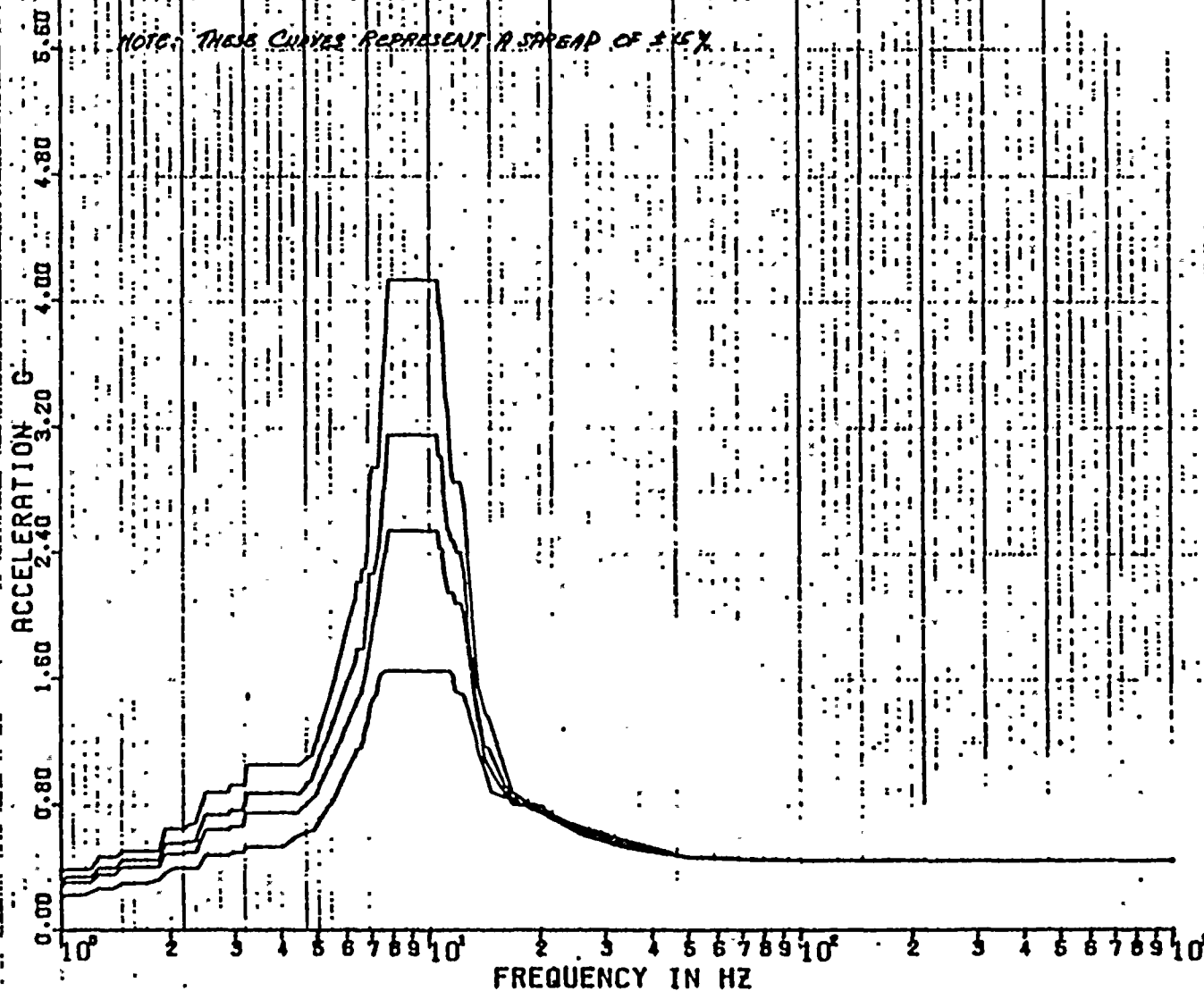
0.020

0.030

0.040

0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF 1 KEY



REF 92

PSPECTRA VER 01 LEV 08

SEISMIC (O.V.)

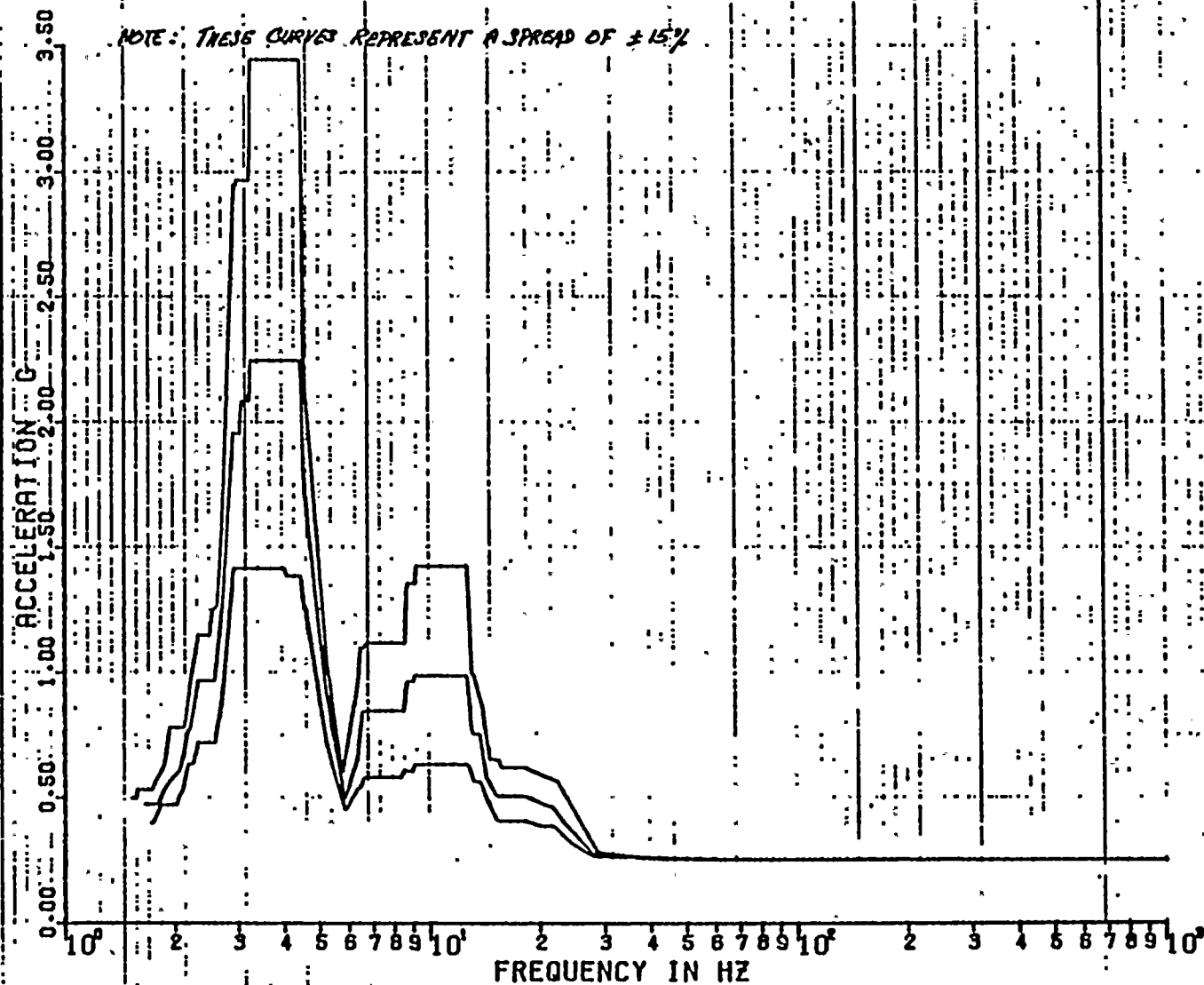
27 DEC 1982

NIAOGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 H8-1785-0
RR6 OF ACC. SECONDARY CONT. (ELEV. 289.0 FT)

MS1765

DISK CURVE SET NO.5

HOR DIRECTION

DAMPING VALUES : 0.010
0.020
0.040NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$ 

P6PECTRA VER 01 LEV 00

SEISM (3.5)

27 DEC 1982

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 HS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 289.0 FT).

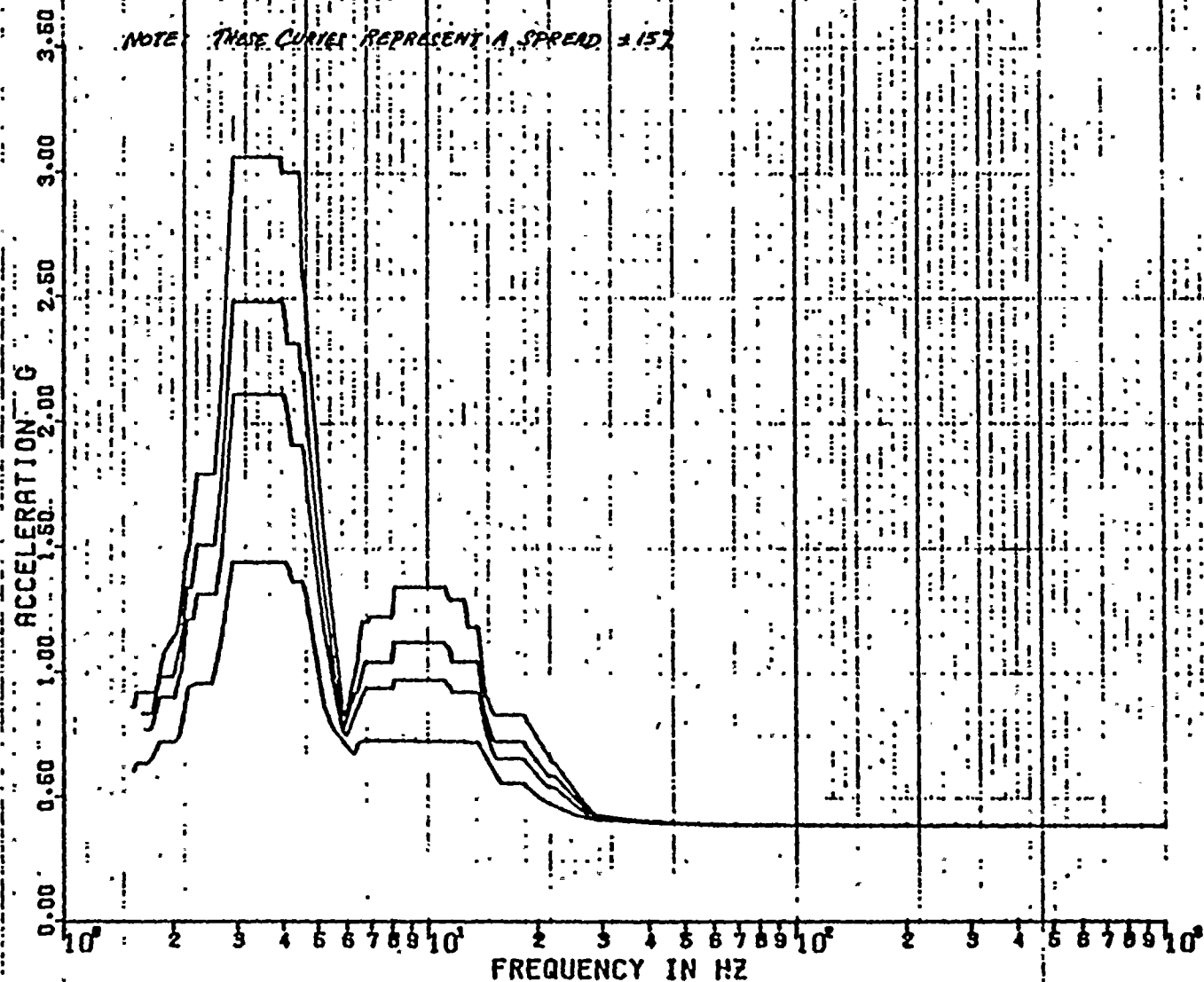
DISK CURVE SET NO.6

HOR DIRECTION

MS1765

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD 3.15



26 F

93



PSPECTRA VER 01 LEV 08

SEISMIC

27 DEC 1982

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MB-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 289.0 FT)

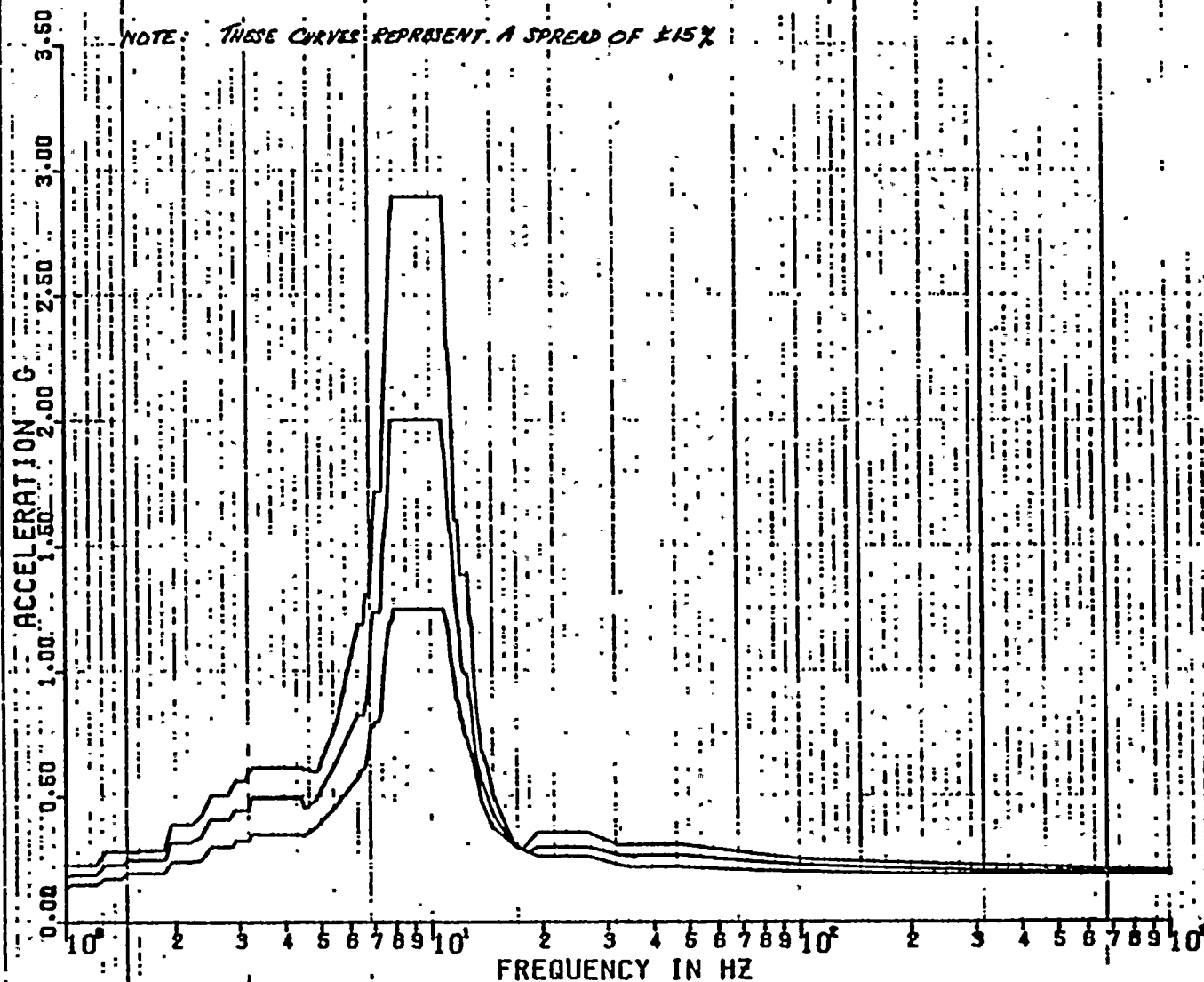
MS1765

DISK CURVE SET NO.6

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



93 237



PSPECTRA VER 01 LEV 08 SEISMIC (USE)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1785-0
RRS OF ACC. SECONDARY CONT. (ELEV. 289.0 FT)

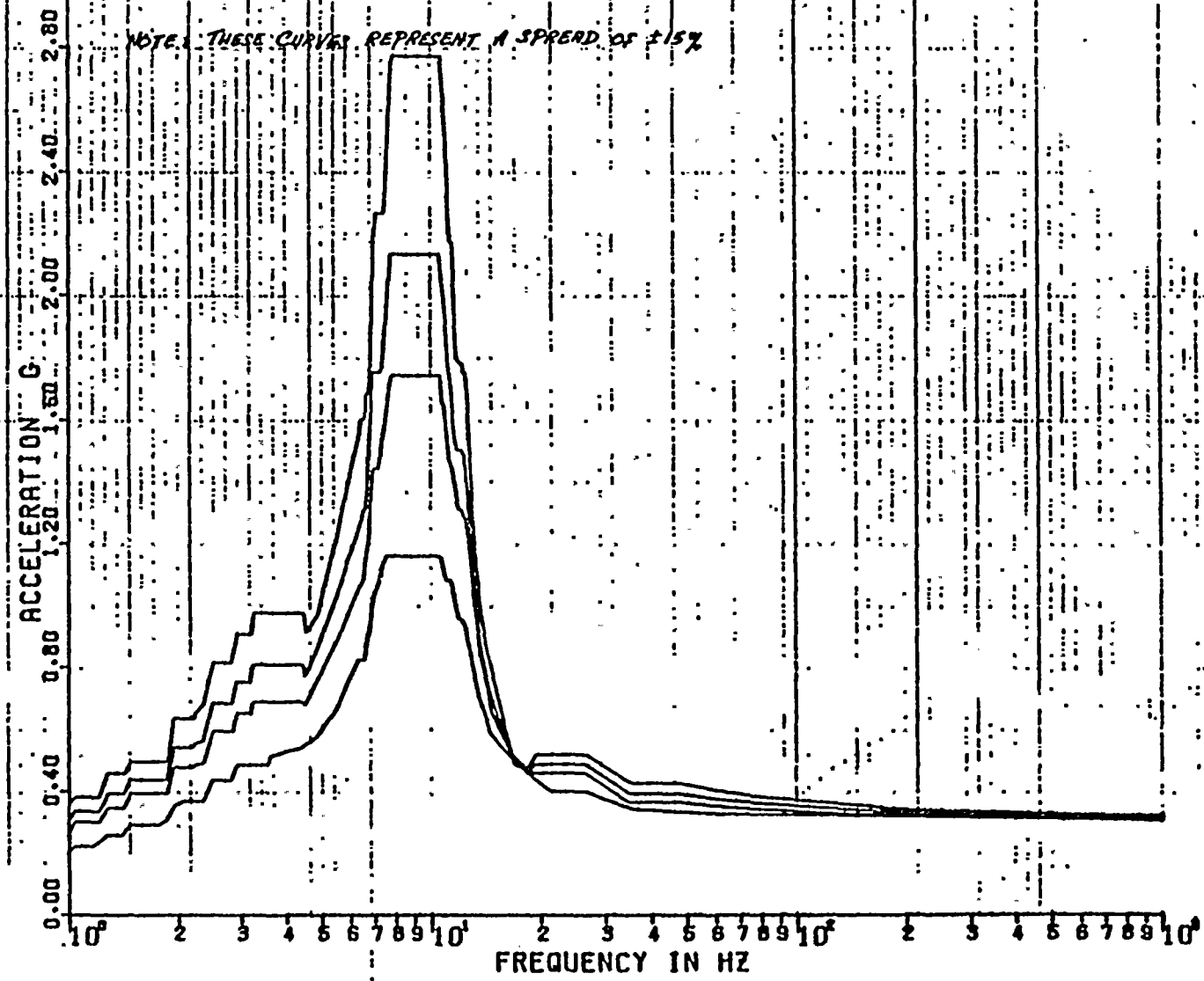
MS1765

DISK CURVE SET NO.5

VER DIRECTION

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 93



PSPECTRA VER 01 LEV 08

SEISM (OBE)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1765-0
RR6 OF ACC. SECONDARY CONT. (ELEV. 282.0 FT)

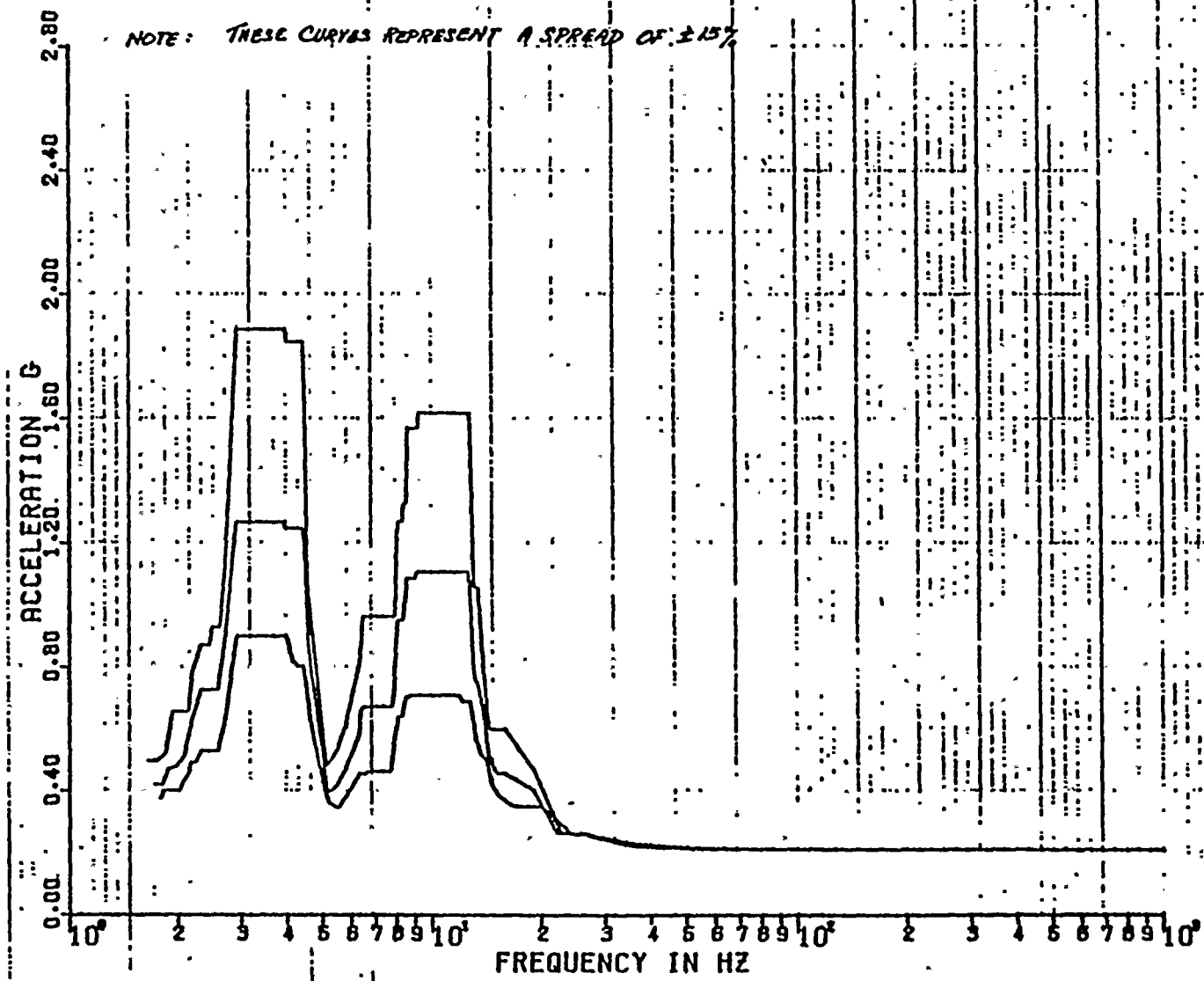
MS1765

DISK CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



46 1.27



PSPECTRA VER 01 LEV 08 SEISMIC (385)
 NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1765-0
 RRS OF ACC. SECONDARY CONT. (ELEV. 282.0 FT)

27 DEC 1982

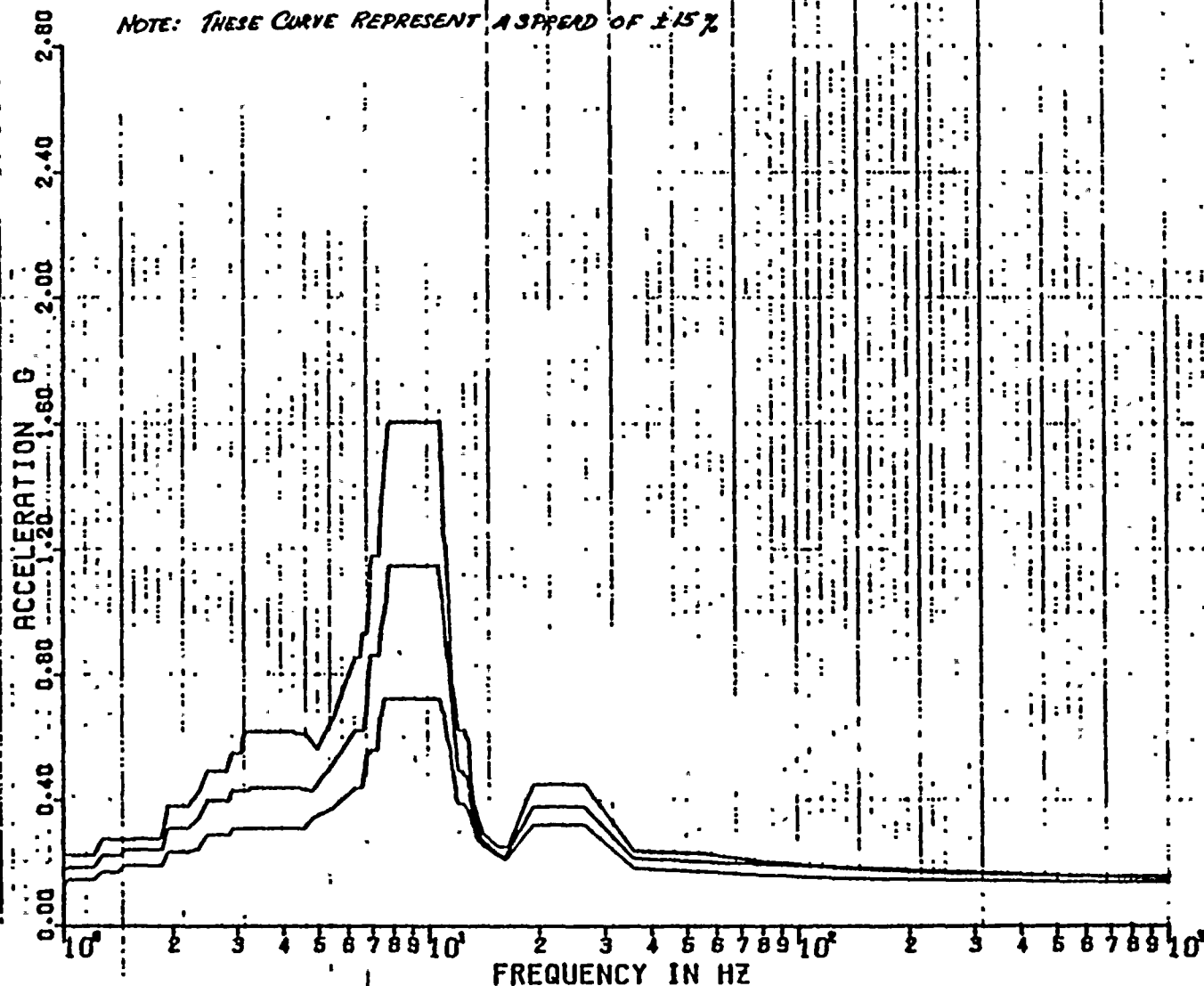
MS1765

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES 0.010
 0.020
 0.040

NOTE: THESE CURVE REPRESENT A SPREAD OF $\pm 15\%$



REF 94

PSPECTRA VER 01 LEV 08

SEISMIC (1/E)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 262.0 FT)

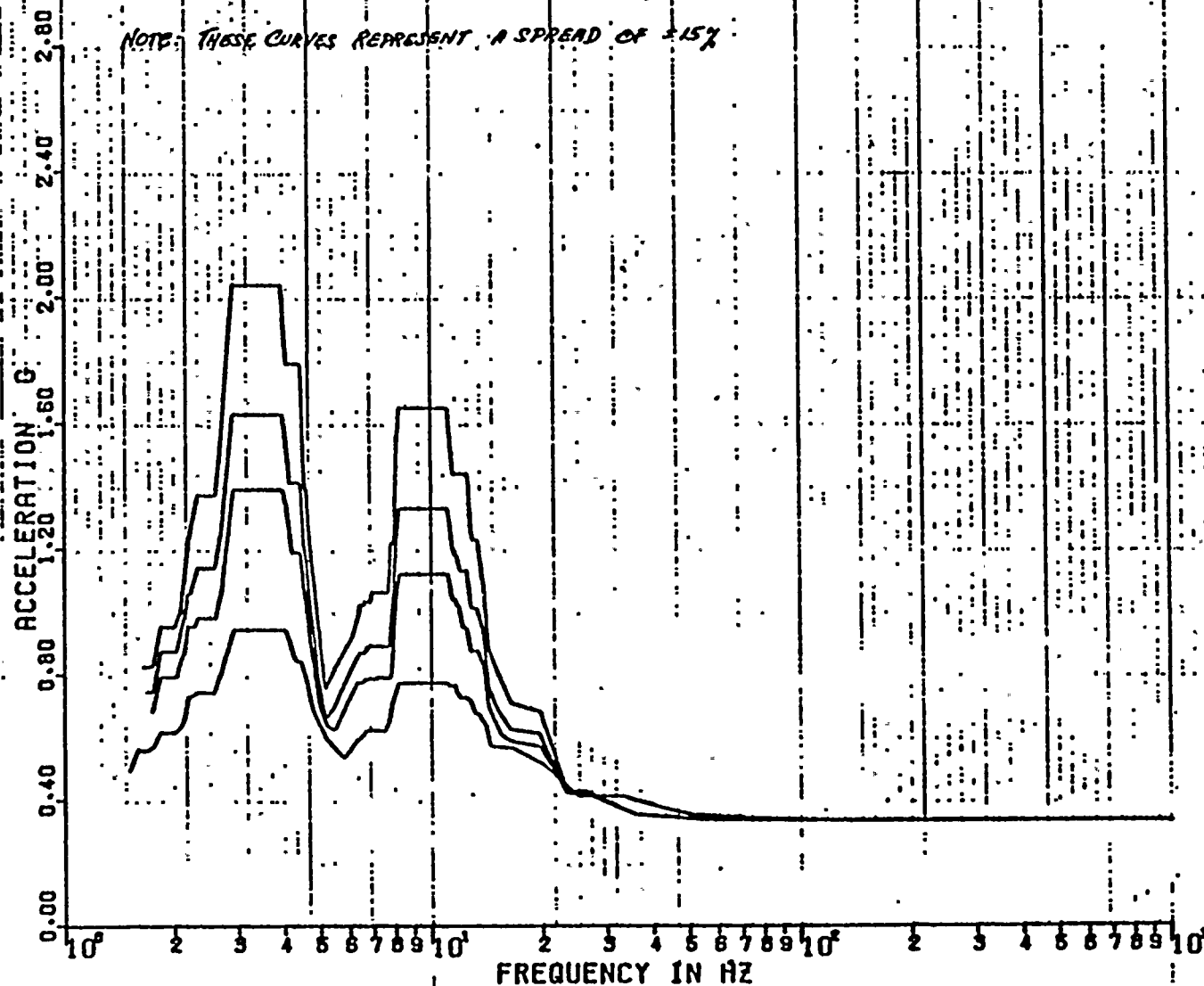
MS1765

DIGK CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



46 137 94



PSPECTRA VER 01 LEV 00

SEISMIC (SE)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1765-D
RRS OF ACC. SECONDARY CONT. (ELEV. 262.0 FT)

MS 1765

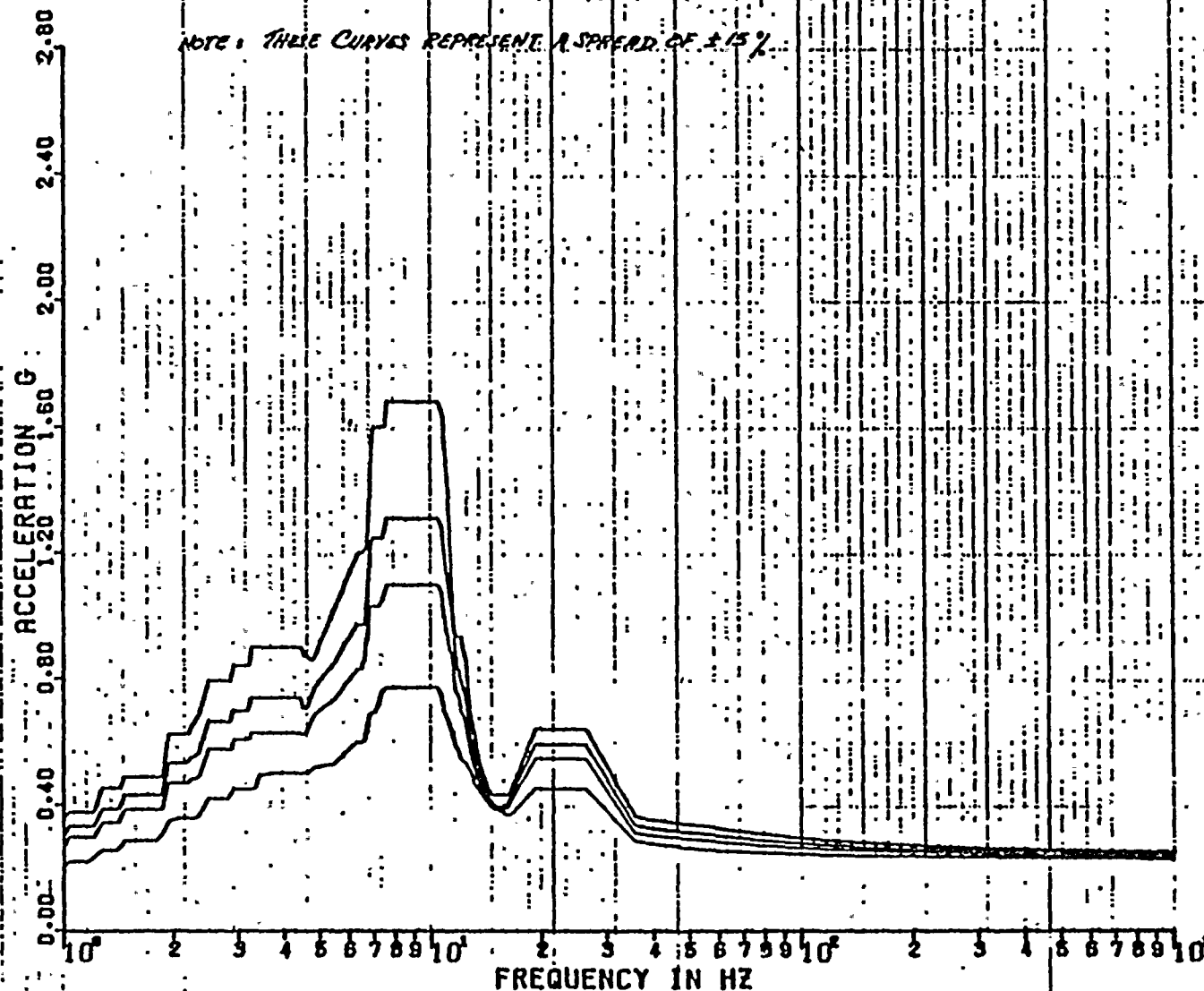
DISK CURVE SET NO.6

VER DIRECTION

DAMPING VALUES

D.020
D.030
D.040
D.070

NOTE: THREE CURVES REPRESENT A SPREAD OF $\pm 15\%$



228-94



PSPECTRA VER 01 LEV 08

SEISMIC (C)

27 DEC 1982

NIAORRA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 HB-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 240.0 FT)

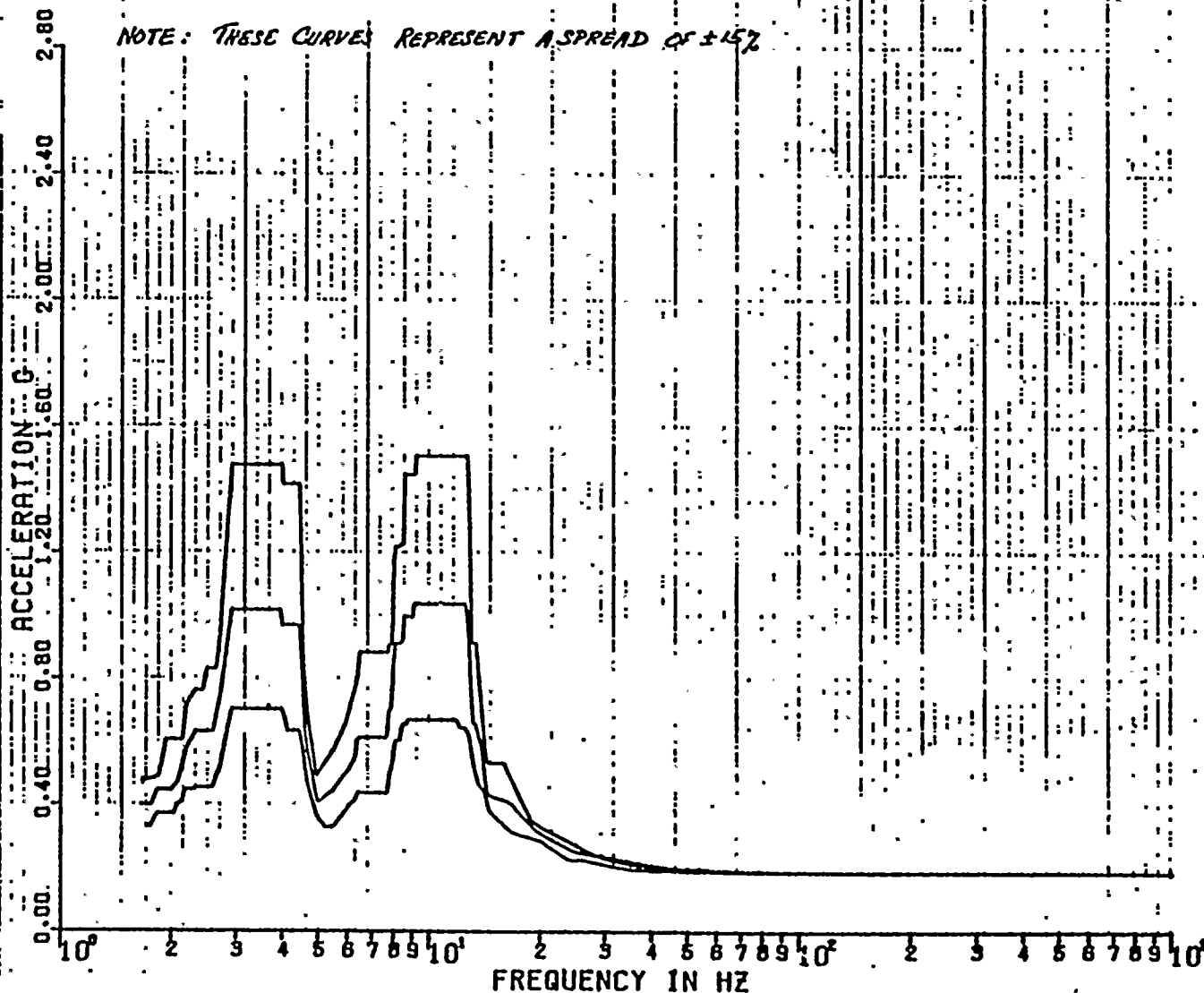
MS1765

DISK CURVE SET NO.7

HOR DIRECTION

DAMPING VALUES
0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 95



PSPECTRA VER 01 LEV 08 *SEISMIC (DBE)*
 NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-D
 RRS OF ACC. SECONDARY CONT. (ELEV. 240.0 FT)

27 DEC 1982

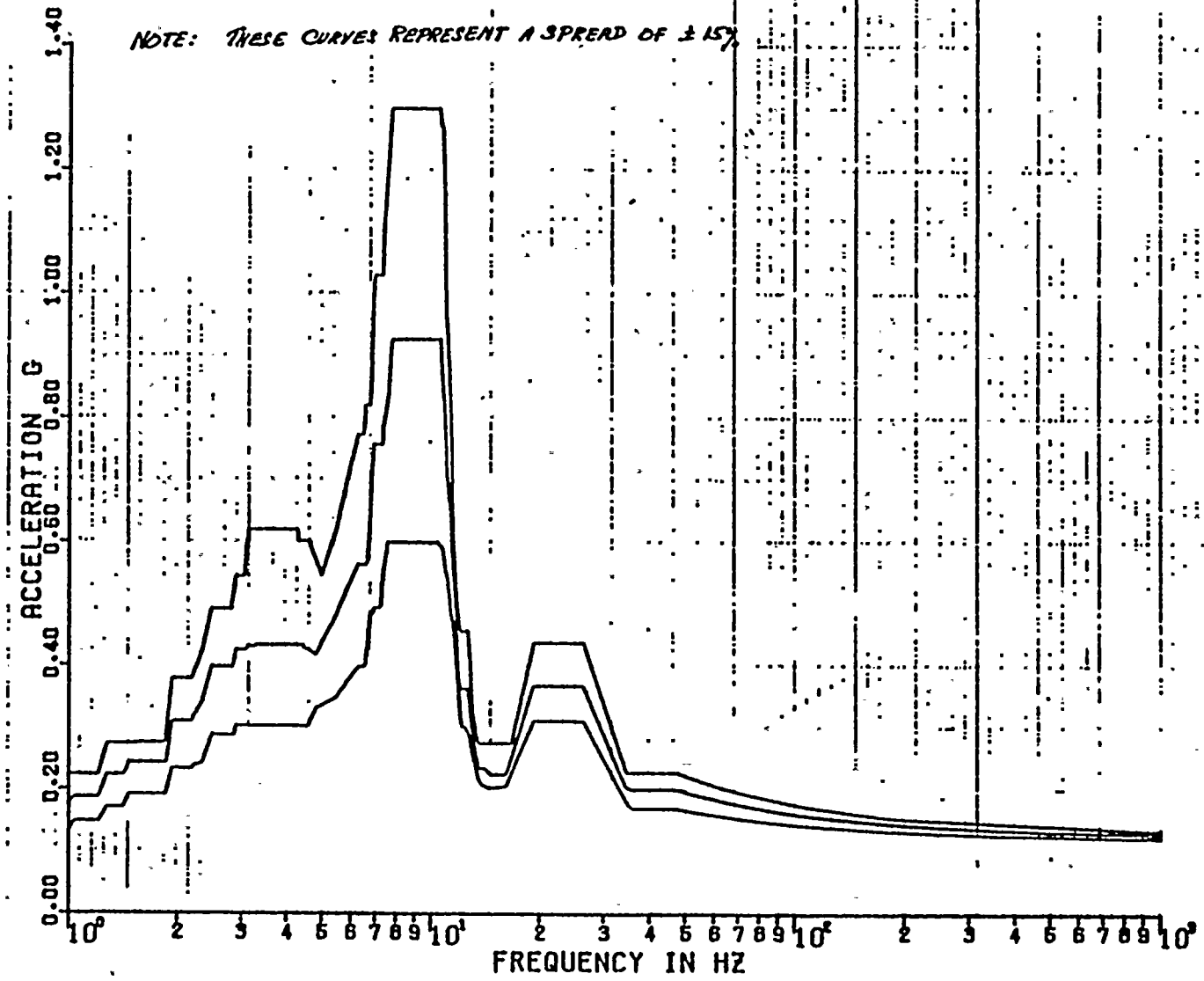
MS1765

DISK CURVE SET NO.7

VER DIRECTION

DAMPING VALUES
 0.010
 0.020
 0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 95



PSPECTRA VER 01 LEV 08

SEISM (SSE)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1785-0
RRS OF ACC. SECONDARY CONT. (ELEV. 240.0 FT)

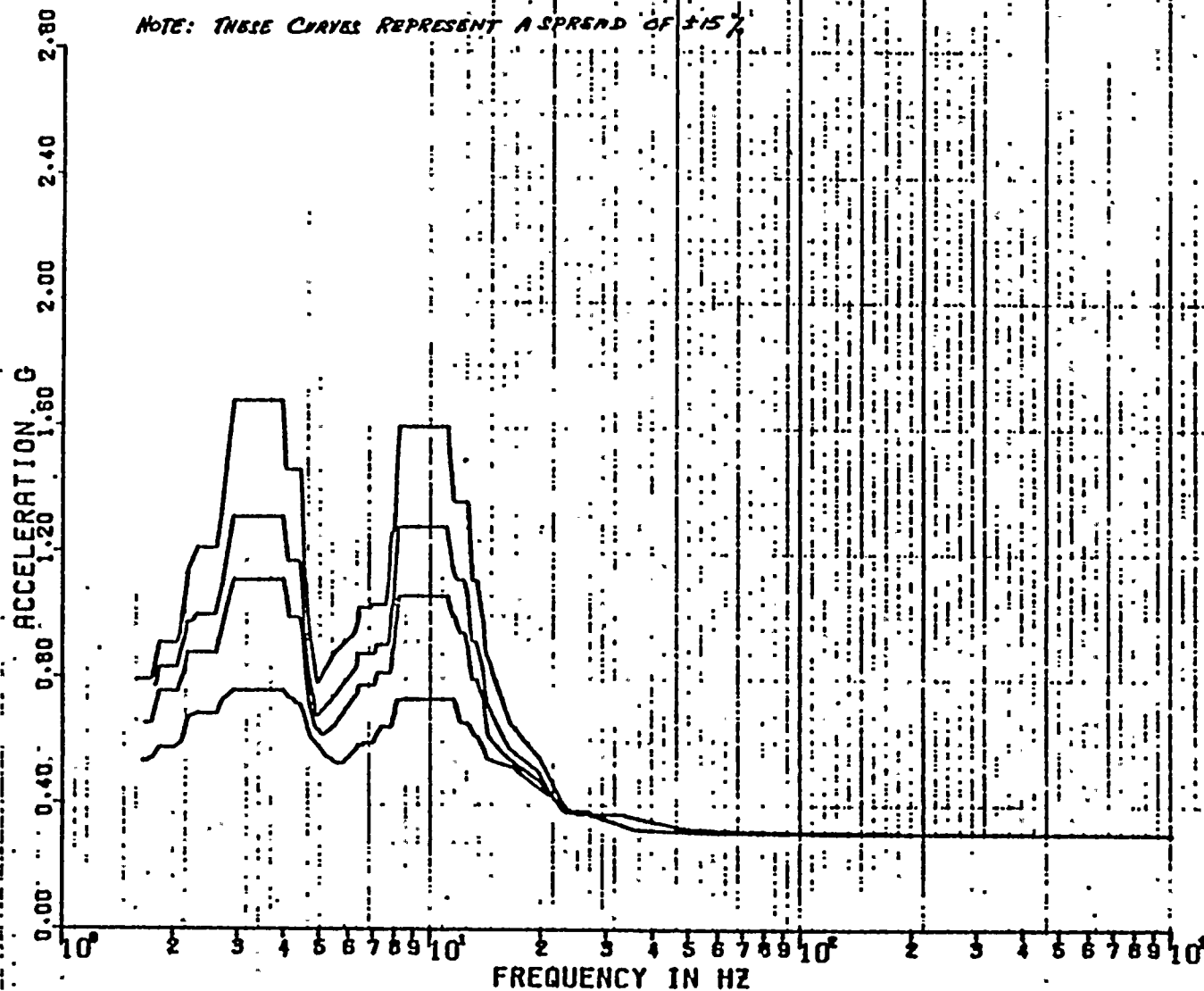
DISK CURVE SET NO.7

HOR DIRECTION

MS1765

DAMPING VALUES

0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$ 

REF 95



PSPECTRA VER 01 LEV 08

SEISMIC (SSE)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 240.0 FT)

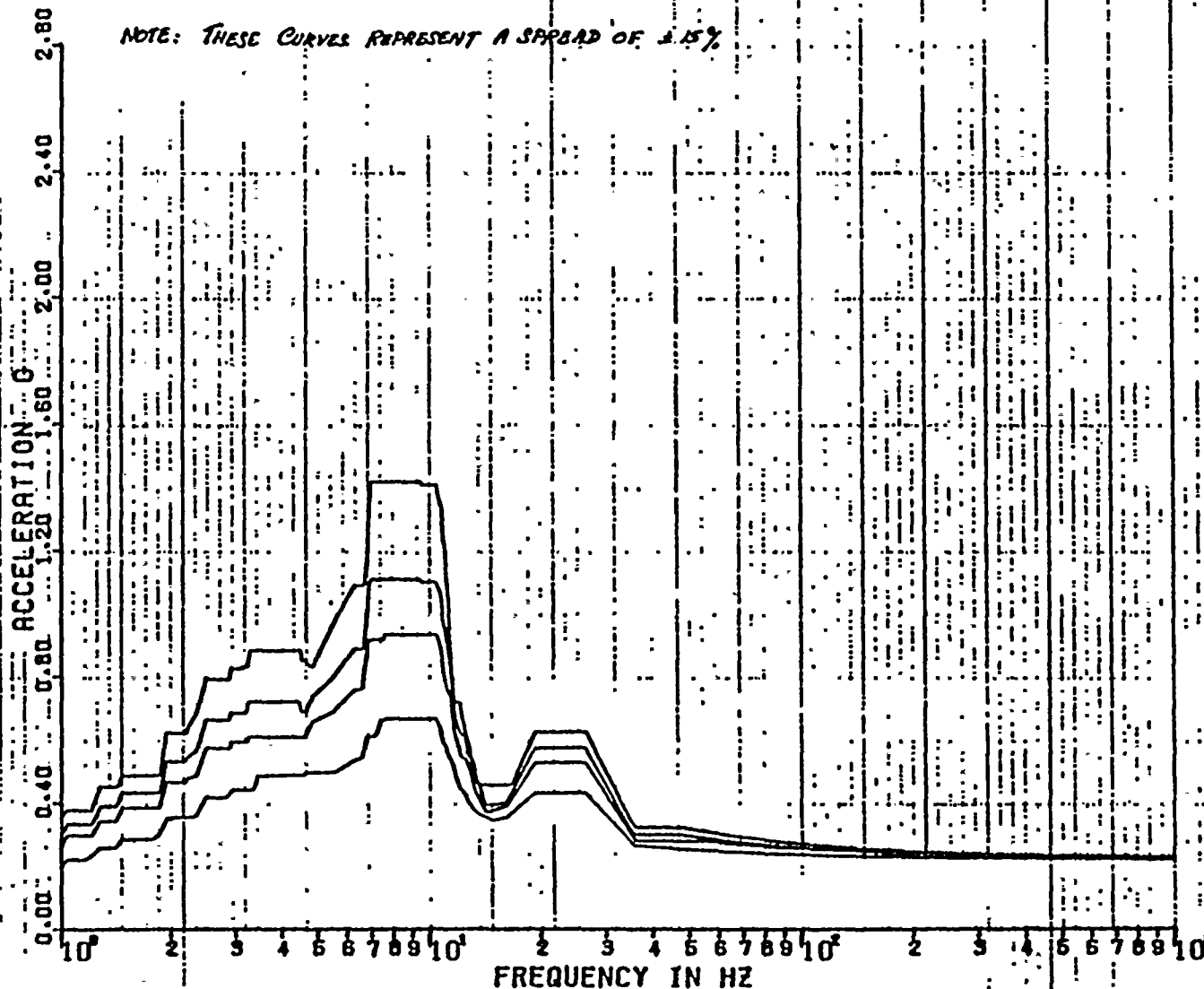
DISK CURVE SET NO.7

VER DIRECTION

MS1765

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



ACC 95



PSPECTRA VER 01 LEV 00 *SEISMIC (OBF)*

27 DEC 1982

NIAODARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1785-0
RRS OF ACC. SECONDARY CONT. (ELEV. 215.0 FT)

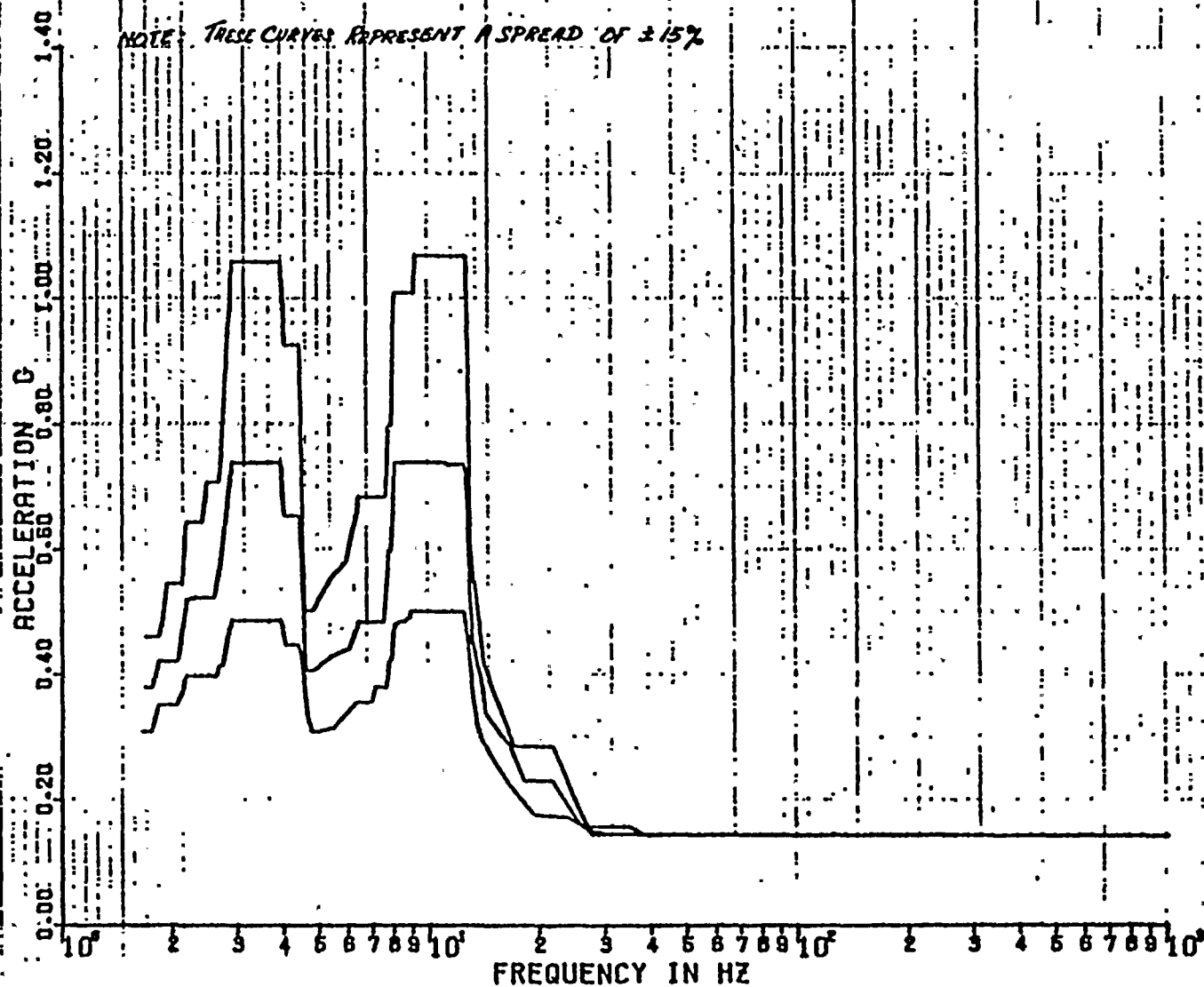
MS1765

DISK CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 96

SPECTRA VER D1 LEV 00 SEISMIC (S18)

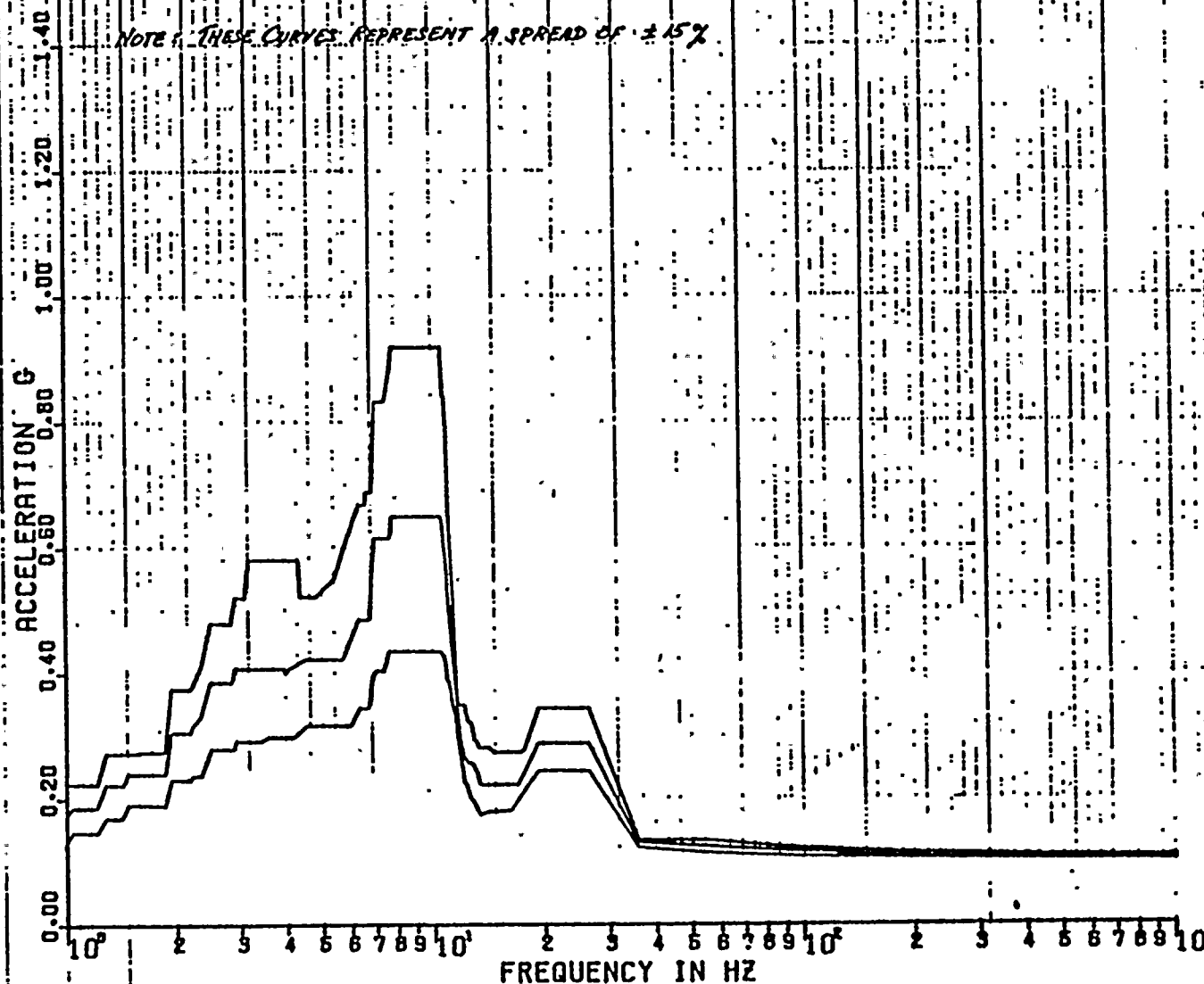
27 DEC 1982

HINDARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MB-1785-0
RRS OF ACC. SECONDARY CONT. (ELEV. 215.0 FT)

MS1765

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES
D.D10
D.D20
D.D40NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$ 

REF 96



PSPECTRA VER 01 LEV 08

SEISM (N SSE)

27 DEC 1982

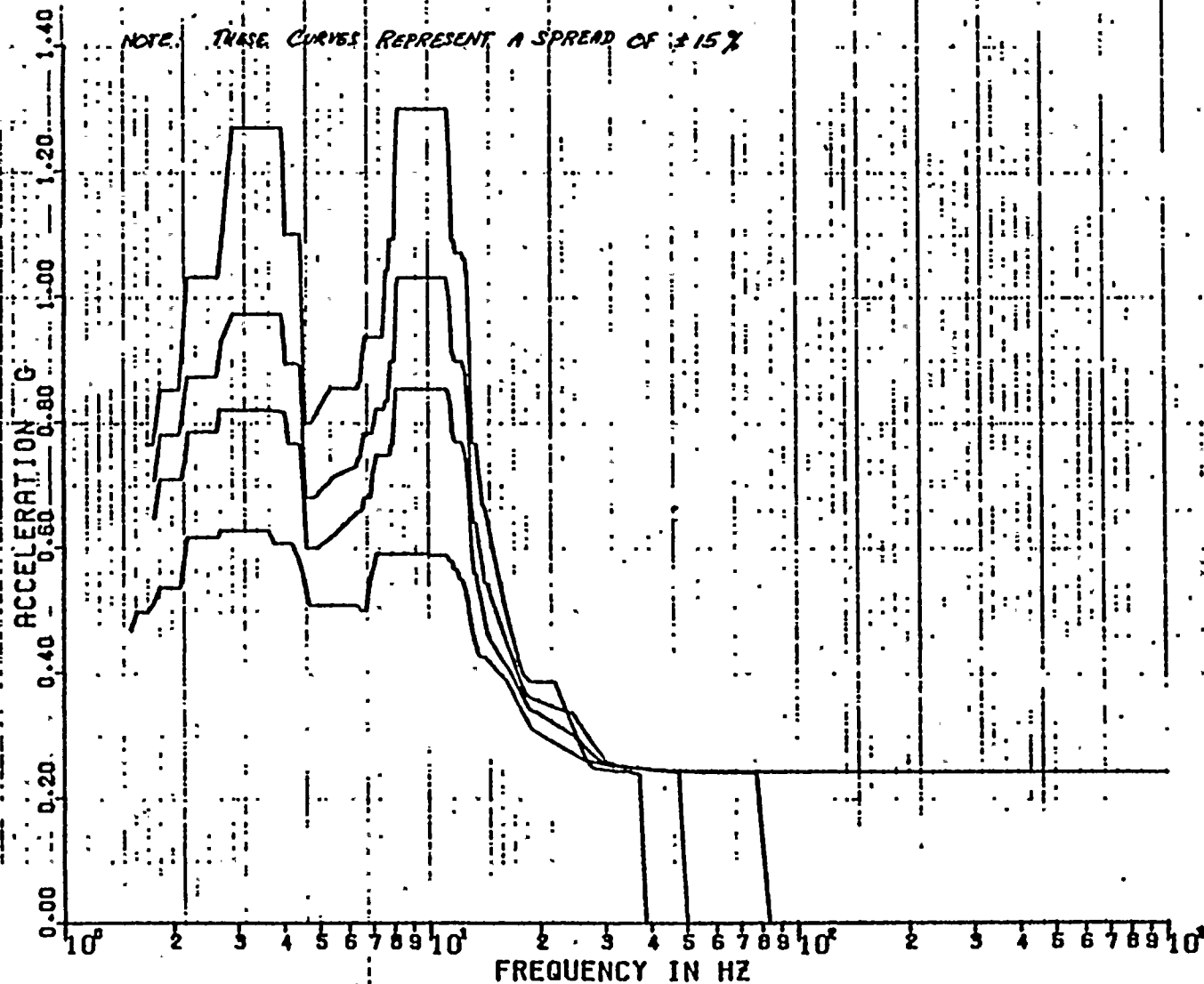
NIADARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1768-0
 RRS OF ACC. SECONDARY CONT. (ELEV. 215.0 FT)

DISK CURVE SET NO.8

HOR DIRECTION

MS1765

DAMPING VALUES = 0.020
 0.030
 0.040
 0.070



REF 96



P6PECTRA VER 01 LEV 08

SEISMIC (S)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12177 MS-1765-0
RR8 OF ACC. SECONDARY CONT. (ELEV. 215.0 FT)

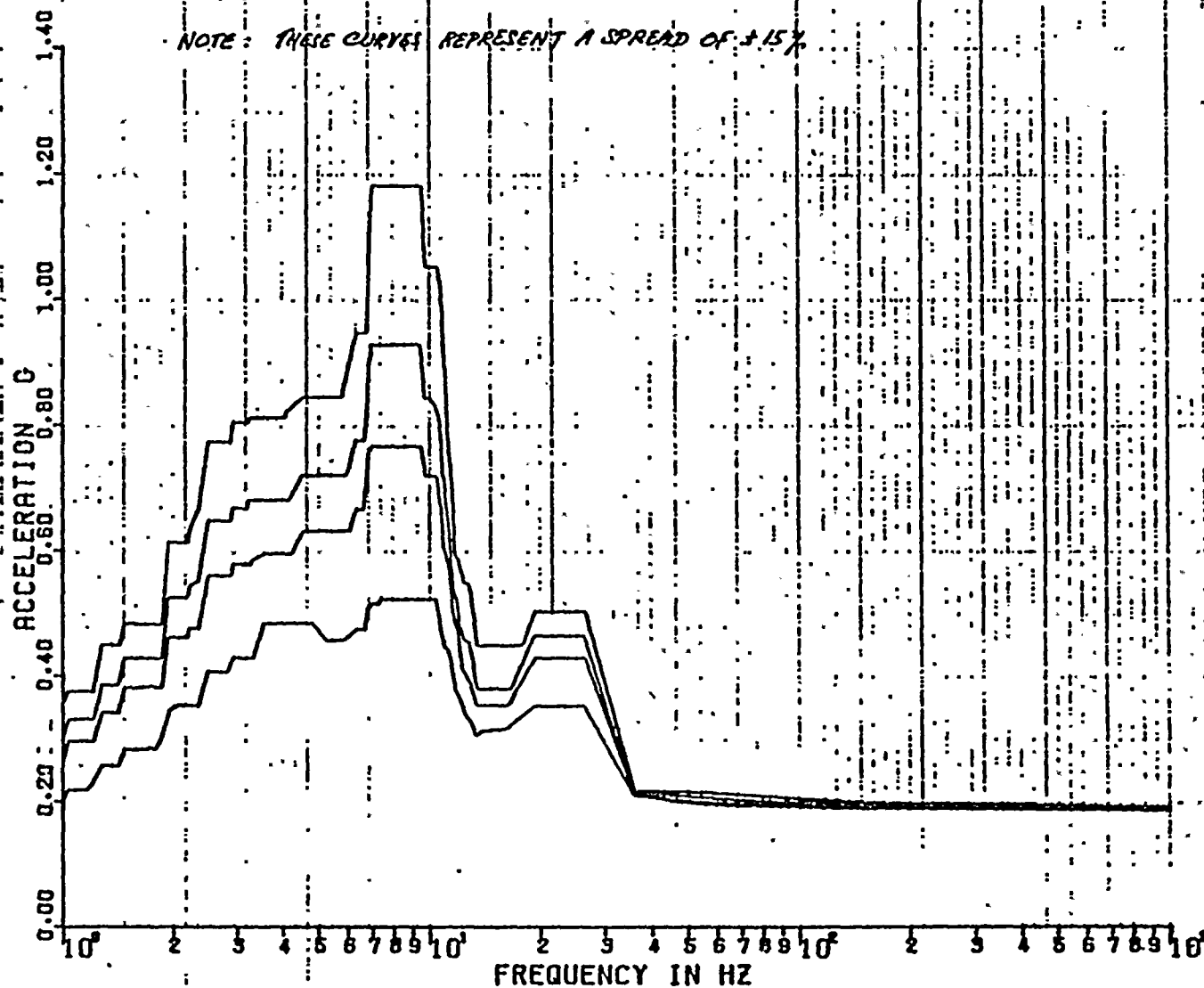
MS1765

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



76 137



PSPECTRA VER 01 LEV 08 SEISMIC (33E)

27 DEC 1982

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.D.12177 HG-1785-0
RRS OF ACC. SECONDARY CONT. (ELEV. 195.0 FT)

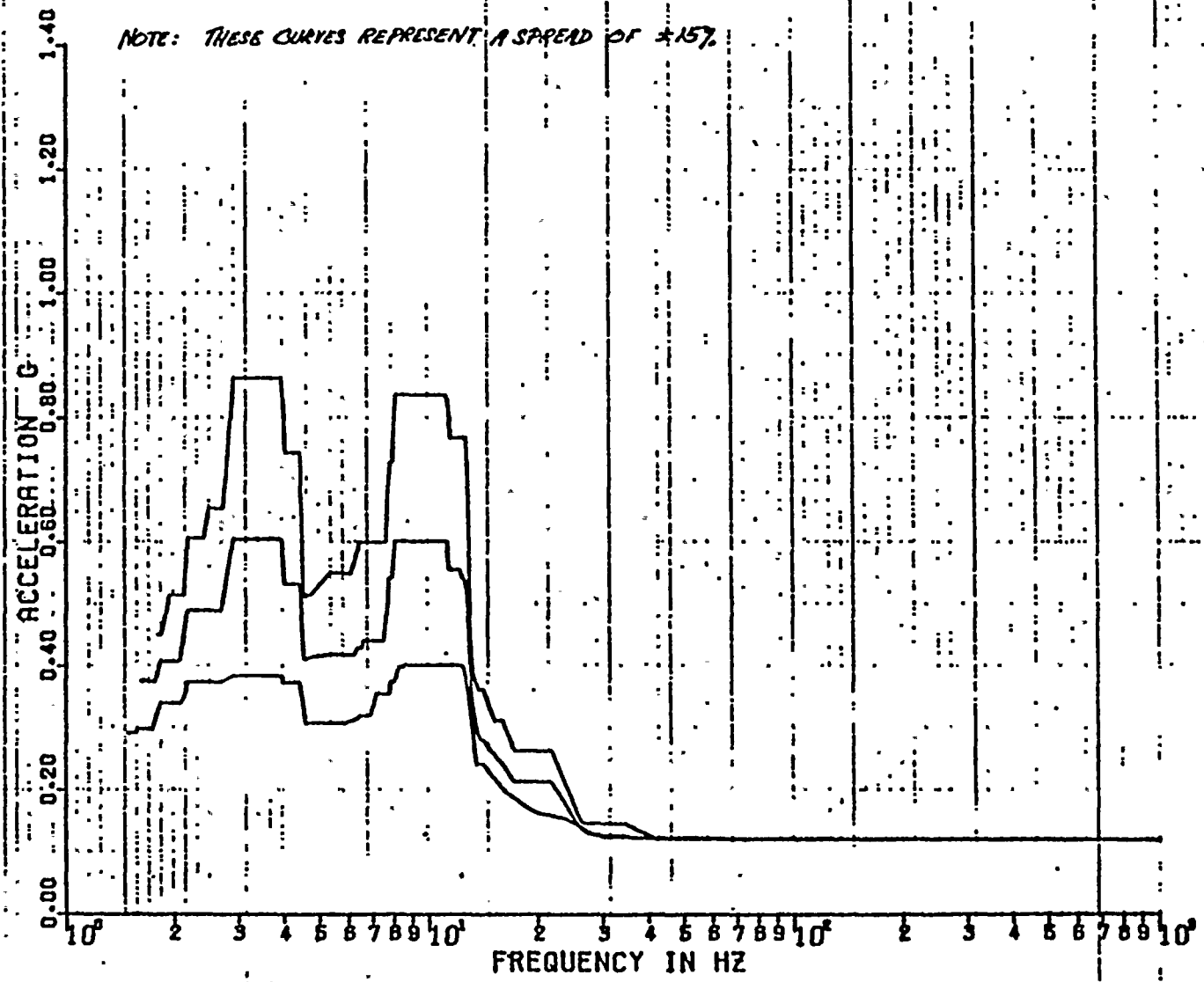
MS1765

DISK CURVE SET NO.9

HOR DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 97



PSPECTRA VER 01 LEV 08

SEISMIC (3E)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1785-0
RAB OF ACC. SECONDARY CONT. (ELEV. 198.0 FT)

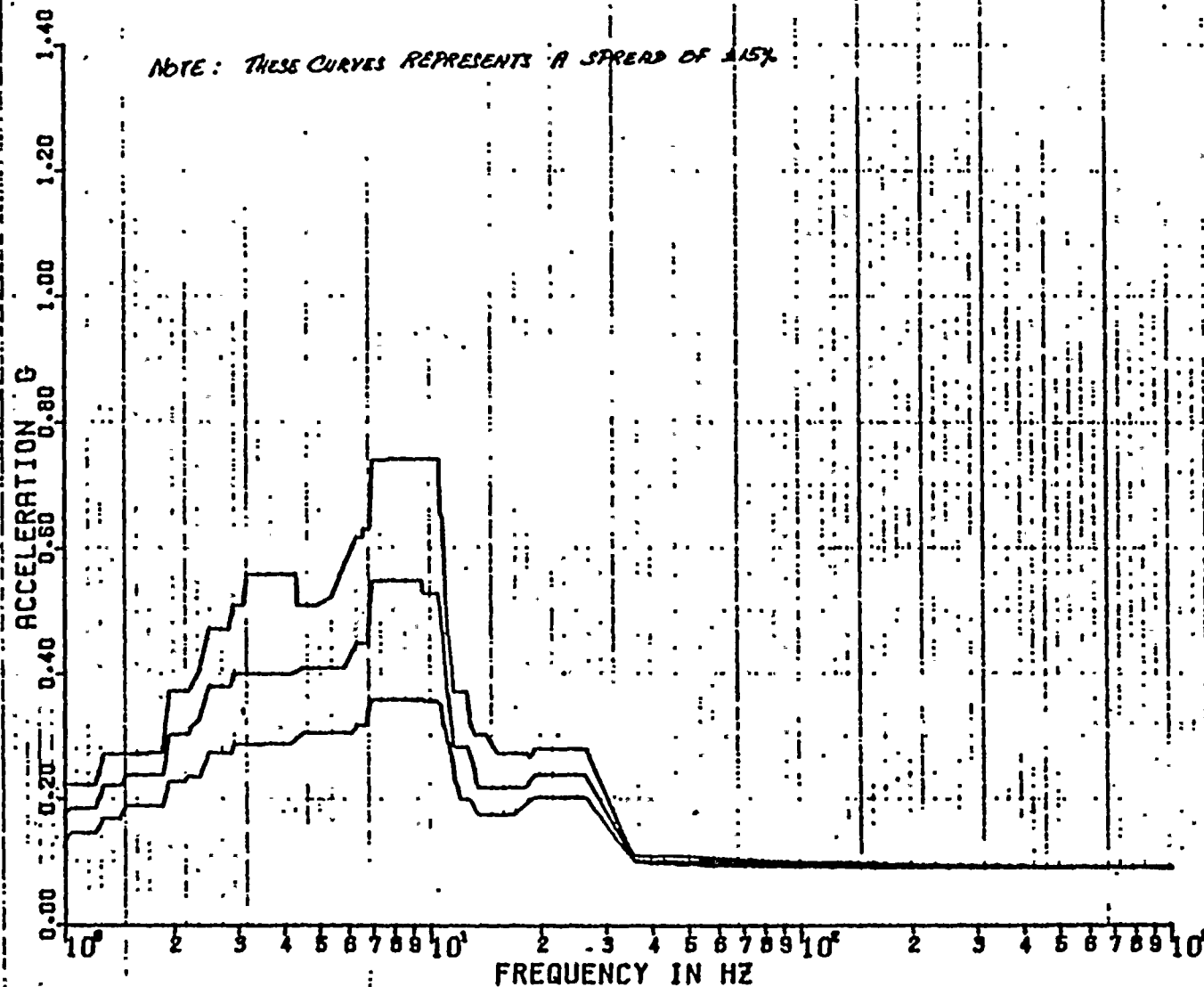
MS1765

DISK CURVE SET NO.9

VER DIRECTION

DAMPING VALUES - 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENTS A SPREAD OF 15%



REF 97



PSPECTRA VER 01 LEV 08

SEIS (SSE)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 M8-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 180.0 FT)

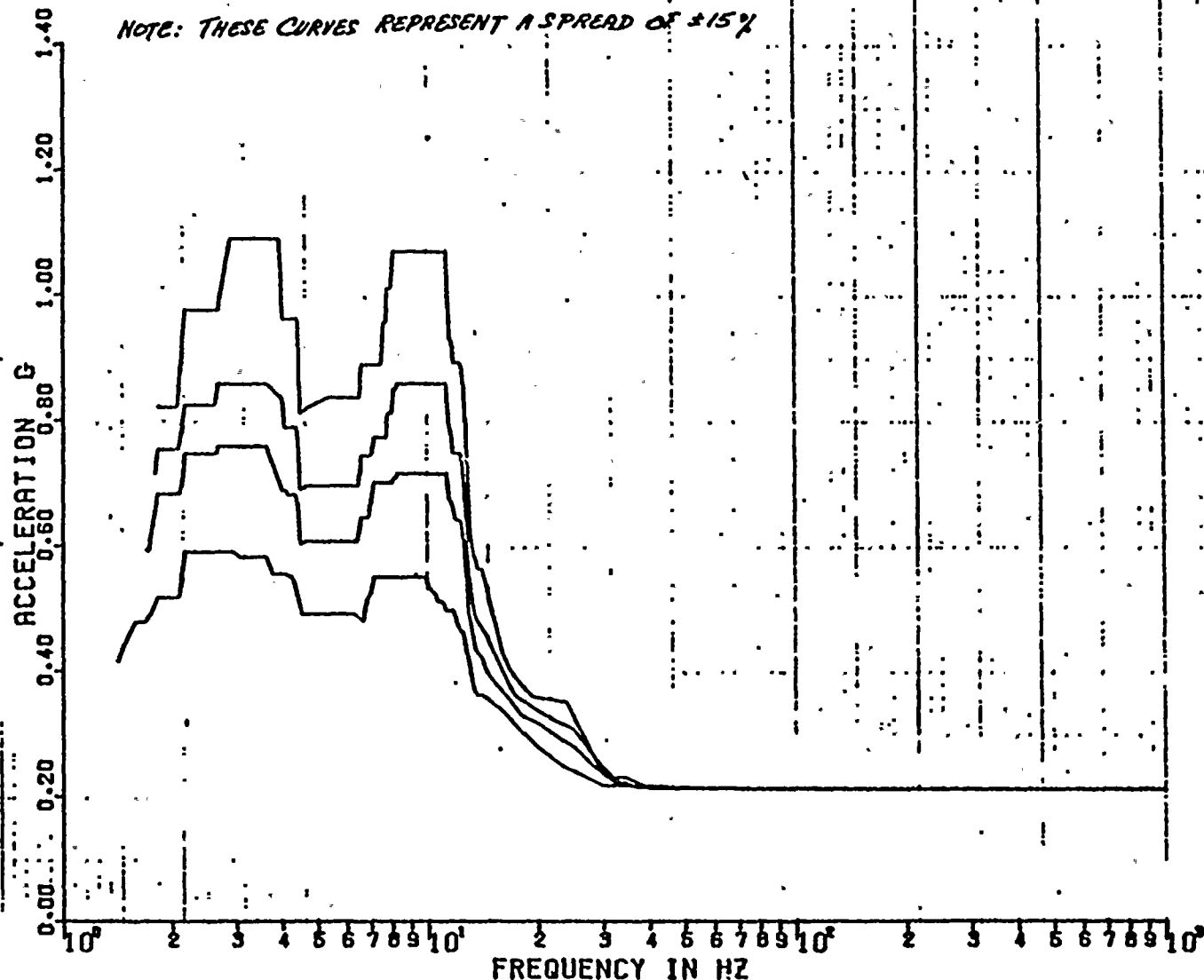
DISK CURVE SET NO.8

HOR DIRECTION

MS1765

DAMPING VALUES: 0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 97

PSPECTRA VER 01 LEV 08

SEISMIC (E)

27 DEC 1982

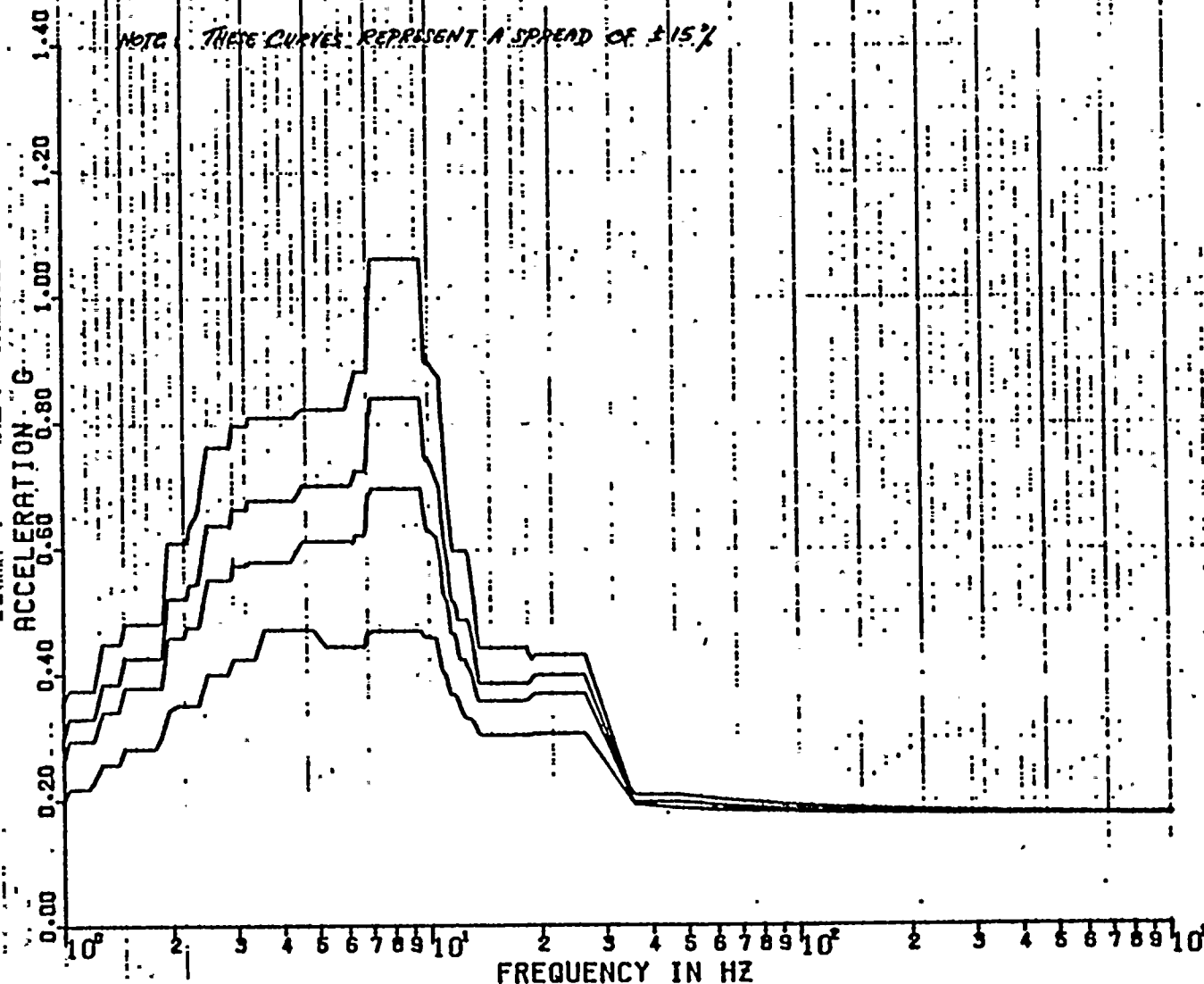
NIAOGARA MOHAWK-NINE MILES' POINT UNIT-2 J.O.12177 NS-1785-0
RRS OF ACC. SECONDARY CONT. (ELEV. 198.0 FT)

MS1765

DISK CURVE SET NO.9

VER DIRECTION

DAMPING VALUES: 0.020
0.030
0.040
0.070



REF 97



PSPECTRA VER 01. LEV 00

SEISMIC (DBE)

27 DEC 1982

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1785-0
RRS OF ACC. SECONDARY CONT. (ELEV. 175.0 FT)

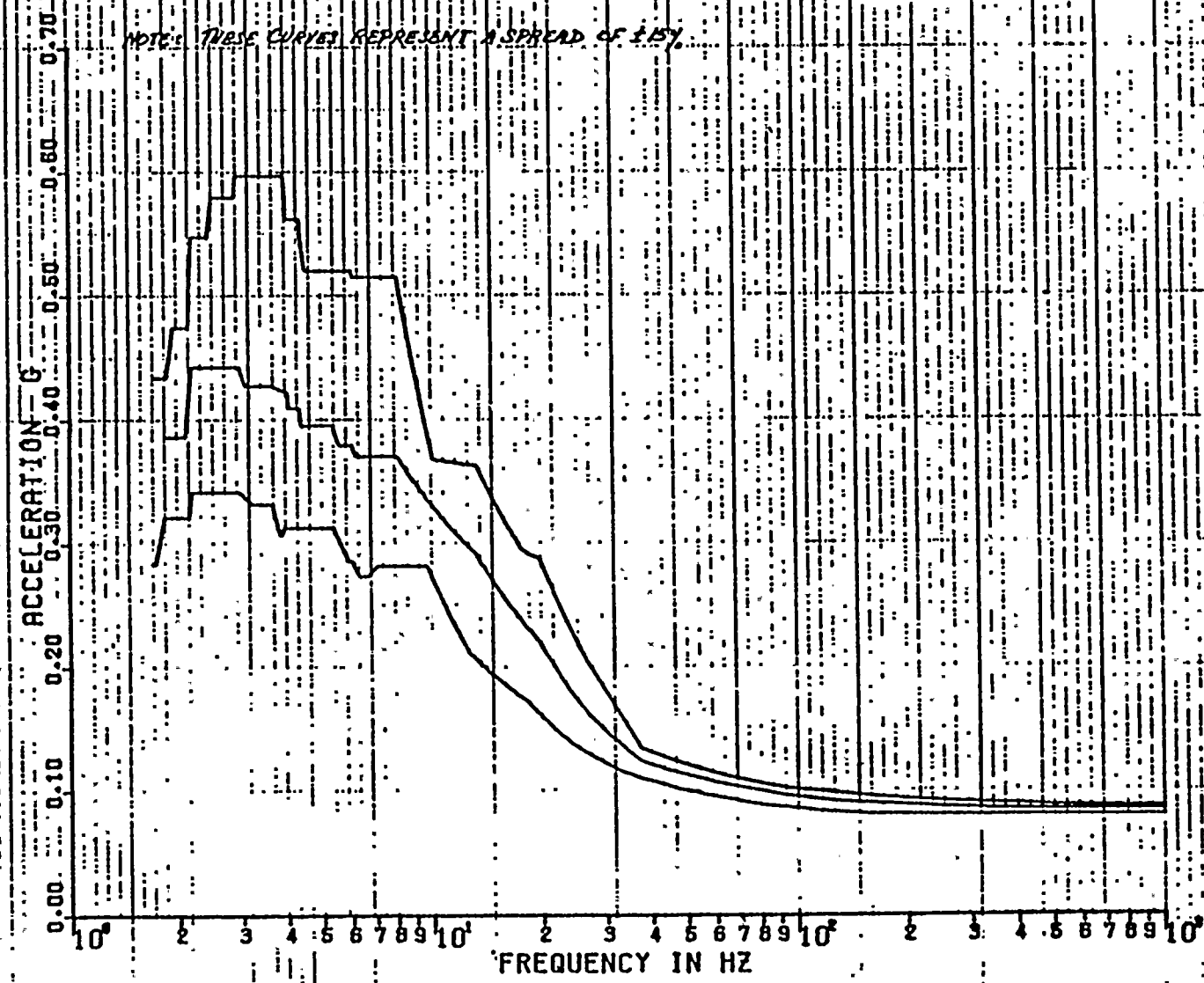
MS1765

DISK CURVE SET NO.10

HOR DIRECTION

DAMPING VALUES =
D.010
D.020
D.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



77-96

PSPECTRA VER 01 LEV 08 SEISMIC (C-2)

27 DEC 1982

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MB-1785-0
RMS OF ACC. SECONDARY CONT. (ELEV. 175.0 FT)

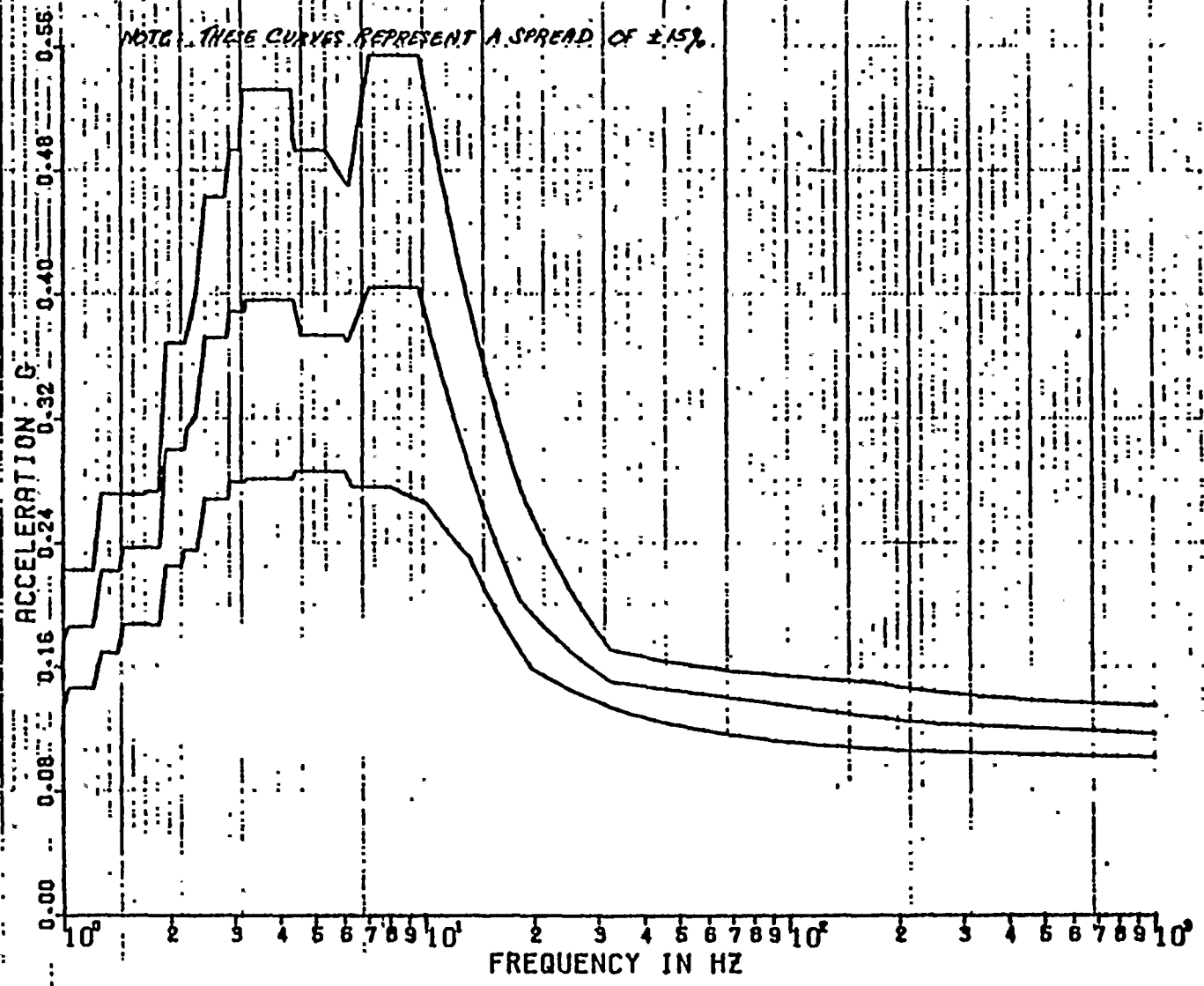
MS1765

DISK CURVE SET NO.10

VER DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 98



P6PECTRA VER 01 LEV 08

SEISMIC (E)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1765-D
RRS OF ACC. SECONDARY CONT. (ELEV. 175.0 FT)

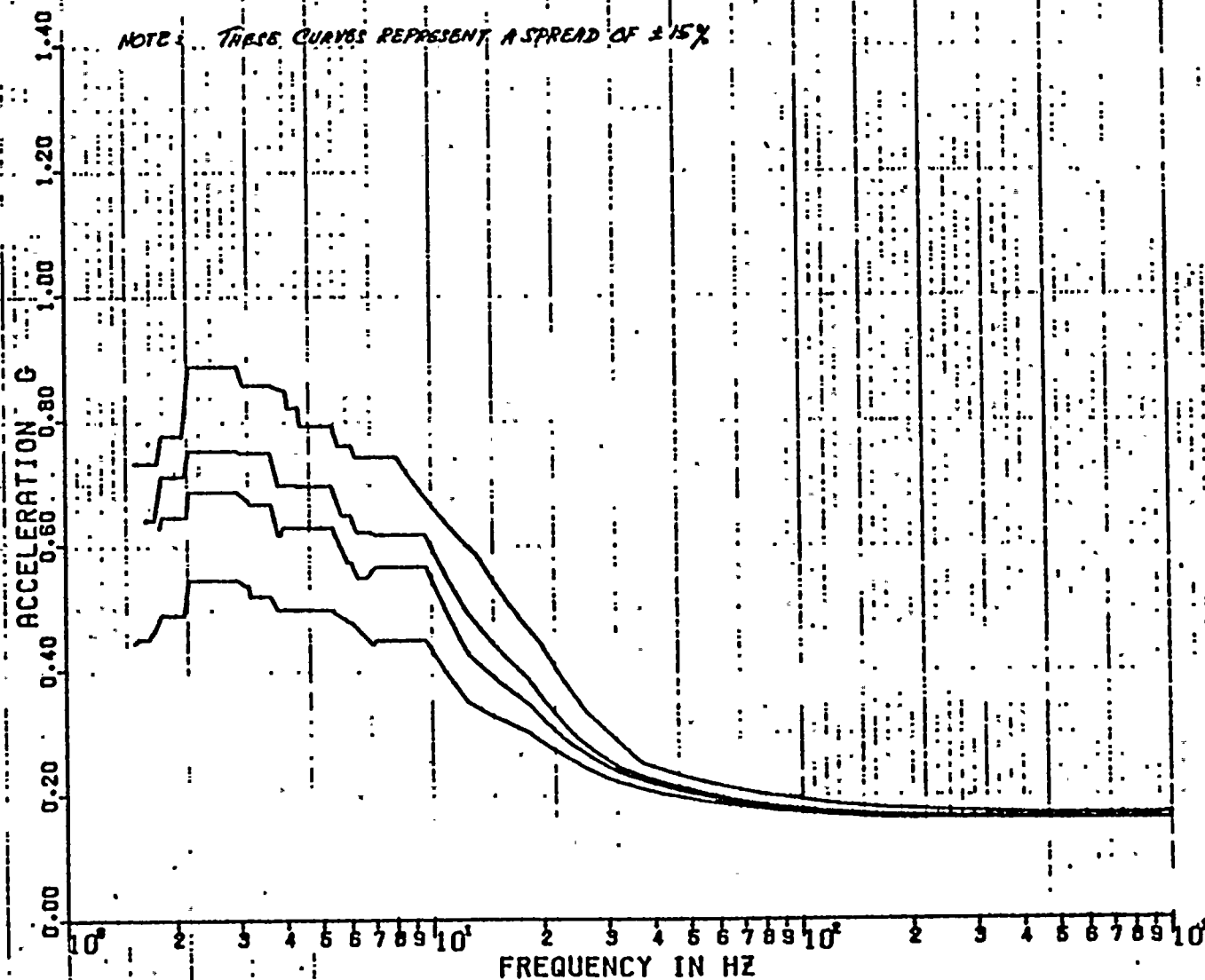
MS1765

DISK CURVE SET NO.10

HOR DIRECTION

DAMPING VALUES
0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



REF 98

PSPECTRA VER 01 LEV 08

SEISM (16)

27 DEC 1982

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1765-0
RRS OF ACC. SECONDARY CONT. (ELEV. 175.0 FT)

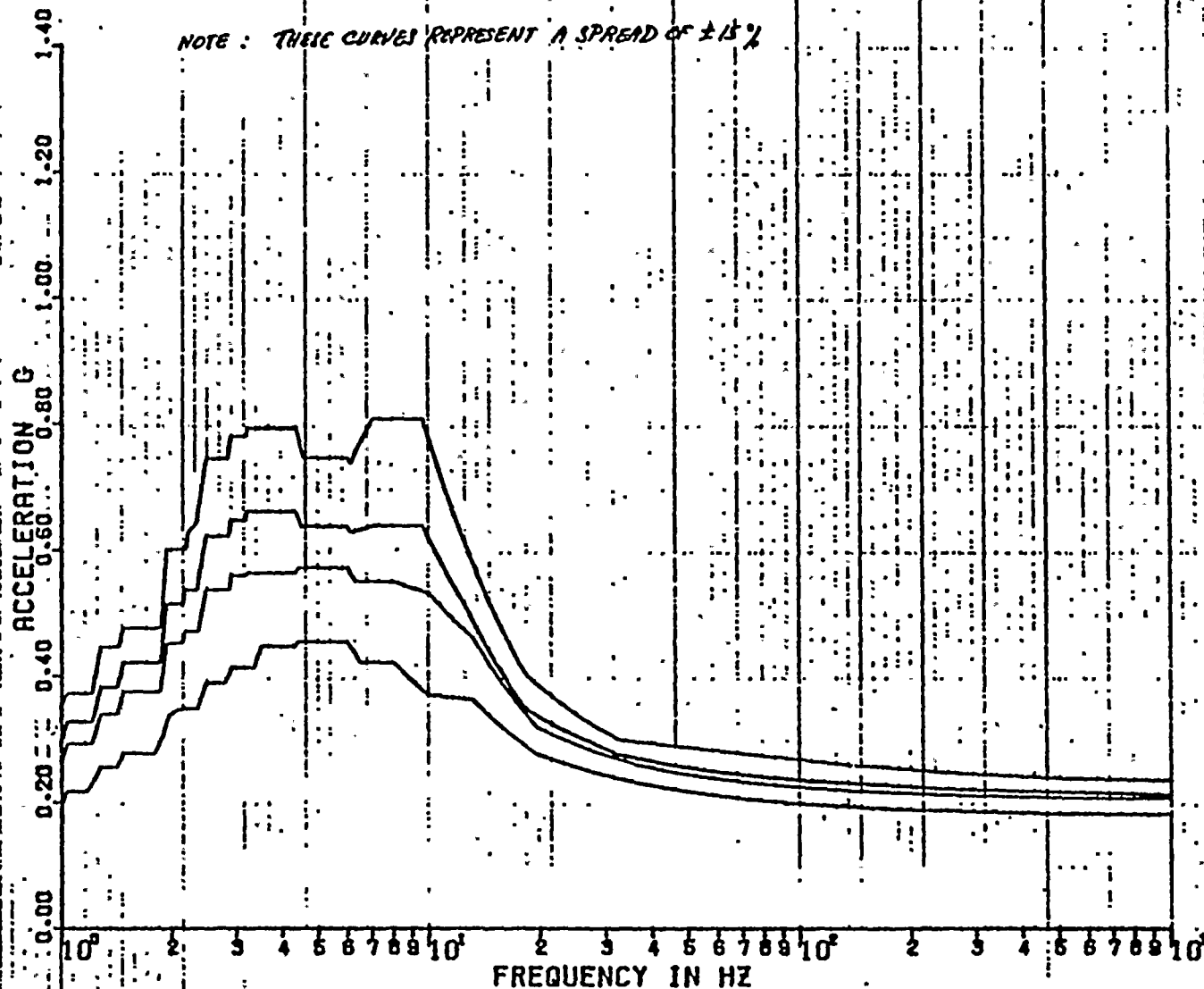
MS1765

D16K CURVE SET NO.10

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040
0.070

NOTE: THESE CURVES REPRESENT A SPREAD OF $\pm 15\%$



14-
86
157
98



NDP2

SEISMIC/HYDRODYNAMIC
UPSET AND FAULTED
REQUIRED RESPONSE SPECTRA FOR THE
REACTOR BUILDING



Seismic and Hydrodynamic
Upset and Faulted

Required Response Spectra (RRS)
for the Reactor Building

<u>Mass Point - Location</u>	<u>Elev (ft)</u>	<u>Reference No.*</u>
1 - Primary Containment	330.08	31
2 - Primary Containment	315.08	32
3 - Primary Containment	302.50	33
4 - Primary Containment	286.83	34
5 - Primary Containment	271.25	35
6 - Primary Containment	255.67	36
7 - Primary Containment	238.00	37
8 - Primary Containment	218.33	38
9 - Primary Containment	196.67	39
10 - Shield Wall	315.09	40
11 - Shield Wall	302.75	41
12 - Shield Wall	290.79	42
13 - Shield Wall	278.65	43
14 - RPV Shell	332.70	44
15 - RPV Shell	315.08	45
16 - RPV Shell	297.17	46
17 - RPV Shell	278.00	47
18 - Drywell Floor	238.00	48
19 - Pedestal	266.50	49
20 - Pedestal	253.13	50
21 - Pedestal	238.00	51
22 - Pedestal	217.50	52
23 - Pedestal	196.25	53
24 - Base Mat	175.00	54
25 - Secondary Containment	416.83	55
26 - Secondary Containment	387.83	56
27 - Secondary Containment	353.83	57
28 - Secondary Containment	328.83	58
29 - Secondary Containment	289.00	59
30 - Secondary Containment	261.00	60
31 - Secondary Containment	240.00	61
32 - Secondary Containment	215.00	62
33 - Secondary Containment	198.00	63
34 - Secondary Containment	175.00	64
Main Steam Isolation Valve (MSIV)	251.5	64A**
Safety Relief Valve	296.5	64B***

*Each reference number includes the following except as noted:

1. Horizontal and vertical direction UPSET condition at 1, 2, and 4 percent damping.
2. Horizontal and vertical direction FAULTED condition at 2, 3, and 4 percent damping.



****Includes:**

1. Longitudinal, lateral, and vertical direction UPSET and FAULTED conditions at 3 percent damping.
2. Longitudinal, lateral, and vertical direction SRV and LOCA conditions at 3 percent.

*****Includes:**

1. Horizontal and vertical direction UPSET condition at 2 percent damping.
2. Horizontal and vertical direction FAULTED condition at 3 percent damping.
3. Horizontal and vertical direction SRV condition at 2 percent damping.
4. Horizontal and vertical direction CHUGGING condition at 3 percent damping.



SPECTRA VER. 01 LEV. 00

FAULTED POSITION

25 JAN 1985

NIAGARA MOHAWK NINE MILES UNIT POINT-2 J. 0112171 31174740

RRS OF ACCELERATION PRIMARY CONT. (ELEV. 980.00 FT.)

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 1

HDR. DIRECTION

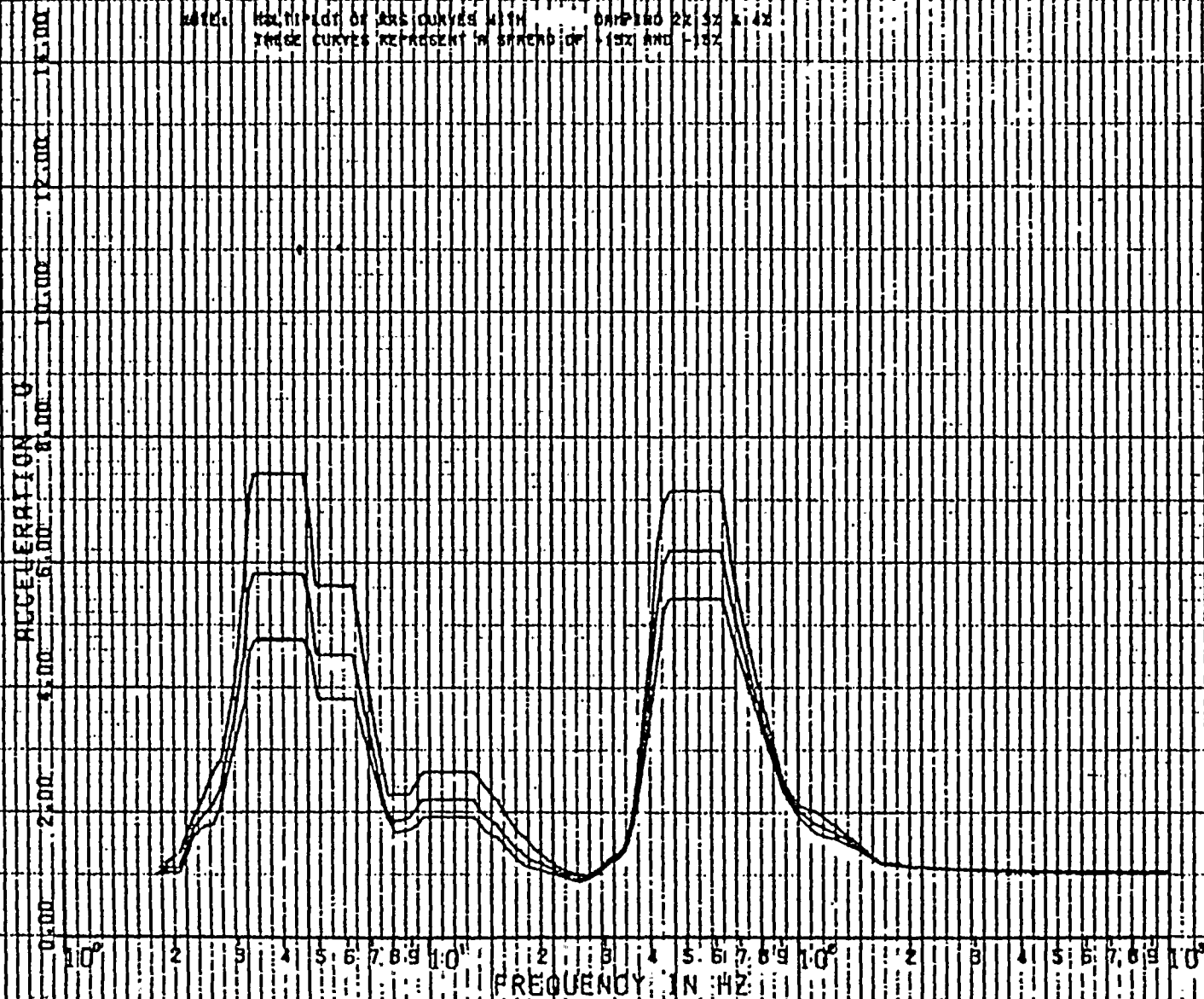
DAMPING VALUES =

0.020

0.050

0.080

NOTE: MULTIPLY OF ARE CURVES WITH DAMPING 2X 5% & 4X
TWO CURVES REPRESENT IN SPREAD OF 15% AND 1-15%



REF 31

0000000021



SPECTRA: VER: 01 LEV: 00

FAULT LOCATION:

25 JAN 1988

NIAGARA MOHAWK NINE MILES UNIT POINT-Z J.O. 12177 S-1747-0

RRS OF ACCELERATION PRIMARY: CONT. (ELEV. 850.09 FT.)

MS 1747

MICHAEL K. 00

DISK CURVE SET NO. 1

VER: DIRECTION:

DAMPING VALUES = 0.020

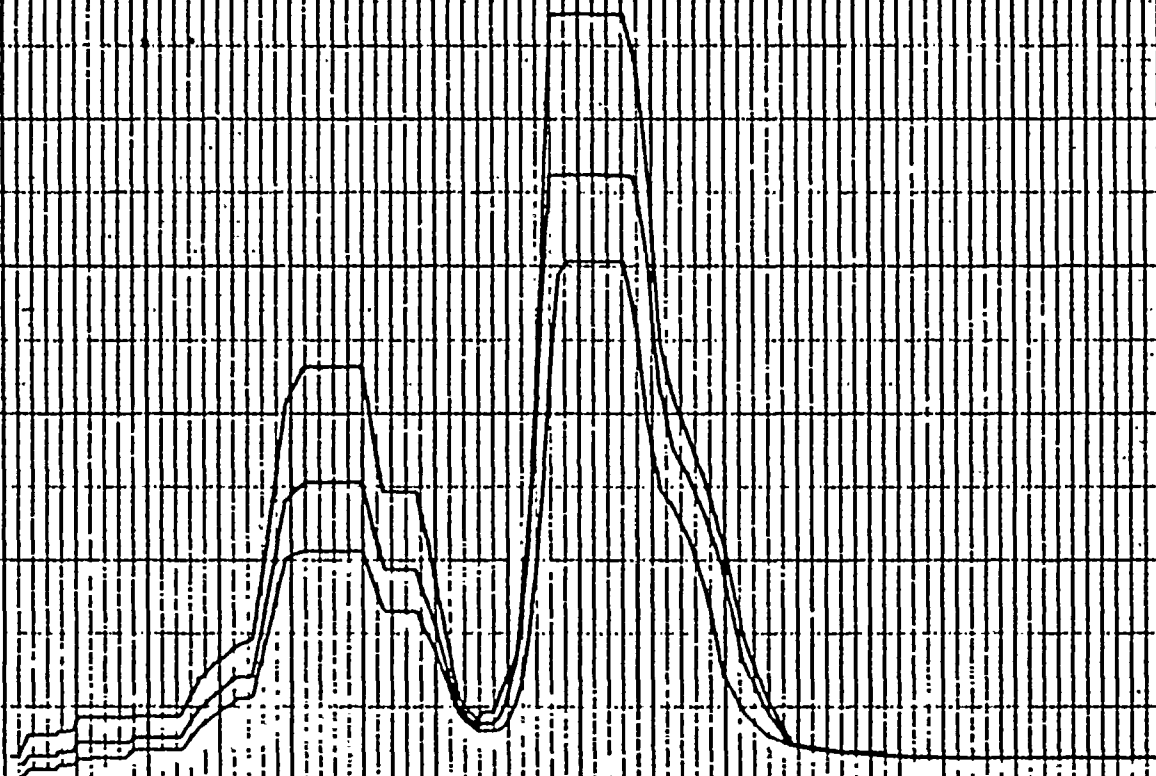
0.050

0.100

NOTE: MULTIPLT OF RRS CURVES WITH DAMPING 2X, 5Z & 14Z
THESE CURVES REPRESENT A SPREAD OF 15% AND 1.5Z

ACCELERATION - G
0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00

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



REF 31

0000000022



PSPECTRA VER 01 LEV 08

UP CONDITION

24 JAN 1983

NIAOGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.121.7 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV. 390.09 FT.)

MS 1746

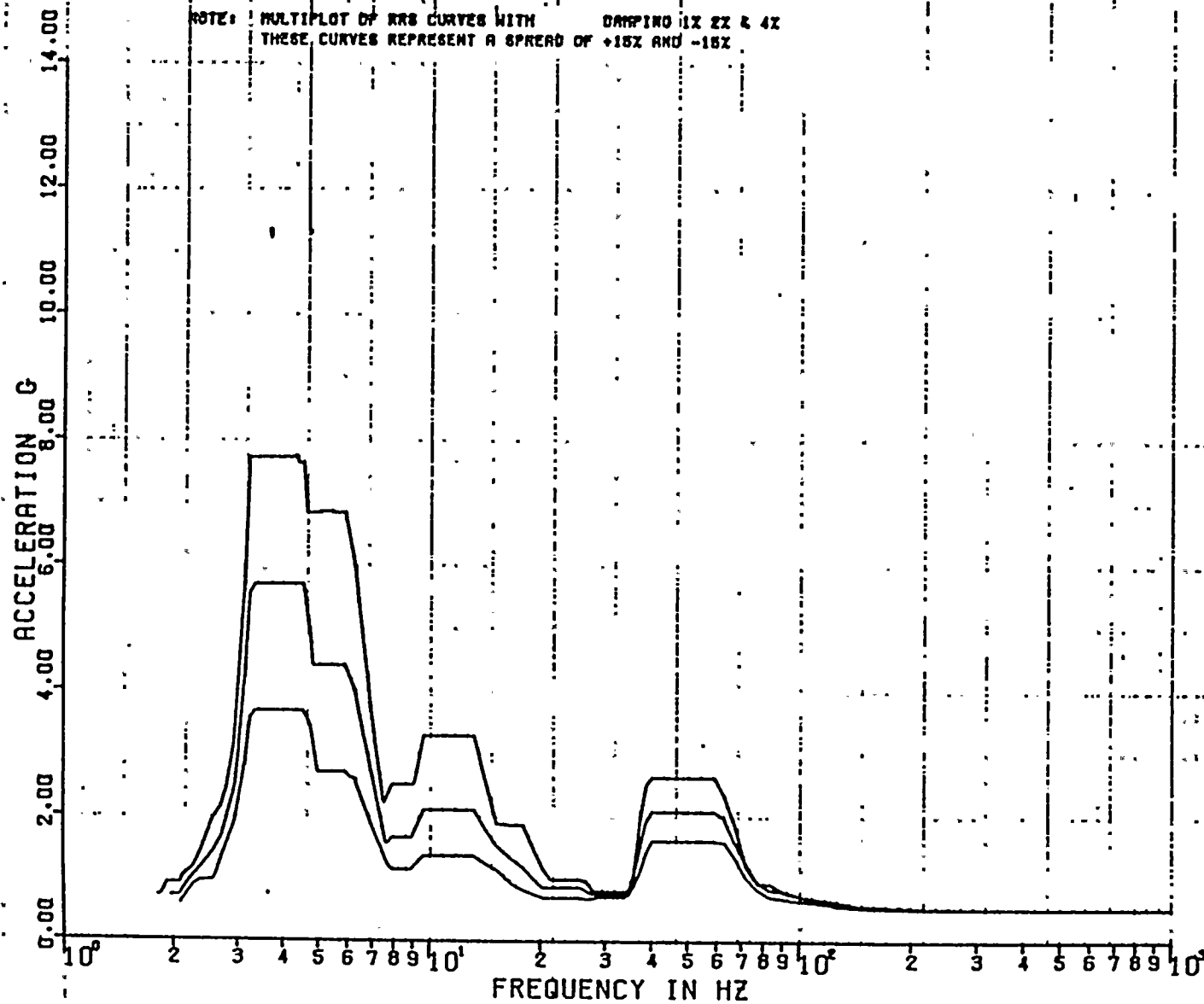
MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.040

DISK CURVE SET NO.1

HOR DIRECTION

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 31



PSPECTRA VER 01 LEV 08

UPSEV - VITION

24 JAN 1989

NIAOGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 AS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV. 990.08 FT.)

MS 1746

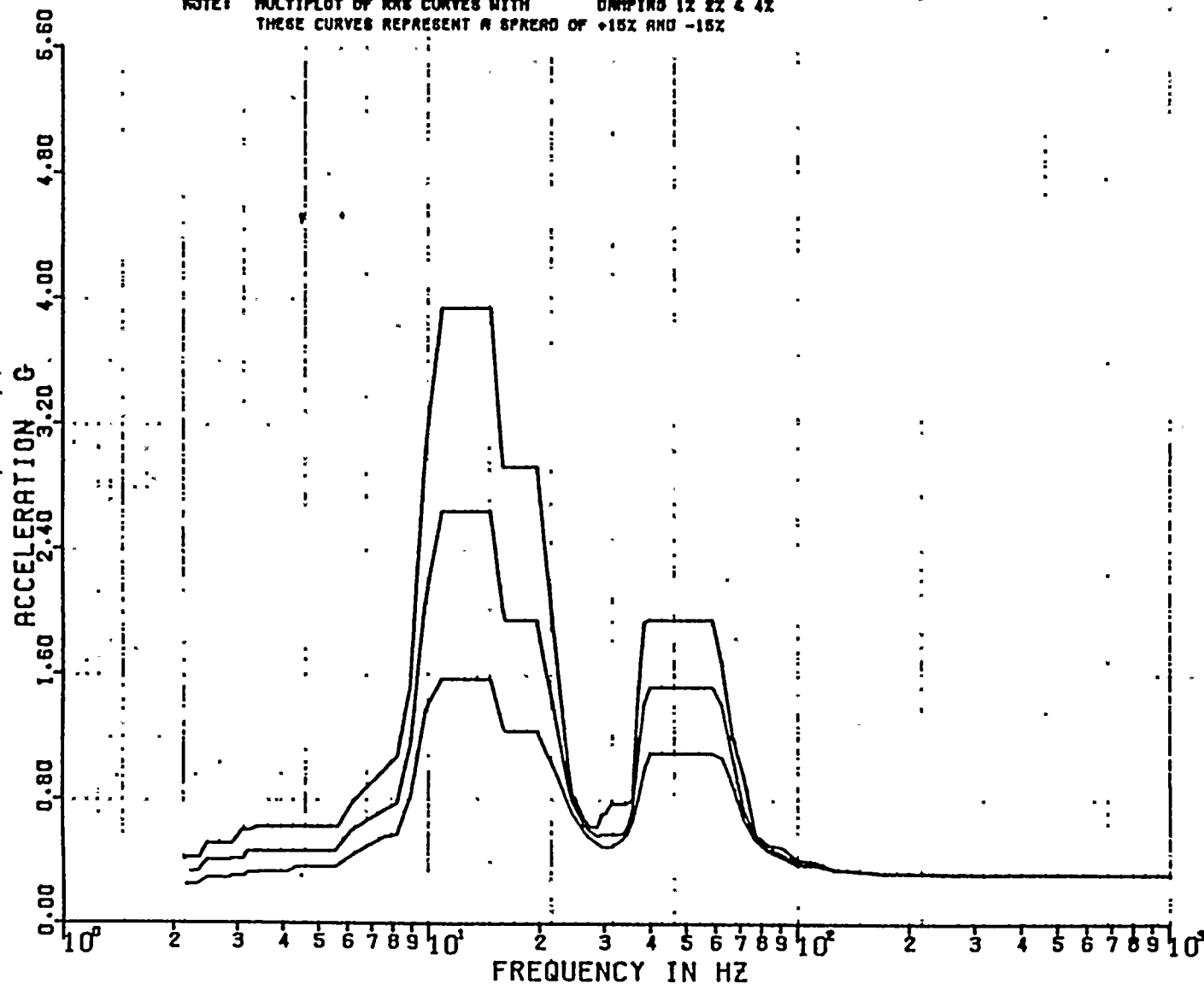
MICHAEL K DO

DISK CURVE SET NO.1

VER DIRECTION

DAMPING VALUES ± 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 31



PSPECTRA: VER. 01 LEV. 00

FAULT: ADDITION

25 JAN 1985

RIACARA: MOHAWK-NINE MILES UNIT POINT-2 D.O. 121

M6-1747-0

RMS OF ACCELERATION: PRIMARY. CONT. (ELEV. 315.08 FT)

M S 1747

HICRAE: 8.00

DISK CURVE SET NO. 2

HDR DIRECTION

DAMPING VALUES: 0.020

0.050

0.100

NOTE: MULTI-PLOT OF RMS CURVES WITH DAMPING 2X, 5X, & 10X
THESE CURVES REPRESENT A SPREAD OF 100% AND 1-100%

ACCELERATION - G
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00

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

REF 32

003600023



SPECTRA VER 01 LEV 00

FAULT CONDITION

25 JAN 1989

NIAGARA MOHAWK RIVE NILES UNIT POINT 2 J.0.12 MS-1747-0
RMS OF ACCELERATION PRIMARY CONT. ELEV. 515.00 FT)

MS 1747

MICHAEL K. BO

DISK CURVE SET NO. 2

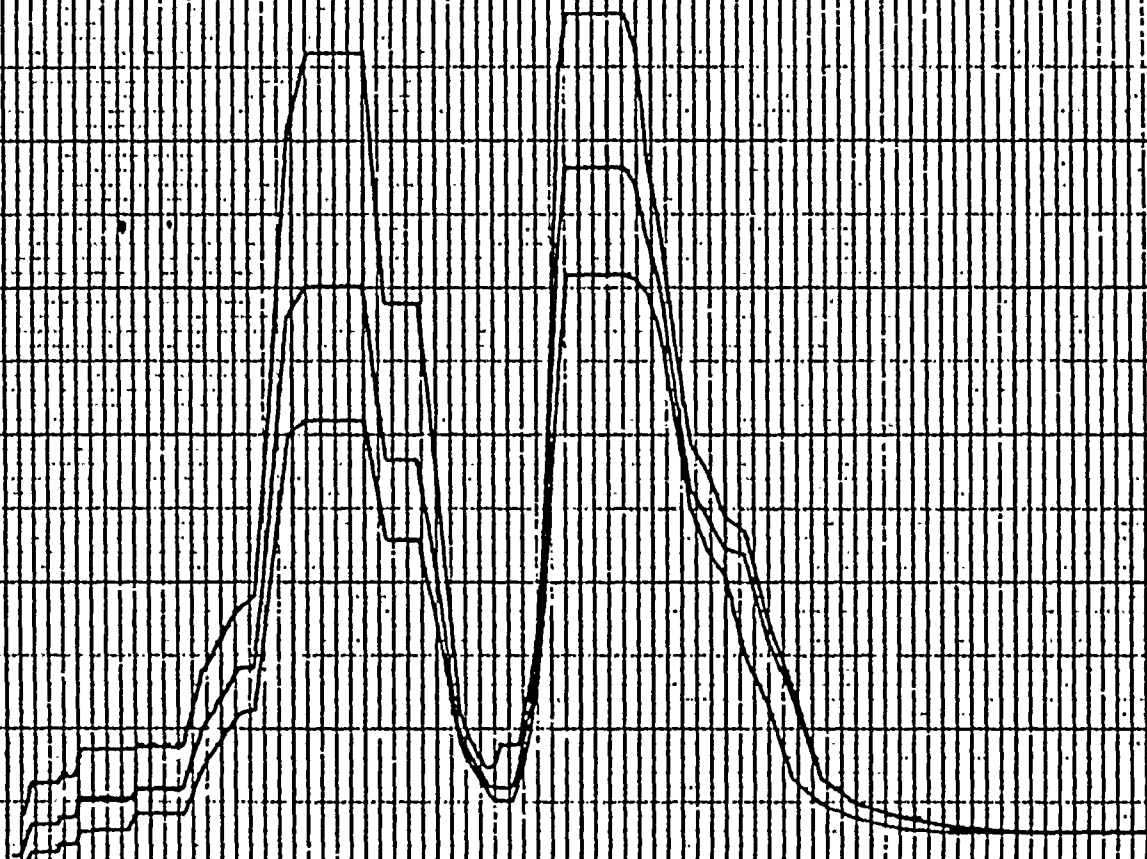
VER DIRECTION

DAMPED VALUES E 0.020
0.080
0.040

NOTE: MULTIPLIED BY RMS CURVES WITH DAMPING 2K 5K 2.4K
THREE CURVES REPRESENT A SPREAD OF 10% AND -10%

ACCELERATION G
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00

10⁰ 2 3 4 5 6 7 8 9 10¹ 12 15 18 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 10²
FREQUENCY IN HZ



REF 32

0000000024



PSPECTRA VER 01 LEV 08

UP6 IDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.1217. MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV.915.08 FT)

MS 1746

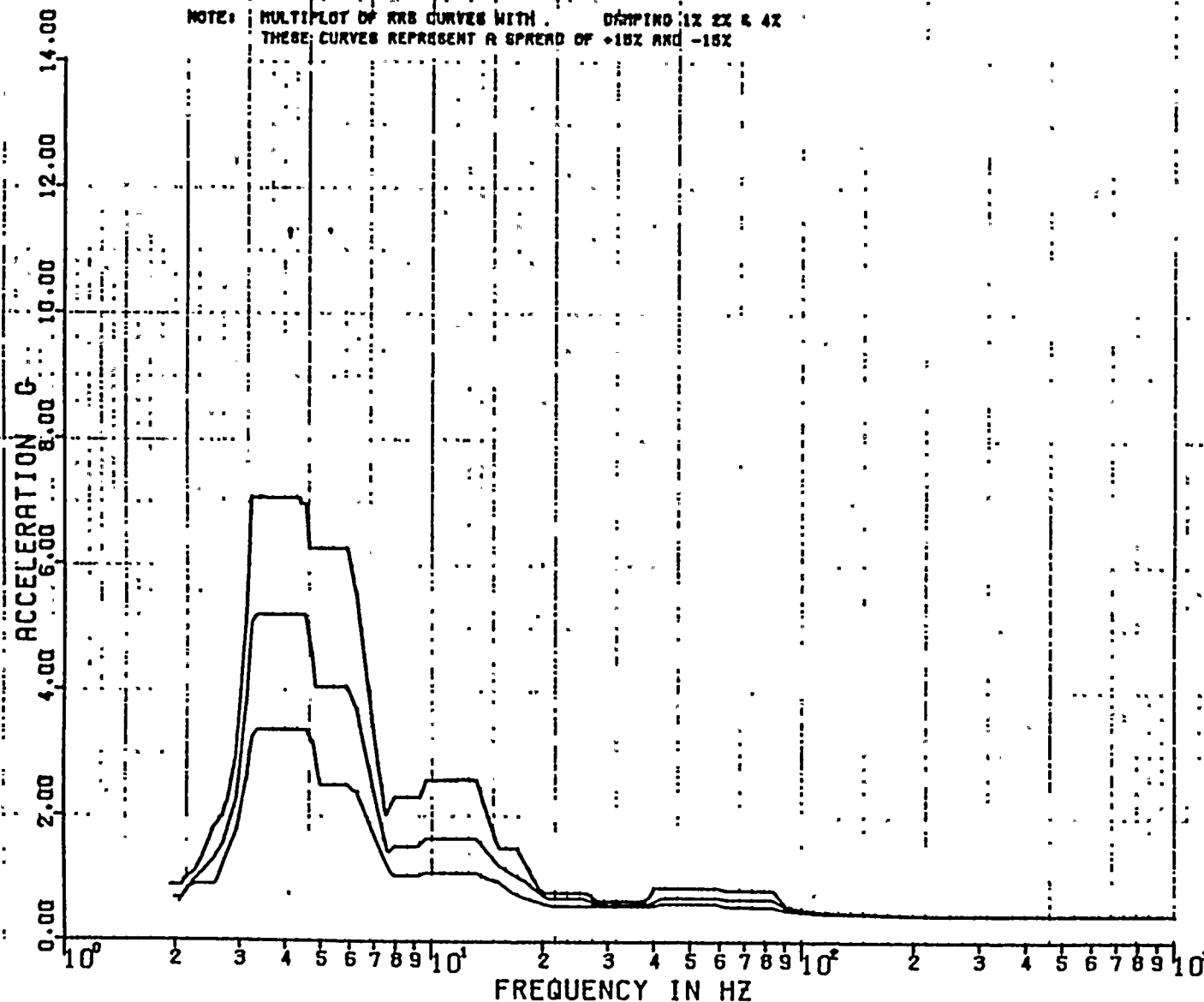
MICHAEL K DO

DAMPING VALUES D.D10
D.D20
D.D40

DISK CURVE SET NO.2

HOR DIRECTION

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 32



PSPECTRA VER 01 LEV 08

UPPER CONDITION

24 JAN 1983

NIADARA MOHAWK-NINE MILES UNIT POINT-2 J.O.1217 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV.915.08 FT)

MS 1746

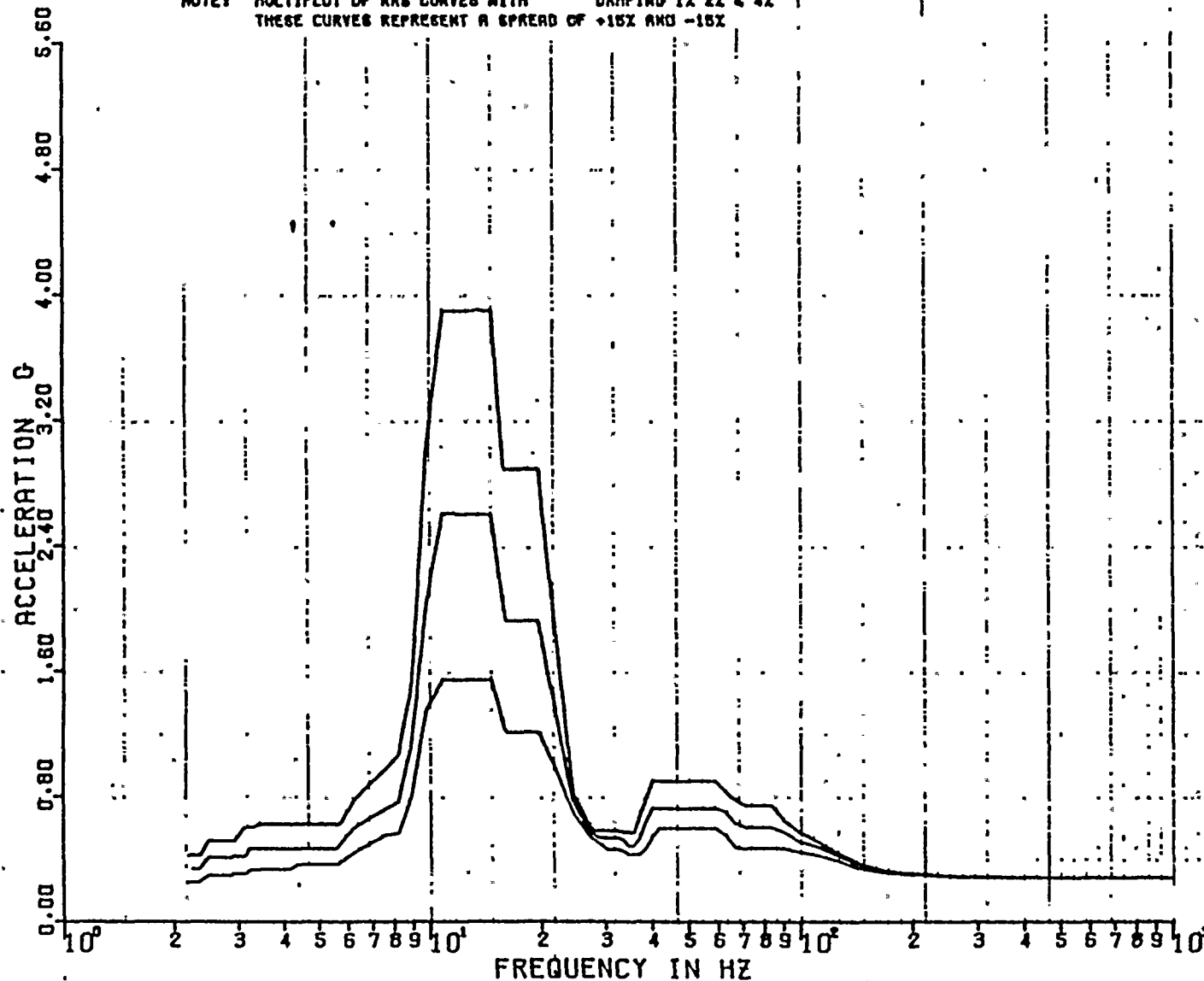
MICHAEL K DO

DISK CURVE SET NO.2

VER DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 32



SPECTRA VER. 01 LEV. 00
 NIAGARA MOHAWK NINE MILES POINT UNIT Z-010-1
 RRS OF ACCELERATION PRIMARY CONT. (ELEV. 302.50 FT)

CONDITION

25 JAN 1988

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 8

HDR DIRECTION

DAMPING VALUES = 0.020
 0.050
 0.080

NOTE: MULTIPLY BY RRS CURVES WITH DAMPING BY 32 & 142
 THESE CURVES REPRESENT A STATION OF +100 AND -100

ACCELERATION 0 1.00 2.00 3.00 4.00 5.00 6.00 7.00

10⁰



FREQUENCY IN HZ

REF 33

0000000025



SPECTRA VER: 01 LEV: 05

FAULT CONDITION

25 JAN 1969

NIHARA MICHAKI-NINE MILES POINT UNIT 2-D-1217 MS-1747-0

RRG OF ACCELERATION PRIMARY CONT. (ELEV 1902.50 FT)

MS 1747

MICHAEL K. 001

DISK CURVE SET NO. 8

VER. DIRECTION

DAMPING VALUES = 0.020

0.080

0.080

NOTE: MULTI-LOT OF RAS CURVES WITH DAMPING 22.5% & 42.5%
THESE CURVES REPRESENT A SPREAD OF 15% AND 18%

ACCELERATION 0 1.00 1.50 2.00 2.50 3.00 3.50

10⁰

2

3

4

5

6

7

8

9

10⁰

2

3

4

5

6

7

8

9

10⁰

FREQUENCY IN HZ

2

3

4

5

6

7

8

9

10⁰

REF 33

000600026



PGSPECTRA VER 01 LEV 08

UPPER CONDITION

24 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.12 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV.302.50 FT)

MS 1746

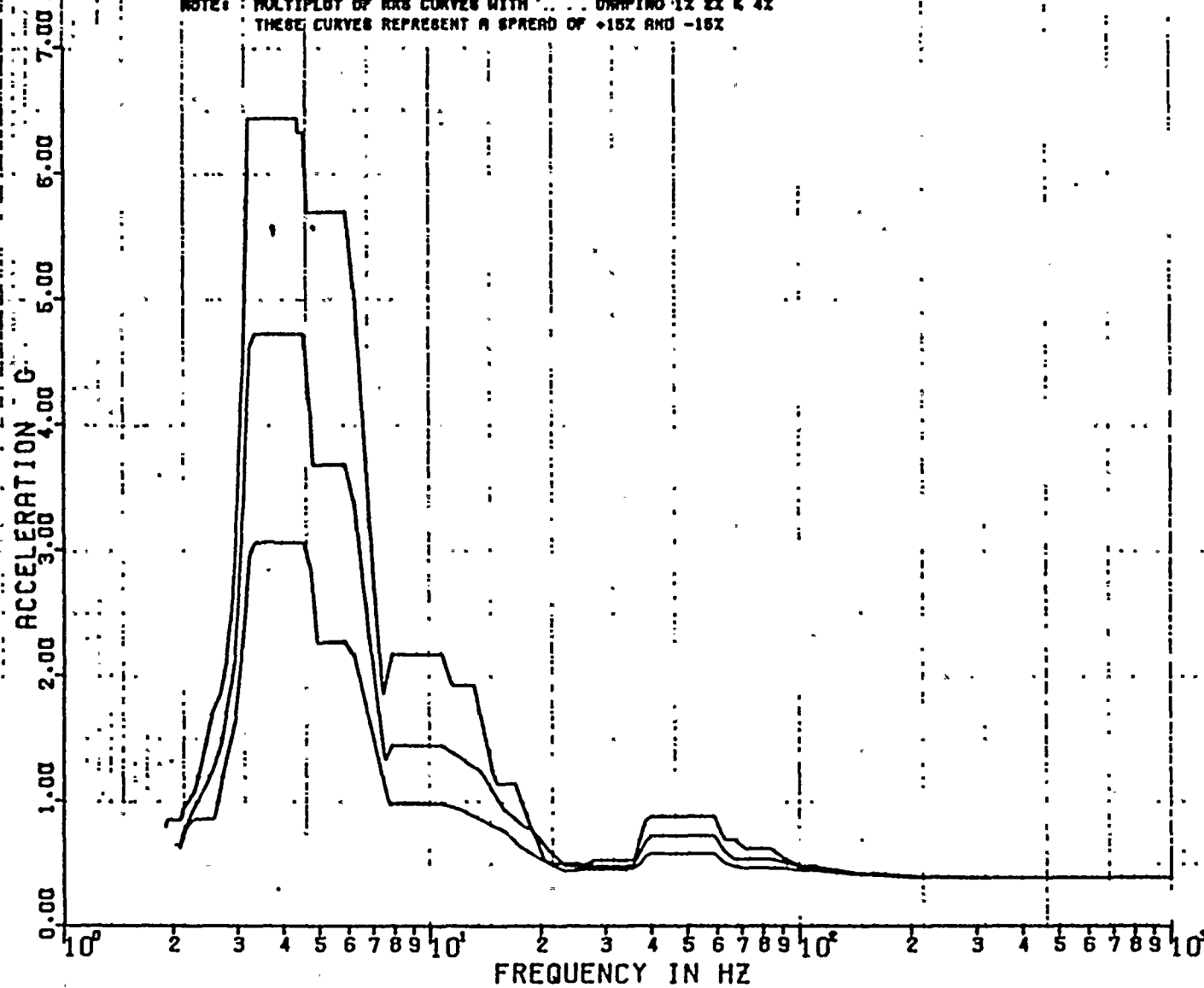
MICHAEL K DO

DISK CURVE SET NO.3

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 33



PSPECTRA VER 01 LEV 08

UPPER CONDITION

24 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT 2-J.O.121 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV. 302.50 FT)

MS 1746

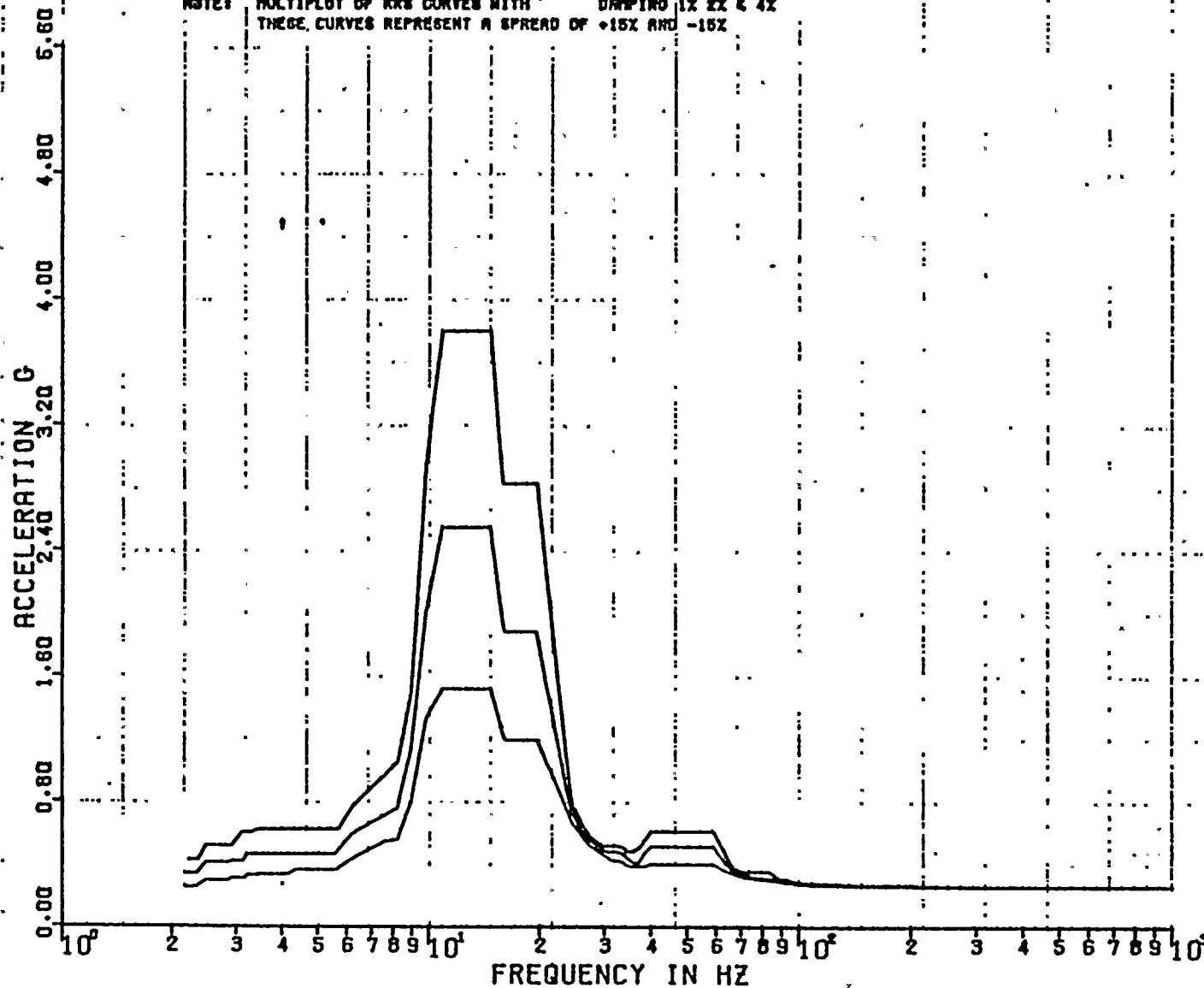
MICHAEL R DO

DISK CURVE SET NO. 3

VER DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 33



PSPECTRA: VER 01 LEV 00

FAULT CONDITION

25 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12 MS-1747-0

RRS OF ACCELERATION PRIMARY CONT (ELEV 206.89 FT)

MS 1747

MICHAEL R. JOHNSON

DISK CURVE SET NO. 1

HDR DIRECTION

DAMPING VALUES = 0.020

0.050

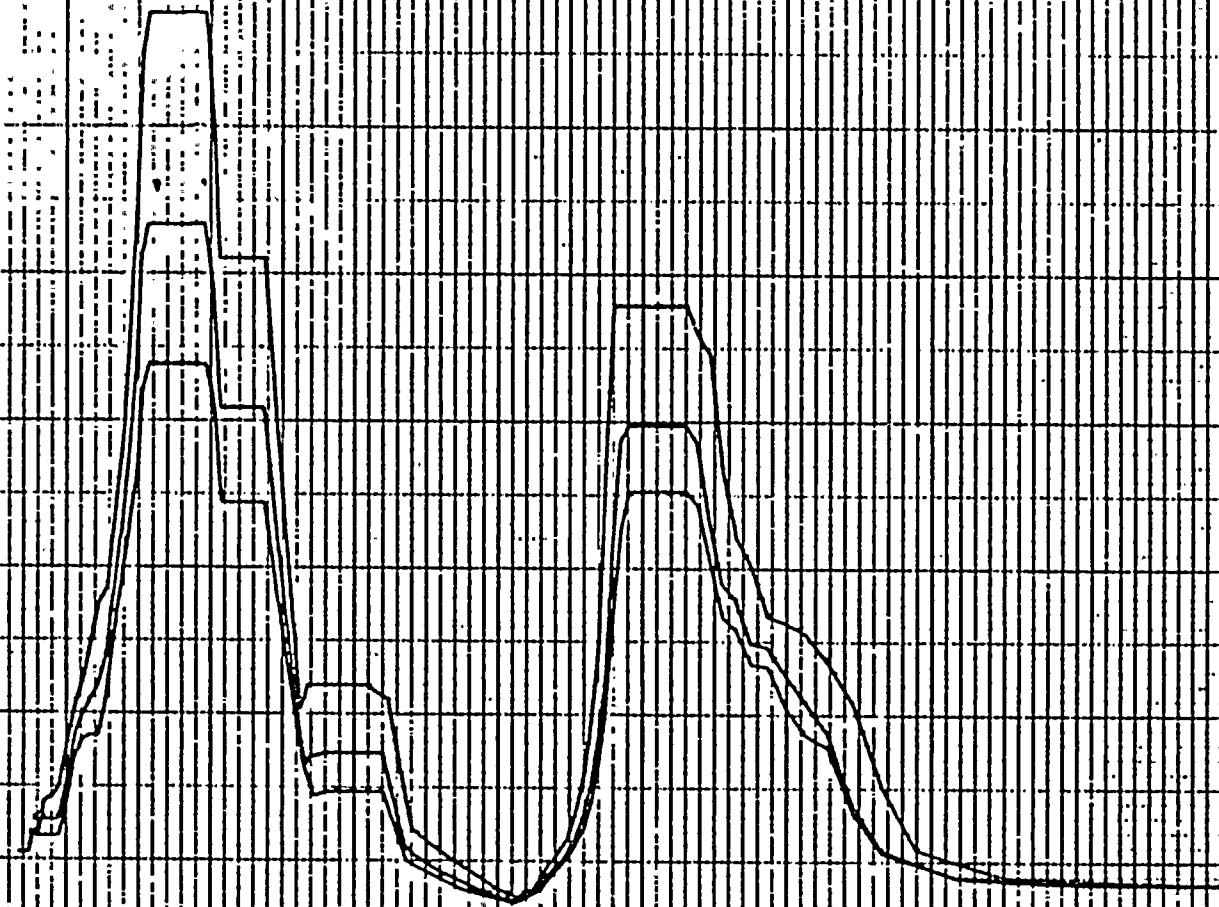
0.100

NOTE: MULTIPLY OF XRS CURVES WITH DAMPING RATIO 2.4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION - G
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60

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

FREQUENCY IN HZ



REF 34

000000027



PGPECTRA: VER. 01 LEV. 00

FAUL CONDITION

251 JRM: 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 D.O. 12 MS-1747-0
RRS OF ACCELERATION: PRIMARY CONT. (ELEV 286.83 FT)

MS 1747

MICHAEL A. JO

DISK: CURVE SET NO. 1

VER. DIRECTION

DAMPING VALUES: 0.020
0.050
0.080

NOTE: MULTIPLY BY RRS CURVES WITH DAMPING 2% 5% 14%
Y-axis CURVES REPRESENT IN SPANS OF 10% AND 15%

ACCELERATION g

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 34

0080000025



PSPECTRA VER 01 LEV 00

UP CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121. MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 286.83 FT)

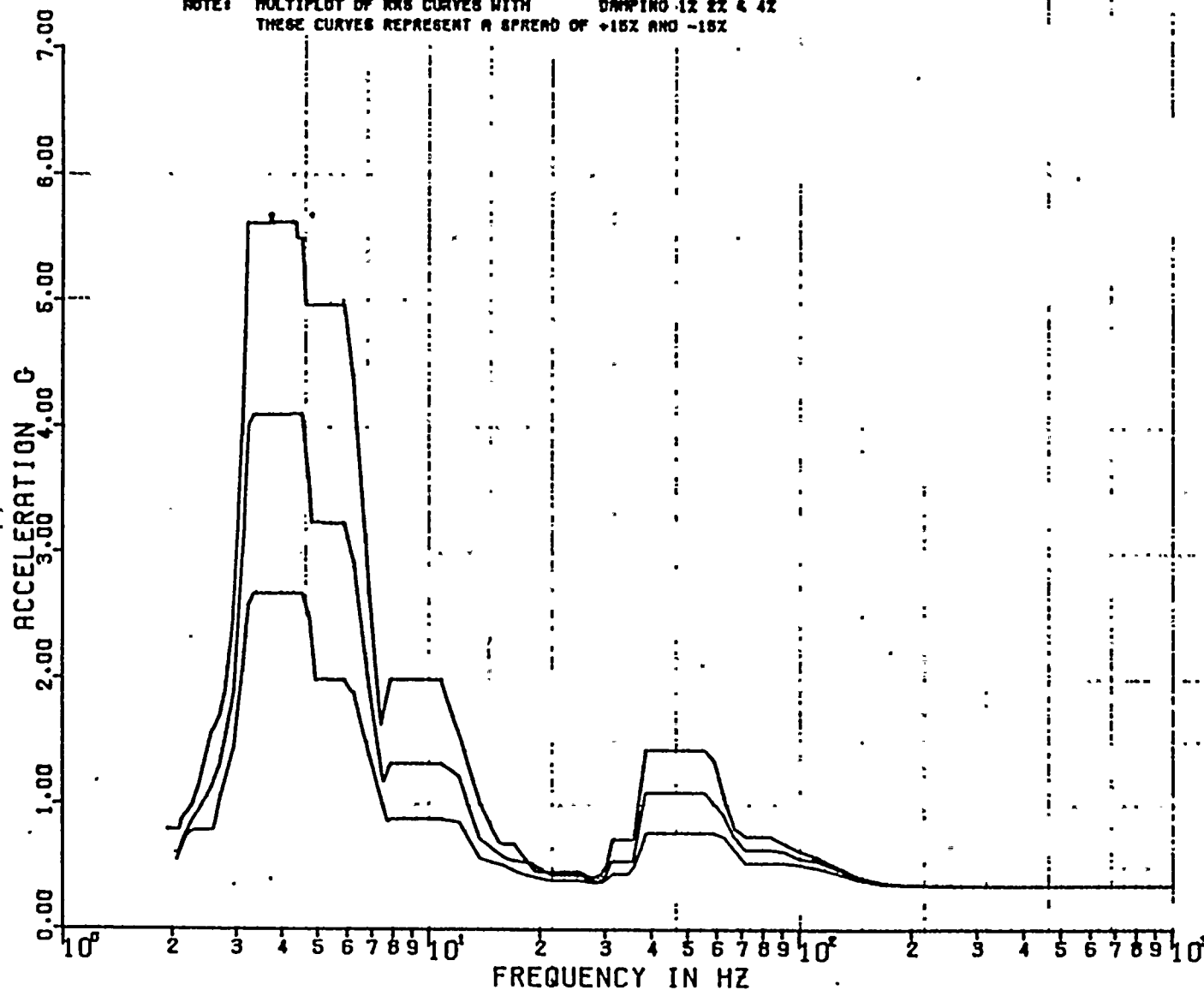
MS 1746

MICHAEL K DO
DAMPING VALUES 0.010
0.020
0.040

DISK CURVE SET NO.4

HOR DIRECTION

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 34



PSPECTRA VER 01 LEV 08

UPPER CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 288.69 FT)

MS 1746

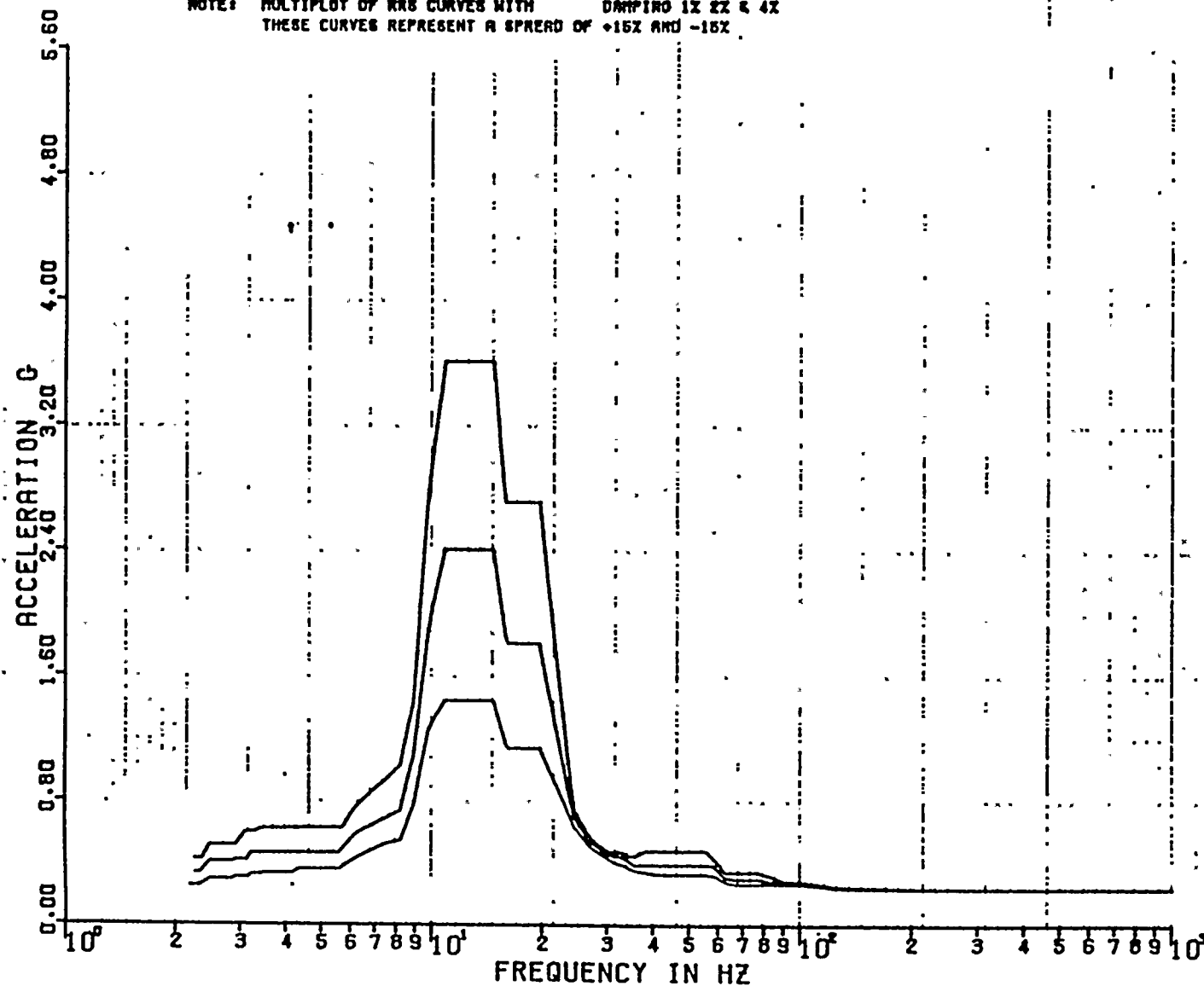
MICHAEL K DO

DAMPING VALUES 0.010
0.020
0.040

DISK CURVE SET NO.4

VER DIRECTION

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 34



SPECTRA VER: 01 LEV: 08

FALL CONDITION

25 JAN 1988

NIAHAKA MOHAWK-NIRE MILES POINT UNIT-2 U.S.I.

MS-1747-D

RRS OF ACCELERATION PRIMARY CONT. (ELEV: 271.25 FT)

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 5

HDR DIRECTION

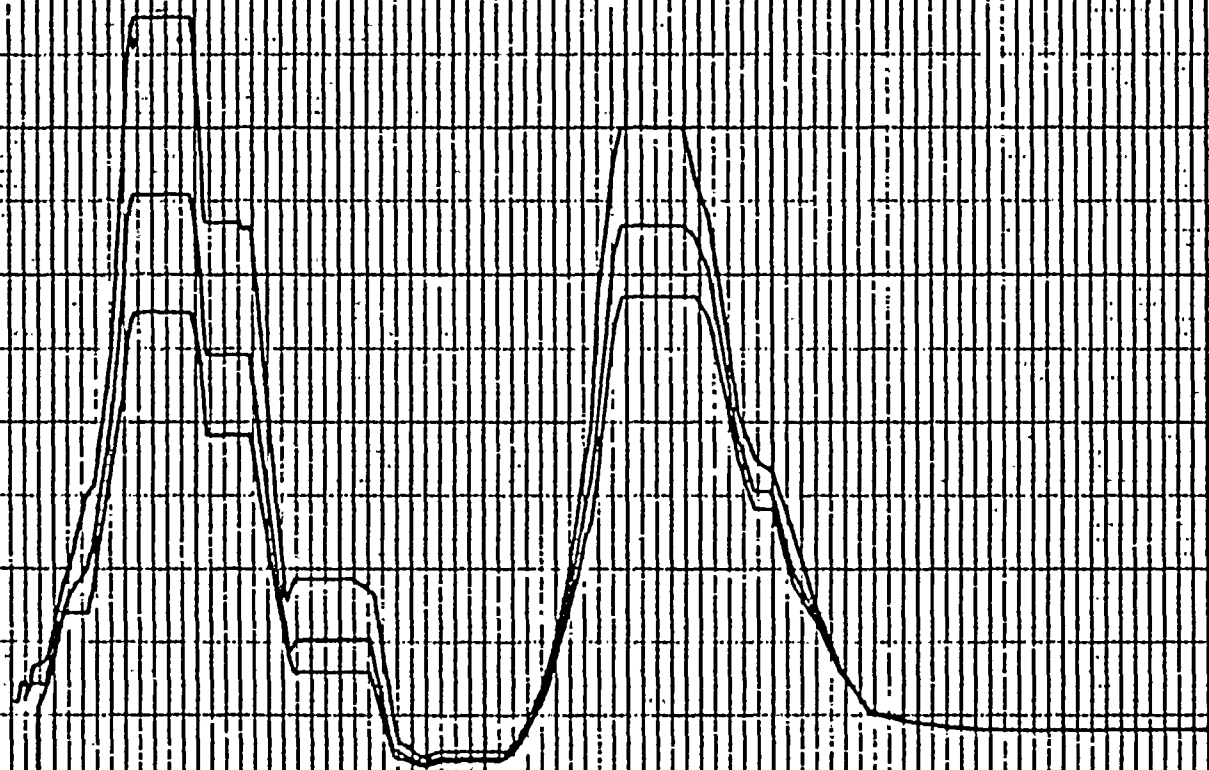
DAMPING VALUES = 0.020

0.050

0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X, 3X, 4X
THESE CURVES REPRESENT A SPREAD OF 10X AND 10X

ACCELERATION - g
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60



FREQUENCY IN HZ

REF 35

000000029

SPECTRA VER 01 LEV 00

FAULT CONDITION

25 JAN 1988

NADARA MOHAWK-NINE MILES POINT UNIT-2 JLD 12 RS-1747-0

RRS OF ACCELERATION PRIMARY CONT (ELEV 271.5 FT)

MS 1746

MICHAEL K. DO

DISK CURVE SET NO. 5

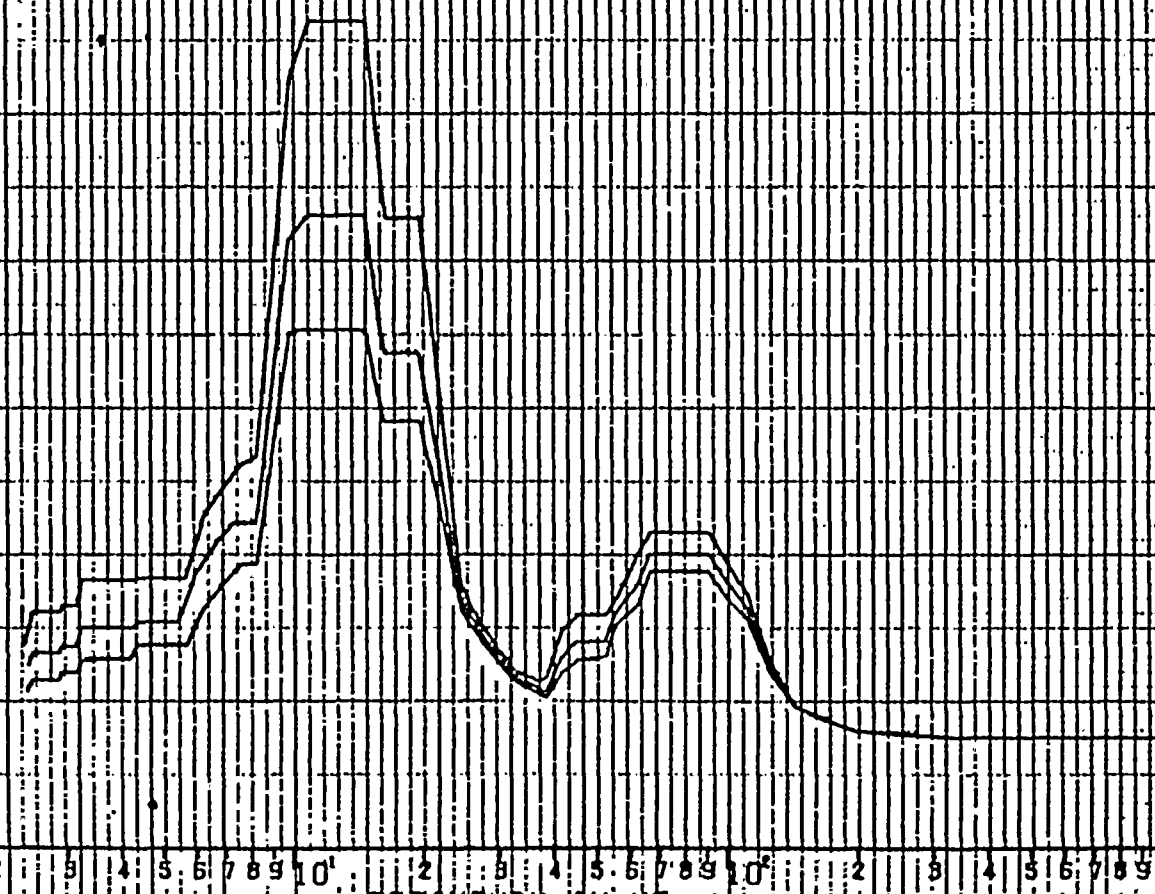
VER. DIRECTION

DAMPING VALUES = 0.020
0.050
0.080

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING BY 32 & 142
THESE CURVES REPRESENT A SPREAD OF +10% AND -15%

ACCELERATION G
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00

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



REF 35

0000000030



PSPECTRA VER 01 LEV 08

UN CONDITION

24 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 271.25 FT)

MS 1740

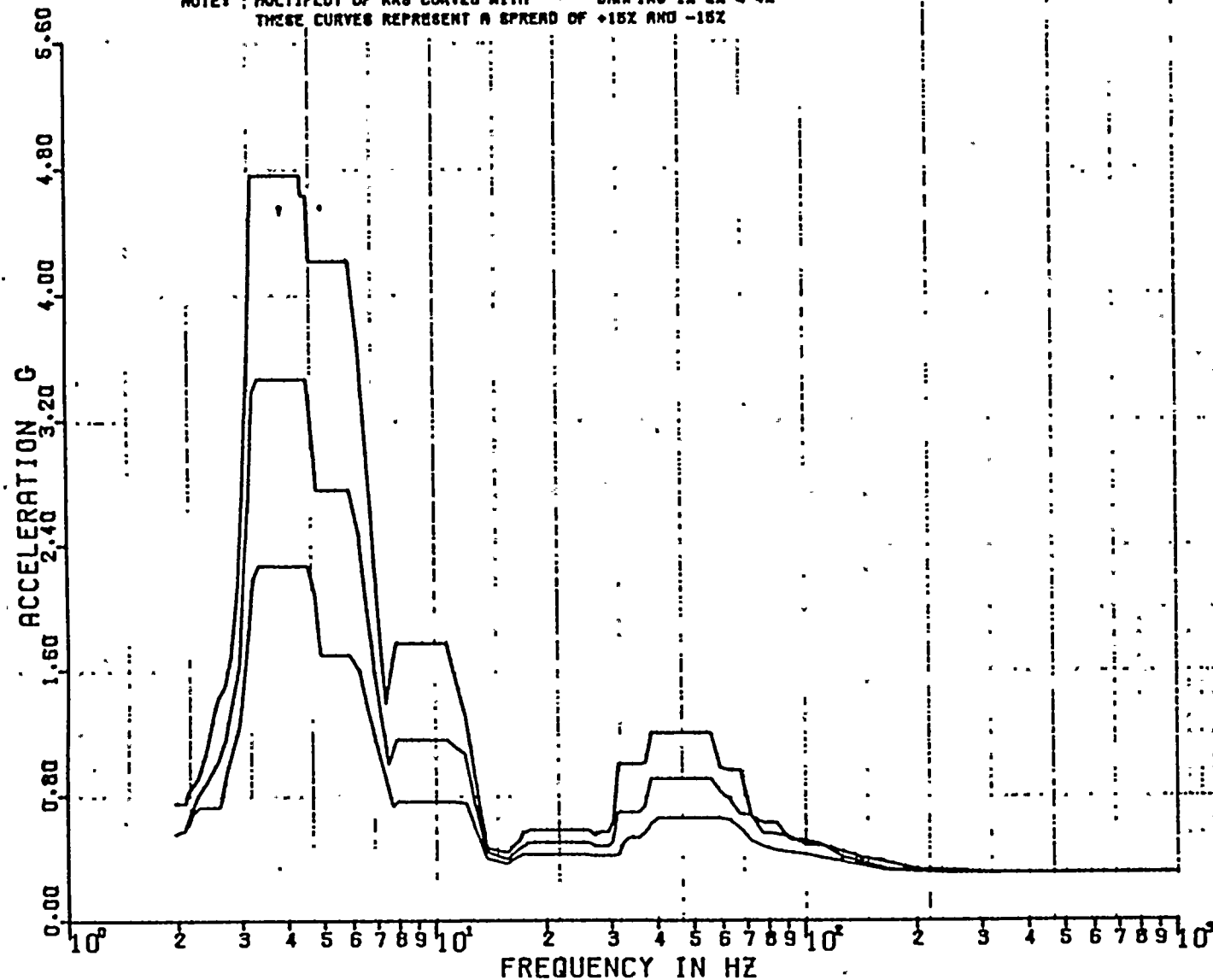
DISK CURVE SET NO.5

HOR DIRECTION

MICHAEL K OO

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 35

PSPECTRA VER 01 LEV 08

UPSET POSITION

24 JAN 1989

NIAOGARA MONARK-NINE MILES POINT UNIT-2 J.O.12177 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 271.25 FT)

MS 1746

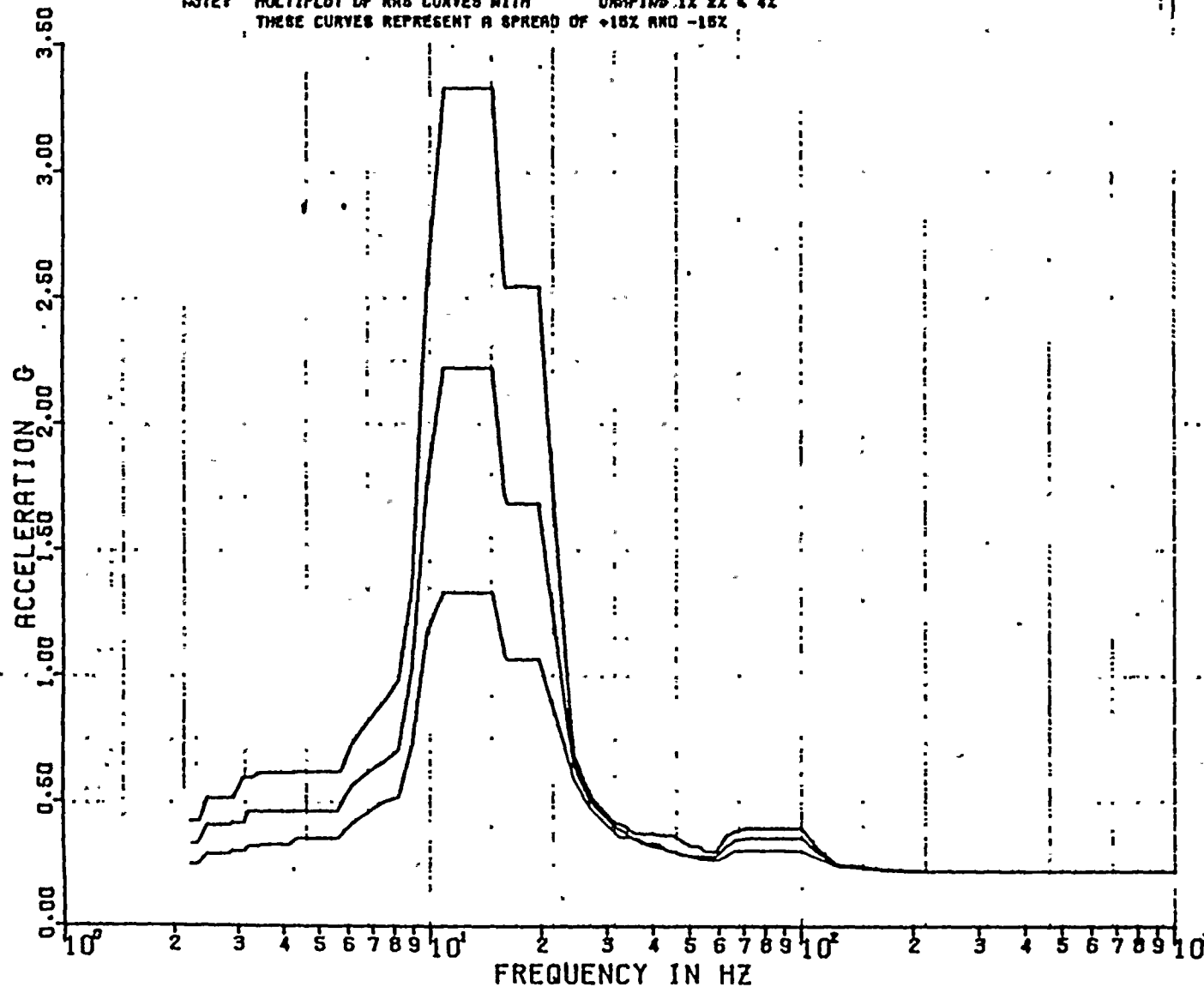
MICHAEL K DO

DISK CURVE SET NO.5

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 35



SPECTRA VER: D1 LEV: 05

FAULTED CONDITION

25 JAN 1988

WINDRHH: MOHAWK-NINE MILES POINT UNIT-2 J.O.1

MS-1747-0

RMS OF ACCELERATION: PRIMARY: CONT: (ELEV 21 57 FT)

MS 174

MICHAEL K 00

DISK CURVE SET: NDLB

HOR. DIRECTION:

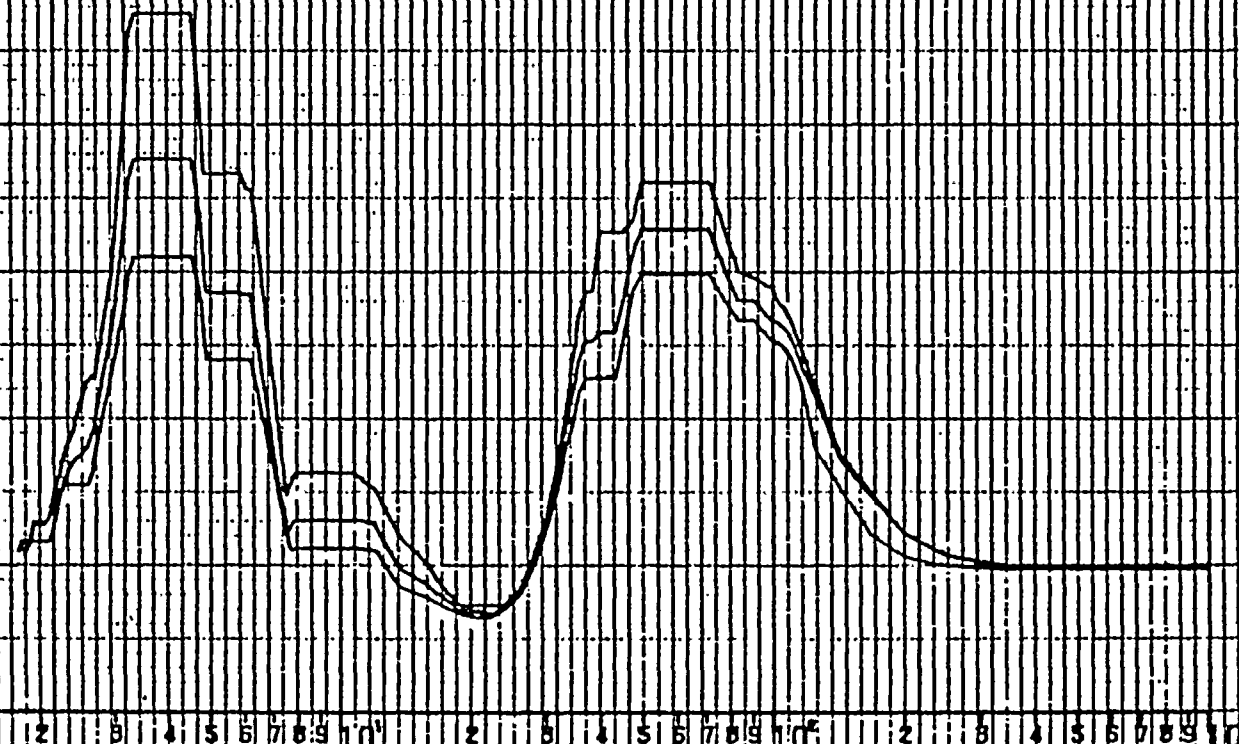
DAMPING VALUES = 0.020

0.050

0.100

NOTE: MULTIPLY OF JOE CURVES WITH SAMPLING 2X 32 & 4X
THREE CURVES REPRESENT A SPACING OF 100Z AND 100Z

RECELERATION 0
1.50
2.50
3.50
4.50
5.50



REF 36

0000000031



PSPECTRA: VER. 01 LEV: 00.

FAULT CONDITION:

25 JAN 1989

NIAGARA MOHAWK NINE MILES POINT UNIT-Z J.O. 12177 MS-1747-D

RMS OF ACCELERATION: PRIMARY CONT. (ELEV 255.67 FT)

MS 1747

MICHAEL K. DBI

DISK: CURVE SET NO. 6

VER. DIRECTION:

DAMPING VALUES = 0.020
0.050
0.080

NOTE: MULTI-PLT OF RMS CURVES WITH DAMPING 2% 5% & 8%
THREE CURVES REPRESENT IN SPACES OF +10% AND -10%

ACCELERATION G
2.80
2.40
2.00
1.60
1.20
0.80
0.40
0.00

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

REF 36

0000000032



PSPECTRA VER 01 LEV 00

UPSEY CONDITION

24 JAN 1985

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 255.67 FT)

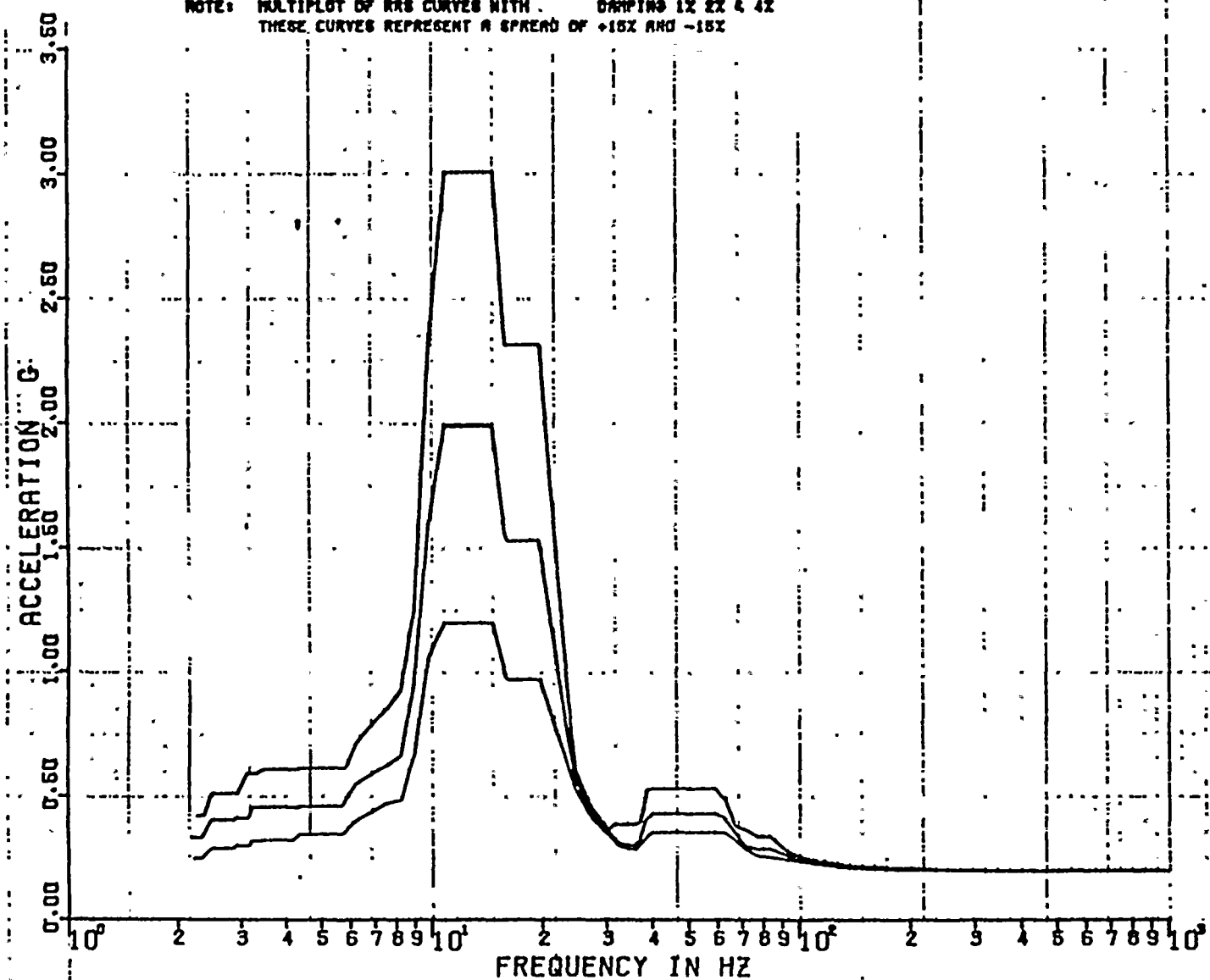
MS 1746
MICHAEL K 00

DISK CURVE SET NO.6

VER DIRECTION

DAMPING VALUES: 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 36



PSPECTRA VER 01 LEV 08

UPSE ITION

24 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.1217, MS-1746-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV 255.67 FT)

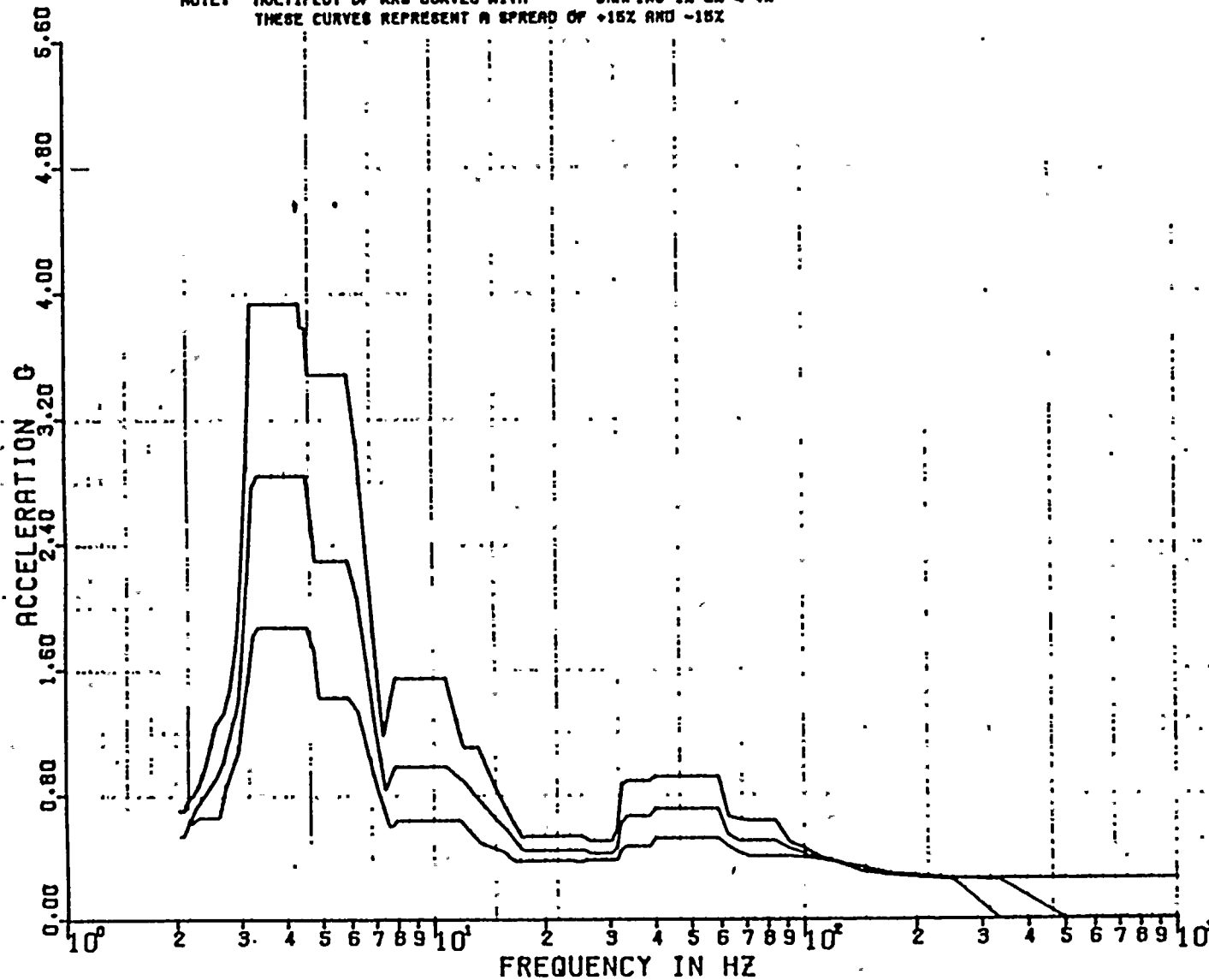
MS 1746
MICHAEL K 00

DISK CURVE SET NO.6

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 36



PERCENTAGE VER. 01 LEV. 00

FAL. CONDITION

25 JUN 1965

WINGRAH HARBOR-NINE MILES POINT UNIT-2 D.O.

MS-1747-D

WRS OF ACCELERATION

PRIMARY CONT.

(ELEV 2880 FT)

MS 1747

MICHAEL K. CO.

DISK CURVE SET NO. 7

HDR. DIRECTION

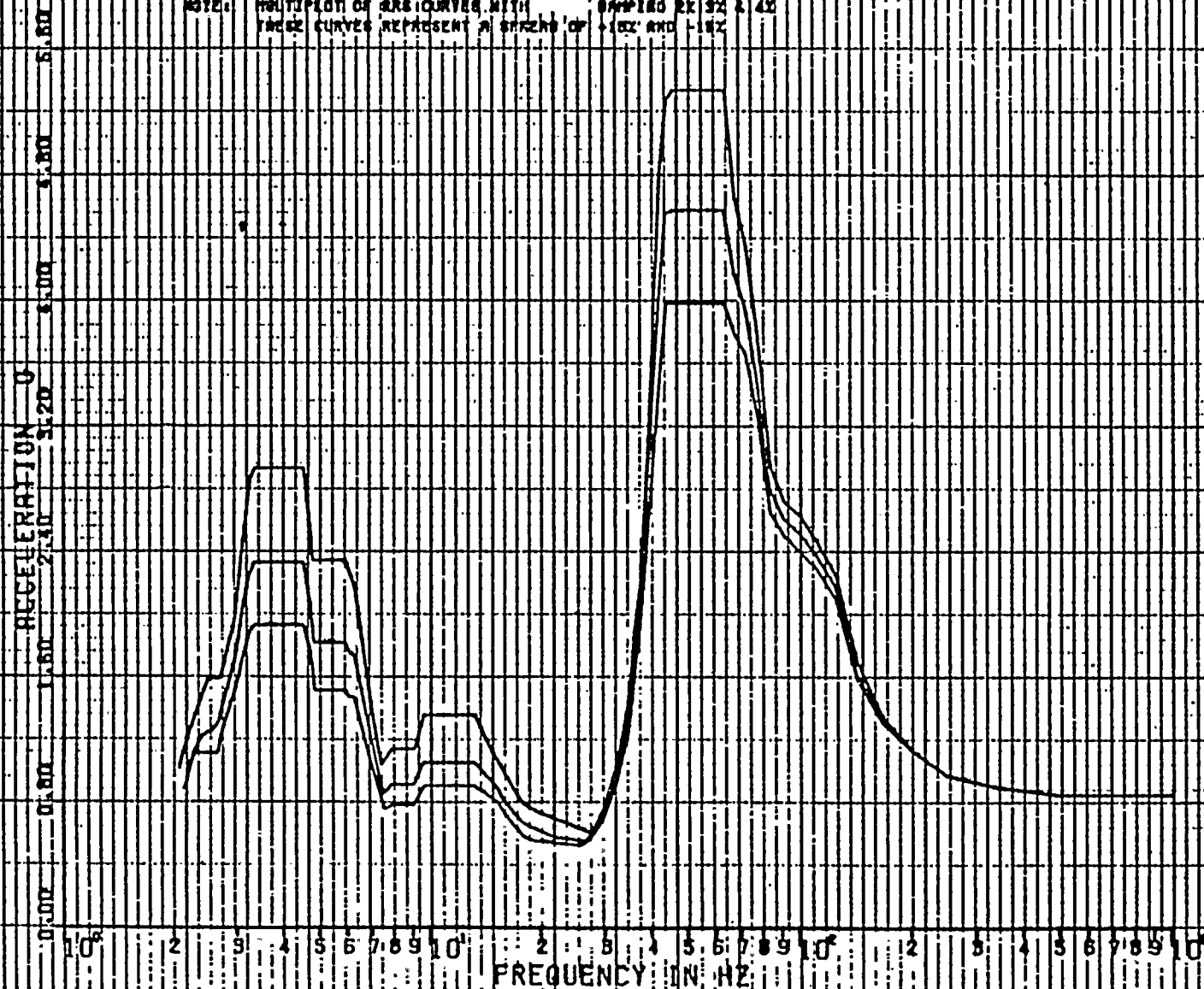
DAMPING VALUES =

0.020

0.050

0.080

NOTE: MULTIPLICATION OF DISK CURVES WITH DAMPING BY 5% & 4%
THESE CURVES REPRESENT A SKEW OF +10% AND -10%



Ref 37

0000000033



SPECTRA VER 01 LEV 00

FAULT CONDITION

25 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O. 12179 NS-1747-0
RMS OF ACCELERATION PRIMARY CONT. (ELEV 200.0 FT)

MS 1747

MICHAEL K. MO

DISK CURVE SET NO. 7

VER DIRECTION

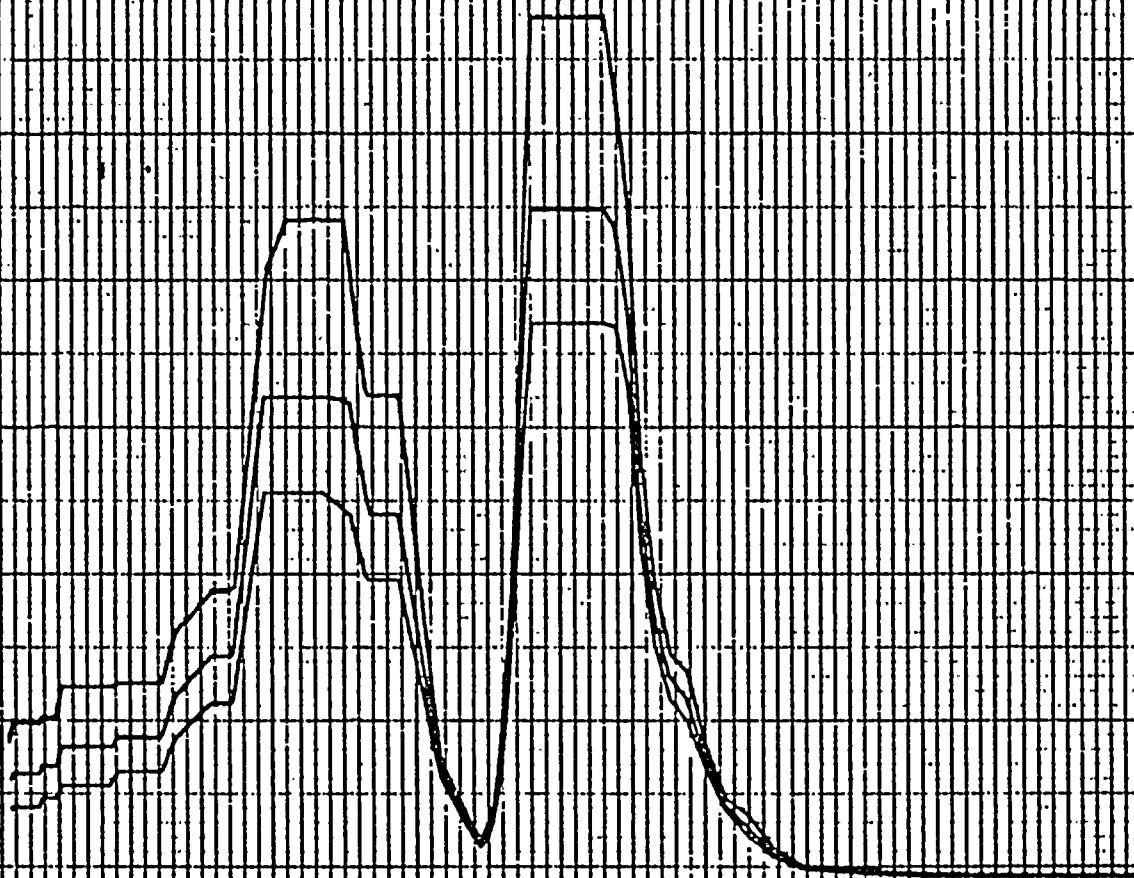
DAMPING VALUES = 0.020
0.050
0.080

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 2% BY 1.42
THESE CURVES REPRESENT IN SPREAD OF +10% AND -10%

ACCELERATION - g
2.80
2.40
2.00
1.60
1.20
0.80
0.40
0.00

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

FREQUENCY IN HZ



REF 37

000000034



PSPECTRA VER 01 LEV 08

UP5 DITION

24 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12177 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 298.0 FT)

MS 1746

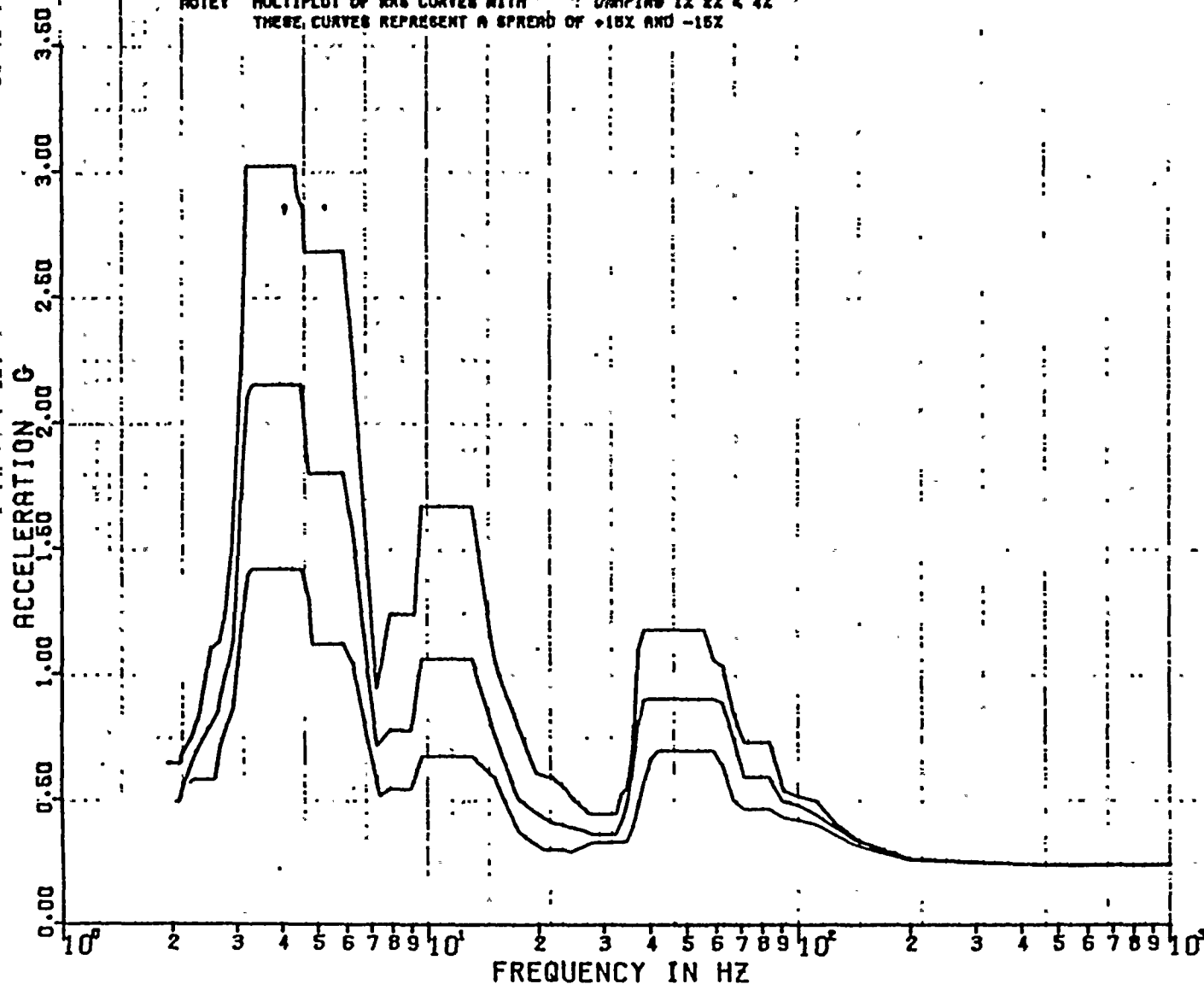
MICHAEL K DO

DISK CURVE SET NO.7

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15X AND -15X



REF 37



PSPECTRA VER 01 LEV 08

UP CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV 236.3 FT)

MS 1746

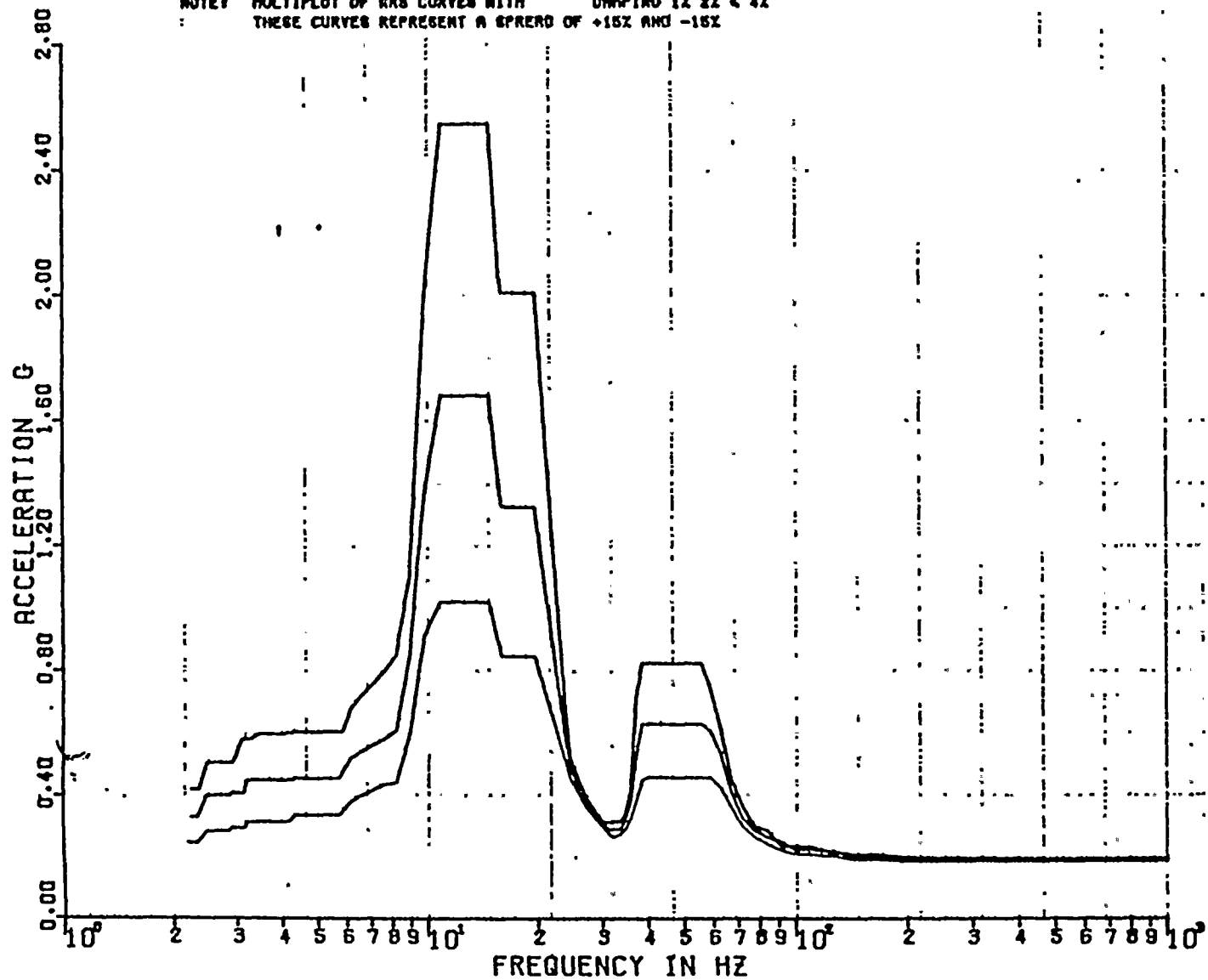
MICHAEL K DO

DISK CURVE SET NO.7

VER DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 37



PSPECTRA VER: 01 LEV: 00

FA: 01 CONDITION

25 JAN 1988

NIAGARA MOHAWK NINE MILES POINT UNIT-2 U.O. 7 MS-1-47-0

RRS OF ACCELERATION PRIMARY CONT. (ELEV. 218.99 FT)

MS 1747

MICHAEL R. 03

DISK CURVE SET NO. 0

HOR DIRECTION

DRAPIED VALUES = 0.020

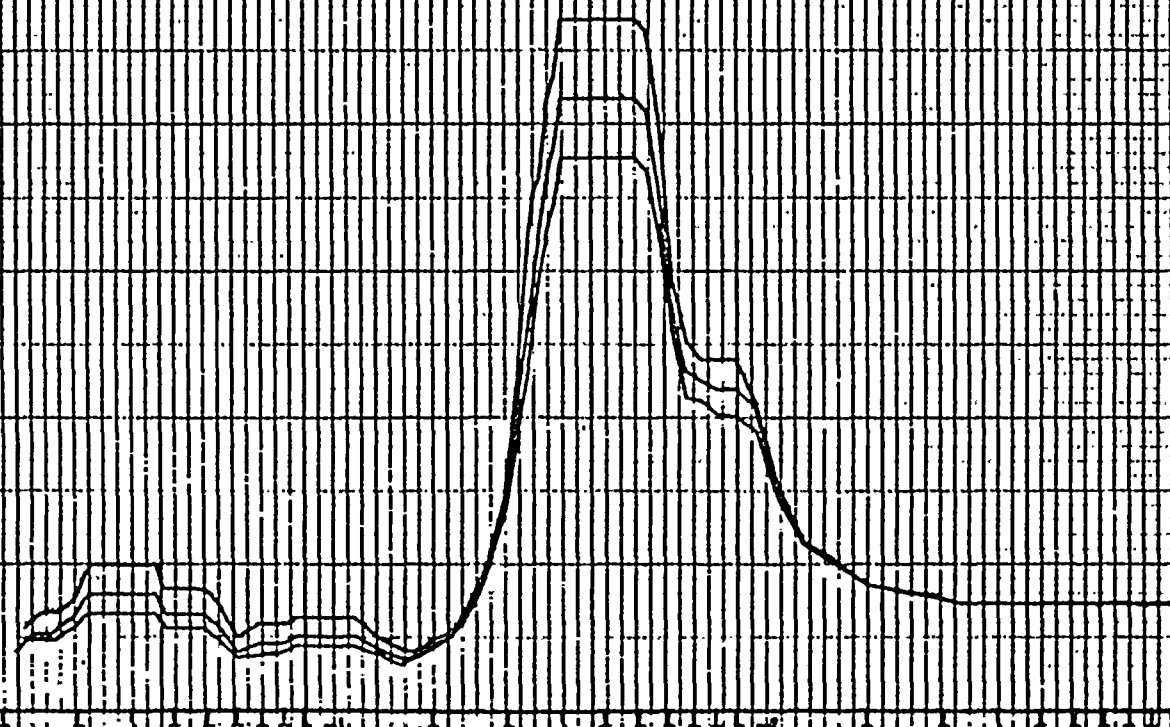
0.080
0.040

NOTE: MULTIPLIED BY ARE CURVES WITH SAMPLED 22.52 & 4.45
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0
10.00
8.00
6.00
4.00
2.00
0.00

10 2 3 4 5 6 7 8 9 10 12 3 4 5 6 7 8 9 10 2 3 4 5 6 7 8 9 10

FREQUENCY IN HZ



REF 38
02-100035



25 JUN 1968

NIROHKA, MOHANK-NINE MILES POINT UNIT-2 JUL 1 1981 18-1747-D
RAB: DF ACCELERATION, PRIMARY CONT. (ELEV. 2181.33 FT)

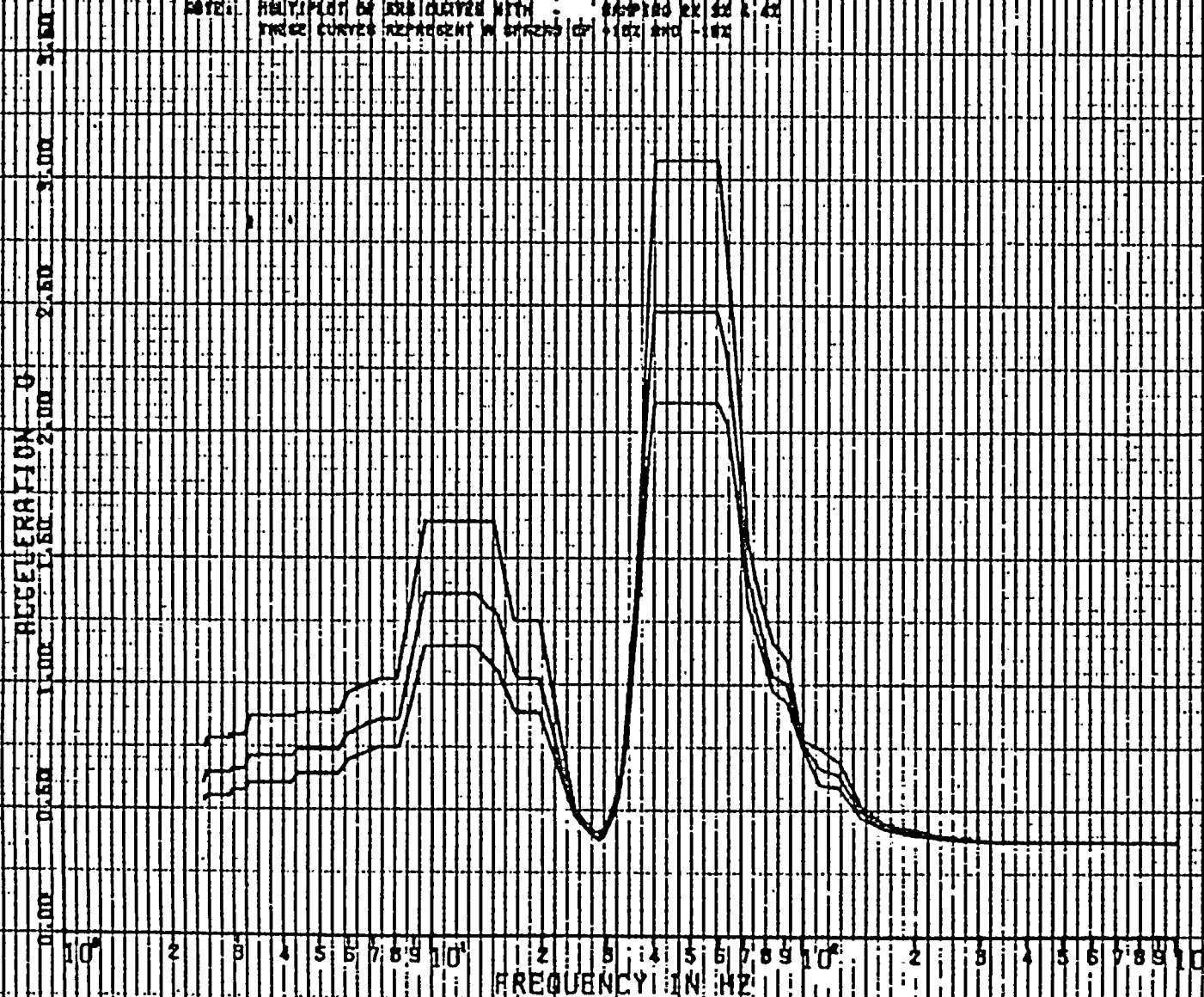
MS 1742

DISK CURVE SET NO. 8

VER DIRECTION

DAMPING VALUES :	
	0.020
	0.030
	0.040

NOTE: MULTI-PLLOT OF FOUR CURVES WITH RADIATION RX SET AT 400
THREE CURVES REPRESENT IN OTHERS OF 10% AND 0%



Ref 3

06-19-78 130



PSPECTRA VER 01 LEV 08

UPSE IDITION

24 JAN 1985

NIAOKA MOHAWK-NINE MILES POINT UNIT-2 J.O.1217. MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV.218.99 FT)

MS 1746

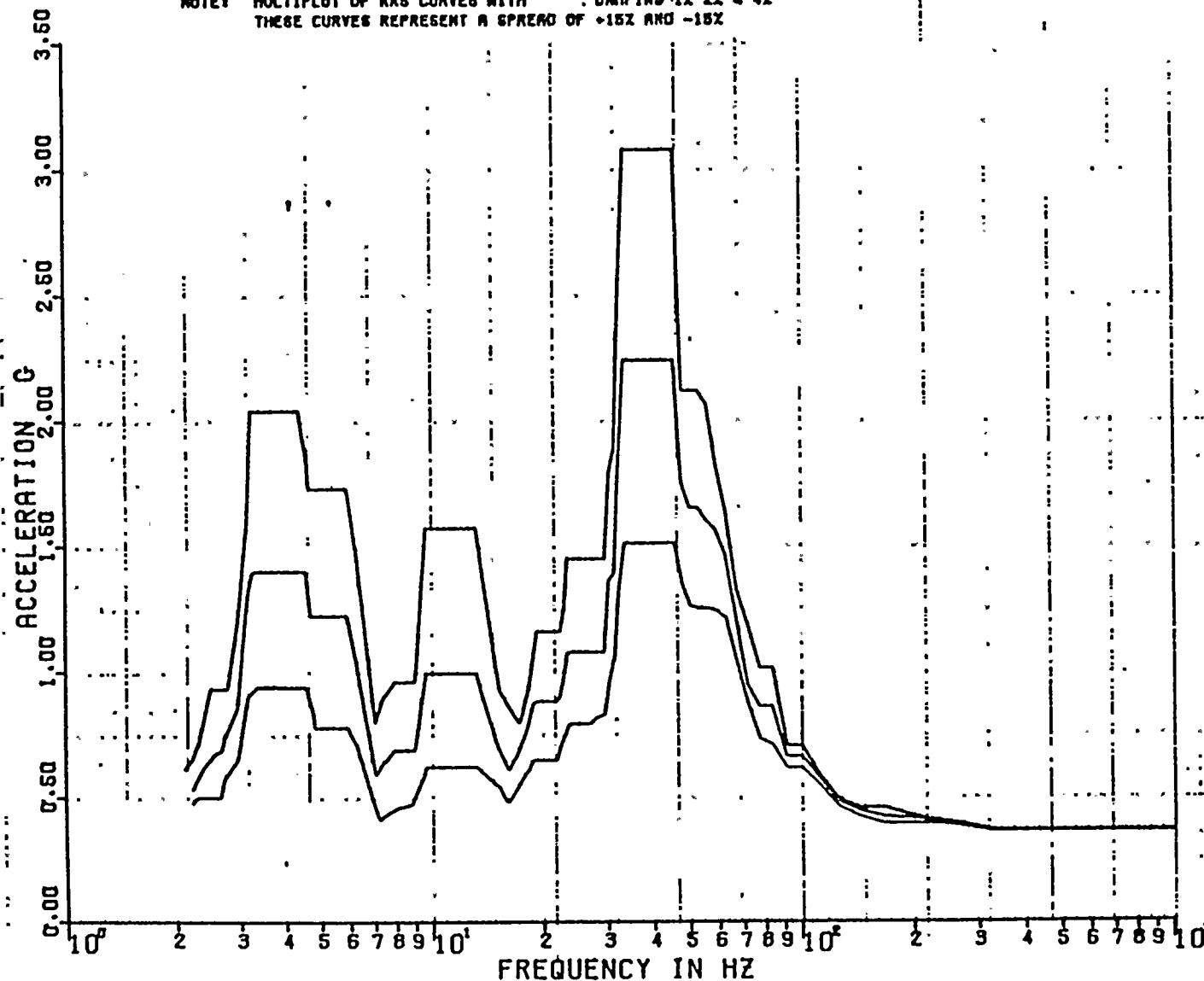
MICHAEL K 00

DISK CURVE SET NO.8

HOR DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTILOT OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 38



PSPECTRA VER 01 LEV 08

UI CONDITION

24 JAN 1983

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.11 MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV.218.99 FT)

MS 1746

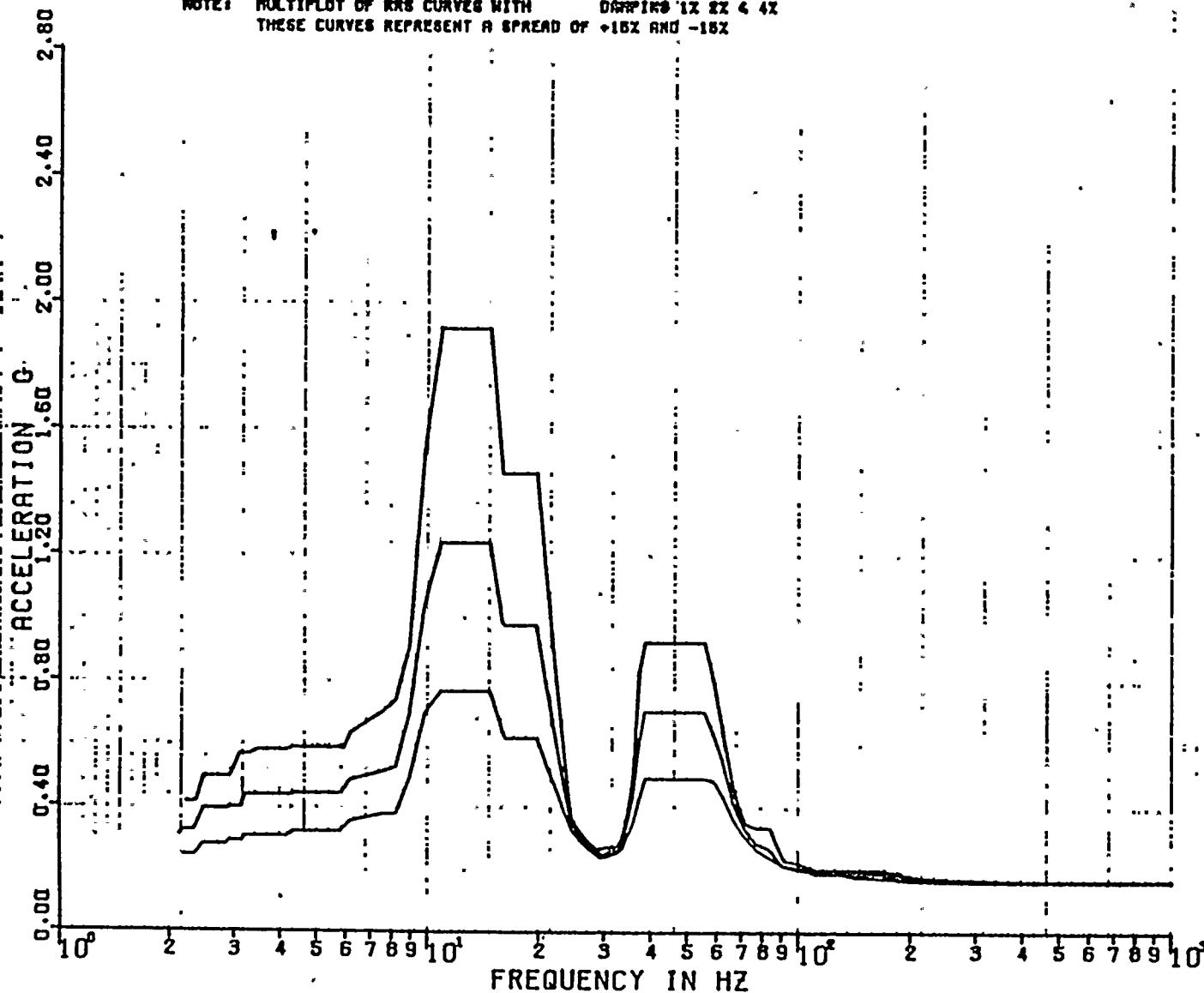
MICHAEL K DO.

DISK CURVE SET NO.8

VER DIRECTION

DAMPING VALUES
0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 38



SPECTRA VER. 01. LEV. 00.

ED CONDITION

25 JAN 1989

WYADARA, MOHAWK-NINE MILES POINT UNIT-2, U.D. 77 NS-1747-D
RMS OF ACCELERATION: PRIMARY CONT. (ELEV. 13617 FT)

MS 1747
MICHAEL K. DO

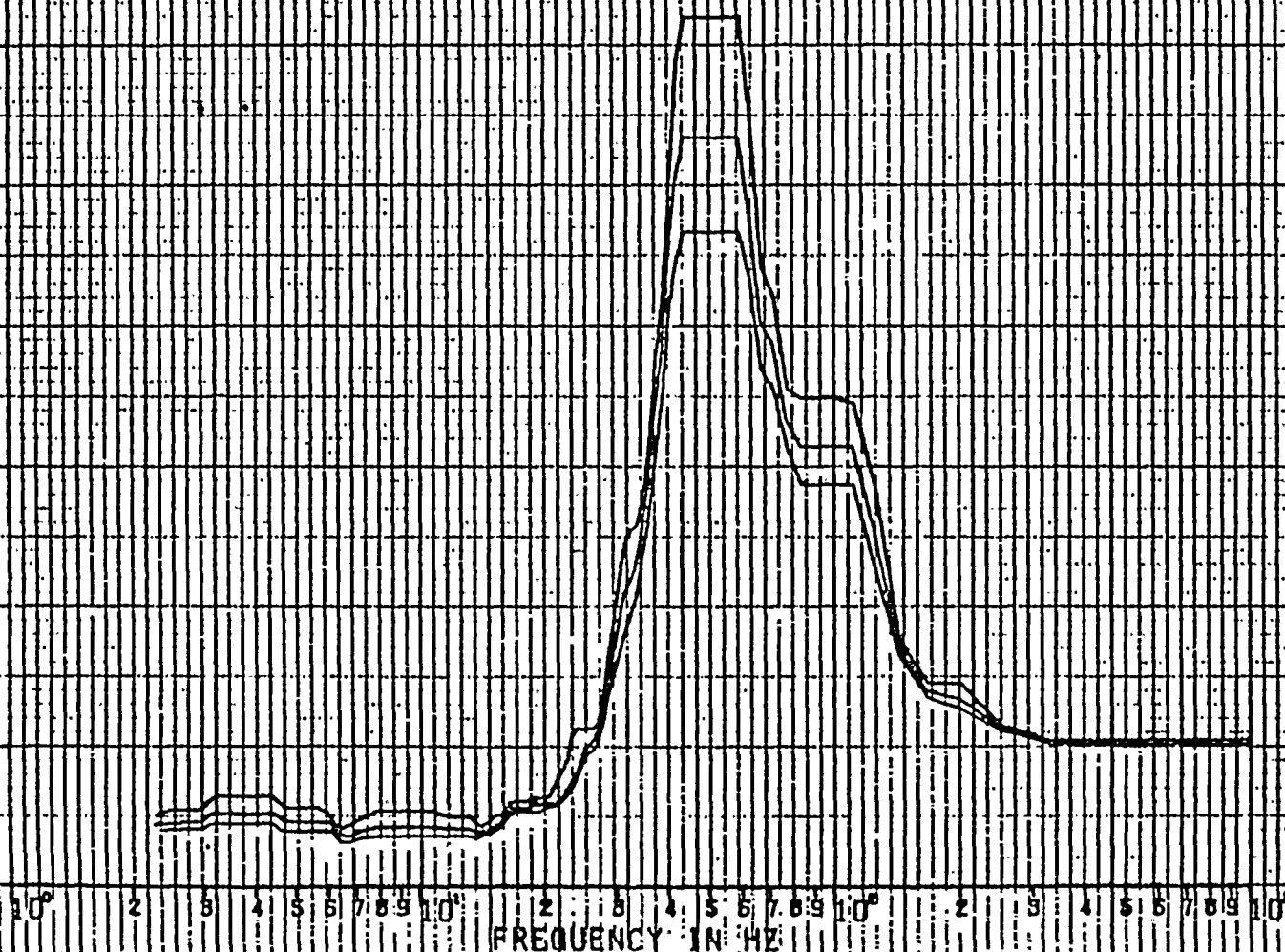
DISK CURVE SET NO. 9

HDR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 2X, 3X, 4X
THESE CURVES REPRESENT IN SPREAD OF +10% AND -10%

ACCELERATION 0 2.00 4.00 6.00 8.00 10.00 12.00 14.00



REL 39

030000037



SPECTRA VER 01 LEV 00

FRAU CONDITION

25 JAN 1989

MIADARA MICHANK-NINE MILES POINT UNIT-2 J.O. 11 MS-1747-0
RRS OF ACCELERATION: PRIMARY CONT. (ELEV. 196.7 FT)

MS 1747
MICHAEL & CO

DISK CURVE SET HOLD

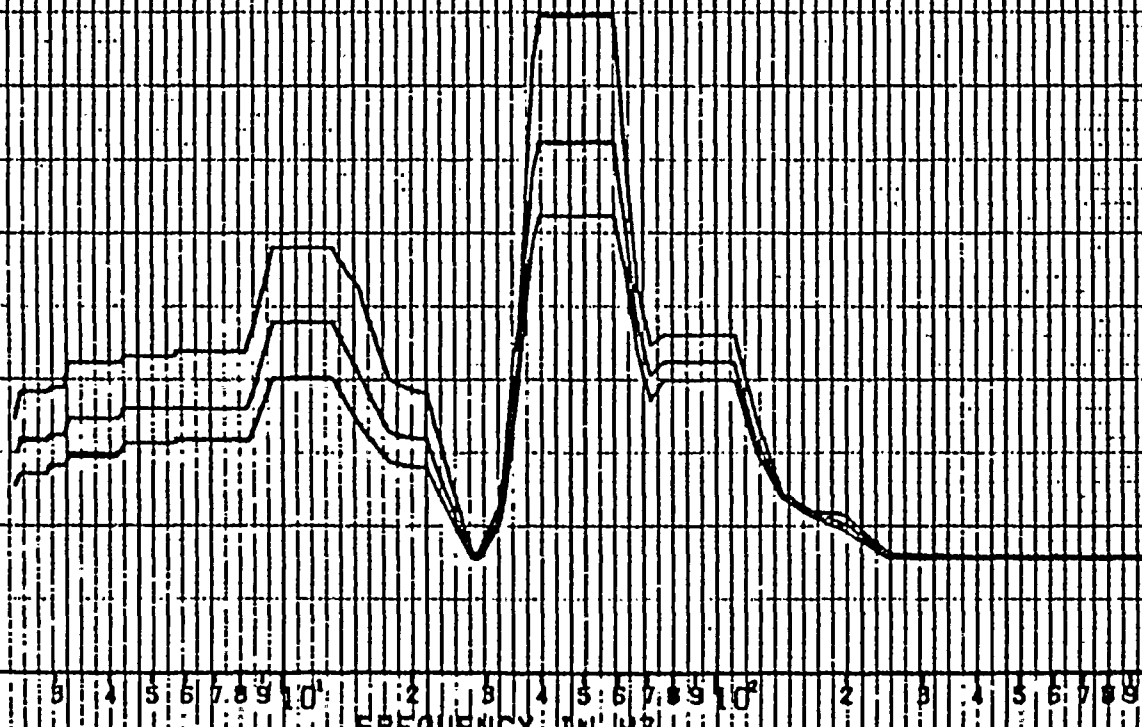
VERI DIRECTION

DAMPING VALUES = 0.020
0.020
0.020

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X
THESE CURVES REPRESENT A STRENGTH OF +10% AND -10%

ACCELERATION - G
2.80
2.40
2.00
1.60
1.20
0.80
0.40
0.00

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



REF 39

0011130008



PSPECTRA VER 01 LEV 00

UPPER POSITION

24 JAN 1988

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.1217. MS-1746-0
RRS OF ACCELERATION - PRIMARY CONT. (ELEV.196.7 FT)

MS 1746

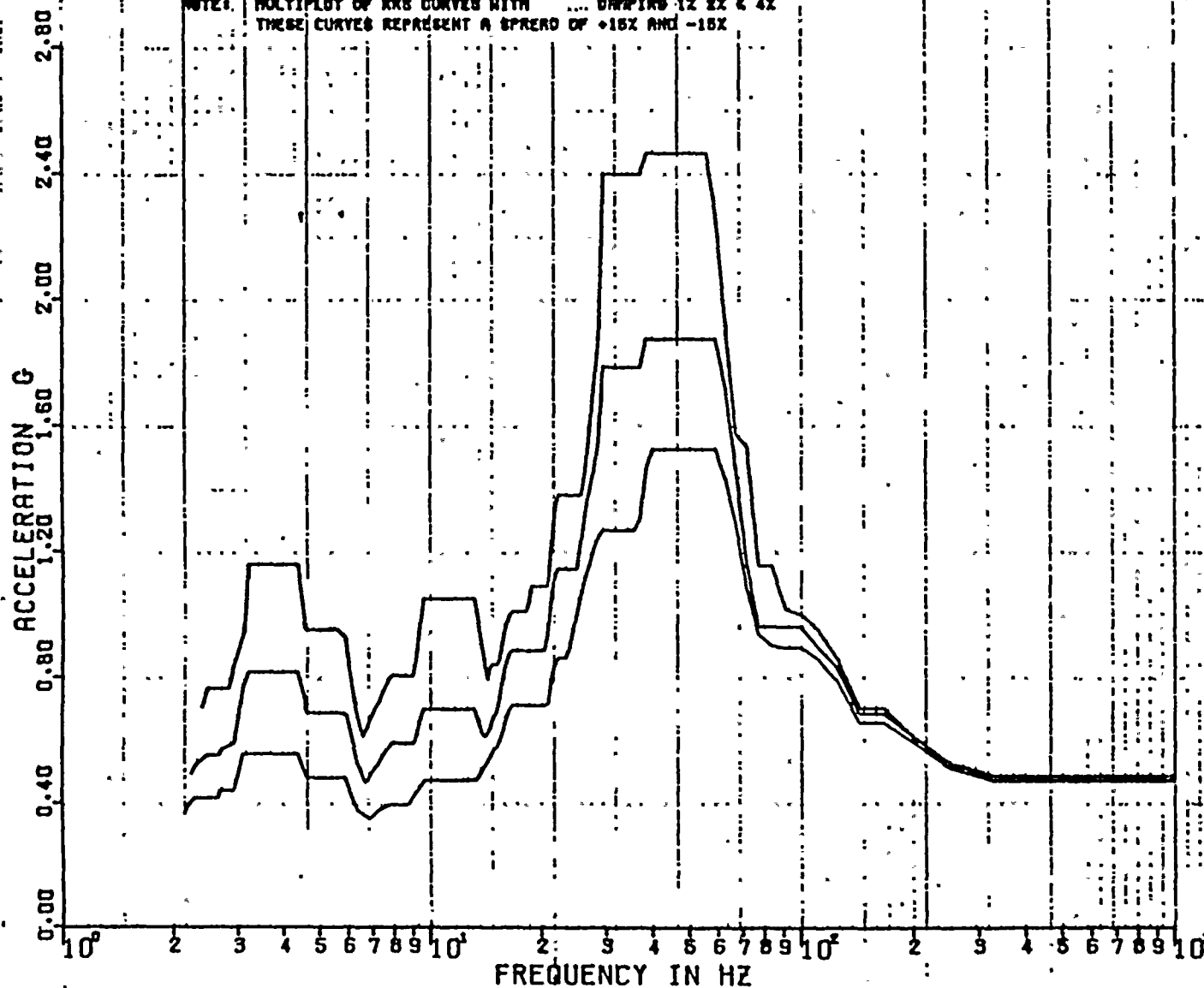
MICHAEL K DO

DAMPING VALUES: 0.010
0.020
0.040

DISK CURVE SET NO.9

HDR DIRECTION

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 39



PSPECTRA VER 01 LEV 00

UPDATION

24 JAN 1983

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.1217, MS-1746-0
RRS OF ACCELERATION PRIMARY CONT. (ELEV.186.7 FT)

MS 1746

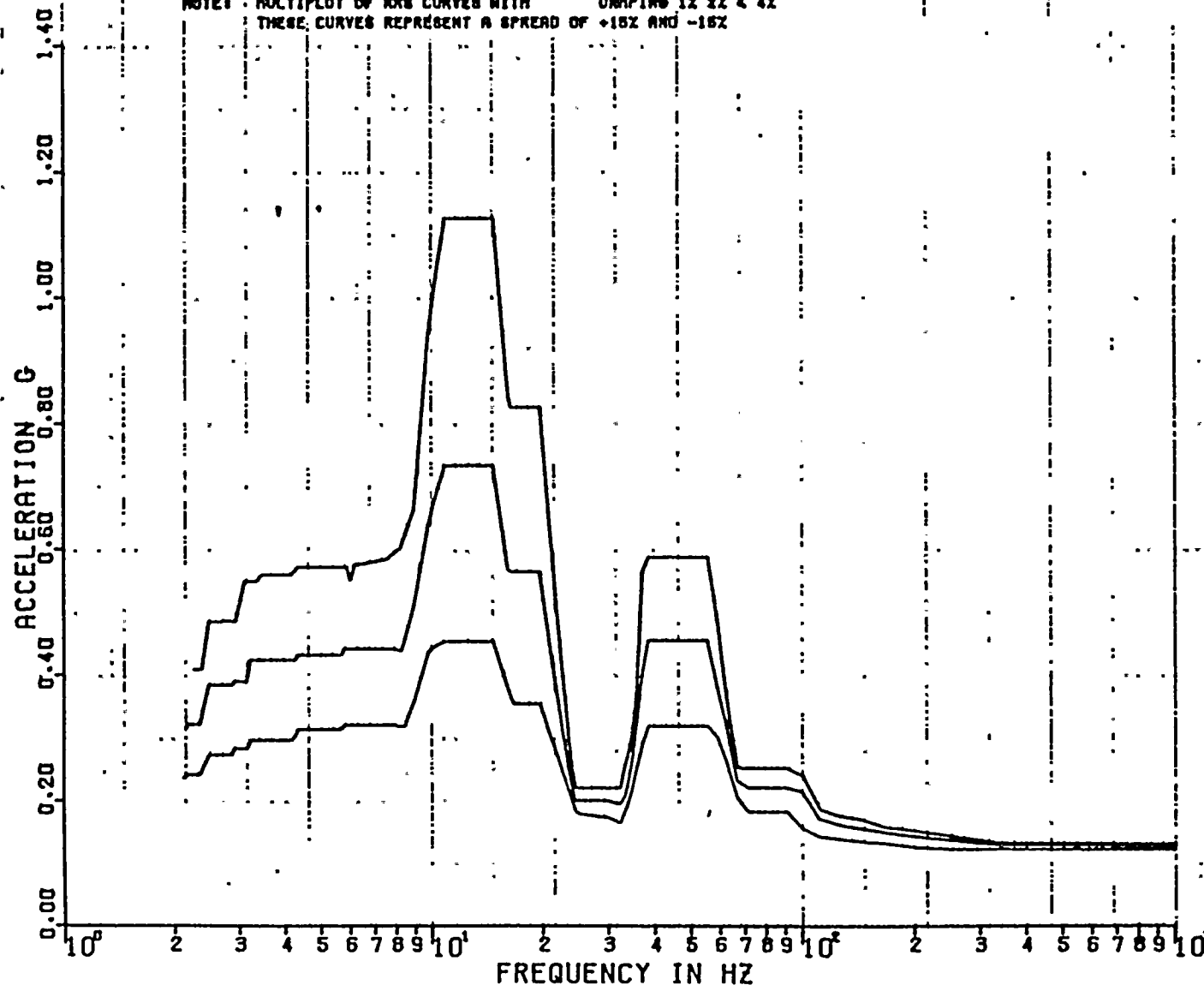
MICHAEL K 00

DISK CURVE SET NO.9

VER DIRECTION

DAMPING VALUES : 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





SPECTRA VER. 01 LEV 00

FAULT CONDITION

25 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2, D.O. 11-11-88, NS-1747-D

RRS OF ACCELERATION SHIELD WALL (ELEV. 911 FT.)

MS 1747

DISK CURVE SET NO. 10

HDR. DIRECTION

DAMPING VALUES = 0.020

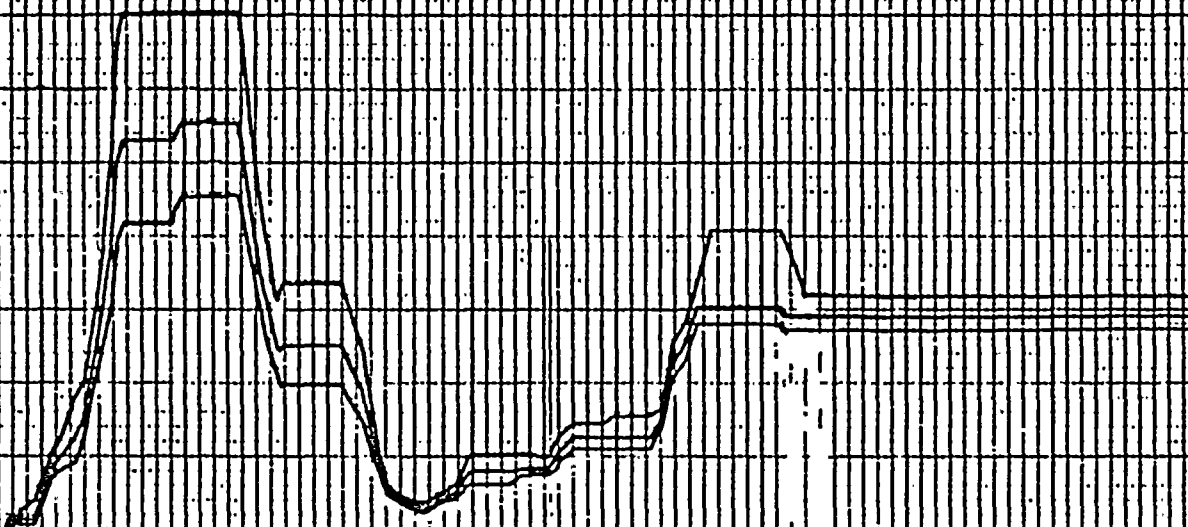
0.030

0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2% BY 2.4%
THESE CURVES REPRESENT A SPREAD OF 10% AND 15%

ACCELERATION - G
0.00 2.00 4.00 6.00 8.00 10.00 12.00 14.00

10⁰



FREQUENCY IN HZ

10²

REF 40

03-10300035



PSECTRA VER 01 LEV 05

FAULT CONDITION

25 JAN 1985

HYDRAK MOWHAWK-RINE MILES POINT UNIT-2 J.O. 12 AS-1747-0

RHS OF ACCELERATION SHIELD WALL (ELEV. 316.09 FT)

MS 1747

DISK CURVE SET NO. 10

VER. DIRECTION

DAMPING VALUES = 0.020

0.050

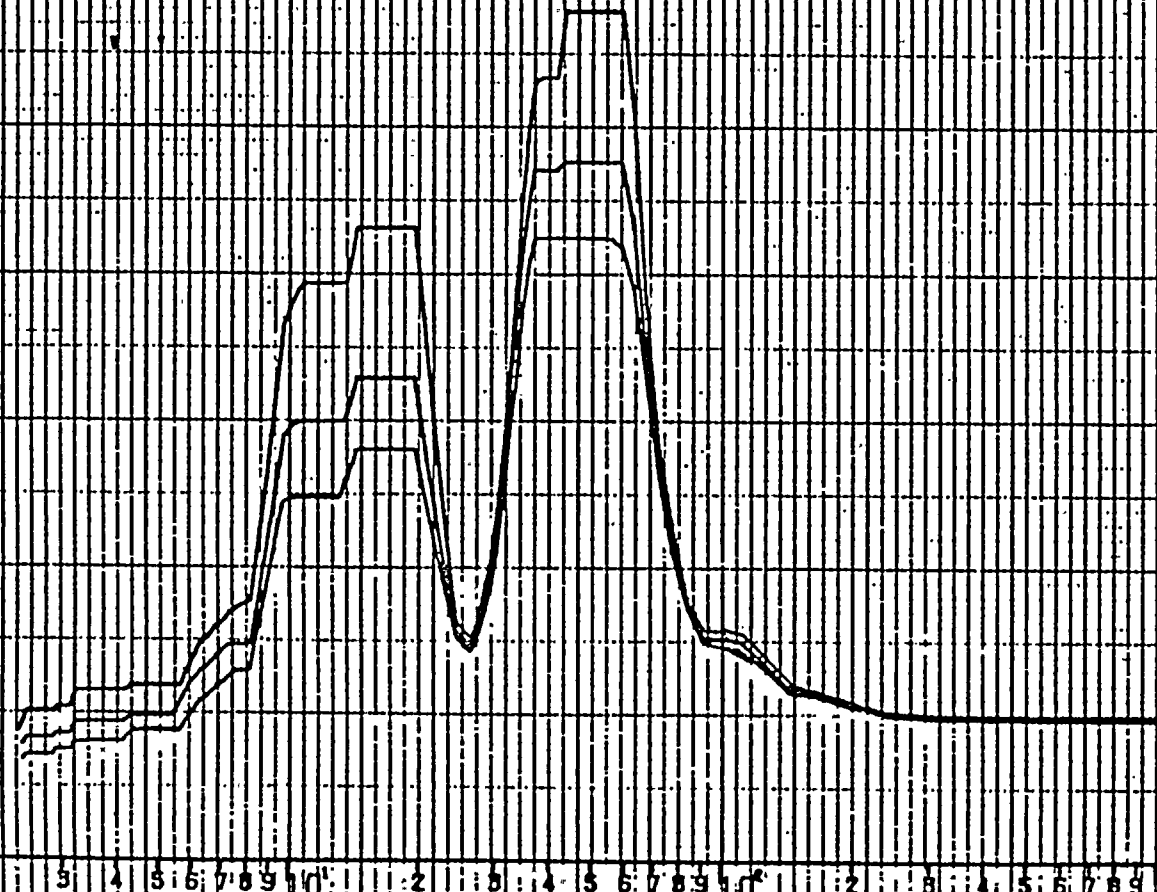
0.040

NOTE: MULTIPLOT OF AAS CURVES WITH DAMPING 1% 5% & 10%
THESE CURVES REPRESENT IN SPANS OF 10% AND 10%

ACCELERATION - G
0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50

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 40

0000000000



PSPECTRA VER 01 LEV 08

UPG CONDITION

24 JAN 1989

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121 MS-1746-0
RRS OF ACCELERATION SHIELD WALL (ELEV.316.09 FT)

MS 1746

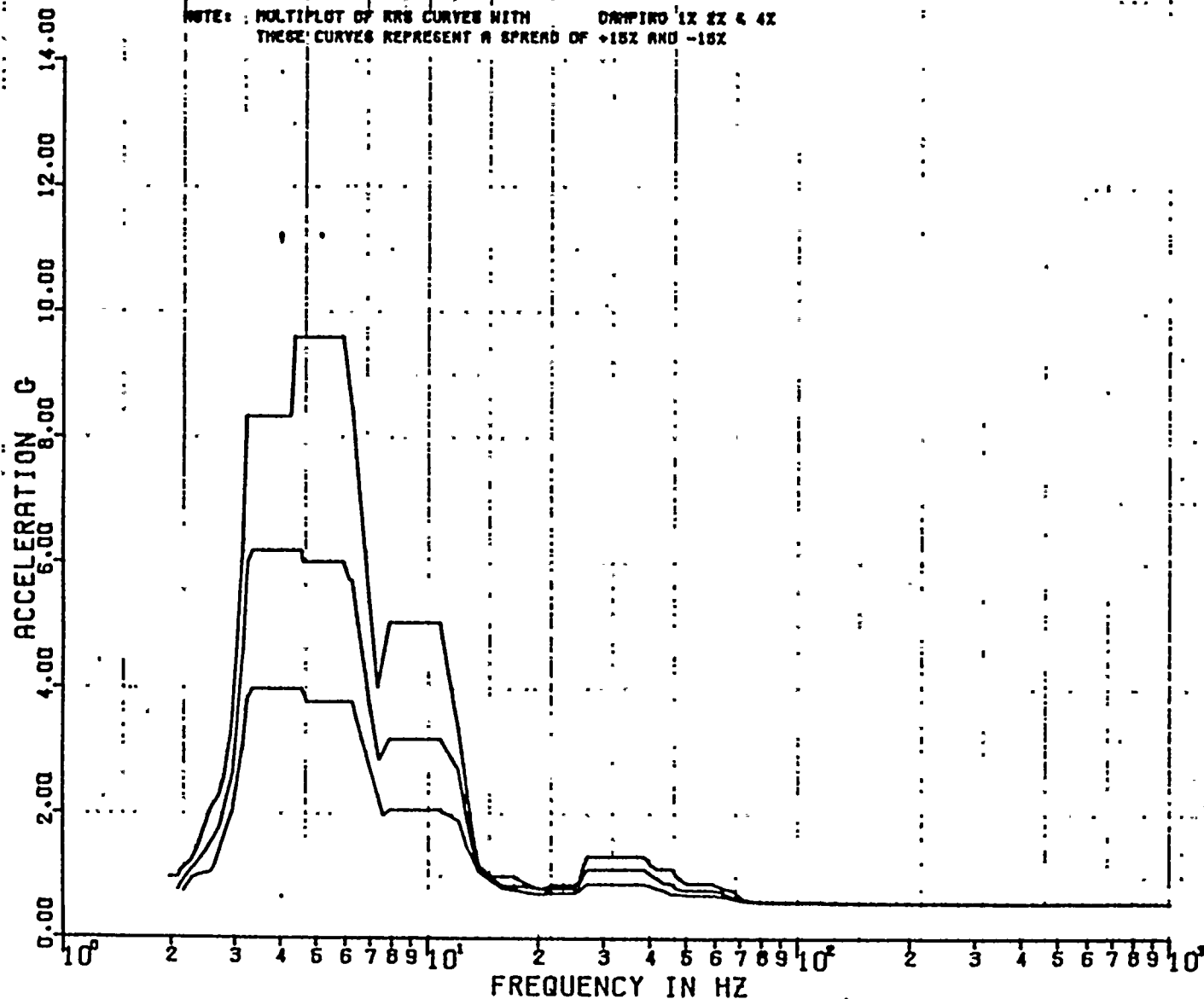
MICHAEL K DO

DAMPING VALUES * 0.010
0.020
0.040

DISK CURVE SET NO.10

HOR DIRECTION

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 40



PSPECTRA VER 01 LEV 08

UPSET POSITION

24 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12 MS-1746-0
RRS OF ACCELERATION SHIELD WALL (ELEV.315.03 FT)

MS 1746

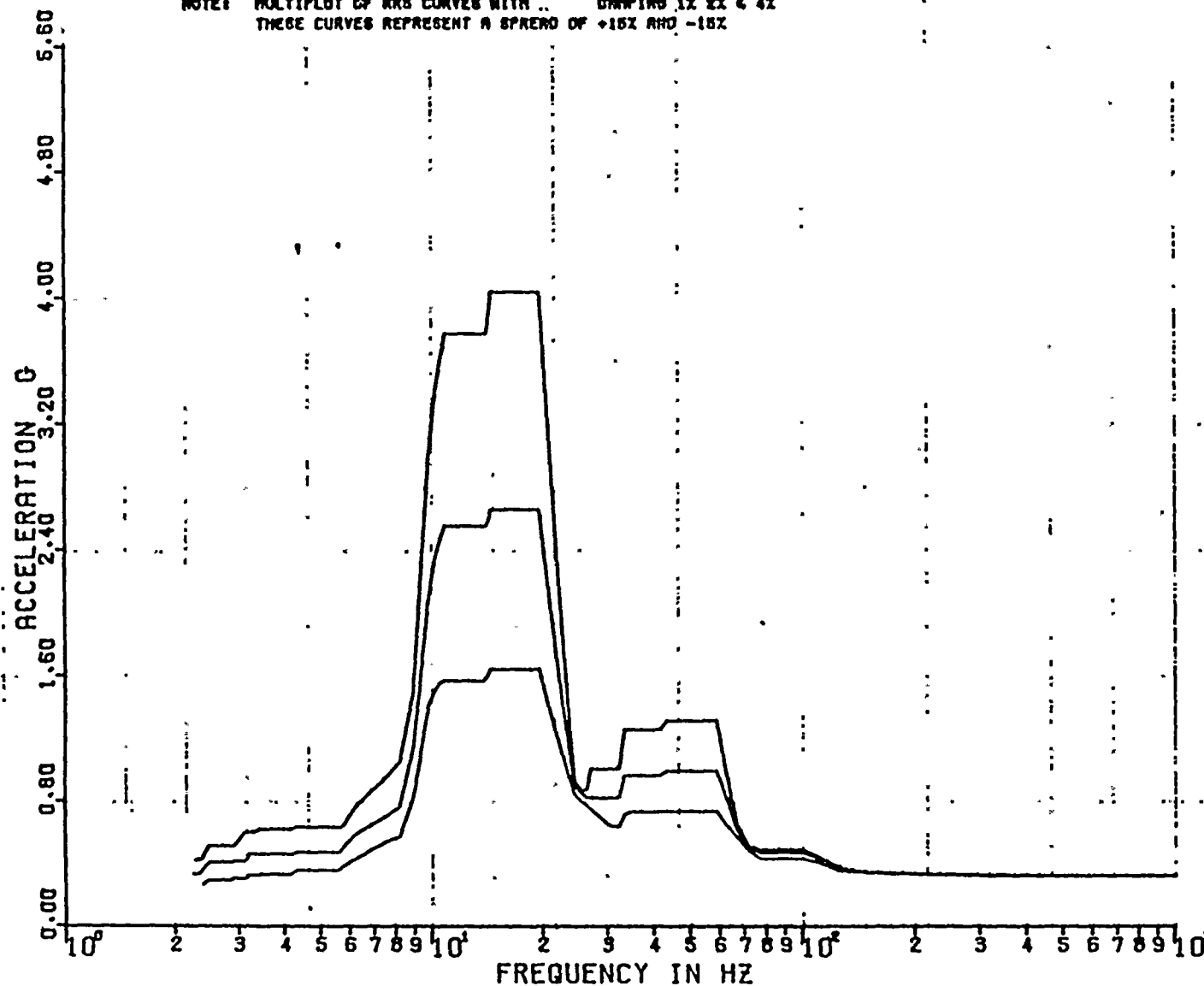
MICHAEL K 00

DISK CURVE SET NO.10

VER DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 40



SPECTRA VER 01 LEV 08

FAULT CONDITION

25 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 (J.01121)

MS-174740

RMS OF ACCELERATION SHIELD WALL (ELEV. 302.75 FT)

MS 1747

MICHAEL K. DO

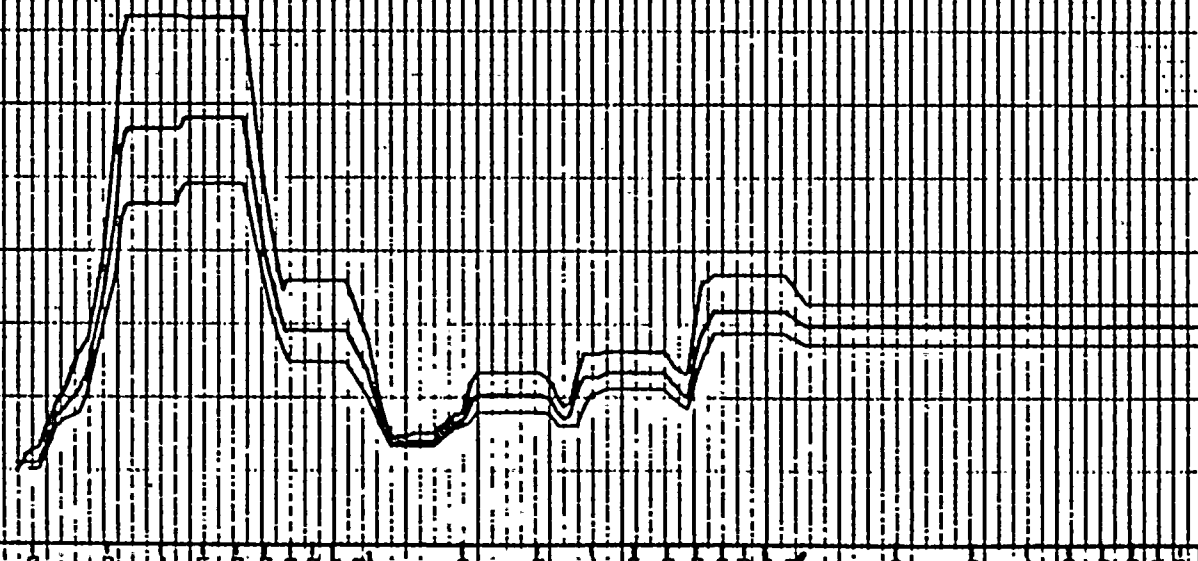
DISK CURVE SET NO. 11

HOR DIRECTION

DAMPING VALUES = 0.020
0.080
0.080

NOTE: MULTIPLY OF RMS CURVES WITH
THICK CURVES REPRESENT A STRENGTH OF +15% AND -15%

ACCELERATION 0
2.00
4.00
6.00
8.00
10.00
12.00
14.00



FREQUENCY IN HZ

REF 41

0000000041



SPECTRA VER 01 LEV 00

FAULT CONDITION

25 JUN 1980

ROADWAY ROADWAY-HIRE MILES POINT UNIT-2 J.O.D. HS-1747-0
 RRB OF ACCELERATION SHIELD: WALL (ELEV. 5021.6 FT)

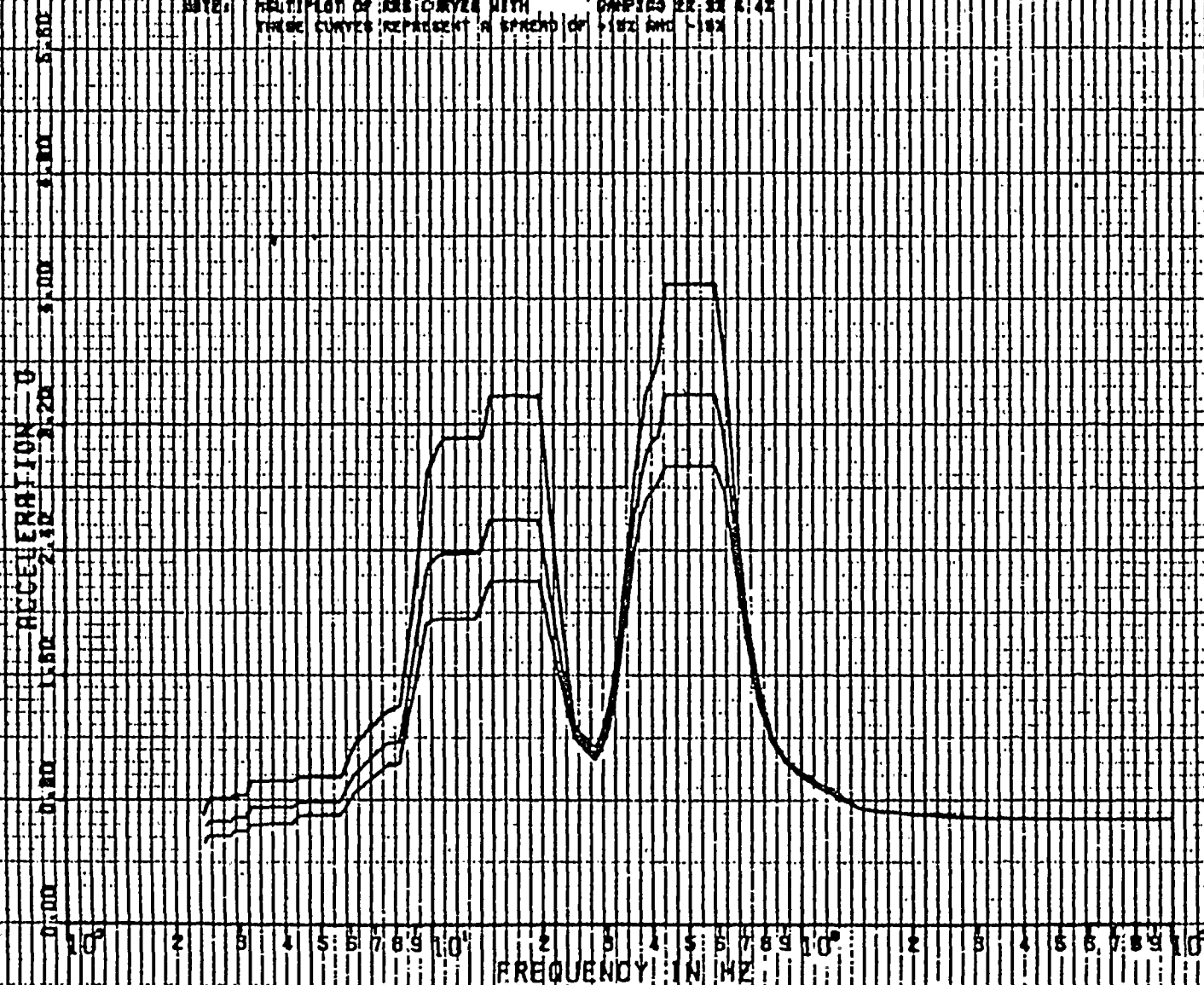
MS 1747
 MICHAEL K. BO

DISK CURVE SET NO. 11

VER DIRECTION

DRIVING VALUES: 0.000
 0.000
 0.000

NOTE: MULTIPLY BY RRB CURVES WITH DAMPING 2X 1X & 4X
 THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 41

0010036042



PSPECTRA VER 01 LEV 08

U CONDITION

24 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12

MS-1746-0

RRS OF ACCELERATION SHIELD WALL (ELEV. 302.75 FT)

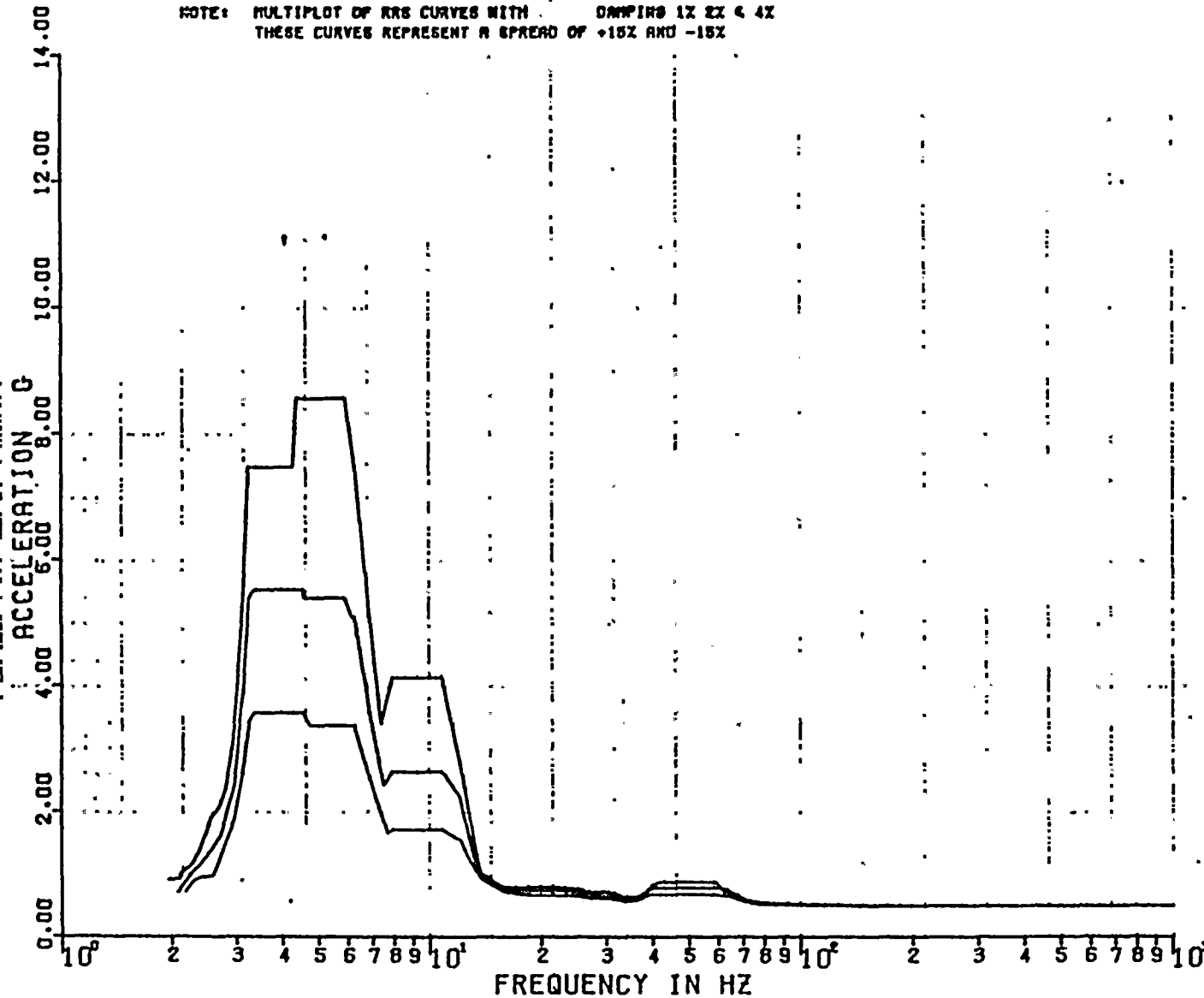
MS 1746
MICHAEL K DO

DISK CURVE SET NO.11

HOR DIRECTION

DAMPING VALUES
0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 41



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1963

NIAOARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12... / MS-1746-0
RMS OF ACCELERATION SHIELD WALL (ELEV. 302.75 FT)

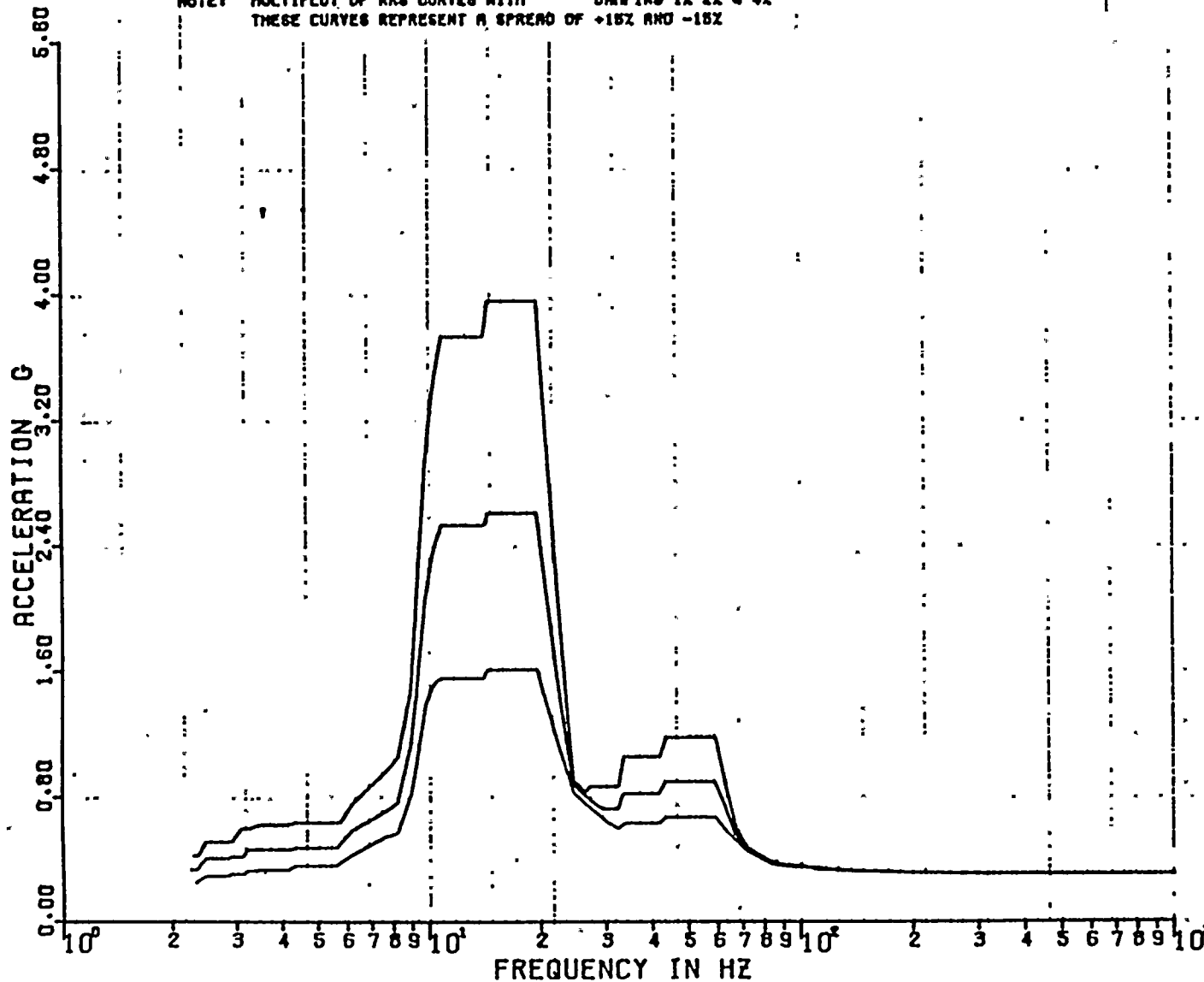
MS 1746
MICHAEL K DO

DISK CURVE SET NO.11

VER DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





PSPECTRA VER. 01 LEV. 08

FAUL CONDITION

25 JAN 1985

HINDAKA HONAWK-NINE MILES POINT UNIT-2 J. 0. 0. 12. AS-1747-0
RMS OF ACCELERATION SHIELD WALL (ELEV 290.79 FT)

MS 1747

DISK CURVE SET NO. 12

HOR DIRECTION

DRAWING VALUES * 0.020

0.040

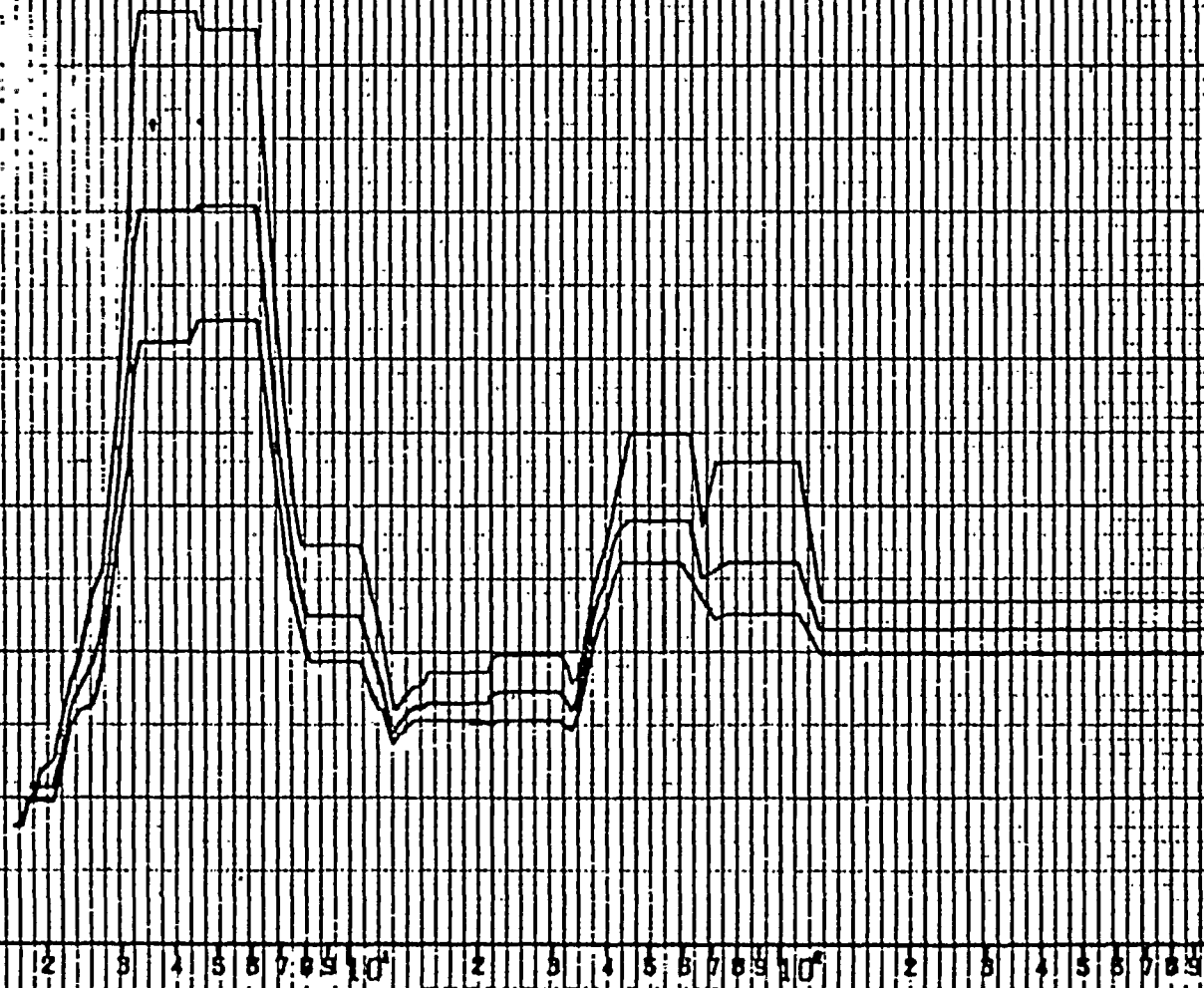
0.080

NOTE: MULTIPLY OF ARE CURVES WITH SAMPLES BY 5% & 4%
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION - G
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00

10⁰ 12 9 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 41

00-10000043



PSPECTRA: VER. 01 LEV. 00

FAUL CONDITION:

25 JAN 1983

HYDRAKHI ROHANK-NINE MILES POINT UNIT-2 J.O. 121

MS-1747-0

NR5 OF ACCELERATION: SHIELD WALL (ELEV 290.75 FT)

MS 1747

RICHARD K. MO

DISK CURVE SET NO. 12

VER. DIRECTION:

DAMPING VALUES =

0.020

0.030

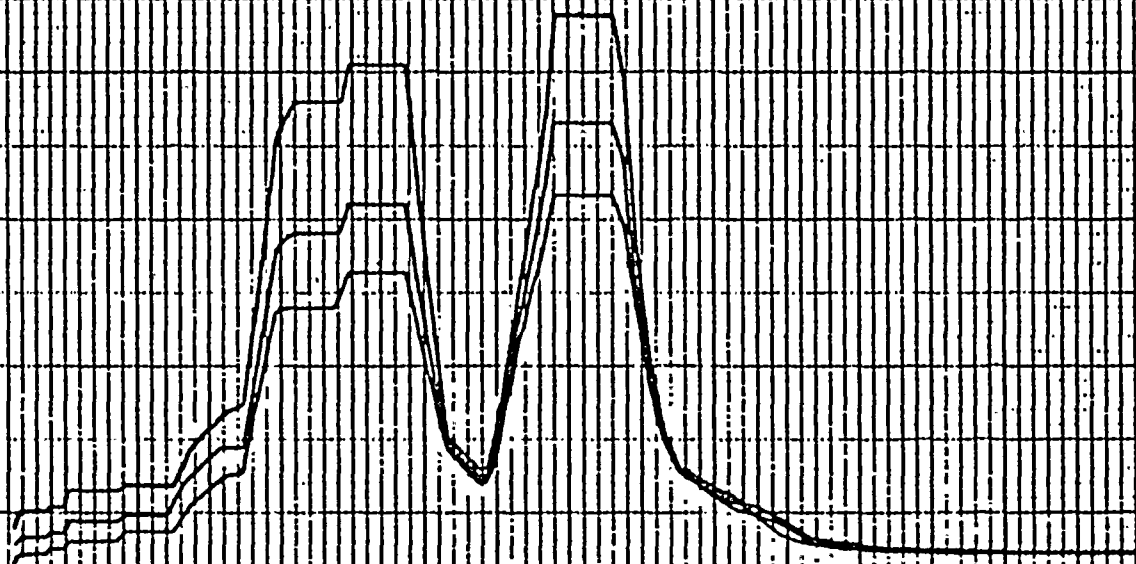
0.040

NOTE: MULTI-PLT OF KRS CURVES WITH DAMPING 2X 3X & 4X
THREE CURVES REPRESENT IN OPERA OF -10X AND -15X

ACCELERATION 0 5.60 4.80 4.00 3.20 2.40 1.60 0.80 0.00

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



REF 42

0000000000



PSPECTRA VER 01 LEV 08

UPC - CONDITION

24 JAN 1985

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121 MS-1746-0
RRS OF ACCELERATION SHIELD WALL (ELEV 290.79 FT)

MS 1746

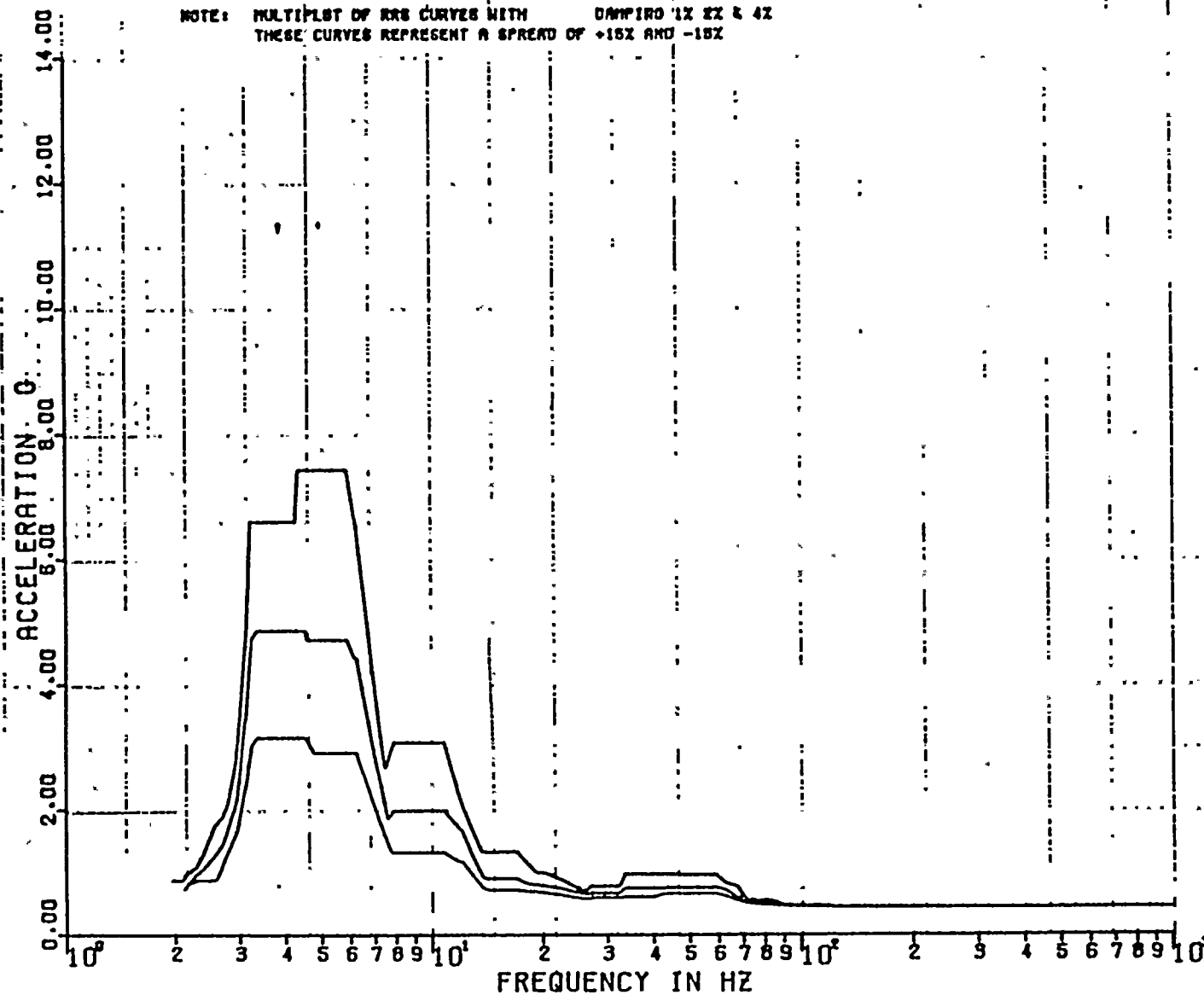
MICHAEL K 00

DISK CURVE SET NO.12

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 42



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.S. / MS-1746-0
RRS OF ACCELERATION SHIELD WALL (ELEV 290.79 FT)

MS 1746

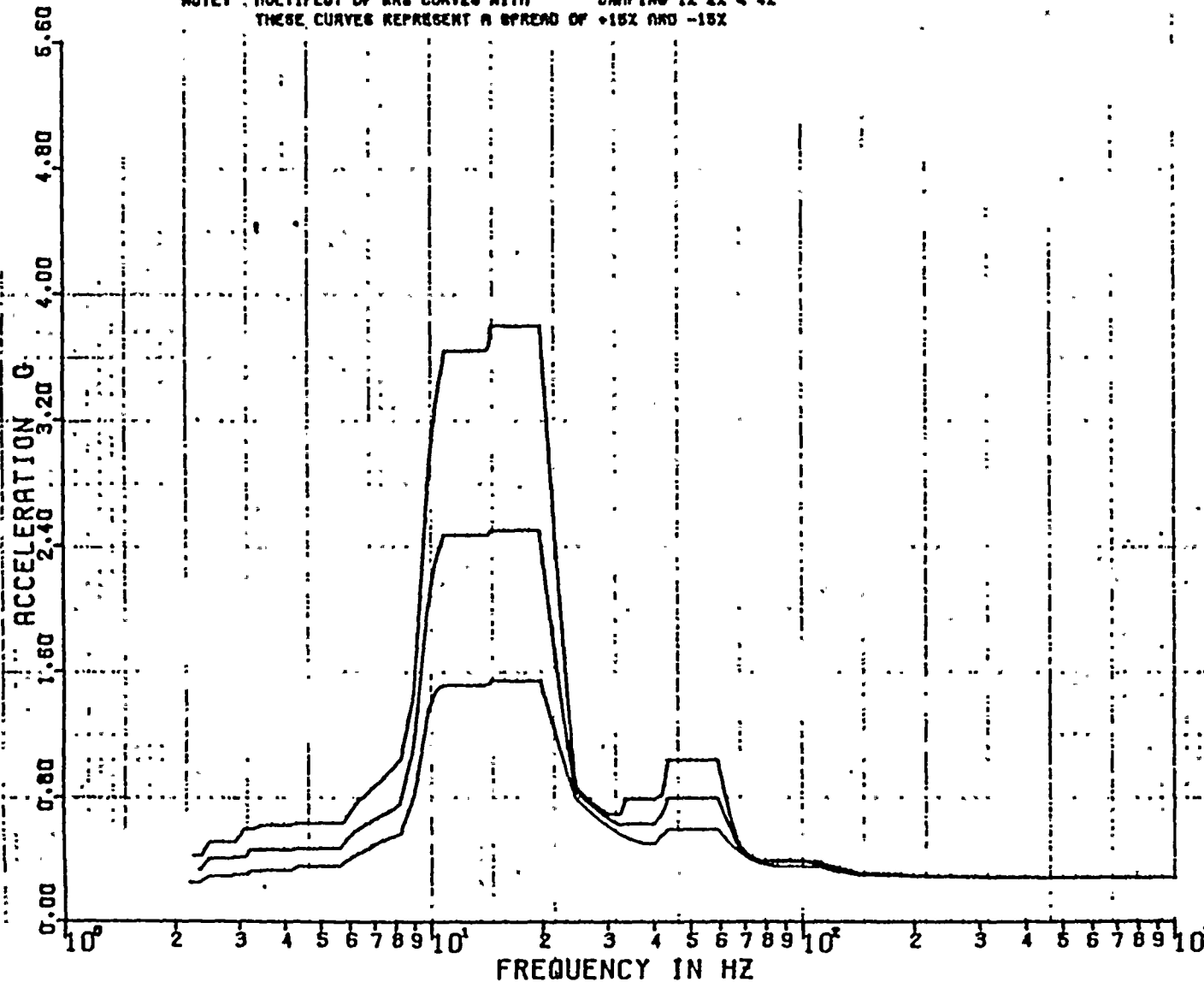
MICHAEL K DO

DISK CURVE SET NO.12

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 42



PSPECTRA VER. 01 LEV. 00

FAIR - 01 CONDITION

25 JAN 1965

NIADARA NDHANK-HIRE MILES POINT UNIT-2: J. 01

MS-1747-0

RRS OF ACCELERATION: SHIELD WALL (ELEV. 27.65 FT)

MS 174

MICHAEL K. 00

DISK CURVE SET NO. 13

VER. DIRECTION

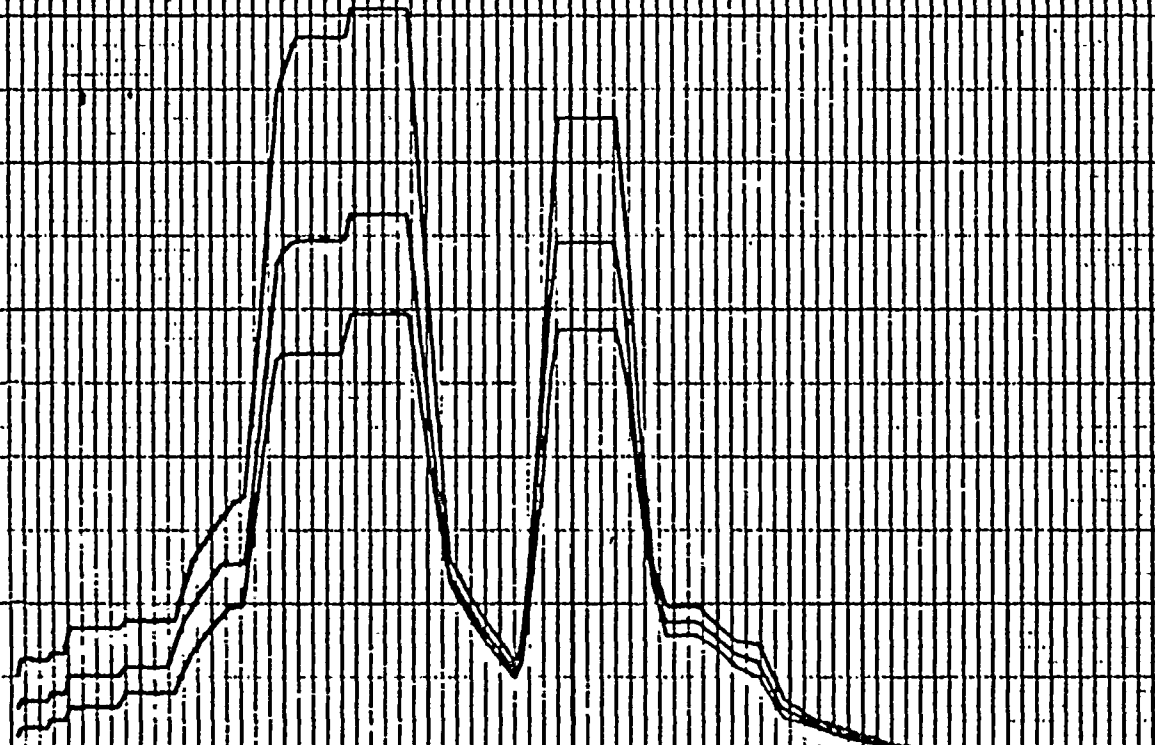
DAMPING VALUES = 0.020
0.050
0.100

NOTE: MULTIPLE OF RRS CURVES WITH DAMPING K1, K2 & K3
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION - 0
1.00
1.50
2.00
2.50
3.00
3.50

10⁰ 1 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 43

00-11-21045



P6SPECTRA VER 01 LEV 08

FAL CONDITION

25 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.I. MS-1747-D
RRS OF ACCELERATION SHIELD WALL (ELEV. 278.65 FT)

MS 1747

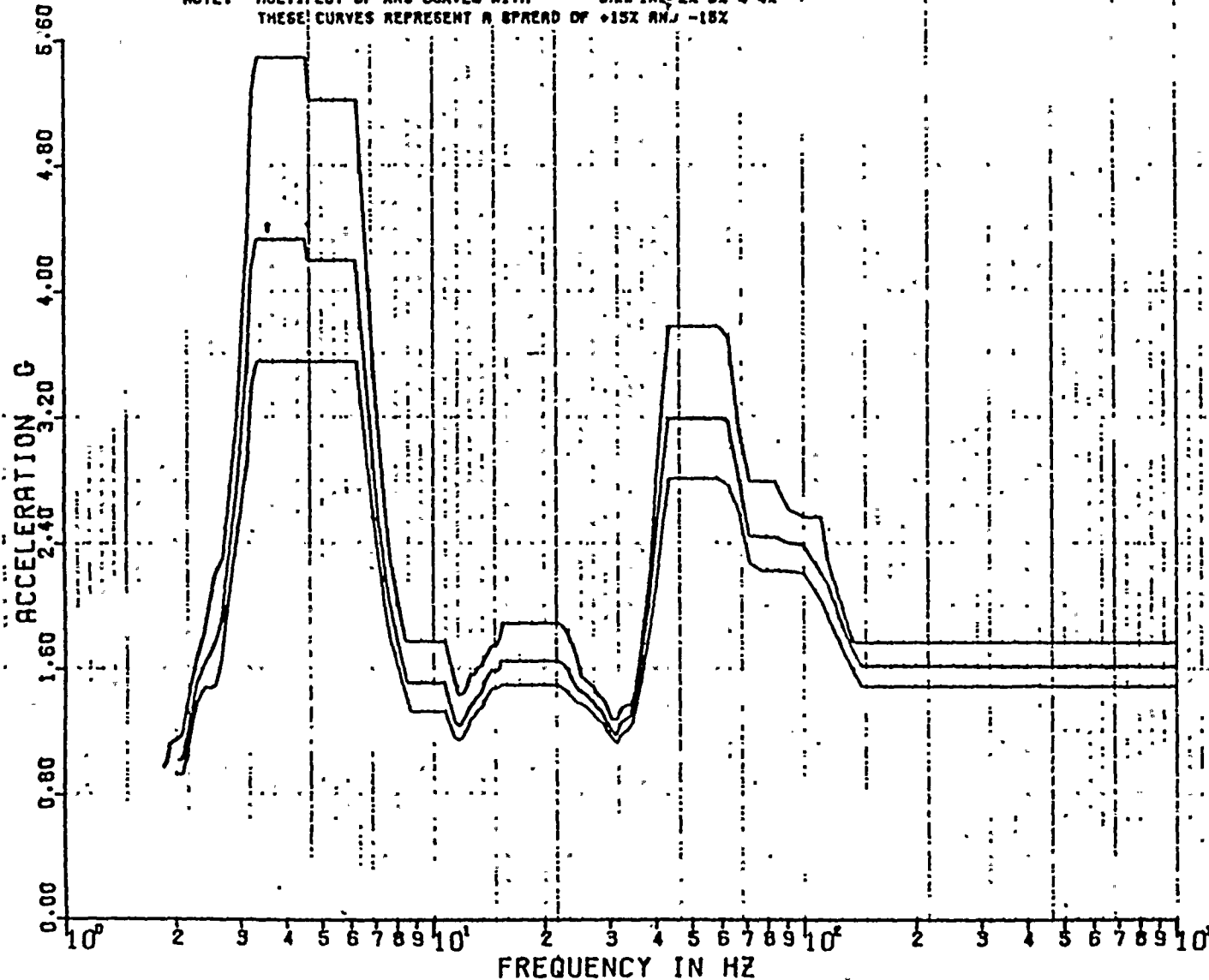
MICHAEL K DO

DISK CURVE SET NO.19

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 43

000000046



PSPECTRA VER 01 LEV 00

UP CONDITION

24 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12 MS-1746-0
RRS OF ACCELERATION SHIELD WALL (ELEV. 278.65 FT)

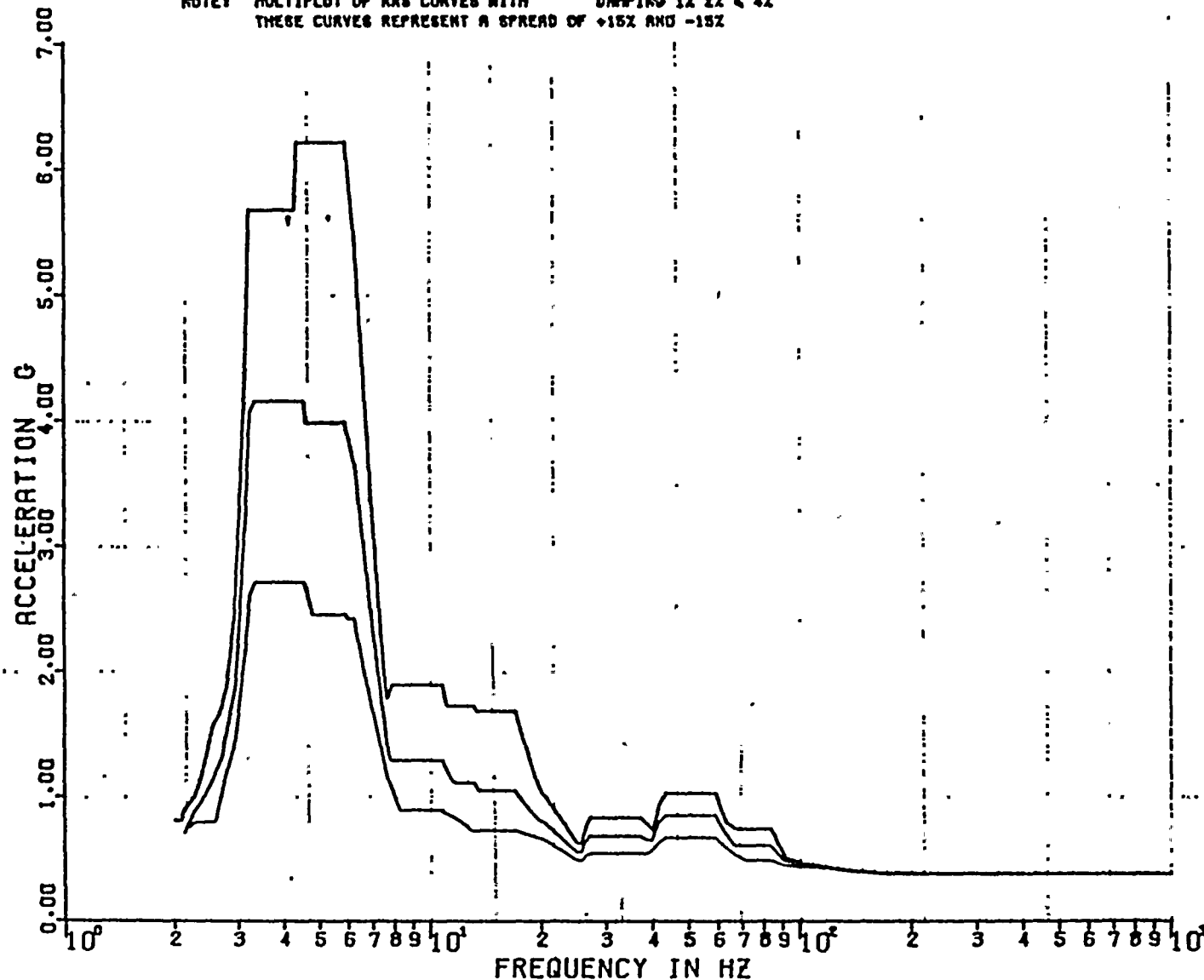
MS 1746
MICHAEL K 00

DISK CURVE SET NO.13

HOR DIRECTION

DAMPING VALUES: 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 43



PSPECTRA VER 01 LEV 00

CONDITION

24 JAN 1989

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121., MS-1746-0
RMS OF ACCELERATION SHIELD WALL (ELEV. 278.65 FT)

MS 1746

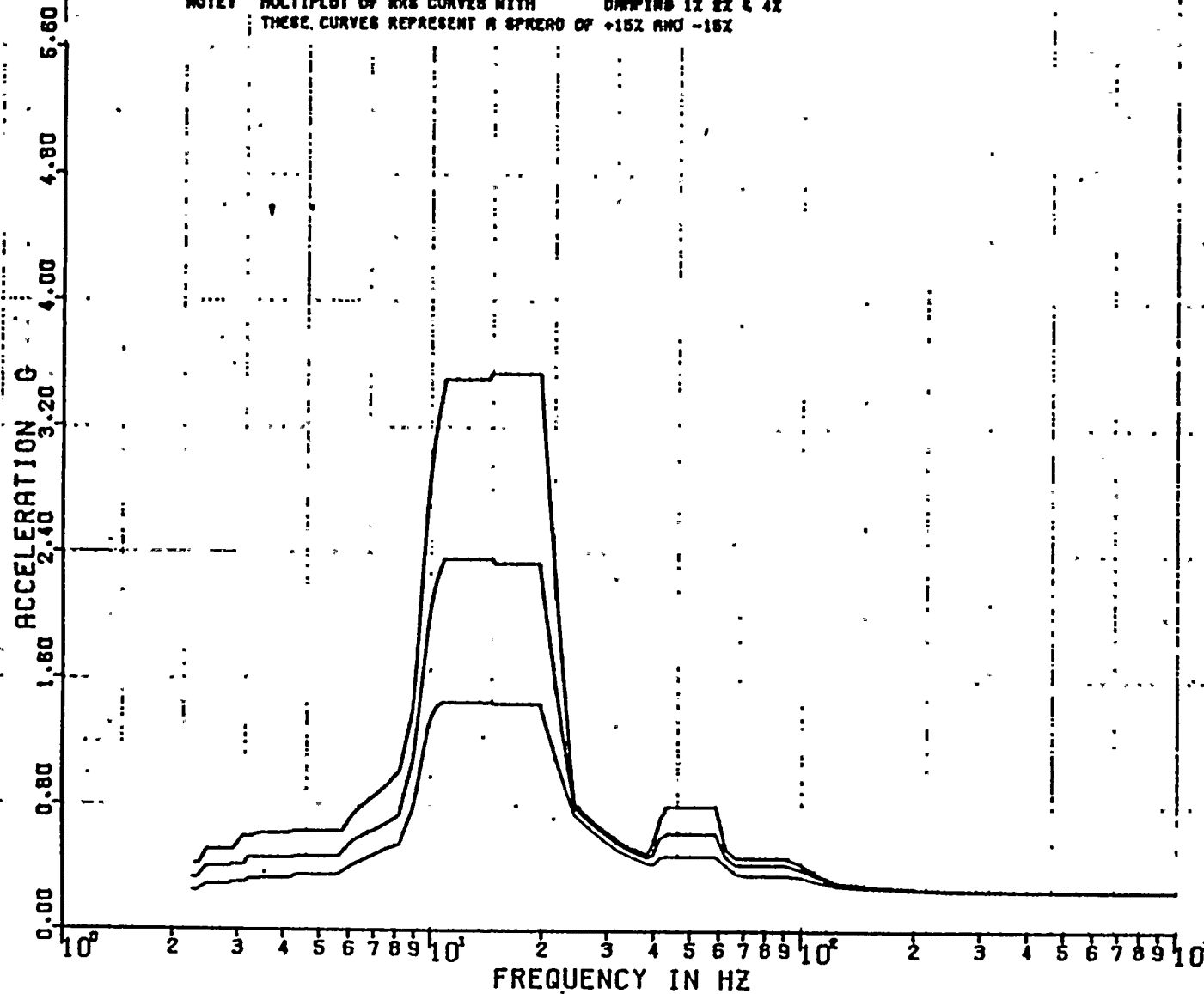
MICHAEL K BO

DISK CURVE SET NO.13

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





PSPECTRA VER 01 LEV 00

PAUL CONDITION

25 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.0112.77 HS-1747-0
RRS OF ACCELERATION RPV SHELL (ELEV. 332.70 FT)

MS 1747

MICHAEL R. 00

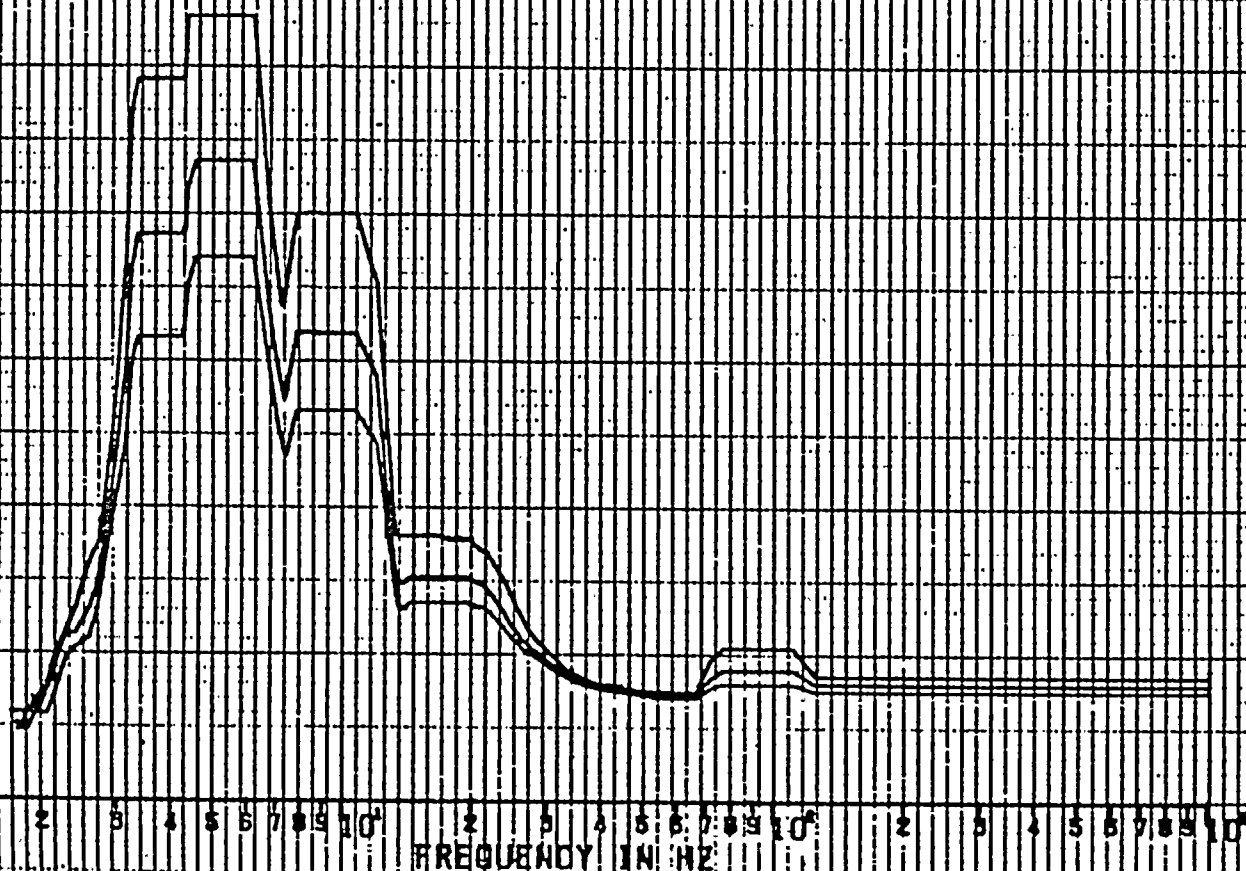
DISK CURVE SET NO. 14

HDR. DIRECTION

DRAWING VALUES = 0.020
0.030
0.080

NOTE: MULTIPLY OF RRS CURVES WITH SAMPLING BY 22 & 42
THESE CURVES REPRESENT IN SPEEDS OF +10% AND +10%

ACCELERATION 0 2.00 4.00 6.00 8.00 10.00 12.00 14.00



REF 44

0677120047



PSPECTRA VER: 01 LEY 08

FAULT CONDITION

25 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O. 12177 AS-1747-0

RRS OF ACCELERATION RPV SHELL (ELEV. 552170 FT)

MS 1747

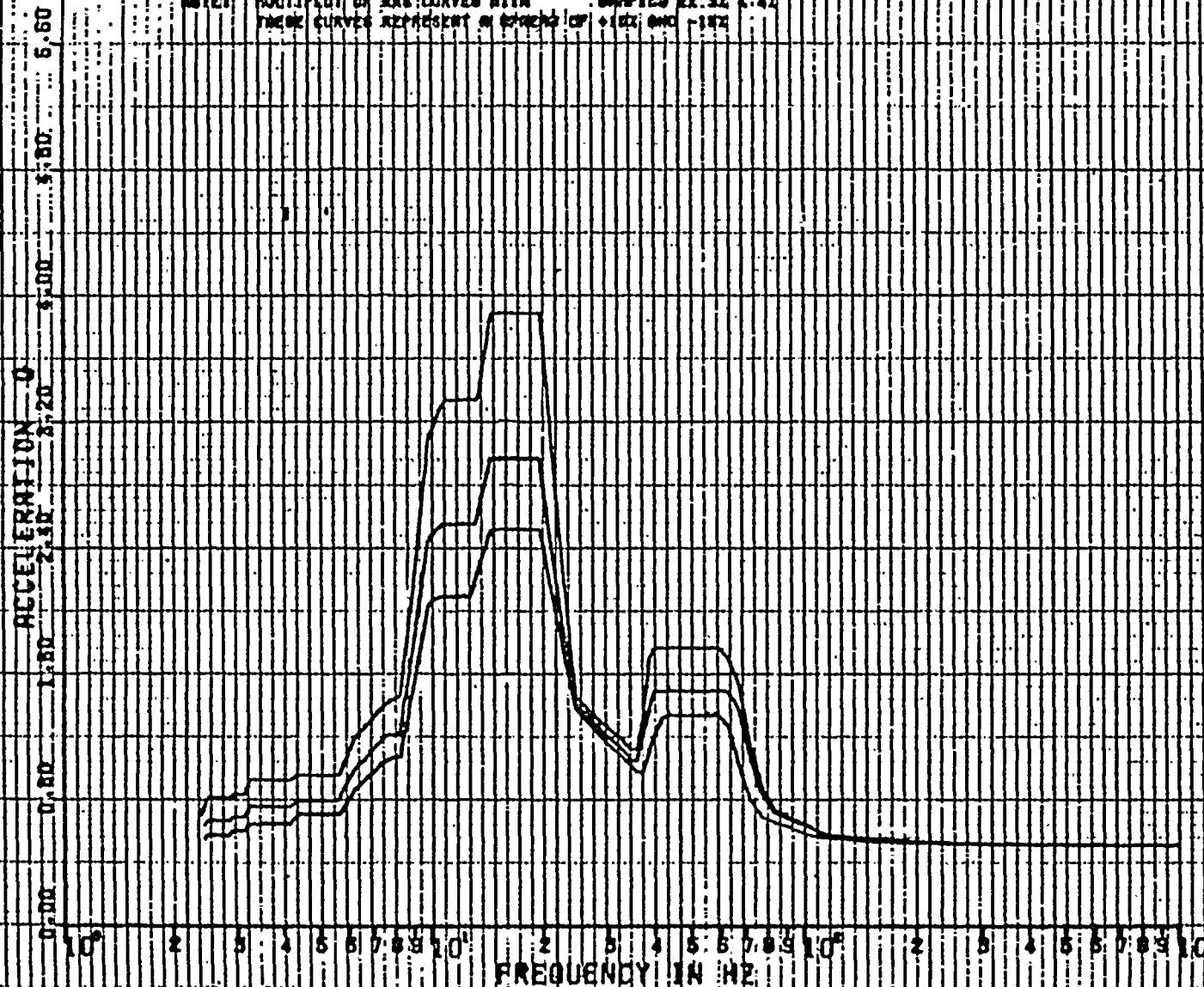
MICHAEL K. OD

DISK CURVE SET NO. 14

VER DIRECTION

DRYING VALUES = 0.020
0.0801
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH SAMPLES AT 12.42
THESE CURVES REPRESENT A RANGE OF +10% AND -10%



REF 44

0022000408



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J-D:12../ MS-1746-0
NR8 OF ACCELERATION RPV SHELL (ELEV. 952.70 FT)

MS 1746

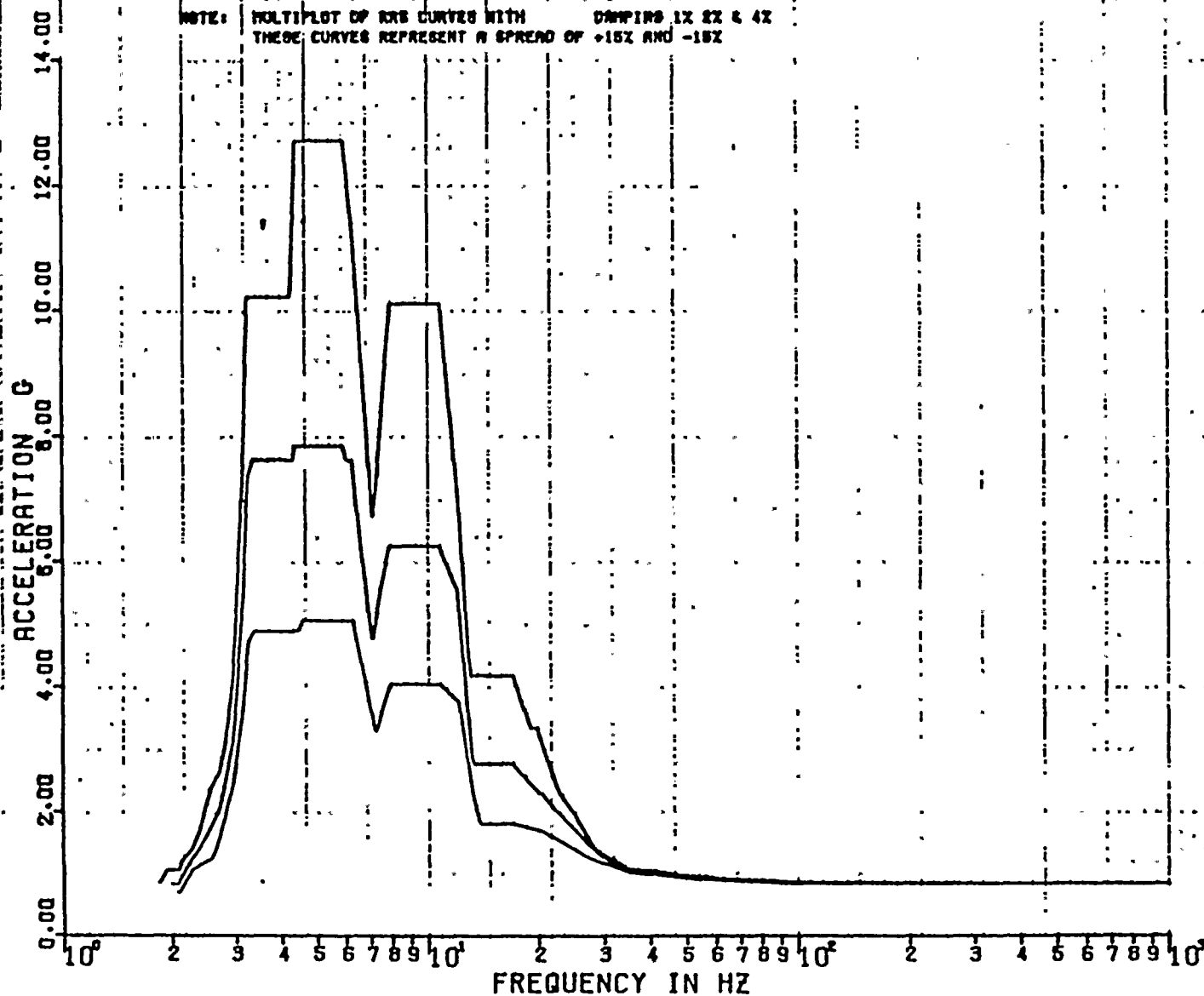
MICHAEL K DO

DAMPING VALUES 0.010
0.020
0.040

DISK CURVE SET NO.14

HDR DIRECTION

NOTE: MULTIPLY OF NR8 CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





PSPECTRA VER 01 LEV 08

NET CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J
RRS OF ACCELERATION RPV SHELL (ELEV. 352.7)

MS-1746-0

MS 1746

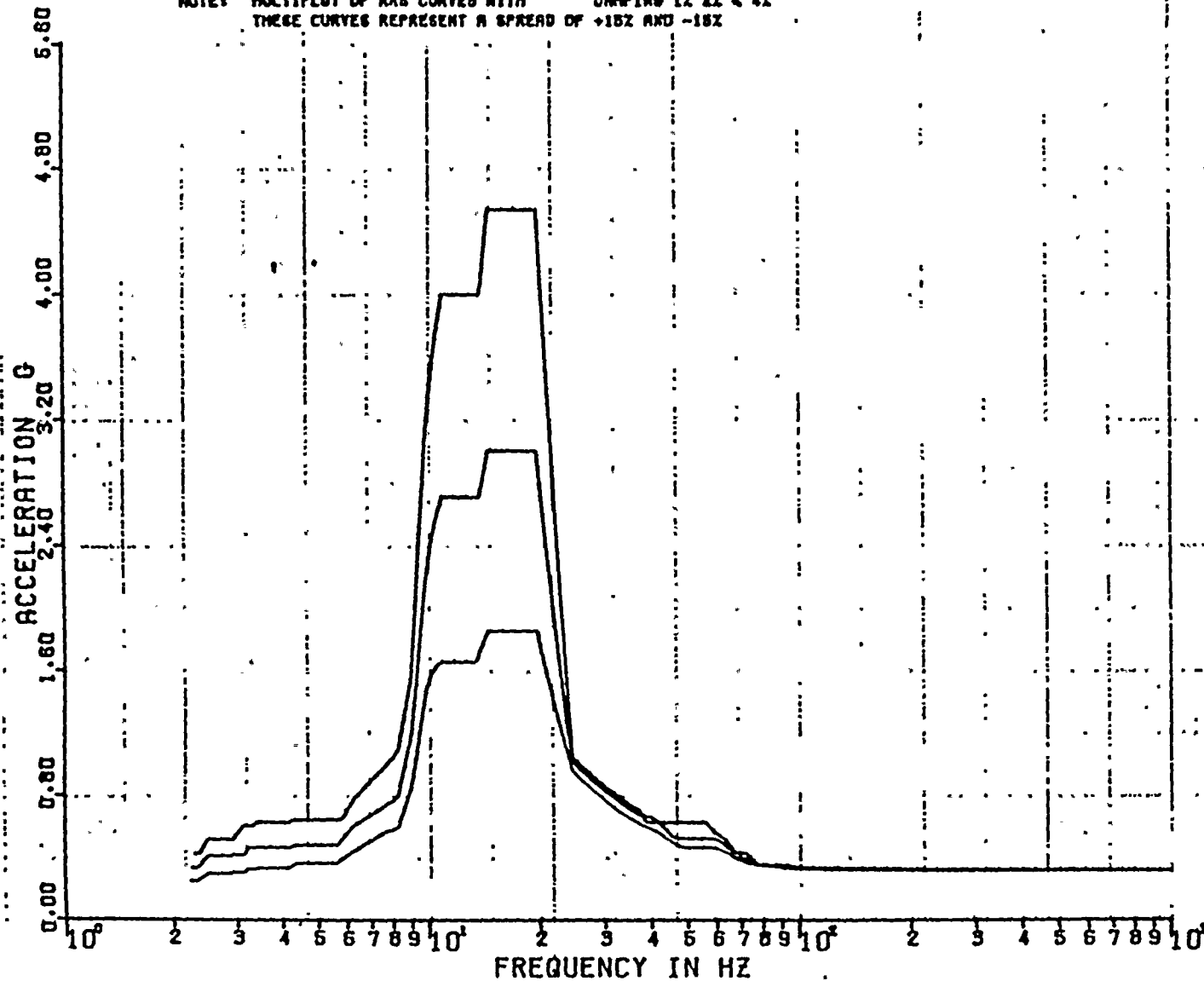
MICHAEL K DO

DISK CURVE SET NO.14

VER DIRECTION

DAMPING VALUES
0.010
0.020
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 44



SPECTRA VER: 01 LEV: 08

FAULT CONDITION

25 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 D.O. 12 77 MS-1747-0
RGS OF ACCELERATION: RPV SHELL (ELEV: 35108 FT)

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 15

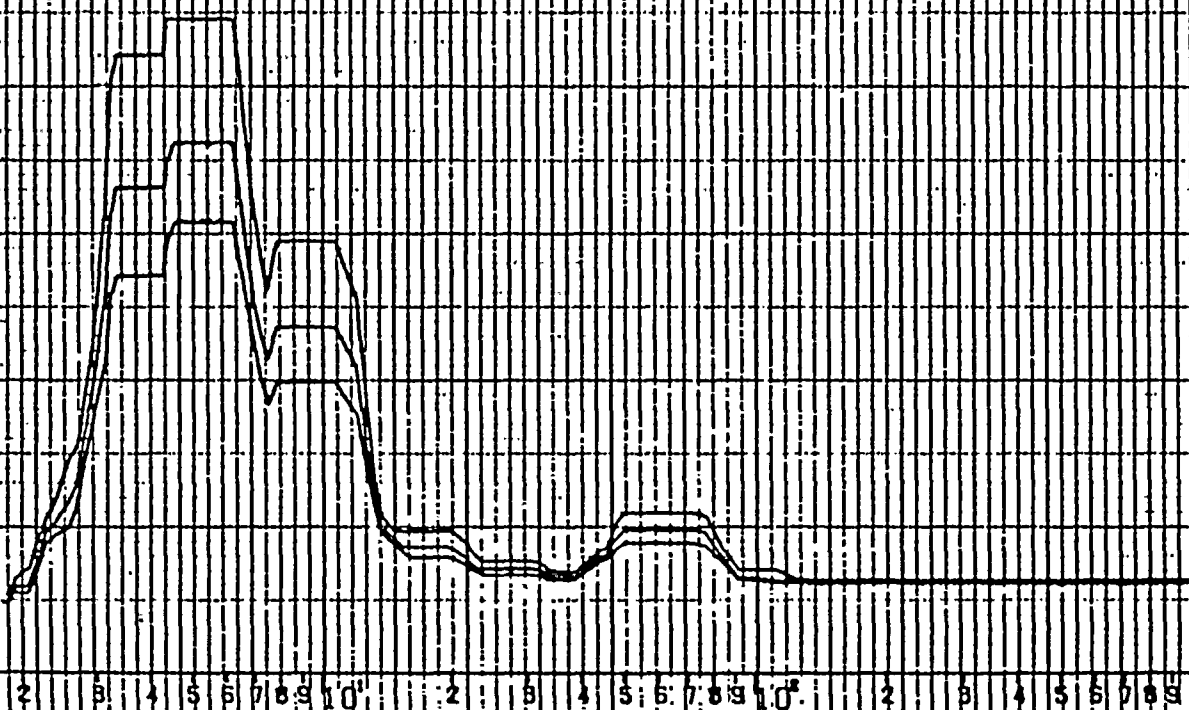
HDR DIRECTION

DAMPING VALUES = 0.020
0.080
0.040

NOTE: MULTIPLY BY RGS CURVES WITH DAMPING 22.32 & 42
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION G
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00

10⁰



FREQUENCY IN HZ

10⁰

10¹

10²

REF 45

0030150049



SPECTRA VER 01 LEV 08

FAL CONDITION

25 JAN 1988

NADARRA NADARRA NINE MILES POINT UNIT 2 J.O. 12177 NS-1747-0

RRS OF ACCELERATION RPV SHELL (ELEV. 815.08 FT)

MS 1747

MICHAEL KIDD

DISK CURVE SET NO. 15

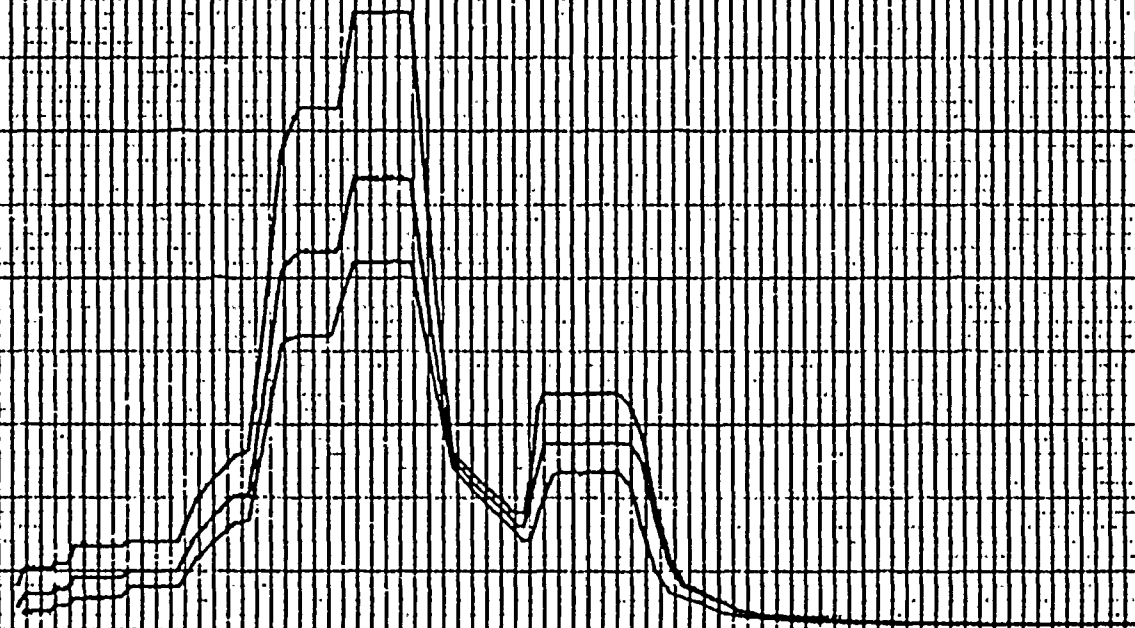
VER. DIRECTION

DAMPING VALUES =

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X
THESE CURVES REPRESENT A SPREAD OF 10X AND 10X

0.020
0.080
0.040

ACCELERATION 0
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
1.80
2.00
2.20
2.40
2.60
2.80
3.00
3.20
3.40
3.60
3.80
4.00
4.20
4.40
4.60
4.80
5.00



FREQUENCY IN HZ

REF 45

00:00:0050



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1985

MIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12... / MS-1746-0
RRS OF ACCELERATION RPV SHELL (ELEV.315.00 FT)

MS 1746

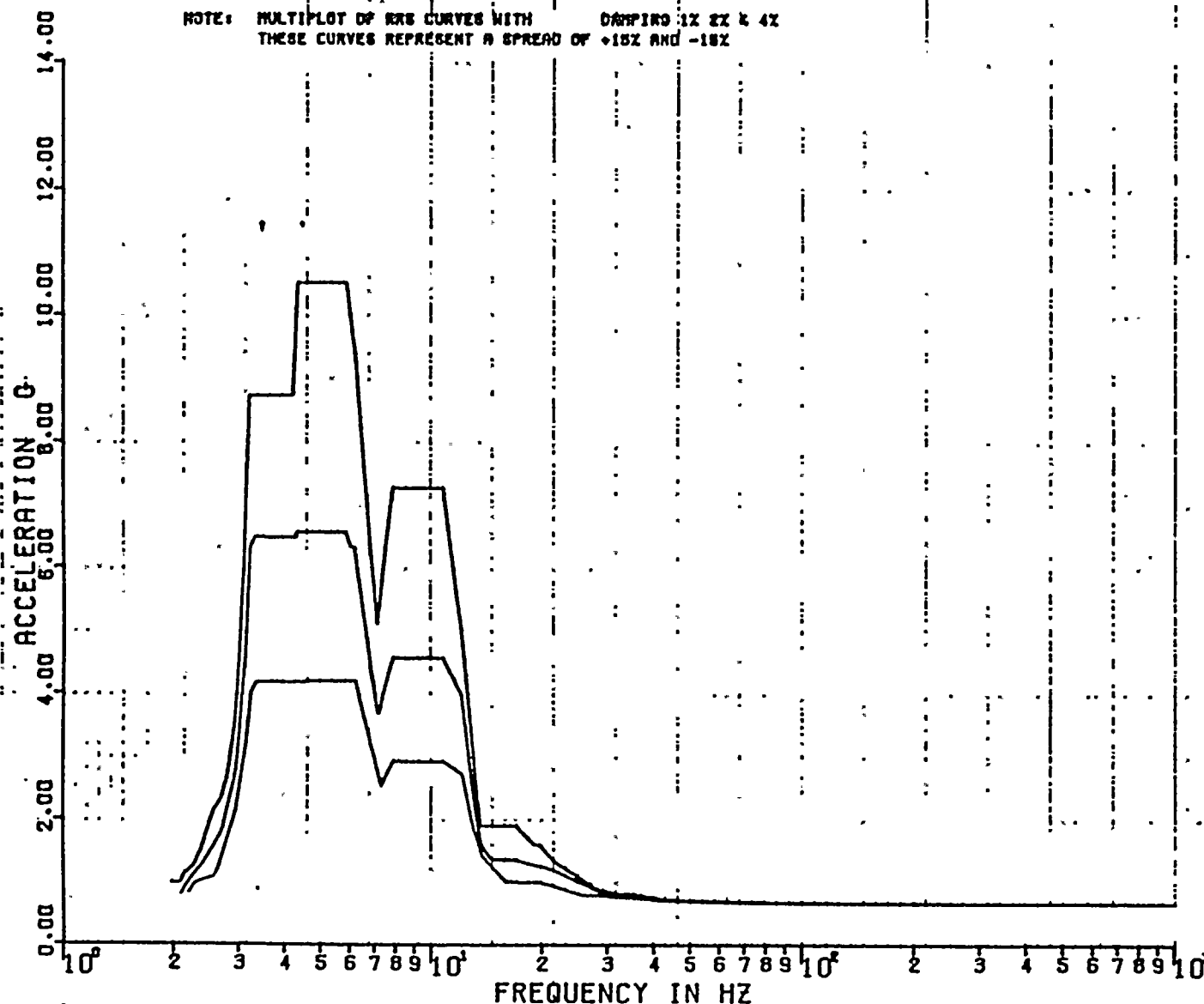
MICHAEL K DO

DISK CURVE SET NO.15

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





PSPECTRA VER 01 LEV 00

CONDITION

24 JAN 1985

NIAGARA MOHAWK-NIKE MILES POINT UNIT-2 J.D.
RMS OF ACCELERATION RPV SHELL (ELEV. 915.08 FT)

MS-1748-D

MS 1746

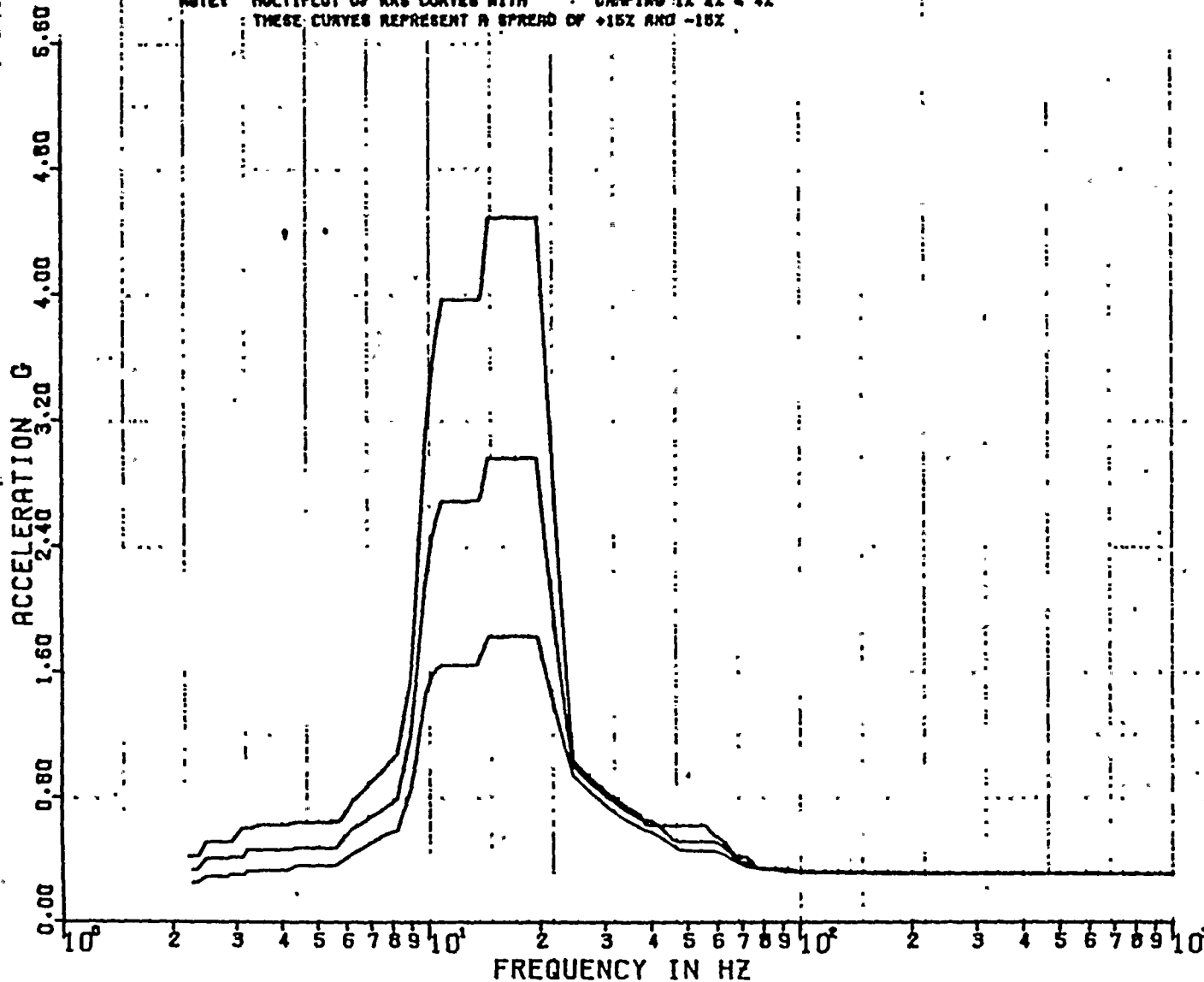
MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.040

DISK CURVE SET NO.15

VER DIRECTION

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 45



SPECTRA, VER. 01, LEV. 08

CONDITION

25 JAN 1988

NIAGARA MOHAWK NINE MILES POINT UNIT-2 JLD-12-77 HS-1747-0

RRS OF ACCELERATION: RPV SHELL (ELEV. 287.17 FT)

MS 1747

MICHAEL K. DD

DISK CURVE SET NO. 16

HDR. DIRECTION

DAMPING VALUES = 0.0201

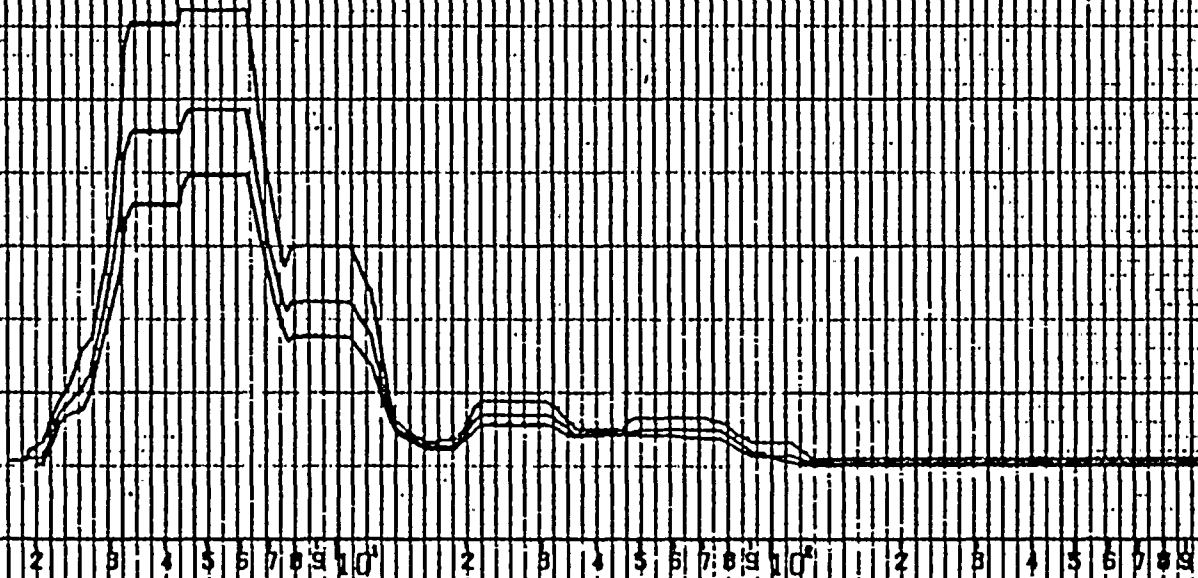
0.0801

0.0401

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X, 5X & 1X
THREE CURVES REPRESENT IN GRAPH OF 10X AND 10X

ACCELERATION G
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00

10⁰



FREQUENCY IN HZ

REF 46

0910120051



25025452



PSPECTRA VER 01 LEV 00

CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121. MS-1746-0.
RRS OF ACCELERATION RPV SHELL (ELEV.297.17 FT)

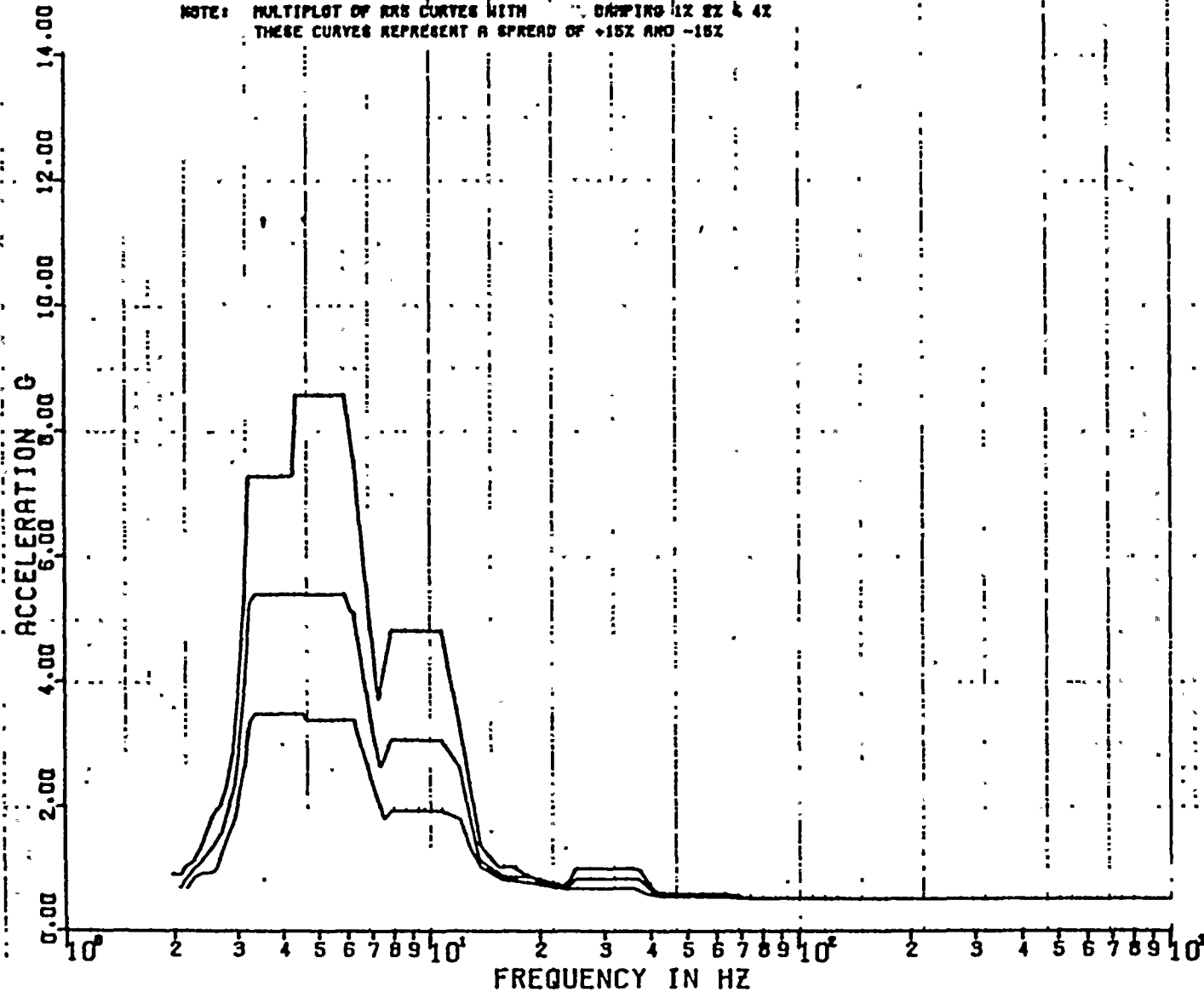
MS 1746

DISK CURVE SET NO.16

HOR DIRECTION

MICHAEL K DO.
DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 46



PSPECTRA VER 01 LEV 00

CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.121.77 MS-1746-0
RMS OF ACCELERATION RPV SHELL (ELEV.297.17 FT)

MS 1746

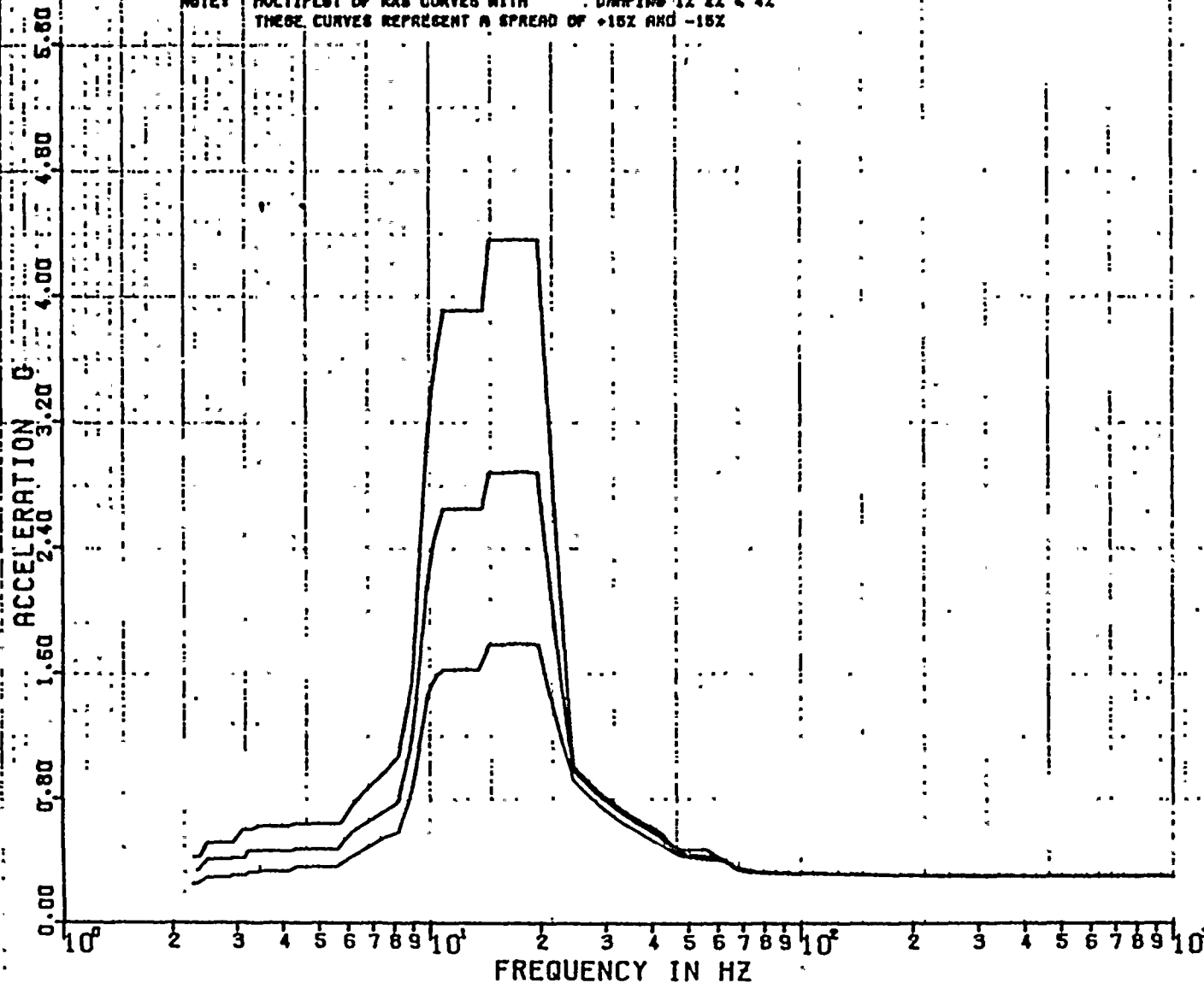
MICHAEL K 00

DAMPING VALUES = 0.010
0.020
0.040

DISK CURVE SET NO.16

VER DIRECTION

NOTE: MULTIPLT OF RMS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 46



SPECTRA VER: 01 LEV: 08

FREQ: 0 CONDITION

25 JAN 1988

NINONAH NINONAH NINE MILES POINT UNIT-2 U.D. 12177 MS-1747-0

RRS OF ACCELERATION RPV SHELL (ELEV: 2781.00 FT)

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 10

HDR DIRECTION

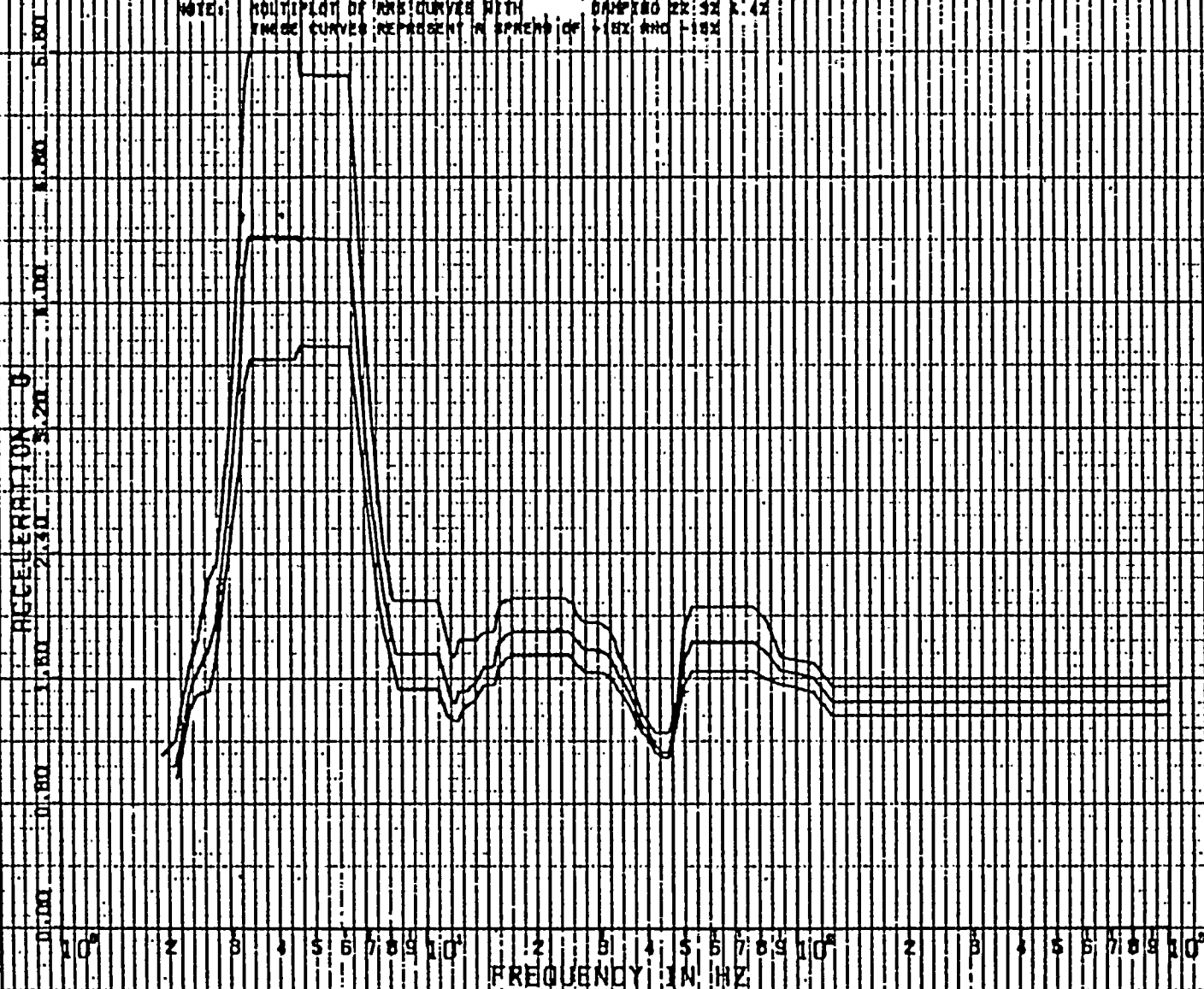
DAMPING VALUES =

0.020

0.050

0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 22.5% & 42.5%
THREE CURVES REPRESENT A SPREAD OF -10% AND +10%



REF 47

0010100053



SPECTRA: VER. 01 LEV. 00

FR. J. CONDITION:

25 JAN 1988

WADSWORTH HAWK-NINE MILES POINT UNIT-2 U-0112-7 MS-1747-0

RMS OF ACCELERATION: RPV SHELL (ELEV: 278.00 FT)

MS 1747

MICHAEL, K. 00

DISK CURVE SET NO. 17

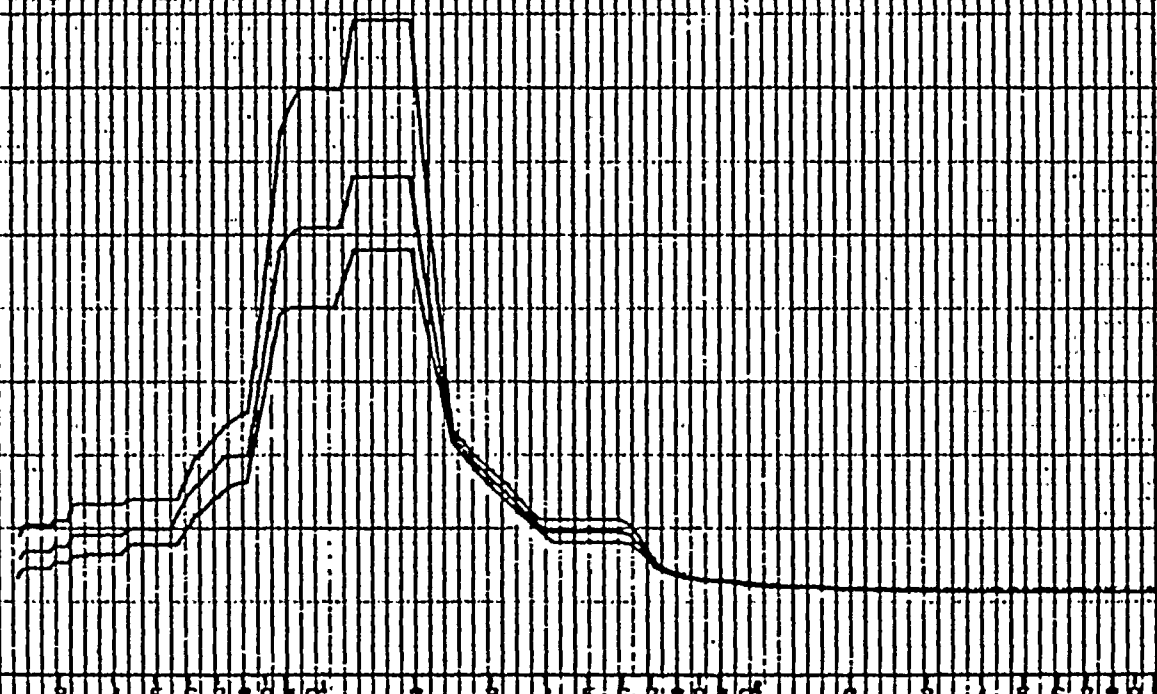
VER. DIRECTION:

DAMPING VALUES =

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 2X, 5X & 10X
THICK CURVES REPRESENT A SPREAD OF +10% AND -5%

0.020
0.050
0.100

ACCELERATION
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00



FREQUENCY IN HZ

REF 47

00111110054



PSPECTRA VER 01 LEV 00

PSET CONDITION

24 JAN 1988

NIADARA MOHAWK-NINE MILES POINT UNIT-2 177 MS-1748-0

RMS OF ACCELERATION RPV SHELL (ELEV.2,000 FT)

MS 1.26

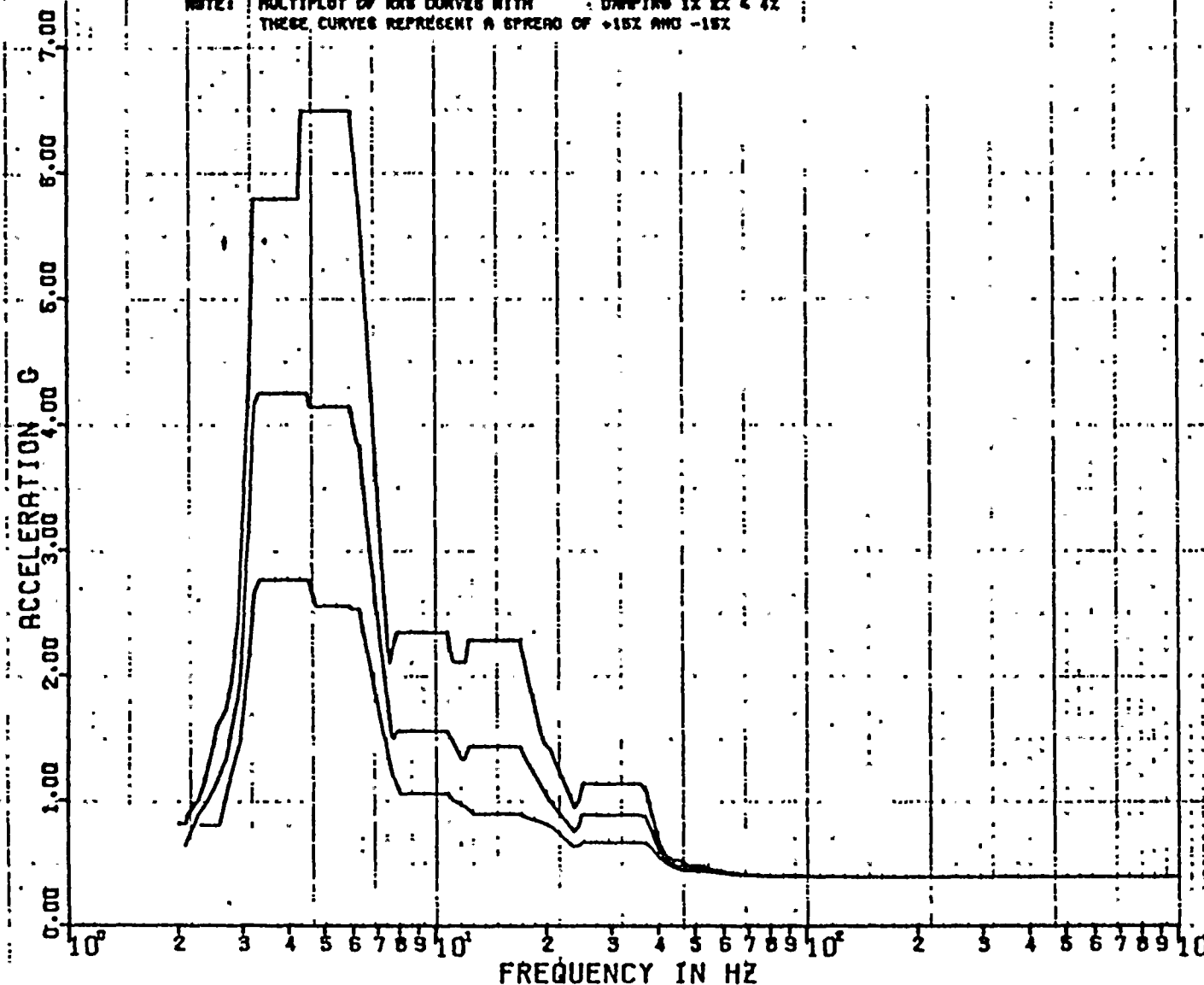
MICHAEL K 00

DISK CURVE SET NO.17

HOR DIRECTION

DAMPING VALUES: 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 47



PSPECTRA VER 01 LEV 08 :

CONDITION

24 JAN 1989

MIADANA MOWANK-NINE MILES POINT UNIT-2 J.O. MS-1746-0

RRS OF ACCELERATION RPV SHELL (ELEV.278.06 FT)

MS 1746

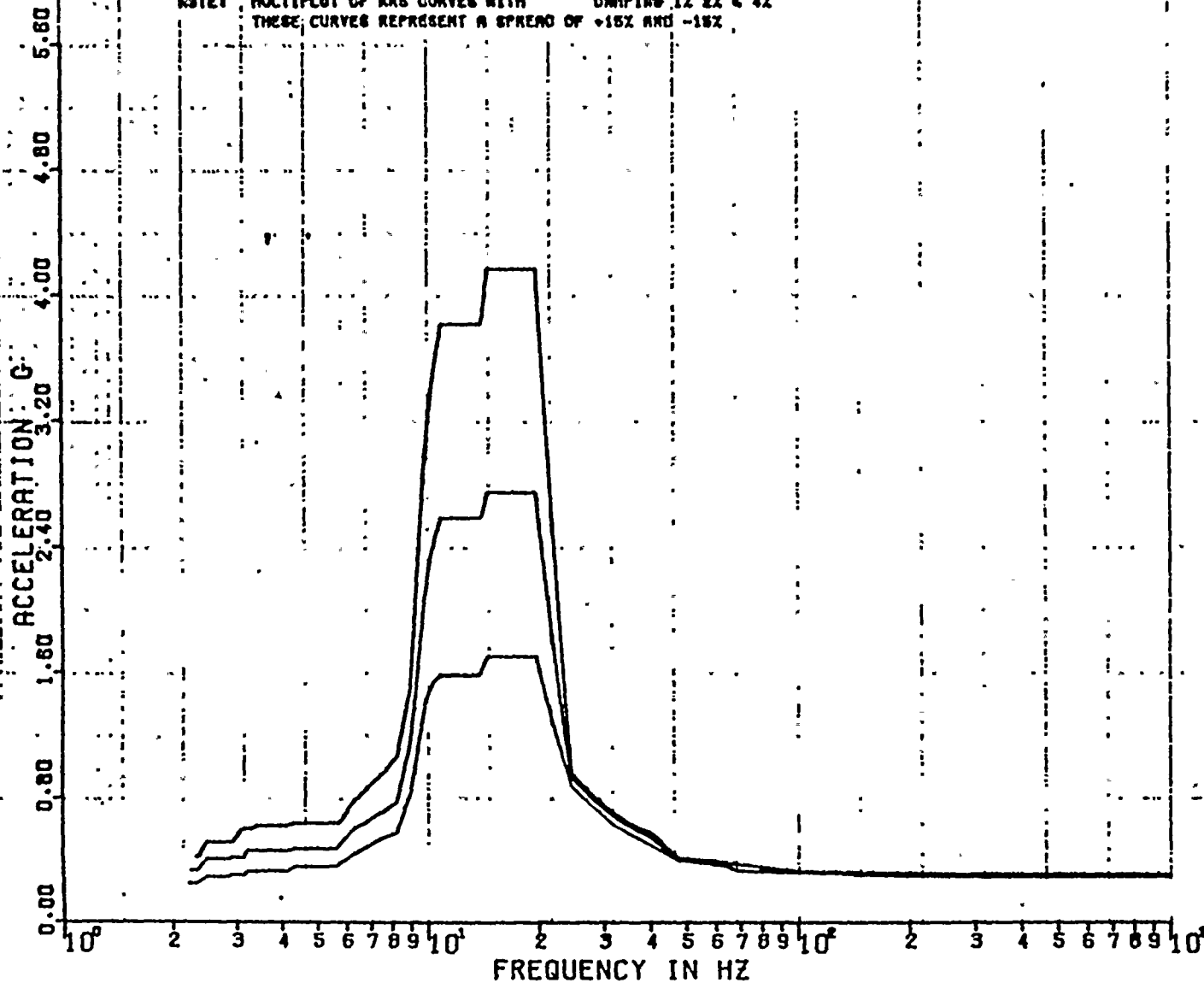
MICHAEL K GO.

DAMPING VALUES : 0.010
0.020
0.040

DISK CURVE SET NO.17

VER DIRECTION

NOTE: MULTIPLT OF RRS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 47



PSPECTRA VER 01 LEV 08

FAULTED CONDITION

16 FEB 1983

NIAOGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 MS-1747-0
RRS OF ACCELERATION DRYWELL FLOOR (ELEV. 298.00 FT.)

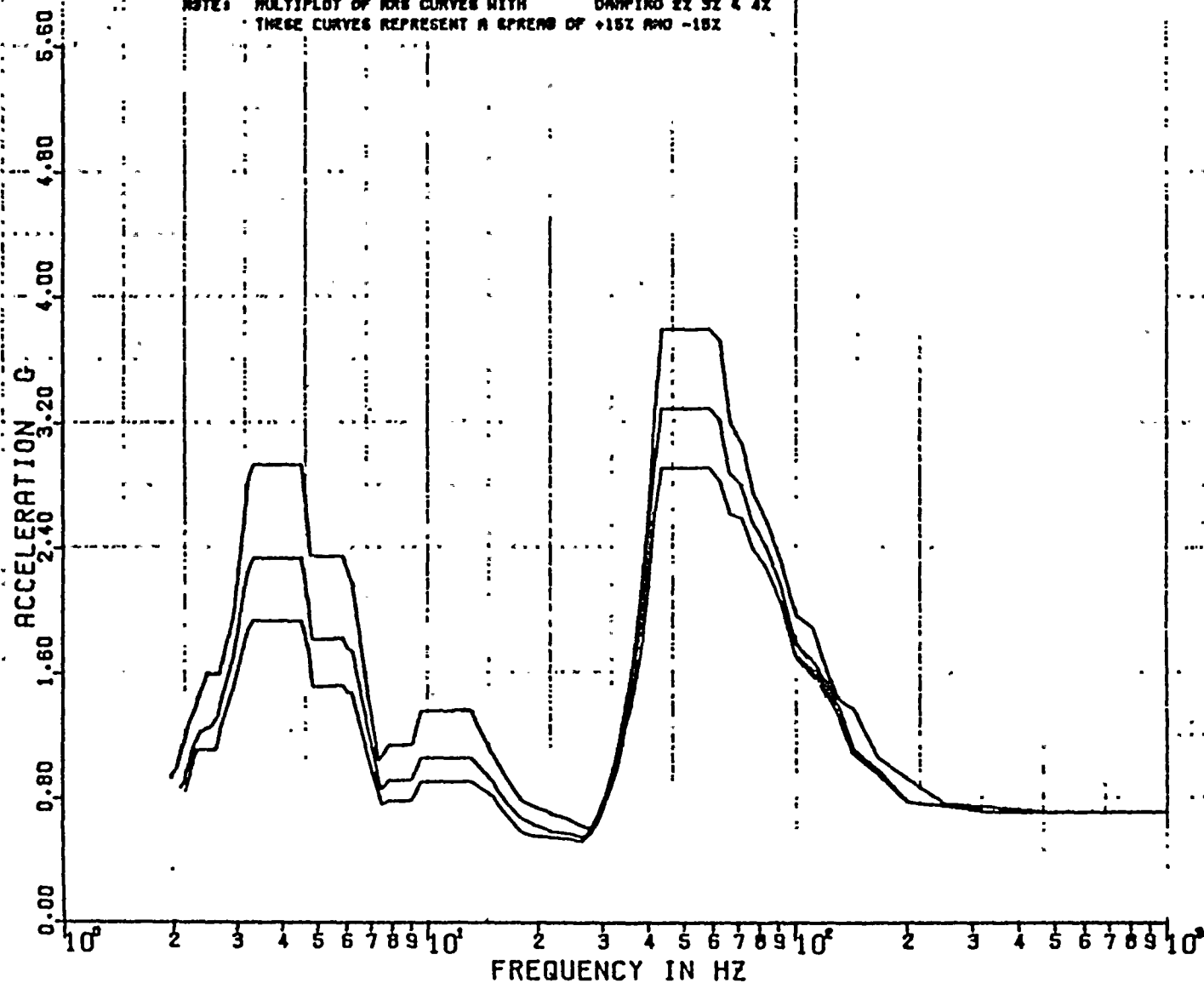
DISK CURVE SET NO.1

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 48



PSPECTRA VER 01 LEV 08

FAULT CONDITION

16 FEB 1989

NIAGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 MS-1747-0
RRS OF ACCELERATION DRYWELL FLOOR (ELEV. 298.00 FT.)

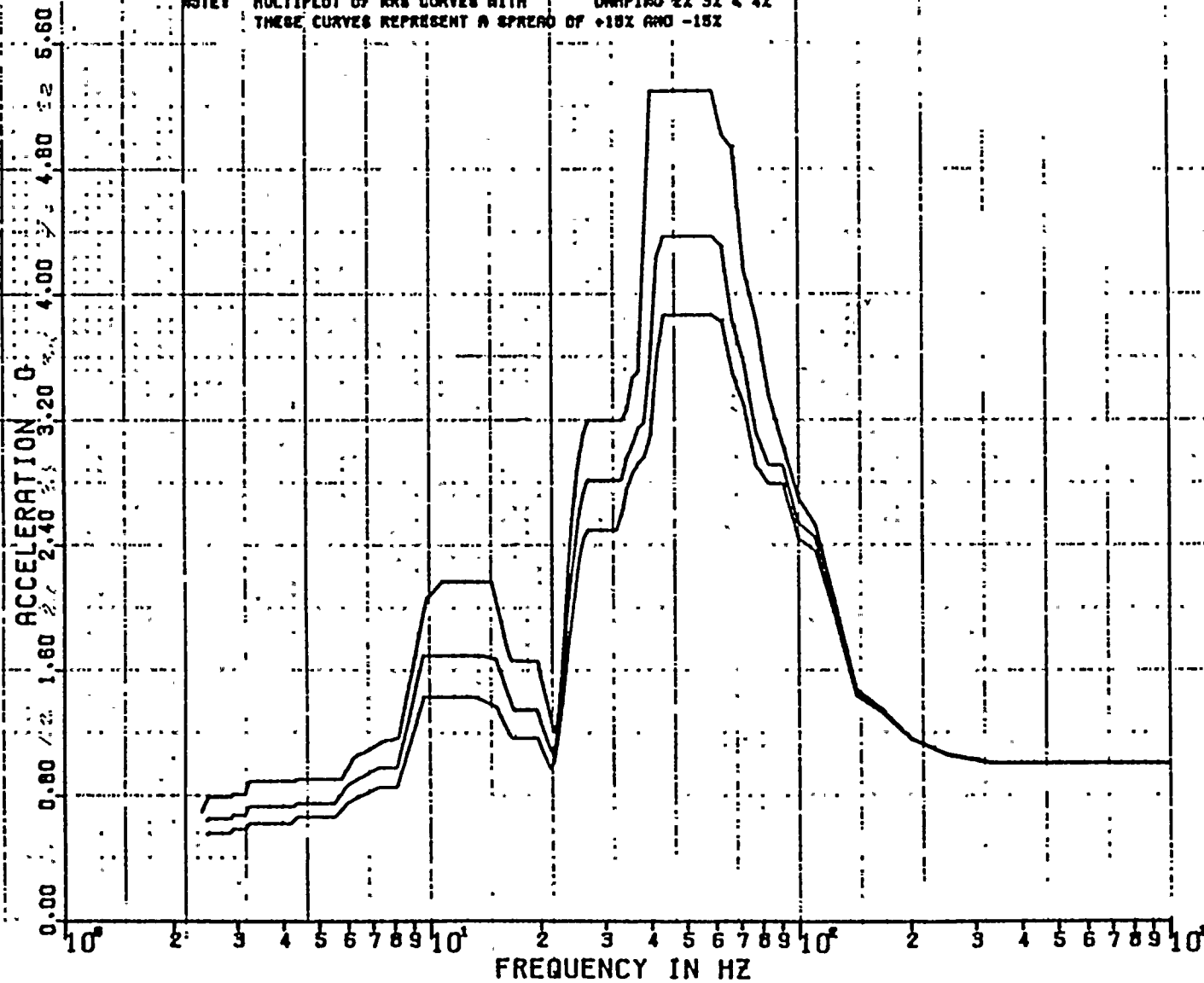
DISK CURVE SET NO.1

VER DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 48



SPECTRA VER 01 LEV 08

UPE POSITION

5 FEB 1965

NIADANA MOHAWK-NINE MILES UNIT POINT-2 J.O. 2177 MS-1746-0
RRB OF ACCELERATION DRYWELL FLOOR (ELEV. 298.00 FT.)

DISK CURVE SET NO. 1

HDR DIRECTION

MICHAEL K. CO

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION G

0.00

0.50

1.00

1.50

2.00

2.50

3.00

3.50

10⁰

2

3

4

5

6

7

8

9

10¹

FREQUENCY IN HZ

2

3

4

5

6

7

8

9

10²

2

3

4

5

6

7

8

9

10³

REF 48



SPECTRA VER 01 LEV 08

UP DITION

15 FEB 1989

WINDARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 M6-1746-0
RMS OF ACCELERATION : DRYWELL FLOOR: (ELEV. 238.00 FT.)

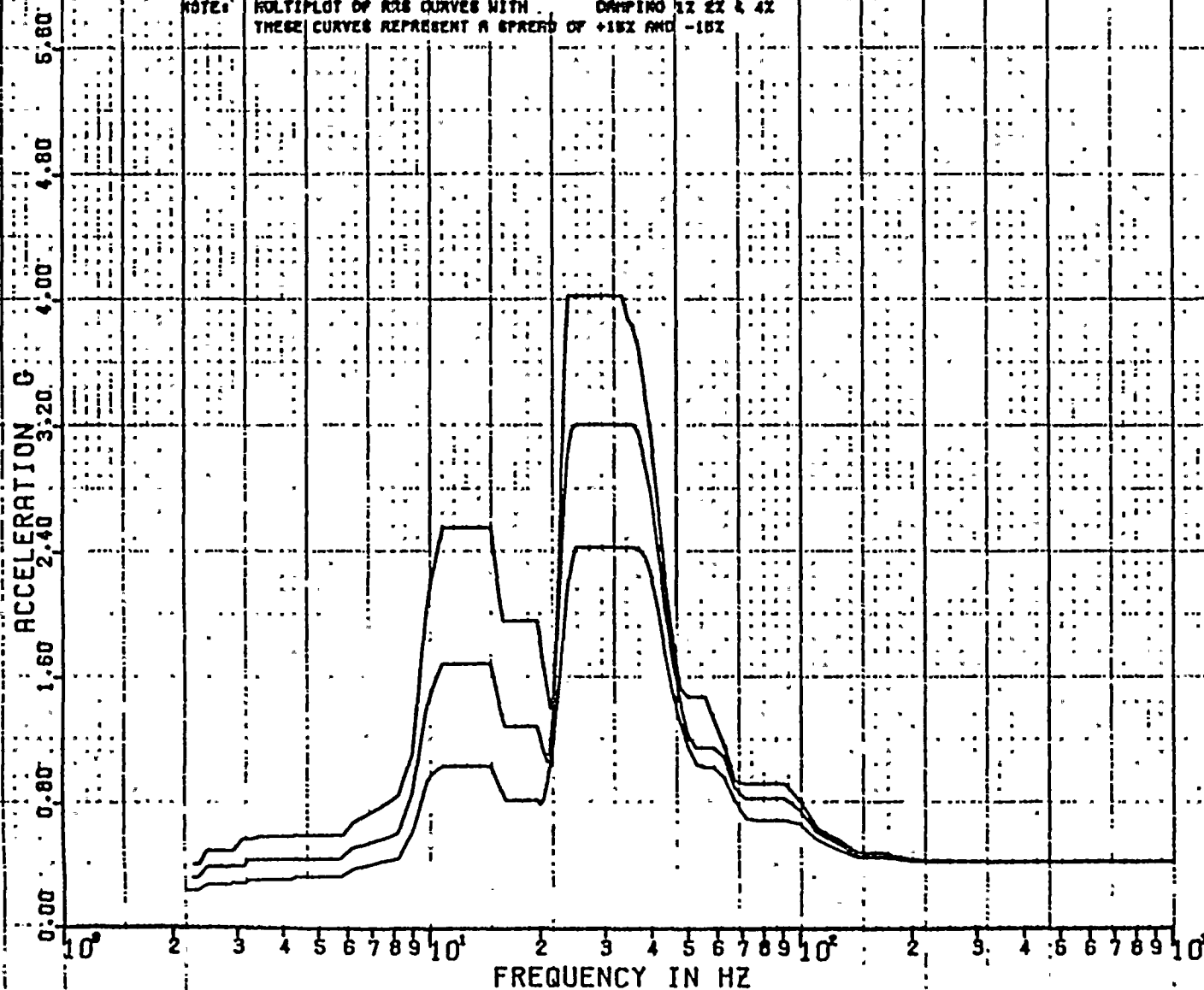
DISK CURVE SET NO.1

VER DIRECTION

MICHAEL K 00

DAMPING VALUES : 0.010
0.020
0.040

NOTE: MULTIPLOT OF RMS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 43



PSPECTRA VER OF LEV DB

FALSO CONDITION

25 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.D. 12177 NS-1747-0
RRS OF ACCELERATION PEDESTAL (ELEV. 266.50 FT.)

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 1B

HDR DIRECTION

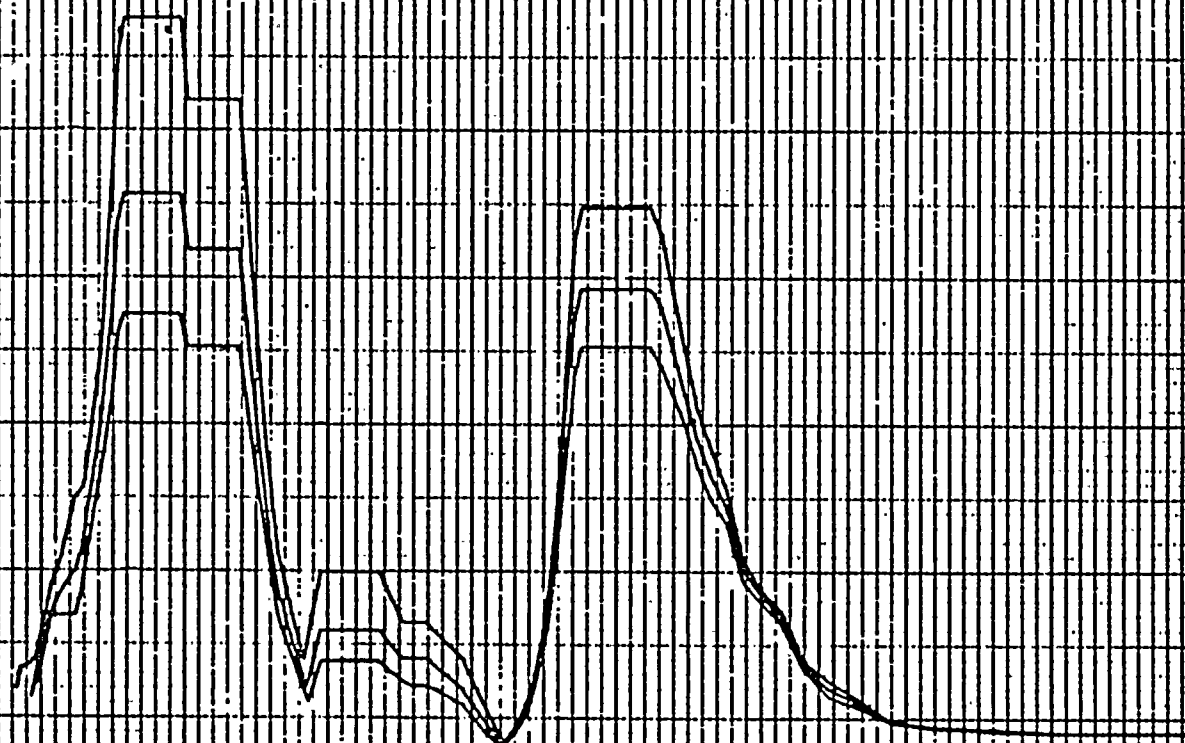
DAMPING VALUES = 0.020

0.030

0.040

NOTE: MULTI PLOT OF RRS CURVES WITH DAMPING 2X 3X 4X
THOSE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION G
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60



FREQUENCY IN HZ

REF 49

Page # 57



SPECTRAL VER. DIR. LEV. 00

FF. 0. CONDITION

25 JAN 1968

MADARA: HONAWK-NINE MILES POINT UNIT-2 J.D. 7 NS-1747-0

RRS OF ACCELERATION PEDESTAL (ELEV. 266.50 FT.)

MS 1747

DISK CURVE SET NO-18

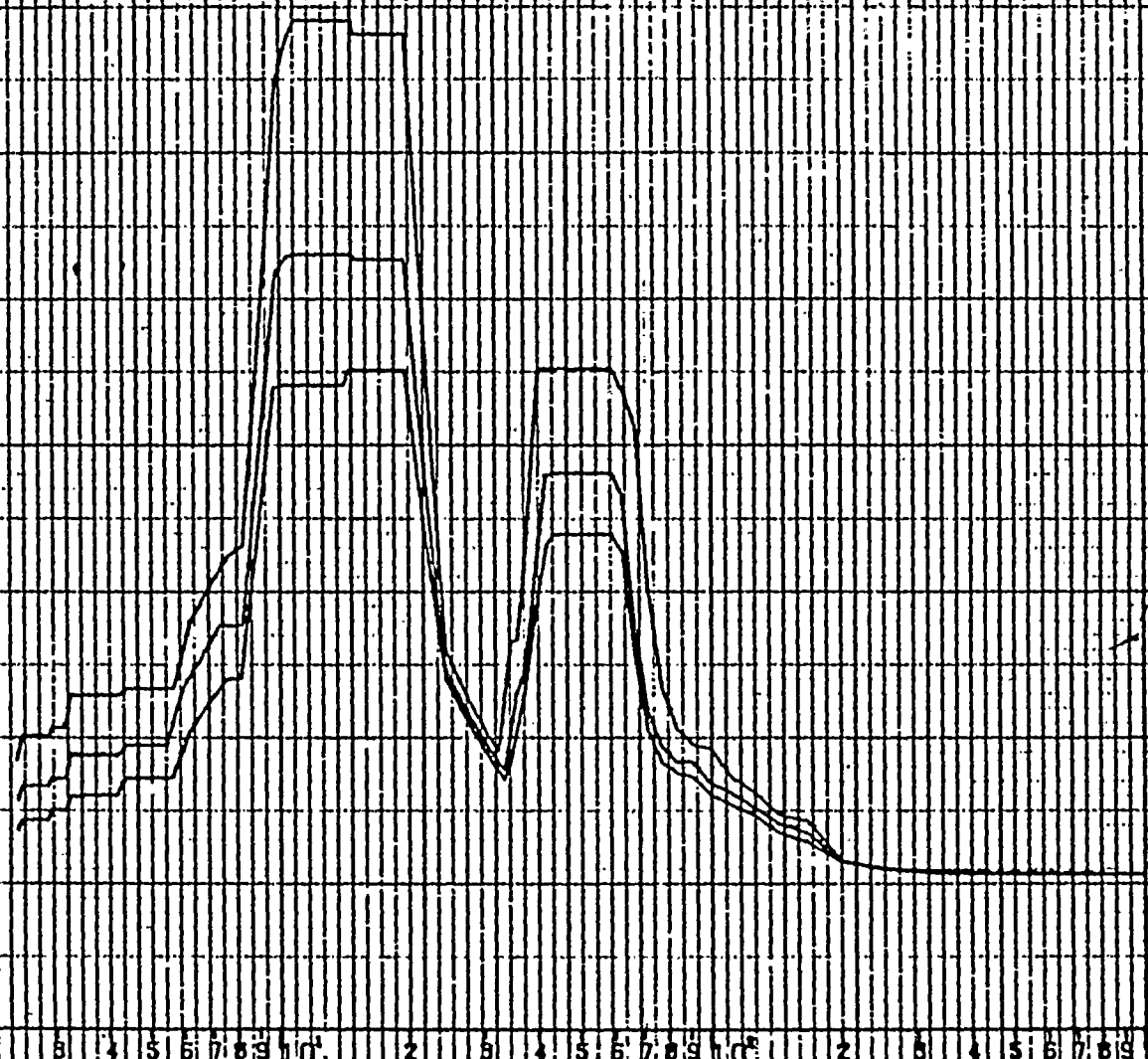
VER. DIRECTION

MICHAEL A. DD

DAMPING VALUES: - 0.020
0.050
0.040

NOTE: MULTI-PLOT OF RRS CURVES WITH DAMPING BY 1Z 1.4Z
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0 0.80 1.20 1.60 2.00 2.40 2.80



REF 49



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1983

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12.77 MS-1746-0
RRS OF ACCELERATION PEDESTAL (ELEV.266.60 FT.)

MS 1746

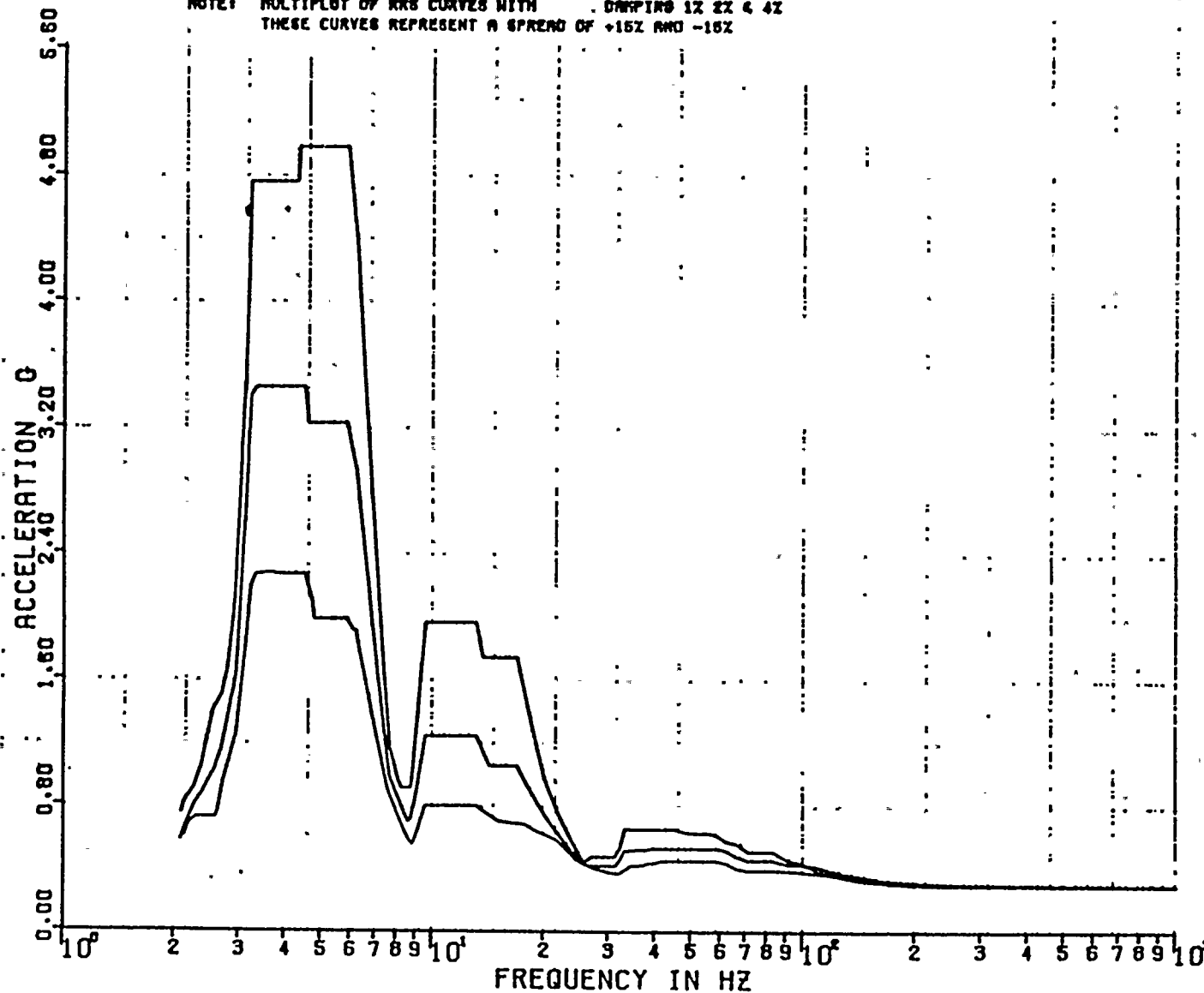
MICHAEL K DD

DISK CURVE SET NO.18

HOR DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 12 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 49



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1985

NIAORRA MOHAWK-NINE MILES POINT UNIT-2 J.O.12 MS-1746-0
RRS OF ACCELERATION PEDESTAL (ELEV.268.60 FT.)

MS 1746

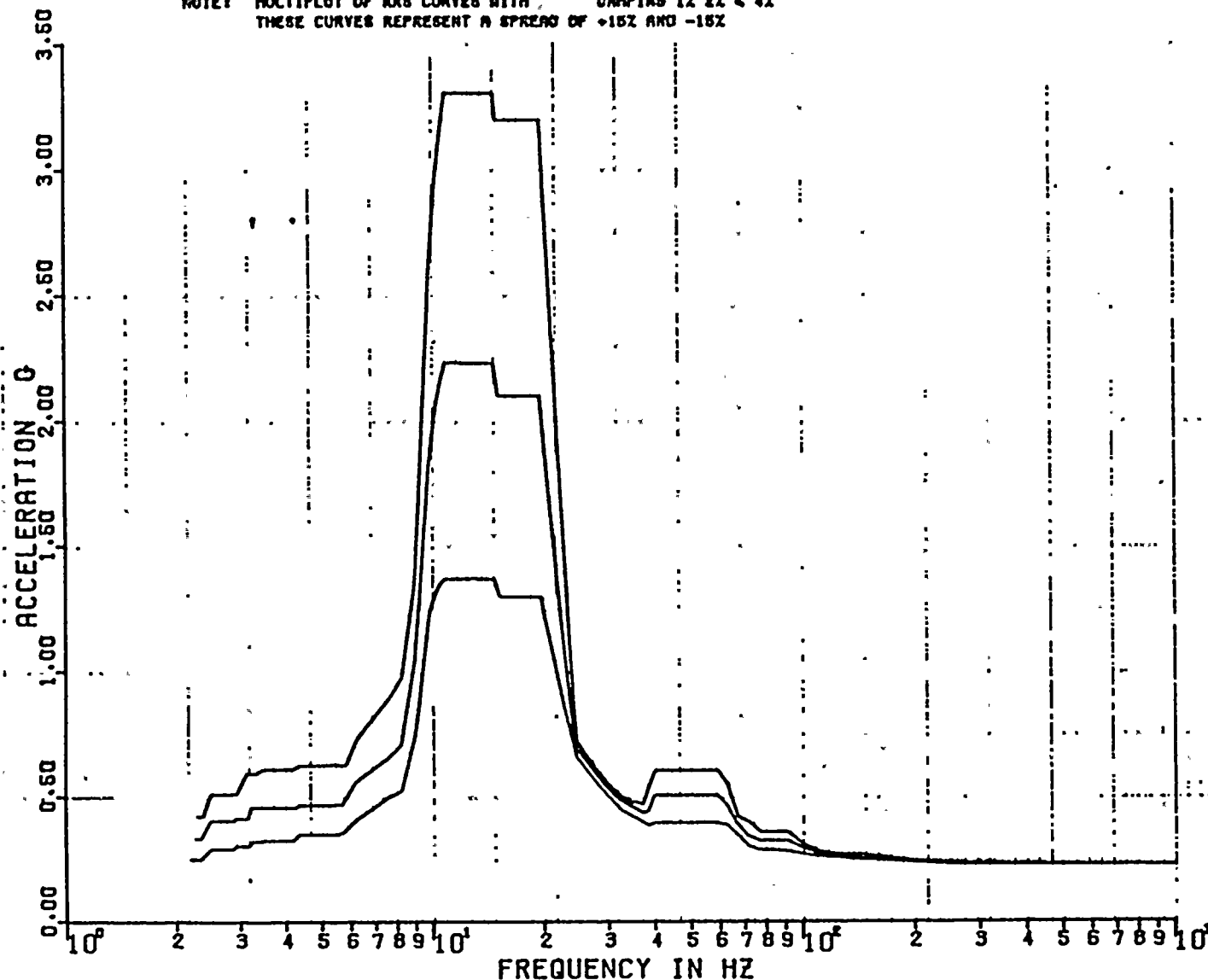
MICHAEL K 00

DISK CURVE SET NO.18

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTILOT OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 49



SPECTRA VER. 01 LEV. 00

FAULT CONDITION

25 JAN 1968

RIIOARR: MOHAWK-NINE MILES POINT UNIT-2 U.S. 12177 NS-1747-0

RRS OF ACCELERATION: PEDESTAL (ELEV. 259.13 FT)

MS 1747

MICHAEL K. 00

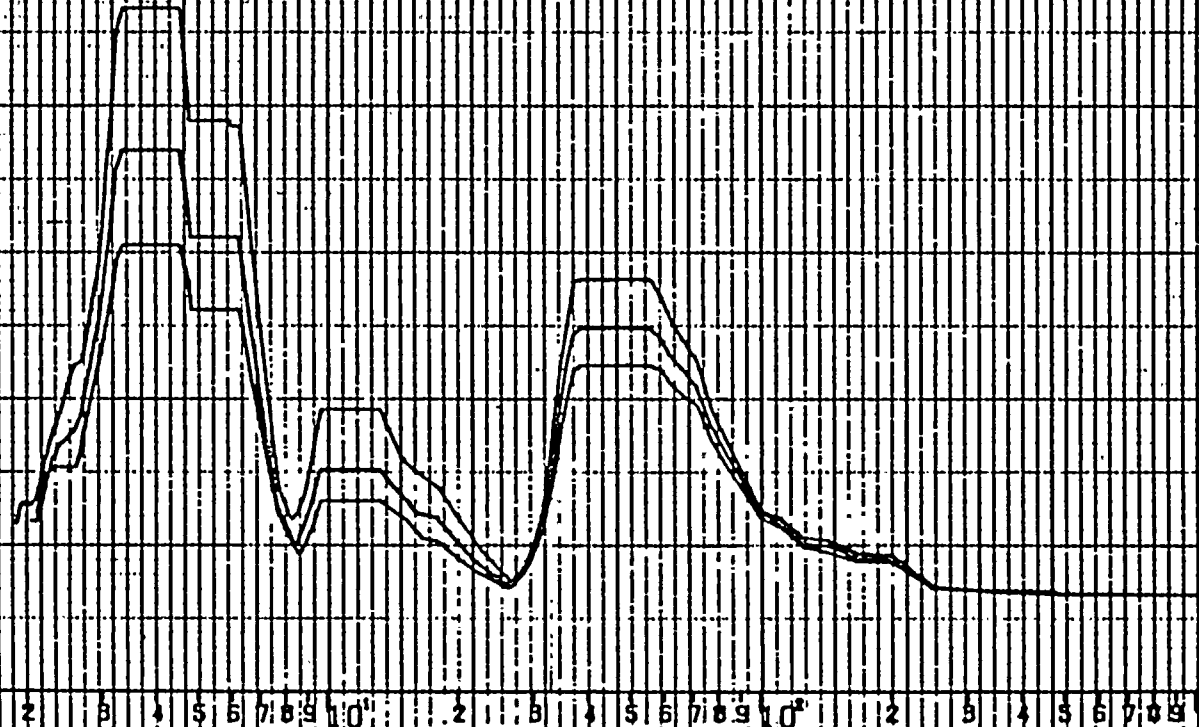
DISK CURVE SET NO. 191

HOR. DIRECTION

DAMPING VALUES = 0.020
0.080
0.080

NOTE: MULTIPLY OF ARE CURVES WITH DAMPING 2X 5X & 4X
THREE CURVES REPRESENT A SPREAD OF 10X AND 10X

ACCELERATION 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00



FREQUENCY IN HZ

REF 50



PSPECTRA VER. 01 LEV. 08

TESTED CONDITION

25 JAN 1988

NIAORRA MOHAWK NINE MILES POINT UNIT-2 U.D. 12177 NS-1747-0
RRS OF ACCELERATION PEDESTAL (ELEV. 259.15 FT)

MS 1747

MICHAEL R. DB

DISK CURVE SET NO. 18

VER. DIRECTION

DAMPING VALUES

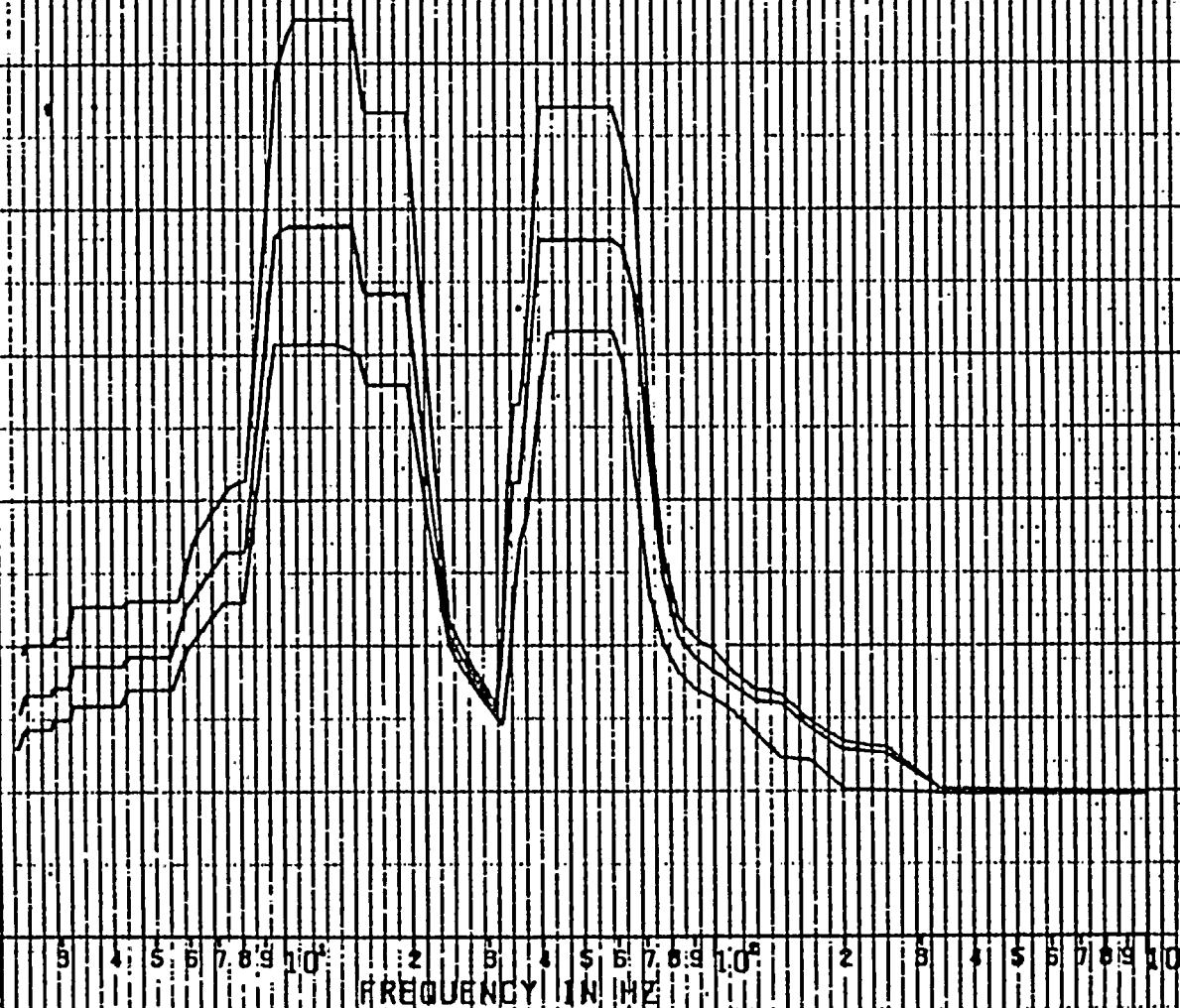
0.020

0.050

0.080

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 22.5% & 42%
THREE CURVES REPRESENT IN SPREAD OF 10% AND 15%

ACCELERATION - 0
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00



REF 50



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12. / MS-1746-0
RRS OF ACCELERATION PEDESTAL (ELEV. 253.13 FT)

MS 1746

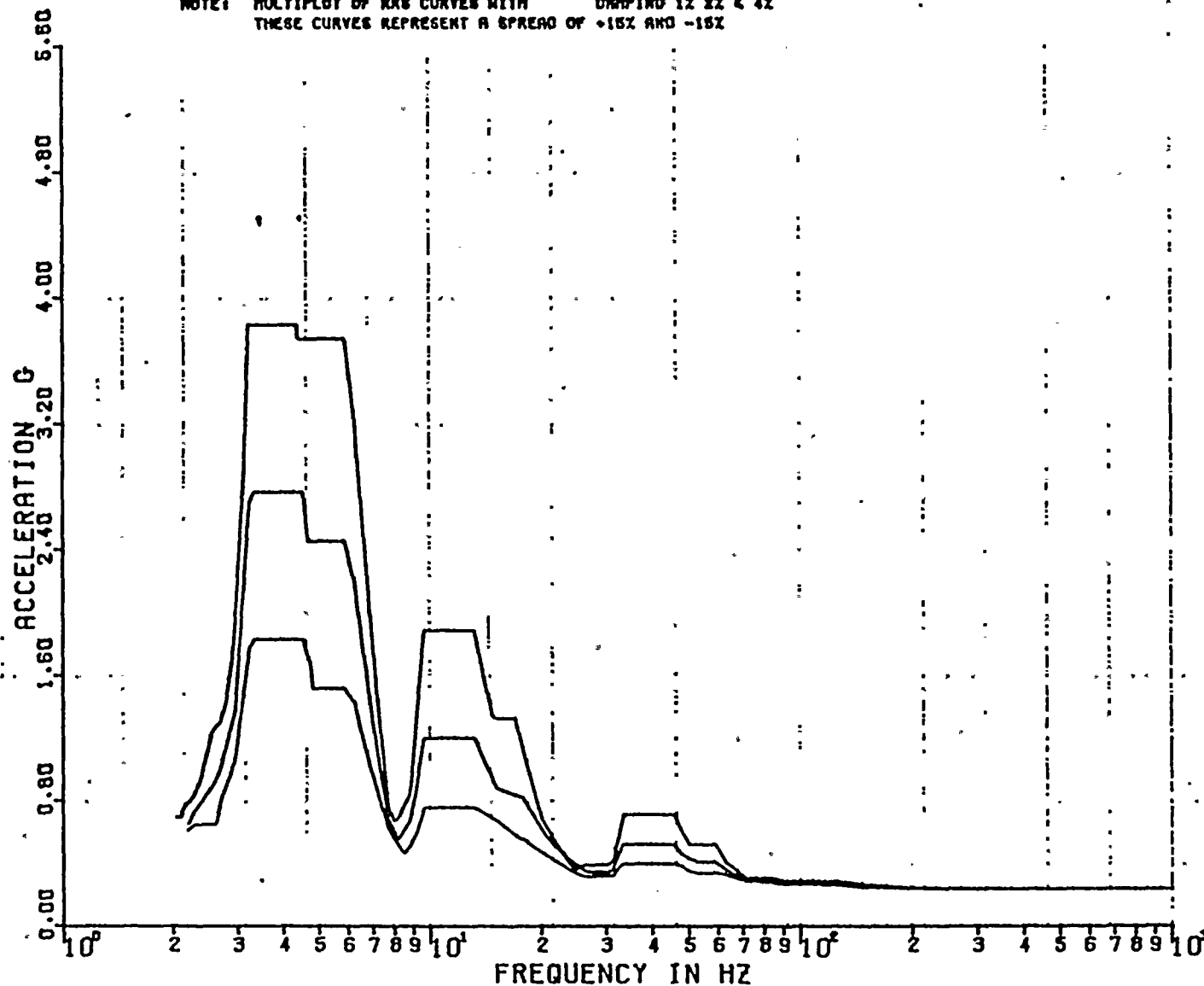
MICHAEL K 00

DISK CURVE SET NO.19

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 50



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O. MS-1746-0'
RRS OF ACCELERATION PEDESTAL (ELEV. 253.13 FT)

MS 1746

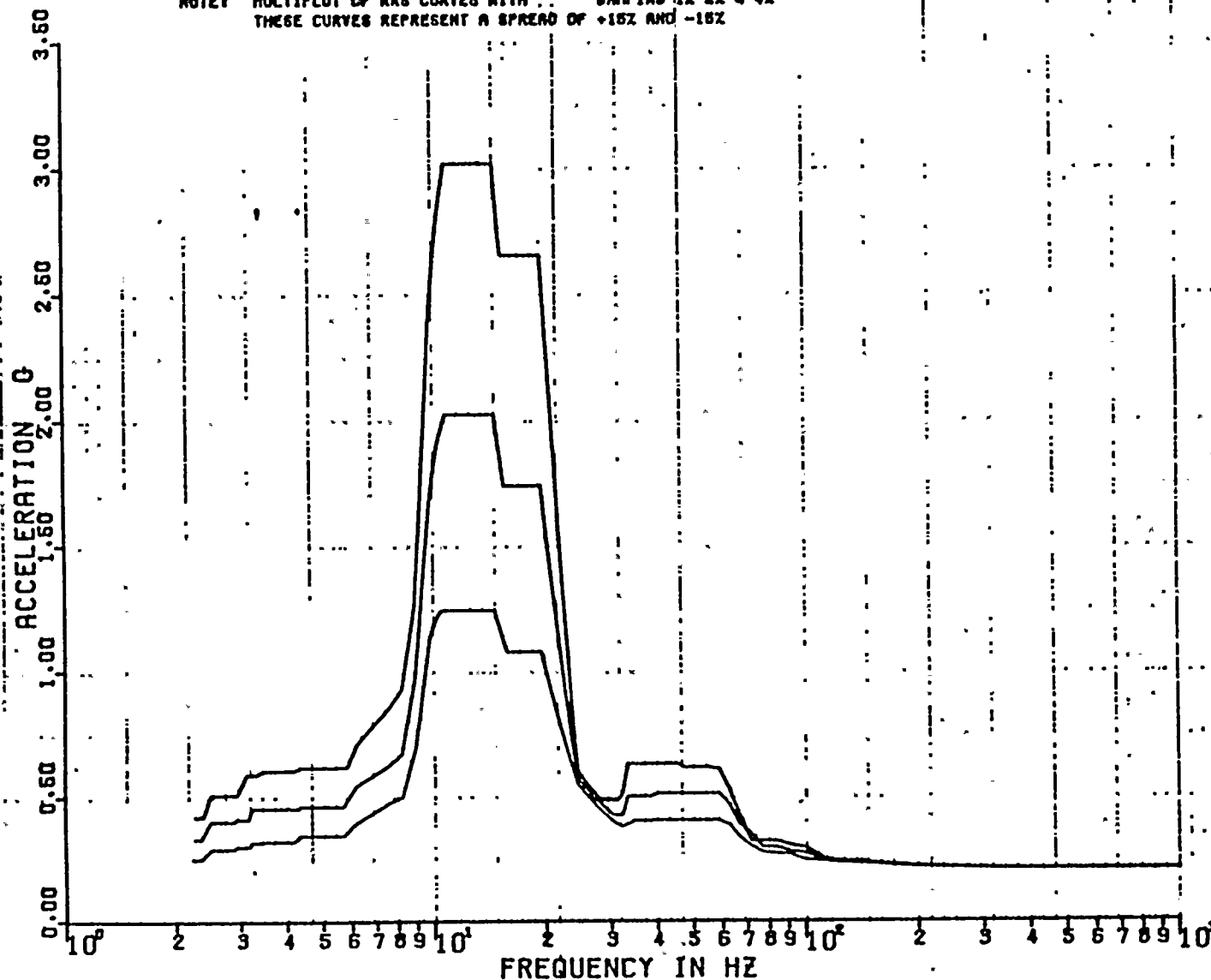
MICHAEL K DO

DISK CURVE SET NO-19

VER DIRECTION

DAMPING VALUES : 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 50



PSPECTRA VER 01 LEV 08

ULTED CONDITION

4 MAR 1983

NIAGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 MS-1747-0
RRS OF ACCELERATION PEDESTAL (ELEV. 238.00 FT.)

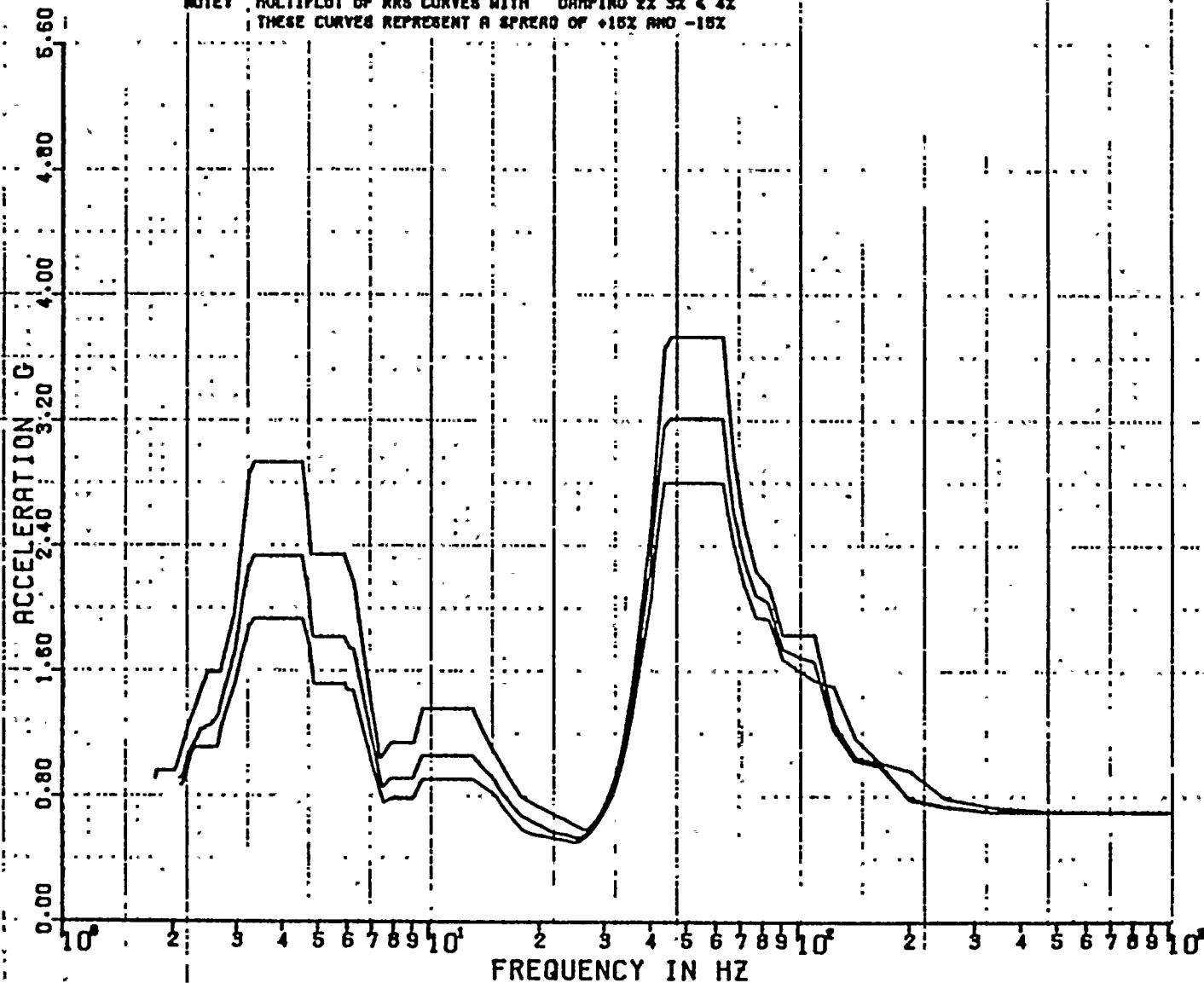
DISK CURVE SET NO.1

HOR DIRECTION

MICHAEL K 00

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



Ref 51



PSPECTRA VER 01 LEV 08

ULTED CONDITION

4 MAR 1989

NIAOARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 MS-1747-D
RRS OF ACCELERATION PEDESTAL (ELEV. 298.00 FT.)

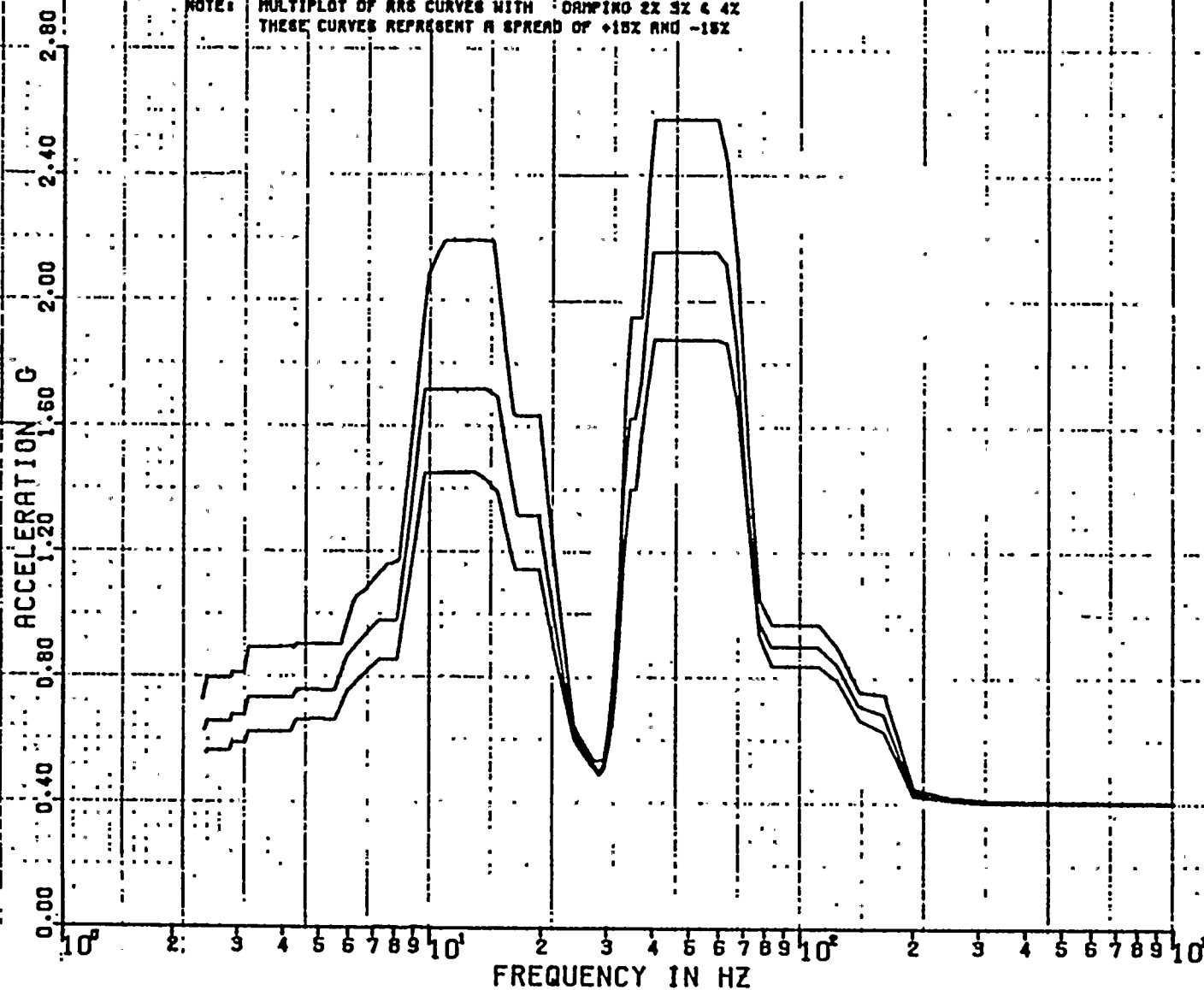
DISK CURVE SET NO.1

VER DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 5Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 51



PSPECTRA VER 01 LEV 08

ET CONDITION

4 MAR 1983

NIAGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 MS-1746-D
RRS OF ACCELERATION PEDESTAL (ELEV. 298.0 FT.)

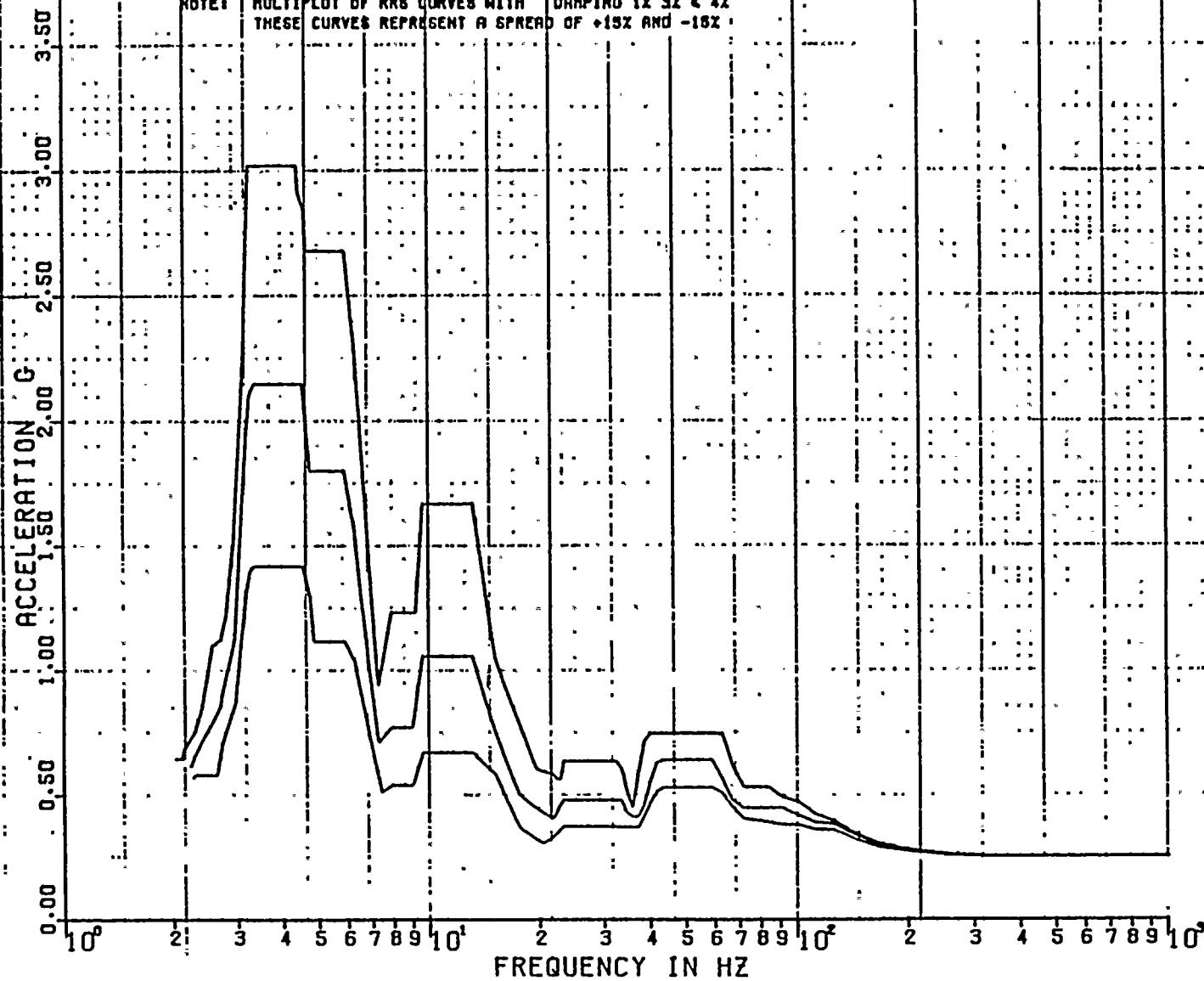
DISK CURVE SET NO.1

HOR DIRECTION

MICHAEL K DO

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTI PLOT OF RRS CURVES WITH DAMPING 1% 3% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 51



PSPECTRA VER 01 LEV 08

UP POSITION

4 MAR 1988

NIAGARA MOHAWK-NINE MILES UNIT POINT-2 J.O.12177 MS-1746-0
RRS OF ACCELERATION PEDESTAL (ELEV. 298.0 FT.)

DISK CURVE SET NO.1

VER DIRECTION

MICHAEL K. OD

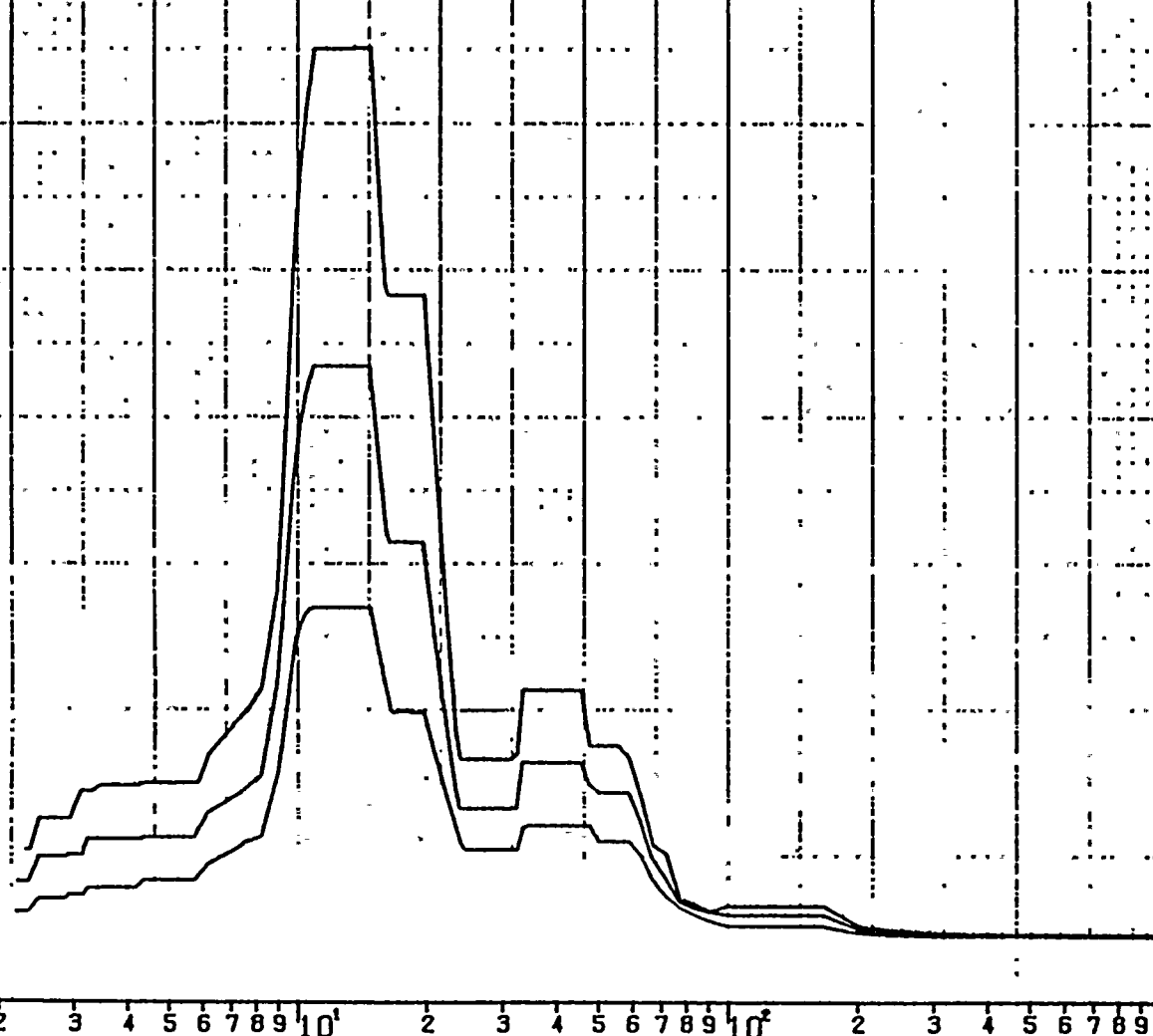
DAMPING VALUES: 0.010
0.020
0.040

NOTE: MULTI PLOT OF RRS CURVES WITH DAMPING 1% 5% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION G
2.80
2.40
2.00
1.60
1.20
0.80
0.40
0.00

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



REF 51



PSPECTRA VER. D LEV. DB

ED CONDITION

25 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O. 2177 MS-1747-0

RRS OF ACCELERATION: PEDESTAL: (ELEV. 217.50 FT)

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 20

HDR DIRECTION

DAMPING VALUES = 0.020

0.050

0.080

NOTE: MULTI-PLOT OF RRS CURVES WITH DAMPING 22.52 & 42
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION G

0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00

10⁰

2

3

4

5

6

7

8

9

10¹

FREQUENCY IN HZ

2

3

4

5

6

7

8

9

10²

2

3

4

5

6

7

8

9

10³

REF 52



PSPECTRA VER. 01 LEV. 00

FRUL. CONDITION

25 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O. 12177 MS-1747-0

RRG OF ACCELERATION. PEDESTAL (ELEV. 217.50 FT)

MS 1747

MICHAEL KIDD

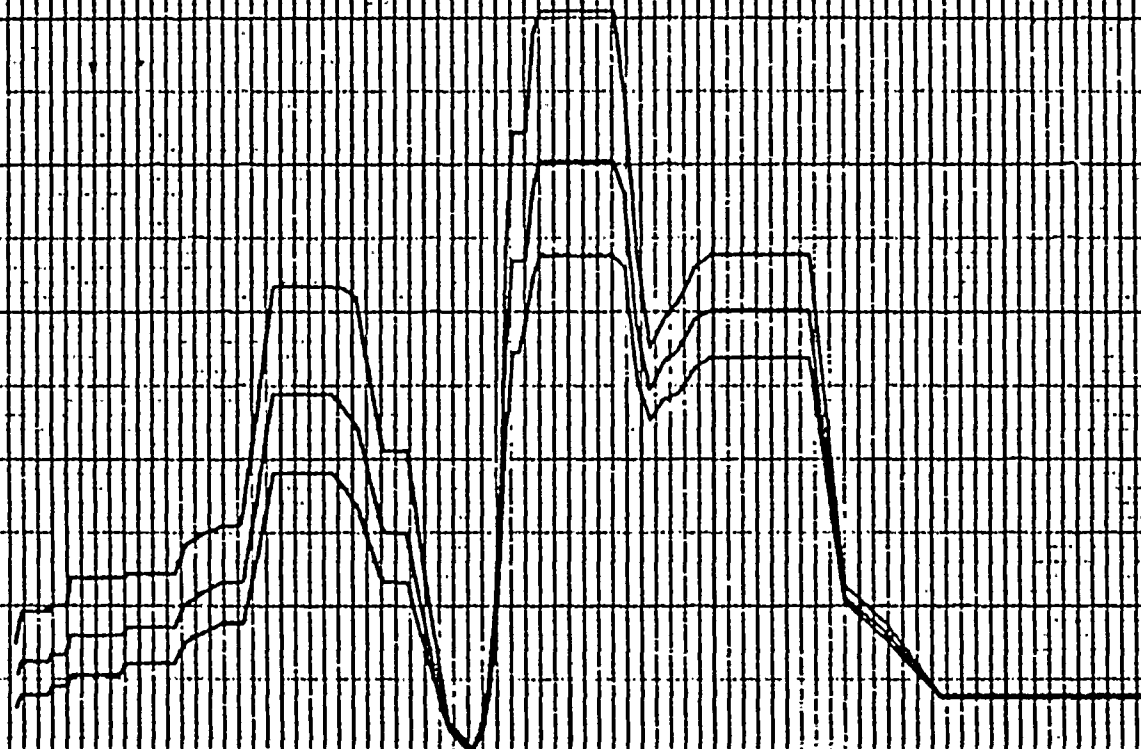
DISK CURVE SET NO. 20

VER. DIRECTION

DAMPING VALUES = 0.020
0.050
0.080

NOTE: MULTIPLOT OF RRG CURVES WITH DAMPING 2X, 3X, 4X
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80



FREQUENCY IN HZ

REF 52



PSPECTRA VER 01 LEV 00

U CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12...7 MS-1746-0
RRS OF ACCELERATION PEDESTAL (ELEV.217.50 FT)

MS 1746

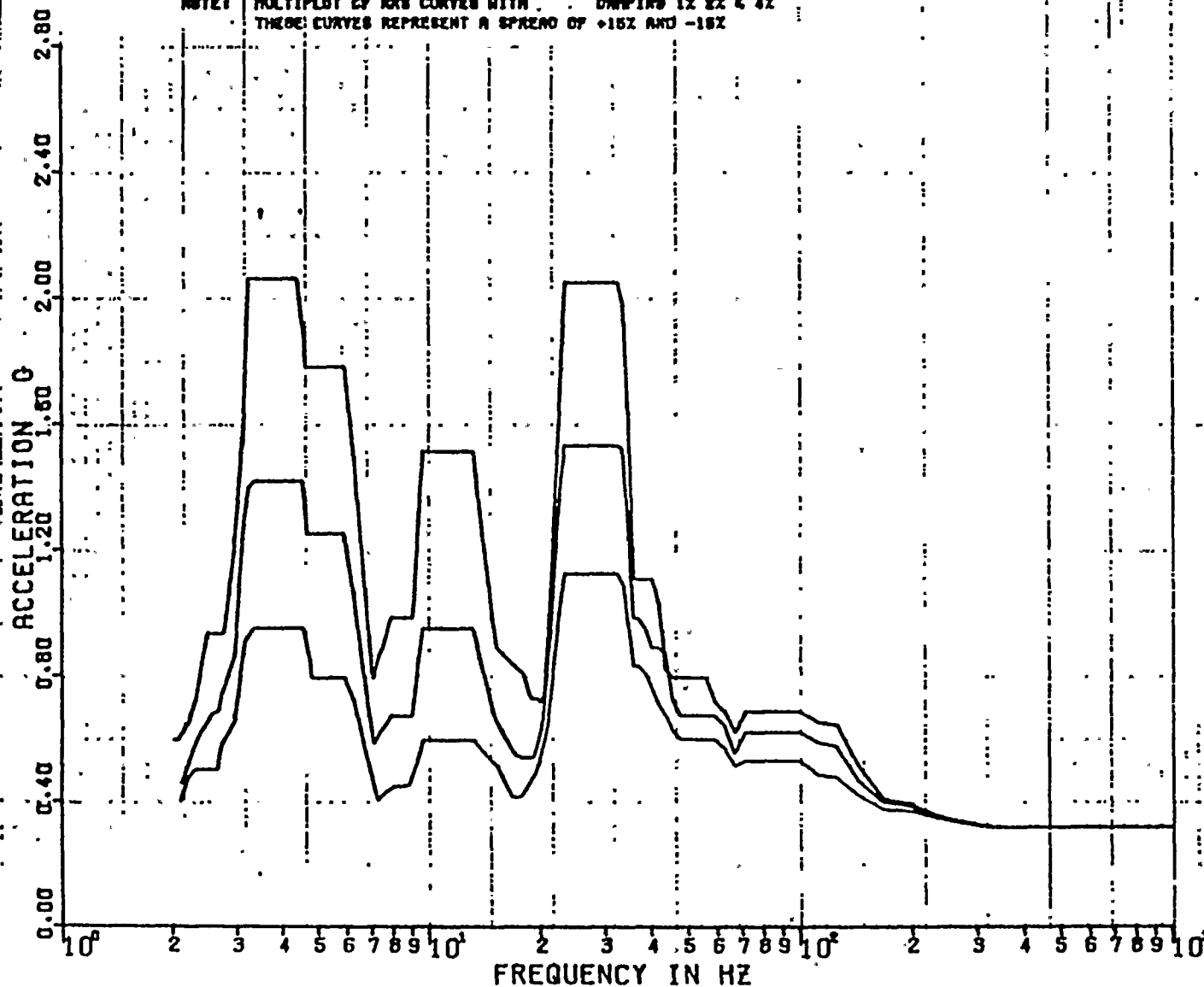
MICHAEL K 00

DISK CURVE SET NO.20

MDR DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 52



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O. 17 MS-1746-0

RRS OF ACCELERATION PEDESTAL (ELEV.217.50 FT)

MS 1746

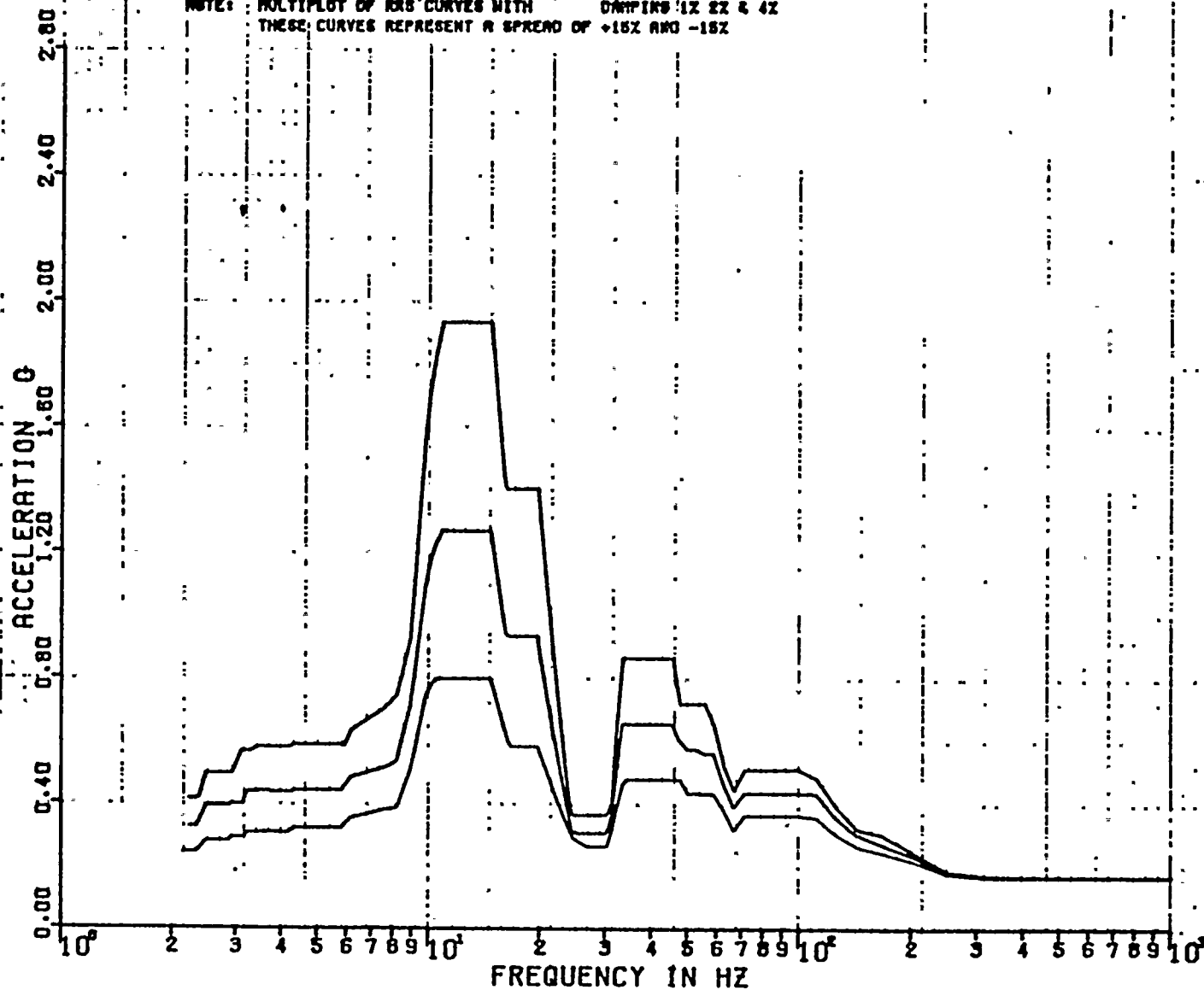
MICHAEL K DO.

DISK CURVE SET NO.20

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 52



PSPECTRA VER 01 LEV 00

FR. 2D CONDITION

25 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 JLO 12177 MS-1747-0

RRS OF ACCELERATION: (PEDESTAL) (ELEV 186.25 FT.)

MS 1747

MICHAEL K. DO

DIGK. CURVE SET NO. 21

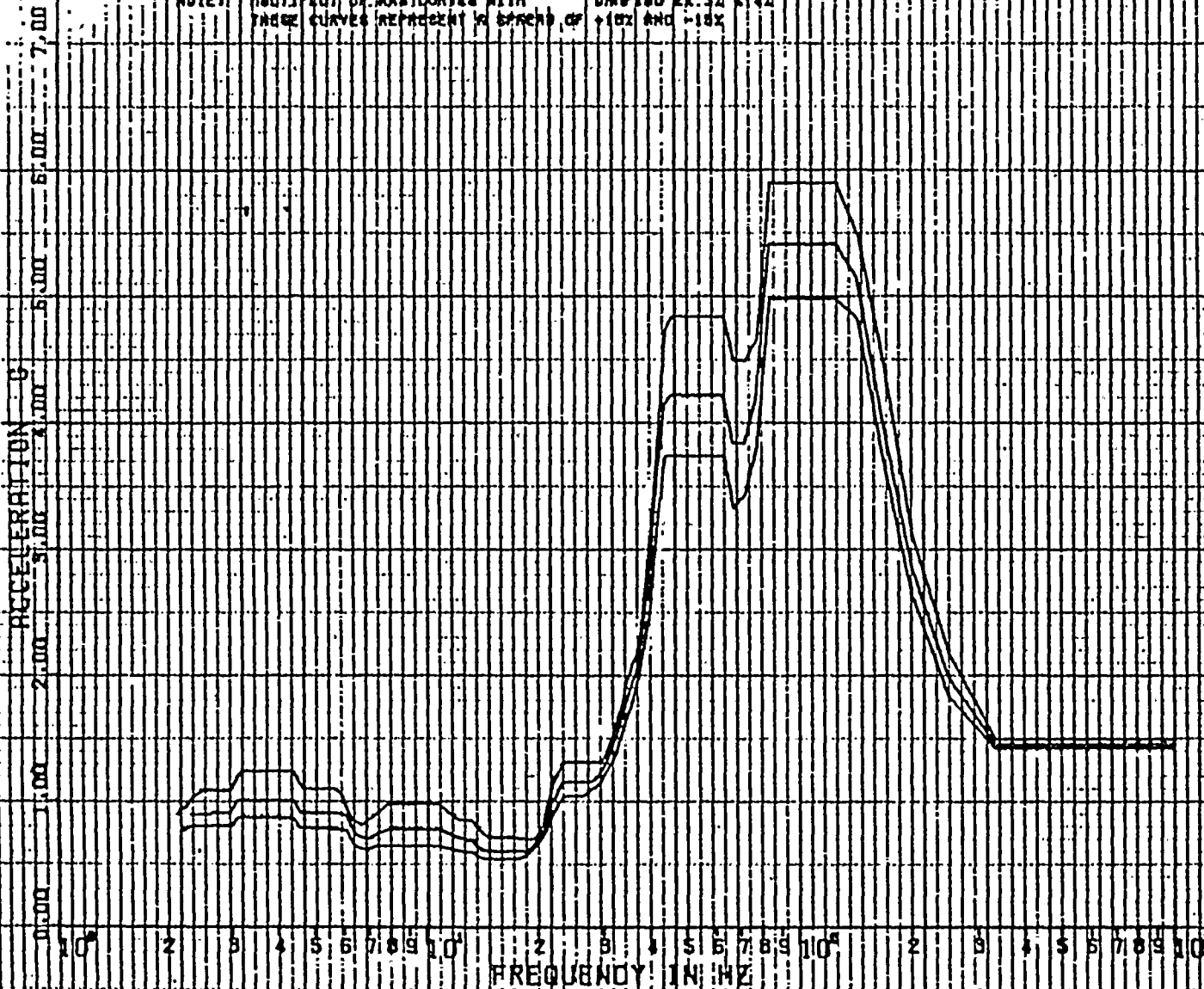
HOR. DIRECTION

DAMPING VALUES = 0.020

0.080

0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 2X, 5X & 10X
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 53



SPECTRA VER: 01 LEV: 08

TESTED CONDITION:

25 JAN 1988

MIRAMAR MOHAWK NINE MILES POINT UNIT-2 (0.012177 MS-1747-0)
RMS OF ACCELERATION PEDESTAL (ELEV: 96.25 FT.)

MS 1747

MICHAEL K. CO.

DISK CURVE SET NO: 21

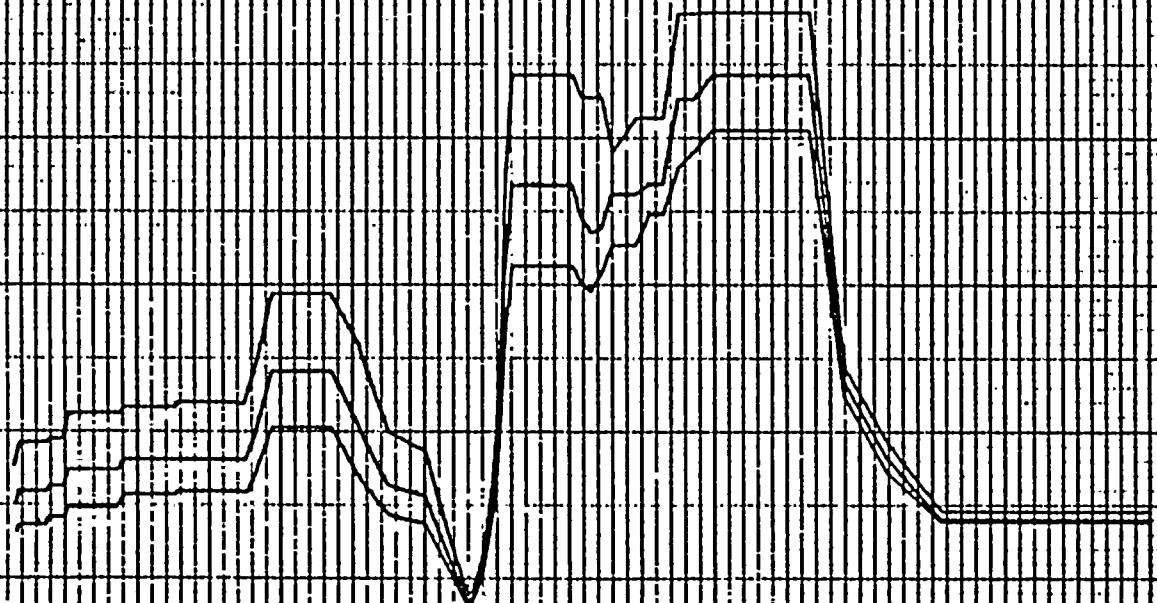
VER: DIRECTION:

DAMPING VALUES = 0.020
0.080
0.040

NOTE: MULTI-PLOT OF RMS CURVES WITH DAMPING 2X, 5X & 1X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 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



REF 53



PSPECTRA VER 01 LEV 00

CONDITION

24 JAN 1989

NIAGARA MONARK-NINE MILES POINT UNIT-2 J.O.121.1 MS-1746-0
RRS OF ACCELERATION PEDESTAL (ELEV.196.25 FT.)

MS 1746

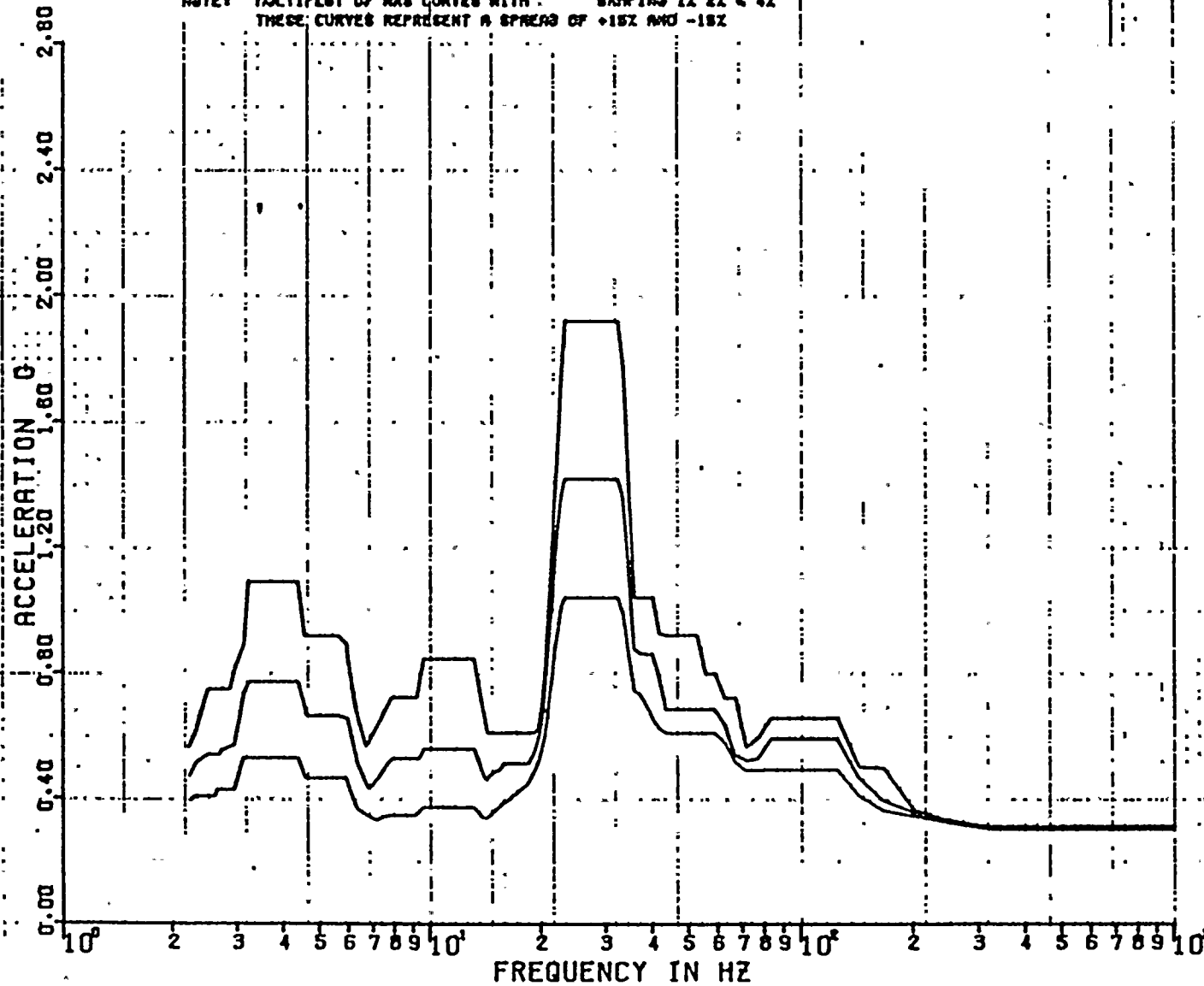
MICHAEL K. 00

DISK CURVE SET NO.21

HOR DIRECTION

DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 53



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1983

NIRAKA MOMAKK-NINE MILES POINT UNIT-2 J.000, 7 MS-1746-0
RMS OF ACCELERATION PEDESTAL (ELEV.196.25 FT.)

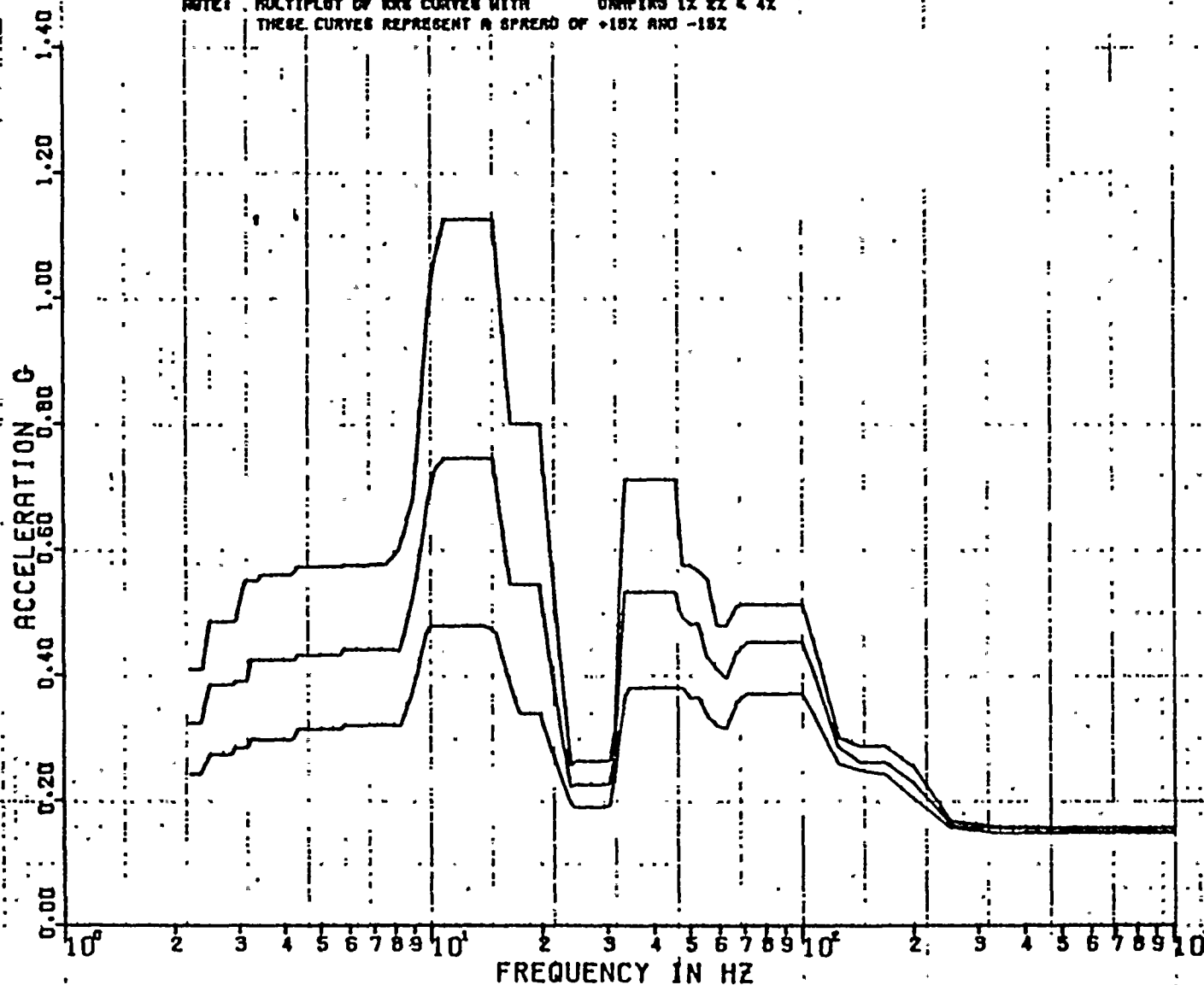
MS 1746
MICHAEL K. DO.

DISK CURVE SET NO.21

VER DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 53



SPECTRA VER: 01 LEV: 08
 NIADARA MOHAWK-NINE MILES POINT UNIT-2 U.O. 12177 NS-1747-0
 RRS OF ACCELERATION BASE MAT (ELEV: 175.00 FT)

25 JAN 1983

MS 1747

MICHAEL K. DD

DISK CURVE SET NO-22

HDR DIRECTION

DAMPING VALUES * 0.020
 0.050
 0.100

NOTE: MULTIPLY BY RRS CURVES WITH DAMPING BY 32 & 42
 THESE CURVES REPRESENT A SPREAD OF +15% AND -15%

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



REC 54



SPECTRA VER 01 LEV 00

FAULT CONDITION

25 JAN 1989

NIAOAR MORRIS-KINE MILES POINT UNIT-2 JLD 12177 MS-1747-D
RRE OF ACCELERATION BASE MAT (ELEV 175.00 FT)

MS 1747

MICHAEL K. DD

DISK CURVE SET NO. 22

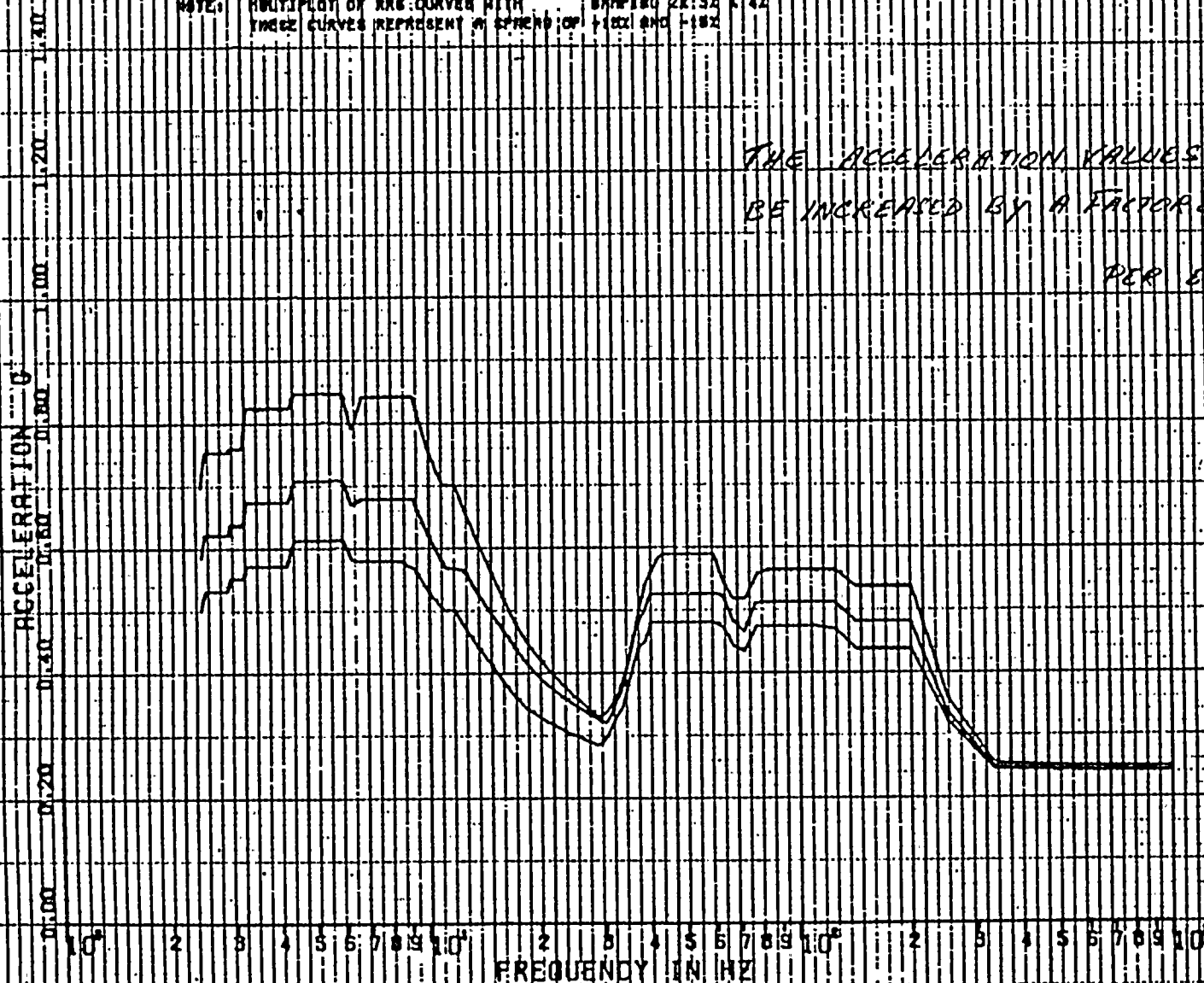
VER. DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RRE CURVES WITH DAMPING 22.52 & 42
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

THE ACCELERATION VALUES SHOULD
BE INCREASED BY A FACTOR 2.

PER SM3.264-D



REF 54



PSPECTRA VER 01 LEV 08

T CONDITION

24 JAN 1989

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O. .77 MS-1748-0
RRS OF ACCELERATION BASE MAT (ELEV.175.00 FT)

MS 1746

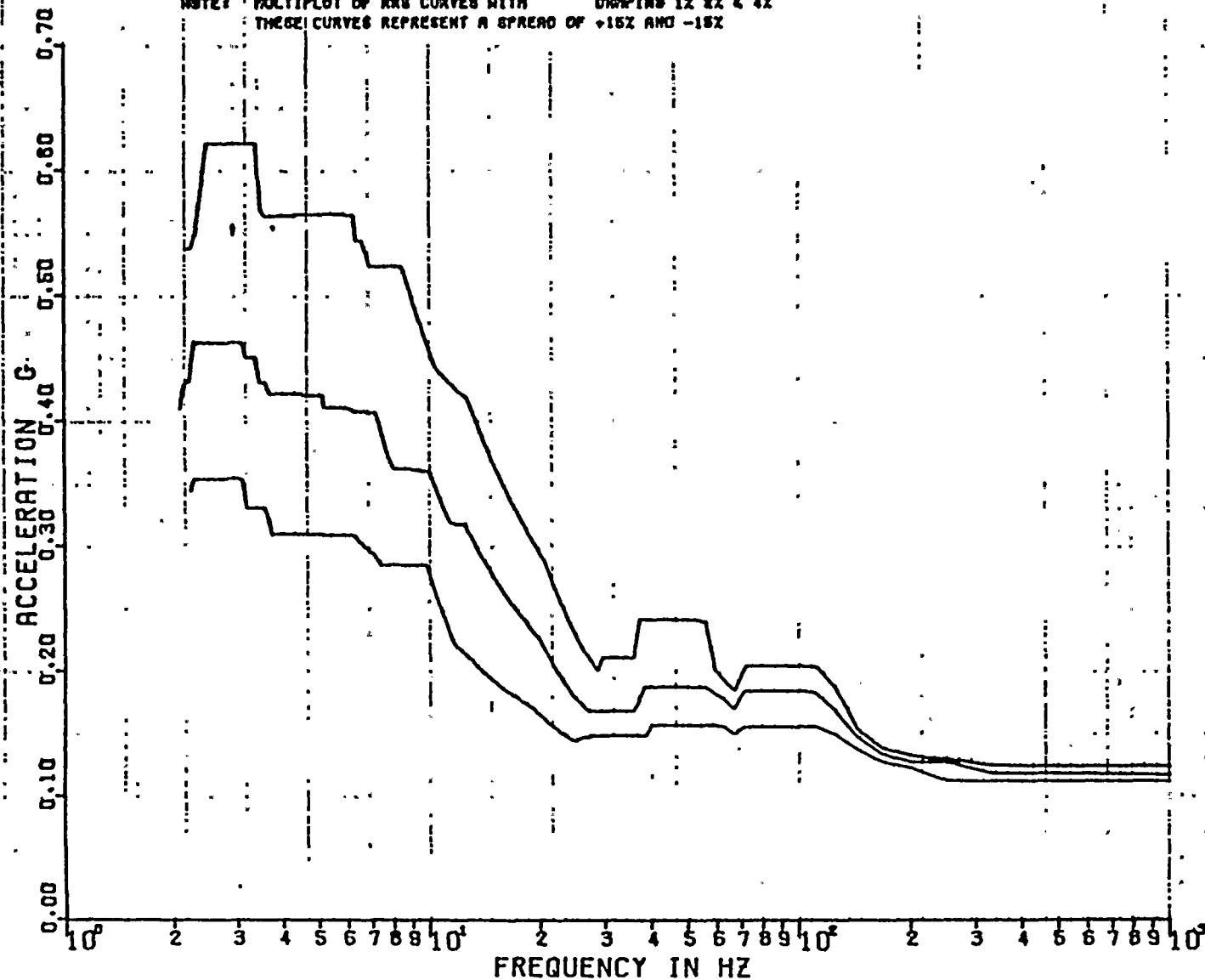
MICHAEL K OD.

DISK CURVE SET NO.22

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1Z 2Z & 4Z
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 54



PSPECTRA VER 01 LEV 08

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O. / MS-1746-0
RRS OF ACCELERATION BASE MAT (ELEV.175.00 FT)

CONDITION

24 JAN 1983

MS 1746

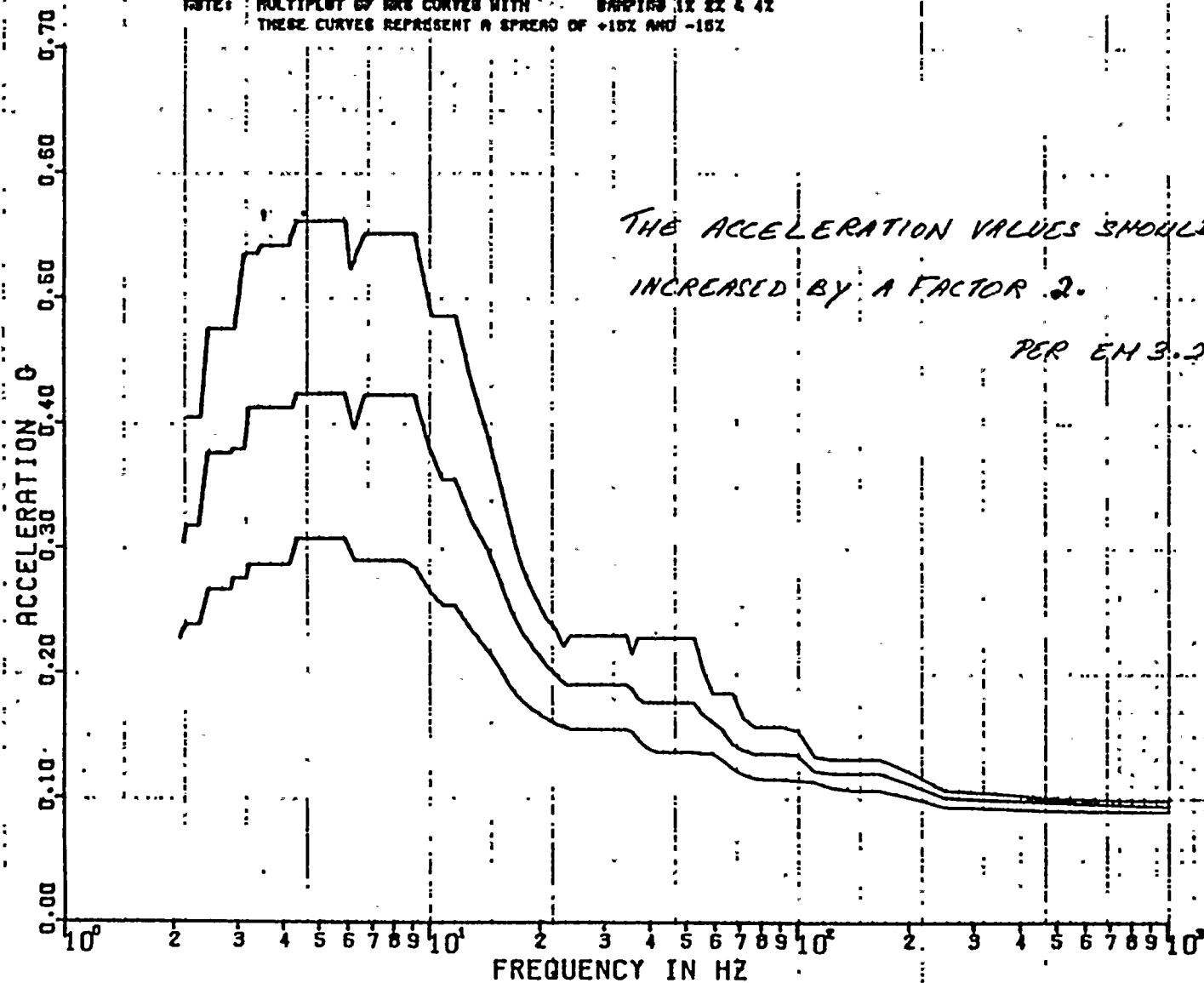
MICHAEL R DO

DISK CURVE SET NO.22

VER DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 54



PSPECTRA VER. D1 LEV. 081

FRL CONDITION

25 JAN 1985

NADARRA: NADARRA-NINE MILES POINT UNIT-2 0.012177 NS-1747-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV. 116.83 FT)

MS 1747

MICHAEL K. CO.

DISK CURVE SET NO. 28

HDR. DIRECTION

DAMPING VALUES =

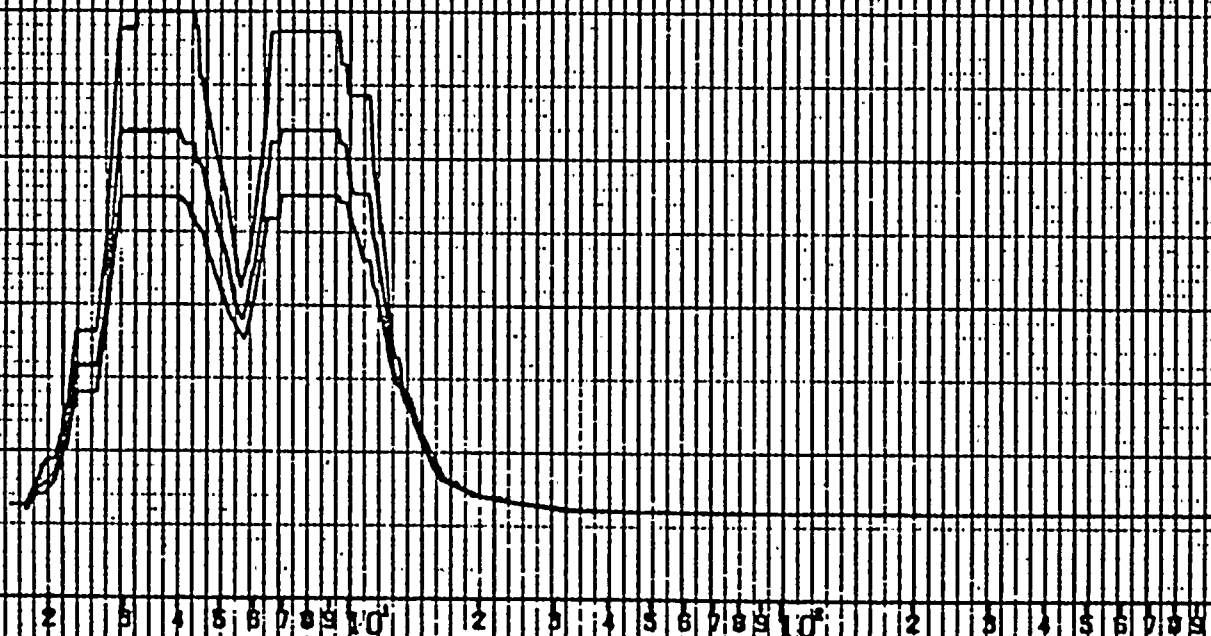
0.020

0.050

0.500

NOTE: MULTIPLY BY RMS CURVES WITH DAMPING 21.32 & 42
TRACE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION G
14.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00



FREQUENCY IN HZ

REF 55



SPECTRA VER: 01 LEV: 00

FIELD CONDITION

25 JAN 1985

NIRAKH: NDAHAK: NINE MILES POINT UNIT-2 U.D. 12177 MS-1747-0
RMS OF ACCELERATION: SECONDARY CONT. (ELEV. 116.00 FT)

MS 1747

MICHAEL K. 00

DISK CURVE SET NO. 20

VER: DIRECTION

DAMPING VALUES = 0.020
0.050
0.100

NOTE: MULTI-PLOT OF RMS CURVES WITH DAMPING 22.5% & 4%
THREE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION - G

0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00

10⁰

2

3

4

5

6

7

8

9

10

10¹

2

3

4

5

6

7

8

9

10

10²

2

3

4

5

6

7

8

9

10

10³

FREQUENCY IN HZ

REF 55



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1988

NIAOANA MOHAWK-NINE MILES POINT UNIT-2 J.O. 77 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 418.89 FT)

MS 1746

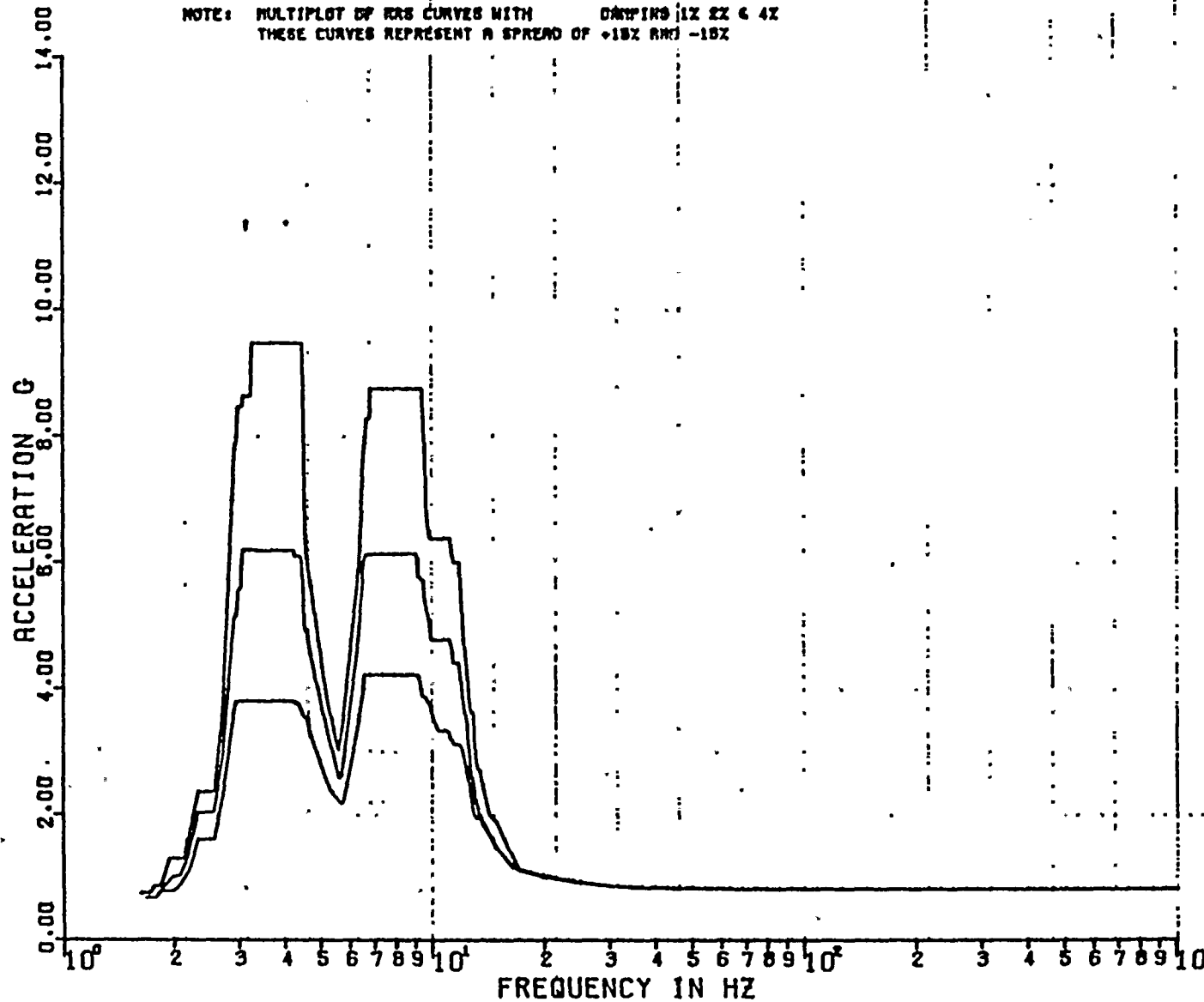
MICHAEL K. DO

DISK CURVE SET NO.29

HOR DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 55



PSPECTRA VER 01 LEV 08

UP CONDITION

24 JAN 1983

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.125 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 416.83 FT)

MS 1746

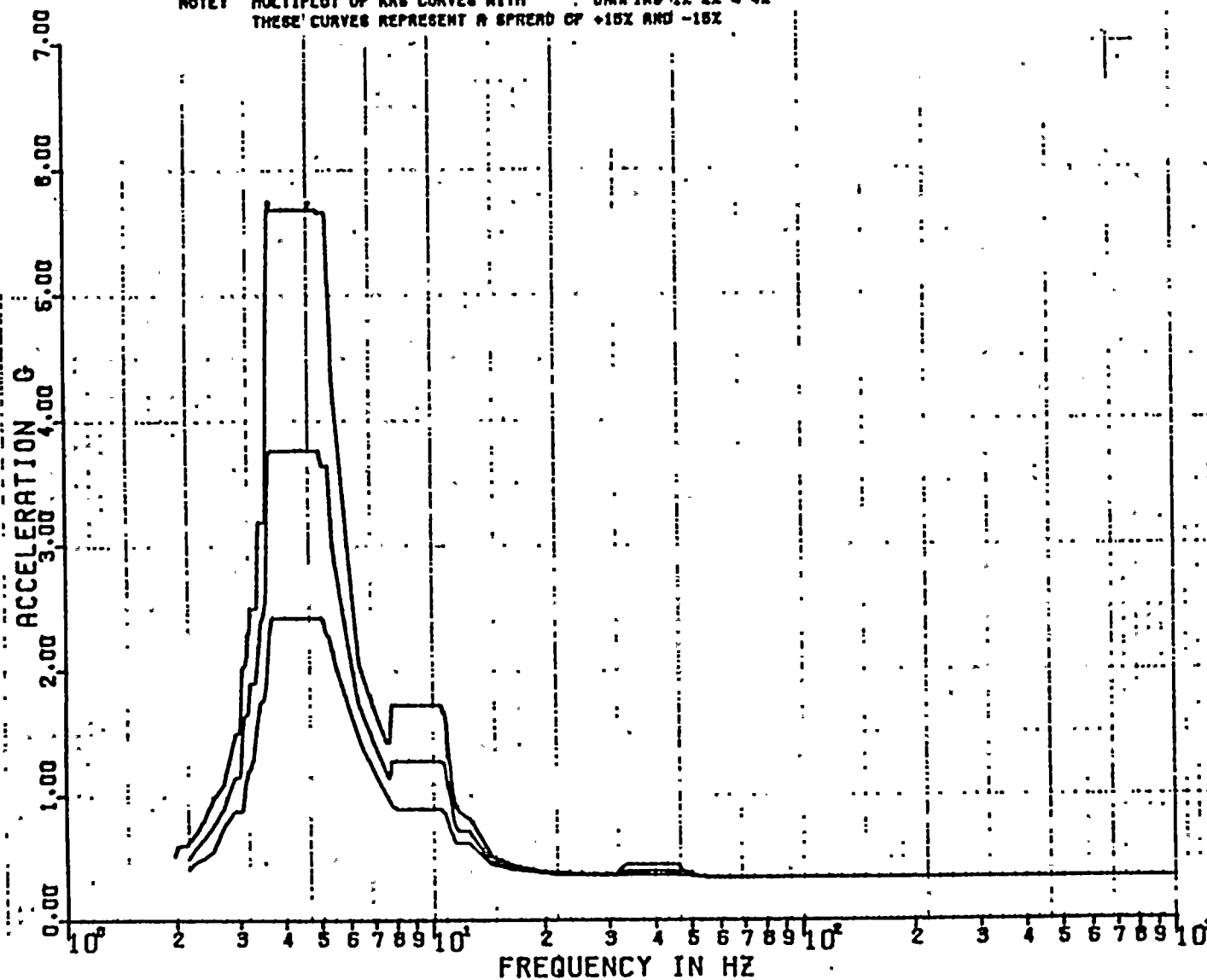
MICHAEL K DO

DISK CURVE SET NO.29

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 55



SPECTRA VER 01 LEV 00

FAULTED CONDITION

25 JAN 1985

MADONNA NOMARK-NINE MILES POINT UNIT-2 JLD 12 77 RS-1747-0

MS 1747

RMS OF ACCELERATION: SECONDARY CONT. (ELEV. 307.83 FT)

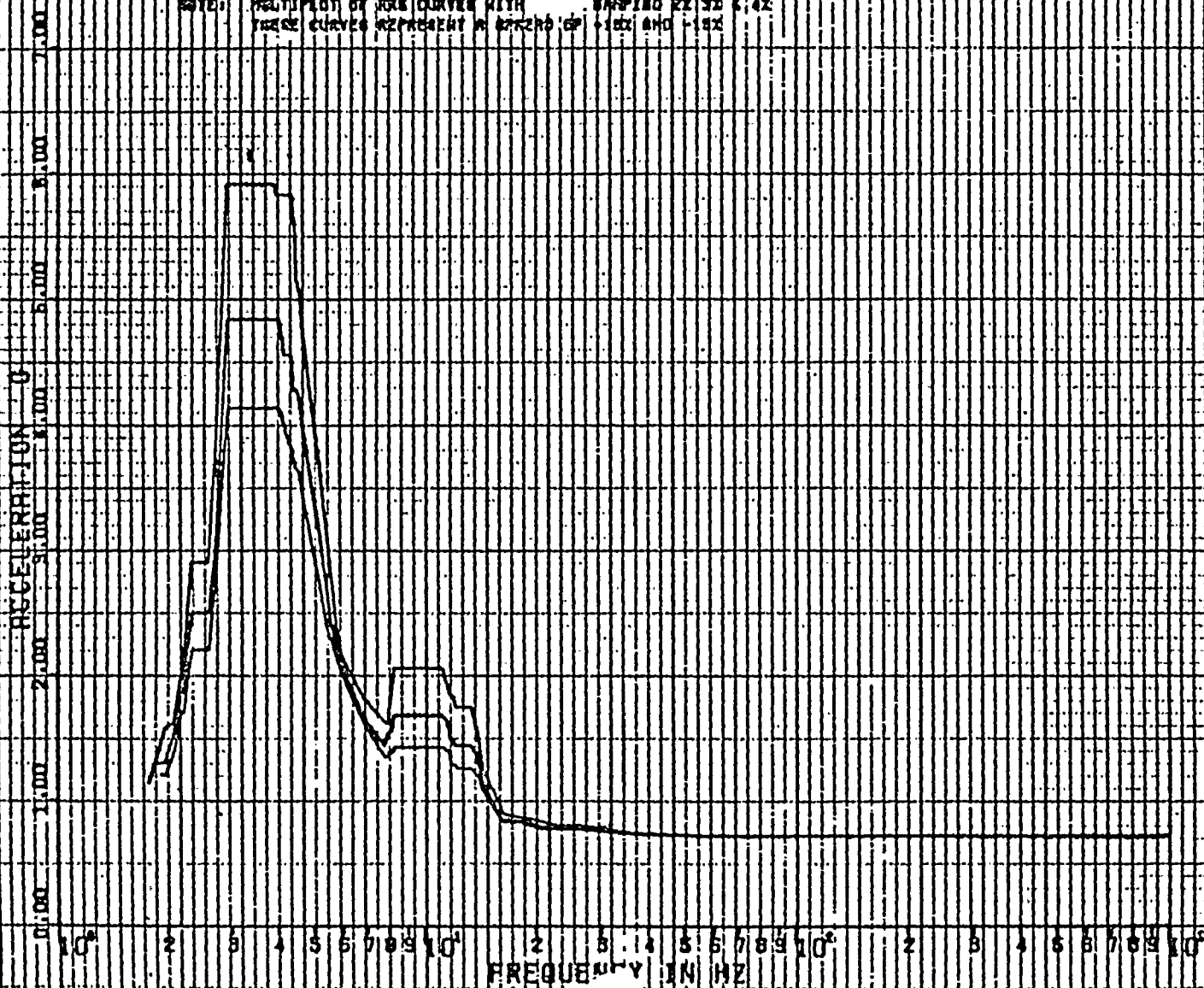
MICHAEL K. DD

DISK CURVE SET NO. 24

HOR. DIRECTION:

DAMPING VALUES = 0.020
0.080
0.080

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 22 32 42
THESE CURVES REPRESENT A SPREAD OF 10% AND 15%



REF 56



SPECTRA VER D LEV 08

FAULT CONDITION

25 JAN 1988

NIAGARA MOHAWK NINE MILES POINT UNIT-2 J.012177 NS-1747-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 387.03 FT)

MS 1747
MICHAEL K. CO.

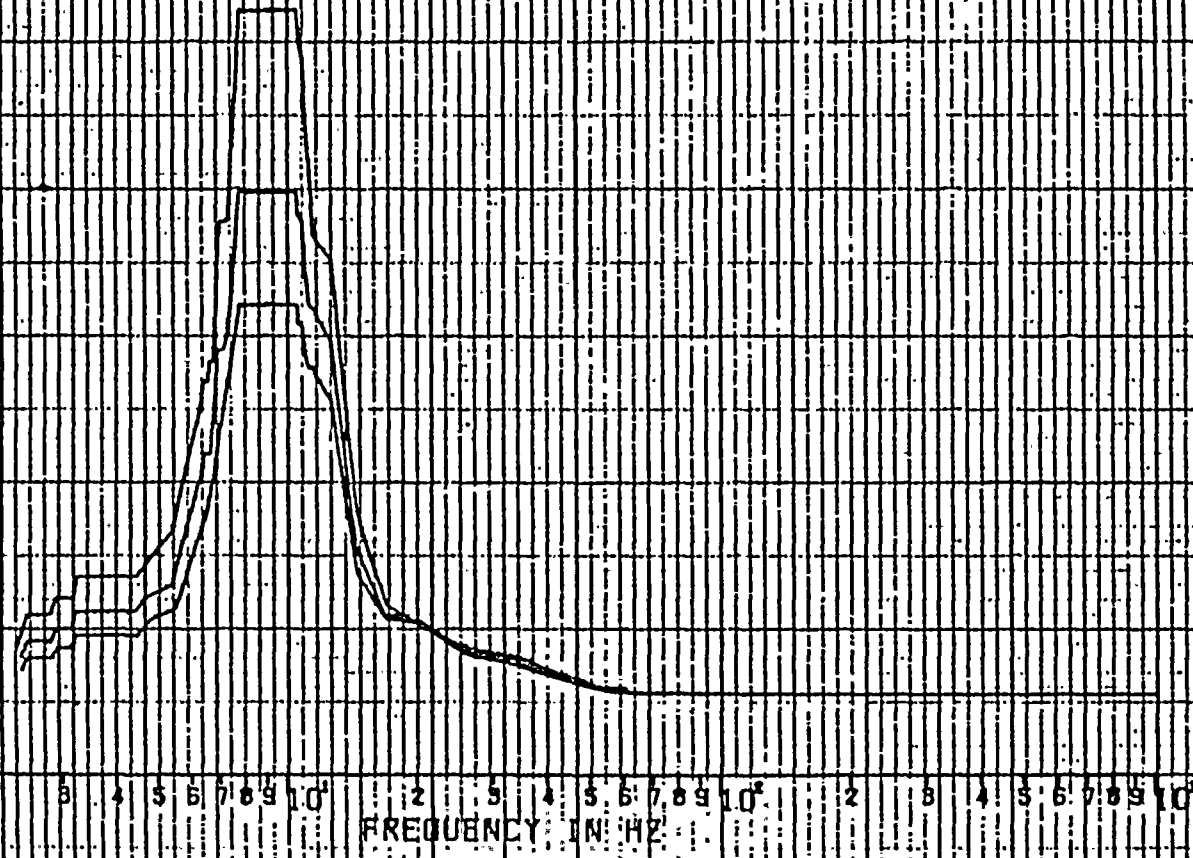
DISK CURVE SET NO. 24

VER. DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY BY TWO CURVES WITH DAMPING 2X 3X 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION G
0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60



REF 56



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.-12.7 MS-1746-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV. 387.83 FT)

MS 1746

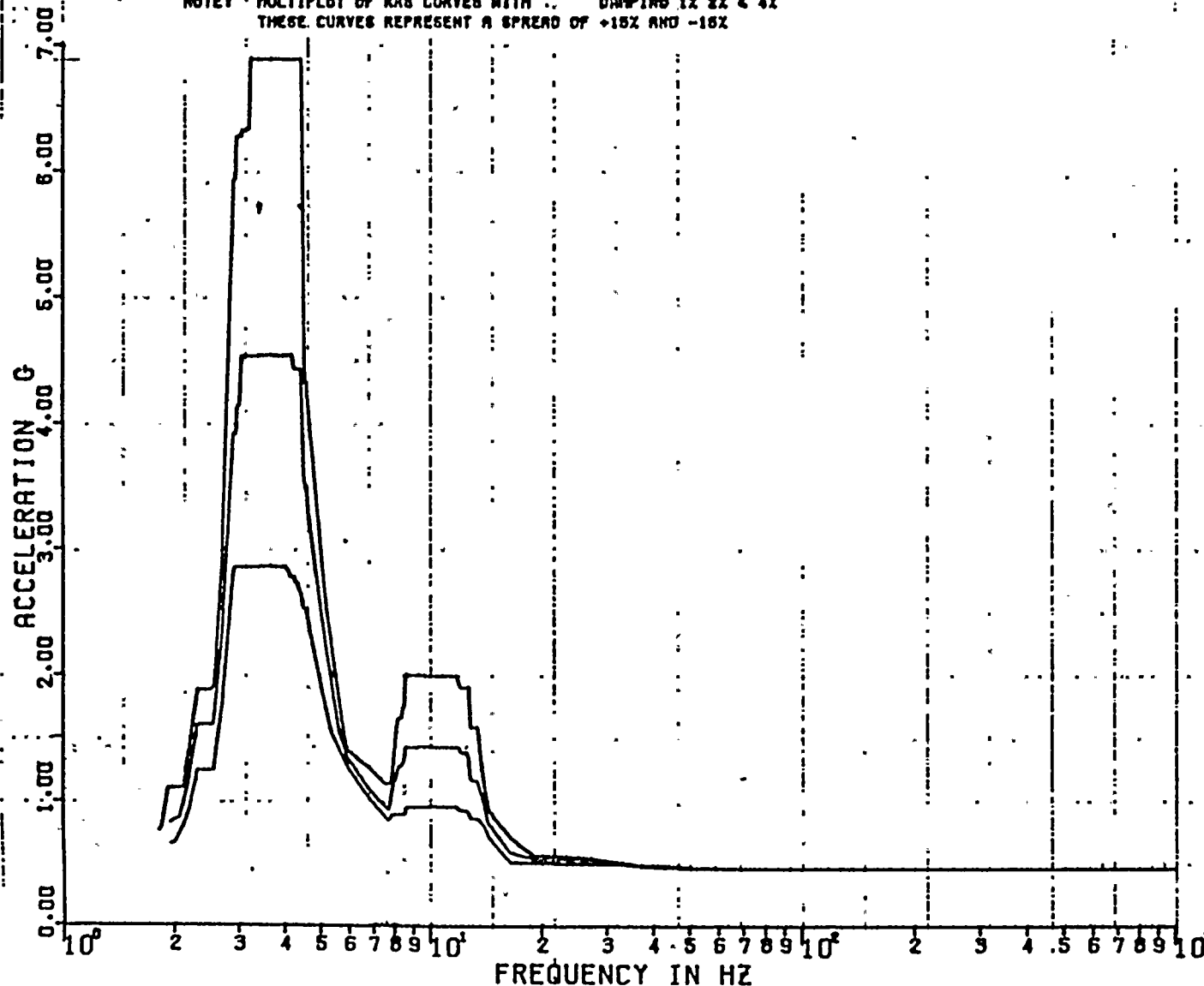
MICHAEL K DB

DISK CURVE SET NO.24

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 56



PSPECTRA VER 01 LEV 08 UPSET T CONDITION

24 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.O.: 177 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 387.83 FT)

MS 1746

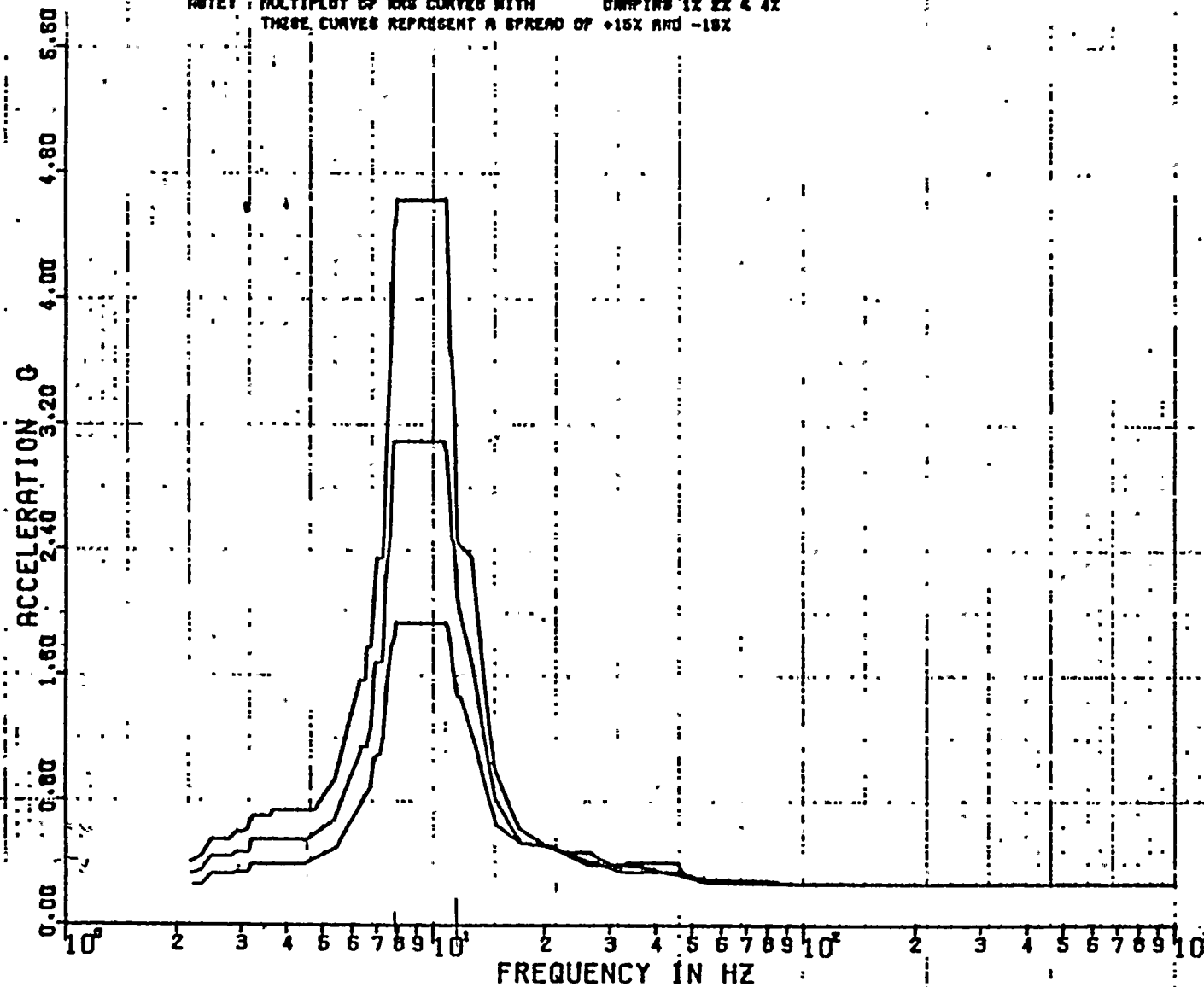
MICHAEL K DO

DISK CURVE SET NO.24

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



3.09

REF 56



SPECTRA VER: 01 LEV: 08

CONDITION

25 JAN 1968

MIDWAY, MICHIGAN, MILES POINT UNIT-2 J. 012177 RS-1747-0

RMS OF ACCELERATION SECONDARY CONT. (ELEV. 353.63 FT)

MS 1747

MICHAEL K. 00

DISK CURVE SET NO. 25

HOR DIRECTION

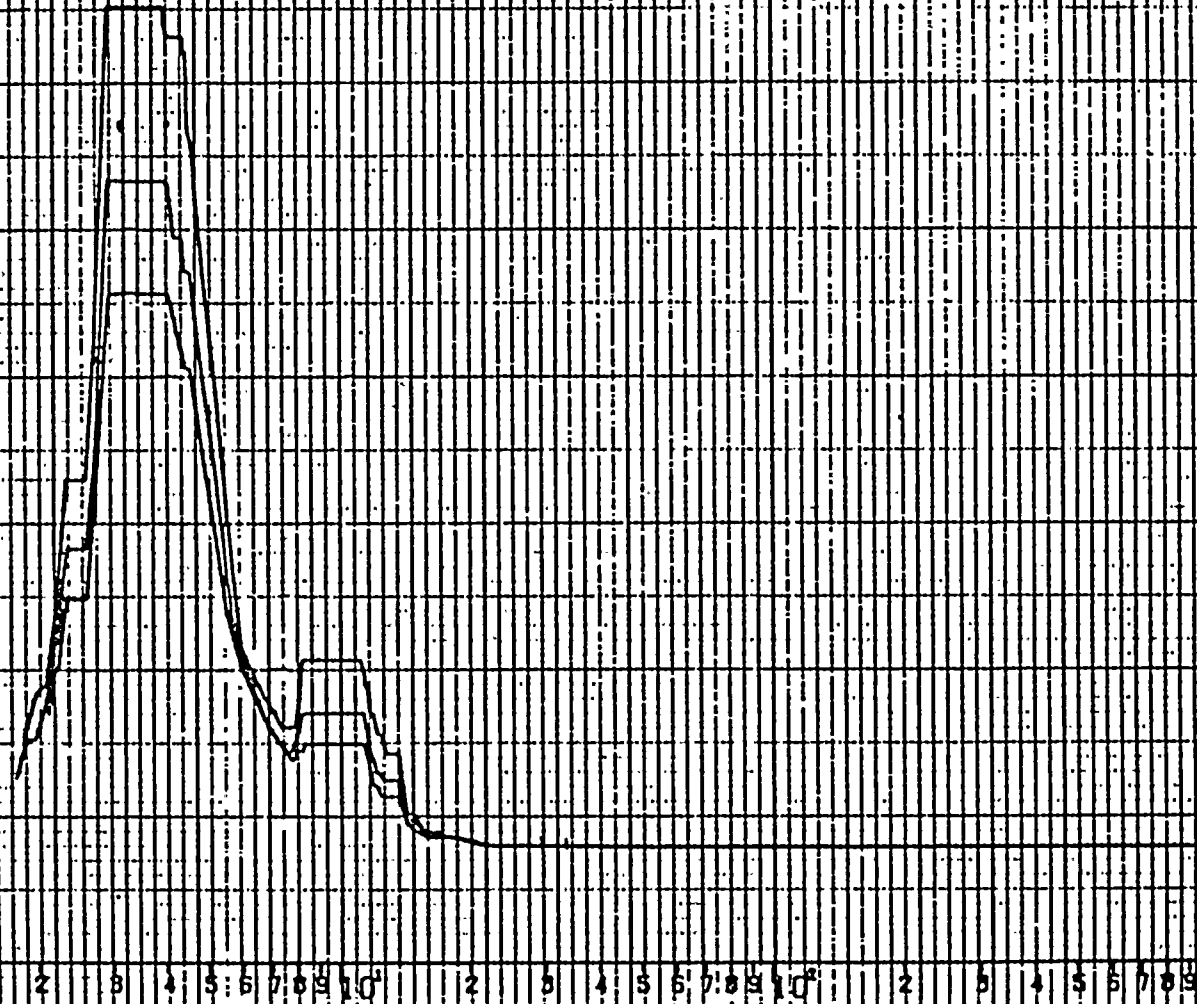
DAMPING VALUES = 0.020

0.020

0.020

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING BY 32 & 42
THREE CURVES REPRESENT $\pm 10\%$ AND $\pm 5\%$

ACCELERATION - G
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00



FREQUENCY IN HZ

REF 57



PSPECTRA VER 01 LEV 08

ED CONDITION

25 JAN 1989

NIAGARA MOHAWK NINE MILES POINT UNIT - 2 J 01277 MS-1747-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 353.89 FT)

MS 1747

MICHAEL K. DO

DISK CURVE SET NO. 25

VER. DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X, 3X, 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%

ACCELERATION 0.00 0.80 1.60 2.40 3.20 4.00 4.80 5.60

10⁰

2

3

4

5

6

7

8

9

10⁰

FREQUENCY IN HZ

2

3

4

5

6

7

8

9

10⁰

REF 57



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1969

MIRAMAR MOHAWK-NINE MILES POINT UNIT-2 J.O.-12.77 MS-1746-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV. 353.83 FT)

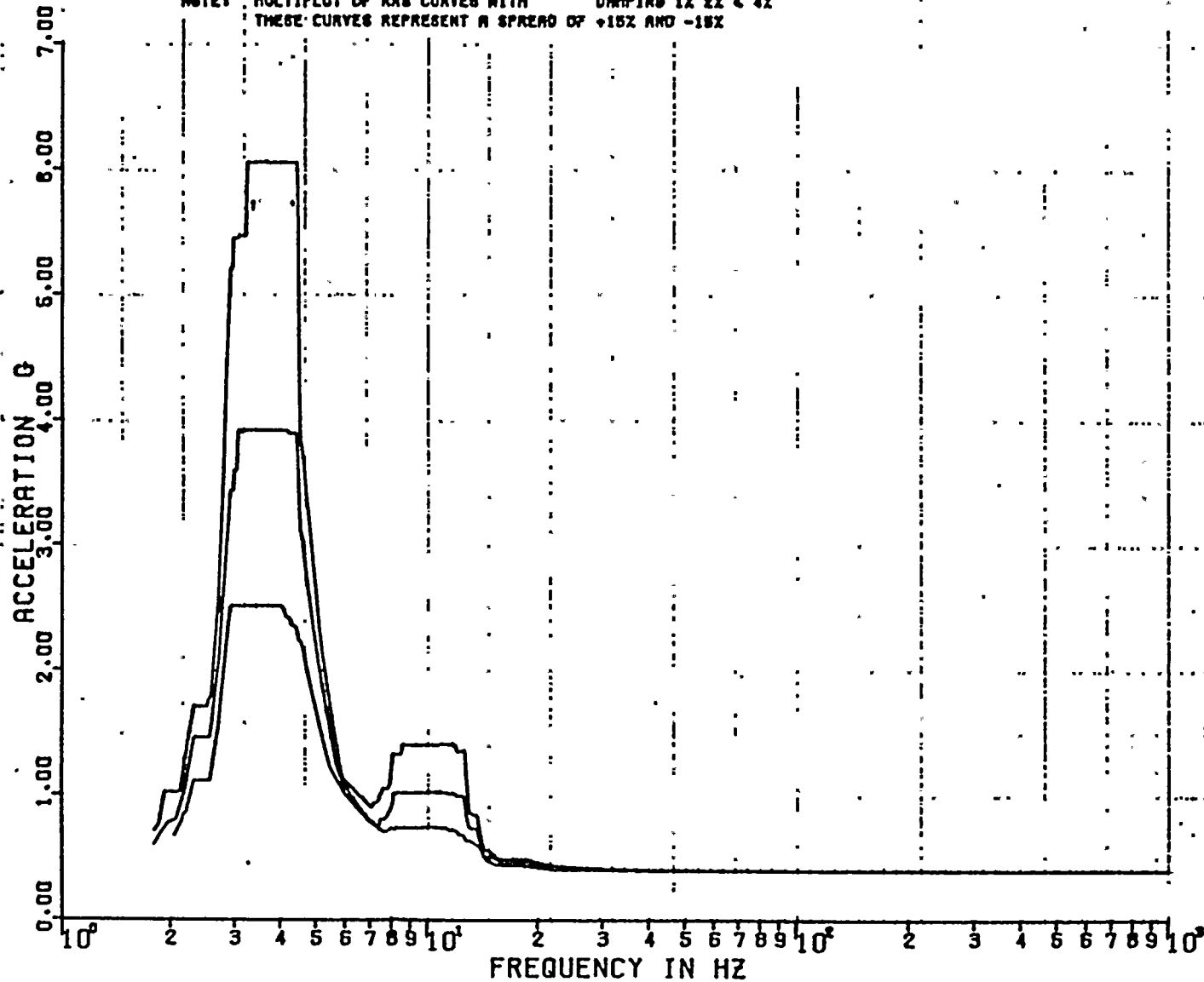
MS 1746
MICHAEL K DO

DISK CURVE SET NO.25

HOR DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 57



PSPECTRA VER 01 LEV 08

T CONDITION

24 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.C. 177 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV 359.83 FT)

MS 1746

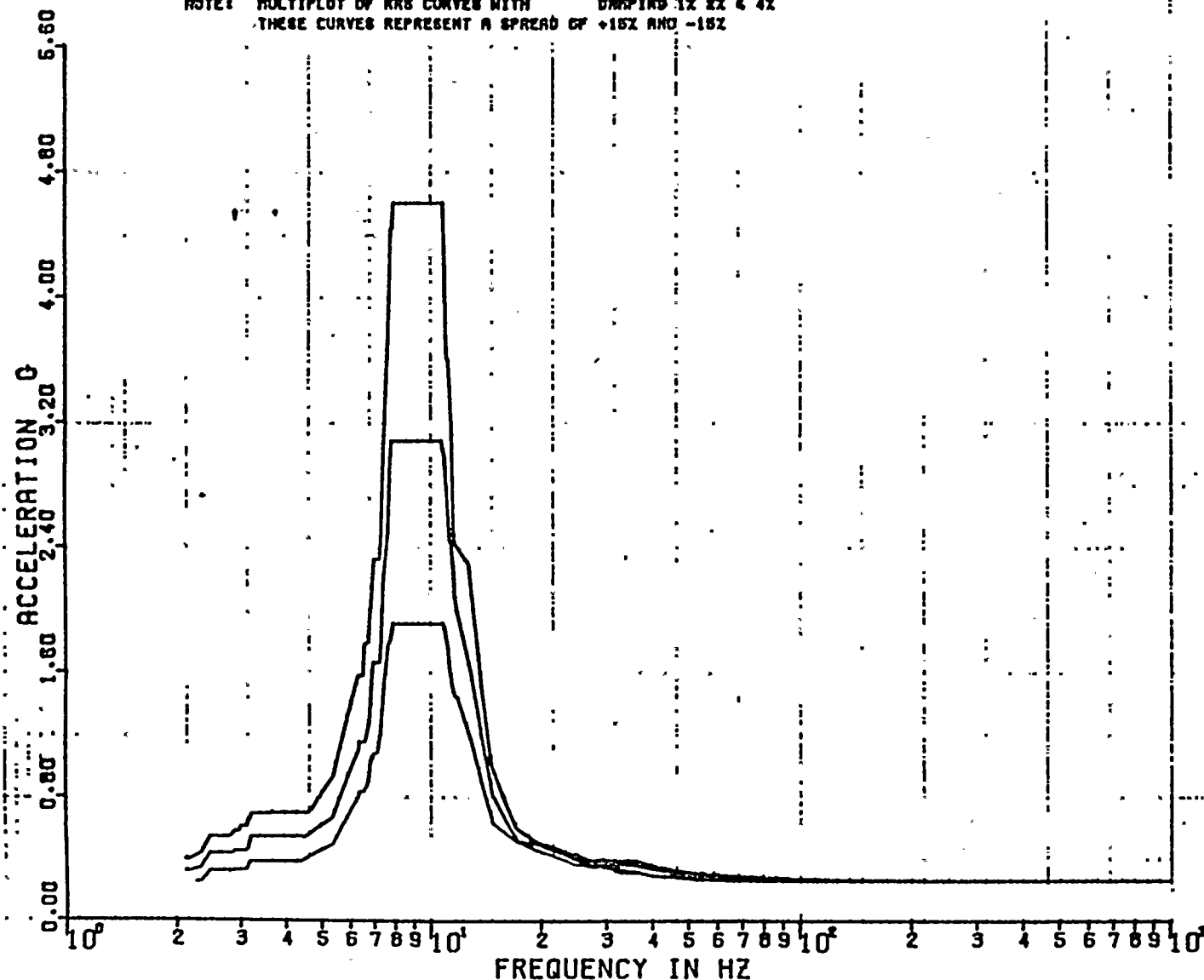
MICHAEL K. 00

DISK CURVE SET NO.25

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 57



PSPECTRA VER. 01 LEV 001

ED CONDITION

25 JAN 1983

WADSWORTH MOUNTAIN MILES POINT UNIT 2 J. 2177 NS-1747-0

RRS OF ACCELERATION SECONDARY CONT. (ELEV. 320.83 FT)

MS 174

MICHAEL K. 00

DISK CURVE SET NO. 26

NDR DIRECTION

DRAPIED VALUES + 0.020

0.050

0.100

NOTE: MULTIPLY OF RRS CURVES WITH
THESE CURVES REPRESENT A POWER OF +10X AND -10X

ACCELERATION G

10⁰

0.001

0.010

0.100

1.000

10.000

100.000

1000.000

10000.000

100000.000

1000000.000

10000000.000

100000000.000

1000000000.000

10000000000.000

100000000000.000

1000000000000.000

10000000000000.000

10⁰

2

5

10

20

50

100

200

500

1000

2000

5000

10000

20000

50000

100000

200000

500000

1000000

2000000

5000000

10000000

20000000

50000000

100000000

FREQUENCY IN HZ

REF 58



PSPECTRA VER 01 LEY 08

FI CONDITION

25 JAN 1988

NIRHAKA NIMRAK-NINE MILES POINT UNIT-2 J.O. 77 NS-1747-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV: 928.83 FT)

MS 174

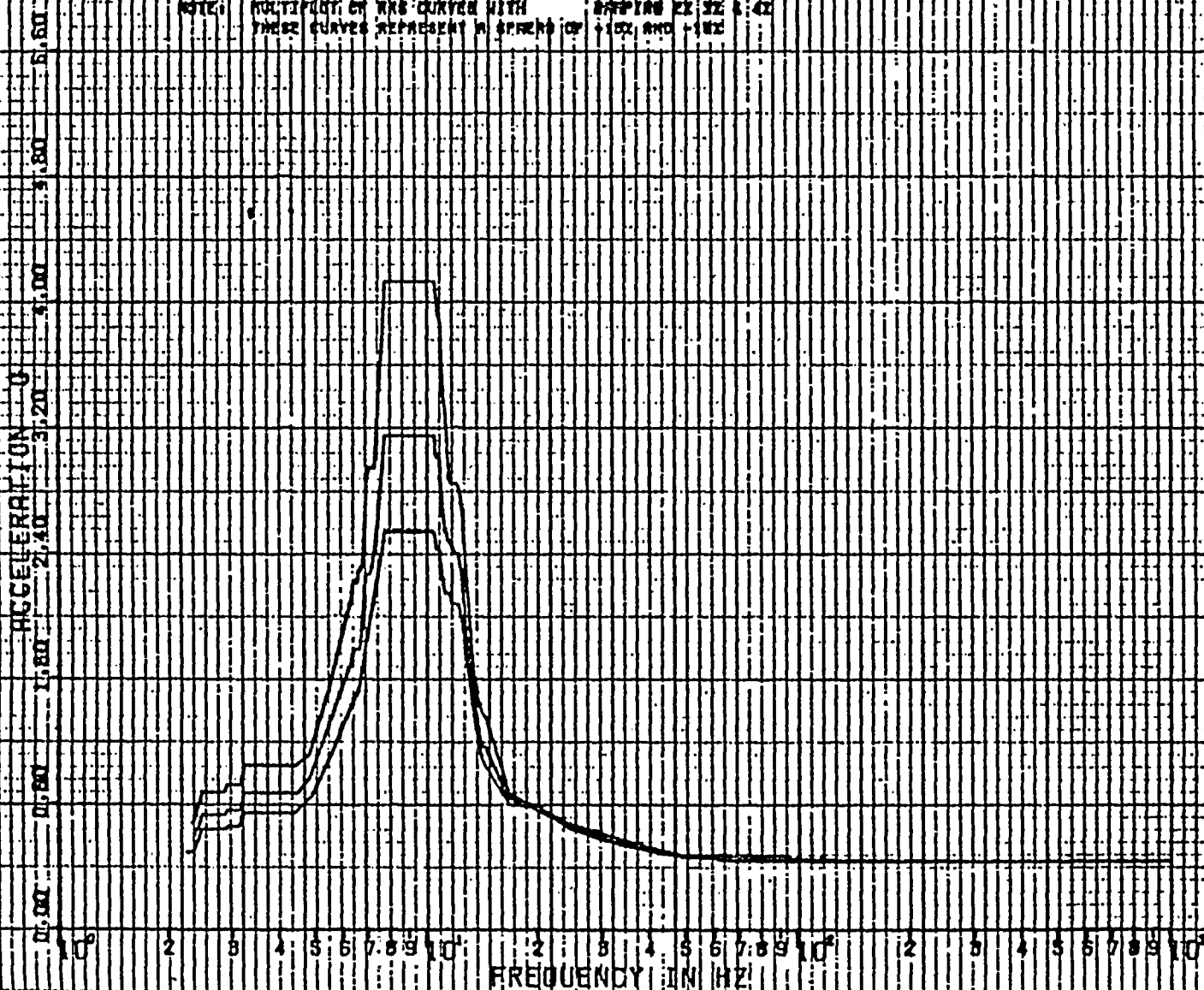
MICHAEL K. DG

DISK CURVE SET NO. 26

VER DIRECTION

DAMPING VALUES: 0.020
0.080
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 0.02 & 0.04
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 58



PSPECTRA VER 01 LEV 08

UP CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES-POINT UNIT-2 J.O.I. MS-1746-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV. 320.89 FT)

MS 1746

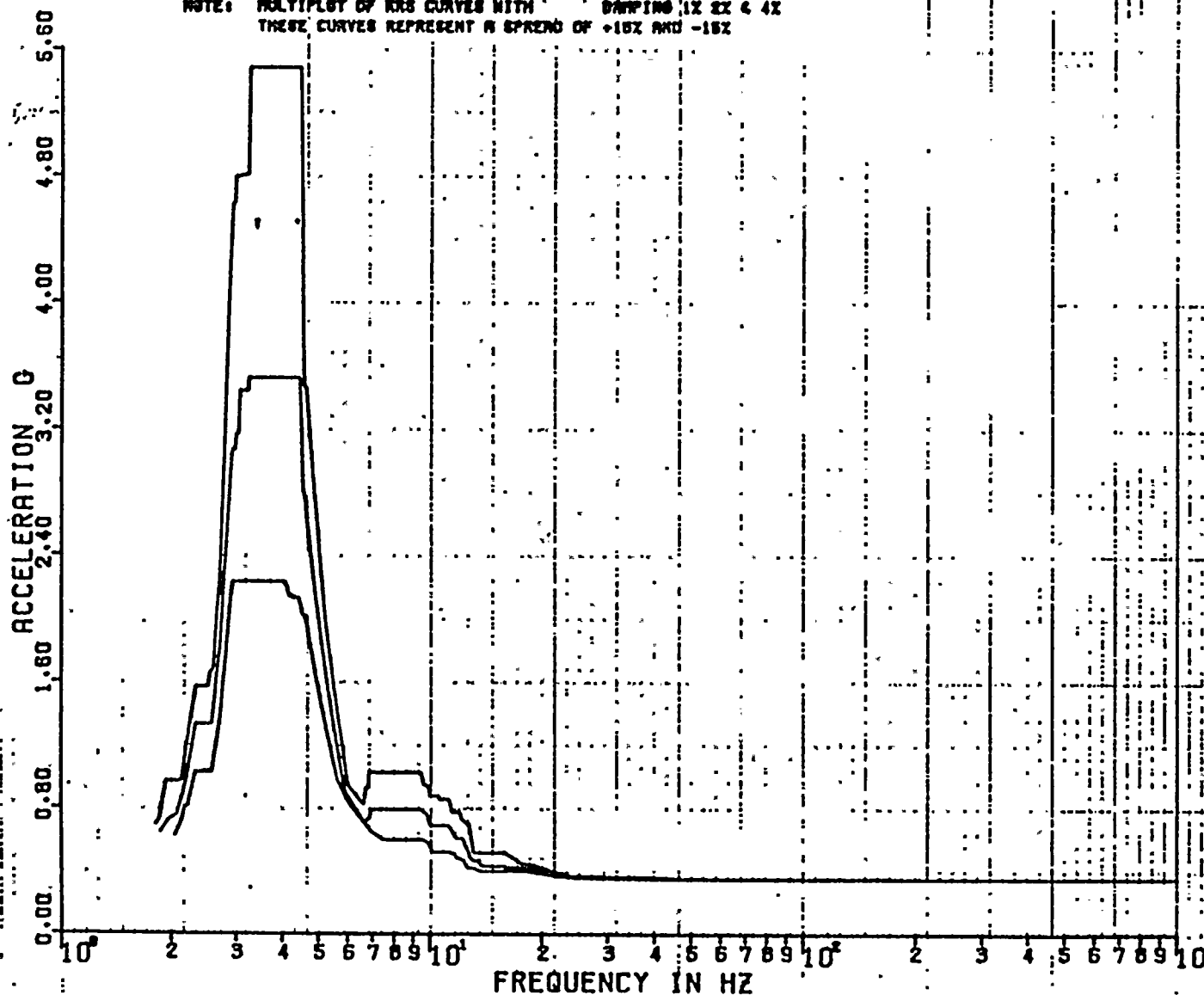
MICHAEL K DD

DISK CURVE SET NO.26

HOR DIRECTION

DAMPING VALUES: 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%



REF 58



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1965

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.D. 12177 NS-1748-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 328.83 FT)

MS 1746

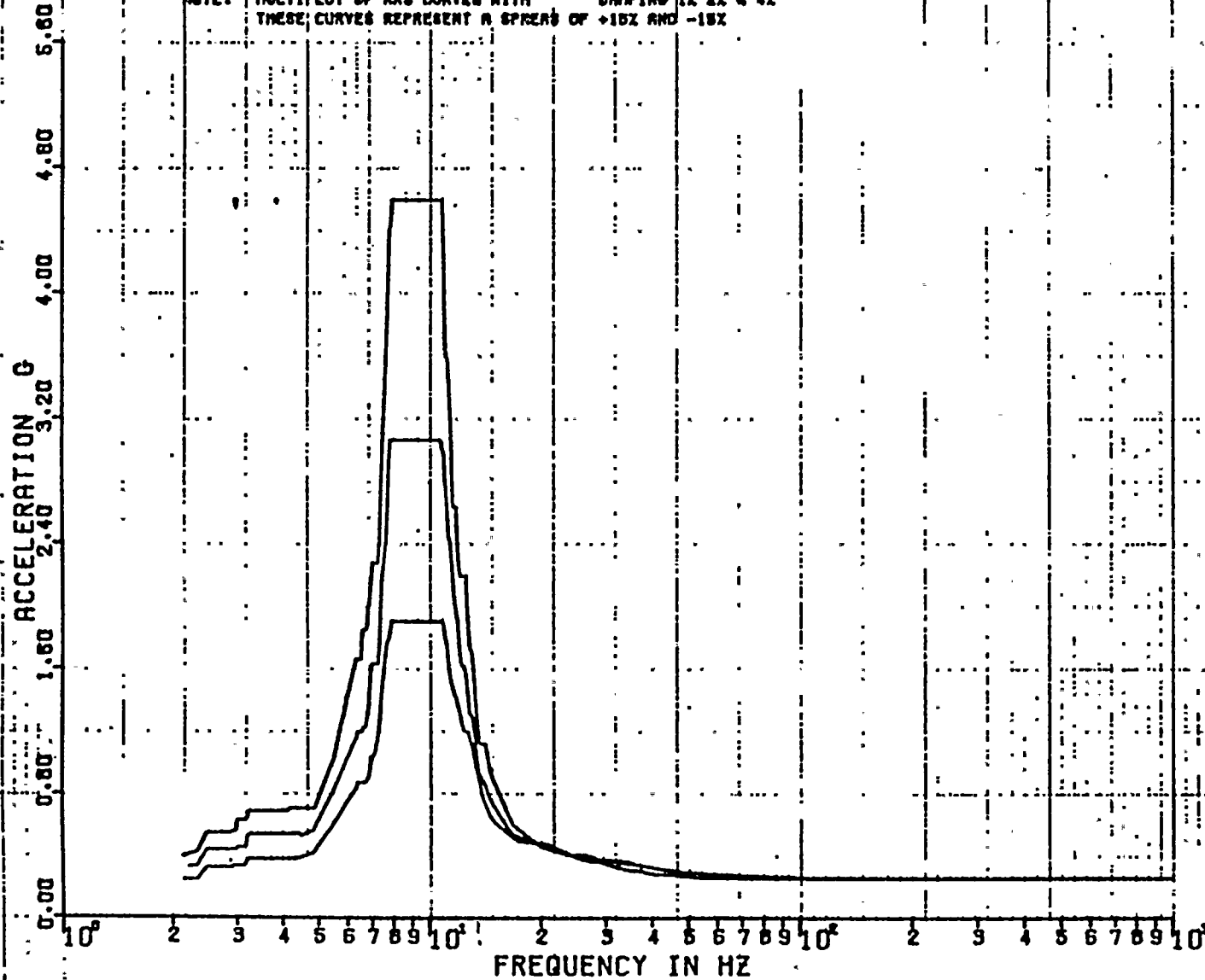
MICHAEL K. CO

DISK CURVE SET NO. 26

VER DIRECTION

DAMPING VALUES
0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1% 2% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





SPECTRA VER: 01 LEV: 00

FACTED CONDITION

25 JAN 1969

NIADARA, HONAHK-NINE, MILES POINT, UNIT-2 JUL 7 15-1747-0

RRS OF ACCELERATION: SECONDARY: CONT. (EL: 289.01 FT)

MS 174
MICHAEL K 60

DISK CURVE SET NO: 27

MDR: DIRECTION

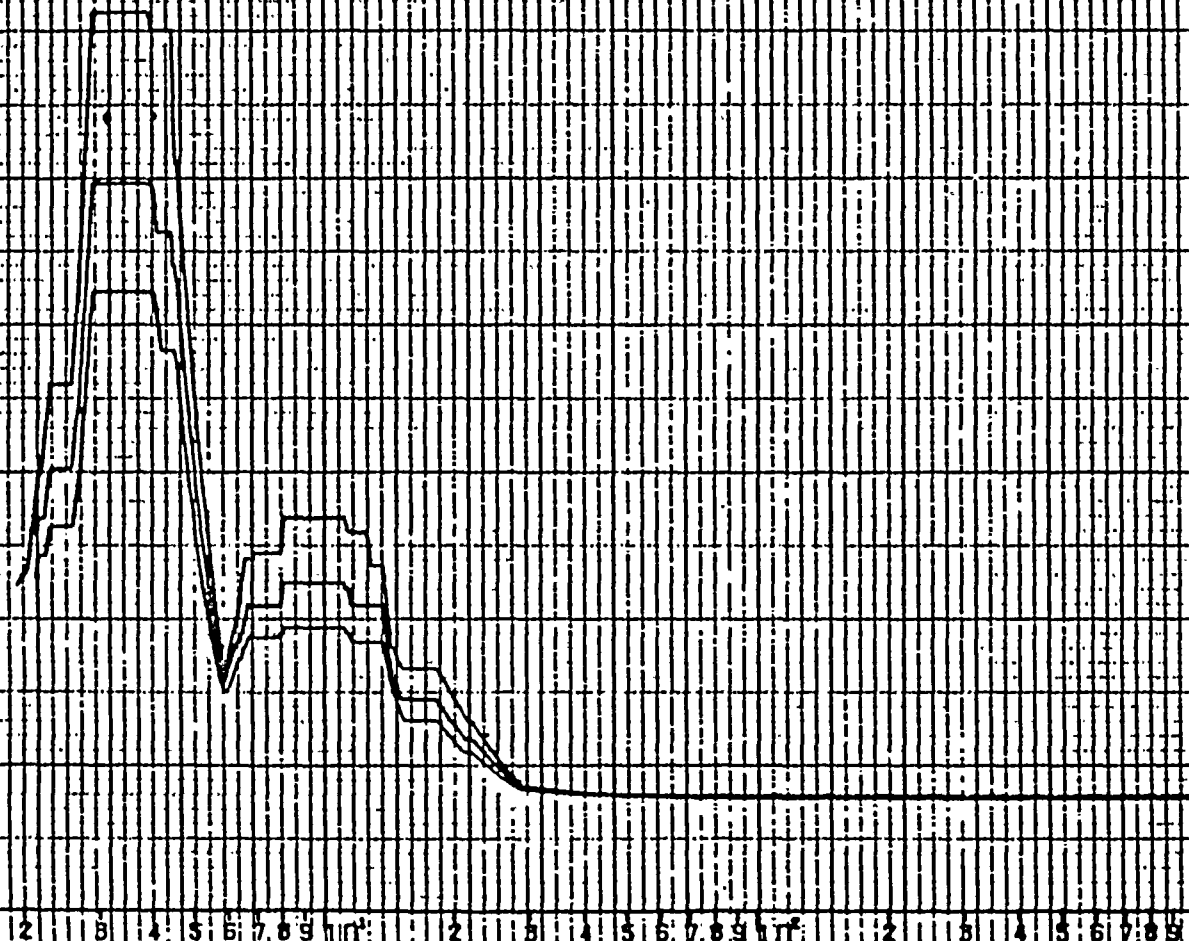
DAMPING VALUES: 0.020
0.050
0.080

NOTE: MULTIPLY BY XRS CURVE WITH DIPPING BY 32.4X
THREE CURVES REPRESENT A SPREAD OF +10% AND -10%

ACCELERATION - G
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00

10 2 3 4 5 6 7 8 9 10 2 3 4 5 6 7 8 9 10

FREQUENCY IN HZ



REF 59



SPECTRA VER 01 LEV 00

ED CONDITION

25 JAN 1968

HIADARA HONAKKINE, HILL 6 POINT, UNIT 2, J. 77, MS-1747-0
RMS OF ACCELERATION SECONDARY CONT. (ELEV, 289.0 FT)

MS 174

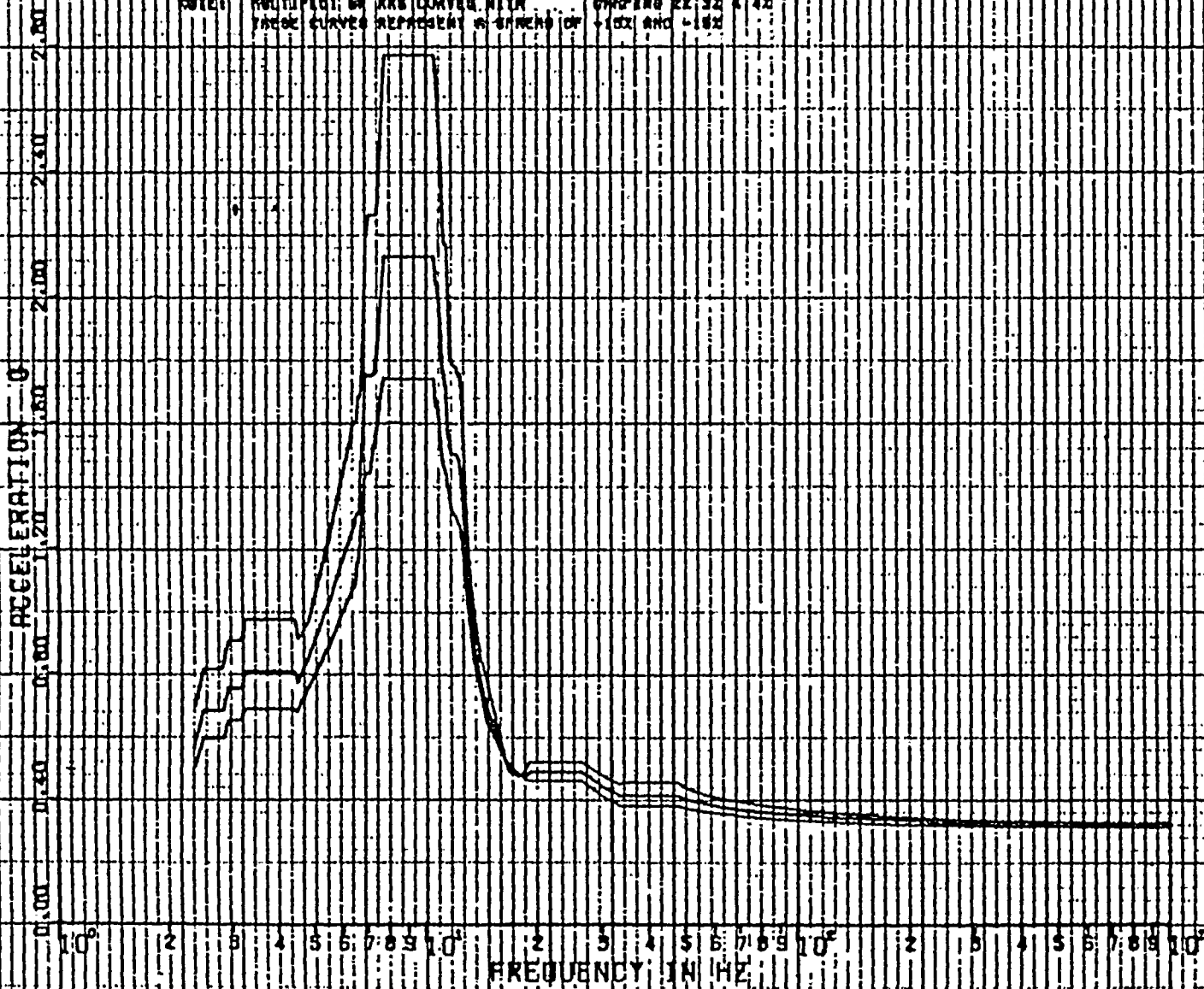
MICHAEL K. 00

DISK CURVE SET NO. 27

VER. DIRECTION

DAMPING VALUES: 0.020!
0.020!
0.020!

NOTE: MULTIPLIED BY XRS CURVES WITH DAMPING BY 32 & 42
THESE CURVES REPRESENT A BRANCH OF +10X AND -10X



REF 59



P6PECTRA VER 01 LEV 08

CONDITION

24 JAN 1985

NIAHARA MOHAWK-NINE MILES POINT UNIT-2 J.O. / MS-1746-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 289.0 FT)

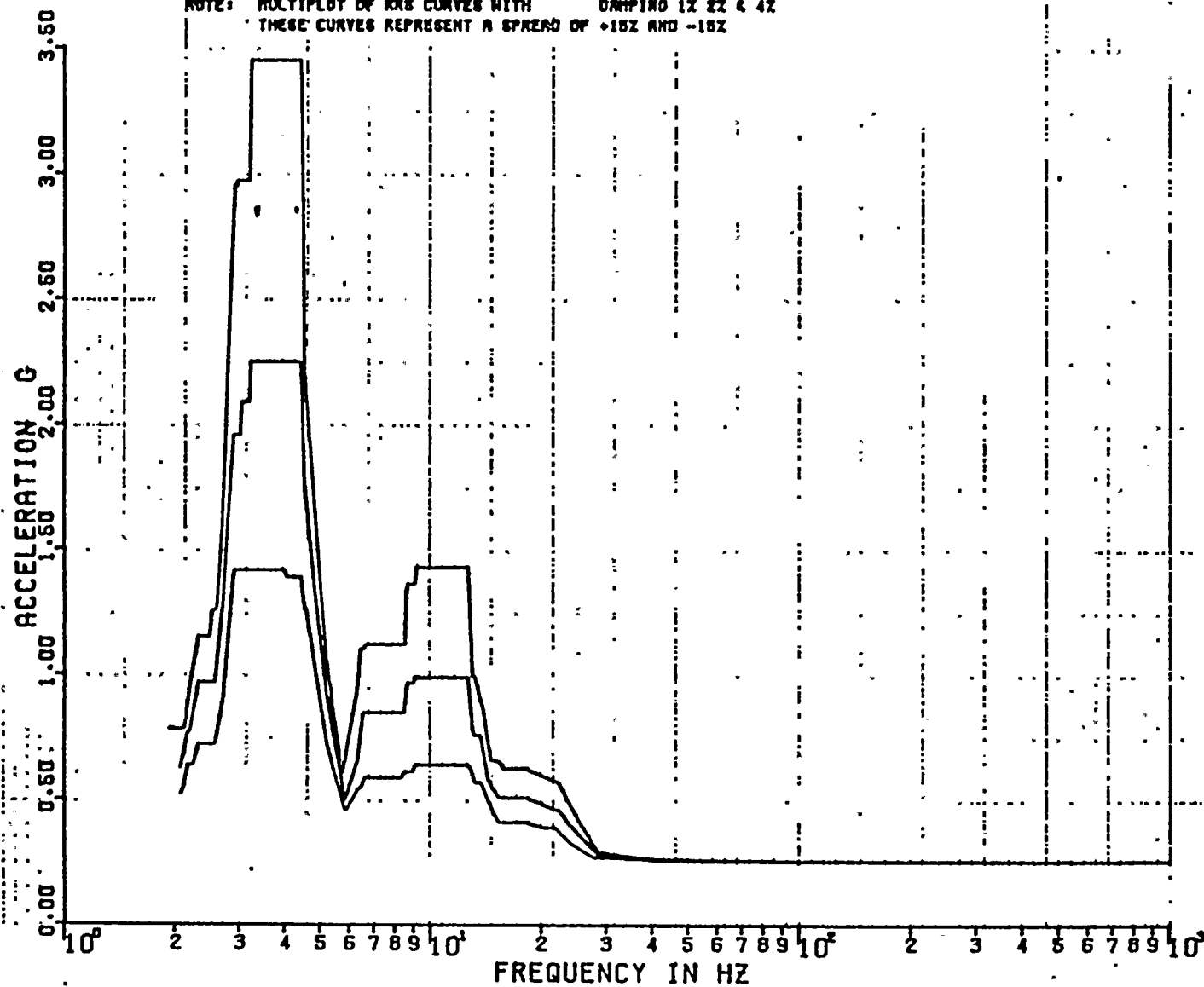
MS 1746
MICHAEL K 00

DISK CURVE SET NO.27

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 59



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1985

NIADARA MOHAWK-NINE MILES POINT UNIT-2 J.O.12.7 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 289.0 FT)

MS 1746

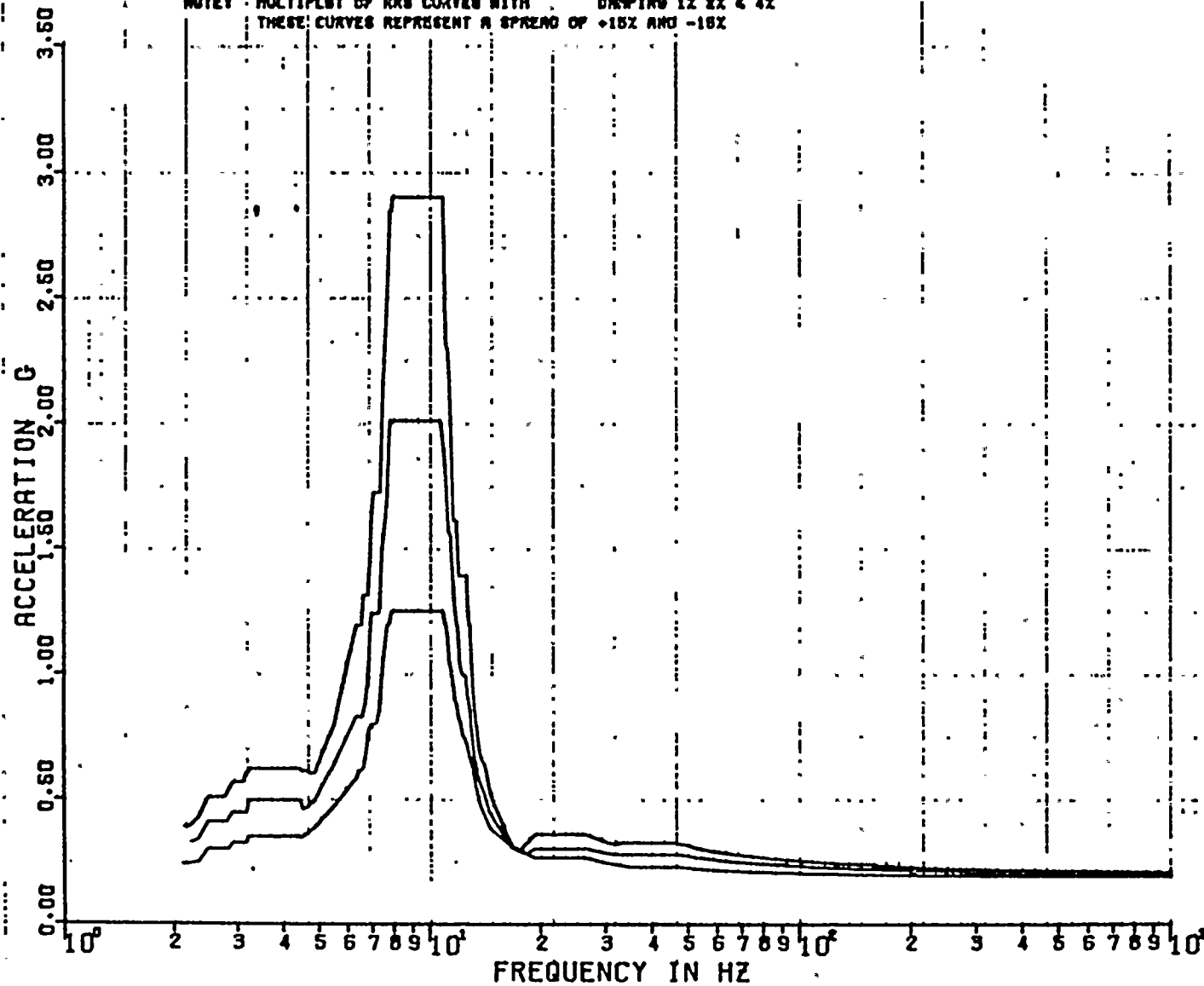
MICHAEL K DO

DISK CURVE SET NO.27

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 59



SPECTRA VER. 01 LEV. 08

ED CONDITION

25 JAN 1988

HEADARK HONARK-NIKE NILES POINT UNIT 2 U.S. 77 N6-1747-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 261.0 FT)

MS 174

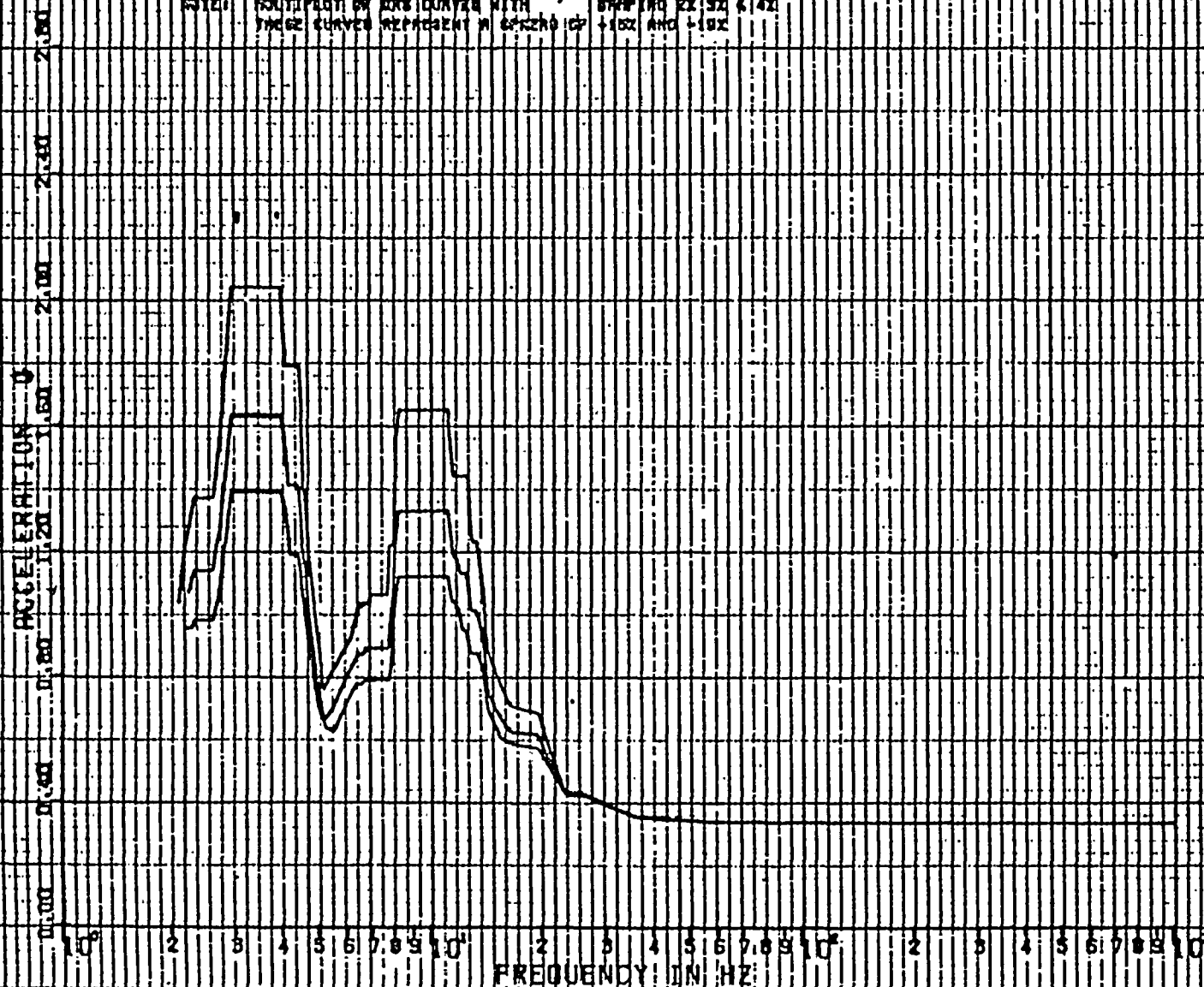
MICHAEL W. 68

DISK CURVE SET NO. 28

HDR DIRECTION

DAMPING VALUES = 0.020
0.020
0.020

NOTE: MULTIPLY BY DISK CURVE WITH STARTING 21.32 & 1.42
PAGE CURVES REPRESENT W. 60.220 OF +15% AND +10%



REF 60



PSPECTRA VER: 01 LEV: 00

FRT: 01 CONDITION

25 JAN 1960

NIAGARA MOHAWK NINE MILES POINT UNIT-2 J.O.I.

MS-1747-0

RRS OF ACCELERATION SECONDARY CONT. (ELEV 511.0 FT)

MS 1747

MICHAEL K. GO

DISK CURVE SET NO. 20

VER DIRECTION

DAMPING VALUES = 0.020

0.030

0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X 4X
THESE CURVES REPRESENT A SPREAD OF +10% AND -10%

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

FREQUENCY IN HZ

2

3

4

5

6

7

8

9

10²

2

3

4

5

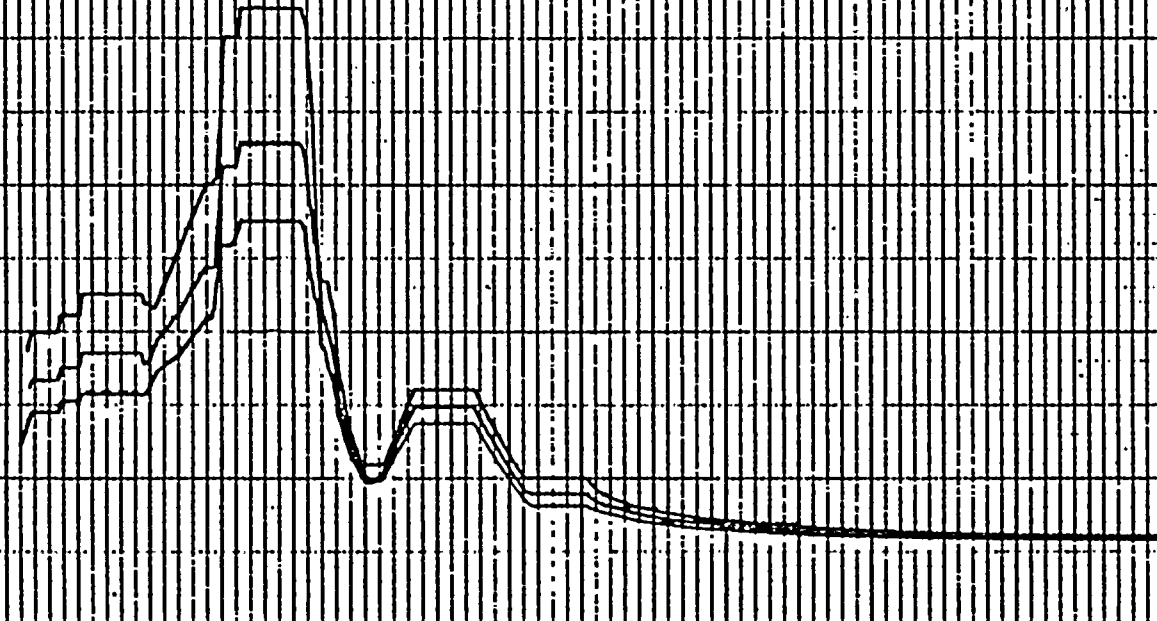
6

7

8

9

10³



Ref 60



PSPECTRA VER 01 LEV 00

U CONDITION

24 JAN 1989

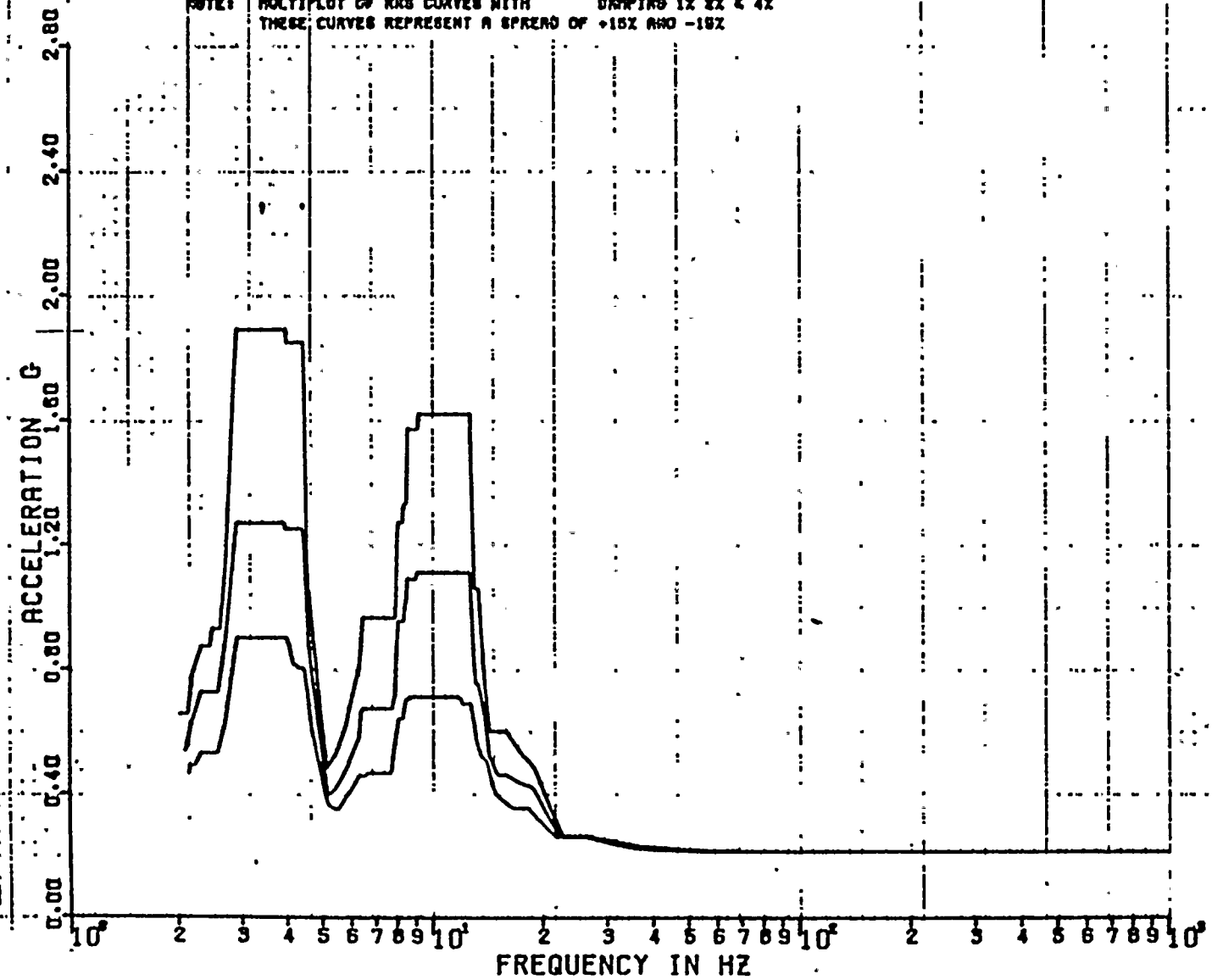
NIAOGAKA MOHAWK-NINE MILES POINT UNIT-2 J.O-12 / MS-1748-0
RRS OF ACCELERATION SECONDARY CONT. (ELEV. 261.0 FT)

DISK CURVE SET NO.20

HOR DIRECTION

MICHAEL K GO
DAMPING VALUES 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 60



PSPECTRA VER 01 LEV 08

UPSET CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT-2 J.

MS-1746-0

RMS OF ACCELERATION SECONDARY CONT. (EL. 61.0 FT)

MS 1746

MICHAEL K DO

DAMPING VALUES = 0.010

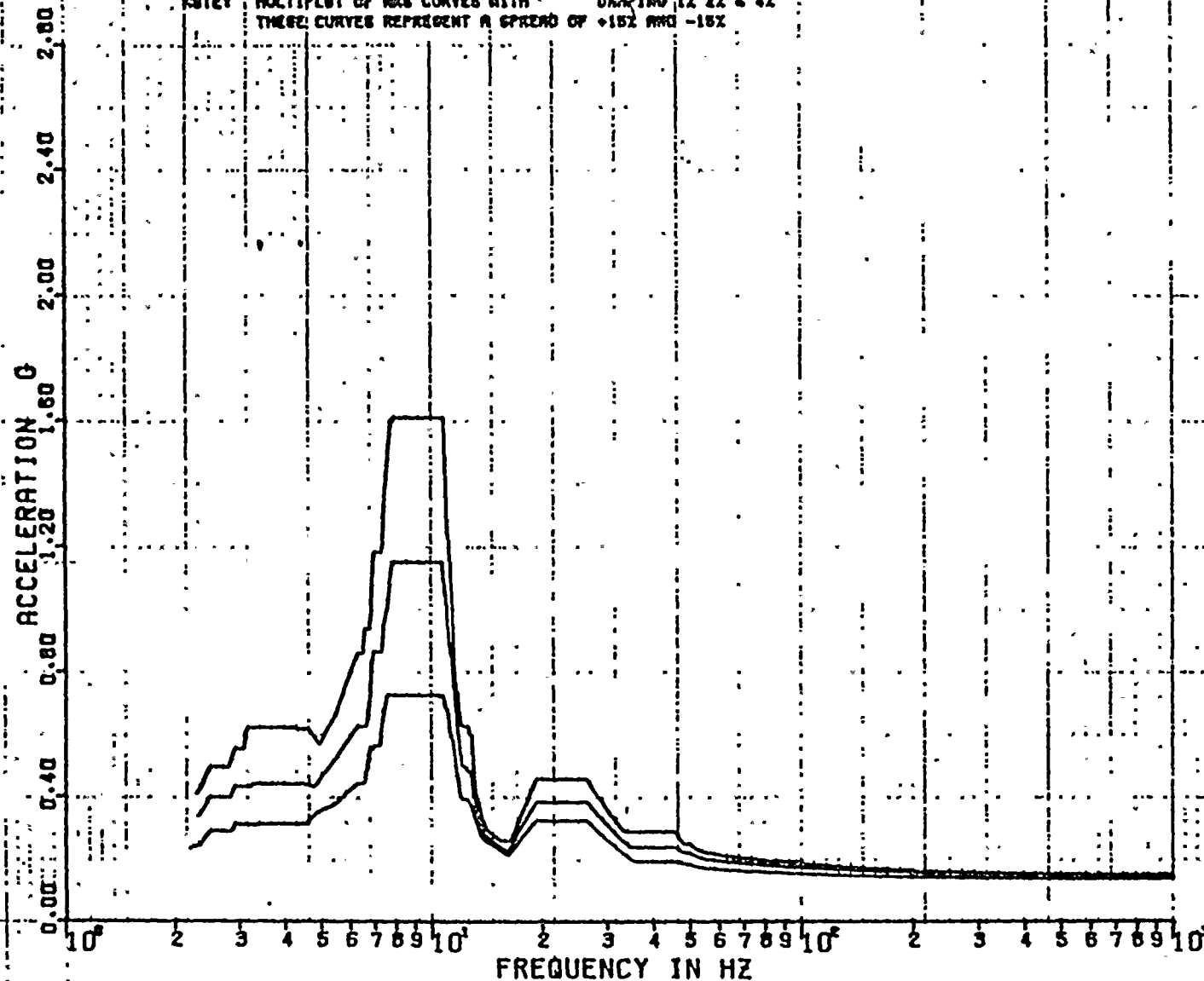
0.020

0.040

DISK CURVE SET NO.28

VER DIRECTION

NOTE: MULTIPLY OF RMS CURVES WITH DARTING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 60



SPECTRA VER: 01 LEV: 00

FILE NO: 177-1747-0

25 JAN 1955

ALHARRA, MOHAWK-NINE MILES POINT UNIT -2

RRS OF ACCELERATION SECONDARY CONT. (ELEV: 240.0 FT)

MS 174

RICHARD R. 00

DISK CURVE SET NO. 29

HDR: DIRECTION

DAMPING VALUES: 0.020

0.050

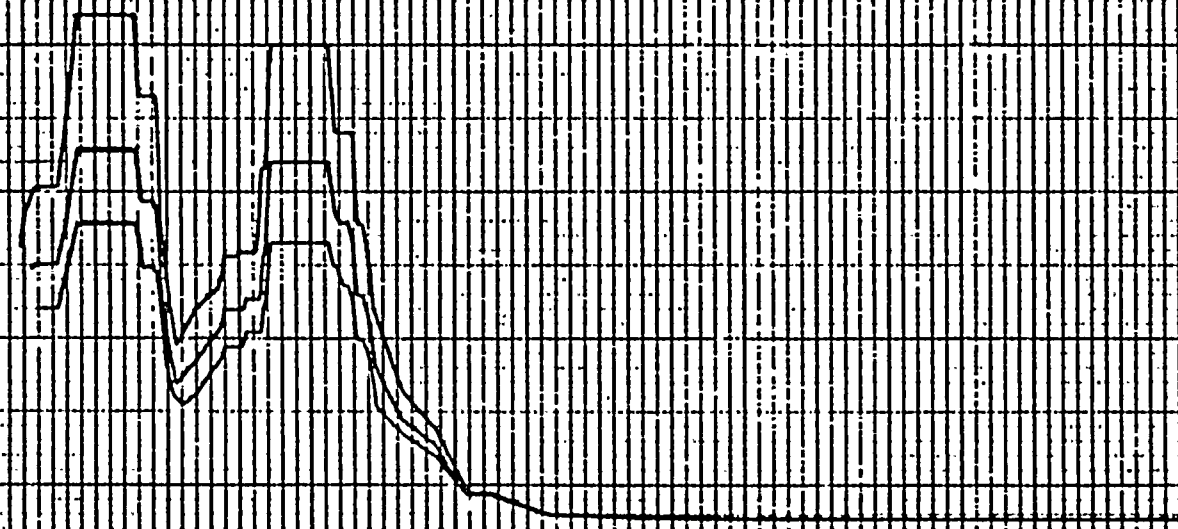
0.080

NOTE: MULTIPLIER OF RRS CURVES WITH DAMPING 0.020 & 0.050
THESE CURVES REPRESENT A GROUND OF +10% AND -10%

ACCELERATION - G
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00

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



Ref 61



PSPECTRA VER D1 LEV 08

ED CONDITION

25 JAN 1983

NIAHARA MOHAWK-NINE MILES POINT UNIT -2 J.O.12177 MS-1747-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 240.0 FT)

MS 1747

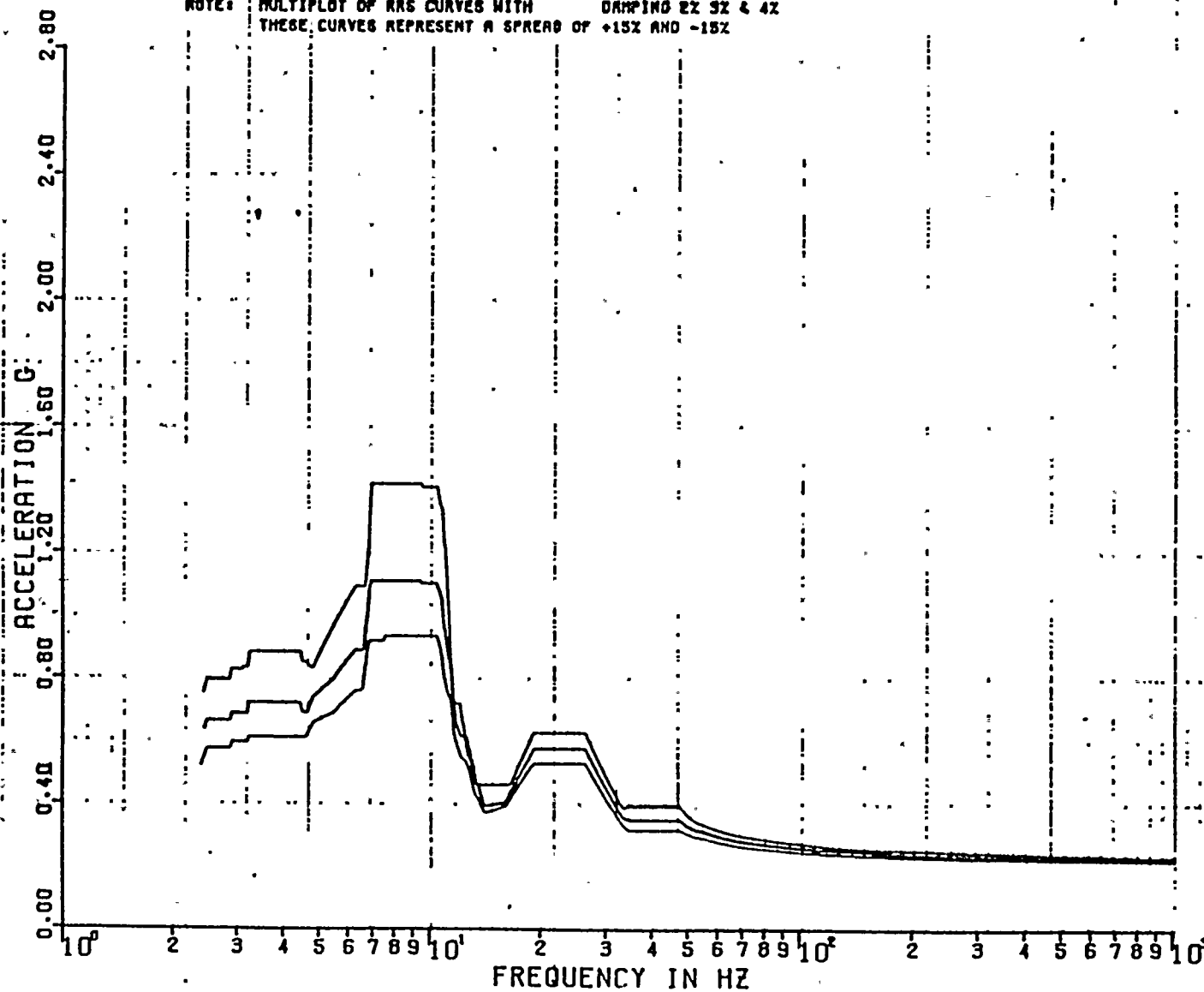
MICHAEL K 00

DISK CURVE SET NO.29

VER DIRECTION

DAMPING VALUES ± 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 61



PSPECTRA VER 01 LEV 08

UP CONDITION

24 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 J.O. 77 AS-1748-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 240.0 FT)

MS 1746

MICHAEL K DO

DISK CURVE SET NO.29

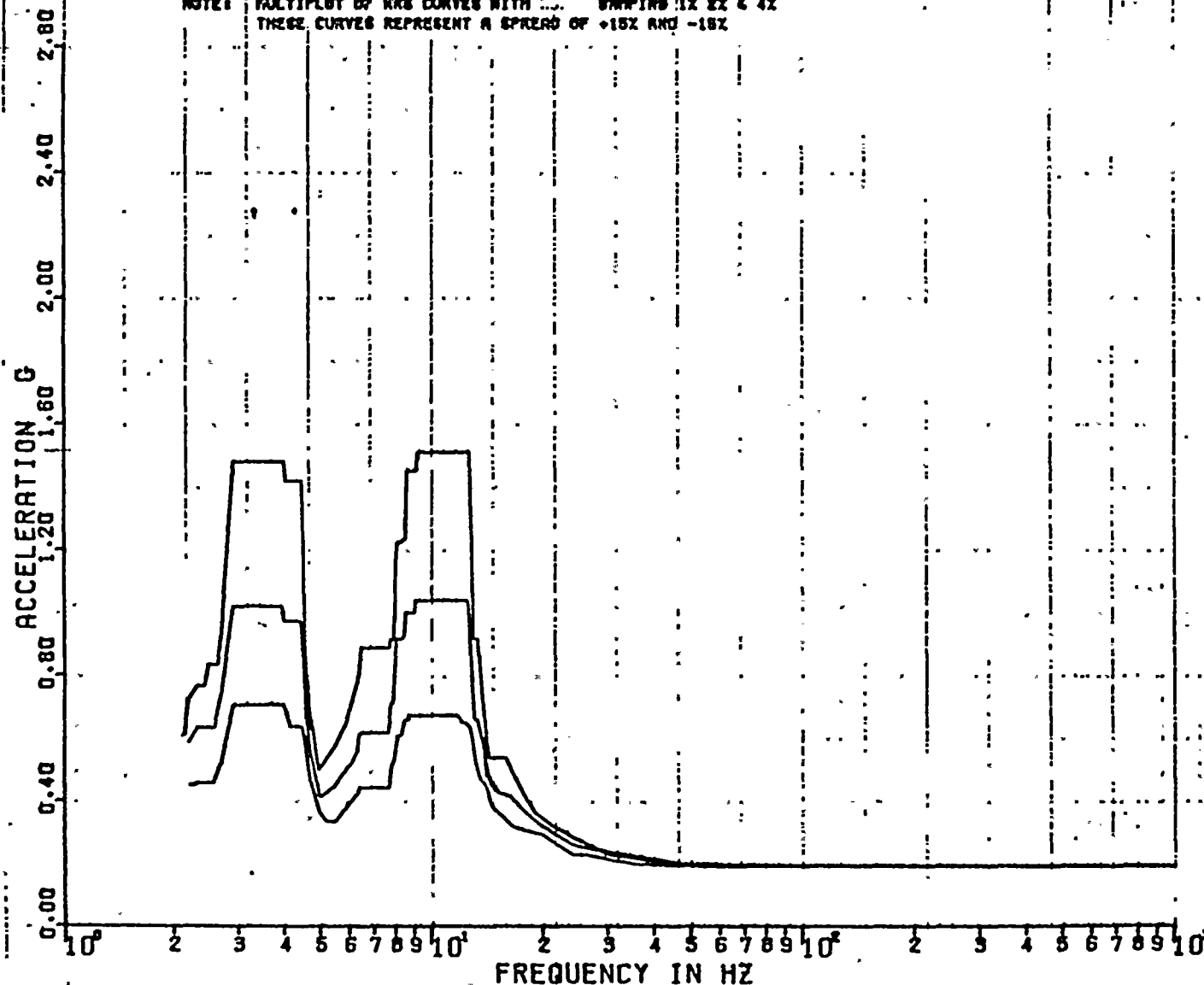
HOR DIRECTION

DAMPING VALUES: 0.010

0.020

0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 61



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1989

NIAHARA MOHAWK-NINE MILES POINT UNIT -2 J.D. 177 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 240.0 FT)

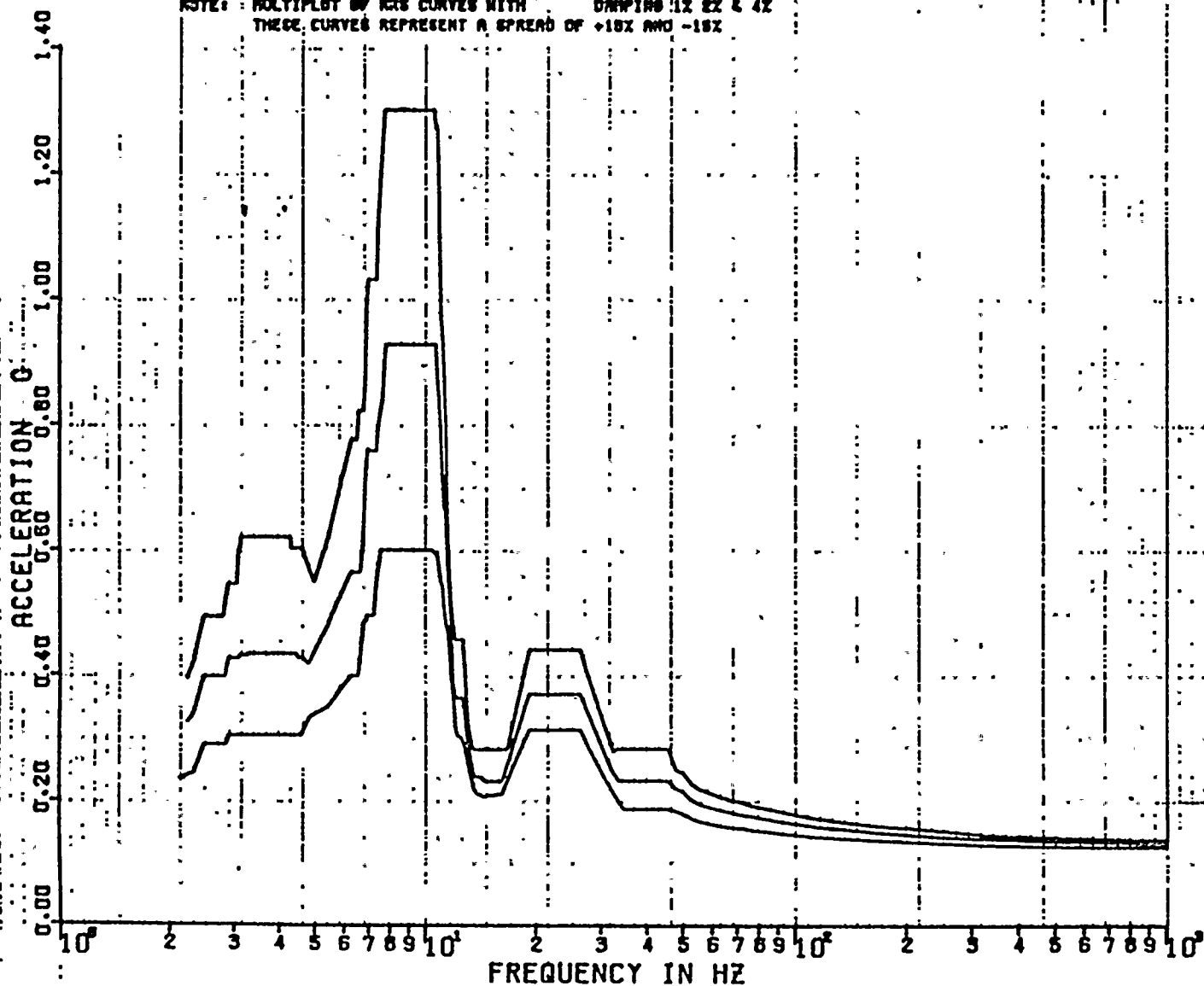
MS 1746
MICHAEL K 00

DISK CURVE SET NO.29.

VER DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY BY RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 61



PSPECTRA VER 01 LEV 08

TED CONDITION

25 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 12177 MS-1747-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 215.0 FT)

MS 1747

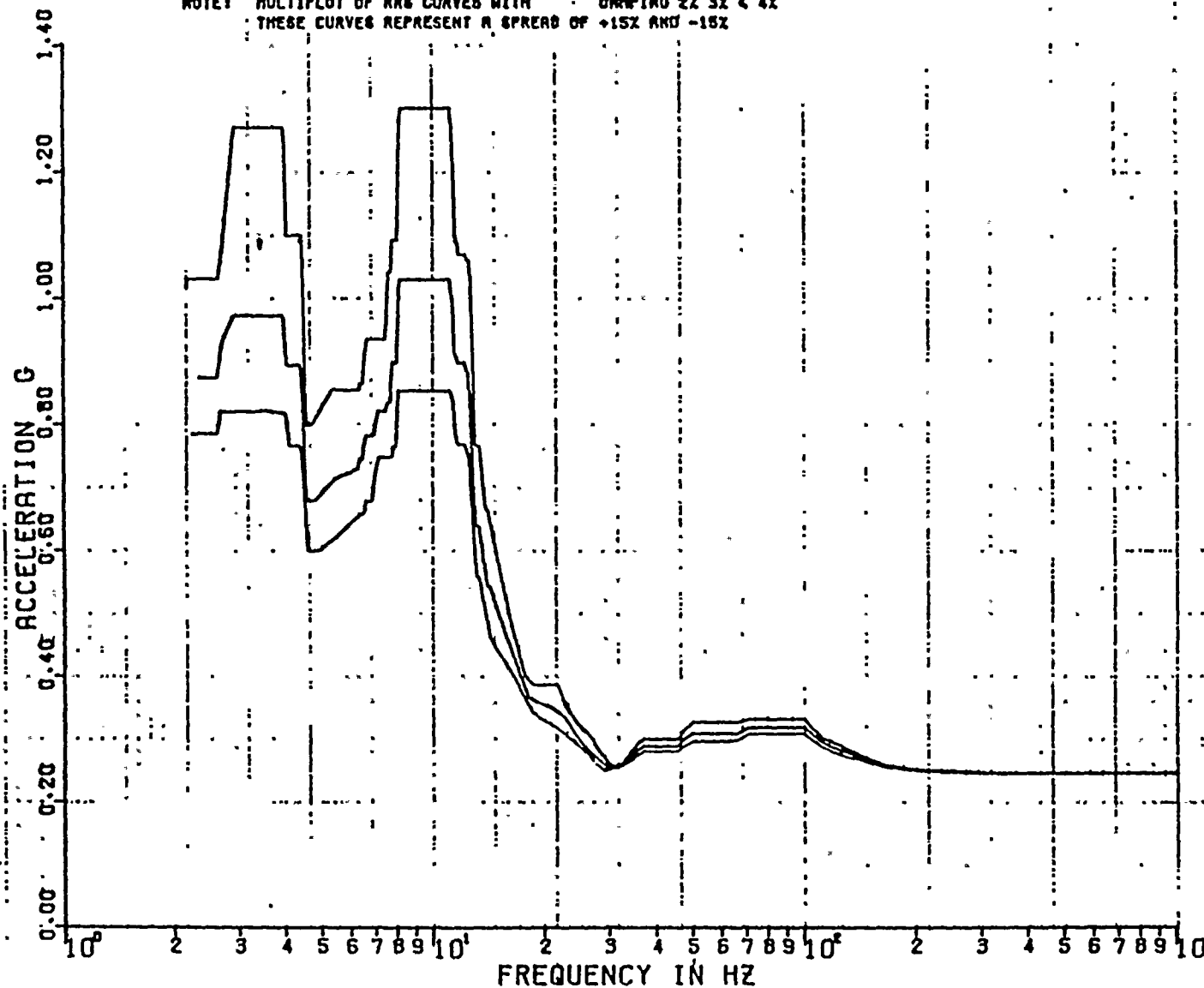
MICHAEL K 00

DISK CURVE SET NO.90

HDR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLOT OF RRS CURVES WITH DAMPING 2% 3% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





PSPECTRA VER 01 LEV 08

TESTED CONDITION

25 JAN 1989

NIADARA MOHAWK-NINE MILES POINT UNIT -2-12177 MS-1747-0

RRS OF ACCELERATION SECONDARY CONT.(ELEV. 215.0 FT)

MS 1

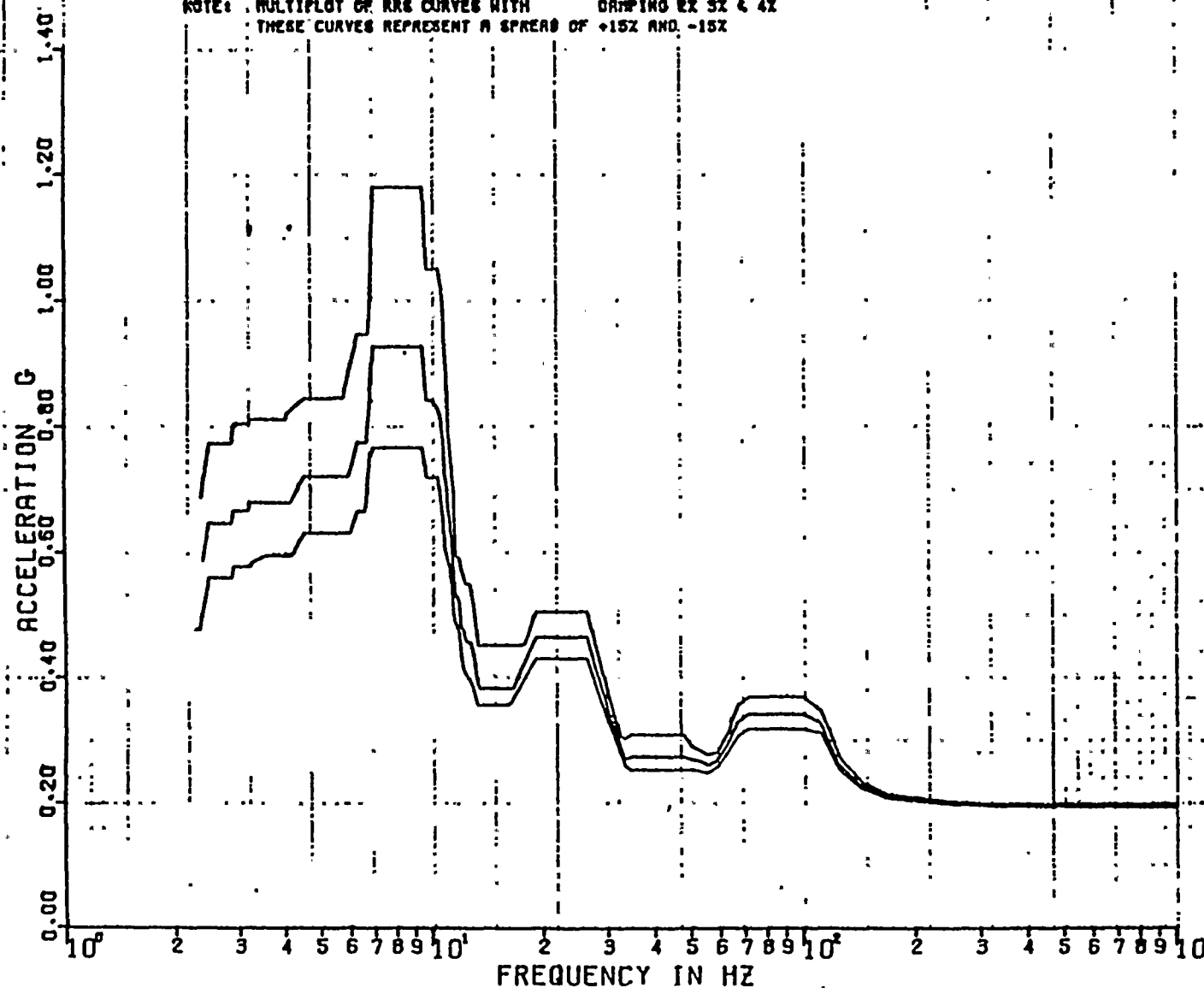
DISK CURVE SET NO.30

VER DIRECTION

MICHAEL K DO

DAMPING VALUES ± 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING BY 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 62



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 J.O...177 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 215.0 FT)

MS 1746

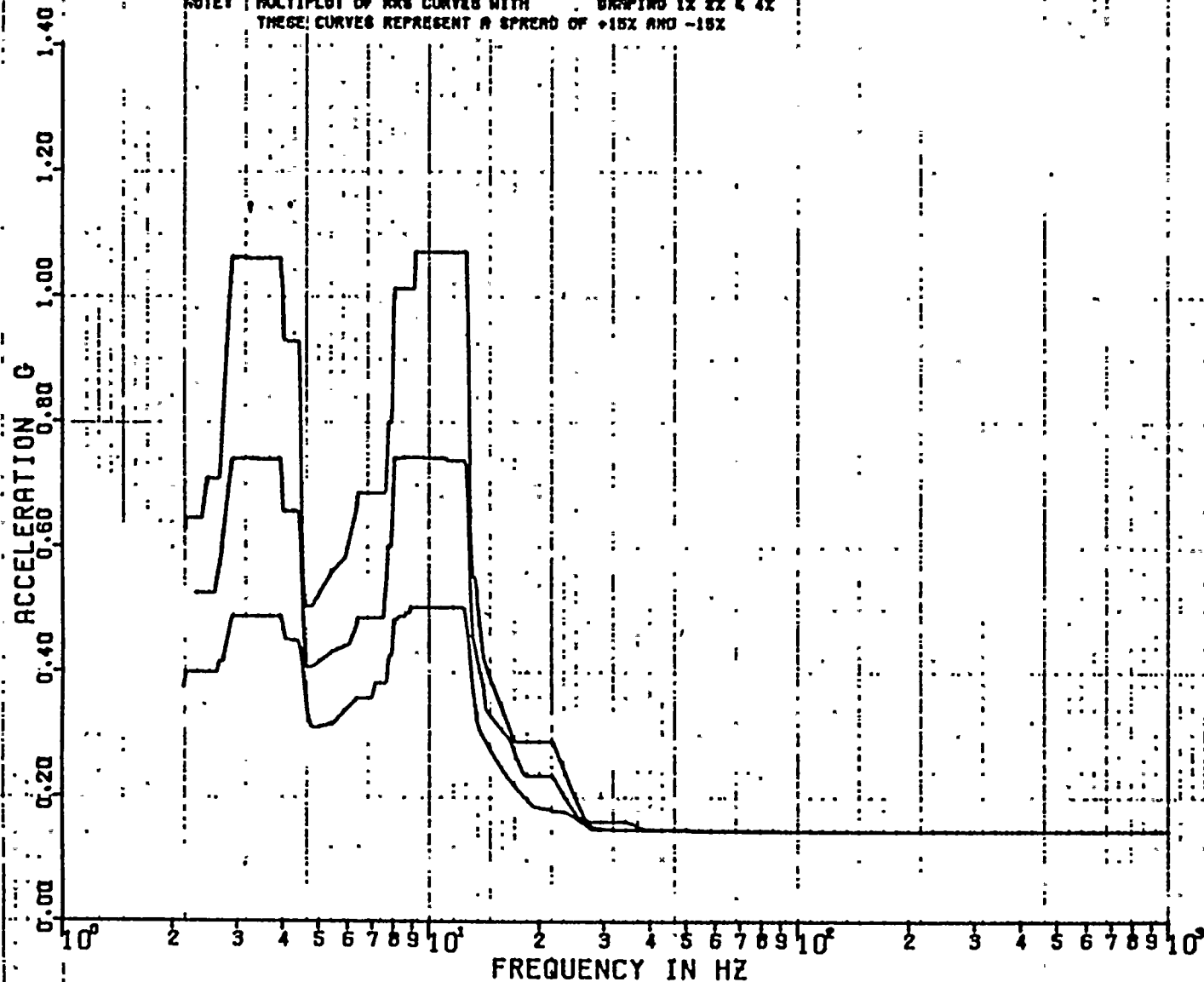
MICHAEL K 00

DISK CURVE SET NO.30

HOR DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 62



PSPECTRA VER 01 LEV 08

U CONDITION

24 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 J. .17 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 215.0 FT)

MS 1746

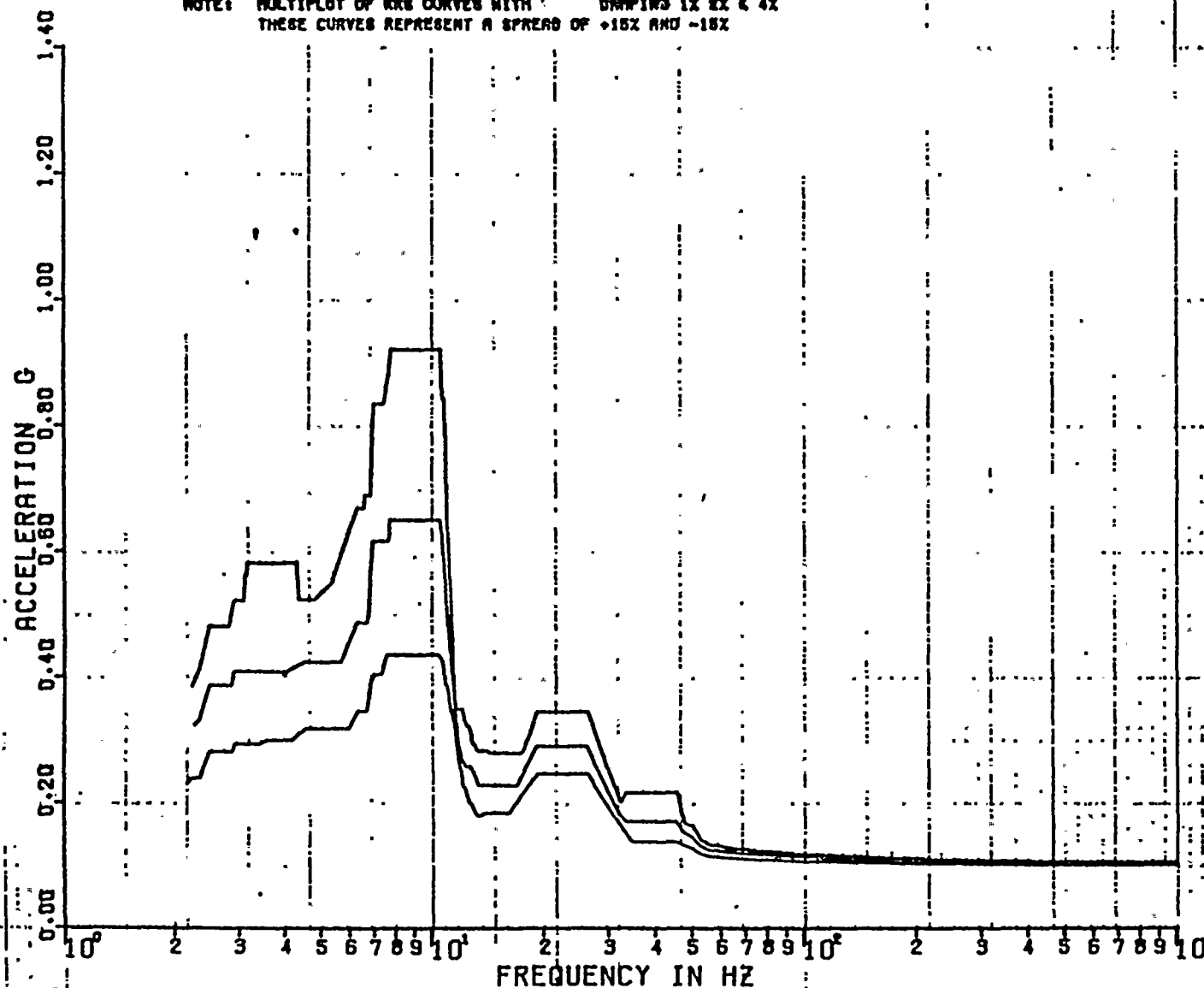
MICHAEL K DO

DISK CURVE SET NO.30

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



29 137



PSPECTRA VER 01 LEV 08

TESTED CONDITION

25 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 J-3.12177 MS-1747-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 198.0 FT)

MS 1747

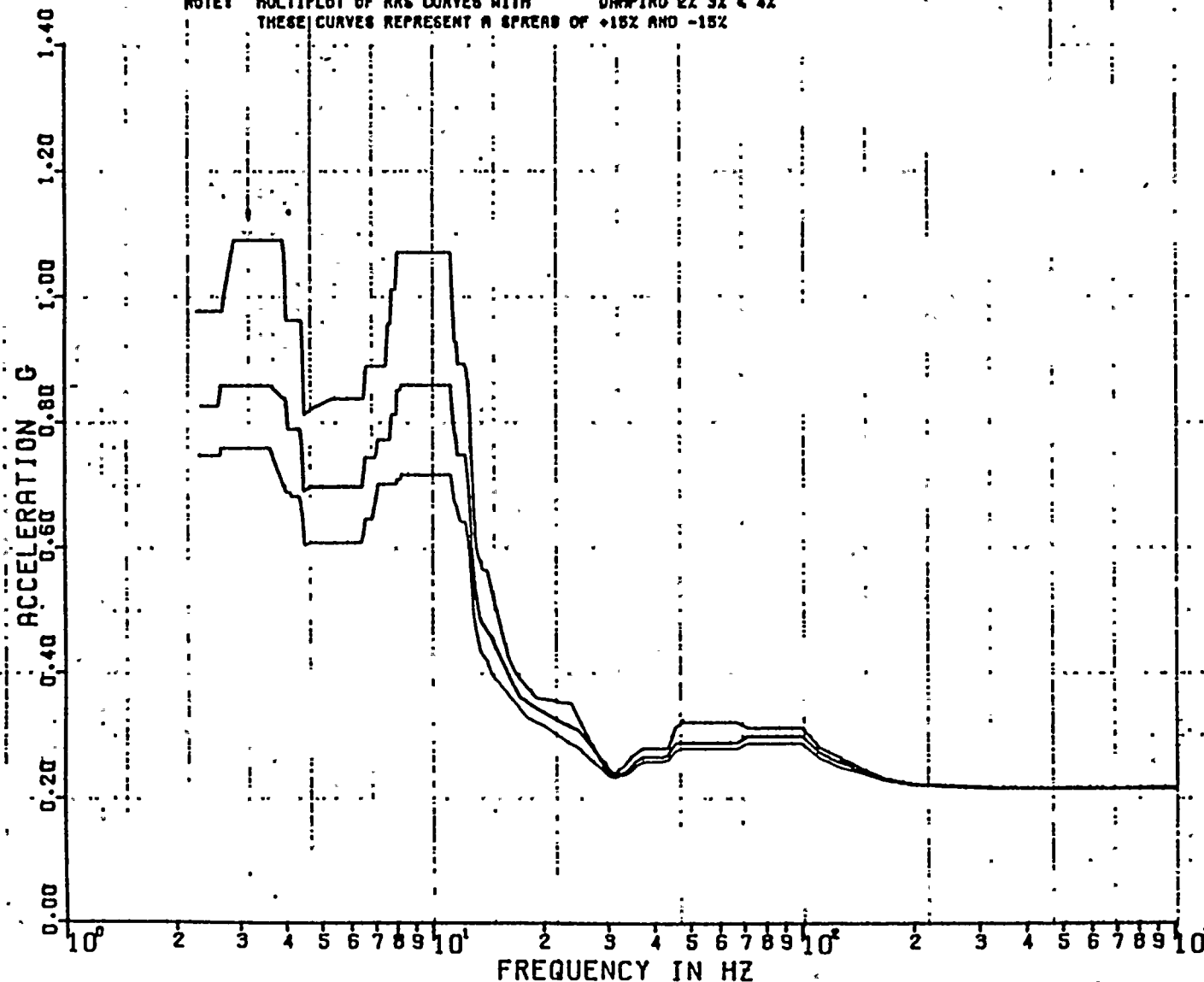
MICHAEL K. GO

DISK CURVE SET NO.91

HOR DIRECTION

DAMPING VALUES ± 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 63



PSPECTRA VER 01 LEV 08

TESTED CONDITION

25 JAN 1985

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 12177 MS-1747-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 198.0 FT)

MS 174

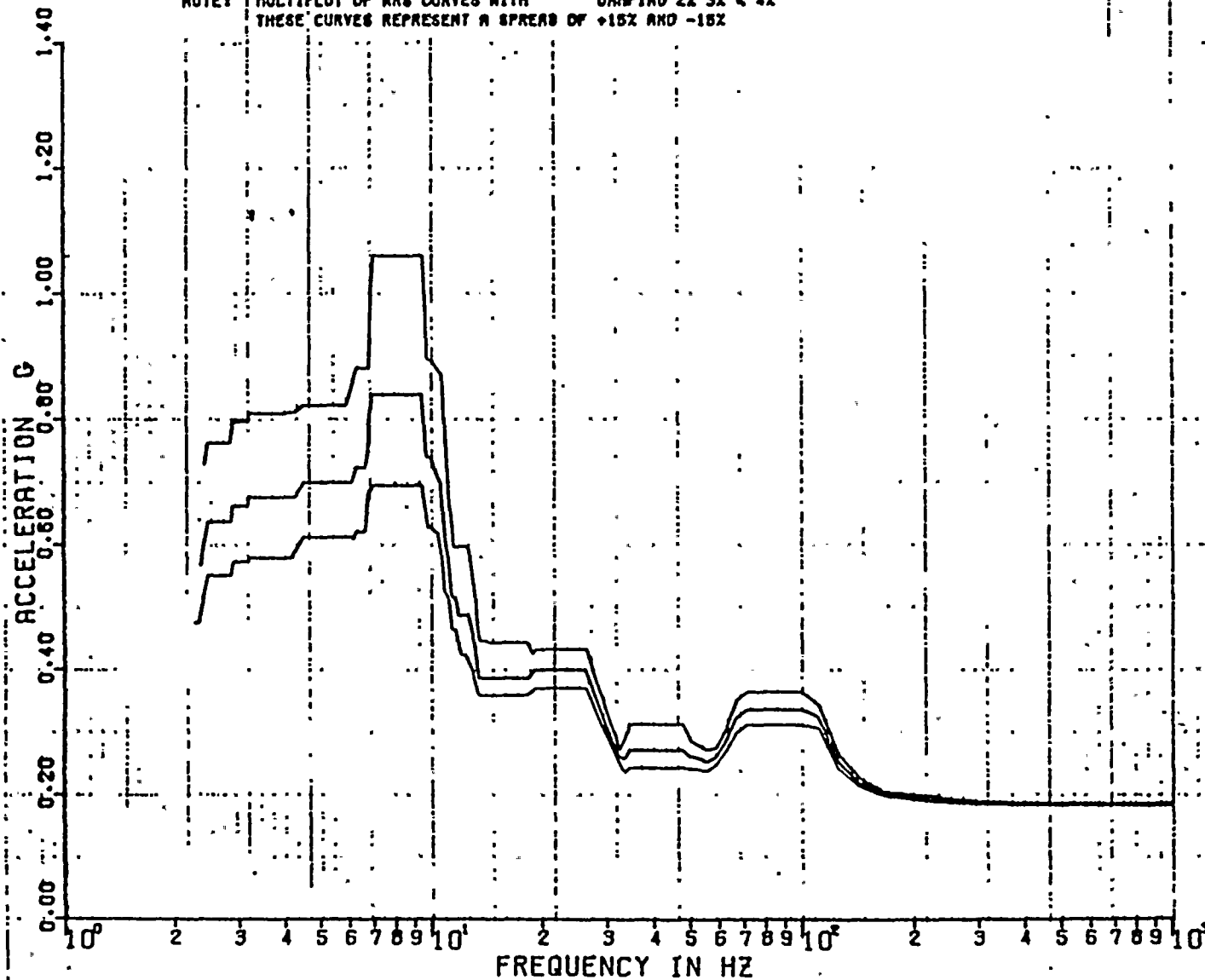
MICHAEL K.00

DISK CURVE SET NO.31

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 63



PSPECTRA VER 01 LEV 08

UNIT CONDITION

24 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 177 MS-1746-0
RRS OF ACCELERATION SECONDARY CONT.(ELE. 198.0 FT)

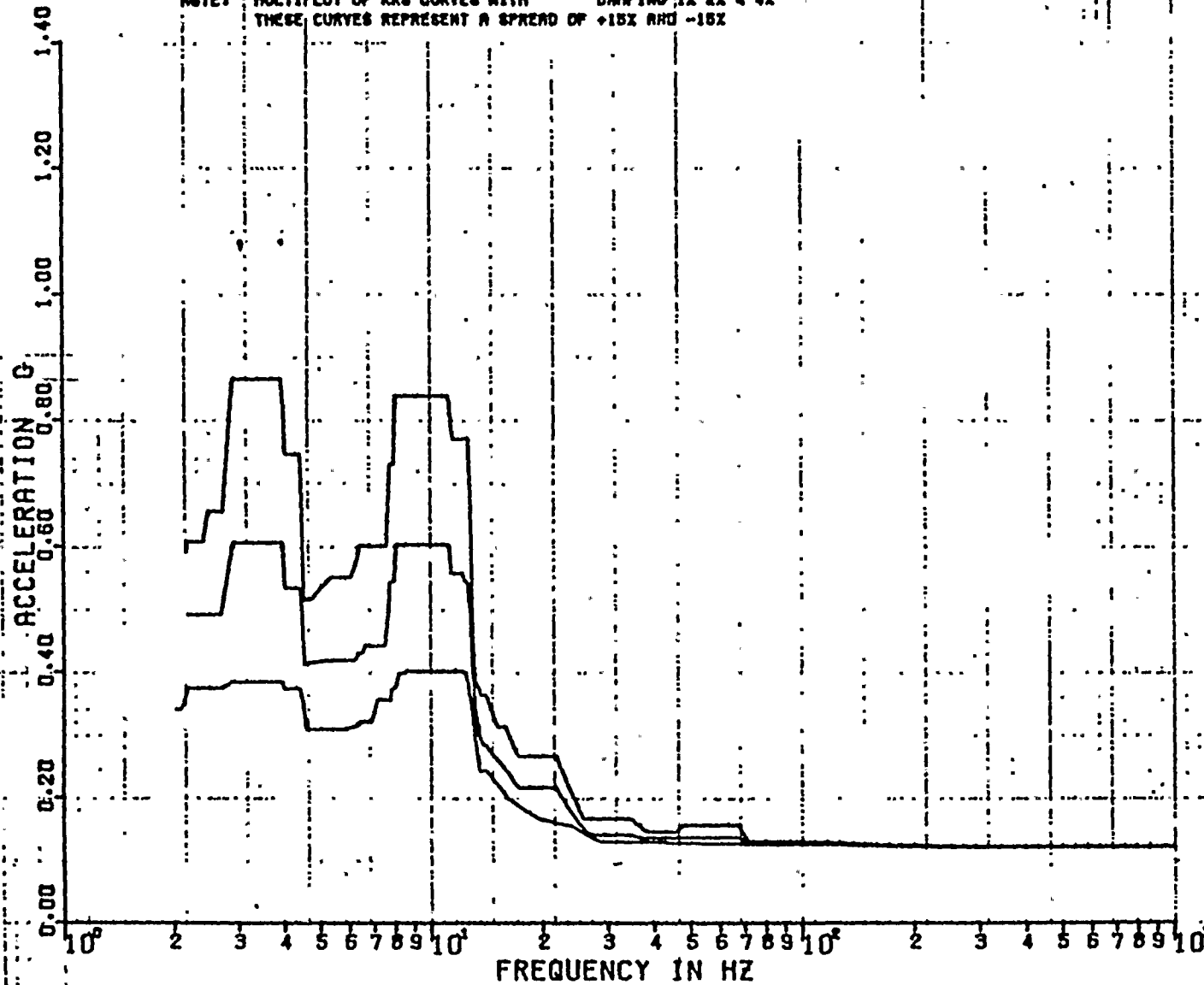
MS 1746
MICHAEL K DO

DISK CURVE SET NO.91

HOR DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 63



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 J.C.-177 MS-1746-0
RMS OF ACCELERATION SECONDARY CONT.(ELEV. 198.0 FT)

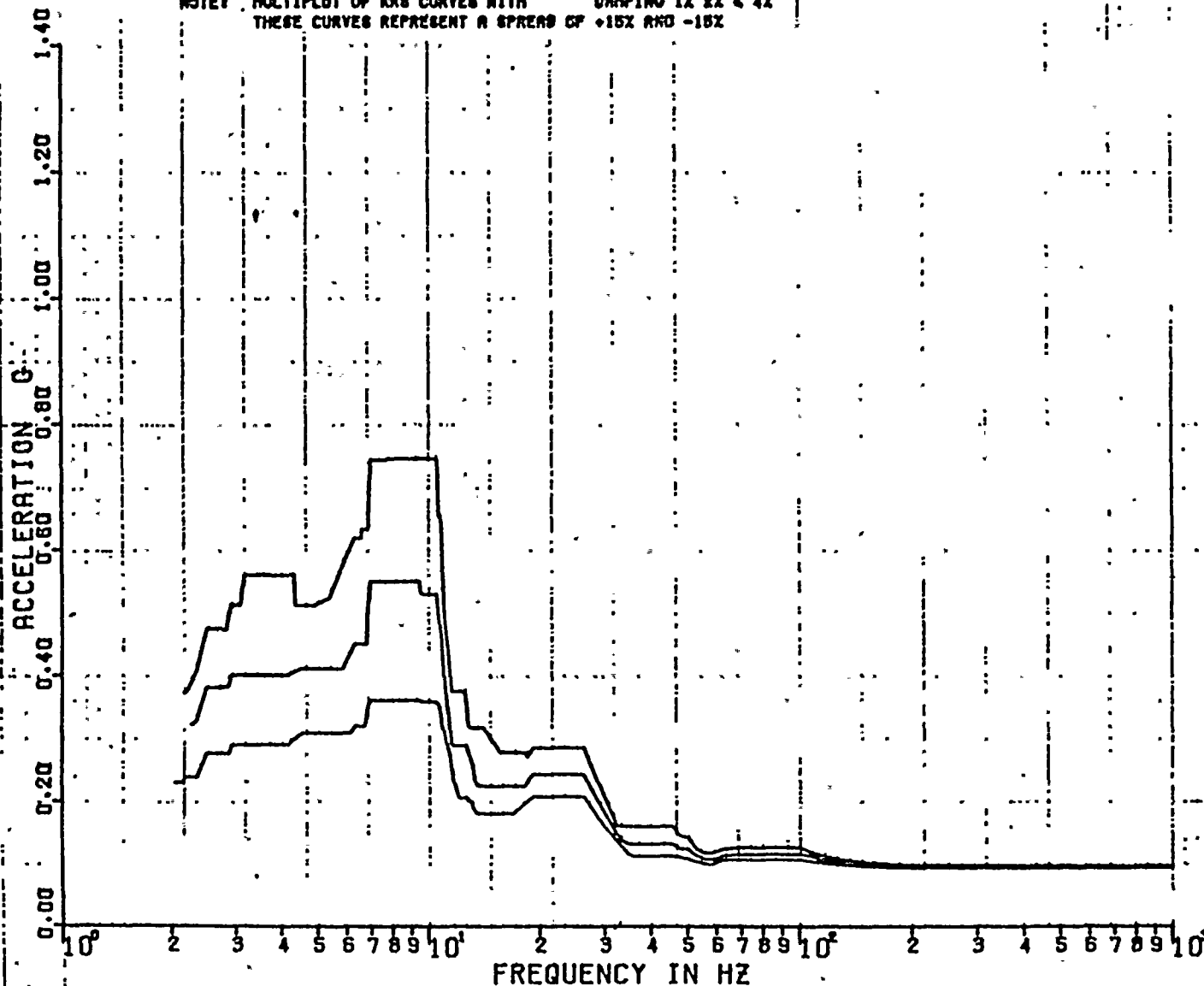
MS 1746
MICHAEL K DO

DISK CURVE: SET NO.31

VER DIRECTION

DAMPING VALUES * 0.010
0.020
0.040

NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 63



PSPECTRA VER 01 LEV 08

ED CONDITION

25 JAN 1989

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 J. 2177 MS-1747-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 175.0 FT)

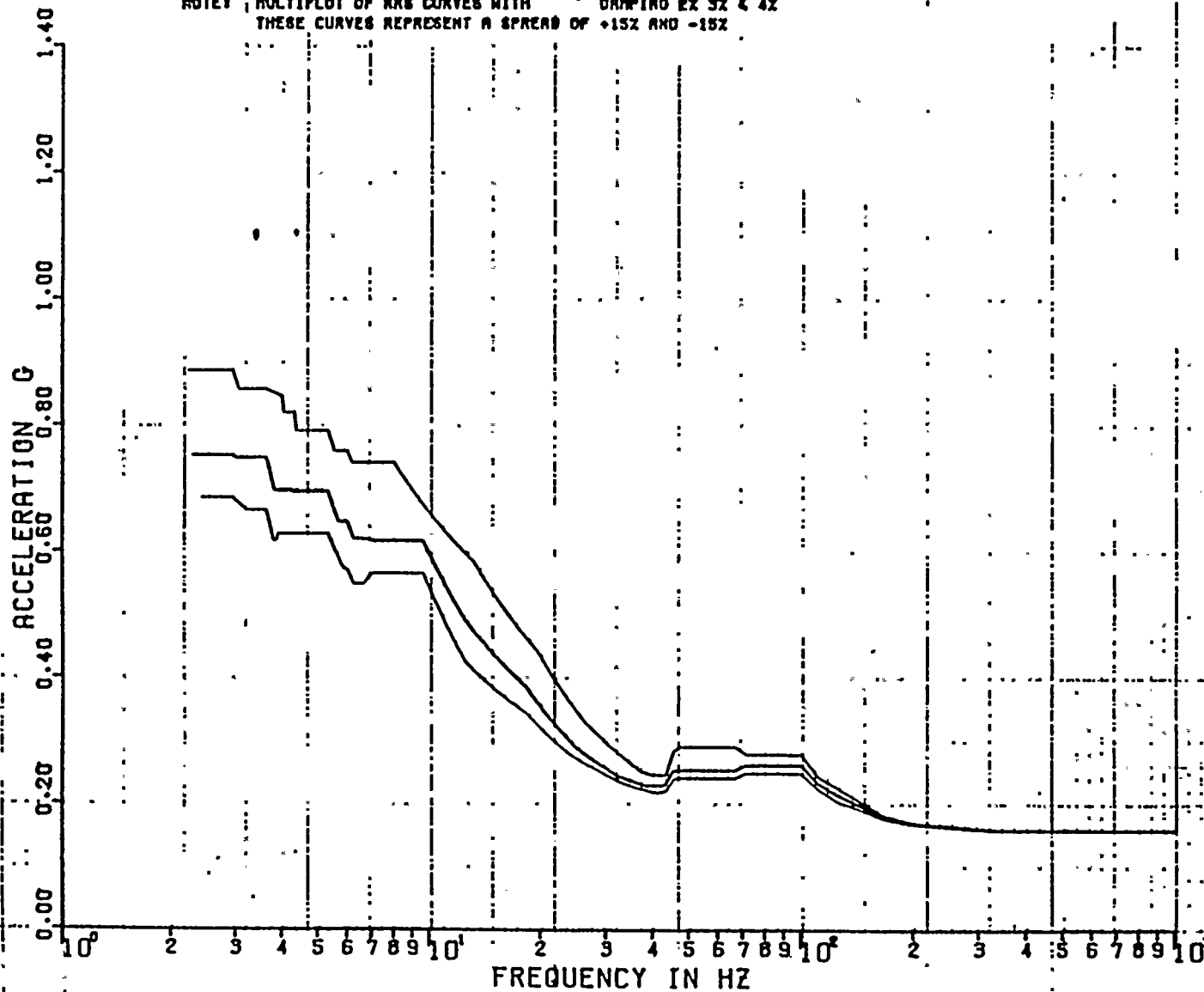
MS 1747
MICHAEL K DO

DISK CURVE SET NO.32

HOR DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 2X 3X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 64



PSPECTRA VER 01 LEV 08

ED CONDITION

25 JAN 1988

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 JSS-12177 RS-1747-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 175.0 FT)

MS 1747

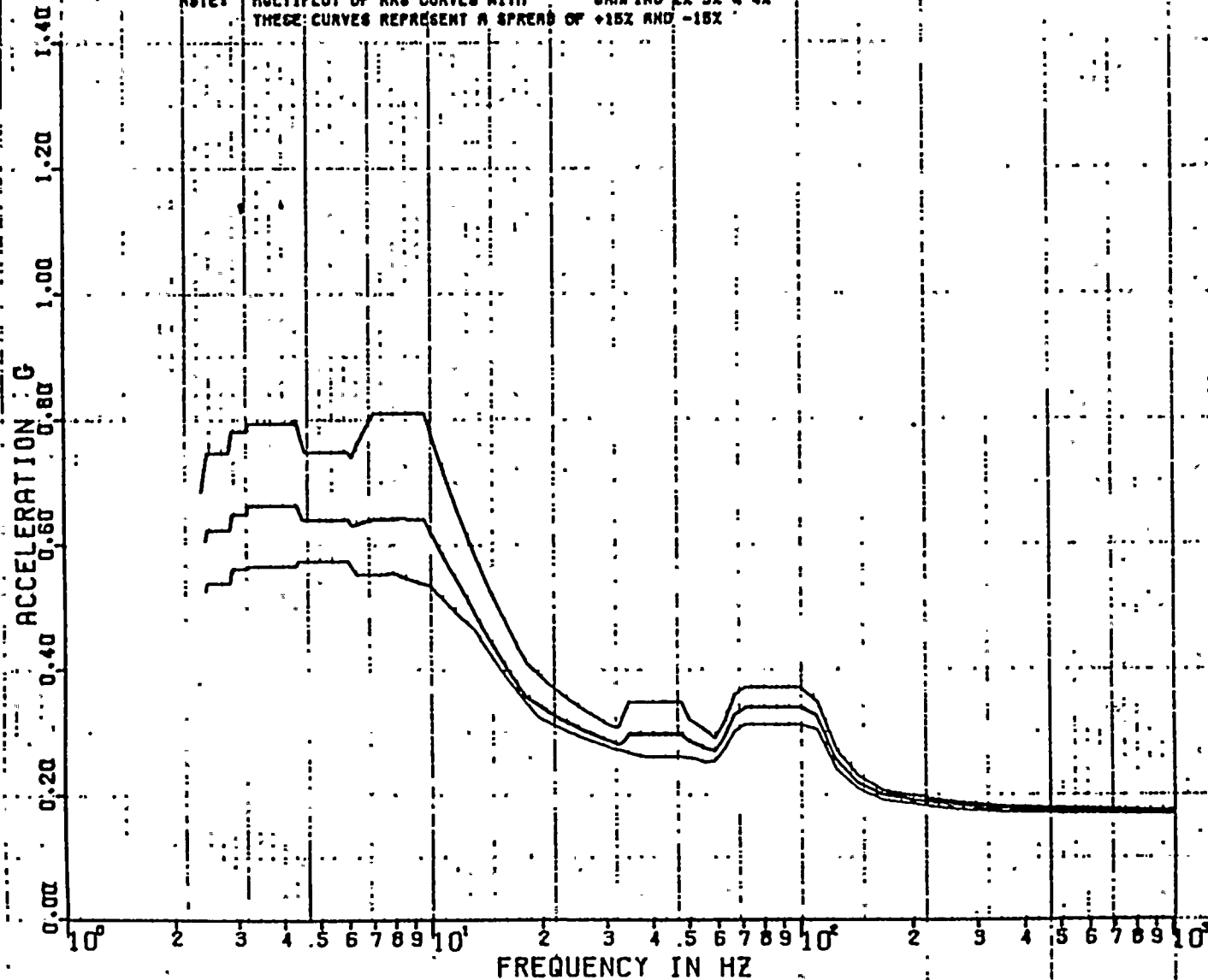
MICHAEL K.00

DISK CURVE SET NO.32

VER DIRECTION

DAMPING VALUES = 0.020
0.030
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING EX 5% & 4%
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%





PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1989

NIAOGARA MOHAWK-NINE MILES POINT UNIT -2 J.O. 17 MS-1748-0
RRS OF ACCELERATION SECONDARY CONT.(ELEV. 175.0 FT)

MS 1746

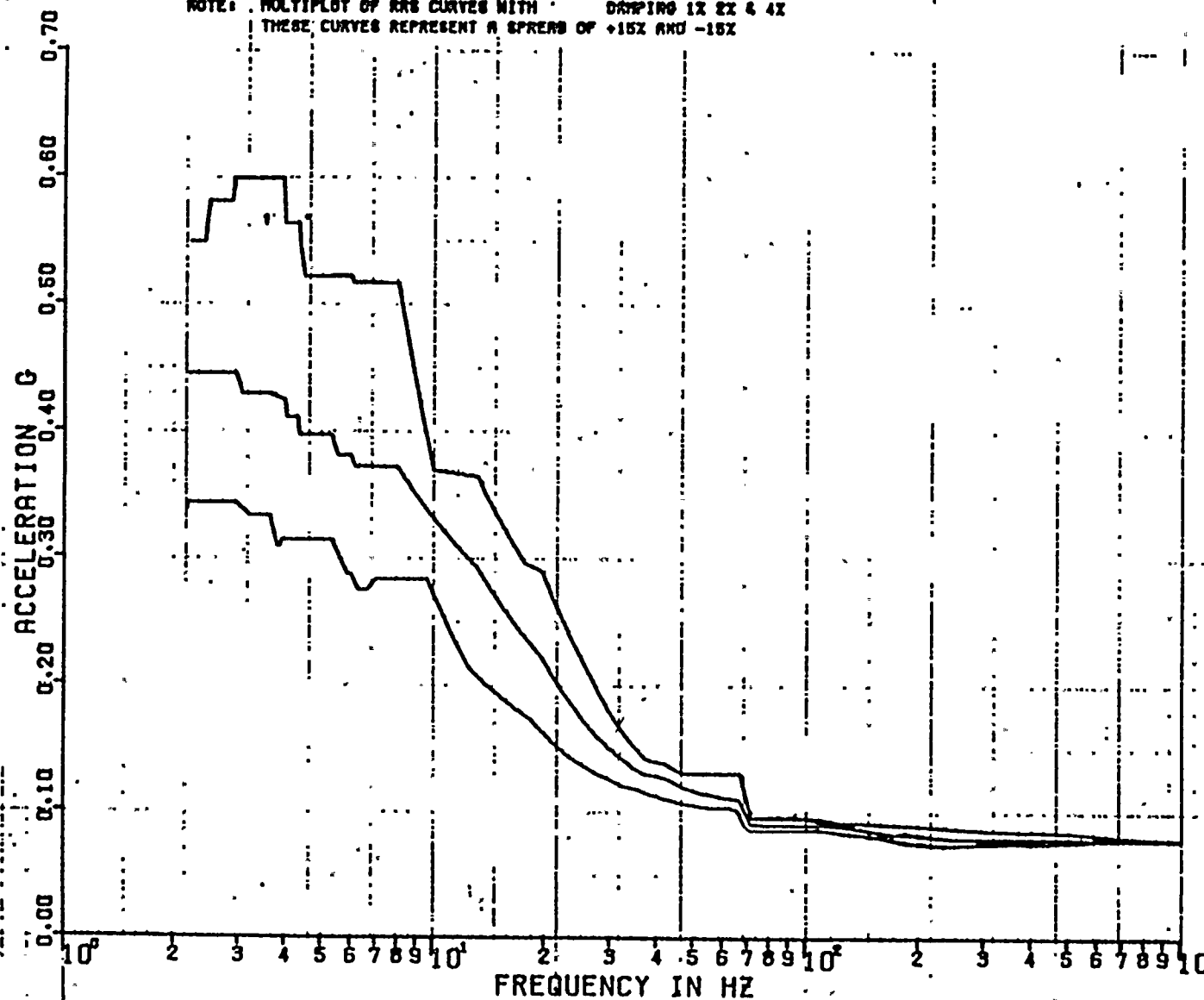
MICHAEL K DD

DISK CURVE SET NO.32

HOR DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

NOTE: MULTIPLY OF RRS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REF 64



PSPECTRA VER 01 LEV 08

CONDITION

24 JAN 1983

NIAGARA MOHAWK-NINE MILES POINT UNIT -2 J.07-17 MS-1746-0
RMS OF ACCELERATION SECONDARY CONT.(ELEV. 175.0 FT)

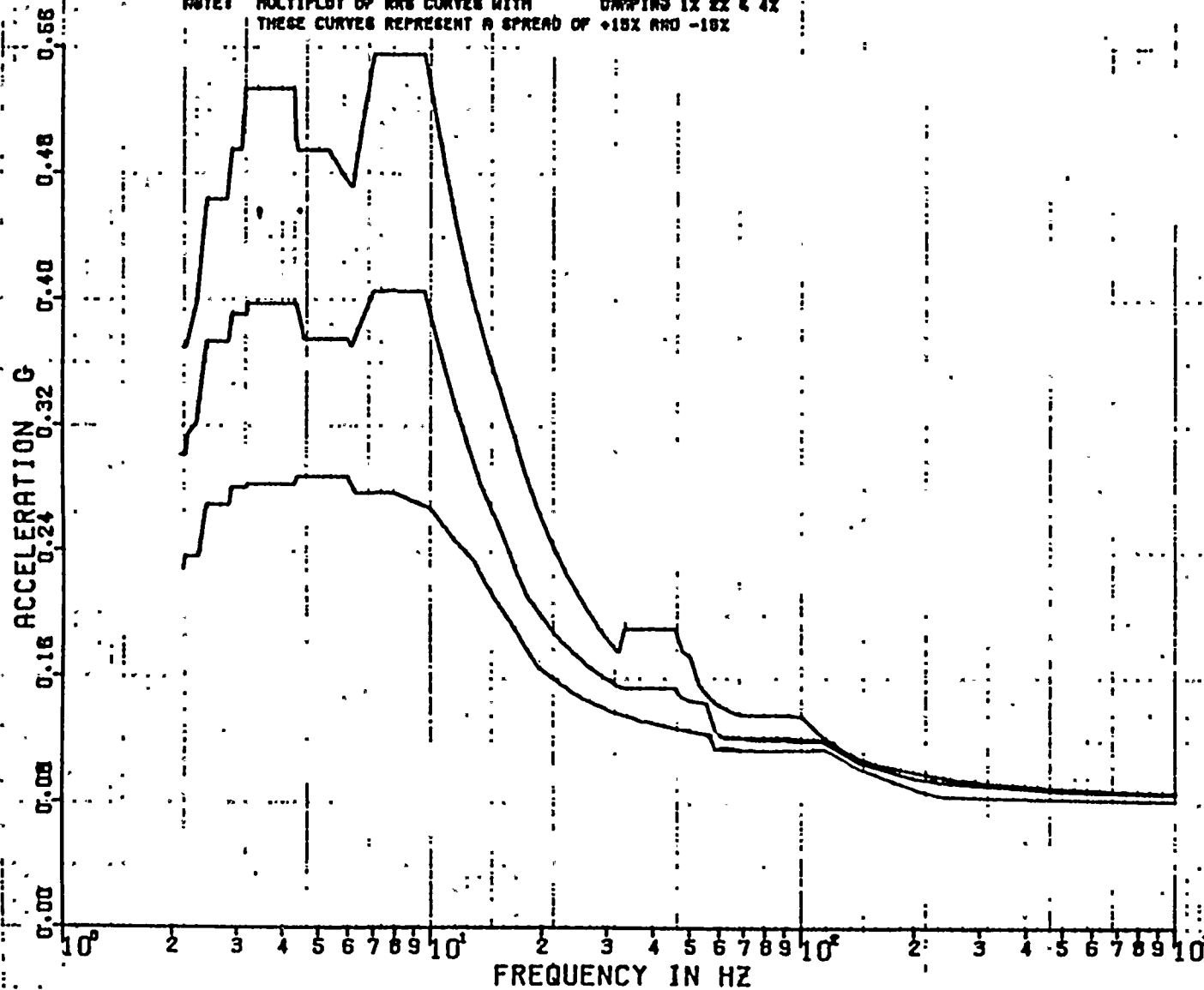
MS 1746
MICHAEL K DO

DISK CURVE SET NO.32.

VER DIRECTION

DAMPING VALUES = 0.010
0.020
0.040

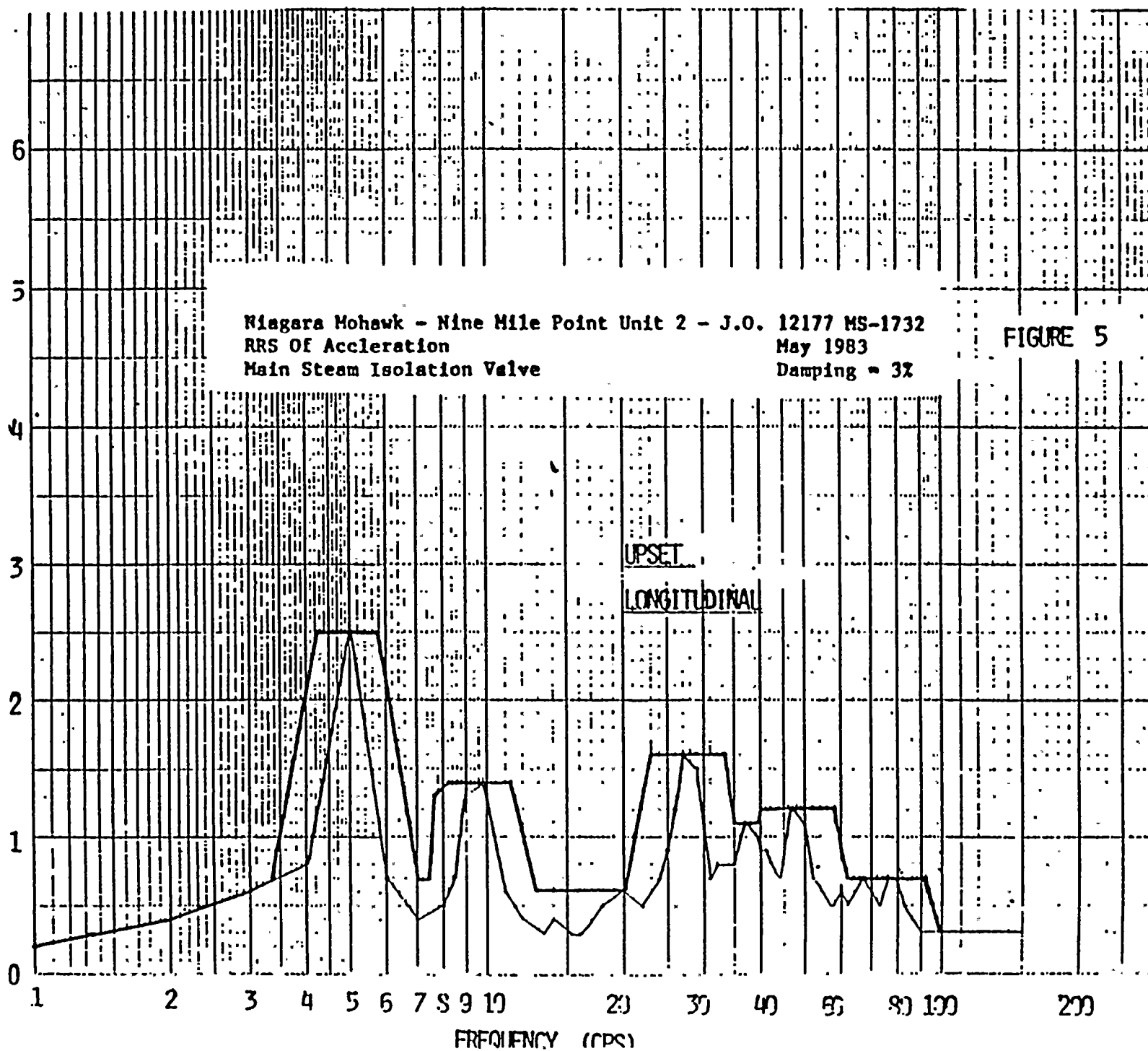
NOTE: MULTIPLY OF RMS CURVES WITH DAMPING 1X 2X & 4X
THESE CURVES REPRESENT A SPREAD OF +15% AND -15%



REC 64
49 J32



ACCELERATION (G'S)



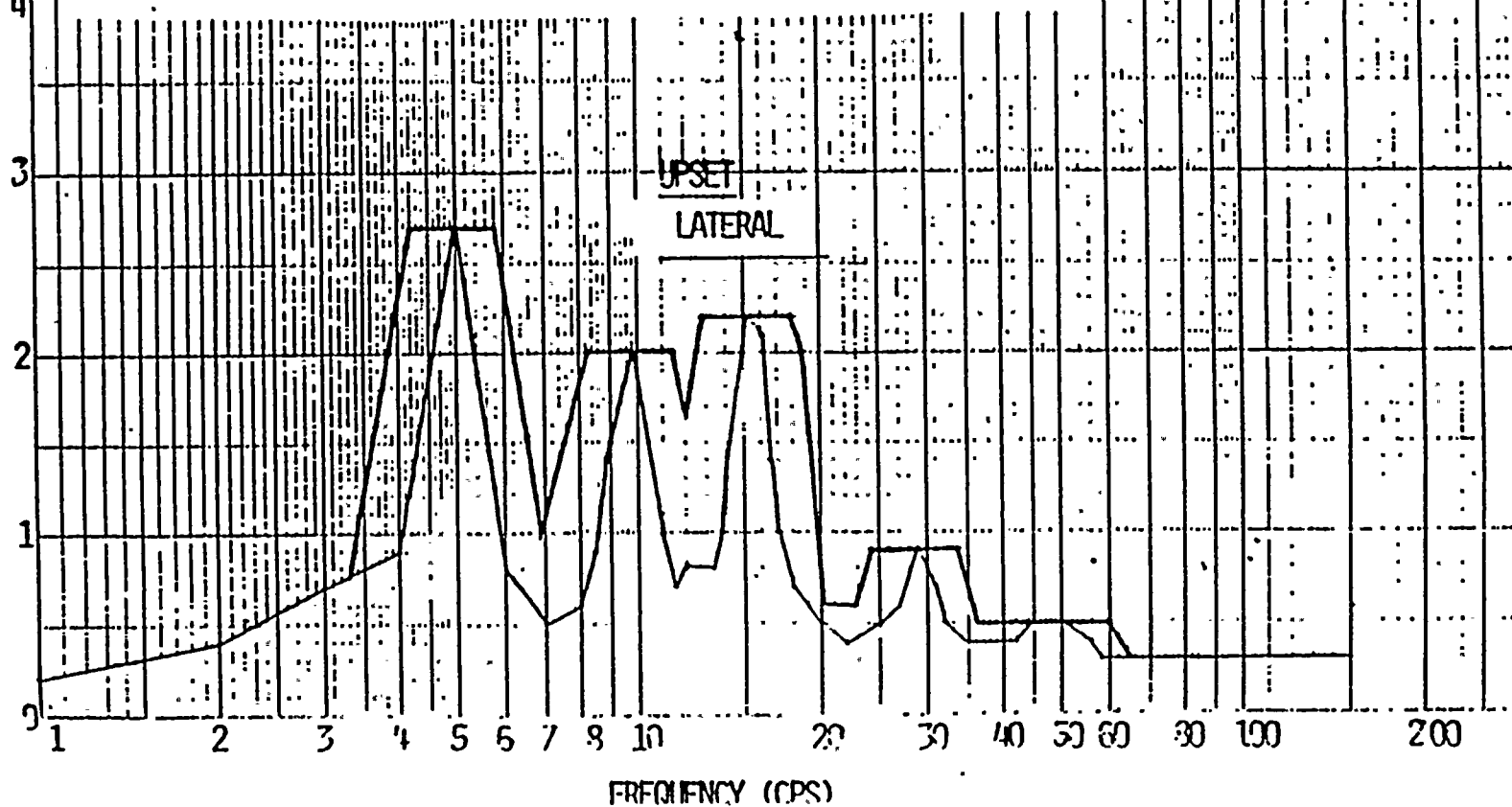


ACCELERATION (G'S)

Niagara Mohawk - Nine Mile Point Unit 2 - J.O. 12177 MS-1732
RRS Of Acceleration
Main Steam Isolation Valve

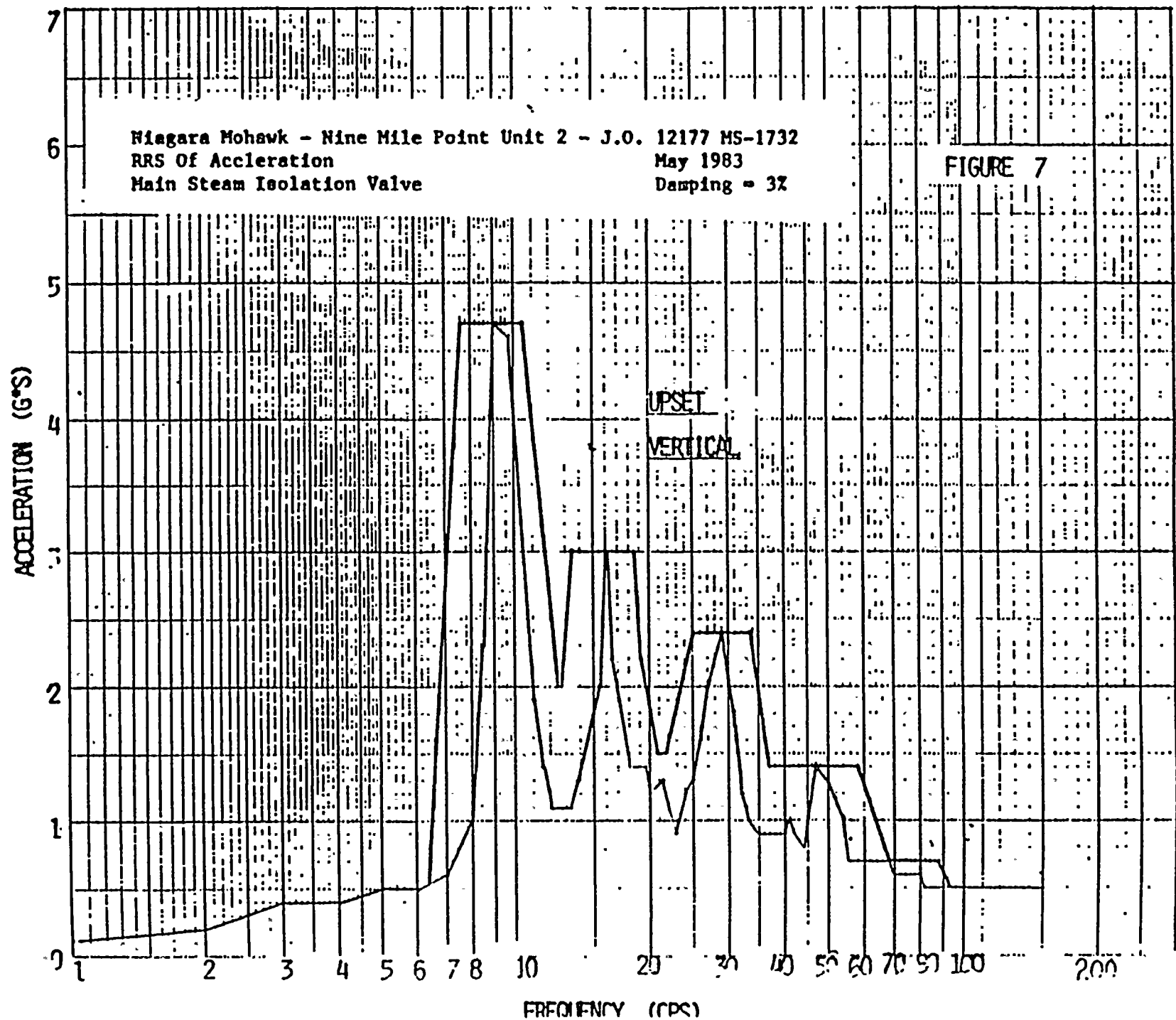
May 1983
Damping = 3%

FIGURE 6



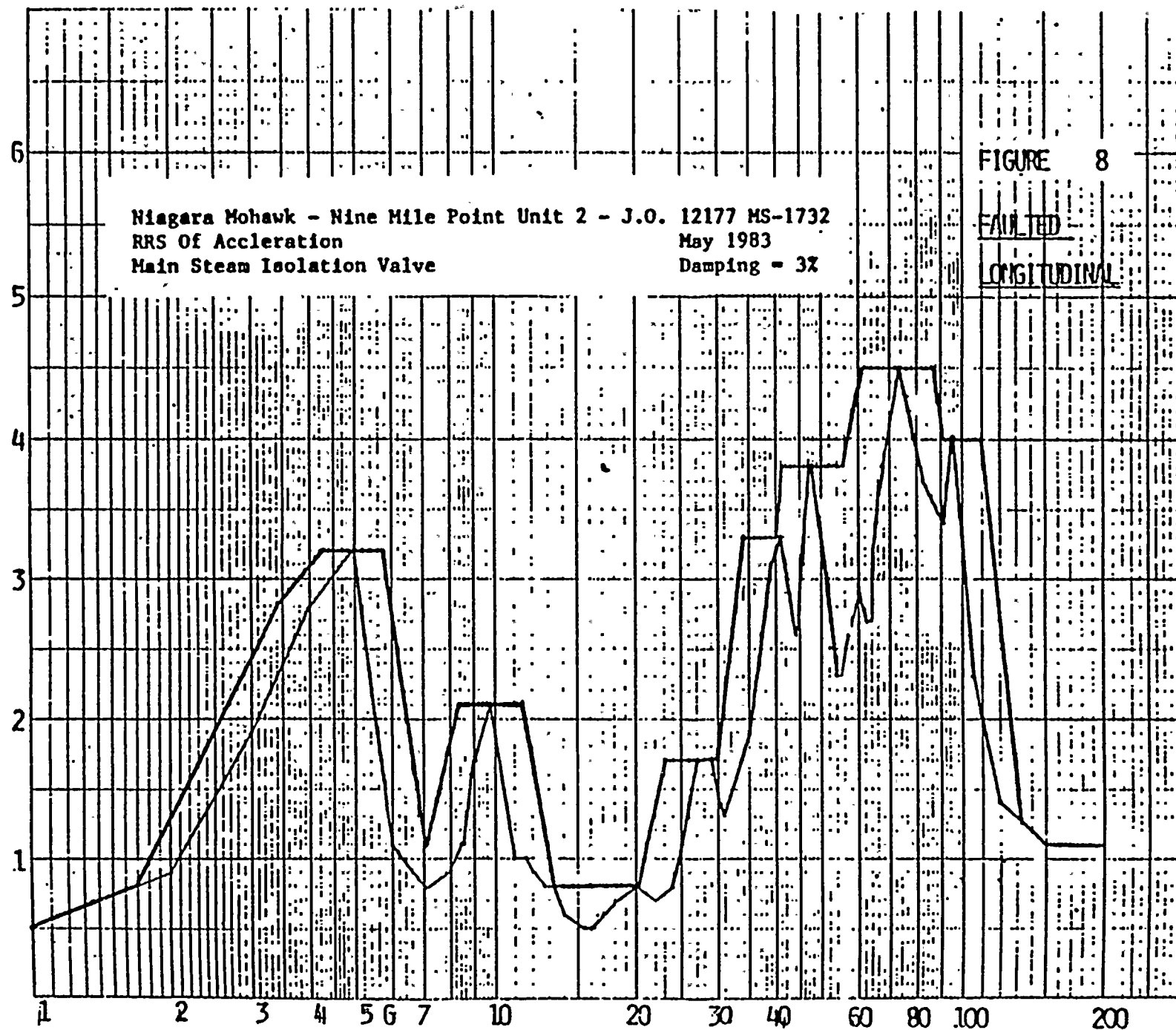
REF 644





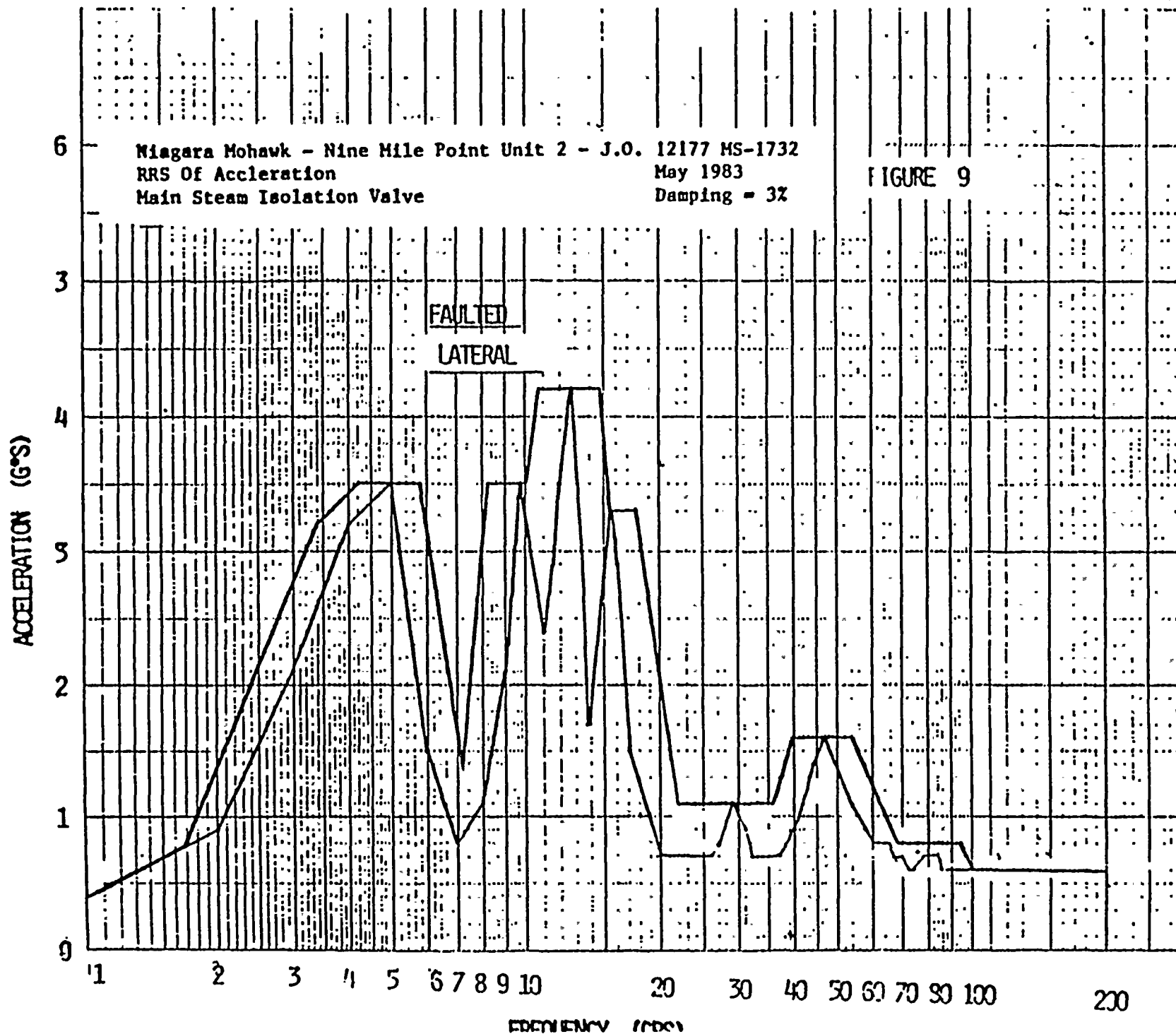


ACCELERATION (G'S)



REF 64A





REF 64X



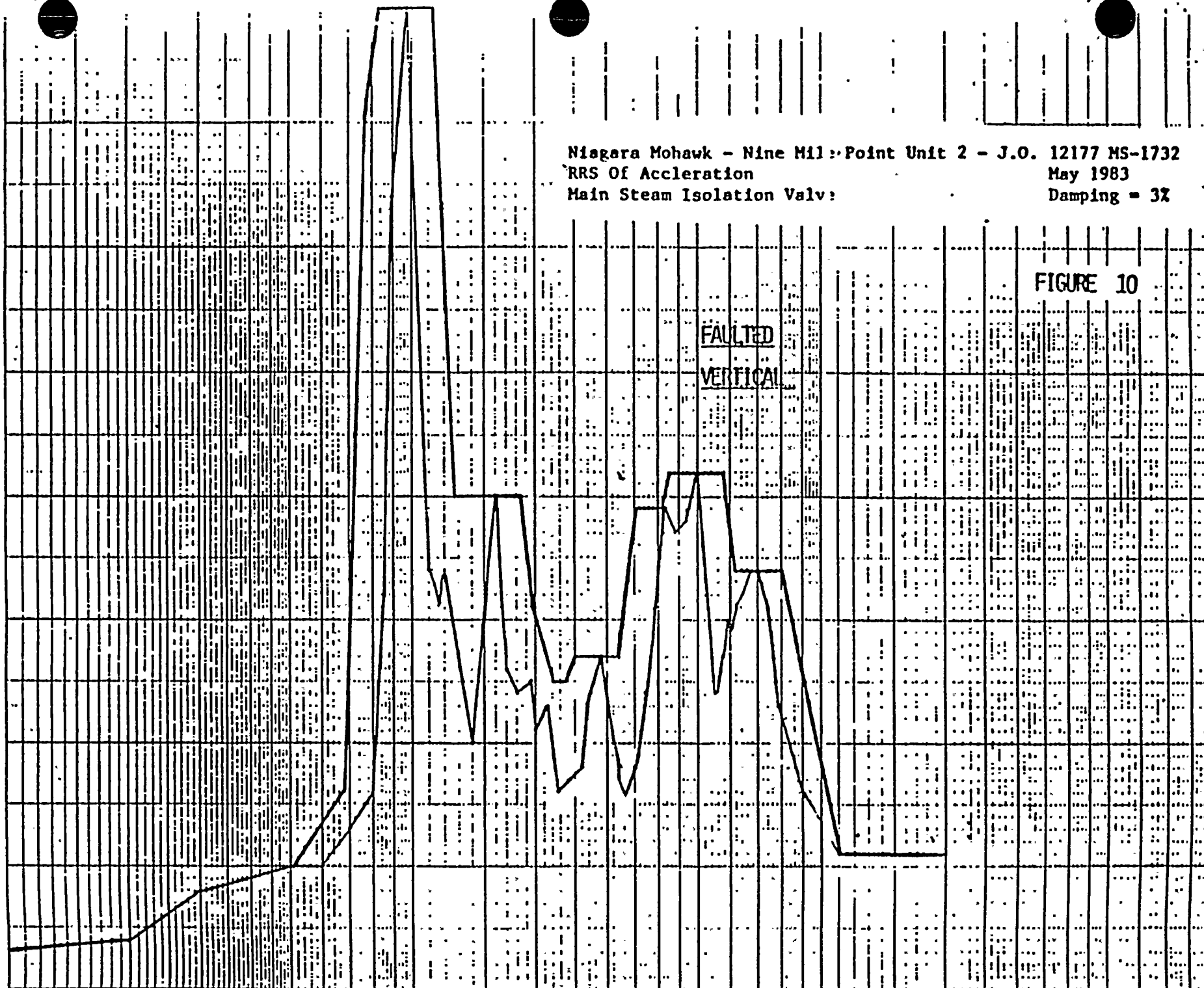
ACCELERATION (G'S)

7
6
5
4
3
2
1

Niagara Mohawk - Nine Mile Point Unit 2 - J.O. 12177 MS-1732
RRS Of Acceleration
Main Steam Isolation Valve:
May 1983
Damping = 3%

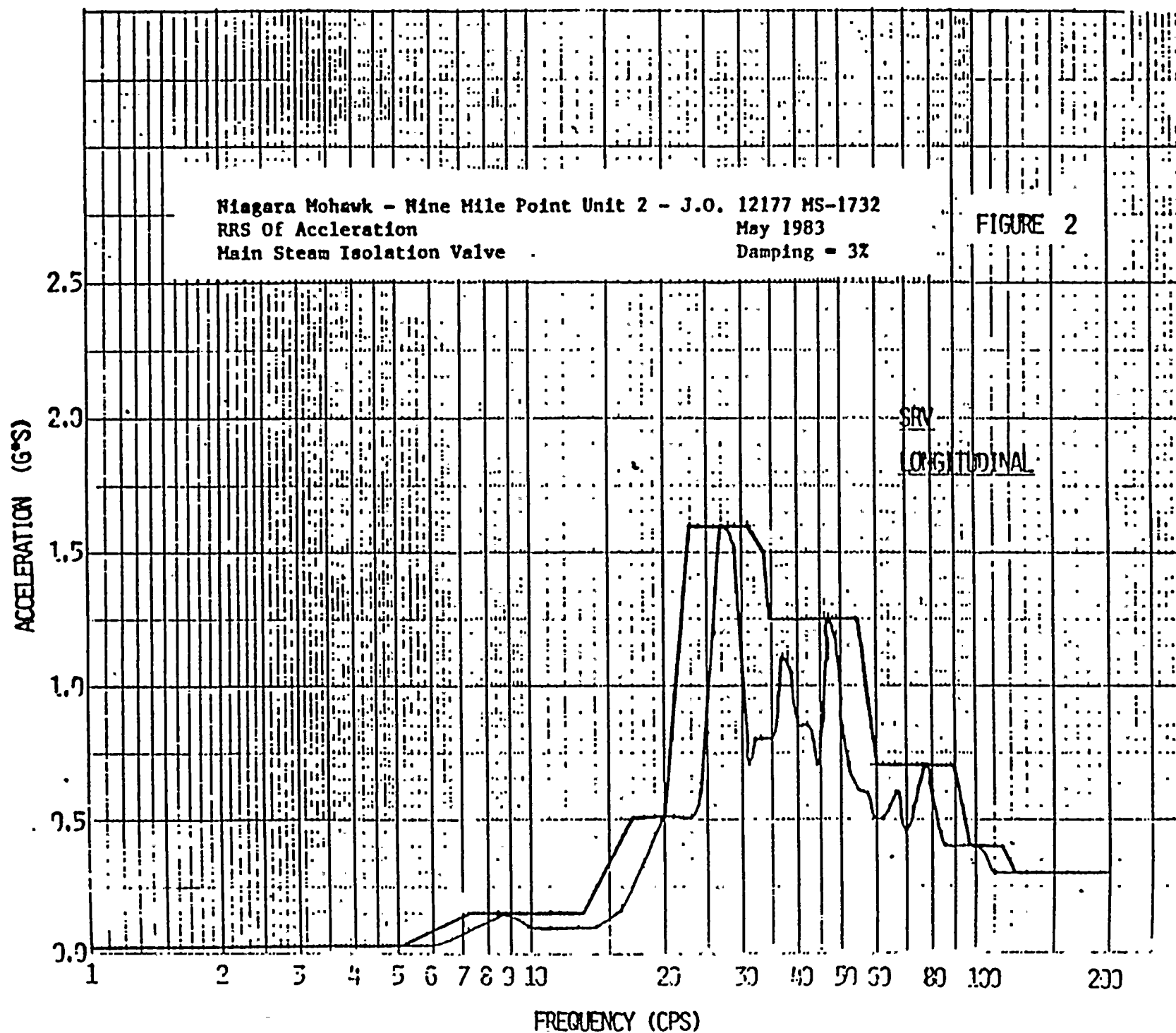
FIGURE 10

FAULTED
VERTICAL



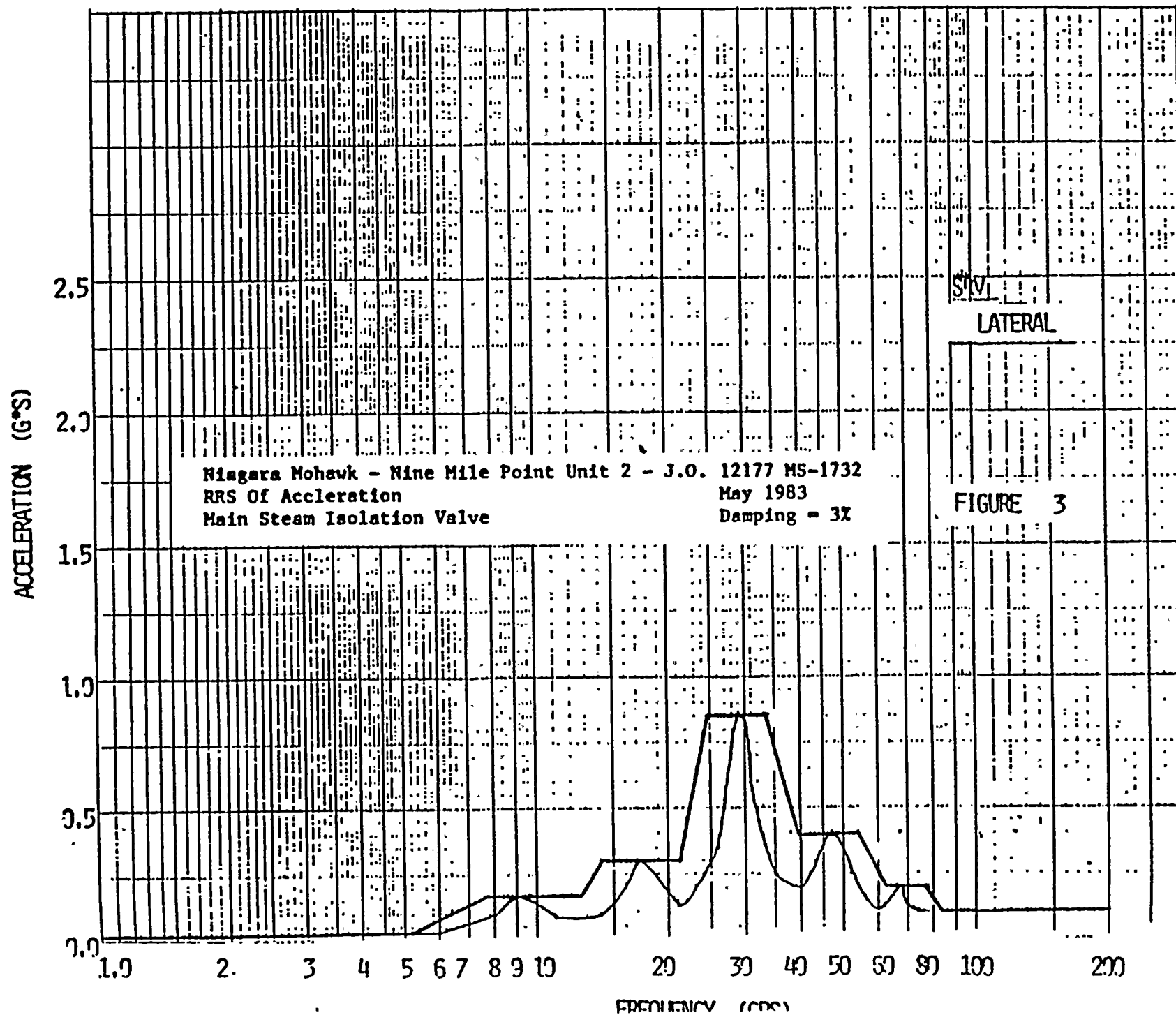
REF 649



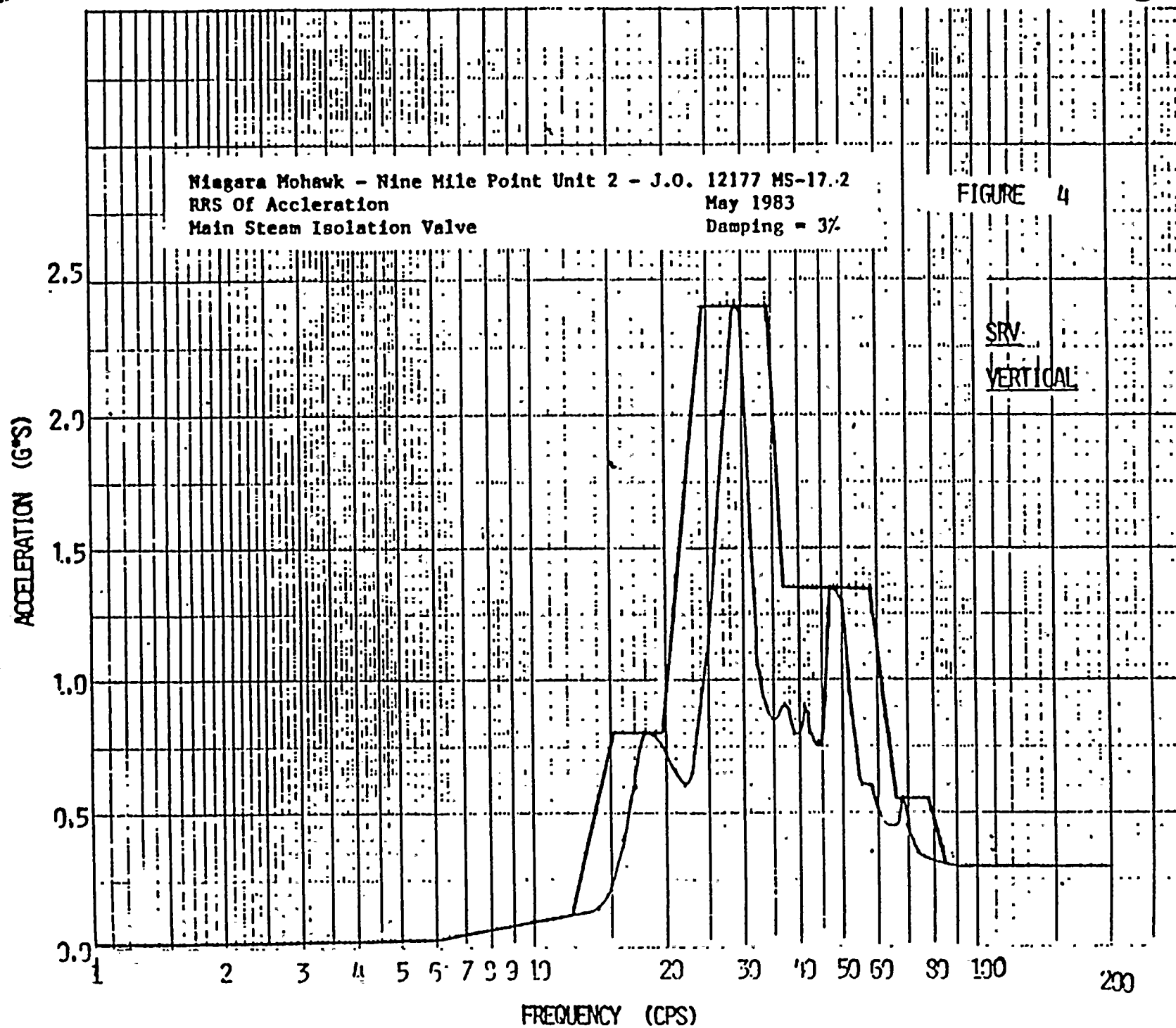


REF 64X







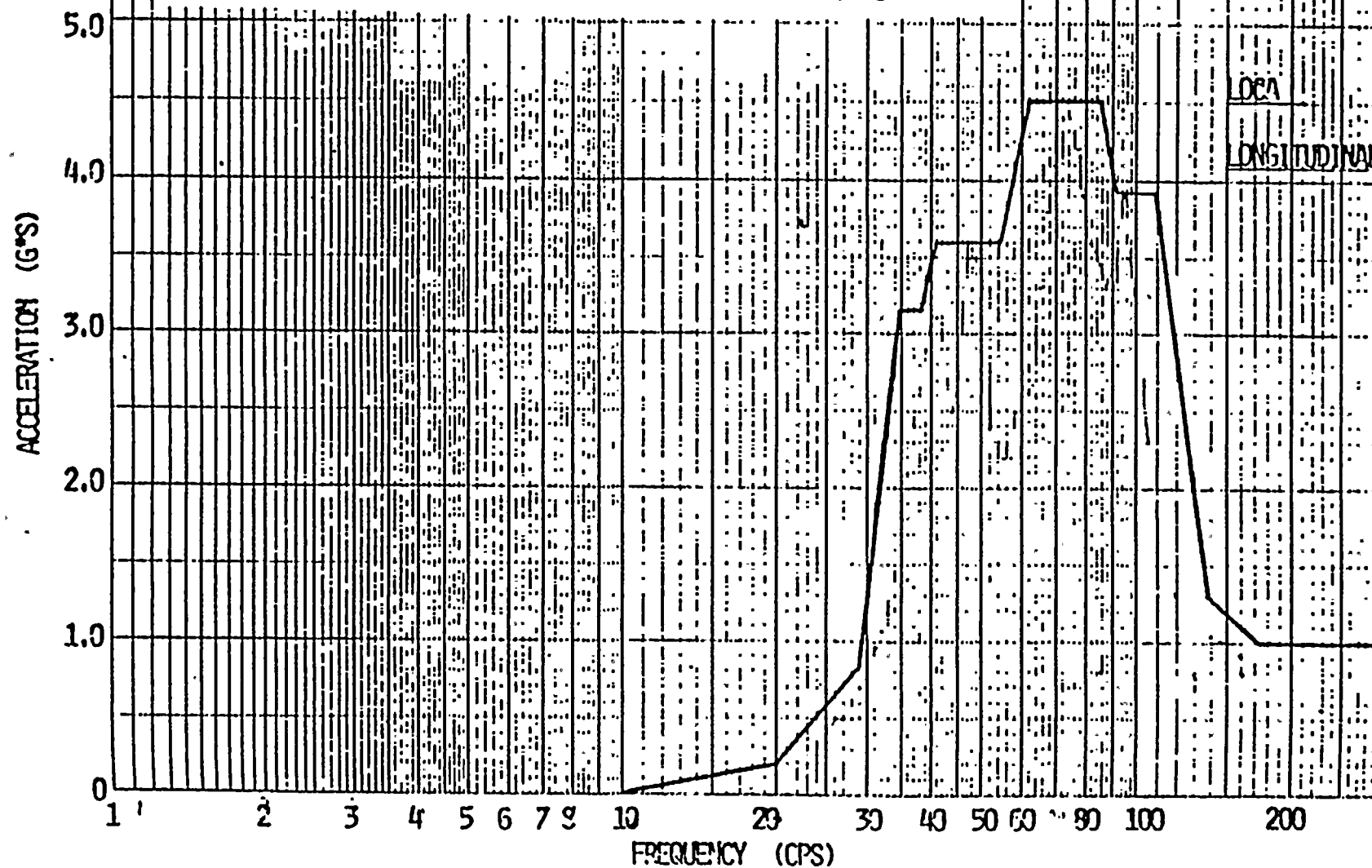


REF 64H



Niagara Mohawk - Nine Mile Point Unit 2 - J.O. 12177 MS-1732
RRS Of Acceleration
Main Steam Isolation Valve
May 1983
Damping = 3%

FIGURE 11





Niagara Mohawk - Nine Mile Point Unit 2 - J.O. 12177 MS-1732
RRS Of Acceleration
Main Steam Isolation Valve
May 1983
Damping = 3%

FIGURE 12

ACCELERATION (G'S)

1.0

0.8

0.6

0.4

0.2

1

2

3

4

5

6

8

10

20

30

40

50

70

100

200

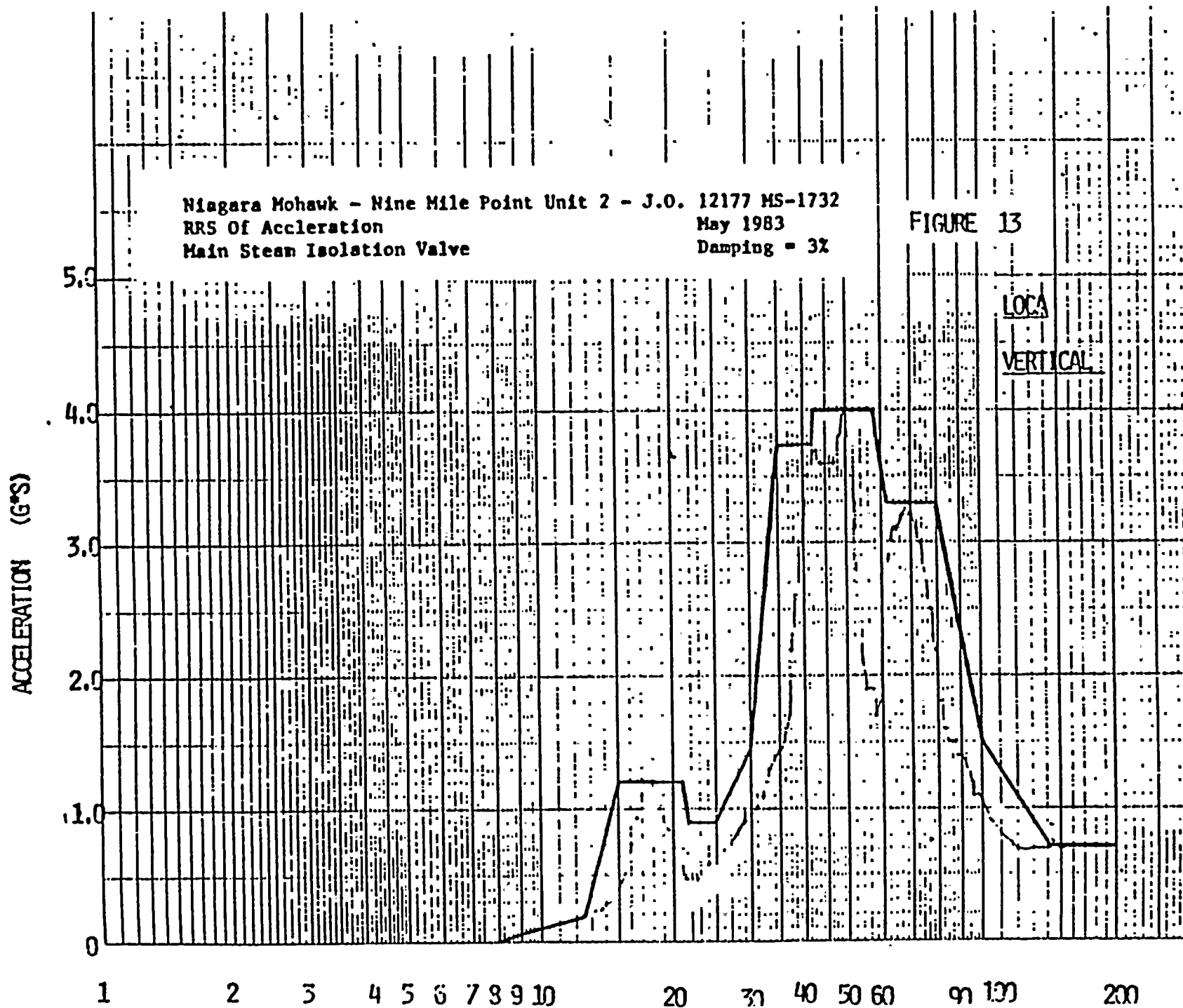
FREQUENCY (CPS)

LOCA

LATERAL

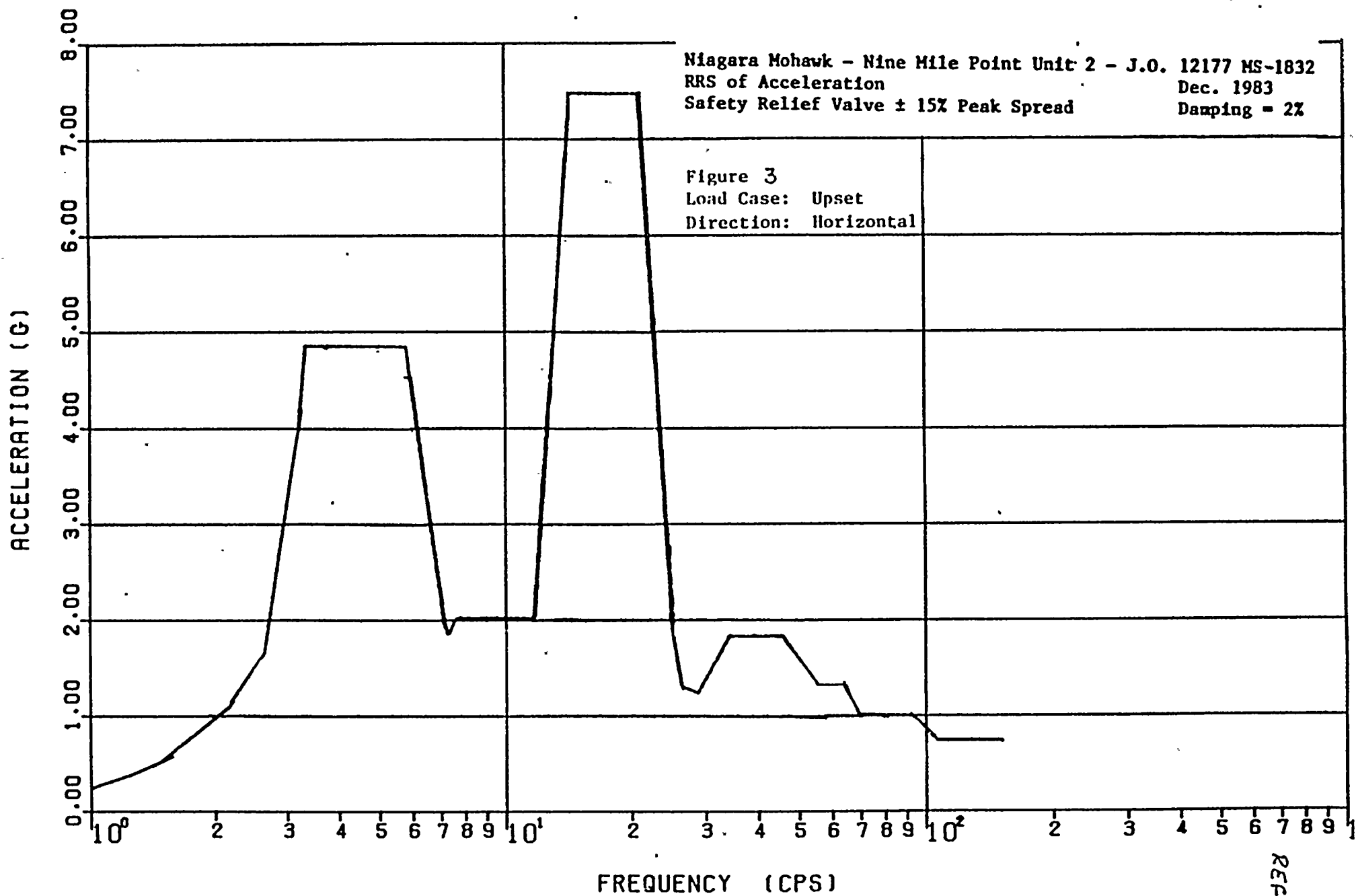
REF 6479





REF 64A

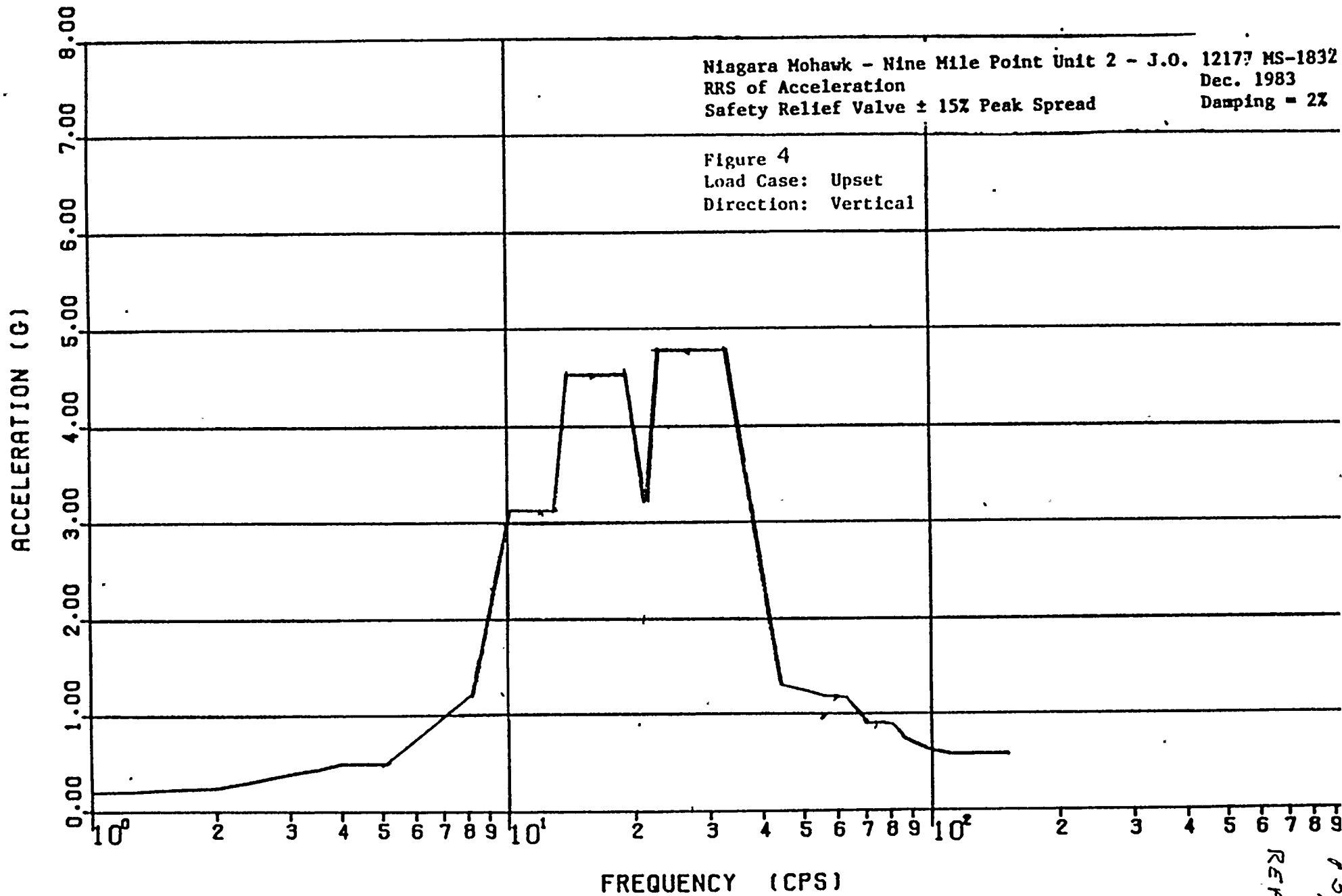




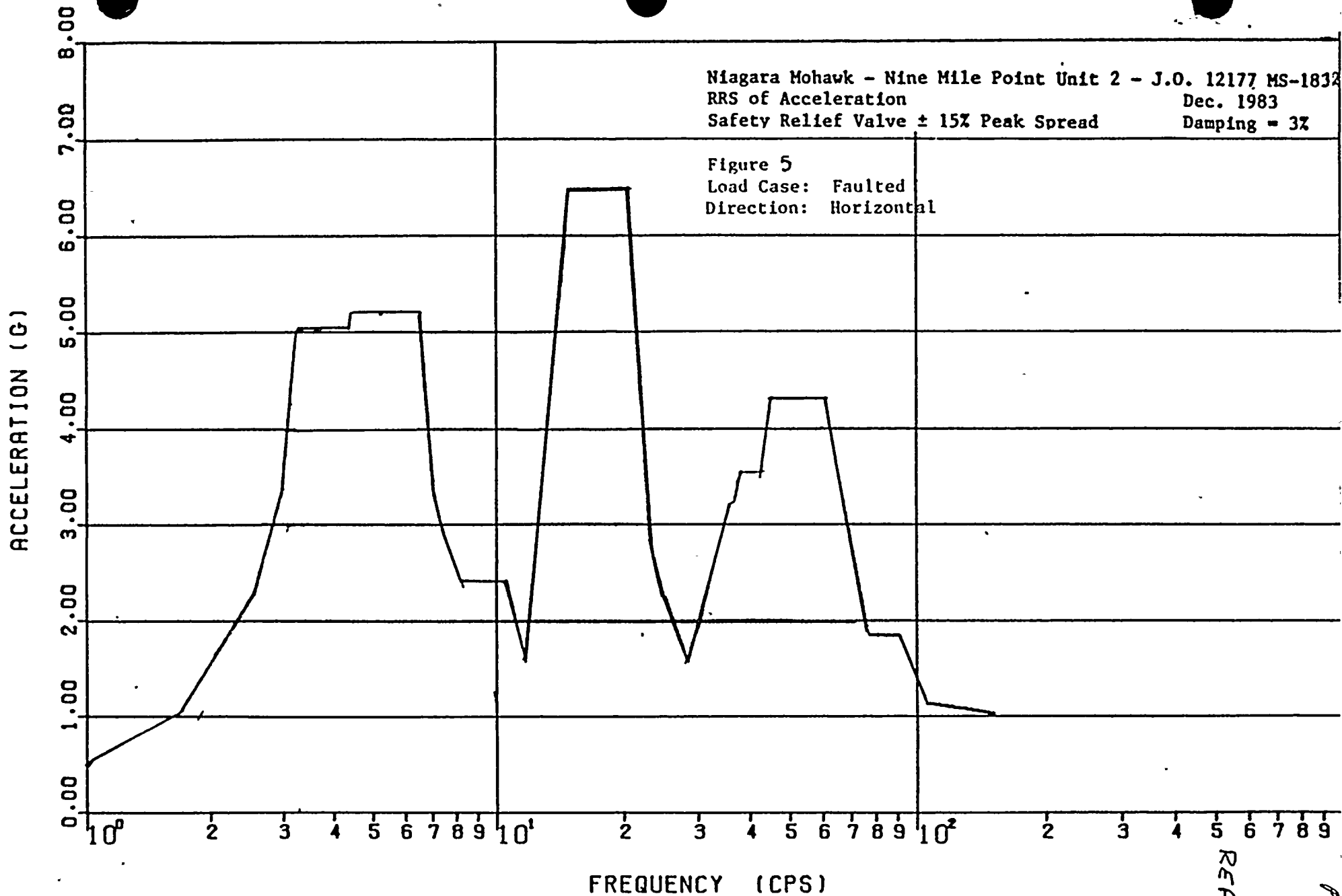


Niagara Mohawk - Nine Mile Point Unit 2 - J.O. 12177 MS-1832
RRS of Acceleration
Safety Relief Valve $\pm 15\%$ Peak Spread
Dec. 1983
Damping = 2%

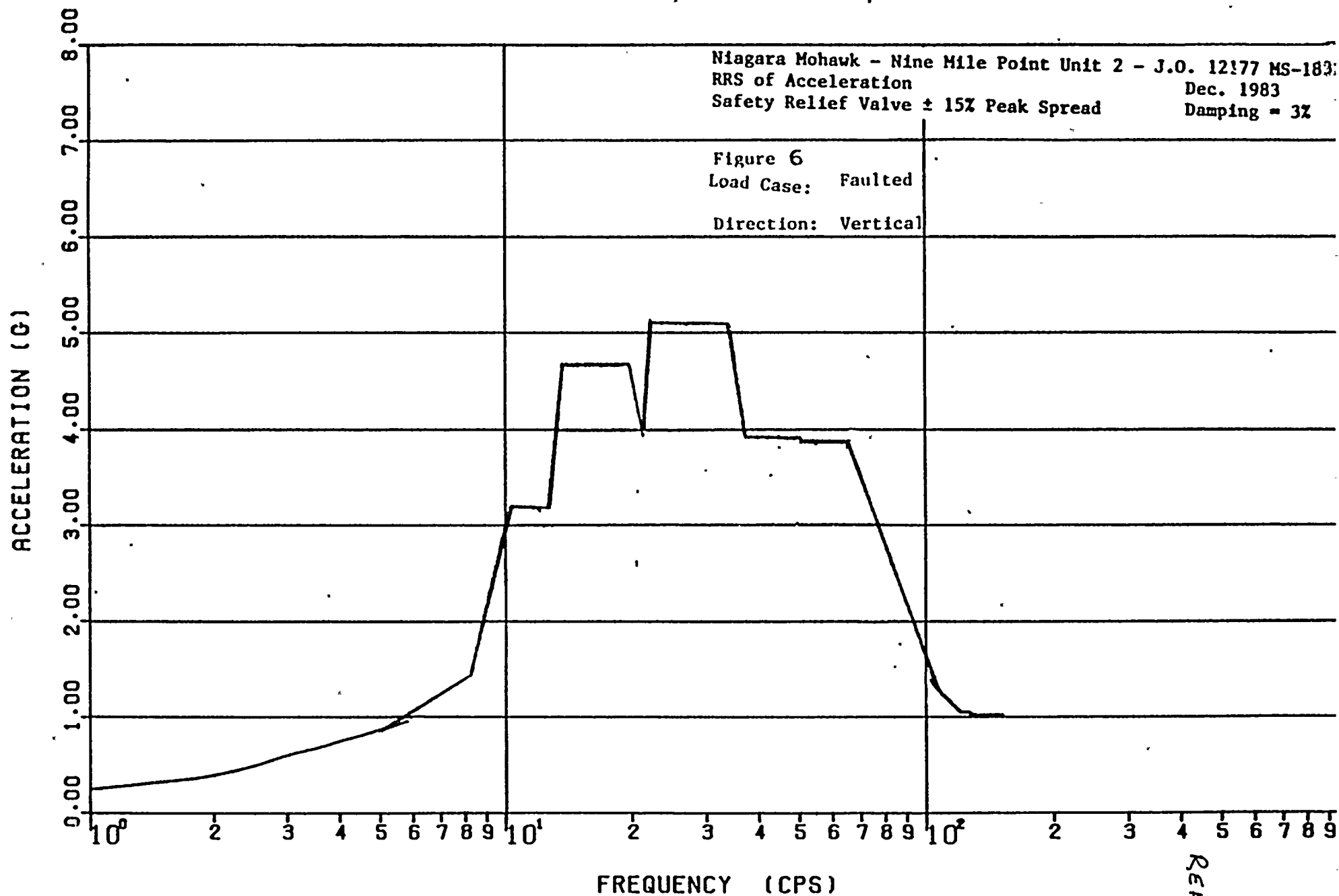
Figure 4
Load Case: Upset
Direction: Vertical









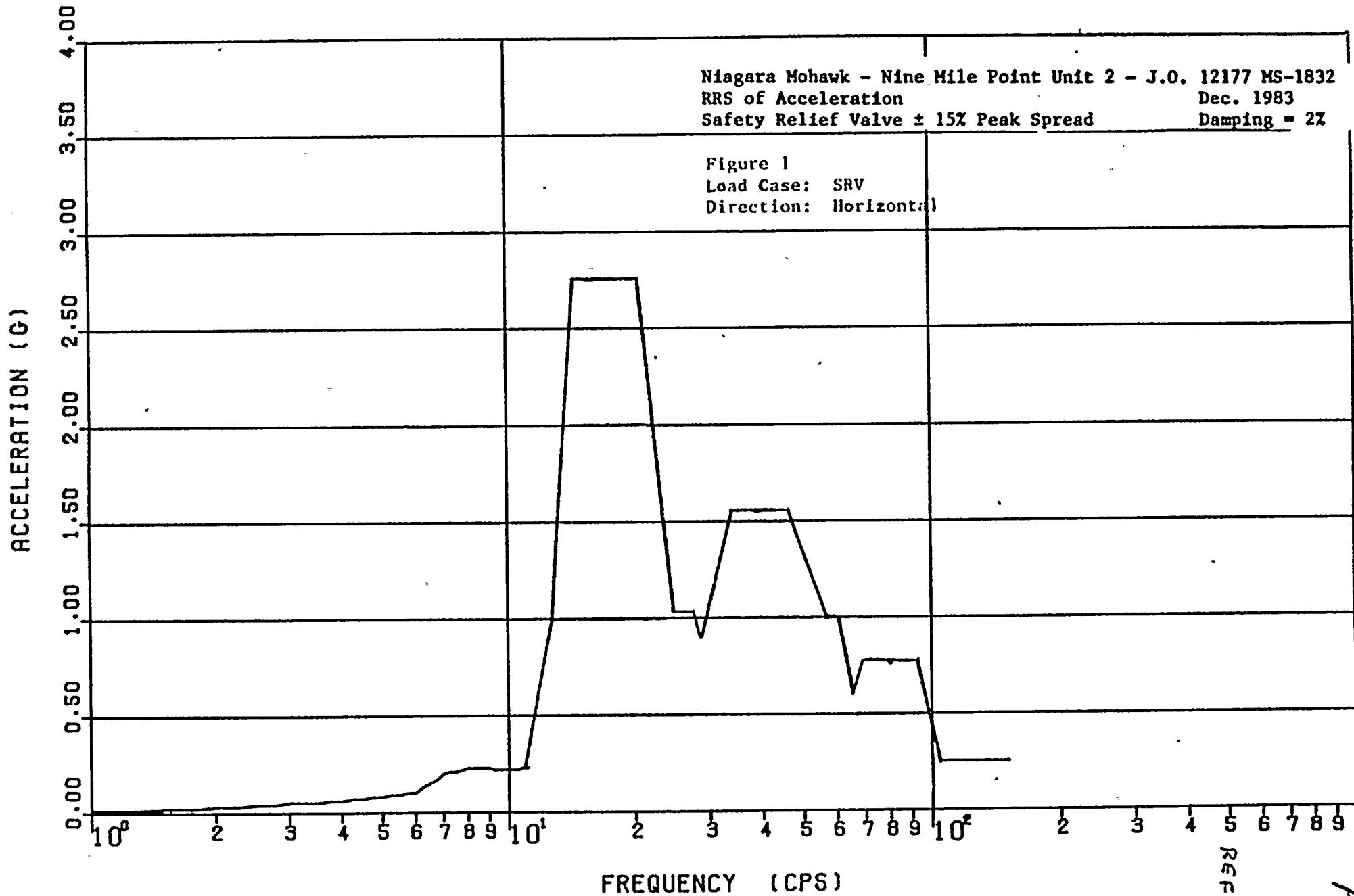


NINE MILE POINT 2

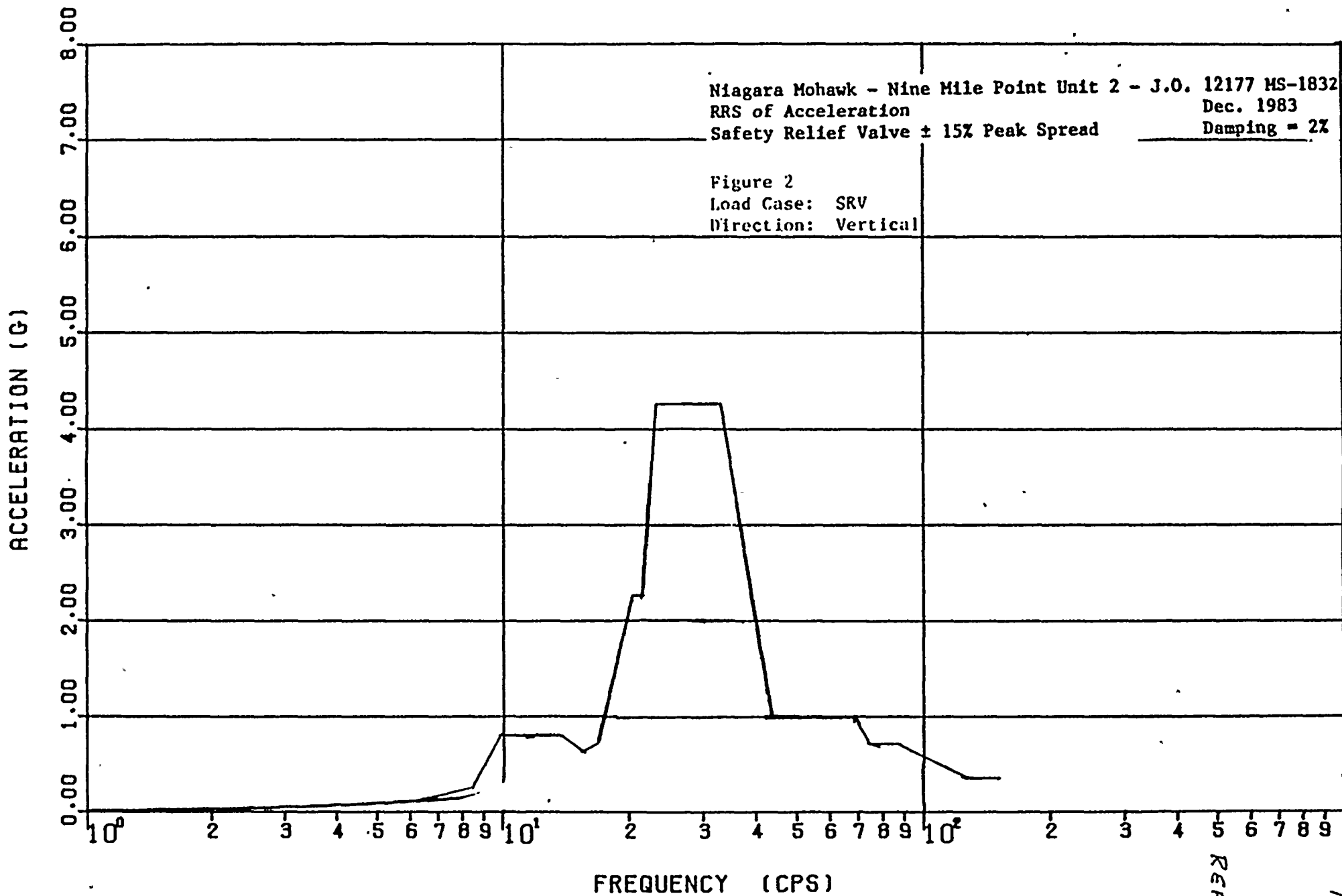
REF 64B

6/9

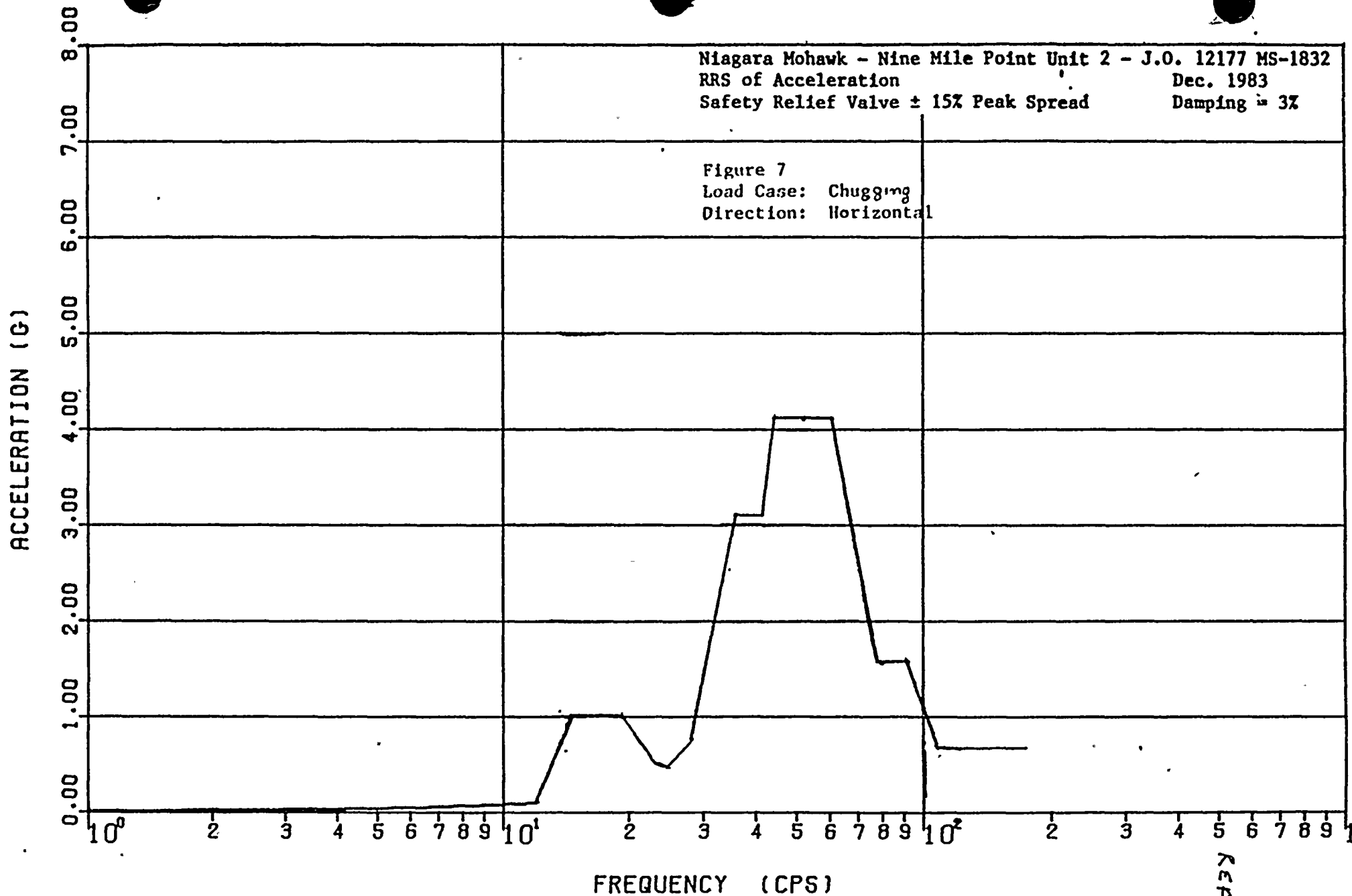












NINE MILE POINT 2
NY001 DEC. 1983

REF 64B

1/8/9



