

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8404030114 DOC.DATE: 84/03/27 NOTARIZED: NO DOCKET #
 FACIL:50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220
 AUTH.NAME AUTHOR AFFILIATION
 MANGAN,C.V. Niagara Mohawk Power Corp.
 RECIP.NAME RECIPIENT AFFILIATION
 VASSALLO,D.B. Operating Reactors Branch 2

SUBJECT: Forwards revs for Pages 53 & 57-60 of offsite dose
 calculational manual covering R values & dose parameters for
 iodine submitted w/840307 ltr.

DISTRIBUTION CODE: A009S COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 7
 TITLE: OR/Licensing Submittal: Appendix I

NOTES:

	RECIPIENT ID CODE/NAME		COPIES			RECIPIENT ID CODE/NAME		COPIES	
			LTTR	ENCL				LTTR	ENCL
	NRR ORB2 BC 01		7	7					
INTERNAL:	ELD/HDS3 19		1	0		NRR/DL/ORAB		1	0
	NRR/DSI/AEB		1	0		NRR/DSI/METB 08		1	1
	NRR/DSI/RAB 10		1	1		<u>REG FILE</u> 04		1	1
	RGN1		1	1					
EXTERNAL:	ACRS 11		6	6		LPDR 03		1	1
	NRC PDR 02		1	1		NSIC 05		1	1
	NTIS		1	1					

一、

[illegible][illegible]

● ● ●

[illegible]

March 27, 1984

Director of Nuclear Reactor Regulation
Attention: Mr. Domenic B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Dear Mr. Vassallo:

Our March 7, 1984 letter transmitted copies of the Off-Site Dose
Calculational Manual. Contained herein are revisions for Page 53 and Pages
57-60. Please replace these sheets in the manuals previously provided.

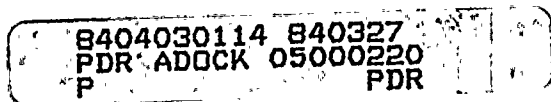
Sincerely,

NIAGARA MOHAWK POWER CORPORATION

C. V. Mangan

C. V. Mangan
Vice President
Nuclear Engineering and Licensing

CVM/RJP:slw
Enclosures



A009
111



10-10-68

10-10-68

10-10-68

10-10-68

10-10-68

10-10-68

10-10-68

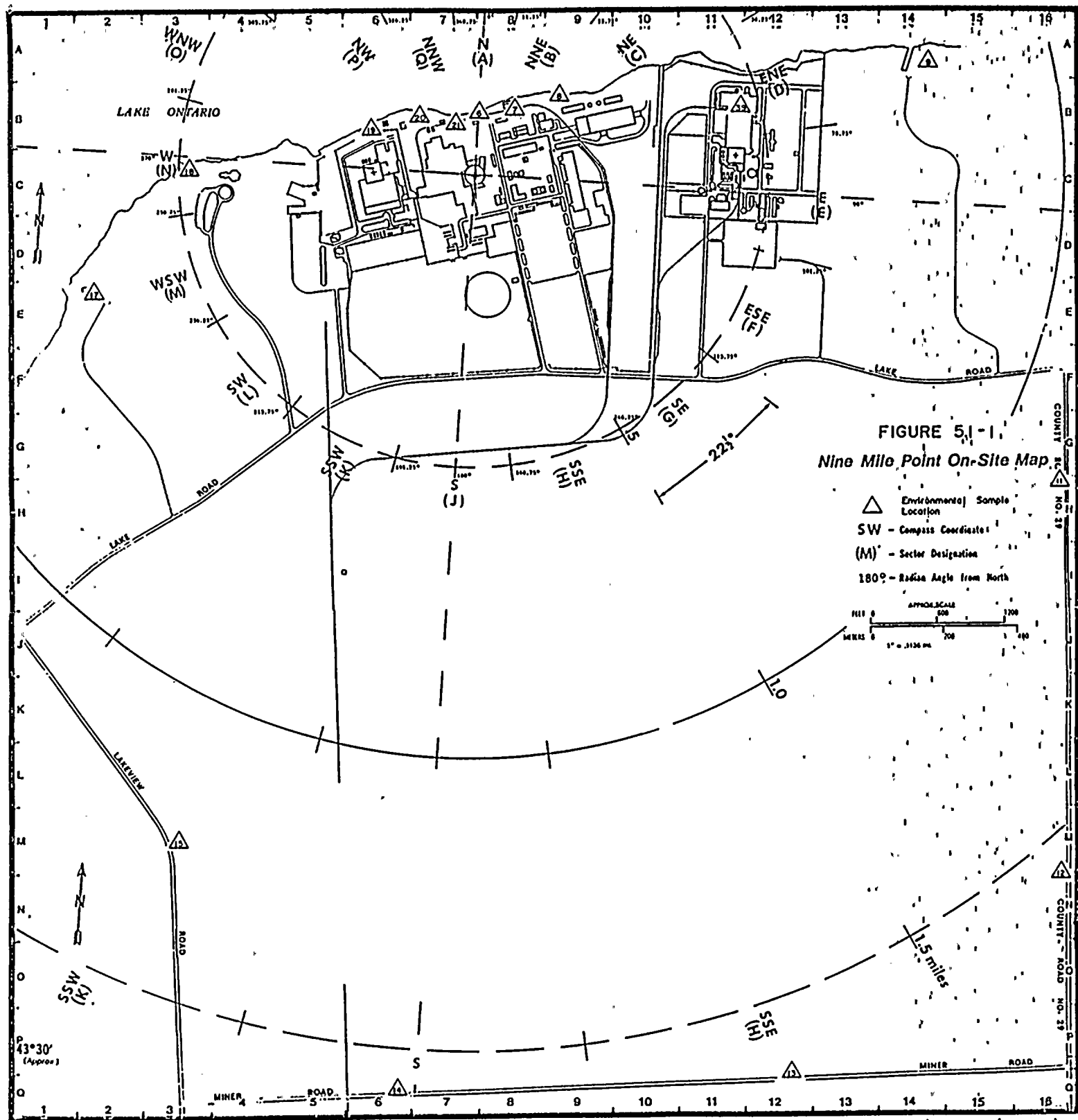
10-10-68

10-10-68

10-10-68

TABLE 3-4S
R VALUES - GROUND - ALL AGE GROUPS
m²-mrem/yr
uCi/sec

<u>NUCLIDE</u>	<u>T: BODY</u>
Cr 51	4.66E 06
Mn 54	1.34E 09
Fe 59	2.75E 08
Co 58	3.79E 08
Co 60	2.15E 10
Zn 65	7.49E 08
Sr 89	2.23E 04
Zr 95	2.49E 08
I 131	1.72E 07
I 133	2.47E 06
Cs 134	6.82E 09
Cs 136	1.49E 08
Cs 137	1.03E 10
Ba 140	2.05E 07
Ce 141	1.36E 07
I 135	Later
BA/LA 140	Later
Nb 95	Later
Sb 125	Later



APPENDIX — A

**DOSE PARAMETERS FOR IODINE 131 AND 133 ,
PARTICULATES AND TRITIUM**

APPENDIX A

DOSE PARAMETERS FOR IODINE-131 AND -133, PARTICULATES AND TRITIUM

This appendix contains the methodology which was used to calculate the dose parameters for I-131, I-133, particulates, and tritium. The dose parameter, R_i , was calculated using the methodology outlined in NUREG-0133 and Regulatory Guide 1.109, Revision 1. The radioiodine and particulate Technical Specification (Section 3.6.15) is applicable to the location in the unrestricted area where the combination of existing pathways and receptor age groups indicates the maximum potential exposure occurs, i.e., the critical receptor. The inhalation and ground plane exposure pathways are considered to exist at all locations but the critical location will be used for dose purposes. The grass-goat-milk, the grass-cow-milk, grass-cow-meat, and vegetation pathways are considered to exist at specific locations. R_i values have been calculated for the adult, teen, child and infant age groups for all pathways. The methodology used to calculate these values follows:

A.1 Inhalation Pathway

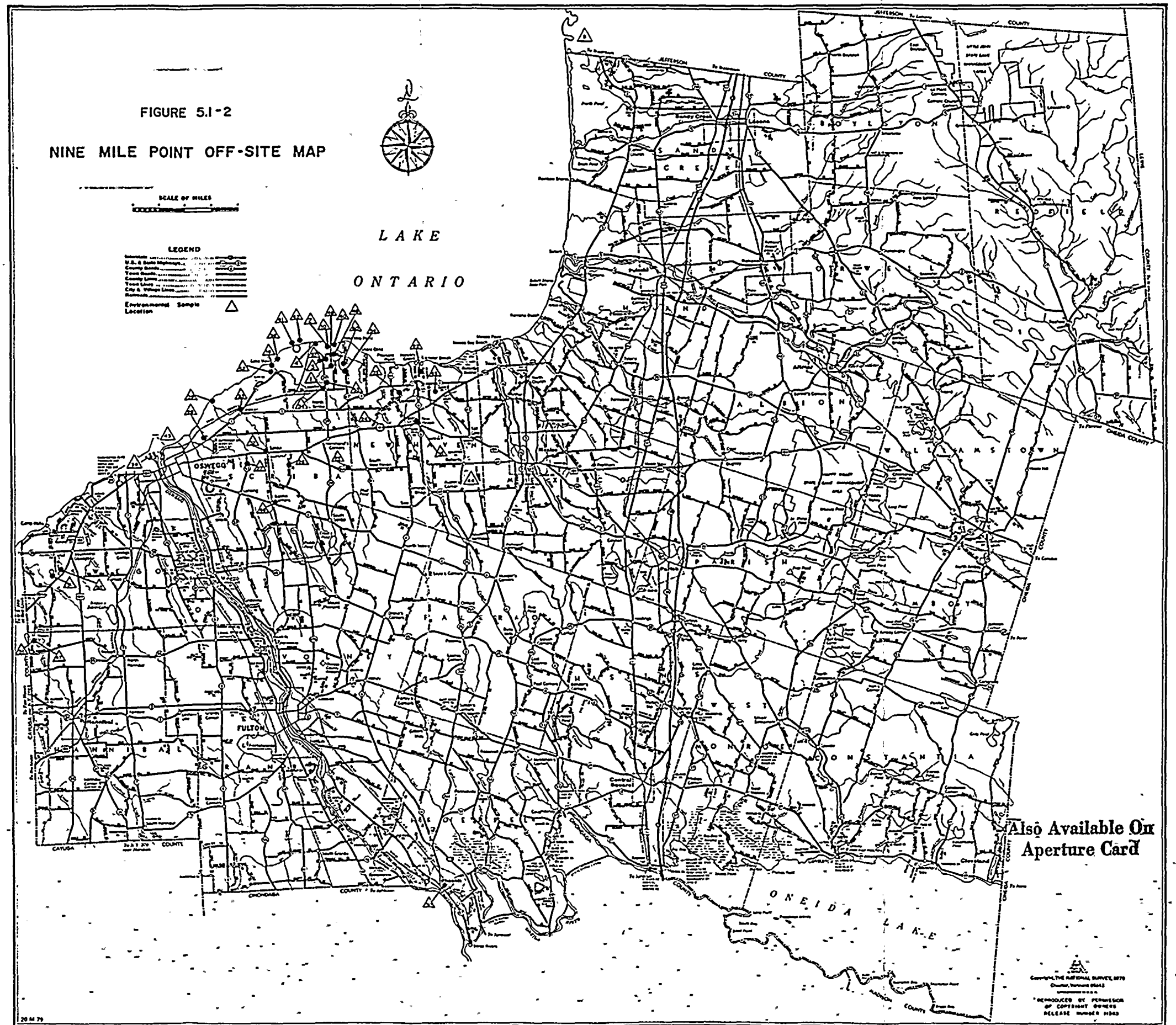
$$R_i = K^1 (BR)_a (DFA_i)_a$$

where:

R_i	=	dose factor for each identified radionuclide i of the organ of interest (units = mrem/hr per uCi/m ³);
K^1	=	a constant of unit conversion:
	=	10 ⁶ pCi/uCi;
$(BR)_a$	=	Breathing rate of the receptor of age group a , (units = m ³ /yr);
$(DFA_i)_a$	=	organ inhalation dose factor for radionuclide i for the receptor of age group a , (units = mrem/pCi).



FIGURE 5.1-2
NINE MILE POINT OFF-SITE MAP



TI
APERTURE
CARD

840⁵⁸4030114-01

