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MOUND
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Risk-Based Guideline Value Document
Revision 8
Dated 7/19/05

Created for the Department of Energy
Miamisburg Closure Project

0814-0810200004

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Created for the Department of Energy
Miamisburg Closure Project

0814-08102000004

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SMO-004-08
March 12, 2008

Mr. Don Pfister, Director
U.S. Department of Energy
Miamisburg Closure Project
175 Tri-county Parkway
Springdale, OH 45246

Attention: Paul Lucas

Subject: **CONTRACT NO. DE-AC24-03OH20152**; Section F.7 Contract Closeout; C.2.3.6, Post Closure Support of Regulatory Documents, Parcel 6, 7, & 8

Dear Mr. Pfister;

During contract closeout activities, CH2M HILL was unable to find records indicating transmittal of the three most recent revisions of the Risk Based Guideline Values (Revisions 7, 8, and 9). As a precaution, the following copies of these documents are provided for the Administrative Record. If DOE-MCP already has these documents in the Administrative Record, please disregard this memo.

For additional information, or if you or members of your staff have any questions, please contact Ken Armstrong at 937-608-8238.

Sincerely,

Virginia L. Matis
Contract Closeout Office Manager
CH2M HILL Mound, Inc

cc: Art Kleinrath, DOE/LM, (1) w/attachments
C. Friedman, Stoller, (1) w/attachments
Kathy Gunkle, Stoller, (2) w/attachments
DCC, (1) w/attachments

Summary

This document compiles the Risk-Based Guideline Values (RBGVs) and Hazard Indices (HIs) for the Miamisburg Closure Project (MCP). Since MCP is being redeveloped as an industrial park the receptors of interest are the Construction Worker and Site Employee. This compilation used toxicology information available from HEAST and IRIS through February 15, 2004. The equations used to calculate the RBGVs and HIs are documented in "Risk-Based Guideline Values, Mound Plant", March 1997, Final (Rev 4).

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Toxicity Criteria Table
Rad Values (Slope Factors)
ER/Site Transition Added Summary Worksheet
Values in IRIS Changed since Phase I Update (approx August 2002)

Risk-Based Guideline Value Spreadsheet Revision History

Rev 2 edited by J. Lyons from SAIC's Rev. 1 document provided by E-mail on August 28, 2003

from	"Johnson, Maria V." <MARIA.V.JOHNSON@saic.com>
to	J., Serazin, Hallie - Lyons, John - Rakel, David
1	SAIC original Rev. 1 document
2	BTEX removed because they were repeat entries
3	Three explosives removed because they were Semi-Vol repeats
4	Header blanks were removed
5	Soil saturation Tab added, formating stanadardized
6	#NA error messages fixed
7	Constants page added & additional formating stanadards
8	formating stanadards and printing options
9	soil saturation formulas implemented on 411, 412, 511 & 512

Rev 3 edited by J. Lyons from the Rev. 2 document checked against the SAIC document

1	All flagged potential discrepancies were reviewed & altered as required
2	FREON-113 vs Freon resolved and moved, lookup tabs were corrected
3	Silver-109m, Silver-108m added to 413, 414, 423, 424, 513, 514, 523 & 524

Rev 4 edited by J. Lyons from the Rev. 3 document

1	Centered all value columns, made all Table Headers similar
2	Silver 109m & 108M added to chemical tab
3	Dup 98-06-6 removed from 411 & 414
4	Universal Actinium starting point
5	Summary tab and where the value comes from
6	Duplicate 106-46-7, 108-60-1, 120-82-1, 541-73-1, 75-09-2, 87-68-3, 91-20-3 & 95-50-1
7	Added Macro constants tab
8	Curium-244 added to 413, 414, 423, 424, 513, 514, 523 & 524
9	NILT "Not In Lookup Table" added to 411, 412, 413, 421, 422, 423, 511, 512, 513, 521, 522 & 523
10	Added Macro in
11	Added calculations for Screening Level, cleanup Objective & Hot Spot Criteria to Macro constants
12	Added water backgrounds to Macro constants

Rev 5 edited by J. Lyons from the Rev. 4 document

1	Macro item 8 Hazard Index = 1 + Background added and Macro altered

Rev 6 edited by J. Lyons from the Rev. 5 document

1	Values changed see Justifications Tab
2	Metals category changed to Inorganics

Rev 7 edited by J. Lyons from the Rev. 6 document

1	added 0.1 Hazard Index + Background

Rev 8 edited by J. Lyons from the Rev. 7 document

1	corrected 0.1 Hazard Index + Background

Constants

Description	Abbrev.	Construction Worker						Site Worker			
		Soil		Groundwater				Soil		Groundwater	
		4.1.1, 4.1.2 & 4.1.3		4.2.1 - 4.2.2		4.2.3		5.1.1, 5.1.2 & 5.1.3		5.2.1, 5.2.2 & 5.2.3	
Airborne Mass Concentration of Water in Showe	M_{total}	- - -	- - -	- - -	- - -	6.696E+01	g/m^3	- - -	- - -	- - -	- - -
Averaging Time yrs	AT	7.000E+01	yrs	7.000E+01	yrs	- - -	- - -	7.000E+01	yrs	7.000E+01	yrs
Body Weight (7 - 31 yrs)	BW	7.000E+01	kg	7.000E+01	kg	- - -	- - -	7.000E+01	kg	7.000E+01	kg
Conversion Factor	CF	1.000E-06	kg/mg	- - -	- - -	- - -	- - -	1.000E-06	kg/mg	- - -	- - -
Conversion Factor 1	CF1	1.000E-03	g/mg	- - -	- - -	1.000E-03	g/l	1.000E-03	g/mg	- - -	- - -
Conversion Factor 2	CF2	1.000E+03	g/kg	- - -	- - -	1.000E+03	l/m^3	1.000E+03	g/kg	- - -	- - -
Conversion Factor Time	CF_t	- - -	- - -	4.167E-02	1 day/24 hr	4.167E-02	1 day/24 hr	- - -	- - -	- - -	- - -
Dermal Permeability Constant for Tritium	K_{ptrit}	- - -	- - -	- - -	- - -	1.500E-05	m/hr	- - -	- - -	- - -	- - -
Exposure Duration	ED	5.000E+00	yrs	5.000E+00	yrs	5.000E+00	yrs	2.500E+01	yrs	2.500E+01	yrs
Exposure Duration 1	ED1	5.000E+00	yrs	- - -	- - -	- - -	- - -	2.500E+01	yrs	- - -	- - -
Exposure Duration 2	ED2	3.425E+00	yrs	- - -	- - -	- - -	- - -	1.713E+01	yrs	- - -	- - -
Exposure Frequency	EF	2.500E+02	days/yr	2.500E+02	days/yr	2.500E+02	days/yr	2.500E+02	days/yr	2.500E+02	days/yr
Exposure Time	ET or T_{event}	- - -	- - -	1.670E-01	hr/day	- - -	- - -	- - -	- - -	- - -	- - -
Exposure Time for Shower	ET_s	- - -	- - -	- - -	- - -	1.670E-01	hr/day	- - -	- - -	- - -	- - -
Gamma Exposure Time Factor	T_c	3.333E-01	- - -	- - -	- - -	- - -	- - -	8.333E-02	- - -	- - -	- - -
Gamma Shielding	S_c	1.000E-01	- - -	- - -	- - -	- - -	- - -	2.000E-01	- - -	- - -	- - -
Ingestion Rate	IR_{water}	- - -	- - -	1.000E+00	1/day	1.000E+00	1/day	- - -	- - -	1.000E+00	1/day
Inhalation Rate	IR_{air}	2.000E+01	m^3/day	2.000E+01	m^3/day	2.000E+01	m^3/day	2.000E+01	m^3/day	- - -	- - -
Number of showers per day	EV	- - -	- - -	1.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Particulate Emission Factor	PEF	1.320E+09	m^3/kg	- - -	- - -	- - -	- - -	1.320E+09	m^3/kg	- - -	- - -
Skin Surface Area Available for Contact	SA	- - -	- - -	1.940E+04	cm^2	1.940E+00	cm^2	- - -	- - -	- - -	- - -
Soil Ingestion Rate (7 - 31 yrs)	IR_{soil}	4.800E+02	mg/day	- - -	- - -	- - -	- - -	5.000E+01	mg/day	- - -	- - -
Target Excess Individual Lifetime Cancer Risk	TR	1.000E-06	- - -	1.000E-06	- - -	1.000E-06	- - -	1.000E-06	- - -	1.000E-06	- - -
Target Hazard Index	THI	1.000E+00	- - -	1.000E+00	- - -	- - -	- - -	1.000E+00	- - -	1.000E+00	- - -
Volatilization Factor	K	- - -	- - -	5.000E-01	$1/m^3$	- - -	- - -	- - -	- - -	- - -	- - -

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Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Inorganics				
Actinium	7440-34-8	- - -	- - -	- - -
Aluminum	7429-90-5	- - -	- - -	- - -
Antimony	7440-36-0	- - -	- - -	- - -
Arsenic	7440-38-2	1.99E+00	6.27E+03	1.99E+00
Barium	7440-39-3	- - -	- - -	- - -
Beryllium	7440-41-7	- - -	1.12E+04	1.12E+04
Bismuth	7440-69-9	- - -	- - -	- - -
Boron	7440-42-8	- - -	- - -	- - -
Cadmium	7440-43-9s	- - -	1.50E+04	1.50E+04
Calcium	7440-70-2	- - -	- - -	- - -
Cerium	7440-45-1	- - -	- - -	- - -
Chromium	7440-47-3	- - -	- - -	- - -
Chromium III	16065-83-1	- - -	- - -	- - -
Chromium VI	18540-29-9	- - -	2.25E+03	2.25E+03
Cobalt	7440-48-4	- - -	- - -	- - -
Copper	7440-50-8	- - -	- - -	- - -
Cyanide	57-12-5	- - -	- - -	- - -
Dypsprosium	7429-91-6	- - -	- - -	- - -
Erbium	7440-52-0	- - -	- - -	- - -
Europium	7440-53-1	- - -	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -	- - -
Holmium	7440-60-0	- - -	- - -	- - -
Iron	7439-89-6	- - -	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -	- - -
Lead	7439-92-1	- - -	- - -	- - -
Lithium	7439-93-2	- - -	- - -	- - -
Lutetium	7439-94-3	- - -	- - -	- - -
Magnesium	7439-95-4	- - -	- - -	- - -
Manganese	7439-96-5s	- - -	- - -	- - -
Mercury	7439-97-6	- - -	- - -	- - -

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Molybdenum	7439-98-7	- - -	- - -	- - -
Neodymium	7440-00-8	- - -	- - -	- - -
Nickel	7440-02-0	- - -	5.62E+04	5.62E+04
Nitrate	14797-55-8	- - -	- - -	- - -
Nitrite	14797-65-0	- - -	- - -	- - -
Osmium	7440-04-2	- - -	- - -	- - -
Potassium	7440-09-7	- - -	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -	- - -
Rubidium	7440-17-7	- - -	- - -	- - -
Samarium	7440-19-9	- - -	- - -	- - -
Selenium	7782-49-2	- - -	- - -	- - -
Silicon	7440-21-3	- - -	- - -	- - -
Silver	7440-22-4	- - -	- - -	- - -
Sodium	7440-23-5	- - -	- - -	- - -
Strontium	7440-24-6	- - -	- - -	- - -
Tantalum	7440-25-7	- - -	- - -	- - -
Terbium	7440-27-9	- - -	- - -	- - -
Thallium	7440-28-0	- - -	- - -	- - -
Tin	7440-31-5	- - -	- - -	- - -
Titanium	7440-32-6	- - -	- - -	- - -
Uranium	7440-61-1	- - -	- - -	- - -
Vanadium	7440-62-2	- - -	- - -	- - -
Ytterbium	7440-64-4	- - -	- - -	- - -
Zinc	7440-66-6	- - -	- - -	- - -
Zirconium	7440-67-7	- - -	- - -	- - -
Dioxins/Dibenzofurans				
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -
1,2,3,6,7,8-HxCDF	55684-94-1	1.99E-04	6.30E+00	1.99E-04
1,2,3,7,8,9-HxCDD	19408-74-3	4.81E-04	2.08E+01	4.81E-04
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	3.97E-05	1.26E+00	3.97E-05
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -
2,3,4,7,8-PeCDF	57117-31-4	3.97E-04	1.26E+01	3.97E-04
2,3,7,8-TCDD	1746-01-6	1.99E-05	6.30E-01	1.99E-05
2,3,7,8-TCDF	51207-31-9	1.99E-04	6.30E+00	1.99E-04
HpCDD	37871-00-4	1.99E-03	6.30E+01	1.99E-03
HpCDF	38998-75-3	1.99E-03	6.30E+01	1.99E-03
HxCDD	34465-46-8	1.99E-04	6.30E+00	1.99E-04
OCDD	3268-87-9	1.99E-02	6.30E+02	1.99E-02
OCDF	39001-02-0	1.99E-02	6.30E+02	1.99E-02
PeCDD	36088-22-9	3.97E-05	1.26E+00	3.97E-05
PeCDF	30402-15-4	- - -	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -	- - -
TCDF	30402-14-3	- - -	- - -	- - -
Explosives				
1,3,5-Trinitrobenzene	99-35-4	- - -	- - -	- - -
1,3-Dinitrobenzene	99-65-0	- - -	- - -	- - -
2,4,6-Trinitrotoluene	118-96-7	9.94E+01	- - -	9.94E+01
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -
HMX	2691-41-0	- - -	- - -	- - -
Nitroglycerin	55-63-0	- - -	- - -	- - -
PETN	78-11-5	- - -	- - -	- - -
RDX	121-82-4	2.71E+01	- - -	2.71E+01
Tetryl	479-45-8	- - -	- - -	- - -
Pesticides and/or PCBs				

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
4,4'-DDD	72-54-8	1.24E+01	- - -	1.24E+01
4,4'-DDE	72-55-9	8.77E+00	- - -	8.77E+00
4,4'-DDT	50-29-3	8.77E+00	2.78E+05	8.77E+00
Aldrin	309-00-2	1.75E-01	5.51E+03	1.75E-01
Alpha Chlordane	5103-71-9	- - -	- - -	- - -
Alpha-BHC	319-84-6	4.73E-01	1.50E+04	4.73E-01
Aroclor-1016	12674-11-2	1.49E+00	4.72E+04	1.49E+00
Aroclor-1221	11104-28-2	1.49E+00	4.72E+04	1.49E+00
Aroclor-1232	11141-16-5	1.49E+00	4.72E+04	1.49E+00
Aroclor-1242	53469-21-9	1.49E+00	4.72E+04	1.49E+00
Aroclor-1248	12672-29-6	1.49E+00	4.72E+04	1.49E+00
Aroclor-1254	11097-69-1	1.49E+00	4.72E+04	1.49E+00
Aroclor-1260	11096-82-5	1.49E+00	4.72E+04	1.49E+00
Beta-BHC	319-85-7	1.66E+00	5.09E+04	1.66E+00
Chlordane	57-74-9	- - -	- - -	- - -
Delta-BHC	319-86-8	- - -	- - -	- - -
Dieldrin	60-57-1	1.86E-01	5.87E+03	1.86E-01
Endosulfan I	959-98-8	- - -	- - -	- - -
Endosulfan II	33213-65-9	- - -	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -
Endrin	72-20-8	- - -	- - -	- - -
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	2.29E+00	- - -	2.29E+00
Heptachlor	76-44-8	6.62E-01	2.08E+04	6.62E-01
Heptachlor Epoxide	1024-57-3	3.28E-01	1.04E+04	3.28E-01
Methoxychlor	72-43-5	- - -	- - -	- - -
Polychlorinated Biphenyls (PCBs)	1336-36-3	1.49E+00	4.73E+04	1.49E+00
Toxaphene	8001-35-2	2.71E+00	8.43E+04	2.71E+00

Semi-Volatile Organics

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
1,2,4-Trichlorobenzene	120-82-1	- - -	- - -	- - -
1,2-Dichlorobenzene	95-50-1	- - -	- - -	- - -
1,2-Diphenylhydrazine	122-66-7	3.73E+00	1.23E+05	3.73E+00
1,3-Dichlorobenzene	541-73-1	- - -	- - -	- - -
1,4-Dichlorobenzene	106-46-7	1.24E+02	- - -	1.24E+02
2,2'-oxybis(1-chloropropane)	108-60-1	4.26E+01	2.70E+06	4.26E+01
2,4,5-Trichlorophenol	95-95-4	- - -	- - -	- - -
2,4,6-Trichlorophenol	88-06-2	2.71E+02	8.70E+06	2.71E+02
2,4-Dichlorophenol	120-83-2	- - -	- - -	- - -
2,4-Dimethylphenol	105-67-9	- - -	- - -	- - -
2,4-Dinitrophenol	51-28-5	- - -	- - -	- - -
2,4-Dinitrotoluene	121-14-2	4.38E+00	- - -	4.38E+00
2,6-Dinitrotoluene	606-20-2	4.38E+00	- - -	4.38E+00
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -
2-Chloronaphthalene	91-58-7	- - -	- - -	- - -
2-Chlorophenol	95-57-8	- - -	- - -	- - -
2-Methylnaphthalene	91-57-6	- - -	- - -	- - -
2-Methylphenol	95-48-7	- - -	- - -	- - -
2-Nitroaniline	88-74-4	- - -	- - -	- - -
2-Nitrophenol	88-75-5	- - -	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	6.62E+00	- - -	6.62E+00
3-Nitroaniline	99-09-2	7.84E+01	- - -	7.84E+01
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -
4-Chloroaniline	106-47-8	- - -	- - -	- - -
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -
4-Methylphenol	106-44-5	- - -	- - -	- - -
4-Nitroaniline	100-01-6	7.84E+01	- - -	7.84E+01
4-Nitrophenol	100-02-7	- - -	- - -	- - -
Acenaphthene	83-32-9	- - -	- - -	- - -

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Acenaphthylene	208-96-8	- - -	- - -	- - -
Anthracene	120-12-7	- - -	- - -	- - -
Benzidine	92-87-5	1.30E-02	4.03E+02	1.30E-02
Benzo(a)anthracene	56-55-3	4.08E+00	3.07E+05	4.08E+00
Benzo(a)pyrene	50-32-8	4.08E-01	3.07E+04	4.08E-01
Benzo(b)fluoranthene	205-99-2	4.08E+00	3.07E+05	4.08E+00
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -
Benzo(k)fluoranthene	207-08-9	4.08E+01	3.07E+06	4.08E+01
Benzoic Acid	65-85-0	- - -	- - -	- - -
Benzyl Alcohol	100-51-6	- - -	- - -	- - -
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	2.71E+00	8.18E+04	2.71E+00
Bis(2-ethylhexyl)phthalate	117-81-7	2.13E+02	- - -	2.13E+02
Butyl Benzyl Phthalate	85-68-7	- - -	- - -	- - -
Carbazole	86-74-8	1.49E+02	- - -	1.49E+02
Chrysene	218-01-9	4.08E+02	3.07E+07	4.08E+02
Di-n-butyl Phthalate	84-74-2	- - -	- - -	- - -
Di-n-octyl Phthalate	117-84-0	- - -	- - -	- - -
Dibenz(a,h)anthracene	53-70-3	4.08E-01	3.07E+04	4.08E-01
Dibenzofuran	132-64-9	- - -	- - -	- - -
Diethyl Phthalate	84-66-2	- - -	- - -	- - -
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -
Fluoranthene	206-44-0	- - -	- - -	- - -
Fluorene	86-73-7	- - -	- - -	- - -
Hexachlorobenzene	118-74-1	1.86E+00	5.87E+04	1.86E+00
Hexachlorobutadiene	87-68-3	3.82E+01	1.23E+06	3.82E+01
Hexachlorocyclopentadiene	77-47-4	- - -	- - -	- - -
Hexachloroethane	67-72-1	2.13E+02	6.75E+06	2.13E+02
Indeno(1,2,3-cd)pyrene	193-39-5	4.08E+00	3.07E+05	4.08E+00
Isophorone	78-59-1	3.14E+03	- - -	3.14E+03
N-Nitroso-di-n-propylamine	621-64-7	4.26E-01	- - -	4.26E-01

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
N-Nitrosodimethylamine	62-75-9	5.84E-02	1.93E+03	5.84E-02
N-Nitrosodiphenylamine	86-30-6	6.08E+02	- - -	6.08E+02
Naphthalene	91-20-3	- - -	- - -	- - -
Nitrobenzene	98-95-3	- - -	- - -	- - -
Pentachlorophenol	87-86-5	2.48E+01	- - -	2.48E+01
Phenanthrene	85-01-8	- - -	- - -	- - -
Phenol	108-95-2	- - -	- - -	- - -
Pyrene	129-00-0	- - -	- - -	- - -
Pyridine	110-86-1	- - -	- - -	- - -
Tributyl phosphate	126-73-8	- - -	- - -	- - -
Volatile Organics				
1,1,1,2-Tetrachloroethane	630-20-6	1.15E+02	3.59E+01	2.73E+01
1,1,1-Trichloroethane	71-55-6	- - -	- - -	- - -
1,1,2,2-Tetrachloroethane	79-34-5	1.49E+01	4.58E+00	3.50E+00
1,1,2-Trichloroethane	79-00-5	5.23E+01	9.71E+00	8.19E+00
1,1-Dichloroethane	75-34-3	- - -	- - -	- - -
1,1-Dichloroethene	75-35-4	- - -	- - -	- - -
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -
1,2,3-Trichloropropane	96-18-4	4.26E-01	- - -	4.26E-01
1,2,4-Trimethylbenzene	95-63-6	- - -	- - -	- - -
1,2-Dibromo-3-Chloropropane	96-12-8	2.13E+00	7.41E+02	2.12E+00
1,2-Dichloroethane	107-06-2	3.28E+01	3.85E+00	3.45E+00
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -
1,2-Dichloropropane	78-87-5	4.38E+01	- - -	4.38E+01
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	- - -	- - -	- - -
1,2-trans-Dichloroethene	156-60-5	- - -	- - -	- - -
1,3,5-Trimethylbenzene	108-67-8	- - -	- - -	- - -
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -
2-Butanone	78-93-3	- - -	- - -	- - -
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -
2-Chlorotoluene	95-49-8	- - -	- - -	- - -
2-Hexanone	591-78-6	- - -	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -
Acetone	67-64-1	- - -	- - -	- - -
Acetonitrile	75-05-8	- - -	- - -	- - -
Acrylonitrile	107-13-1	5.52E+00	2.71E+00	1.82E+00
Benzene	71-43-2	5.42E+01	- - -	5.42E+01
Benzyl Chloride	100-44-7	1.75E+01	- - -	1.75E+01
Bromochloromethane	74-97-5	- - -	- - -	- - -
Bromodichloromethane	75-27-4	4.81E+01	- - -	4.81E+01
Bromoform	75-25-2	3.77E+02	2.45E+07	3.77E+02
Bromomethane	74-83-9	- - -	- - -	- - -
Carbon Disulfide	75-15-0	- - -	- - -	- - -
Carbon Tetrachloride	56-23-5	2.29E+01	2.73E+00	2.44E+00
Chlorobenzene	108-90-7	- - -	- - -	- - -
Chloroethane	75-00-3	- - -	- - -	- - -
Chloroform (Trichloromethane)	67-66-3	- - -	2.58E+00	2.58E+00
Chloromethane	74-87-3	2.29E+02	1.36E+01	1.29E+01
Chlorotoluene	25168-05-2	- - -	- - -	- - -
Dibromochloromethane	124-48-1	3.55E+01	- - -	3.55E+01
Dibromomethane	74-95-3	- - -	- - -	- - -
Dichlorodifluoromethane	75-71-8	- - -	- - -	- - -
Dichloromethane (Methylene Chloride)	75-09-2	3.97E+02	1.04E+02	8.27E+01

Table 4.1.1		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Ethylbenzene	100-41-4	- - -	- - -	- - -
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	3.51E-02	8.55E-01	3.37E-02
Fluorobenzene	462-06-6	- - -	- - -	- - -
FREON-113	76-13-1	- - -	- - -	- - -
Hexane	110-54-3	- - -	- - -	- - -
Iodomethane	74-88-4	- - -	- - -	- - -
Isopropyl Benzene	98-82-8	- - -	- - -	- - -
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -
Styrene	100-42-5	- - -	- - -	- - -
Tetrachloroethene	127-18-4	5.73E+01	1.13E+02	3.80E+01
Toluene	108-88-3	- - -	- - -	- - -
Total VOC's	TVOC	- - -	- - -	- - -
Trichloroethene	79-01-6	2.29E+02	2.66E+01	2.38E+01
Trichlorofluoromethane	75-69-4	- - -	- - -	- - -
Vinyl Acetate	108-05-4	- - -	- - -	- - -
Vinyl Chloride	75-01-4	1.99E+00	2.32E+00	1.07E+00
Xylenes, Total	1330-20-7	- - -	- - -	- - -
m-Xylene	108-38-3	- - -	- - -	- - -
mp-Xylene	mp-Xylene	- - -	- - -	- - -
n-Butylbenzene	104-51-8	- - -	- - -	- - -
n-propylbenzene	103-65-1	- - -	- - -	- - -
o-Xylene	95-47-6	- - -	- - -	- - -
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -
p-Xylene	106-42-3	- - -	- - -	- - -
sec-Butylbenzene	135-98-8	- - -	- - -	- - -
tert-Butylbenzene	98-06-6	- - -	- - -	- - -

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Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Inorganics				
Actinium	7440-34-8	- - -	- - -	- - -
Aluminum	7429-90-5	2.13E+05	- - -	2.13E+05
Antimony	7440-36-0	8.52E+01	- - -	8.52E+01
Arsenic	7440-38-2	6.39E+01	- - -	6.39E+01
Barium	7440-39-3	1.49E+04	- - -	1.49E+04
Beryllium	7440-41-7	4.26E+02	3.85E+04	4.21E+02
Bismuth	7440-69-9	- - -	- - -	- - -
Boron	7440-42-8	1.92E+04	- - -	1.92E+04
Cadmium	7440-43-9s	2.13E+02	- - -	2.13E+02
Calcium	7440-70-2	- - -	- - -	- - -
Cerium	7440-45-1	- - -	- - -	- - -
Chromium	7440-47-3	3.19E+05	- - -	3.19E+05
Chromium III	16065-83-1	3.19E+05	- - -	3.19E+05
Chromium VI	18540-29-9	6.39E+02	1.93E+05	6.37E+02
Cobalt	7440-48-4	1.28E+04	- - -	1.28E+04
Copper	7440-50-8	8.52E+03	- - -	8.52E+03
Cyanide	57-12-5	4.26E+03	- - -	4.26E+03
Dypsprosium	7429-91-6	- - -	- - -	- - -
Erbium	7440-52-0	- - -	- - -	- - -
Europium	7440-53-1	- - -	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -	- - -
Holmium	7440-60-0	- - -	- - -	- - -
Iron	7439-89-6	- - -	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -	- - -
Lead	7439-92-1	- - -	- - -	- - -
Lithium	7439-93-2	- - -	- - -	- - -
Lutetium	7439-94-3	- - -	- - -	- - -
Magnesium	7439-95-4	- - -	- - -	- - -
Manganese	7439-96-5s	2.98E+04	9.64E+04	2.28E+04
Mercury	7439-97-6	6.39E+01	5.78E+05	6.39E+01

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Molybdenum	7439-98-7	1.06E+03	- - -	1.06E+03
Neodymium	7440-00-8	- - -	- - -	- - -
Nickel	7440-02-0	4.26E+03	- - -	4.26E+03
Nitrate	14797-55-8	3.41E+05	- - -	3.41E+05
Nitrite	14797-65-0	2.13E+04	- - -	2.13E+04
Osmium	7440-04-2	- - -	- - -	- - -
Potassium	7440-09-7	- - -	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -	- - -
Rubidium	7440-17-7	- - -	- - -	- - -
Samarium	7440-19-9	- - -	- - -	- - -
Selenium	7782-49-2	1.06E+03	- - -	1.06E+03
Silicon	7440-21-3	- - -	- - -	- - -
Silver	7440-22-4	1.06E+03	- - -	1.06E+03
Sodium	7440-23-5	- - -	- - -	- - -
Strontium	7440-24-6	- - -	- - -	- - -
Tantalum	7440-25-7	- - -	- - -	- - -
Terbium	7440-27-9	- - -	- - -	- - -
Thallium	7440-28-0	1.70E+01	- - -	1.70E+01
Tin	7440-31-5	1.28E+05	- - -	1.28E+05
Titanium	7440-32-6	- - -	- - -	- - -
Uranium	7440-61-1	- - -	- - -	- - -
Vanadium	7440-62-2	1.49E+03	- - -	1.49E+03
Ytterbium	7440-64-4	- - -	- - -	- - -
Zinc	7440-66-6	6.39E+04	- - -	6.39E+04
Zirconium	7440-67-7	- - -	- - -	- - -
Dioxins/Dibenzofurans				
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -
1,2,3,6,7,8-HxCDF	55684-94-1	- - -	- - -	- - -
1,2,3,7,8,9-HxCDD	19408-74-3	- - -	- - -	- - -
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	- - -	- - -	- - -
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -
2,3,4,7,8-PeCDF	57117-31-4	- - -	- - -	- - -
2,3,7,8-TCDD	1746-01-6	- - -	- - -	- - -
2,3,7,8-TCDF	51207-31-9	- - -	- - -	- - -
HpCDD	37871-00-4	- - -	- - -	- - -
HpCDF	38998-75-3	- - -	- - -	- - -
HxCDD	34465-46-8	- - -	- - -	- - -
OCDD	3268-87-9	- - -	- - -	- - -
OCDF	39001-02-0	- - -	- - -	- - -
PeCDD	36088-22-9	- - -	- - -	- - -
PeCDF	30402-15-4	- - -	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -	- - -
TCDF	30402-14-3	- - -	- - -	- - -
Explosives				
1,3,5-Trinitrobenzene	99-35-4	6.39E+03	- - -	6.39E+03
1,3-Dinitrobenzene	99-65-0	2.13E+01	- - -	2.13E+01
2,4,6-Trinitrotoluene	118-96-7	1.06E+02	- - -	1.06E+02
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -
HMX	2691-41-0	1.06E+04	- - -	1.06E+04
Nitroglycerin	55-63-0	- - -	- - -	- - -
PETN	78-11-5	- - -	- - -	- - -
RDX	121-82-4	6.39E+02	- - -	6.39E+02
Tetryl	479-45-8	2.13E+03	- - -	2.13E+03
Pesticides and/or PCBs				

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
4,4'-DDD	72-54-8	- - -	- - -	- - -
4,4'-DDE	72-55-9	- - -	- - -	- - -
4,4'-DDT	50-29-3	1.06E+02	- - -	1.06E+02
Aldrin	309-00-2	6.39E+00	- - -	6.39E+00
Alpha Chlordane	5103-71-9	- - -	- - -	- - -
Alpha-BHC	319-84-6	- - -	- - -	- - -
Aroclor-1016	12674-11-2	1.49E+01	- - -	1.49E+01
Aroclor-1221	11104-28-2	- - -	- - -	- - -
Aroclor-1232	11141-16-5	- - -	- - -	- - -
Aroclor-1242	53469-21-9	- - -	- - -	- - -
Aroclor-1248	12672-29-6	- - -	- - -	- - -
Aroclor-1254	11097-69-1	4.26E+00	- - -	4.26E+00
Aroclor-1260	11096-82-5	- - -	- - -	- - -
Beta-BHC	319-85-7	- - -	- - -	- - -
Chlordane	57-74-9	- - -	- - -	- - -
Delta-BHC	319-86-8	- - -	- - -	- - -
Dieldrin	60-57-1	1.06E+01	- - -	1.06E+01
Endosulfan I	959-98-8	- - -	- - -	- - -
Endosulfan II	33213-65-9	- - -	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -
Endrin	72-20-8	6.39E+01	- - -	6.39E+01
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	6.39E+01	- - -	6.39E+01
Heptachlor	76-44-8	1.06E+02	- - -	1.06E+02
Heptachlor Epoxide	1024-57-3	2.77E+00	- - -	2.77E+00
Methoxychlor	72-43-5	1.06E+03	- - -	1.06E+03
Polychlorinated Biphenyls (PCBs)	1336-36-3	4.26E+00	- - -	4.26E+00
Toxaphene	8001-35-2	- - -	- - -	- - -

Semi-Volatile Organics

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
1,2,4-Trichlorobenzene	120-82-1	2.13E+03	3.85E+08	2.13E+03
1,2-Dichlorobenzene	95-50-1	1.92E+04	- - -	1.92E+04
1,2-Diphenylhydrazine	122-66-7	- - -	- - -	- - -
1,3-Dichlorobenzene	541-73-1	6.39E+03	1.54E+07	6.38E+03
1,4-Dichlorobenzene	106-46-7	- - -	1.54E+09	1.54E+09
2,2'-oxybis(1-chloropropane)	108-60-1	8.52E+03	- - -	8.52E+03
2,4,5-Trichlorophenol	95-95-4	2.13E+04	- - -	2.13E+04
2,4,6-Trichlorophenol	88-06-2	- - -	- - -	- - -
2,4-Dichlorophenol	120-83-2	6.39E+02	- - -	6.39E+02
2,4-Dimethylphenol	105-67-9	4.26E+03	- - -	4.26E+03
2,4-Dinitrophenol	51-28-5	4.26E+02	- - -	4.26E+02
2,4-Dinitrotoluene	121-14-2	4.26E+02	- - -	4.26E+02
2,6-Dinitrotoluene	606-20-2	2.13E+02	- - -	2.13E+02
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -
2-Chloronaphthalene	91-58-7	1.70E+04	- - -	1.70E+04
2-Chlorophenol	95-57-8	1.06E+03	- - -	1.06E+03
2-Methylnaphthalene	91-57-6	8.52E+02	- - -	8.52E+02
2-Methylphenol	95-48-7	1.06E+04	- - -	1.06E+04
2-Nitroaniline	88-74-4	6.39E+01	3.85E+05	6.39E+01
2-Nitrophenol	88-75-5	- - -	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	- - -	- - -	- - -
3-Nitroaniline	99-09-2	6.39E+01	- - -	6.39E+01
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -
4-Chloroaniline	106-47-8	8.52E+02	- - -	8.52E+02
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -
4-Methylphenol	106-44-5	1.06E+03	- - -	1.06E+03
4-Nitroaniline	100-01-6	6.39E+02	- - -	6.39E+02
4-Nitrophenol	100-02-7	- - -	- - -	- - -
Acenaphthene	83-32-9	1.28E+04	- - -	1.28E+04

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Acenaphthylene	208-96-8	- - -	- - -	- - -
Anthracene	120-12-7	6.39E+04	- - -	6.39E+04
Benzidine	92-87-5	6.39E+02	- - -	6.39E+02
Benzo(a)anthracene	56-55-3	- - -	- - -	- - -
Benzo(a)pyrene	50-32-8	- - -	- - -	- - -
Benzo(b)fluoranthene	205-99-2	- - -	- - -	- - -
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -
Benzo(k)fluoranthene	207-08-9	- - -	- - -	- - -
Benzoic Acid	65-85-0	8.52E+05	- - -	8.52E+05
Benzyl Alcohol	100-51-6	6.39E+04	- - -	6.39E+04
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	- - -	- - -	- - -
Bis(2-ethylhexyl)phthalate	117-81-7	4.26E+03	- - -	4.26E+03
Butyl Benzyl Phthalate	85-68-7	4.26E+04	- - -	4.26E+04
Carbazole	86-74-8	- - -	- - -	- - -
Chrysene	218-01-9	- - -	- - -	- - -
Di-n-butyl Phthalate	84-74-2	2.13E+04	- - -	2.13E+04
Di-n-octyl Phthalate	117-84-0	4.26E+03	- - -	4.26E+03
Dibenz(a,h)anthracene	53-70-3	- - -	- - -	- - -
Dibenzofuran	132-64-9	8.52E+02	- - -	8.52E+02
Diethyl Phthalate	84-66-2	1.70E+05	- - -	1.70E+05
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -
Fluoranthene	206-44-0	8.52E+03	- - -	8.52E+03
Fluorene	86-73-7	8.52E+03	- - -	8.52E+03
Hexachlorobenzene	118-74-1	1.70E+02	- - -	1.70E+02
Hexachlorobutadiene	87-68-3	4.26E+01	- - -	4.26E+01
Hexachlorocyclopentadiene	77-47-4	1.28E+03	3.85E+05	1.27E+03
Hexachloroethane	67-72-1	2.13E+02	- - -	2.13E+02
Indeno(1,2,3-cd)pyrene	193-39-5	- - -	- - -	- - -
Isophorone	78-59-1	4.26E+04	- - -	4.26E+04
N-Nitroso-di-n-propylamine	621-64-7	- - -	- - -	- - -

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
N-Nitrosodimethylamine	62-75-9	- - -	- - -	- - -
N-Nitrosodiphenylamine	86-30-6	- - -	- - -	- - -
Naphthalene	91-20-3	4.26E+03	5.78E+06	4.26E+03
Nitrobenzene	98-95-3	1.06E+02	- - -	1.06E+02
Pentachlorophenol	87-86-5	6.39E+03	- - -	6.39E+03
Phenanthrene	85-01-8	- - -	- - -	- - -
Phenol	108-95-2	1.28E+05	- - -	1.28E+05
Pyrene	129-00-0	6.39E+03	- - -	6.39E+03
Pyridine	110-86-1	2.13E+02	- - -	2.13E+02
Tributyl phosphate	126-73-8	- - -	- - -	- - -
Volatile Organics				
1,1,1,2-Tetrachloroethane	630-20-6	6.39E+03	- - -	6.39E+03
1,1,1-Trichloroethane	71-55-6	5.96E+04	3.50E+03	3.31E+03
1,1,2,2-Tetrachloroethane	79-34-5	- - -	- - -	- - -
1,1,2-Trichloroethane	79-00-5	8.52E+02	- - -	8.52E+02
1,1-Dichloroethane	75-34-3	2.13E+04	- - -	2.13E+04
1,1-Dichloroethene	75-35-4	1.06E+04	- - -	1.06E+04
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -
1,2,3-Trichloropropane	96-18-4	1.28E+03	- - -	1.28E+03
1,2,4-Trimethylbenzene	95-63-6	1.06E+04	1.75E+02	1.72E+02
1,2-Dibromo-3-Chloropropane	96-12-8	- - -	7.30E+00	7.30E+00
1,2-Dichloroethane	107-06-2	- - -	- - -	- - -
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -
1,2-Dichloropropane	78-87-5	- - -	2.16E+01	2.16E+01
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	2.13E+03	- - -	2.13E+03
1,2-trans-Dichloroethene	156-60-5	4.26E+03	- - -	4.26E+03
1,3,5-Trimethylbenzene	108-67-8	1.06E+04	7.01E+01	6.96E+01
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -
2-Butanone	78-93-3	1.28E+05	- - -	9.30E+03
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -
2-Chlorotoluene	95-49-8	4.26E+03	- - -	4.26E+03
2-Hexanone	591-78-6	- - -	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -
Acetone	67-64-1	1.92E+05	- - -	1.92E+05
Acetonitrile	75-05-8	- - -	2.01E+03	2.01E+03
Acrylonitrile	107-13-1	2.13E+02	2.63E+01	2.34E+01
Benzene	71-43-2	8.52E+02	- - -	4.90E+02
Benzyl Chloride	100-44-7	- - -	- - -	- - -
Bromochloromethane	74-97-5	- - -	- - -	- - -
Bromodichloromethane	75-27-4	4.26E+03	- - -	4.26E+03
Bromoform	75-25-2	4.26E+03	- - -	4.26E+03
Bromomethane	74-83-9	2.98E+02	1.31E+01	1.26E+01
Carbon Disulfide	75-15-0	2.13E+04	1.23E+03	1.16E+03
Carbon Tetrachloride	56-23-5	1.49E+02	5.84E+00	5.62E+00
Chlorobenzene	108-90-7	4.26E+03	5.52E+02	4.89E+02
Chloroethane	75-00-3	8.52E+04	1.60E+02	1.60E+02
Chloroform (Trichloromethane)	67-66-3	2.13E+03	- - -	1.50E+03
Chloromethane	74-87-3	- - -	1.58E+02	1.58E+02
Chlorotoluene	25168-05-2	- - -	- - -	- - -
Dibromochloromethane	124-48-1	4.26E+03	- - -	4.26E+03
Dibromomethane	74-95-3	- - -	- - -	- - -
Dichlorodifluoromethane	75-71-8	4.26E+04	- - -	4.26E+04
Dichloromethane (Methylene Chloride)	75-09-2	1.28E+04	1.00E+03	1.00E+03

Table 4.1.2		Construction Worker - Soil/Sediment Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Ethylbenzene	100-41-4	2.13E+04	4.80E-01	4.80E-01
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	- - -	2.69E+00	2.69E+00
Fluorobenzene	462-06-6	- - -	- - -	- - -
FREON-113	76-13-1	6.39E+06	7.01E+04	6.93E+04
Hexane	110-54-3	1.28E+04	9.10E+01	9.10E+01
Iodomethane	74-88-4	- - -	- - -	- - -
Isopropyl Benzene	98-82-8	2.13E+04	5.43E+02	5.30E+02
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -
Styrene	100-42-5	4.26E+04	2.19E+04	1.45E+04
Tetrachloroethene	127-18-4	2.13E+03	- - -	2.13E+03
Toluene	108-88-3	4.26E+04	2.50E+02	2.50E+02
Total VOC's	TVOC	- - -	- - -	- - -
Trichloroethene	79-01-6	1.06E+05	4.40E+02	4.40E+02
Trichlorofluoromethane	75-69-4	6.39E+04	- - -	7.30E+02
Vinyl Acetate	108-05-4	2.13E+05	1.40E+03	1.39E+03
Vinyl Chloride	75-01-4	6.39E+02	1.46E+02	1.19E+02
Xylenes, Total	1330-20-7	4.26E+04	- - -	4.26E+04
m-Xylene	108-38-3	4.26E+05	- - -	4.26E+05
mp-Xylene	mp-Xylene	- - -	- - -	- - -
n-Butylbenzene	104-51-8	8.52E+03	- - -	8.52E+03
n-propylbenzene	103-65-1	8.52E+03	- - -	8.52E+03
o-Xylene	95-47-6	4.26E+05	- - -	4.26E+05
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -
p-Xylene	106-42-3	4.26E+05	- - -	4.26E+05
sec-Butylbenzene	135-98-8	8.52E+03	- - -	8.52E+03
tert-Butylbenzene	98-06-6	8.52E+03	- - -	8.52E+03

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Table 4.1.3		Construction Worker - Soil/Sediment Exposure Pathway (Radionuclides) (pCi/g)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Radiological					
Actinium-227	14952-40-0	4.37E+00	3.54E+02	2.80E+03	4.37E+00
Actinium-227 +D	14952-40-0(+D)	1.44E+00	2.53E+02	6.62E-01	4.53E-01
Actinium-227 long lived decay	14952-40-0L	1.44E+00	2.53E+02	6.62E-01	4.53E-01
Actinium-228	14331-83-0	3.00E+02	1.07E+06	2.15E-01	2.15E-01
Americium-241	14596-10-2	7.68E+00	1.88E+03	3.53E+01	6.31E+00
Antimony-124	14683-10-4	4.76E+01	2.17E+06	1.09E-01	1.09E-01
Antimony-125	14234-35-6	1.49E+02	3.18E+06	5.38E-01	5.36E-01
Antimony-125+D	14234-35-6(+D)	1.26E+02	2.74E+06	5.38E-01	5.35E-01
Barium-133	13981-41-4	1.20E+02	4.55E+06	6.76E-01	6.72E-01
Barium-133m	13981-41-4m	1.84E+02	2.59E+07	4.97E+00	4.83E+00
Barium-140	14798-08-4	3.99E+01	2.60E+06	1.28E+00	1.24E+00
Beryllium-7	13966-02-4	8.25E+03	2.48E+08	4.57E+00	4.57E+00
Bismuth-207	13982-38-2	1.12E+02	2.51E+06	1.37E-01	1.37E-01
Bismuth-210	14331-79-4	6.54E+01	1.67E+05	3.53E+02	5.51E+01
Bismuth-210m	14331-79-4m	1.15E+01	4.51E+03	9.64E-01	8.89E-01
Bismuth-211	15229-37-5	- - -	- - -	5.18E+00	5.18E+00
Bismuth-212	14913-49-6	9.36E+02	6.80E+05	1.10E+00	1.10E+00
Bismuth-214	14733-03-0	3.85E+03	1.82E+06	1.30E-01	1.30E-01
Cerium-139	CE-139	- - -	- - -	- - -	- - -
Cerium-141	13967-74-3	1.24E+02	4.63E+06	4.29E+00	4.14E+00
Cerium-144	14762-78-8	1.63E+01	4.80E+05	1.94E+01	8.87E+00
Cerium-144+D	14762-78-8(+D)	1.63E+01	4.80E+05	3.99E+00	3.21E+00
Cesium-134	13967-70-9	2.87E+01	3.20E+06	1.37E-01	1.36E-01
Cesium-134m	13967-70-9m	1.89E+04	2.65E+09	1.94E+01	1.94E+01
Cesium-137	10045-97-3	3.85E+01	4.44E+06	1.83E+03	3.77E+01
Cesium-137 +D	10045-97-3(+D)	3.85E+01	4.44E+06	3.82E-01	3.78E-01
Cesium-137 long lived decay	10045-97-3L	3.85E+01	4.44E+06	3.82E-01	3.78E-01
Chromium-51	14392-02-0	3.36E+03	3.16E+08	7.66E+00	7.65E+00
Cobalt-57	13981-50-5	6.00E+02	2.53E+07	2.74E+00	2.73E+00
Cobalt-58	13981-38-9	2.24E+02	8.81E+06	2.17E-01	2.17E-01
Cobalt-58m	13981-38-9m	4.80E+03	7.67E+08	9.73E+05	4.78E+03
Cobalt-60	10198-40-0	4.14E+01	1.47E+06	7.85E-02	7.83E-02
Cobalt-60m	10198-40-0m	2.83E+05	1.33E+10	5.23E+01	5.23E+01

L - used for long lived decay lookup value

Table 4.1.3		Construction Worker - Soil/Sediment Exposure Pathway (Radionuclides) (pCi/g)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Curium-244	13981-15-2	9.21E+00	2.09E+03	2.01E+04	9.20E+00
Europium-152	14683-23-9	1.03E+02	5.80E+05	1.84E-01	1.83E-01
Europium-152m	14683-23-9m	1.96E+02	4.71E+07	7.32E-01	7.29E-01
Europium-154	15585-10-1	5.85E+01	4.59E+05	1.67E-01	1.66E-01
Europium-155	14391-16-3	3.09E+02	3.57E+06	7.85E+00	7.65E+00
Iodine-131	24267-56-9	- - -	- - -	- - -	- - -
Iridium-192	12154-84-6	- - -	- - -	- - -	- - -
Iron-59	14596-12-4	8.05E+01	3.97E+06	1.67E-01	1.67E-01
Lanthanum-140	13981-28-7	5.46E+01	1.11E+07	8.46E-02	8.45E-02
Lead-210	14255-04-0	9.06E-01	1.91E+04	6.90E+02	9.05E-01
Lead-210+D	14255-04-0(+D)	6.27E-01	3.80E+03	2.31E+02	6.25E-01
Lead-210 long lived decay	14255-04-0L	6.27E-01	3.80E+03	2.31E+02	6.25E-01
Lead-212	15092-94-1	2.49E+01	9.15E+04	1.91E+00	1.78E+00
Lead-214	15067-28-4	1.96E+03	1.45E+06	9.91E-01	9.91E-01
Manganese-54	13966-31-9	3.24E+02	8.98E+06	2.50E-01	2.50E-01
Mercury-203	13982-78-0	1.31E+02	2.16E+06	1.06E+00	1.05E+00
Neptunium-237	13994-20-2	1.14E+01	2.98E+03	1.82E+01	7.01E+00
Neptunium-237+D	13994-20-2(+D)	1.03E+01	2.98E+03	1.22E+00	1.09E+00
Niobium-95	13967-76-5	2.62E+02	9.71E+06	2.76E-01	2.75E-01
Niobium-95m	13967-76-5m	1.59E+02	1.61E+07	4.19E+00	4.09E+00
Plutonium-238	13981-16-3	6.13E+00	1.57E+03	1.35E+04	6.12E+00
Plutonium-238/239	PU-238/239	6.04E+00	1.59E+03	4.87E+03	6.03E+00
Plutonium-239	15117-48-3	6.04E+00	1.59E+03	4.87E+03	6.03E+00
Plutonium-239/240	PU-239/240	6.04E+00	1.59E+03	4.87E+03	6.03E+00
Plutonium-241	14119-32-5	5.07E+02	1.58E+05	2.37E+05	5.06E+02
Plutonium-242	13982-10-0	6.34E+00	1.69E+03	1.56E+04	6.33E+00
Polonium-210	13981-52-7	2.09E+00	4.89E+03	2.46E+04	2.09E+00
Potassium-40	13966-00-2	2.70E+01	5.13E+06	1.22E+00	1.17E+00
Protactinium-231	14331-85-2	4.46E+00	1.16E+03	7.00E+00	2.72E+00
Protactinium-231 long lived decay	14331-85-2L	1.09E+00	2.07E+02	6.05E-01	3.89E-01
Protactinium-233	13981-14-1	1.05E+02	3.72E+06	1.31E+00	1.29E+00
Protactinium-234	15100-28-4	2.37E+02	3.62E+07	1.12E-01	1.12E-01
Protactinium-234m	15100-28-4m	- - -	- - -	1.42E+01	1.42E+01
Radium-223	15623-45-7	2.59E+00	2.11E+03	2.24E+00	1.20E+00

L - used for long lived decay lookup value

Table 4.1.3		Construction Worker - Soil/Sediment Exposure Pathway (Radionuclides) (pCi/g)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Radium-224	13233-32-4	3.70E+00	5.29E+03	2.62E+01	3.24E+00
Radium-225	13981-53-8	6.13E+00	2.51E+03	1.65E+02	5.91E+00
Radium-226	13982-63-3	2.29E+00	4.59E+03	4.25E+01	2.17E+00
Radium-226+D	13982-63-3(+D)	2.28E+00	4.55E+03	1.15E-01	1.09E-01
Radium-226 long lived decay	13982-63-3L	4.92E-01	2.07E+03	1.15E-01	9.29E-02
Radium-228	15262-20-1	7.31E-01	1.02E+04	- - -	7.31E-01
Radium-228+D	15262-20-1(+D)	7.28E-01	1.01E+04	2.15E-01	1.66E-01
Radium-228 long lived decay	15262-20-1L	5.38E-01	3.56E+02	7.92E-02	6.90E-02
Ruthenium-103	13968-53-1	1.59E+02	1.02E+07	4.77E-01	4.76E-01
Ruthenium-106	13967-48-1	1.40E+01	6.13E+05	- - -	1.40E+01
Ruthenium-106+D	13967-48-1(+D)	1.40E+01	5.18E+05	1.01E+00	9.40E-01
Scandium-46	13967-63-0	1.03E+02	2.14E+06	1.01E-01	1.01E-01
Silver-108m	14391-65-2m	8.68E+01	1.98E+06	1.36E-01	1.35E-01
Silver-109m	14378-38-2m	- - -	- - -	1.27E+02	1.27E+02
Sodium-22	13966-32-0	8.46E+01	1.36E+07	9.45E-02	9.44E-02
Strontium-85	13967-73-2	3.31E+02	2.06E+07	4.42E-01	4.42E-01
Strontium-85m	13967-73-2m	4.46E+04	6.35E+09	1.19E+00	1.19E+00
Strontium-89	14158-27-1	4.80E+01	2.26E+06	1.35E+02	3.55E+01
Strontium-90	10098-97-2	1.82E+01	5.03E+05	2.02E+03	1.80E+01
Strontium-90+D	10098-97-2(+D)	1.16E+01	4.67E+05	4.97E+01	9.39E+00
Technetium-99	14133-76-7	2.18E+02	3.74E+06	1.20E+04	2.14E+02
Thallium-208	14913-50-9	- - -	- - -	5.53E-02	5.53E-02
Thorium-227	15623-47-9	1.22E+01	1.50E+03	2.57E+00	2.12E+00
Thorium-228	14274-82-9	5.77E+00	4.00E+02	1.74E+02	5.58E+00
Thorium-228+D	14274-82-9(+D)	2.06E+00	3.69E+02	1.25E-01	1.18E-01
Thorium-228 long lived decay	14274-82-9L	2.06E+00	3.69E+02	1.25E-01	1.18E-01
Thorium-229	15594-54-4	3.36E+00	3.02E+02	4.33E+00	1.89E+00
Thorium-229+D	15594-54-4(+D)	1.29E+00	2.35E+02	8.32E-01	5.06E-01
Thorium-229 long lived decay	15594-54-4L	1.29E+00	2.35E+02	8.32E-01	5.06E-01
Thorium-230	14269-63-7	8.25E+00	1.85E+03	1.19E+03	8.19E+00
Thorium-230 long lived decay	14269-63-7L	4.64E-01	9.78E+02	1.15E-01	9.19E-02
Thorium-232	7440-29-1	7.22E+00	1.22E+03	2.85E+03	7.20E+00
Thorium-232 long lived decay	7440-29-1L	5.01E-01	2.76E+02	7.92E-02	6.84E-02
Thorium-234	15065-10-8	2.49E+01	1.72E+06	5.97E+01	1.76E+01

L - used for long lived decay lookup value

Table 4.1.3		Construction Worker - Soil/Sediment Exposure Pathway (Radionuclides) (pCi/g)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Tin-113	13966-06-8	1.37E+02	5.28E+06	4.82E+01	3.56E+01
Tin-126	15832-50-5	2.36E+01	5.31E+05	9.77E+00	6.91E+00
Tritium (particulate)	10028-17-8p	7.58E+03	2.65E+08	- - -	7.58E+03
Tritium (water)	10028-17-8w	1.80E+04	9.40E+08	- - -	1.80E+04
Uranium-232	14158-29-3	2.90E+00	2.71E+03	1.63E+03	2.90E+00
Uranium-233	13968-55-3	1.04E+01	4.55E+03	9.91E+02	1.03E+01
Uranium-233 long lived decay	13968-55-3L	1.15E+00	2.23E+02	8.31E-01	4.82E-01
Uranium-233/234	U-233/234	1.15E+00	2.23E+02	8.31E-01	4.82E-01
Uranium-234	13966-29-5	1.05E+01	4.63E+03	3.86E+03	1.05E+01
Uranium-235	15117-96-1	1.06E+01	5.23E+03	1.88E+00	1.60E+00
Uranium-235+D	15117-96-1(+D)	1.02E+01	5.23E+03	1.79E+00	1.53E+00
Uranium-235 long lived decay	15117-96-1L	9.82E-01	2.00E+02	4.52E-01	3.10E-01
Uranium-235/236	U-235/236	9.82E-01	2.00E+02	4.52E-01	3.10E-01
Uranium-238	7440-61-1	1.17E+01	5.67E+03	1.95E+04	1.16E+01
Uranium-238+D	7440-61-1(+D)	7.94E+00	5.65E+03	8.54E+00	4.11E+00
Uranium-238 long lived decay	7440-61-1L	4.21E-01	7.06E+02	1.13E-01	8.91E-02
Yttrium-88	7440-65-5	- - -	- - -	- - -	- - -
Zinc-65	13982-39-3	6.80E+01	9.09E+06	3.46E-01	3.45E-01
Zirconium-95	13967-71-0	1.36E+02	3.20E+06	2.86E-01	2.86E-01

L - used for long lived decay lookup value

Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Inorganics					
Actinium	7440-34-8	- - -	- - -	- - -	
Aluminum	7429-90-5	- - -	2.13E+04	2.13E+04	b
Antimony	7440-36-0	- - -	8.52E+00	8.52E+00	b
Arsenic	7440-38-2	1.99E+00	6.39E+00	1.99E+00	a
Barium	7440-39-3	- - -	1.49E+03	1.49E+03	b
Beryllium	7440-41-7	1.12E+04	4.21E+01	4.21E+01	b
Bismuth	7440-69-9	- - -	- - -	- - -	
Boron	7440-42-8	- - -	1.92E+03	1.92E+03	b
Cadmium	7440-43-9s	1.50E+04	2.13E+01	2.13E+01	b
Calcium	7440-70-2	- - -	- - -	- - -	
Cerium	7440-45-1	- - -	- - -	- - -	
Chromium	7440-47-3	- - -	3.19E+04	3.19E+04	b
Chromium III	16065-83-1	- - -	3.19E+04	3.19E+04	b
Chromium VI	18540-29-9	2.25E+03	6.37E+01	6.37E+01	b
Cobalt	7440-48-4	- - -	1.28E+03	1.28E+03	b
Copper	7440-50-8	- - -	8.52E+02	8.52E+02	b
Cyanide	57-12-5	- - -	4.26E+02	4.26E+02	b
Dypsprosium	7429-91-6	- - -	- - -	- - -	
Erbium	7440-52-0	- - -	- - -	- - -	
Europium	7440-53-1	- - -	- - -	- - -	
Gadolinium	7440-54-2	- - -	- - -	- - -	
Holmium	7440-60-0	- - -	- - -	- - -	
Iron	7439-89-6	- - -	- - -	- - -	
Lanthanum	7439-91-0	- - -	- - -	- - -	
Lead	7439-92-1	- - -	- - -	- - -	
Lithium	7439-93-2	- - -	- - -	- - -	
Lutetium	7439-94-3	- - -	- - -	- - -	
Magnesium	7439-95-4	- - -	- - -	- - -	
Manganese	7439-96-5s	- - -	2.28E+03	2.28E+03	b
Mercury	7439-97-6	- - -	6.39E+00	6.39E+00	b

a - carcinogen value a = carcinogen risk
b - non-carcinogen value b = non-carcinogen risk

Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Molybdenum	7439-98-7	- - -	1.06E+02	1.06E+02	b
Neodymium	7440-00-8	- - -	- - -	- - -	
Nickel	7440-02-0	5.62E+04	4.26E+02	4.26E+02	b
Nitrate	14797-55-8	- - -	3.41E+04	3.41E+04	b
Nitrite	14797-65-0	- - -	2.13E+03	2.13E+03	b
Osmium	7440-04-2	- - -	- - -	- - -	
Potassium	7440-09-7	- - -	- - -	- - -	
Praseodymium	7440-10-0	- - -	- - -	- - -	
Rubidium	7440-17-7	- - -	- - -	- - -	
Samarium	7440-19-9	- - -	- - -	- - -	
Selenium	7782-49-2	- - -	1.06E+02	1.06E+02	b
Silicon	7440-21-3	- - -	- - -	- - -	
Silver	7440-22-4	- - -	1.06E+02	1.06E+02	b
Sodium	7440-23-5	- - -	- - -	- - -	
Strontium	7440-24-6	- - -	- - -	- - -	
Tantalum	7440-25-7	- - -	- - -	- - -	
Terbium	7440-27-9	- - -	- - -	- - -	
Thallium	7440-28-0	- - -	1.70E+00	1.70E+00	b
Tin	7440-31-5	- - -	1.28E+04	1.28E+04	b
Titanium	7440-32-6	- - -	- - -	- - -	
Uranium	7440-61-1	- - -	- - -	- - -	
Vanadium	7440-62-2	- - -	1.49E+02	1.49E+02	b
Ytterbium	7440-64-4	- - -	- - -	- - -	
Zinc	7440-66-6	- - -	6.39E+03	6.39E+03	b
Zirconium	7440-67-7	- - -	- - -	- - -	
Dioxins/Dibenzofurans					
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -	
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -	
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -	

a - carcinogen value a = carcinogen risk
b - non-carcinogen value b = non-carcinogen risk

Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDF	55684-94-1	1.99E-04	- - -	1.99E-04	a
1,2,3,7,8,9-HxCDD	19408-74-3	4.81E-04	- - -	4.81E-04	a
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -	
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -	
1,2,3,7,8-PeCDF	57117-41-6	3.97E-05	- - -	3.97E-05	a
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -	
2,3,4,7,8-PeCDF	57117-31-4	3.97E-04	- - -	3.97E-04	a
2,3,7,8-TCDD	1746-01-6	1.99E-05	- - -	1.99E-05	a
2,3,7,8-TCDF	51207-31-9	1.99E-04	- - -	1.99E-04	a
HpCDD	37871-00-4	1.99E-03	- - -	1.99E-03	a
HpCDF	38998-75-3	1.99E-03	- - -	1.99E-03	a
HxCDD	34465-46-8	1.99E-04	- - -	1.99E-04	a
OCDD	3268-87-9	1.99E-02	- - -	1.99E-02	a
OCDF	39001-02-0	1.99E-02	- - -	1.99E-02	a
PeCDD	36088-22-9	3.97E-05	- - -	3.97E-05	a
PeCDF	30402-15-4	- - -	- - -	- - -	
TCDD, Total	41903-57-5	- - -	- - -	- - -	
TCDF	30402-14-3	- - -	- - -	- - -	
Explosives					
1,3,5-Trinitrobenzene	99-35-4	- - -	6.39E+02	6.39E+02	b
1,3-Dinitrobenzene	99-65-0	- - -	2.13E+00	2.13E+00	b
2,4,6-Trinitrotoluene	118-96-7	9.94E+01	1.06E+01	1.06E+01	b
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -	
HMX	2691-41-0	- - -	1.06E+03	1.06E+03	b
Nitroglycerin	55-63-0	- - -	- - -	- - -	
PETN	78-11-5	- - -	- - -	- - -	
RDX	121-82-4	2.71E+01	6.39E+01	2.71E+01	a
Tetryl	479-45-8	- - -	2.13E+02	2.13E+02	b
Pesticides and/or PCBs					

a - carcinogen value a = carcinogen risk
b - non-carcinogen value b = non-carcinogen risk

Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
4,4'-DDD	72-54-8	1.24E+01	- - -	1.24E+01	a
4,4'-DDE	72-55-9	8.77E+00	- - -	8.77E+00	a
4,4'-DDT	50-29-3	8.77E+00	1.06E+01	8.77E+00	a
Aldrin	309-00-2	1.75E-01	6.39E-01	1.75E-01	a
Alpha Chlordane	5103-71-9	- - -	- - -	- - -	
Alpha-BHC	319-84-6	4.73E-01	- - -	4.73E-01	a
Aroclor-1016	12674-11-2	1.49E+00	1.49E+00	1.49E+00	a
Aroclor-1221	11104-28-2	1.49E+00	- - -	1.49E+00	a
Aroclor-1232	11141-16-5	1.49E+00	- - -	1.49E+00	a
Aroclor-1242	53469-21-9	1.49E+00	- - -	1.49E+00	a
Aroclor-1248	12672-29-6	1.49E+00	- - -	1.49E+00	a
Aroclor-1254	11097-69-1	1.49E+00	4.26E-01	4.26E-01	b
Aroclor-1260	11096-82-5	1.49E+00	- - -	1.49E+00	a
Beta-BHC	319-85-7	1.66E+00	- - -	1.66E+00	a
Chlordane	57-74-9	- - -	- - -	- - -	
Delta-BHC	319-86-8	- - -	- - -	- - -	
Dieldrin	60-57-1	1.86E-01	1.06E+00	1.86E-01	a
Endosulfan I	959-98-8	- - -	- - -	- - -	
Endosulfan II	33213-65-9	- - -	- - -	- - -	
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -	
Endrin	72-20-8	- - -	6.39E+00	6.39E+00	b
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -	
Endrin Ketone	53494-70-5	- - -	- - -	- - -	
Gamma Chlordane	5103-74-2	- - -	- - -	- - -	
Gamma-BHC (Lindane)	58-89-9	2.29E+00	6.39E+00	2.29E+00	a
Heptachlor	76-44-8	6.62E-01	1.06E+01	6.62E-01	a
Heptachlor Epoxide	1024-57-3	3.28E-01	2.77E-01	2.77E-01	b
Methoxychlor	72-43-5	- - -	1.06E+02	1.06E+02	b
Polychlorinated Biphenyls (PCBs)	1336-36-3	1.49E+00	4.26E-01	4.26E-01	b
Toxaphene	8001-35-2	2.71E+00	- - -	2.71E+00	a

Semi-Volatile Organics

a - carcinogen value a = carcinogen risk
b - non-carcinogen value b = non-carcinogen risk

Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
1,2,4-Trichlorobenzene	120-82-1	- - -	2.13E+02	2.13E+02	b
1,2-Dichlorobenzene	95-50-1	- - -	1.92E+03	1.92E+03	b
1,2-Diphenylhydrazine	122-66-7	3.73E+00	- - -	3.73E+00	a
1,3-Dichlorobenzene	541-73-1	- - -	6.38E+02	6.38E+02	b
1,4-Dichlorobenzene	106-46-7	1.24E+02	1.54E+08	1.24E+02	a
2,2'-oxybis(1-chloropropane)	108-60-1	4.26E+01	8.52E+02	4.26E+01	a
2,4,5-Trichlorophenol	95-95-4	- - -	2.13E+03	2.13E+03	b
2,4,6-Trichlorophenol	88-06-2	2.71E+02	- - -	2.71E+02	a
2,4-Dichlorophenol	120-83-2	- - -	6.39E+01	6.39E+01	b
2,4-Dimethylphenol	105-67-9	- - -	4.26E+02	4.26E+02	b
2,4-Dinitrophenol	51-28-5	- - -	4.26E+01	4.26E+01	b
2,4-Dinitrotoluene	121-14-2	4.38E+00	4.26E+01	4.38E+00	a
2,6-Dinitrotoluene	606-20-2	4.38E+00	2.13E+01	4.38E+00	a
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -	
2-Chloronaphthalene	91-58-7	- - -	1.70E+03	1.70E+03	b
2-Chlorophenol	95-57-8	- - -	1.06E+02	1.06E+02	b
2-Methylnaphthalene	91-57-6	- - -	8.52E+01	8.52E+01	b
2-Methylphenol	95-48-7	- - -	1.06E+03	1.06E+03	b
2-Nitroaniline	88-74-4	- - -	6.39E+00	6.39E+00	b
2-Nitrophenol	88-75-5	- - -	- - -	- - -	
3,3'-Dichlorobenzidine	91-94-1	6.62E+00	- - -	6.62E+00	a
3-Nitroaniline	99-09-2	7.84E+01	6.39E+00	6.39E+00	b
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -	
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -	
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -	
4-Chloroaniline	106-47-8	- - -	8.52E+01	8.52E+01	b
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -	
4-Methylphenol	106-44-5	- - -	1.06E+02	1.06E+02	b
4-Nitroaniline	100-01-6	7.84E+01	6.39E+01	6.39E+01	b
4-Nitrophenol	100-02-7	- - -	- - -	- - -	
Acenaphthene	83-32-9	- - -	1.28E+03	1.28E+03	b

a - carcinogen value a = carcinogen risk
b - non-carcinogen value b = non-carcinogen risk

Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Acenaphthylene	208-96-8	- - -	- - -	- - -	
Anthracene	120-12-7	- - -	6.39E+03	6.39E+03	b
Benzidine	92-87-5	1.30E-02	6.39E+01	1.30E-02	a
Benzo(a)anthracene	56-55-3	4.08E+00	- - -	4.08E+00	a
Benzo(a)pyrene	50-32-8	4.08E-01	- - -	4.08E-01	a
Benzo(b)fluoranthene	205-99-2	4.08E+00	- - -	4.08E+00	a
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -	
Benzo(k)fluoranthene	207-08-9	4.08E+01	- - -	4.08E+01	a
Benzoic Acid	65-85-0	- - -	8.52E+04	8.52E+04	b
Benzyl Alcohol	100-51-6	- - -	6.39E+03	6.39E+03	b
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -	
Bis(2-chloroethyl)ether	111-44-4	2.71E+00	- - -	2.71E+00	a
Bis(2-ethylhexyl)phthalate	117-81-7	2.13E+02	4.26E+02	2.13E+02	a
Butyl Benzyl Phthalate	85-68-7	- - -	4.26E+03	4.26E+03	b
Carbazole	86-74-8	1.49E+02	- - -	1.49E+02	a
Chrysene	218-01-9	4.08E+02	- - -	4.08E+02	a
Di-n-butyl Phthalate	84-74-2	- - -	2.13E+03	2.13E+03	b
Di-n-octyl Phthalate	117-84-0	- - -	4.26E+02	4.26E+02	b
Dibenz(a,h)anthracene	53-70-3	4.08E-01	- - -	4.08E-01	a
Dibenzofuran	132-64-9	- - -	8.52E+01	8.52E+01	b
Diethyl Phthalate	84-66-2	- - -	1.70E+04	1.70E+04	b
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -	
Fluoranthene	206-44-0	- - -	8.52E+02	8.52E+02	b
Fluorene	86-73-7	- - -	8.52E+02	8.52E+02	b
Hexachlorobenzene	118-74-1	1.86E+00	1.70E+01	1.86E+00	a
Hexachlorobutadiene	87-68-3	3.82E+01	4.26E+00	4.26E+00	b
Hexachlorocyclopentadiene	77-47-4	- - -	1.27E+02	1.27E+02	b
Hexachloroethane	67-72-1	2.13E+02	2.13E+01	2.13E+01	b
Indeno(1,2,3-cd)pyrene	193-39-5	4.08E+00	- - -	4.08E+00	a
Isophorone	78-59-1	3.14E+03	4.26E+03	3.14E+03	a
N-Nitroso-di-n-propylamine	621-64-7	4.26E-01	- - -	4.26E-01	a

a - carcinogen value a = carcinogen risk
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Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
N-Nitrosodimethylamine	62-75-9	5.84E-02	- - -	5.84E-02	a
N-Nitrosodiphenylamine	86-30-6	6.08E+02	- - -	6.08E+02	a
Naphthalene	91-20-3	- - -	4.26E+02	4.26E+02	b
Nitrobenzene	98-95-3	- - -	1.06E+01	1.06E+01	b
Pentachlorophenol	87-86-5	2.48E+01	6.39E+02	2.48E+01	a
Phenanthrene	85-01-8	- - -	- - -	- - -	
Phenol	108-95-2	- - -	1.28E+04	1.28E+04	b
Pyrene	129-00-0	- - -	6.39E+02	6.39E+02	b
Pyridine	110-86-1	- - -	2.13E+01	2.13E+01	b
Tributyl phosphate	126-73-8	- - -	- - -	- - -	
Volatile Organics					
1,1,1,2-Tetrachloroethane	630-20-6	2.73E+01	6.39E+02	2.73E+01	a
1,1,1-Trichloroethane	71-55-6	- - -	3.31E+02	3.31E+02	b
1,1,2,2-Tetrachloroethane	79-34-5	3.50E+00	- - -	3.50E+00	a
1,1,2-Trichloroethane	79-00-5	8.19E+00	2.13E+03	8.19E+00	a
1,1-Dichloroethane	75-34-3	- - -	1.06E+03	1.06E+03	b
1,1-Dichloroethene	75-35-4	- - -	- - -	- - -	
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -	
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -	
1,2,3-Trichloropropane	96-18-4	4.26E-01	1.28E+02	4.26E-01	a
1,2,4-Trimethylbenzene	95-63-6	- - -	1.72E+01	1.72E+01	b
1,2-Dibromo-3-Chloropropane	96-12-8	2.12E+00	7.30E-01	7.30E-01	b
1,2-Dichloroethane	107-06-2	3.45E+00	- - -	3.45E+00	a
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -	
1,2-Dichloropropane	78-87-5	4.38E+01	2.16E+00	2.16E+00	b
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -	
1,2-cis-Dichloroethene	156-59-2	- - -	2.13E+02	2.13E+02	b
1,2-trans-Dichloroethene	156-60-5	- - -	4.26E+02	4.26E+02	b
1,3,5-Trimethylbenzene	108-67-8	- - -	6.96E+00	6.96E+00	b
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -	
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -	

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Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -	
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -	
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -	
1-Chlorohexane	544-10-5	- - -	- - -	- - -	
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -	
2-Butanone	78-93-3	- - -	9.30E+02	9.30E+02	b
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -	
2-Chlorotoluene	95-49-8	- - -	4.26E+02	4.26E+02	b
2-Hexanone	591-78-6	- - -	- - -	- - -	
4-Chlorotoluene	106-43-4	- - -	- - -	- - -	
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -	
Acetone	67-64-1	- - -	1.92E+04	1.92E+04	b
Acetonitrile	75-05-8	- - -	2.01E+02	2.01E+02	b
Acrylonitrile	107-13-1	1.82E+00	2.34E+00	1.82E+00	a
Benzene	71-43-2	5.42E+01	4.90E+01	4.90E+01	b
Benzyl Chloride	100-44-7	1.75E+01	- - -	1.75E+01	a
Bromochloromethane	74-97-5	- - -	- - -	- - -	
Bromodichloromethane	75-27-4	4.81E+01	4.26E+02	4.81E+01	a
Bromoform	75-25-2	3.77E+02	4.26E+02	3.77E+02	a
Bromomethane	74-83-9	- - -	1.26E+00	1.26E+00	b
Carbon Disulfide	75-15-0	- - -	1.16E+02	1.16E+02	b
Carbon Tetrachloride	56-23-5	2.44E+00	5.62E-01	5.62E-01	b
Chlorobenzene	108-90-7	- - -	4.89E+01	4.89E+01	b
Chloroethane	75-00-3	- - -	1.60E+01	1.60E+01	b
Chloroform (Trichloromethane)	67-66-3	2.58E+00	1.50E+02	2.58E+00	a
Chloromethane	74-87-3	1.29E+01	1.58E+01	1.29E+01	a
Chlorotoluene	25168-05-2	- - -	- - -	- - -	
Dibromochloromethane	124-48-1	3.55E+01	4.26E+02	3.55E+01	a
Dibromomethane	74-95-3	- - -	- - -	- - -	
Dichlorodifluoromethane	75-71-8	- - -	4.26E+03	4.26E+03	b
Dichloromethane (Methylene Chlori	75-09-2	8.27E+01	1.00E+02	8.27E+01	a

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Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Ethylbenzene	100-41-4	- - -	4.80E-02	4.80E-02	b
Ethylene Dibromide (1,2-Dibromoet	106-93-4	3.37E-02	2.69E-01	3.37E-02	a
Fluorobenzene	462-06-6	- - -	- - -	- - -	
FREON-113	76-13-1	- - -	6.93E+03	6.93E+03	b
Hexane	110-54-3	- - -	9.10E+00	9.10E+00	b
Iodomethane	74-88-4	- - -	- - -	- - -	
Isopropyl Benzene	98-82-8	- - -	5.30E+01	5.30E+01	b
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -	
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -	
Styrene	100-42-5	- - -	1.45E+03	1.45E+03	b
Tetrachloroethene	127-18-4	3.80E+01	2.13E+02	3.80E+01	a
Toluene	108-88-3	- - -	2.50E+01	2.50E+01	b
Total VOC's	TVOC	- - -	- - -	- - -	
Trichloroethene	79-01-6	2.38E+01	4.40E+01	2.38E+01	a
Trichlorofluoromethane	75-69-4	- - -	7.30E+01	7.30E+01	b
Vinyl Acetate	108-05-4	- - -	1.39E+02	1.39E+02	b
Vinyl Chloride	75-01-4	1.07E+00	1.19E+01	1.07E+00	a
Xylenes, Total	1330-20-7	- - -	4.26E+03	4.26E+03	b
m-Xylene	108-38-3	- - -	4.26E+04	4.26E+04	b
mp-Xylene	mp-Xylene	- - -	- - -	2.77E+02	b
n-Butylbenzene	104-51-8	- - -	8.52E+02	8.52E+02	b
n-propylbenzene	103-65-1	- - -	8.52E+02	8.52E+02	b
o-Xylene	95-47-6	- - -	4.26E+04	4.26E+04	b
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -	
p-Xylene	106-42-3	- - -	4.26E+04	4.26E+04	b
sec-Butylbenzene	135-98-8	- - -	8.52E+02	8.52E+02	b
tert-Butylbenzene	98-06-6	- - -	8.52E+02	8.52E+02	b
Radiological					
Actinium-227	14952-40-0			4.37E+00	
Actinium-227 +D	14952-40-0(+D)			4.53E-01	
Actinium-227 long lived decay	14952-40-0L			4.53E-01	

a - carcinogen value a = carcinogen risk
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Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Actinium-228	14331-83-0			2.15E-01	
Americium-241	14596-10-2			6.31E+00	
Antimony-124	14683-10-4			1.09E-01	
Antimony-125	14234-35-6			5.36E-01	
Antimony-125+D	14234-35-6(+D)			5.35E-01	
Barium-133	13981-41-4			6.72E-01	
Barium-133m	13981-41-4m			4.83E+00	
Barium-140	14798-08-4			1.24E+00	
Beryllium-7	13966-02-4			4.57E+00	
Bismuth-207	13982-38-2			1.37E-01	
Bismuth-210	14331-79-4			5.51E+01	
Bismuth-210m	14331-79-4m			8.89E-01	
Bismuth-211	15229-37-5			5.18E+00	
Bismuth-212	14913-49-6			1.10E+00	
Bismuth-214	14733-03-0			1.30E-01	
Cerium-139	CE-139			- - -	
Cerium-141	13967-74-3			4.14E+00	
Cerium-144	14762-78-8			8.87E+00	
Cerium-144+D	14762-78-8(+D)			3.21E+00	
Cesium-134	13967-70-9			1.36E-01	
Cesium-134m	13967-70-9m			1.94E+01	
Cesium-137	10045-97-3			3.77E+01	
Cesium-137 +D	10045-97-3(+D)			3.78E-01	
Cesium-137 long lived decay	10045-97-3L			3.78E-01	
Chromium-51	14392-02-0			7.65E+00	
Cobalt-57	13981-50-5			2.73E+00	
Cobalt-58	13981-38-9			2.17E-01	
Cobalt-58m	13981-38-9m			4.78E+03	
Cobalt-60	10198-40-0			7.83E-02	
Cobalt-60m	10198-40-0m			5.23E+01	
Curium-244	13981-15-2			9.20E+00	

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Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Europium-152	14683-23-9			1.83E-01	
Europium-152m	14683-23-9m			7.29E-01	
Europium-154	15585-10-1			1.66E-01	
Europium-155	14391-16-3			7.65E+00	
Iodine-131	24267-56-9			- - -	
Iridium-192	12154-84-6			- - -	
Iron-59	14596-12-4			1.67E-01	
Lanthanum-140	13981-28-7			8.45E-02	
Lead-210	14255-04-0			9.05E-01	
Lead-210+D	14255-04-0(+D)			6.25E-01	
Lead-210 long lived decay	14255-04-0L			6.25E-01	
Lead-212	15092-94-1			1.78E+00	
Lead-214	15067-28-4			9.91E-01	
Manganese-54	13966-31-9			2.50E-01	
Mercury-203	13982-78-0			1.05E+00	
Neptunium-237	13994-20-2			7.01E+00	
Neptunium-237+D	13994-20-2(+D)			1.09E+00	
Niobium-95	13967-76-5			2.75E-01	
Niobium-95m	13967-76-5m			4.09E+00	
Plutonium-238	13981-16-3			6.12E+00	
Plutonium-238/239	PU-238/239			6.03E+00	
Plutonium-239	15117-48-3			6.03E+00	
Plutonium-239/240	PU-239/240			6.03E+00	
Plutonium-241	14119-32-5			5.06E+02	
Plutonium-242	13982-10-0			6.33E+00	
Polonium-210	13981-52-7			2.09E+00	
Potassium-40	13966-00-2			1.17E+00	
Protactinium-231	14331-85-2			2.72E+00	
Protactinium-231 long lived decay	14331-85-2L			3.89E-01	
Protactinium-233	13981-14-1			1.29E+00	
Protactinium-234	15100-28-4			1.12E-01	

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Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Protactinium-234m	15100-28-4m			1.42E+01	
Radium-223	15623-45-7			1.20E+00	
Radium-224	13233-32-4			3.24E+00	
Radium-225	13981-53-8			5.91E+00	
Radium-226	13982-63-3			2.17E+00	
Radium-226+D	13982-63-3(+d)			1.09E-01	
Radium-226 long lived decay	13982-63-3L			9.29E-02	
Radium-228	15262-20-1			7.31E-01	
Radium-228+D	15262-20-1(+D)			1.66E-01	
Radium-228 long lived decay	15262-20-1L			6.90E-02	
Ruthenium-103	13968-53-1			4.76E-01	
Ruthenium-106	13967-48-1			1.40E+01	
Ruthenium-106+D	13967-48-1(+D)			9.40E-01	
Scandium-46	13967-63-0			1.01E-01	
Silver-108m	14391-65-2m			1.35E-01	
Silver-109m	14378-38-2m			1.27E+02	
Sodium-22	13966-32-0			9.44E-02	
Strontium-85	13967-73-2			4.42E-01	
Strontium-85m	13967-73-2m			1.19E+00	
Strontium-89	14158-27-1			3.55E+01	
Strontium-90	10098-97-2			1.80E+01	
Strontium-90+D	10098-97-2(+D)			9.39E+00	
Technetium-99	14133-76-7			2.14E+02	
Thallium-208	14913-50-9			5.53E-02	
Thorium-227	15623-47-9			2.12E+00	
Thorium-228	14274-82-9			5.58E+00	
Thorium-228+D	14274-82-9(+D)			1.18E-01	
Thorium-228 long lived decay	14274-82-9L			1.18E-01	
Thorium-229	15594-54-4			1.89E+00	
Thorium-229+D	15594-54-4(+D)			5.06E-01	
Thorium-229 long lived decay	15594-54-4L			5.06E-01	

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Construction Worker - Soil/Sediment Exposure Pathway					
Table 4.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Thorium-230	14269-63-7			8.19E+00	
Thorium-230 long lived decay	14269-63-7L			9.19E-02	
Thorium-232	7440-29-1			7.20E+00	
Thorium-232 long lived decay	7440-29-1L			6.84E-02	
Thorium-234	15065-10-8			1.76E+01	
Tin-113	13966-06-8			3.56E+01	
Tin-126	15832-50-5			6.91E+00	
Tritium (particulate)	10028-17-8p			7.58E+03	
Tritium (water)	10028-17-8w			1.80E+04	
Uranium-232	14158-29-3			2.90E+00	
Uranium-233	13968-55-3			1.03E+01	
Uranium-233 long lived decay	13968-55-3L			4.82E-01	
Uranium-233/234	U-233/234			4.82E-01	
Uranium-234	13966-29-5			1.05E+01	
Uranium-235	15117-96-1			1.60E+00	
Uranium-235+D	15117-96-1(+D)			1.53E+00	
Uranium-235 long lived decay	15117-96-1L			3.10E-01	
Uranium-235/236	U-235/236			3.10E-01	
Uranium-238	7440-61-1			1.16E+01	
Uranium-238+D	7440-61-1(+D)			4.11E+00	
Uranium-238 long lived decay	7440-61-1L			8.91E-02	
Yttrium-88	7440-65-5			- - -	
Zinc-65	13982-39-3			3.45E-01	
Zirconium-95	13967-71-0			2.86E-01	

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Table 4.2.1		Construction Worker - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)				
Chemical	CAS Number	GV Ingestion	GV Dermal	GV Inhalation	10^{-6} GV Total	MCL
Inorganics						
Actinium	7440-34-8	- - -	- - -	- - -	- - -	- - -
Aluminum	7429-90-5	- - -	- - -	- - -	- - -	- - -
Antimony	7440-36-0	- - -	- - -	- - -	- - -	6.00E-03
Arsenic	7440-38-2	9.54E-04	2.94E-01	1.37E-03	9.51E-04	1.00E-02
Barium	7440-39-3	- - -	- - -	- - -	- - -	2.00E+00
Beryllium	7440-41-7	- - -	- - -	2.45E-03	- - -	4.00E-03
Bismuth	7440-69-9	- - -	- - -	- - -	- - -	- - -
Boron	7440-42-8	- - -	- - -	- - -	- - -	- - -
Cadmium	7440-43-9w	- - -	- - -	3.26E-03	- - -	5.00E-03
Calcium	7440-70-2	- - -	- - -	- - -	- - -	- - -
Cerium	7440-45-1	- - -	- - -	- - -	- - -	- - -
Chromium	7440-47-3	- - -	- - -	- - -	- - -	1.00E-01
Chromium III	16065-83-1	- - -	- - -	- - -	- - -	1.00E-01
Chromium VI	18540-29-9	- - -	- - -	4.90E-04	- - -	- - -
Cobalt	7440-48-4	- - -	- - -	- - -	- - -	- - -
Copper	7440-50-8	- - -	- - -	- - -	- - -	- - -
Cyanide	57-12-5	- - -	- - -	- - -	- - -	- - -
Dypsprosium	7429-91-6	- - -	- - -	- - -	- - -	- - -
Erbium	7440-52-0	- - -	- - -	- - -	- - -	- - -
Europium	7440-53-1	- - -	- - -	- - -	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -	- - -	- - -	- - -
Holmium	7440-60-0	- - -	- - -	- - -	- - -	- - -
Iron	7439-89-6	- - -	- - -	- - -	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -	- - -	- - -	- - -
Lead	7439-92-1	- - -	- - -	- - -	- - -	- - -
Lithium	7439-93-2	- - -	- - -	- - -	- - -	- - -
Lutetium	7439-94-3	- - -	- - -	- - -	- - -	- - -
Magnesium	7439-95-4	- - -	- - -	- - -	- - -	- - -
Manganese	7439-96-5w	- - -	- - -	- - -	- - -	- - -
Mercury	7439-97-6	- - -	- - -	- - -	- - -	2.00E-03
Molybdenum	7439-98-7	- - -	- - -	- - -	- - -	- - -
Neodymium	7440-00-8	- - -	- - -	- - -	- - -	- - -
Nickel	7440-02-0	- - -	- - -	1.22E-02	- - -	- - -
Nitrate	14797-55-8	- - -	- - -	- - -	- - -	1.00E+01

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Table 4.2.1		Construction Worker - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)				
Chemical	CAS Number	GV Ingestion	GV Dermal	GV Inhalation	10^{-6} GV Total	MCL
Nitrite	14797-65-0	- - -	- - -	- - -	- - -	1.00E+00
Osmium	7440-04-2	- - -	- - -	- - -	- - -	- - -
Potassium	7440-09-7	- - -	- - -	- - -	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -	- - -	- - -	- - -
Rubidium	7440-17-7	- - -	- - -	- - -	- - -	- - -
Samarium	7440-19-9	- - -	- - -	- - -	- - -	- - -
Selenium	7782-49-2	- - -	- - -	- - -	- - -	5.00E-02
Silicon	7440-21-3	- - -	- - -	- - -	- - -	- - -
Silver	7440-22-4	- - -	- - -	- - -	- - -	- - -
Sodium	7440-23-5	- - -	- - -	- - -	- - -	- - -
Strontium	7440-24-6	- - -	- - -	- - -	- - -	- - -
Tantalum	7440-25-7	- - -	- - -	- - -	- - -	- - -
Terbium	7440-27-9	- - -	- - -	- - -	- - -	- - -
Thallium	7440-28-0	- - -	- - -	- - -	- - -	2.00E-03
Tin	7440-31-5	- - -	- - -	- - -	- - -	- - -
Titanium	7440-32-6	- - -	- - -	- - -	- - -	- - -
Uranium	7440-61-1	- - -	- - -	- - -	- - -	3.00E+01
Vanadium	7440-62-2	- - -	- - -	- - -	- - -	- - -
Ytterbium	7440-64-4	- - -	- - -	- - -	- - -	- - -
Zinc	7440-66-6	- - -	- - -	- - -	- - -	- - -
Zirconium	7440-67-7	- - -	- - -	- - -	- - -	- - -
Dioxins/Dibenzofurans						
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -	- - -	- - -
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -	- - -	- - -
1,2,3,6,7,8-HxCDF	55684-94-1	9.54E-08	- - -	1.37E-06	9.54E-08	- - -
1,2,3,7,8,9-HxCDD	19408-74-3	2.31E-07	- - -	4.52E-06	2.31E-07	- - -
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	1.91E-08	- - -	2.74E-07	1.91E-08	- - -
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -	- - -	- - -

Table 4.2.1		Construction Worker - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)				
Chemical	CAS Number	GV Ingestion	GV Dermal	GV Inhalation	10^{-6} GV Total	MCL
2,3,4,7,8-PeCDF	57117-31-4	1.91E-07	- - -	2.74E-06	1.91E-07	- - -
2,3,7,8-TCDD	1746-01-6	9.54E-09	1.09E-10	1.37E-07	1.08E-10	3.00E-08
2,3,7,8-TCDF	51207-31-9	9.54E-08	- - -	1.37E-06	9.54E-08	- - -
HpCDD	37871-00-4	9.54E-07	- - -	1.37E-05	9.54E-07	- - -
HpCDF	38998-75-3	9.54E-07	- - -	1.37E-05	9.54E-07	- - -
HxCDD	34465-46-8	9.54E-08	- - -	1.37E-06	9.54E-08	- - -
OCDD	3268-87-9	9.54E-06	- - -	1.37E-04	9.54E-06	- - -
OCDF	39001-02-0	9.54E-06	- - -	1.37E-04	9.54E-06	- - -
PeCDD	36088-22-9	1.91E-08	- - -	2.74E-07	1.91E-08	- - -
PeCDF	30402-15-4	- - -	- - -	- - -	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -	- - -	- - -	- - -
TCDF	30402-14-3	- - -	- - -	- - -	- - -	- - -
Explosives						
1,3,5-Trinitrobenzene	99-35-4	- - -	- - -	- - -	- - -	- - -
1,3-Dinitrobenzene	99-65-0	- - -	- - -	- - -	- - -	- - -
2,4,6-Trinitrotoluene	118-96-7	4.77E-02	- - -	- - -	4.77E-02	- - -
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -	- - -	- - -
HMX	2691-41-0	- - -	- - -	- - -	- - -	- - -
Nitroglycerin	55-63-0	- - -	- - -	- - -	- - -	- - -
PETN	78-11-5	- - -	- - -	- - -	- - -	- - -
RDX	121-82-4	1.30E-02	- - -	- - -	1.30E-02	- - -
Tetryl	479-45-8	- - -	- - -	- - -	- - -	- - -
Pesticides and/or PCBs						
4,4'-DDD	72-54-8	5.96E-03	3.48E-04	- - -	3.29E-04	- - -
4,4'-DDE	72-55-9	4.21E-03	2.90E-04	- - -	2.72E-04	- - -
4,4'-DDT	50-29-3	4.21E-03	1.24E-04	6.06E-02	1.20E-04	- - -
Aldrin	309-00-2	8.42E-05	6.20E-04	1.20E-03	7.41E-05	- - -
Alpha Chlordane	5103-71-9	- - -	- - -	- - -	- - -	- - -
Alpha-BHC	319-84-6	2.27E-04	- - -	3.26E-03	2.27E-04	- - -
Aroclor-1016	12674-11-2	7.15E-04	- - -	1.03E-02	7.15E-04	- - -
Aroclor-1221	11104-28-2	7.15E-04	- - -	1.03E-02	7.15E-04	- - -
Aroclor-1232	11141-16-5	7.15E-04	- - -	1.03E-02	7.15E-04	- - -
Aroclor-1242	53469-21-9	7.15E-04	- - -	1.03E-02	7.15E-04	- - -
Aroclor-1248	12672-29-6	7.15E-04	- - -	1.03E-02	7.15E-04	- - -
Aroclor-1254	11097-69-1	7.15E-04	- - -	1.03E-02	7.15E-04	- - -

Table 4.2.1		Construction Worker - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)				
Chemical	CAS Number	GV Ingestion	GV Dermal	GV Inhalation	10^{-6} GV Total	MCL
Aroclor-1260	11096-82-5	7.15E-04	- - -	1.03E-02	7.15E-04	- - -
Beta-BHC	319-85-7	7.95E-04	- - -	1.11E-02	7.95E-04	- - -
Chlordane	57-74-9	- - -	- - -	- - -	- - -	2.00E-03
Delta-BHC	319-86-8	- - -	- - -	- - -	- - -	- - -
Dieldrin	60-57-1	8.94E-05	6.01E-05	1.28E-03	3.60E-05	- - -
Endosulfan I	959-98-8	- - -	- - -	- - -	- - -	- - -
Endosulfan II	33213-65-9	- - -	- - -	- - -	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -	- - -	- - -
Endrin	72-20-8	- - -	- - -	- - -	- - -	2.00E-03
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -	- - -	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -	- - -	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	1.10E-03	1.57E-03	- - -	6.48E-04	2.00E-04
Heptachlor	76-44-8	3.18E-04	3.20E-05	4.52E-03	2.91E-05	4.00E-04
Heptachlor Epoxide	1024-57-3	1.57E-04	- - -	2.26E-03	1.57E-04	2.00E-04
Methoxychlor	72-43-5	- - -	- - -	- - -	- - -	4.00E-02
Polychlorinated Biphenyls (PCBs)	1336-36-3	7.15E-04	- - -	1.03E-02	7.15E-04	5.00E-04
Toxaphene	8001-35-2	1.30E-03	7.35E-04	1.84E-02	4.70E-04	3.00E-03
Semi-Volatile Organics						
1,2,4-Trichlorobenzene	120-82-1	- - -	- - -	- - -	- - -	7.00E-02
1,2-Dichlorobenzene	95-50-1	- - -	- - -	- - -	- - -	6.00E-01
1,2-Diphenylhydrazine	122-66-7	1.79E-03	4.14E-03	2.67E-02	1.25E-03	- - -
1,3-Dichlorobenzene	541-73-1	- - -	- - -	- - -	- - -	- - -
1,4-Dichlorobenzene	106-46-7	5.96E-02	5.28E-02	- - -	2.80E-02	7.50E-02
2,2'-oxybis(1-chloropropane)	108-60-1	2.04E-02	- - -	5.87E-01	2.04E-02	- - -
2,4,5-Trichlorophenol	95-95-4	- - -	- - -	- - -	- - -	- - -
2,4,6-Trichlorophenol	88-06-2	1.30E-01	8.50E-02	1.90E+00	5.14E-02	- - -
2,4-Dichlorophenol	120-83-2	- - -	- - -	- - -	- - -	- - -
2,4-Dimethylphenol	105-67-9	- - -	- - -	- - -	- - -	- - -
2,4-Dinitrophenol	51-28-5	- - -	- - -	- - -	- - -	- - -
2,4-Dinitrotoluene	121-14-2	2.10E-03	2.41E-02	- - -	1.94E-03	- - -
2,6-Dinitrotoluene	606-20-2	2.10E-03	3.66E-02	- - -	1.99E-03	- - -
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -	- - -	- - -
2-Chloronaphthalene	91-58-7	- - -	- - -	- - -	- - -	- - -
2-Chlorophenol	95-57-8	- - -	- - -	- - -	- - -	- - -

Table 4.2.1		Construction Worker - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)				
Chemical	CAS Number	GV Ingestion	GV Dermal	GV Inhalation	10^{-6} GV Total	MCL
2-Methylnaphthalene	91-57-6	- - -	- - -	- - -	- - -	- - -
2-Methylphenol	95-48-7	- - -	- - -	- - -	- - -	- - -
2-Nitroaniline	88-74-4	- - -	- - -	- - -	- - -	- - -
2-Nitrophenol	88-75-5	- - -	- - -	- - -	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	3.18E-03	4.85E-03	- - -	1.92E-03	- - -
3-Nitroaniline	99-09-2	3.77E-02	- - -	- - -	3.77E-02	- - -
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -	- - -	- - -
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -	- - -	- - -
4-Chloroaniline	106-47-8	- - -	- - -	- - -	- - -	- - -
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -	- - -	- - -
4-Methylphenol	106-44-5	- - -	- - -	- - -	- - -	- - -
4-Nitroaniline	100-01-6	3.77E-02	- - -	- - -	3.77E-02	- - -
4-Nitrophenol	100-02-7	- - -	- - -	- - -	- - -	- - -
Acenaphthene	83-32-9	- - -	- - -	- - -	- - -	- - -
Acenaphthylene	208-96-8	- - -	- - -	- - -	- - -	- - -
Anthracene	120-12-7	- - -	- - -	- - -	- - -	- - -
Benzidine	92-87-5	6.22E-06	1.99E-04	8.77E-05	6.03E-06	- - -
Benzo(a)anthracene	56-55-3	1.96E-03	7.45E-05	6.68E-02	7.17E-05	- - -
Benzo(a)pyrene	50-32-8	1.96E-04	4.38E-06	6.68E-03	4.28E-06	2.00E-04
Benzo(b)fluoranthene	205-99-2	1.96E-03	4.30E-05	6.68E-02	4.21E-05	- - -
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -	- - -	- - -
Benzo(k)fluoranthene	207-08-9	1.96E-02	- - -	6.68E-01	1.96E-02	- - -
Benzoic Acid	65-85-0	- - -	- - -	- - -	- - -	- - -
Benzyl Alcohol	100-51-6	- - -	- - -	- - -	- - -	- - -
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	1.30E-03	3.51E-02	1.78E-02	1.25E-03	- - -
Bis(2-ethylhexyl)phthalate	117-81-7	1.02E-01	3.08E-02	- - -	2.37E-02	6.00E-03
Butyl Benzyl Phthalate	85-68-7	- - -	- - -	- - -	- - -	- - -
Carbazole	86-74-8	7.15E-02	- - -	- - -	7.15E-02	- - -
Chrysene	218-01-9	1.96E-01	7.45E-03	6.68E+00	7.17E-03	- - -
Di-n-butyl Phthalate	84-74-2	- - -	- - -	- - -	- - -	- - -
Di-n-octyl Phthalate	117-84-0	- - -	- - -	- - -	- - -	- - -
Dibenz(a,h)anthracene	53-70-3	1.96E-04	1.58E-06	6.68E-03	1.57E-06	- - -
Dibenzofuran	132-64-9	- - -	- - -	- - -	- - -	- - -

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Diethyl Phthalate	84-66-2	- - -	- - -	- - -	- - -	- - -
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -	- - -	- - -
Fluoranthene	206-44-0	- - -	- - -	- - -	- - -	- - -
Fluorene	86-73-7	- - -	- - -	- - -	- - -	- - -
Hexachlorobenzene	118-74-1	8.94E-04	8.87E-05	1.28E-02	8.07E-05	1.00E-03
Hexachlorobutadiene	87-68-3	1.83E-02	3.78E-03	2.67E-01	3.14E-03	- - -
Hexachlorocyclopentadiene	77-47-4	- - -	- - -	- - -	- - -	5.00E-02
Hexachloroethane	67-72-1	1.02E-01	7.17E-02	1.47E+00	4.21E-02	- - -
Indeno(1,2,3-cd)pyrene	193-39-5	1.96E-03	2.30E-05	6.68E-02	2.27E-05	- - -
Isophorone	78-59-1	1.51E+00	2.10E+01	- - -	1.41E+00	- - -
N-Nitroso-di-n-propylamine	621-64-7	2.04E-04	4.53E-03	- - -	1.96E-04	- - -
N-Nitrosodimethylamine	62-75-9	2.81E-05	9.48E-03	4.20E-04	2.80E-05	- - -
N-Nitrosodiphenylamine	86-30-6	2.92E-01	5.63E-01	- - -	1.92E-01	- - -
Naphthalene	91-20-3	- - -	- - -	- - -	- - -	- - -
Nitrobenzene	98-95-3	- - -	- - -	- - -	- - -	- - -
Pentachlorophenol	87-86-5	1.19E-02	4.35E-04	- - -	4.20E-04	1.00E-03
Phenanthrene	85-01-8	- - -	- - -	- - -	- - -	- - -
Phenol	108-95-2	- - -	- - -	- - -	- - -	- - -
Pyrene	129-00-0	- - -	- - -	- - -	- - -	- - -
Pyridine	110-86-1	- - -	- - -	- - -	- - -	- - -
Tributyl phosphate	126-73-8	- - -	- - -	- - -	- - -	- - -
Volatile Organics						
1,1,1,2-Tetrachloroethane	630-20-6	5.50E-02	- - -	7.94E-01	5.15E-02	- - -
1,1,1-Trichloroethane	71-55-6	- - -	- - -	- - -	- - -	2.00E-01
1,1,2,2-Tetrachloroethane	79-34-5	7.15E-03	3.78E-02	1.01E-01	5.68E-03	- - -
1,1,2-Trichloroethane	79-00-5	2.51E-02	1.81E-01	3.67E-01	2.08E-02	5.00E-03
1,1-Dichloroethane	75-34-3	- - -	- - -	- - -	- - -	- - -
1,1-Dichloroethene	75-35-4	- - -	- - -	- - -	- - -	7.00E-03
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -	- - -	- - -
1,2,3-Trichloropropane	96-18-4	2.04E-04	- - -	- - -	2.04E-04	- - -
1,2,4-Trimethylbenzene	95-63-6	- - -	- - -	- - -	- - -	- - -
1,2-Dibromo-3-Chloropropane	96-12-8	1.02E-03	- - -	8.51E+00	1.02E-03	2.00E-04
1,2-Dichloroethane	107-06-2	1.57E-02	2.29E-01	2.26E-01	1.38E-02	5.00E-03
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -	- - -	- - -

Table 4.2.1		Construction Worker - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)				
Chemical	CAS Number	GV Ingestion	GV Dermal	GV Inhalation	10^{-6} GV Total	MCL
1,2-Dichloropropane	78-87-5	2.10E-02	1.46E-01	- - -	1.84E-02	5.00E-03
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	- - -	- - -	- - -	- - -	7.00E-02
1,2-trans-Dichloroethene	156-60-5	- - -	- - -	- - -	- - -	1.00E-01
1,3,5-Trimethylbenzene	108-67-8	- - -	- - -	- - -	- - -	- - -
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -	- - -	- - -
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -	- - -	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -	- - -	- - -
2-Butanone	78-93-3	- - -	- - -	- - -	- - -	- - -
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -	- - -	- - -
2-Chlorotoluene	95-49-8	- - -	- - -	- - -	- - -	- - -
2-Hexanone	591-78-6	- - -	- - -	- - -	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -	- - -	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -	- - -	- - -
Acetone	67-64-1	- - -	- - -	- - -	- - -	- - -
Acetonitrile	75-05-8	- - -	- - -	- - -	- - -	- - -
Acrylonitrile	107-13-1	2.65E-03	2.04E-01	8.64E-02	2.54E-03	- - -
Benzene	71-43-2	2.60E-02	2.12E-02	- - -	1.17E-02	5.00E-03
Benzyl Chloride	100-44-7	8.42E-03	3.80E-02	- - -	6.89E-03	- - -
Bromochloromethane	74-97-5	- - -	- - -	- - -	- - -	- - -
Bromodichloromethane	75-27-4	2.31E-02	1.95E-01	- - -	2.06E-02	- - -
Bromoform	75-25-2	1.81E-01	1.84E+00	5.34E+00	1.60E-01	- - -
Bromomethane	74-83-9	- - -	- - -	- - -	- - -	- - -
Carbon Disulfide	75-15-0	- - -	- - -	- - -	- - -	- - -
Carbon Tetrachloride	56-23-5	1.10E-02	2.62E-02	3.92E-01	7.60E-03	- - -
Chlorobenzene	108-90-7	- - -	- - -	- - -	- - -	1.00E-01
Chloroethane	75-00-3	- - -	- - -	- - -	- - -	- - -
Chloroform (Trichloromethane)	67-66-3	- - -	- - -	2.55E-01	2.55E-01	- - -
Chloromethane	74-87-3	1.10E-01	2.82E+00	3.26E+00	1.03E-01	- - -
Chlorotoluene	25168-05-2	- - -	- - -	- - -	- - -	- - -
Dibromochloromethane	124-48-1	1.70E-02	1.58E-01	- - -	1.54E-02	- - -

Table 4.2.1		Construction Worker - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)				
Chemical	CAS Number	GV Ingestion	GV Dermal	GV Inhalation	10^{-6} GV Total	MCL
Dibromomethane	74-95-3	- - -	- - -	- - -	- - -	- - -
Dichlorodifluoromethane	75-71-8	- - -	- - -	- - -	- - -	- - -
Dichloromethane (Methylene Chloride)	75-09-2	1.91E-01	3.59E+00	1.25E+01	1.79E-01	5.00E-03
Ethylbenzene	100-41-4	- - -	- - -	- - -	- - -	7.00E-01
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	1.68E-05	2.13E-04	2.67E-02	1.56E-05	5.00E-05
Fluorobenzene	462-06-6	- - -	- - -	- - -	- - -	- - -
FREON-113	76-13-1	- - -	- - -	- - -	- - -	- - -
Hexane	110-54-3	- - -	- - -	- - -	- - -	- - -
Iodomethane	74-88-4	- - -	- - -	- - -	- - -	- - -
Isopropyl Benzene	98-82-8	- - -	- - -	- - -	- - -	- - -
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -	- - -	- - -
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -	- - -	- - -
Styrene	100-42-5	- - -	- - -	- - -	- - -	1.00E-01
Tetrachloroethene	127-18-4	2.75E-02	3.58E-03	1.01E+01	3.16E-03	5.00E-03
Toluene	108-88-3	- - -	- - -	- - -	- - -	1.00E+00
Total VOC's	TVOC	- - -	- - -	- - -	- - -	- - -
Trichloroethene	79-01-6	1.10E-01	2.94E-02	2.94E+00	2.30E-02	5.00E-03
Trichlorofluoromethane	75-69-4	- - -	- - -	- - -	- - -	- - -
Vinyl Acetate	108-05-4	- - -	- - -	- - -	- - -	- - -
Vinyl Chloride	75-01-4	9.54E-04	1.30E-02	6.68E-01	8.88E-04	2.00E-03
Xylenes, Total	1330-20-7	- - -	- - -	- - -	- - -	1.00E+01
m-Xylene	108-38-3	- - -	- - -	- - -	- - -	- - -
mp-Xylene	mp-Xylene	- - -	- - -	- - -	- - -	- - -
n-Butylbenzene	104-51-8	- - -	- - -	- - -	- - -	- - -
n-propylbenzene	103-65-1	- - -	- - -	- - -	- - -	- - -
o-Xylene	95-47-6	- - -	- - -	- - -	- - -	- - -
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -	- - -	- - -
p-Xylene	106-42-3	- - -	- - -	- - -	- - -	- - -
sec-Butylbenzene	135-98-8	- - -	- - -	- - -	- - -	- - -
tert-Butylbenzene	98-06-6	- - -	- - -	- - -	- - -	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
Inorganics						
Actinium	7440-34-8	- - -	- - -	- - -	- - -	- - -
Aluminum	7429-90-5	1.02E+02	3.15E+04	- - -	1.02E+02	- - -
Antimony	7440-36-0	4.09E-02	1.26E+01	- - -	4.07E-02	6.00E-03
Arsenic	7440-38-2	3.07E-02	9.46E+00	- - -	3.06E-02	1.00E-02
Barium	7440-39-3	7.15E+00	2.21E+03	- - -	7.13E+00	2.00E+00
Beryllium	7440-41-7	2.04E-01	6.31E+01	8.39E-03	2.04E-01	4.00E-03
Bismuth	7440-69-9	- - -	- - -	- - -	- - -	- - -
Boron	7440-42-8	9.20E+00	2.84E+03	- - -	9.17E+00	- - -
Cadmium	7440-43-9w	5.11E-02	1.58E+01	- - -	5.09E-02	5.00E-03
Calcium	7440-70-2	- - -	- - -	- - -	- - -	- - -
Cerium	7440-45-1	- - -	- - -	- - -	- - -	- - -
Chromium	7440-47-3	1.53E+02	- - -	- - -	1.53E+02	1.00E-01
Chromium III	16065-83-1	1.53E+02	4.73E+04	- - -	1.53E+02	1.00E-01
Chromium VI	18540-29-9	3.07E-01	9.46E+01	4.20E-02	3.06E-01	- - -
Cobalt	7440-48-4	6.13E+00	1.89E+03	- - -	6.11E+00	- - -
Copper	7440-50-8	4.09E+00	1.26E+03	- - -	4.07E+00	- - -
Cyanide	57-12-5	2.04E+00	8.41E+01	- - -	2.00E+00	- - -
Dypsprosium	7429-91-6	- - -	- - -	- - -	- - -	- - -
Erbium	7440-52-0	- - -	- - -	- - -	- - -	- - -
Europium	7440-53-1	- - -	- - -	- - -	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -	- - -	- - -	- - -
Holmium	7440-60-0	- - -	- - -	- - -	- - -	- - -
Iron	7439-89-6	- - -	- - -	- - -	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -	- - -	- - -	- - -
Lead	7439-92-1	- - -	- - -	- - -	- - -	- - -
Lithium	7439-93-2	- - -	- - -	- - -	- - -	- - -
Lutetium	7439-94-3	- - -	- - -	- - -	- - -	- - -
Magnesium	7439-95-4	- - -	- - -	- - -	- - -	- - -
Manganese	7439-96-5w	4.80E+00	1.48E+03	2.10E-02	4.79E+00	- - -
Mercury	7439-97-6	3.07E-02	9.46E+00	1.26E-01	3.06E-02	2.00E-03
Molybdenum	7439-98-7	5.11E-01	1.58E+02	- - -	5.09E-01	- - -
Neodymium	7440-00-8	- - -	- - -	- - -	- - -	- - -
Nickel	7440-02-0	2.04E+00	6.31E+02	- - -	2.04E+00	- - -
Nitrate	14797-55-8	1.64E+02	5.05E+04	- - -	1.63E+02	1.00E+01
Nitrite	14797-65-0	1.02E+01	3.15E+03	- - -	1.02E+01	1.00E+00
Osmium	7440-04-2	- - -	- - -	- - -	- - -	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
Potassium	7440-09-7	- - -	- - -	- - -	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -	- - -	- - -	- - -
Rubidium	7440-17-7	- - -	- - -	- - -	- - -	- - -
Samarium	7440-19-9	- - -	- - -	- - -	- - -	- - -
Selenium	7782-49-2	5.11E-01	1.58E+02	- - -	5.09E-01	5.00E-02
Silicon	7440-21-3	- - -	- - -	- - -	- - -	- - -
Silver	7440-22-4	5.11E-01	1.58E+02	- - -	5.09E-01	- - -
Sodium	7440-23-5	- - -	- - -	- - -	- - -	- - -
Strontium	7440-24-6	- - -	- - -	- - -	- - -	- - -
Tantalum	7440-25-7	- - -	- - -	- - -	- - -	- - -
Terbium	7440-27-9	- - -	- - -	- - -	- - -	- - -
Thallium	7440-28-0	8.18E-03	2.52E+00	- - -	8.15E-03	2.00E-03
Tin	7440-31-5	6.13E+01	1.89E+04	- - -	6.11E+01	- - -
Titanium	7440-32-6	- - -	- - -	- - -	- - -	- - -
Uranium	7440-61-1	- - -	- - -	- - -	- - -	3.00E+01
Vanadium	7440-62-2	7.15E-01	2.21E+02	- - -	7.13E-01	- - -
Ytterbium	7440-64-4	- - -	- - -	- - -	- - -	- - -
Zinc	7440-66-6	3.07E+01	9.46E+03	- - -	3.06E+01	- - -
Zirconium	7440-67-7	- - -	- - -	- - -	- - -	- - -
Dioxins/Dibenzofurans						
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -	- - -	- - -
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -	- - -	- - -
1,2,3,6,7,8-HxCDF	55684-94-1	- - -	- - -	- - -	- - -	- - -
1,2,3,7,8,9-HxCDD	19408-74-3	- - -	- - -	- - -	- - -	- - -
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	- - -	- - -	- - -	- - -	- - -
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -	- - -	- - -
2,3,4,7,8-PeCDF	57117-31-4	- - -	- - -	- - -	- - -	- - -
2,3,7,8-TCDD	1746-01-6	- - -	- - -	- - -	- - -	3.00E-08
2,3,7,8-TCDF	51207-31-9	- - -	- - -	- - -	- - -	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
HpCDD	37871-00-4	- - -	- - -	- - -	- - -	- - -
HpCDF	38998-75-3	- - -	- - -	- - -	- - -	- - -
HxCDD	34465-46-8	- - -	- - -	- - -	- - -	- - -
OCDD	3268-87-9	- - -	- - -	- - -	- - -	- - -
OCDF	39001-02-0	- - -	- - -	- - -	- - -	- - -
PeCDD	36088-22-9	- - -	- - -	- - -	- - -	- - -
PeCDF	30402-15-4	- - -	- - -	- - -	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -	- - -	- - -	- - -
TCDF	30402-14-3	- - -	- - -	- - -	- - -	- - -
Explosives						
1,3,5-Trinitrobenzene	99-35-4	3.07E+00	- - -	- - -	3.07E+00	- - -
1,3-Dinitrobenzene	99-65-0	1.02E-02	- - -	- - -	1.02E-02	- - -
2,4,6-Trinitrotoluene	118-96-7	5.11E-02	- - -	- - -	5.11E-02	- - -
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -	- - -	- - -
HMX	2691-41-0	5.11E+00	- - -	- - -	5.11E+00	- - -
Nitroglycerin	55-63-0	- - -	- - -	- - -	- - -	- - -
PETN	78-11-5	- - -	- - -	- - -	- - -	- - -
RDX	121-82-4	3.07E-01	- - -	- - -	3.07E-01	- - -
Tetryl	479-45-8	1.02E+00	- - -	- - -	1.02E+00	- - -
Pesticides and/or PCBs						
4,4'-DDD	72-54-8	- - -	- - -	- - -	- - -	- - -
4,4'-DDE	72-55-9	- - -	- - -	- - -	- - -	- - -
4,4'-DDT	50-29-3	5.11E-02	1.50E-03	- - -	1.46E-03	- - -
Aldrin	309-00-2	3.07E-03	2.26E-02	- - -	2.70E-03	- - -
Alpha Chlordane	5103-71-9	- - -	- - -	- - -	- - -	- - -
Alpha-BHC	319-84-6	- - -	- - -	- - -	- - -	- - -
Aroclor-1016	12674-11-2	7.15E-03	- - -	- - -	7.15E-03	- - -
Aroclor-1221	11104-28-2	- - -	- - -	- - -	- - -	- - -
Aroclor-1232	11141-16-5	- - -	- - -	- - -	- - -	- - -
Aroclor-1242	53469-21-9	- - -	- - -	- - -	- - -	- - -
Aroclor-1248	12672-29-6	- - -	- - -	- - -	- - -	- - -
Aroclor-1254	11097-69-1	2.04E-03	- - -	- - -	2.04E-03	- - -
Aroclor-1260	11096-82-5	- - -	- - -	- - -	- - -	- - -
Beta-BHC	319-85-7	- - -	- - -	- - -	- - -	- - -
Chlordane	57-74-9	- - -	- - -	- - -	- - -	2.00E-03
Delta-BHC	319-86-8	- - -	- - -	- - -	- - -	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
Dieldrin	60-57-1	5.11E-03	3.44E-03	- - -	2.05E-03	- - -
Endosulfan I	959-98-8	- - -	- - -	- - -	- - -	- - -
Endosulfan II	33213-65-9	- - -	- - -	- - -	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -	- - -	- - -
Endrin	72-20-8	3.07E-02	2.06E-02	- - -	1.23E-02	2.00E-03
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -	- - -	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -	- - -	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	3.07E-02	4.38E-02	- - -	1.80E-02	2.00E-04
Heptachlor	76-44-8	5.11E-02	5.14E-03	- - -	4.67E-03	4.00E-04
Heptachlor Epoxide	1024-57-3	1.33E-03	- - -	- - -	1.33E-03	2.00E-04
Methoxychlor	72-43-5	5.11E-01	- - -	- - -	5.11E-01	4.00E-02
Polychlorinated Biphenyls (PCBs)	1336-36-3	2.04E-03	- - -	- - -	2.04E-03	5.00E-04
Toxaphene	8001-35-2	- - -	- - -	- - -	- - -	3.00E-03
Semi-Volatile Organics						
1,2,4-Trichlorobenzene	120-82-1	1.02E+00	4.45E-01	8.39E+01	3.10E-01	7.00E-02
1,2-Dichlorobenzene	95-50-1	9.20E+00	8.28E+00	- - -	4.36E+00	6.00E-01
1,2-Diphenylhydrazine	122-66-7	- - -	- - -	- - -	- - -	- - -
1,3-Dichlorobenzene	541-73-1	3.07E+00	1.94E+00	3.36E+00	1.19E+00	- - -
1,4-Dichlorobenzene	106-46-7	- - -	- - -	3.36E+02	- - -	7.50E-02
2,2'-oxybis(1-chloropropane)	108-60-1	4.09E+00	- - -	- - -	4.09E+00	- - -
2,4,5-Trichlorophenol	95-95-4	1.02E+01	- - -	- - -	1.02E+01	- - -
2,4,6-Trichlorophenol	88-06-2	- - -	- - -	- - -	- - -	- - -
2,4-Dichlorophenol	120-83-2	3.07E-01	2.51E-01	- - -	1.38E-01	- - -
2,4-Dimethylphenol	105-67-9	2.04E+00	1.33E+00	- - -	8.07E-01	- - -
2,4-Dinitrophenol	51-28-5	2.04E-01	2.66E+00	- - -	1.90E-01	- - -
2,4-Dinitrotoluene	121-14-2	2.04E-01	2.34E+00	- - -	1.88E-01	- - -
2,6-Dinitrotoluene	606-20-2	1.02E-01	1.78E+00	- - -	9.66E-02	- - -
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -	- - -	- - -
2-Chloronaphthalene	91-58-7	8.18E+00	- - -	- - -	8.18E+00	- - -
2-Chlorophenol	95-57-8	5.11E-01	9.71E-01	- - -	3.35E-01	- - -
2-Methylnaphthalene	91-57-6	4.09E-01	- - -	- - -	4.09E-01	- - -
2-Methylphenol	95-48-7	5.11E+00	2.30E+01	- - -	4.18E+00	- - -
2-Nitroaniline	88-74-4	3.07E-02	- - -	8.39E-02	3.07E-02	- - -
2-Nitrophenol	88-75-5	- - -	- - -	- - -	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	- - -	- - -	- - -	- - -	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
3-Nitroaniline	99-09-2	3.07E-02	- - -	- - -	3.07E-02	- - -
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -	- - -	- - -
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -	- - -	- - -
4-Chloroaniline	106-47-8	4.09E-01	- - -	- - -	4.09E-01	- - -
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -	- - -	- - -
4-Methylphenol	106-44-5	5.11E-01	2.05E+00	- - -	4.09E-01	- - -
4-Nitroaniline	100-01-6	3.07E-01	- - -	- - -	3.07E-01	- - -
4-Nitrophenol	100-02-7	- - -	- - -	- - -	- - -	- - -
Acenaphthene	83-32-9	6.13E+00	- - -	- - -	6.13E+00	- - -
Acenaphthylene	208-96-8	- - -	- - -	- - -	- - -	- - -
Anthracene	120-12-7	3.07E+01	- - -	- - -	3.07E+01	- - -
Benzidine	92-87-5	3.07E-01	9.83E+00	- - -	2.97E-01	- - -
Benzo(a)anthracene	56-55-3	- - -	- - -	- - -	- - -	- - -
Benzo(a)pyrene	50-32-8	- - -	- - -	- - -	- - -	2.00E-04
Benzo(b)fluoranthene	205-99-2	- - -	- - -	- - -	- - -	- - -
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -	- - -	- - -
Benzo(k)fluoranthene	207-08-9	- - -	- - -	- - -	- - -	- - -
Benzoic Acid	65-85-0	4.09E+02	3.65E+03	- - -	3.68E+02	- - -
Benzyl Alcohol	100-51-6	3.07E+01	- - -	- - -	3.07E+01	- - -
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	- - -	- - -	- - -	- - -	- - -
Bis(2-ethylhexyl)phthalate	117-81-7	2.04E+00	6.17E-01	- - -	4.74E-01	6.00E-03
Butyl Benzyl Phthalate	85-68-7	2.04E+01	- - -	- - -	2.04E+01	- - -
Carbazole	86-74-8	- - -	- - -	- - -	- - -	- - -
Chrysene	218-01-9	- - -	- - -	- - -	- - -	- - -
Di-n-butyl Phthalate	84-74-2	1.02E+01	6.82E+00	- - -	4.09E+00	- - -
Di-n-octyl Phthalate	117-84-0	2.04E+00	- - -	- - -	2.04E+00	- - -
Dibenz(a,h)anthracene	53-70-3	- - -	- - -	- - -	- - -	- - -
Dibenzofuran	132-64-9	4.09E-01	- - -	- - -	4.09E-01	- - -
Diethyl Phthalate	84-66-2	8.18E+01	5.50E+02	- - -	7.12E+01	- - -
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -	- - -	- - -
Fluoranthene	206-44-0	4.09E+00	4.23E-01	- - -	3.83E-01	- - -
Fluorene	86-73-7	4.09E+00	- - -	- - -	4.09E+00	- - -
Hexachlorobenzene	118-74-1	8.18E-02	8.11E-03	- - -	7.38E-03	1.00E-03
Hexachlorobutadiene	87-68-3	2.04E-02	4.22E-03	- - -	3.49E-03	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
Hexachlorocyclopentadiene	77-47-4	6.13E-01	- - -	8.39E-02	6.13E-01	5.00E-02
Hexachloroethane	67-72-1	1.02E-01	7.17E-02	- - -	4.21E-02	- - -
Indeno(1,2,3-cd)pyrene	193-39-5	- - -	- - -	- - -	- - -	- - -
Isophorone	78-59-1	2.04E+01	2.84E+02	- - -	1.91E+01	- - -
N-Nitroso-di-n-propylamine	621-64-7	- - -	- - -	- - -	- - -	- - -
N-Nitrosodimethylamine	62-75-9	- - -	- - -	- - -	- - -	- - -
N-Nitrosodiphenylamine	86-30-6	- - -	- - -	- - -	- - -	- - -
Naphthalene	91-20-3	2.04E+00	1.86E+00	1.26E+00	9.73E-01	- - -
Nitrobenzene	98-95-3	5.11E-02	- - -	- - -	5.11E-02	- - -
Pentachlorophenol	87-86-5	3.07E+00	1.12E-01	- - -	1.08E-01	1.00E-03
Phenanthrene	85-01-8	- - -	- - -	- - -	- - -	- - -
Phenol	108-95-2	6.13E+01	5.94E+02	- - -	5.56E+01	- - -
Pyrene	129-00-0	3.07E+00	- - -	- - -	3.07E+00	- - -
Pyridine	110-86-1	1.02E-01	- - -	- - -	1.02E-01	- - -
Tributyl phosphate	126-73-8	- - -	- - -	- - -	- - -	- - -
Volatile Organics						
1,1,1,2-Tetrachloroethane	630-20-6	3.07E+00	- - -	- - -	3.07E+00	- - -
1,1,1-Trichloroethane	71-55-6	2.86E+01	1.02E+02	4.20E+02	2.12E+01	2.00E-01
1,1,2,2-Tetrachloroethane	79-34-5	- - -	- - -	- - -	- - -	- - -
1,1,2-Trichloroethane	79-00-5	4.09E-01	2.94E+00	- - -	3.59E-01	5.00E-03
1,1-Dichloroethane	75-34-3	1.02E+01	8.86E+01	- - -	9.16E+00	- - -
1,1-Dichloroethene	75-35-4	5.11E+00	2.50E+01	- - -	4.24E+00	7.00E-03
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -	- - -	- - -
1,2,3-Trichloropropane	96-18-4	6.13E-01	- - -	- - -	6.13E-01	- - -
1,2,4-Trimethylbenzene	95-63-6	5.11E+00	- - -	2.52E+00	1.69E+00	- - -
1,2-Dibromo-3-Chloropropane	96-12-8	- - -	- - -	8.39E-02	8.39E-02	2.00E-04
1,2-Dichloroethane	107-06-2	- - -	- - -	- - -	- - -	5.00E-03
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -	- - -	- - -
1,2-Dichloropropane	78-87-5	- - -	- - -	1.68E+00	1.68E+00	5.00E-03
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	1.02E+00	- - -	- - -	1.02E+00	7.00E-02
1,2-trans-Dichloroethene	156-60-5	2.04E+00	- - -	- - -	2.04E+00	1.00E-01
1,3,5-Trimethylbenzene	108-67-8	5.11E+00	- - -	2.52E+00	1.69E+00	- - -
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -	- - -	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -	- - -	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -	- - -	- - -
2-Butanone	78-93-3	6.13E+01	1.14E+03	- - -	5.82E+01	- - -
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -	- - -	- - -
2-Chlorotoluene	95-49-8	2.04E+00	- - -	- - -	2.04E+00	- - -
2-Hexanone	591-78-6	- - -	- - -	- - -	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -	- - -	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -	- - -	- - -
Acetone	67-64-1	9.20E+01	- - -	- - -	9.20E+01	- - -
Acetonitrile	75-05-8	- - -	- - -	2.52E+01	2.52E+01	- - -
Acrylonitrile	107-13-1	1.02E-01	7.85E+00	8.39E-01	9.01E-02	- - -
Benzene	71-43-2	4.09E-01	3.33E-01	- - -	1.83E-01	5.00E-03
Benzyl Chloride	100-44-7	- - -	- - -	- - -	- - -	- - -
Bromochloromethane	74-97-5	- - -	- - -	- - -	- - -	- - -
Bromodichloromethane	75-27-4	2.04E+00	1.72E+01	- - -	1.83E+00	- - -
Bromoform	75-25-2	2.04E+00	2.07E+01	- - -	1.86E+00	- - -
Bromomethane	74-83-9	1.43E-01	3.25E+00	2.10E+00	1.29E-01	- - -
Carbon Disulfide	75-15-0	1.02E+01	1.80E+00	2.94E+02	1.52E+00	- - -
Carbon Tetrachloride	56-23-5	7.15E-02	1.70E-01	8.39E-01	4.75E-02	- - -
Chlorobenzene	108-90-7	2.04E+00	3.47E+00	2.52E+01	1.22E+00	1.00E-01
Chloroethane	75-00-3	4.09E+01	4.97E+02	4.20E+03	3.74E+01	- - -
Chloroform (Trichloromethane)	67-66-3	1.02E+00	5.23E-01	- - -	3.46E-01	- - -
Chloromethane	74-87-3	- - -	- - -	3.78E+01	3.78E+01	- - -
Chlorotoluene	25168-05-2	- - -	- - -	- - -	- - -	- - -
Dibromochloromethane	124-48-1	2.04E+00	1.89E+01	- - -	1.84E+00	- - -
Dibromomethane	74-95-3	- - -	- - -	- - -	- - -	- - -
Dichlorodifluoromethane	75-71-8	2.04E+01	1.12E+02	- - -	1.73E+01	- - -
Dichloromethane (Methylene Chloride)	75-09-2	6.13E+00	1.15E+02	1.26E+03	5.80E+00	5.00E-03
Ethylbenzene	100-41-4	1.02E+01	7.47E-01	4.20E+02	6.95E-01	7.00E-01
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	- - -	- - -	8.39E-02	8.39E-02	5.00E-05
Fluorobenzene	462-06-6	- - -	- - -	- - -	- - -	- - -
FREON-113	76-13-1	3.07E+03	- - -	1.26E+04	2.47E+03	- - -
Hexane	110-54-3	6.13E+00	- - -	8.39E+01	5.71E+00	- - -

Table 4.2.2		Construction Worker - Groundwater Exposure Pathway				
Chemical	CAS Number	HI Ingestion	HI Dermal	HI Inhalation	HI Total	MCL
Iodomethane	74-88-4	- - -	- - -	- - -	- - -	- - -
Isopropyl Benzene	98-82-8	1.02E+01	- - -	1.68E+02	9.63E+00	- - -
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -	- - -	- - -
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -	- - -	- - -
Styrene	100-42-5	2.04E+01	2.26E+00	4.20E+02	2.02E+00	1.00E-01
Tetrachloroethene	127-18-4	1.02E+00	1.33E-01	- - -	1.18E-01	5.00E-03
Toluene	108-88-3	2.04E+01	1.65E+00	1.68E+02	1.51E+00	1.00E+00
Total VOC's	TVOC	- - -	- - -	- - -	- - -	- - -
Trichloroethene	79-01-6	5.11E+01	1.37E+01	2.50E+02	1.03E+01	5.00E-03
Trichlorofluoromethane	75-69-4	3.07E+01	1.06E+02	- - -	2.38E+01	- - -
Vinyl Acetate	108-05-4	1.02E+02	- - -	8.39E+01	4.61E+01	- - -
Vinyl Chloride	75-01-4	3.07E-01	4.18E+00	4.20E+01	2.84E-01	2.00E-03
Xylenes, Total	1330-20-7	2.04E+01	- - -	- - -	2.04E+01	1.00E+01
m-Xylene	108-38-3	2.04E+02	1.74E+02	- - -	9.39E+01	- - -
mp-Xylene	mp-Xylene	- - -	- - -	- - -	- - -	- - -
n-Butylbenzene	104-51-8	4.09E+00	- - -	- - -	4.09E+00	- - -
n-propylbenzene	103-65-1	4.09E+00	- - -	- - -	4.09E+00	- - -
o-Xylene	95-47-6	2.04E+02	- - -	- - -	2.04E+02	- - -
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -	- - -	- - -
p-Xylene	106-42-3	2.04E+02	- - -	- - -	2.04E+02	- - -
sec-Butylbenzene	135-98-8	4.09E+00	- - -	- - -	4.09E+00	- - -
tert-Butylbenzene	98-06-6	4.09E+00	- - -	- - -	4.09E+00	- - -

Table 4.2.3		Construction Worker - Groundwater Exposure Pathway (Radionuclides) (pCi/L)			
Chemical	CAS Number	GV Ingestion	GV Tritium Inhalation	GV Tritium Dermal	GV Tritium Total
Radiological					
Actinium-227	14952-40-0	3.98E+00	- - -	- - -	- - -
Actinium-227 +D	14952-40-0(+D)	1.65E+00	- - -	- - -	- - -
Actinium-227 long lived decay	14952-40-0L	1.65E+00	- - -	- - -	- - -
Actinium-228	14331-83-0	4.02E+02	- - -	- - -	- - -
Americium-241	14596-10-2	7.69E+00	- - -	- - -	- - -
Antimony-124	14683-10-4	6.20E+01	- - -	- - -	- - -
Antimony-125	14234-35-6	1.83E+02	- - -	- - -	- - -
Antimony-125+D	14234-35-6(+D)	1.56E+02	- - -	- - -	- - -
Barium-133	13981-41-4	1.17E+02	- - -	- - -	- - -
Barium-133m	13981-41-4m	2.51E+02	- - -	- - -	- - -
Barium-140	14798-08-4	5.37E+01	- - -	- - -	- - -
Beryllium-7	13966-02-4	9.24E+03	- - -	- - -	- - -
Bismuth-207	13982-38-2	1.41E+02	- - -	- - -	- - -
Bismuth-210	14331-79-4	8.97E+01	- - -	- - -	- - -
Bismuth-210m	14331-79-4m	1.45E+01	- - -	- - -	- - -
Bismuth-211	15229-37-5	- - -	- - -	- - -	- - -
Bismuth-212	14913-49-6	1.13E+03	- - -	- - -	- - -
Bismuth-214	14733-03-0	4.17E+03	- - -	- - -	- - -
Cerium-139	CE-139	- - -	- - -	- - -	- - -
Cerium-141	13967-74-3	1.73E+02	- - -	- - -	- - -
Cerium-144	14762-78-8	2.27E+01	- - -	- - -	- - -
Cerium-144+D	14762-78-8(+D)	2.27E+01	- - -	- - -	- - -
Cesium-134	13967-70-9	1.90E+01	- - -	- - -	- - -
Cesium-134m	13967-70-9m	1.93E+04	- - -	- - -	- - -
Cesium-137	10045-97-3	2.63E+01	- - -	- - -	- - -
Cesium-137 +D	10045-97-3(+D)	2.63E+01	- - -	- - -	- - -
Cesium-137 long lived decay	10045-97-3L	2.63E+01	- - -	- - -	- - -
Chromium-51	14392-02-0	4.32E+03	- - -	- - -	- - -
Cobalt-57	13981-50-5	7.69E+02	- - -	- - -	- - -
Cobalt-58	13981-38-9	2.71E+02	- - -	- - -	- - -
Cobalt-58m	13981-38-9m	6.35E+03	- - -	- - -	- - -
Cobalt-60	10198-40-0	5.10E+01	- - -	- - -	- - -

L = used for long lived decay lookup value

Table 4.2.3		Construction Worker - Groundwater Exposure Pathway (Radionuclides) (pCi/L)			
Chemical	CAS Number	GV Ingestion	GV Tritium Inhalation	GV Tritium Dermal	GV Tritium Total
Cobalt-60m	10198-40-0m	3.01E+05	- - -	- - -	- - -
Curium-244	13981-15-2	9.57E+00	- - -	- - -	- - -
Europium-152	14683-23-9	1.32E+02	- - -	- - -	- - -
Europium-152m	14683-23-9m	2.68E+02	- - -	- - -	- - -
Europium-154	15585-10-1	7.77E+01	- - -	- - -	- - -
Europium-155	14391-16-3	4.21E+02	- - -	- - -	- - -
Iodine-131	24267-56-9	- - -	- - -	- - -	- - -
Iridium-192	12154-84-6	- - -	- - -	- - -	- - -
Iron-59	14596-12-4	1.02E+02	- - -	- - -	- - -
Lanthanum-140	13981-28-7	7.27E+01	- - -	- - -	- - -
Lead-210	14255-04-0	9.08E-01	- - -	- - -	- - -
Lead-210+D	14255-04-0(+D)	6.30E-01	- - -	- - -	- - -
Lead-210 long lived decay	14255-04-0L	6.30E-01	- - -	- - -	- - -
Lead-212	15092-94-1	3.20E+01	- - -	- - -	- - -
Lead-214	15067-28-4	2.33E+03	- - -	- - -	- - -
Manganese-54	13966-31-9	3.51E+02	- - -	- - -	- - -
Mercury-203	13982-78-0	1.40E+02	- - -	- - -	- - -
Neptunium-237	13994-20-2	1.29E+01	- - -	- - -	- - -
Neptunium-237+D	13994-20-2(+D)	1.19E+01	- - -	- - -	- - -
Niobium-95	13967-76-5	3.27E+02	- - -	- - -	- - -
Niobium-95m	13967-76-5m	2.19E+02	- - -	- - -	- - -
Plutonium-238	13981-16-3	6.11E+00	- - -	- - -	- - -
Plutonium-238/239	PU-238/239	5.93E+00	- - -	- - -	- - -
Plutonium-239	15117-48-3	5.93E+00	- - -	- - -	- - -
Plutonium-239/240	PU-239/240	5.93E+00	- - -	- - -	- - -
Plutonium-241	14119-32-5	4.55E+02	- - -	- - -	- - -
Plutonium-242	13982-10-0	6.25E+00	- - -	- - -	- - -
Polonium-210	13981-52-7	2.12E+00	- - -	- - -	- - -
Potassium-40	13966-00-2	3.24E+01	- - -	- - -	- - -
Protactinium-231	14331-85-2	4.62E+00	- - -	- - -	- - -
Protactinium-231 long lived decay	14331-85-2L	1.21E+00	- - -	- - -	- - -
Protactinium-233	13981-14-1	1.44E+02	- - -	- - -	- - -
Protactinium-234	15100-28-4	3.13E+02	- - -	- - -	- - -

L = used for long lived decay lookup value

Table 4.2.3		Construction Worker - Groundwater Exposure Pathway (Radionuclides) (pCi/L)			
Chemical	CAS Number	GV Ingestion	GV Tritium Inhalation	GV Tritium Dermal	GV Tritium Total
Protactinium-234m	15100-28-4m	- - -	- - -	- - -	- - -
Radium-223	15623-45-7	3.36E+00	- - -	- - -	- - -
Radium-224	13233-32-4	4.79E+00	- - -	- - -	- - -
Radium-225	13981-53-8	7.02E+00	- - -	- - -	- - -
Radium-226	13982-63-3	2.08E+00	- - -	- - -	- - -
Radium-226+D	13982-63-3(+D)	2.07E+00	- - -	- - -	- - -
Radium-226 long lived decay	13982-63-3L	4.83E-01	- - -	- - -	- - -
Radium-228	15262-20-1	7.69E-01	- - -	- - -	- - -
Radium-228+D	15262-20-1(+D)	7.69E-01	- - -	- - -	- - -
Radium-228 long lived decay	15262-20-1L	5.97E-01	- - -	- - -	- - -
Ruthenium-103	13968-53-1	2.08E+02	- - -	- - -	- - -
Ruthenium-106	13967-48-1	1.90E+01	- - -	- - -	- - -
Ruthenium-106+D	13967-48-1(+D)	1.90E+01	- - -	- - -	- - -
Scandium-46	13967-63-0	1.29E+02	- - -	- - -	- - -
Silver-108m	14391-65-2m	9.83E+01	- - -	- - -	- - -
Silver-109m	14378-38-2m	- - -	- - -	- - -	- - -
Sodium-22	13966-32-0	8.32E+01	- - -	- - -	- - -
Strontium-85	13967-73-2	3.54E+02	- - -	- - -	- - -
Strontium-85m	13967-73-2m	4.79E+04	- - -	- - -	- - -
Strontium-89	14158-27-1	6.25E+01	- - -	- - -	- - -
Strontium-90	10098-97-2	1.43E+01	- - -	- - -	- - -
Strontium-90+D	10098-97-2(+D)	1.08E+01	- - -	- - -	- - -
Technetium-99	14133-76-7	2.91E+02	- - -	- - -	- - -
Thallium-208	14913-50-9	- - -	- - -	- - -	- - -
Thorium-227	15623-47-9	1.69E+01	- - -	- - -	- - -
Thorium-228	14274-82-9	7.48E+00	- - -	- - -	- - -
Thorium-228+D	14274-82-9(+D)	2.67E+00	- - -	- - -	- - -
Thorium-228 long lived decay	14274-82-9L	2.67E+00	- - -	- - -	- - -
Thorium-229	15594-54-4	3.57E+00	- - -	- - -	- - -
Thorium-229+D	15594-54-4(+D)	1.52E+00	- - -	- - -	- - -
Thorium-229 long lived decay	15594-54-4L	1.52E+00	- - -	- - -	- - -
Thorium-230	14269-63-7	8.79E+00	- - -	- - -	- - -
Thorium-230 long lived decay	14269-63-7L	4.58E-01	- - -	- - -	- - -

L = used for long lived decay lookup value

Table 4.2.3		Construction Worker - Groundwater Exposure Pathway (Radionuclides) (pCi/L)			
Chemical	CAS Number	GV Ingestion	GV Tritium Inhalation	GV Tritium Dermal	GV Tritium Total
Thorium-232	7440-29-1	7.92E+00	- - -	- - -	- - -
Thorium-232 long lived decay	7440-29-1L	5.55E-01	- - -	- - -	- - -
Thorium-234	15065-10-8	3.46E+01	- - -	- - -	- - -
Tin-113	13966-06-8	1.85E+02	- - -	- - -	- - -
Tin-126	15832-50-5	3.13E+01	- - -	- - -	- - -
Tritium (particulate)	10028-17-8p	7.14E+03	4.31E+05	1.47E+06	6.99E+03
Tritium (water)	10028-17-8w	1.58E+04	1.53E+06	3.25E+06	1.55E+04
Uranium-232	14158-29-3	2.74E+00	- - -	- - -	- - -
Uranium-233	13968-55-3	1.11E+01	- - -	- - -	- - -
Uranium-233 long lived decay	13968-55-3L	1.33E+00	- - -	- - -	- - -
Uranium-233/234	U-233/234	1.33E+00	- - -	- - -	- - -
Uranium-234	13966-29-5	1.13E+01	- - -	- - -	- - -
Uranium-235	15117-96-1	1.15E+01	- - -	- - -	- - -
Uranium-235+D	15117-96-1(+D)	1.11E+01	- - -	- - -	- - -
Uranium-235 long lived decay	15117-96-1L	1.09E+00	- - -	- - -	- - -
Uranium-235/236	U-235/236	1.09E+00	- - -	- - -	- - -
Uranium-238	7440-61-1	1.25E+01	- - -	- - -	- - -
Uranium-238+D	7440-61-1(+D)	9.18E+00	- - -	- - -	- - -
Uranium-238 long lived decay	7440-61-1L	4.20E-01	- - -	- - -	- - -
Yttrium-88	7440-65-5	- - -	- - -	- - -	- - -
Zinc-65	13982-39-3	6.84E+01	- - -	- - -	- - -
Zirconium-95	13967-71-0	1.74E+02	- - -	- - -	- - -

L = used for long lived decay lookup value

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Inorganics						
Actinium	7440-34-8	- - -	- - -	- - -	- - -	
Aluminum	7429-90-5	- - -	1.02E+01	- - -	1.02E+01	b
Antimony	7440-36-0	- - -	4.07E-03	6.00E-03	4.07E-03	b
Arsenic	7440-38-2	9.51E-04	3.06E-03	1.00E-02	9.51E-04	a
Barium	7440-39-3	- - -	7.13E-01	2.00E+00	7.13E-01	b
Beryllium	7440-41-7	- - -	2.04E-02	4.00E-03	4.00E-03	c
Bismuth	7440-69-9	- - -	- - -	- - -	- - -	
Boron	7440-42-8	- - -	9.17E-01	- - -	9.17E-01	b
Cadmium	7440-43-9w	- - -	5.09E-03	5.00E-03	5.00E-03	c
Calcium	7440-70-2	- - -	- - -	- - -	- - -	
Cerium	7440-45-1	- - -	- - -	- - -	- - -	
Chromium	7440-47-3	- - -	1.53E+01	1.00E-01	1.00E-01	c
Chromium III	16065-83-1	- - -	1.53E+01	1.00E-01	1.00E-01	c
Chromium VI	18540-29-9	- - -	3.06E-02	- - -	3.06E-02	b
Cobalt	7440-48-4	- - -	6.11E-01	- - -	6.11E-01	b
Copper	7440-50-8	- - -	4.07E-01	- - -	4.07E-01	b
Cyanide	57-12-5	- - -	2.00E-01	- - -	2.00E-01	b
Dypsprosium	7429-91-6	- - -	- - -	- - -	- - -	
Erbium	7440-52-0	- - -	- - -	- - -	- - -	
Europium	7440-53-1	- - -	- - -	- - -	- - -	
Gadolinium	7440-54-2	- - -	- - -	- - -	- - -	
Holmium	7440-60-0	- - -	- - -	- - -	- - -	
Iron	7439-89-6	- - -	- - -	- - -	- - -	
Lanthanum	7439-91-0	- - -	- - -	- - -	- - -	
Lead	7439-92-1	- - -	- - -	- - -	- - -	
Lithium	7439-93-2	- - -	- - -	- - -	- - -	
Lutetium	7439-94-3	- - -	- - -	- - -	- - -	
Magnesium	7439-95-4	- - -	- - -	- - -	- - -	
Manganese	7439-96-5w	- - -	4.79E-01	- - -	4.79E-01	b
Mercury	7439-97-6	- - -	3.06E-03	2.00E-03	2.00E-03	c

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Molybdenum	7439-98-7	- - -	5.09E-02	- - -	5.09E-02	b
Neodymium	7440-00-8	- - -	- - -	- - -	- - -	
Nickel	7440-02-0	- - -	2.04E-01	- - -	2.04E-01	b
Nitrate	14797-55-8	- - -	1.63E+01	1.00E+01	1.00E+01	c
Nitrite	14797-65-0	- - -	1.02E+00	1.00E+00	1.00E+00	c
Osmium	7440-04-2	- - -	- - -	- - -	- - -	
Potassium	7440-09-7	- - -	- - -	- - -	- - -	
Praseodymium	7440-10-0	- - -	- - -	- - -	- - -	
Rubidium	7440-17-7	- - -	- - -	- - -	- - -	
Samarium	7440-19-9	- - -	- - -	- - -	- - -	
Selenium	7782-49-2	- - -	5.09E-02	5.00E-02	5.00E-02	c
Silicon	7440-21-3	- - -	- - -	- - -	- - -	
Silver	7440-22-4	- - -	5.09E-02	- - -	5.09E-02	b
Sodium	7440-23-5	- - -	- - -	- - -	- - -	
Strontium	7440-24-6	- - -	- - -	- - -	- - -	
Tantalum	7440-25-7	- - -	- - -	- - -	- - -	
Terbium	7440-27-9	- - -	- - -	- - -	- - -	
Thallium	7440-28-0	- - -	8.15E-04	2.00E-03	8.15E-04	b
Tin	7440-31-5	- - -	6.11E+00	- - -	6.11E+00	b
Titanium	7440-32-6	- - -	- - -	- - -	- - -	
Uranium	7440-61-1	- - -	- - -	3.00E+01	3.00E+01	c
Vanadium	7440-62-2	- - -	7.13E-02	- - -	7.13E-02	b
Ytterbium	7440-64-4	- - -	- - -	- - -	- - -	
Zinc	7440-66-6	- - -	3.06E+00	- - -	3.06E+00	b
Zirconium	7440-67-7	- - -	- - -	- - -	- - -	
Dioxins/Dibenzofurans						
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -	- - -	
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -	- - -	
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -	- - -	

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDF	55684-94-1	9.54E-08	- - -	- - -	9.54E-08	a
1,2,3,7,8,9-HxCDD	19408-74-3	2.31E-07	- - -	- - -	2.31E-07	a
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -	- - -	
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -	- - -	
1,2,3,7,8-PeCDF	57117-41-6	1.91E-08	- - -	- - -	1.91E-08	a
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -	- - -	
2,3,4,7,8-PeCDF	57117-31-4	1.91E-07	- - -	- - -	1.91E-07	a
2,3,7,8-TCDD	1746-01-6	1.08E-10	- - -	3.00E-08	1.08E-10	a
2,3,7,8-TCDF	51207-31-9	9.54E-08	- - -	- - -	9.54E-08	a
HpCDD	37871-00-4	9.54E-07	- - -	- - -	9.54E-07	a
HpCDF	38998-75-3	9.54E-07	- - -	- - -	9.54E-07	a
HxCDD	34465-46-8	9.54E-08	- - -	- - -	9.54E-08	a
OCDD	3268-87-9	9.54E-06	- - -	- - -	9.54E-06	a
OCDF	39001-02-0	9.54E-06	- - -	- - -	9.54E-06	a
PeCDD	36088-22-9	1.91E-08	- - -	- - -	1.91E-08	a
PeCDF	30402-15-4	- - -	- - -	- - -	- - -	
TCDD, Total	41903-57-5	- - -	- - -	- - -	- - -	
TCDF	30402-14-3	- - -	- - -	- - -	- - -	
Explosives						
1,3,5-Trinitrobenzene	99-35-4	- - -	3.07E-01	- - -	3.07E-01	b
1,3-Dinitrobenzene	99-65-0	- - -	1.02E-03	- - -	1.02E-03	b
2,4,6-Trinitrotoluene	118-96-7	4.77E-02	5.11E-03	- - -	5.11E-03	b
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -	- - -	
HMX	2691-41-0	- - -	5.11E-01	- - -	5.11E-01	b
Nitroglycerin	55-63-0	- - -	- - -	- - -	- - -	
PETN	78-11-5	- - -	- - -	- - -	- - -	
RDX	121-82-4	1.30E-02	3.07E-02	- - -	1.30E-02	a
Tetryl	479-45-8	- - -	1.02E-01	- - -	1.02E-01	b
Pesticides and/or PCBs						

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
4,4'-DDD	72-54-8	3.29E-04	- - -	- - -	3.29E-04	a
4,4'-DDE	72-55-9	2.72E-04	- - -	- - -	2.72E-04	a
4,4'-DDT	50-29-3	1.20E-04	1.46E-04	- - -	1.20E-04	a
Aldrin	309-00-2	7.41E-05	2.70E-04	- - -	7.41E-05	a
Alpha Chlordane	5103-71-9	- - -	- - -	- - -	- - -	
Alpha-BHC	319-84-6	2.27E-04	- - -	- - -	2.27E-04	a
Aroclor-1016	12674-11-2	7.15E-04	7.15E-04	- - -	7.15E-04	a
Aroclor-1221	11104-28-2	7.15E-04	- - -	- - -	7.15E-04	a
Aroclor-1232	11141-16-5	7.15E-04	- - -	- - -	7.15E-04	a
Aroclor-1242	53469-21-9	7.15E-04	- - -	- - -	7.15E-04	a
Aroclor-1248	12672-29-6	7.15E-04	- - -	- - -	7.15E-04	a
Aroclor-1254	11097-69-1	7.15E-04	2.04E-04	- - -	2.04E-04	b
Aroclor-1260	11096-82-5	7.15E-04	- - -	- - -	7.15E-04	a
Beta-BHC	319-85-7	7.95E-04	- - -	- - -	7.95E-04	a
Chlordane	57-74-9	- - -	- - -	2.00E-03	2.00E-03	c
Delta-BHC	319-86-8	- - -	- - -	- - -	- - -	
Dieldrin	60-57-1	3.60E-05	2.05E-04	- - -	3.60E-05	a
Endosulfan I	959-98-8	- - -	- - -	- - -	- - -	
Endosulfan II	33213-65-9	- - -	- - -	- - -	- - -	
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -	- - -	
Endrin	72-20-8	- - -	1.23E-03	2.00E-03	1.23E-03	b
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -	- - -	
Endrin Ketone	53494-70-5	- - -	- - -	- - -	- - -	
Gamma Chlordane	5103-74-2	- - -	- - -	- - -	- - -	
Gamma-BHC (Lindane)	58-89-9	6.48E-04	1.80E-03	2.00E-04	2.00E-04	c
Heptachlor	76-44-8	2.91E-05	4.67E-04	4.00E-04	2.91E-05	a
Heptachlor Epoxide	1024-57-3	1.57E-04	1.33E-04	2.00E-04	1.33E-04	b
Methoxychlor	72-43-5	- - -	5.11E-02	4.00E-02	4.00E-02	c
Polychlorinated Biphenyls (PCBs)	1336-36-3	7.15E-04	2.04E-04	5.00E-04	2.04E-04	b
Toxaphene	8001-35-2	4.70E-04	- - -	3.00E-03	4.70E-04	a
Semi-Volatile Organics						

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
1,2,4-Trichlorobenzene	120-82-1	- - -	3.10E-02	7.00E-02	3.10E-02	b
1,2-Dichlorobenzene	95-50-1	- - -	4.36E-01	6.00E-01	4.36E-01	b
1,2-Diphenylhydrazine	122-66-7	1.25E-03	- - -	- - -	1.25E-03	a
1,3-Dichlorobenzene	541-73-1	- - -	1.19E-01	- - -	1.19E-01	b
1,4-Dichlorobenzene	106-46-7	2.80E-02	- - -	7.50E-02	2.80E-02	a
2,2'-oxybis(1-chloropropane)	108-60-1	2.04E-02	4.09E-01	- - -	2.04E-02	a
2,4,5-Trichlorophenol	95-95-4	- - -	1.02E+00	- - -	1.02E+00	b
2,4,6-Trichlorophenol	88-06-2	5.14E-02	- - -	- - -	5.14E-02	a
2,4-Dichlorophenol	120-83-2	- - -	1.38E-02	- - -	1.38E-02	b
2,4-Dimethylphenol	105-67-9	- - -	8.07E-02	- - -	8.07E-02	b
2,4-Dinitrophenol	51-28-5	- - -	1.90E-02	- - -	1.90E-02	b
2,4-Dinitrotoluene	121-14-2	1.94E-03	1.88E-02	- - -	1.94E-03	a
2,6-Dinitrotoluene	606-20-2	1.99E-03	9.66E-03	- - -	1.99E-03	a
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -	- - -	
2-Chloronaphthalene	91-58-7	- - -	8.18E-01	- - -	8.18E-01	b
2-Chlorophenol	95-57-8	- - -	3.35E-02	- - -	3.35E-02	b
2-Methylnaphthalene	91-57-6	- - -	4.09E-02	- - -	4.09E-02	b
2-Methylphenol	95-48-7	- - -	4.18E-01	- - -	4.18E-01	b
2-Nitroaniline	88-74-4	- - -	3.07E-03	- - -	3.07E-03	b
2-Nitrophenol	88-75-5	- - -	- - -	- - -	- - -	
3,3'-Dichlorobenzidine	91-94-1	1.92E-03	- - -	- - -	1.92E-03	a
3-Nitroaniline	99-09-2	3.77E-02	3.07E-03	- - -	3.07E-03	b
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -	- - -	
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -	- - -	
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -	- - -	
4-Chloroaniline	106-47-8	- - -	4.09E-02	- - -	4.09E-02	b
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -	- - -	
4-Methylphenol	106-44-5	- - -	4.09E-02	- - -	4.09E-02	b
4-Nitroaniline	100-01-6	3.77E-02	3.07E-02	- - -	3.07E-02	b
4-Nitrophenol	100-02-7	- - -	- - -	- - -	- - -	
Acenaphthene	83-32-9	- - -	6.13E-01	- - -	6.13E-01	b

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Acenaphthylene	208-96-8	- - -	- - -	- - -	- - -	
Anthracene	120-12-7	- - -	3.07E+00	- - -	3.07E+00	b
Benzidine	92-87-5	6.03E-06	2.97E-02	- - -	6.03E-06	a
Benzo(a)anthracene	56-55-3	7.17E-05	- - -	- - -	7.17E-05	a
Benzo(a)pyrene	50-32-8	4.28E-06	- - -	2.00E-04	4.28E-06	a
Benzo(b)fluoranthene	205-99-2	4.21E-05	- - -	- - -	4.21E-05	a
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -	- - -	
Benzo(k)fluoranthene	207-08-9	1.96E-02	- - -	- - -	1.96E-02	a
Benzoic Acid	65-85-0	- - -	3.68E+01	- - -	3.68E+01	b
Benzyl Alcohol	100-51-6	- - -	3.07E+00	- - -	3.07E+00	b
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -	- - -	
Bis(2-chloroethyl)ether	111-44-4	1.25E-03	- - -	- - -	1.25E-03	a
Bis(2-ethylhexyl)phthalate	117-81-7	2.37E-02	4.74E-02	6.00E-03	6.00E-03	c
Butyl Benzyl Phthalate	85-68-7	- - -	2.04E+00	- - -	2.04E+00	b
Carbazole	86-74-8	7.15E-02	- - -	- - -	7.15E-02	a
Chrysene	218-01-9	7.17E-03	- - -	- - -	7.17E-03	a
Di-n-butyl Phthalate	84-74-2	- - -	4.09E-01	- - -	4.09E-01	b
Di-n-octyl Phthalate	117-84-0	- - -	2.04E-01	- - -	2.04E-01	b
Dibenz(a,h)anthracene	53-70-3	1.57E-06	- - -	- - -	1.57E-06	a
Dibenzofuran	132-64-9	- - -	4.09E-02	- - -	4.09E-02	b
Diethyl Phthalate	84-66-2	- - -	7.12E+00	- - -	7.12E+00	b
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -	- - -	
Fluoranthene	206-44-0	- - -	3.83E-02	- - -	3.83E-02	b
Fluorene	86-73-7	- - -	4.09E-01	- - -	4.09E-01	b
Hexachlorobenzene	118-74-1	8.07E-05	7.38E-04	1.00E-03	8.07E-05	a
Hexachlorobutadiene	87-68-3	3.14E-03	3.49E-04	- - -	3.49E-04	b
Hexachlorocyclopentadiene	77-47-4	- - -	6.13E-02	5.00E-02	5.00E-02	c
Hexachloroethane	67-72-1	4.21E-02	4.21E-03	- - -	4.21E-03	b
Indeno(1,2,3-cd)pyrene	193-39-5	2.27E-05	- - -	- - -	2.27E-05	a
Isophorone	78-59-1	1.41E+00	1.91E+00	- - -	1.41E+00	a
N-Nitroso-di-n-propylamine	621-64-7	1.96E-04	- - -	- - -	1.96E-04	a

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
N-Nitrosodimethylamine	62-75-9	2.80E-05	- - -	- - -	2.80E-05	a
N-Nitrosodiphenylamine	86-30-6	1.92E-01	- - -	- - -	1.92E-01	a
Naphthalene	91-20-3	- - -	9.73E-02	- - -	9.73E-02	b
Nitrobenzene	98-95-3	- - -	5.11E-03	- - -	5.11E-03	b
Pentachlorophenol	87-86-5	4.20E-04	1.08E-02	1.00E-03	4.20E-04	a
Phenanthrene	85-01-8	- - -	- - -	- - -	- - -	
Phenol	108-95-2	- - -	5.56E+00	- - -	5.56E+00	b
Pyrene	129-00-0	- - -	3.07E-01	- - -	3.07E-01	b
Pyridine	110-86-1	- - -	1.02E-02	- - -	1.02E-02	b
Tributyl phosphate	126-73-8	- - -	- - -	- - -	- - -	
Volatile Organics						
1,1,1,2-Tetrachloroethane	630-20-6	5.15E-02	3.07E-01	- - -	5.15E-02	a
1,1,1-Trichloroethane	71-55-6	- - -	2.12E+00	2.00E-01	2.00E-01	c
1,1,2,2-Tetrachloroethane	79-34-5	5.68E-03	- - -	- - -	5.68E-03	a
1,1,2-Trichloroethane	79-00-5	2.08E-02	3.59E-02	5.00E-03	5.00E-03	c
1,1-Dichloroethane	75-34-3	- - -	9.16E-01	- - -	9.16E-01	b
1,1-Dichloroethene	75-35-4	- - -	4.24E-01	7.00E-03	7.00E-03	c
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -	- - -	
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -	- - -	
1,2,3-Trichloropropane	96-18-4	2.04E-04	6.13E-02	- - -	2.04E-04	a
1,2,4-Trimethylbenzene	95-63-6	- - -	1.69E-01	- - -	1.69E-01	b
1,2-Dibromo-3-Chloropropane	96-12-8	1.02E-03	8.39E-03	2.00E-04	2.00E-04	c
1,2-Dichloroethane	107-06-2	1.38E-02	- - -	5.00E-03	5.00E-03	c
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -	- - -	
1,2-Dichloropropane	78-87-5	1.84E-02	1.68E-01	5.00E-03	5.00E-03	c
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -	- - -	
1,2-cis-Dichloroethene	156-59-2	- - -	1.02E-01	7.00E-02	7.00E-02	c
1,2-trans-Dichloroethene	156-60-5	- - -	2.04E-01	1.00E-01	1.00E-01	c
1,3,5-Trimethylbenzene	108-67-8	- - -	1.69E-01	- - -	1.69E-01	b
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -	- - -	
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -	- - -	

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -	- - -	
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -	- - -	
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -	- - -	
1-Chlorohexane	544-10-5	- - -	- - -	- - -	- - -	
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -	- - -	
2-Butanone	78-93-3	- - -	5.82E+00	- - -	5.82E+00	b
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -	- - -	
2-Chlorotoluene	95-49-8	- - -	2.04E-01	- - -	2.04E-01	b
2-Hexanone	591-78-6	- - -	- - -	- - -	- - -	
4-Chlorotoluene	106-43-4	- - -	- - -	- - -	- - -	
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -	- - -	
Acetone	67-64-1	- - -	9.20E+00	- - -	9.20E+00	b
Acetonitrile	75-05-8	- - -	2.52E+00	- - -	2.52E+00	b
Acrylonitrile	107-13-1	2.54E-03	9.01E-03	- - -	2.54E-03	a
Benzene	71-43-2	1.17E-02	1.83E-02	5.00E-03	5.00E-03	c
Benzyl Chloride	100-44-7	6.89E-03	- - -	- - -	6.89E-03	a
Bromochloromethane	74-97-5	- - -	- - -	- - -	- - -	
Bromodichloromethane	75-27-4	2.06E-02	1.83E-01	- - -	2.06E-02	a
Bromoform	75-25-2	1.60E-01	1.86E-01	- - -	1.60E-01	a
Bromomethane	74-83-9	- - -	1.29E-02	- - -	1.29E-02	b
Carbon Disulfide	75-15-0	- - -	1.52E-01	- - -	1.52E-01	b
Carbon Tetrachloride	56-23-5	7.60E-03	4.75E-03	- - -	4.75E-03	b
Chlorobenzene	108-90-7	- - -	1.22E-01	1.00E-01	1.00E-01	c
Chloroethane	75-00-3	- - -	3.74E+00	- - -	3.74E+00	b
Chloroform (Trichloromethane)	67-66-3	2.55E-01	3.46E-02	- - -	3.46E-02	b
Chloromethane	74-87-3	1.03E-01	3.78E+00	- - -	1.03E-01	a
Chlorotoluene	25168-05-2	- - -	- - -	- - -	- - -	
Dibromochloromethane	124-48-1	1.54E-02	1.84E-01	- - -	1.54E-02	a
Dibromomethane	74-95-3	- - -	- - -	- - -	- - -	
Dichlorodifluoromethane	75-71-8	- - -	1.73E+00	- - -	1.73E+00	b
Dichloromethane (Methylene Chloride)	75-09-2	1.79E-01	5.80E-01	5.00E-03	5.00E-03	c

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Ethylbenzene	100-41-4	- - -	6.95E-02	7.00E-01	6.95E-02	b
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	1.56E-05	8.39E-03	5.00E-05	1.56E-05	a
Fluorobenzene	462-06-6	- - -	- - -	- - -	- - -	
FREON-113	76-13-1	- - -	2.47E+02	- - -	2.47E+02	b
Hexane	110-54-3	- - -	5.71E-01	- - -	5.71E-01	b
Iodomethane	74-88-4	- - -	- - -	- - -	- - -	
Isopropyl Benzene	98-82-8	- - -	9.63E-01	- - -	9.63E-01	b
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -	- - -	
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -	- - -	
Styrene	100-42-5	- - -	2.02E-01	1.00E-01	1.00E-01	c
Tetrachloroethene	127-18-4	3.16E-03	1.18E-02	5.00E-03	3.16E-03	a
Toluene	108-88-3	- - -	1.51E-01	1.00E+00	1.51E-01	b
Total VOC's	TVOC	- - -	- - -	- - -	- - -	
Trichloroethene	79-01-6	2.30E-02	1.03E+00	5.00E-03	5.00E-03	c
Trichlorofluoromethane	75-69-4	- - -	2.38E+00	- - -	2.38E+00	b
Vinyl Acetate	108-05-4	- - -	4.61E+00	- - -	4.61E+00	b
Vinyl Chloride	75-01-4	8.88E-04	2.84E-02	2.00E-03	8.88E-04	a
Xylenes, Total	1330-20-7	- - -	2.04E+00	1.00E+01	2.04E+00	b
m-Xylene	108-38-3	- - -	9.39E+00	- - -	9.39E+00	b
mp-Xylene	mp-Xylene	- - -	- - -	- - -	9.63E+00	b
n-Butylbenzene	104-51-8	- - -	4.09E-01	- - -	4.09E-01	b
n-propylbenzene	103-65-1	- - -	4.09E-01	- - -	4.09E-01	b
o-Xylene	95-47-6	- - -	2.04E+01	- - -	2.04E+01	b
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -	- - -	
p-Xylene	106-42-3	- - -	2.04E+01	- - -	2.04E+01	b
sec-Butylbenzene	135-98-8	- - -	4.09E-01	- - -	4.09E-01	b
tert-Butylbenzene	98-06-6	- - -	4.09E-01	- - -	4.09E-01	b
Radiological						
Actinium-227	14952-40-0				3.98E+00	
Actinium-227 +D	14952-40-0(+D)				1.65E+00	
Actinium-227 long lived decay	14952-40-0L				1.65E+00	

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Actinium-228	14331-83-0				4.02E+02	
Americium-241	14596-10-2				7.69E+00	
Antimony-124	14683-10-4				6.20E+01	
Antimony-125	14234-35-6				1.83E+02	
Antimony-125+D	14234-35-6(+D)				1.56E+02	
Barium-133	13981-41-4				1.17E+02	
Barium-133m	13981-41-4m				2.51E+02	
Barium-140	14798-08-4				5.37E+01	
Beryllium-7	13966-02-4				9.24E+03	
Bismuth-207	13982-38-2				1.41E+02	
Bismuth-210	14331-79-4				8.97E+01	
Bismuth-210m	14331-79-4m				1.45E+01	
Bismuth-211	15229-37-5				- - -	
Bismuth-212	14913-49-6				1.13E+03	
Bismuth-214	14733-03-0				4.17E+03	
Cerium-139	CE-139				- - -	
Cerium-141	13967-74-3				1.73E+02	
Cerium-144	14762-78-8				2.27E+01	
Cerium-144+D	14762-78-8(+D)				2.27E+01	
Cesium-134	13967-70-9				1.90E+01	
Cesium-134m	13967-70-9m				1.93E+04	
Cesium-137	10045-97-3				2.63E+01	
Cesium-137 +D	10045-97-3(+D)				2.63E+01	
Cesium-137 long lived decay	10045-97-3L				2.63E+01	
Chromium-51	14392-02-0				4.32E+03	
Cobalt-57	13981-50-5				7.69E+02	
Cobalt-58	13981-38-9				2.71E+02	
Cobalt-58m	13981-38-9m				6.35E+03	
Cobalt-60	10198-40-0				5.10E+01	
Cobalt-60m	10198-40-0m				3.01E+05	
Curium-244	13981-15-2				9.57E+00	

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Europium-152	14683-23-9				1.32E+02	
Europium-152m	14683-23-9m				2.68E+02	
Europium-154	15585-10-1				7.77E+01	
Europium-155	14391-16-3				4.21E+02	
Iodine-131	24267-56-9				- - -	
Iridium-192	12154-84-6				- - -	
Iron-59	14596-12-4				1.02E+02	
Lanthanum-140	13981-28-7				7.27E+01	
Lead-210	14255-04-0				9.08E-01	
Lead-210+D	14255-04-0(+D)				6.30E-01	
Lead-210 long lived decay	14255-04-0L				6.30E-01	
Lead-212	15092-94-1				3.20E+01	
Lead-214	15067-28-4				2.33E+03	
Manganese-54	13966-31-9				3.51E+02	
Mercury-203	13982-78-0				1.40E+02	
Neptunium-237	13994-20-2				1.29E+01	
Neptunium-237+D	13994-20-2(+D)				1.19E+01	
Niobium-95	13967-76-5				3.27E+02	
Niobium-95m	13967-76-5m				2.19E+02	
Plutonium-238	13981-16-3				6.11E+00	
Plutonium-238/239	PU-238/239				5.93E+00	
Plutonium-239	15117-48-3				5.93E+00	
Plutonium-239/240	PU-239/240				5.93E+00	
Plutonium-241	14119-32-5				4.55E+02	
Plutonium-242	13982-10-0				6.25E+00	
Polonium-210	13981-52-7				2.12E+00	
Potassium-40	13966-00-2				3.24E+01	
Protactinium-231	14331-85-2				4.62E+00	
Protactinium-231 long lived decay	14331-85-2L				1.21E+00	
Protactinium-233	13981-14-1				1.44E+02	
Protactinium-234	15100-28-4				3.13E+02	

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Protactinium-234m	15100-28-4m				- - -	
Radium-223	15623-45-7				3.36E+00	
Radium-224	13233-32-4				4.79E+00	
Radium-225	13981-53-8				7.02E+00	
Radium-226	13982-63-3				2.08E+00	
Radium-226+D	13982-63-3(+D)				2.07E+00	
Radium-226 long lived decay	13982-63-3L				4.83E-01	
Radium-228	15262-20-1				7.69E-01	
Radium-228+D	15262-20-1(+D)				7.69E-01	
Radium-228 long lived decay	15262-20-1L				5.97E-01	
Ruthenium-103	13968-53-1				2.08E+02	
Ruthenium-106	13967-48-1				1.90E+01	
Ruthenium-106+D	13967-48-1(+D)				1.90E+01	
Scandium-46	13967-63-0				1.29E+02	
Silver-108m	14391-65-2m				9.83E+01	
Silver-109m	14378-38-2m				- - -	
Sodium-22	13966-32-0				8.32E+01	
Strontium-85	13967-73-2				3.54E+02	
Strontium-85m	13967-73-2m				4.79E+04	
Strontium-89	14158-27-1				6.25E+01	
Strontium-90	10098-97-2				1.43E+01	
Strontium-90+D	10098-97-2(+D)				1.08E+01	
Technetium-99	14133-76-7				2.91E+02	
Thallium-208	14913-50-9				- - -	
Thorium-227	15623-47-9				1.69E+01	
Thorium-228	14274-82-9				7.48E+00	
Thorium-228+D	14274-82-9(+D)				2.67E+00	
Thorium-228 long lived decay	14274-82-9L				2.67E+00	
Thorium-229	15594-54-4				3.57E+00	
Thorium-229+D	15594-54-4(+D)				1.52E+00	
Thorium-229 long lived decay	15594-54-4L				1.52E+00	

Construction Worker - Groundwater Exposure Pathway						
Table 4.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Thorium-230	14269-63-7				8.79E+00	
Thorium-230 long lived decay	14269-63-7L				4.58E-01	
Thorium-232	7440-29-1				7.92E+00	
Thorium-232 long lived decay	7440-29-1L				5.55E-01	
Thorium-234	15065-10-8				3.46E+01	
Tin-113	13966-06-8				1.85E+02	
Tin-126	15832-50-5				3.13E+01	
Tritium (particulate)	10028-17-8p				6.99E+03	
Tritium (water)	10028-17-8w				1.55E+04	
Uranium-232	14158-29-3				2.74E+00	
Uranium-233	13968-55-3				1.11E+01	
Uranium-233 long lived decay	13968-55-3L				1.33E+00	
Uranium-233/234	U-233/234				1.33E+00	
Uranium-234	13966-29-5				1.13E+01	
Uranium-235	15117-96-1				1.15E+01	
Uranium-235+D	15117-96-1(+D)				1.11E+01	
Uranium-235 long lived decay	15117-96-1L				1.09E+00	
Uranium-235/236	U-235/236				1.09E+00	
Uranium-238	7440-61-1				1.25E+01	
Uranium-238+D	7440-61-1(+D)				9.18E+00	
Uranium-238 long lived decay	7440-61-1L				4.20E-01	
Yttrium-88	7440-65-5				- - -	
Zinc-65	13982-39-3				6.84E+01	
Zirconium-95	13967-71-0				1.74E+02	

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Miamisburg Closure Project

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Inorganics				
Actinium	7440-34-8	- - -	- - -	- - -
Aluminum	7429-90-5	- - -	- - -	- - -
Antimony	7440-36-0	- - -	- - -	- - -
Arsenic	7440-38-2	3.82E+00	1.25E+03	3.80E+00
Barium	7440-39-3	- - -	- - -	- - -
Beryllium	7440-41-7	- - -	2.25E+03	2.25E+03
Bismuth	7440-69-9	- - -	- - -	- - -
Boron	7440-42-8	- - -	- - -	- - -
Cadmium	7440-43-9s	- - -	3.00E+03	3.00E+03
Calcium	7440-70-2	- - -	- - -	- - -
Cerium	7440-45-1	- - -	- - -	- - -
Chromium	7440-47-3	- - -	- - -	- - -
Chromium III	16065-83-1	- - -	- - -	- - -
Chromium VI	18540-29-9	- - -	4.50E+02	4.50E+02
Cobalt	7440-48-4	- - -	- - -	- - -
Copper	7440-50-8	- - -	- - -	- - -
Cyanide	57-12-5	- - -	- - -	- - -
Dypsprosium	7429-91-6	- - -	- - -	- - -
Erbium	7440-52-0	- - -	- - -	- - -
Europium	7440-53-1	- - -	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -	- - -
Holmium	7440-60-0	- - -	- - -	- - -
Iron	7439-89-6	- - -	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -	- - -
Lead	7439-92-1	- - -	- - -	- - -
Lithium	7439-93-2	- - -	- - -	- - -
Lutetium	7439-94-3	- - -	- - -	- - -
Magnesium	7439-95-4	- - -	- - -	- - -
Manganese	7439-96-5s	- - -	- - -	- - -
Mercury	7439-97-6	- - -	- - -	- - -
Molybdenum	7439-98-7	- - -	- - -	- - -

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Neodymium	7440-00-8	- - -	- - -	- - -
Nickel	7440-02-0	- - -	1.12E+04	1.12E+04
Nitrate	14797-55-8	- - -	- - -	- - -
Nitrite	14797-65-0	- - -	- - -	- - -
Osmium	7440-04-2	- - -	- - -	- - -
Potassium	7440-09-7	- - -	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -	- - -
Rubidium	7440-17-7	- - -	- - -	- - -
Samarium	7440-19-9	- - -	- - -	- - -
Selenium	7782-49-2	- - -	- - -	- - -
Silicon	7440-21-3	- - -	- - -	- - -
Silver	7440-22-4	- - -	- - -	- - -
Sodium	7440-23-5	- - -	- - -	- - -
Strontium	7440-24-6	- - -	- - -	- - -
Tantalum	7440-25-7	- - -	- - -	- - -
Terbium	7440-27-9	- - -	- - -	- - -
Thallium	7440-28-0	- - -	- - -	- - -
Tin	7440-31-5	- - -	- - -	- - -
Titanium	7440-32-6	- - -	- - -	- - -
Uranium	7440-61-1	- - -	- - -	- - -
Vanadium	7440-62-2	- - -	- - -	- - -
Ytterbium	7440-64-4	- - -	- - -	- - -
Zinc	7440-66-6	- - -	- - -	- - -
Zirconium	7440-67-7	- - -	- - -	- - -
Dioxins/Dibenzofurans				
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
1,2,3,6,7,8-HxCDF	55684-94-1	3.82E-04	1.26E+00	3.81E-04
1,2,3,7,8,9-HxCDD	19408-74-3	9.23E-04	4.15E+00	9.23E-04
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	7.63E-05	2.52E-01	7.63E-05
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -
2,3,4,7,8-PeCDF	57117-31-4	7.63E-04	2.52E+00	7.63E-04
2,3,7,8-TCDD	1746-01-6	3.82E-05	1.26E-01	3.81E-05
2,3,7,8-TCDF	51207-31-9	3.82E-04	1.26E+00	3.81E-04
HpCDD	37871-00-4	3.82E-03	1.26E+01	3.81E-03
HpCDF	38998-75-3	3.82E-03	1.26E+01	3.81E-03
HxCDD	34465-46-8	3.82E-04	1.26E+00	3.81E-04
OCDD	3268-87-9	3.82E-02	1.26E+02	3.81E-02
OCDF	39001-02-0	3.82E-02	1.26E+02	3.81E-02
PeCDD	36088-22-9	7.63E-05	2.52E-01	7.63E-05
PeCDF	30402-15-4	- - -	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -	- - -
TCDF	30402-14-3	- - -	- - -	- - -
Explosives				
1,3,5-Trinitrobenzene	99-35-4	- - -	- - -	- - -
1,3-Dinitrobenzene	99-65-0	- - -	- - -	- - -
2,4,6-Trinitrotoluene	118-96-7	1.91E+02	- - -	1.91E+02
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -
HMX	2691-41-0	- - -	- - -	- - -
Nitroglycerin	55-63-0	- - -	- - -	- - -
PETN	78-11-5	- - -	- - -	- - -
RDX	121-82-4	5.20E+01	- - -	5.20E+01
Tetryl	479-45-8	- - -	- - -	- - -
Pesticides and/or PCBs				
4,4'-DDD	72-54-8	2.38E+01	- - -	2.38E+01
4,4'-DDE	72-55-9	1.68E+01	- - -	1.68E+01
4,4'-DDT	50-29-3	1.68E+01	5.56E+04	1.68E+01

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Aldrin	309-00-2	3.37E-01	1.10E+03	3.37E-01
Alpha Chlordane	5103-71-9	- - -	- - -	- - -
Alpha-BHC	319-84-6	9.08E-01	3.00E+03	9.08E-01
Aroclor-1016	12674-11-2	2.86E+00	9.44E+03	2.86E+00
Aroclor-1221	11104-28-2	2.86E+00	9.44E+03	2.86E+00
Aroclor-1232	11141-16-5	2.86E+00	9.44E+03	2.86E+00
Aroclor-1242	53469-21-9	2.86E+00	9.44E+03	2.86E+00
Aroclor-1248	12672-29-6	2.86E+00	9.44E+03	2.86E+00
Aroclor-1254	11097-69-1	2.86E+00	9.44E+03	2.86E+00
Aroclor-1260	11096-82-5	2.86E+00	9.44E+03	2.86E+00
Beta-BHC	319-85-7	3.18E+00	1.02E+04	3.18E+00
Chlordane	57-74-9	- - -	- - -	- - -
Delta-BHC	319-86-8	- - -	- - -	- - -
Dieldrin	60-57-1	3.58E-01	1.17E+03	3.58E-01
Endosulfan I	959-98-8	- - -	- - -	- - -
Endosulfan II	33213-65-9	- - -	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -
Endrin	72-20-8	- - -	- - -	- - -
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	4.40E+00	- - -	4.40E+00
Heptachlor	76-44-8	1.27E+00	4.15E+03	1.27E+00
Heptachlor Epoxide	1024-57-3	6.29E-01	2.08E+03	6.29E-01
Methoxychlor	72-43-5	- - -	- - -	- - -
Polychlorinated Biphenyls (PCBs)	1336-36-3	2.86E+00	9.47E+03	2.86E+00
Toxaphene	8001-35-2	5.20E+00	1.69E+04	5.20E+00
Semi-Volatile Organics				
1,2,4-Trichlorobenzene	120-82-1	- - -	- - -	- - -
1,2-Dichlorobenzene	95-50-1	- - -	- - -	- - -
1,2-Diphenylhydrazine	122-66-7	7.15E+00	2.45E+04	7.15E+00
1,3-Dichlorobenzene	541-73-1	- - -	- - -	- - -

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
1,4-Dichlorobenzene	106-46-7	2.38E+02	- - -	2.38E+02
2,2'-oxybis(1-chloropropane)	108-60-1	8.18E+01	5.40E+05	8.17E+01
2,4,5-Trichlorophenol	95-95-4	- - -	- - -	- - -
2,4,6-Trichlorophenol	88-06-2	5.20E+02	1.74E+06	5.20E+02
2,4-Dichlorophenol	120-83-2	- - -	- - -	- - -
2,4-Dimethylphenol	105-67-9	- - -	- - -	- - -
2,4-Dinitrophenol	51-28-5	- - -	- - -	- - -
2,4-Dinitrotoluene	121-14-2	8.42E+00	- - -	8.42E+00
2,6-Dinitrotoluene	606-20-2	8.42E+00	- - -	8.42E+00
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -
2-Chloronaphthalene	91-58-7	- - -	- - -	- - -
2-Chlorophenol	95-57-8	- - -	- - -	- - -
2-Methylnaphthalene	91-57-6	- - -	- - -	- - -
2-Methylphenol	95-48-7	- - -	- - -	- - -
2-Nitroaniline	88-74-4	- - -	- - -	- - -
2-Nitrophenol	88-75-5	- - -	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	1.27E+01	- - -	1.27E+01
3-Nitroaniline	99-09-2	1.51E+02	- - -	1.51E+02
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -
4-Chloroaniline	106-47-8	- - -	- - -	- - -
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -
4-Methylphenol	106-44-5	- - -	- - -	- - -
4-Nitroaniline	100-01-6	1.51E+02	- - -	1.51E+02
4-Nitrophenol	100-02-7	- - -	- - -	- - -
Acenaphthene	83-32-9	- - -	- - -	- - -
Acenaphthylene	208-96-8	- - -	- - -	- - -
Anthracene	120-12-7	- - -	- - -	- - -
Benzidine	92-87-5	2.49E-02	8.05E+01	2.49E-02
Benzo(a)anthracene	56-55-3	7.84E+00	6.13E+04	7.84E+00
Benzo(a)pyrene	50-32-8	7.84E-01	6.13E+03	7.84E-01

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Benzo(b)fluoranthene	205-99-2	7.84E+00	6.13E+04	7.84E+00
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -
Benzo(k)fluoranthene	207-08-9	7.84E+01	6.13E+05	7.84E+01
Benzoic Acid	65-85-0	- - -	- - -	- - -
Benzyl Alcohol	100-51-6	- - -	- - -	- - -
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	5.20E+00	1.64E+04	5.20E+00
Bis(2-ethylhexyl)phthalate	117-81-7	4.09E+02	- - -	4.09E+02
Butyl Benzyl Phthalate	85-68-7	- - -	- - -	- - -
Carbazole	86-74-8	2.86E+02	- - -	2.86E+02
Chrysene	218-01-9	7.84E+02	6.13E+06	7.84E+02
Di-n-butyl Phthalate	84-74-2	- - -	- - -	- - -
Di-n-octyl Phthalate	117-84-0	- - -	- - -	- - -
Dibenz(a,h)anthracene	53-70-3	7.84E-01	6.13E+03	7.84E-01
Dibenzofuran	132-64-9	- - -	- - -	- - -
Diethyl Phthalate	84-66-2	- - -	- - -	- - -
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -
Fluoranthene	206-44-0	- - -	- - -	- - -
Fluorene	86-73-7	- - -	- - -	- - -
Hexachlorobenzene	118-74-1	3.58E+00	1.17E+04	3.58E+00
Hexachlorobutadiene	87-68-3	7.34E+01	2.45E+05	7.34E+01
Hexachlorocyclopentadiene	77-47-4	- - -	- - -	- - -
Hexachloroethane	67-72-1	4.09E+02	1.35E+06	4.09E+02
Indeno(1,2,3-cd)pyrene	193-39-5	7.84E+00	6.13E+04	7.84E+00
Isophorone	78-59-1	6.02E+03	- - -	6.02E+03
N-Nitroso-di-n-propylamine	621-64-7	8.18E-01	- - -	8.18E-01
N-Nitrosodimethylamine	62-75-9	1.12E-01	3.85E+02	1.12E-01
N-Nitrosodiphenylamine	86-30-6	1.17E+03	- - -	1.17E+03
Naphthalene	91-20-3	- - -	- - -	- - -
Nitrobenzene	98-95-3	- - -	- - -	- - -
Pentachlorophenol	87-86-5	4.77E+01	- - -	4.77E+01
Phenanthrene	85-01-8	- - -	- - -	- - -

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
Phenol	108-95-2	- - -	- - -	- - -
Pyrene	129-00-0	- - -	- - -	- - -
Pyridine	110-86-1	- - -	- - -	- - -
Tributyl phosphate	126-73-8	- - -	- - -	- - -
Volatile Organics				
1,1,1,2-Tetrachloroethane	630-20-6	2.20E+02	7.18E+00	6.95E+00
1,1,1-Trichloroethane	71-55-6	- - -	- - -	- - -
1,1,2,2-Tetrachloroethane	79-34-5	2.86E+01	9.16E-01	8.88E-01
1,1,2-Trichloroethane	79-00-5	1.00E+02	1.94E+00	1.90E+00
1,1-Dichloroethane	75-34-3	- - -	- - -	- - -
1,1-Dichloroethene	75-35-4	- - -	- - -	- - -
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -
1,2,3-Trichloropropane	96-18-4	8.18E-01	- - -	8.18E-01
1,2,4-Trimethylbenzene	95-63-6	- - -	- - -	- - -
1,2-Dibromo-3-Chloropropane	96-12-8	4.09E+00	1.48E+02	3.98E+00
1,2-Dichloroethane	107-06-2	6.29E+01	7.70E-01	7.61E-01
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -
1,2-Dichloropropane	78-87-5	8.42E+01	- - -	8.42E+01
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	- - -	- - -	- - -
1,2-trans-Dichloroethene	156-60-5	- - -	- - -	- - -
1,3,5-Trimethylbenzene	108-67-8	- - -	- - -	- - -
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -
2-Butanone	78-93-3	- - -	- - -	- - -
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
2-Chlorotoluene	95-49-8	- - -	- - -	- - -
2-Hexanone	591-78-6	- - -	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -
Acetone	67-64-1	- - -	- - -	- - -
Acetonitrile	75-05-8	- - -	- - -	- - -
Acrylonitrile	107-13-1	1.06E+01	5.41E-01	5.15E-01
Benzene	71-43-2	1.04E+02	- - -	1.04E+02
Benzyl Chloride	100-44-7	3.37E+01	- - -	3.37E+01
Bromochloromethane	74-97-5	- - -	- - -	- - -
Bromodichloromethane	75-27-4	9.23E+01	- - -	9.23E+01
Bromoform	75-25-2	7.24E+02	4.91E+06	7.24E+02
Bromomethane	74-83-9	- - -	- - -	- - -
Carbon Disulfide	75-15-0	- - -	- - -	- - -
Carbon Tetrachloride	56-23-5	4.40E+01	5.45E-01	5.38E-01
Chlorobenzene	108-90-7	- - -	- - -	- - -
Chloroethane	75-00-3	- - -	- - -	- - -
Chloroform (Trichloromethane)	67-66-3	- - -	5.15E-01	5.15E-01
Chloromethane	74-87-3	4.40E+02	2.73E+00	2.71E+00
Chlorotoluene	25168-05-2	- - -	- - -	- - -
Dibromochloromethane	124-48-1	6.81E+01	- - -	6.81E+01
Dibromomethane	74-95-3	- - -	- - -	- - -
Dichlorodifluoromethane	75-71-8	- - -	- - -	- - -
Dichloromethane (Methylene Chloride)	75-09-2	7.63E+02	2.09E+01	2.03E+01
Ethylbenzene	100-41-4	- - -	- - -	- - -
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	6.73E-02	1.71E-01	4.83E-02
Fluorobenzene	462-06-6	- - -	- - -	- - -
FREON-113	76-13-1	- - -	- - -	- - -
Hexane	110-54-3	- - -	- - -	- - -
Iodomethane	74-88-4	- - -	- - -	- - -
Isopropyl Benzene	98-82-8	- - -	- - -	- - -
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -

Table 5.1.1		Site Employee - Soil Exposure Pathway (Chemical-Carcinogens) (mg/kg)		
Chemical	CAS Number	GV Ingestion	GV Inhalation	10^{-6} GV Total
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -
Styrene	100-42-5	- - -	- - -	- - -
Tetrachloroethene	127-18-4	1.10E+02	2.26E+01	1.87E+01
Toluene	108-88-3	- - -	- - -	- - -
Total VOC's	TVOC	- - -	- - -	- - -
Trichloroethene	79-01-6	4.40E+02	5.31E+00	5.25E+00
Trichlorofluoromethane	75-69-4	- - -	- - -	- - -
Vinyl Acetate	108-05-4	- - -	- - -	- - -
Vinyl Chloride	75-01-4	3.82E+00	4.65E-01	4.14E-01
Xylenes, Total	1330-20-7	- - -	- - -	- - -
m-Xylene	108-38-3	- - -	- - -	- - -
mp-Xylene	mp-Xylene	- - -	- - -	- - -
n-Butylbenzene	104-51-8	- - -	- - -	- - -
n-propylbenzene	103-65-1	- - -	- - -	- - -
o-Xylene	95-47-6	- - -	- - -	- - -
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -
p-Xylene	106-42-3	- - -	- - -	- - -
sec-Butylbenzene	135-98-8	- - -	- - -	- - -
tert-Butylbenzene	98-06-6	- - -	- - -	- - -

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Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Inorganics				
Actinium	7440-34-8	- - -	- - -	- - -
Aluminum	7429-90-5	2.04E+06	- - -	2.04E+06
Antimony	7440-36-0	8.18E+02	- - -	8.18E+02
Arsenic	7440-38-2	6.13E+02	- - -	6.13E+02
Barium	7440-39-3	1.43E+05	- - -	1.43E+05
Beryllium	7440-41-7	4.09E+03	3.85E+04	3.70E+03
Bismuth	7440-69-9	- - -	- - -	- - -
Boron	7440-42-8	1.84E+05	- - -	1.84E+05
Cadmium	7440-43-9s	2.04E+03	- - -	2.04E+03
Calcium	7440-70-2	- - -	- - -	- - -
Cerium	7440-45-1	- - -	- - -	- - -
Chromium	7440-47-3	3.07E+06	- - -	3.07E+06
Chromium III	16065-83-1	3.07E+06	- - -	3.07E+06
Chromium VI	18540-29-9	6.13E+03	1.93E+05	5.94E+03
Cobalt	7440-48-4	1.23E+05	- - -	1.23E+05
Copper	7440-50-8	8.18E+04	- - -	8.18E+04
Cyanide	57-12-5	4.09E+04	- - -	4.09E+04
Dypsprosium	7429-91-6	- - -	- - -	- - -
Erbium	7440-52-0	- - -	- - -	- - -
Europium	7440-53-1	- - -	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -	- - -
Holmium	7440-60-0	- - -	- - -	- - -
Iron	7439-89-6	- - -	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -	- - -
Lead	7439-92-1	- - -	- - -	- - -
Lithium	7439-93-2	- - -	- - -	- - -
Lutetium	7439-94-3	- - -	- - -	- - -
Magnesium	7439-95-4	- - -	- - -	- - -
Manganese	7439-96-5s	2.86E+05	9.64E+04	7.21E+04
Mercury	7439-97-6	6.13E+02	5.78E+05	6.13E+02
Molybdenum	7439-98-7	1.02E+04	- - -	1.02E+04

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Neodymium	7440-00-8	- - -	- - -	- - -
Nickel	7440-02-0	4.09E+04	- - -	4.09E+04
Nitrate	14797-55-8	3.27E+06	- - -	3.27E+06
Nitrite	14797-65-0	2.04E+05	- - -	2.04E+05
Osmium	7440-04-2	- - -	- - -	- - -
Potassium	7440-09-7	- - -	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -	- - -
Rubidium	7440-17-7	- - -	- - -	- - -
Samarium	7440-19-9	- - -	- - -	- - -
Selenium	7782-49-2	1.02E+04	- - -	1.02E+04
Silicon	7440-21-3	- - -	- - -	- - -
Silver	7440-22-4	1.02E+04	- - -	1.02E+04
Sodium	7440-23-5	- - -	- - -	- - -
Strontium	7440-24-6	- - -	- - -	- - -
Tantalum	7440-25-7	- - -	- - -	- - -
Terbium	7440-27-9	- - -	- - -	- - -
Thallium	7440-28-0	1.64E+02	- - -	1.64E+02
Tin	7440-31-5	1.23E+06	- - -	1.23E+06
Titanium	7440-32-6	- - -	- - -	- - -
Uranium	7440-61-1	- - -	- - -	- - -
Vanadium	7440-62-2	1.43E+04	- - -	1.43E+04
Ytterbium	7440-64-4	- - -	- - -	- - -
Zinc	7440-66-6	6.13E+05	- - -	6.13E+05
Zirconium	7440-67-7	- - -	- - -	- - -
Dioxins/Dibenzofurans				
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
1,2,3,6,7,8-HxCDF	55684-94-1	- - -	- - -	- - -
1,2,3,7,8,9-HxCDD	19408-74-3	- - -	- - -	- - -
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	- - -	- - -	- - -
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -
2,3,4,7,8-PeCDF	57117-31-4	- - -	- - -	- - -
2,3,7,8-TCDD	1746-01-6	- - -	- - -	- - -
2,3,7,8-TCDF	51207-31-9	- - -	- - -	- - -
HpCDD	37871-00-4	- - -	- - -	- - -
HpCDF	38998-75-3	- - -	- - -	- - -
HxCDD	34465-46-8	- - -	- - -	- - -
OCDD	3268-87-9	- - -	- - -	- - -
OCDF	39001-02-0	- - -	- - -	- - -
PeCDD	36088-22-9	- - -	- - -	- - -
PeCDF	30402-15-4	- - -	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -	- - -
TCDF	30402-14-3	- - -	- - -	- - -
Explosives				
1,3,5-Trinitrobenzene	99-35-4	6.13E+04	- - -	6.13E+04
1,3-Dinitrobenzene	99-65-0	2.04E+02	- - -	2.04E+02
2,4,6-Trinitrotoluene	118-96-7	1.02E+03	- - -	1.02E+03
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -
HMX	2691-41-0	1.02E+05	- - -	1.02E+05
Nitroglycerin	55-63-0	- - -	- - -	- - -
PETN	78-11-5	- - -	- - -	- - -
RDX	121-82-4	6.13E+03	- - -	6.13E+03
Tetryl	479-45-8	2.04E+04	- - -	2.04E+04
Pesticides and/or PCBs				
4,4'-DDD	72-54-8	- - -	- - -	- - -
4,4'-DDE	72-55-9	- - -	- - -	- - -
4,4'-DDT	50-29-3	1.02E+03	- - -	1.02E+03

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Aldrin	309-00-2	6.13E+01	- - -	6.13E+01
Alpha Chlordane	5103-71-9	- - -	- - -	- - -
Alpha-BHC	319-84-6	- - -	- - -	- - -
Aroclor-1016	12674-11-2	1.43E+02	- - -	1.43E+02
Aroclor-1221	11104-28-2	- - -	- - -	- - -
Aroclor-1232	11141-16-5	- - -	- - -	- - -
Aroclor-1242	53469-21-9	- - -	- - -	- - -
Aroclor-1248	12672-29-6	- - -	- - -	- - -
Aroclor-1254	11097-69-1	4.09E+01	- - -	4.09E+01
Aroclor-1260	11096-82-5	- - -	- - -	- - -
Beta-BHC	319-85-7	- - -	- - -	- - -
Chlordane	57-74-9	- - -	- - -	- - -
Delta-BHC	319-86-8	- - -	- - -	- - -
Dieldrin	60-57-1	1.02E+02	- - -	1.02E+02
Endosulfan I	959-98-8	- - -	- - -	- - -
Endosulfan II	33213-65-9	- - -	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -
Endrin	72-20-8	6.13E+02	- - -	6.13E+02
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	6.13E+02	- - -	6.13E+02
Heptachlor	76-44-8	1.02E+03	- - -	1.02E+03
Heptachlor Epoxide	1024-57-3	2.66E+01	- - -	2.66E+01
Methoxychlor	72-43-5	1.02E+04	- - -	1.02E+04
Polychlorinated Biphenyls (PCBs)	1336-36-3	4.09E+01	- - -	4.09E+01
Toxaphene	8001-35-2	- - -	- - -	- - -
Semi-Volatile Organics				
1,2,4-Trichlorobenzene	120-82-1	2.04E+04	3.85E+08	2.04E+04
1,2-Dichlorobenzene	95-50-1	1.84E+05	- - -	1.84E+05
1,2-Diphenylhydrazine	122-66-7	- - -	- - -	- - -
1,3-Dichlorobenzene	541-73-1	6.13E+04	1.54E+07	6.11E+04

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
1,4-Dichlorobenzene	106-46-7	- - -	1.54E+09	1.54E+09
2,2'-oxybis(1-chloropropane)	108-60-1	8.18E+04	- - -	8.18E+04
2,4,5-Trichlorophenol	95-95-4	2.04E+05	- - -	2.04E+05
2,4,6-Trichlorophenol	88-06-2	- - -	- - -	- - -
2,4-Dichlorophenol	120-83-2	6.13E+03	- - -	6.13E+03
2,4-Dimethylphenol	105-67-9	4.09E+04	- - -	4.09E+04
2,4-Dinitrophenol	51-28-5	4.09E+03	- - -	4.09E+03
2,4-Dinitrotoluene	121-14-2	4.09E+03	- - -	4.09E+03
2,6-Dinitrotoluene	606-20-2	2.04E+03	- - -	2.04E+03
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -
2-Chloronaphthalene	91-58-7	1.64E+05	- - -	1.64E+05
2-Chlorophenol	95-57-8	1.02E+04	- - -	1.02E+04
2-Methylnaphthalene	91-57-6	8.18E+03	- - -	8.18E+03
2-Methylphenol	95-48-7	1.02E+05	- - -	1.02E+05
2-Nitroaniline	88-74-4	6.13E+02	3.85E+05	6.12E+02
2-Nitrophenol	88-75-5	- - -	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	- - -	- - -	- - -
3-Nitroaniline	99-09-2	6.13E+02	- - -	6.13E+02
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -
4-Chloroaniline	106-47-8	8.18E+03	- - -	8.18E+03
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -
4-Methylphenol	106-44-5	1.02E+04	- - -	1.02E+04
4-Nitroaniline	100-01-6	6.13E+03	- - -	6.13E+03
4-Nitrophenol	100-02-7	- - -	- - -	- - -
Acenaphthene	83-32-9	1.23E+05	- - -	1.23E+05
Acenaphthylene	208-96-8	- - -	- - -	- - -
Anthracene	120-12-7	6.13E+05	- - -	6.13E+05
Benzidine	92-87-5	6.13E+03	- - -	6.13E+03
Benzo(a)anthracene	56-55-3	- - -	- - -	- - -
Benzo(a)pyrene	50-32-8	- - -	- - -	- - -

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Benzo(b)fluoranthene	205-99-2	- - -	- - -	- - -
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -
Benzo(k)fluoranthene	207-08-9	- - -	- - -	- - -
Benzoic Acid	65-85-0	8.18E+06	- - -	8.18E+06
Benzyl Alcohol	100-51-6	6.13E+05	- - -	6.13E+05
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	- - -	- - -	- - -
Bis(2-ethylhexyl)phthalate	117-81-7	4.09E+04	- - -	4.09E+04
Butyl Benzyl Phthalate	85-68-7	4.09E+05	- - -	4.09E+05
Carbazole	86-74-8	- - -	- - -	- - -
Chrysene	218-01-9	- - -	- - -	- - -
Di-n-butyl Phthalate	84-74-2	2.04E+05	- - -	2.04E+05
Di-n-octyl Phthalate	117-84-0	4.09E+04	- - -	4.09E+04
Dibenz(a,h)anthracene	53-70-3	- - -	- - -	- - -
Dibenzofuran	132-64-9	8.18E+03	- - -	8.18E+03
Diethyl Phthalate	84-66-2	1.64E+06	- - -	1.64E+06
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -
Fluoranthene	206-44-0	8.18E+04	- - -	8.18E+04
Fluorene	86-73-7	8.18E+04	- - -	8.18E+04
Hexachlorobenzene	118-74-1	1.64E+03	- - -	1.64E+03
Hexachlorobutadiene	87-68-3	4.09E+02	- - -	4.09E+02
Hexachlorocyclopentadiene	77-47-4	1.23E+04	3.85E+05	1.19E+04
Hexachloroethane	67-72-1	2.04E+03	- - -	2.04E+03
Indeno(1,2,3-cd)pyrene	193-39-5	- - -	- - -	- - -
Isophorone	78-59-1	4.09E+05	- - -	4.09E+05
N-Nitroso-di-n-propylamine	621-64-7	- - -	- - -	- - -
N-Nitrosodimethylamine	62-75-9	- - -	- - -	- - -
N-Nitrosodiphenylamine	86-30-6	- - -	- - -	- - -
Naphthalene	91-20-3	4.09E+04	5.78E+06	4.06E+04
Nitrobenzene	98-95-3	1.02E+03	- - -	1.02E+03
Pentachlorophenol	87-86-5	6.13E+04	- - -	6.13E+04
Phenanthrene	85-01-8	- - -	- - -	- - -

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
Phenol	108-95-2	1.23E+06	- - -	1.23E+06
Pyrene	129-00-0	6.13E+04	- - -	6.13E+04
Pyridine	110-86-1	2.04E+03	- - -	2.04E+03
Tributyl phosphate	126-73-8	- - -	- - -	- - -
Volatile Organics				
1,1,1,2-Tetrachloroethane	630-20-6	6.13E+04	- - -	6.13E+04
1,1,1-Trichloroethane	71-55-6	5.72E+05	3.50E+03	3.48E+03
1,1,2,2-Tetrachloroethane	79-34-5	- - -	- - -	- - -
1,1,2-Trichloroethane	79-00-5	8.18E+03	- - -	8.18E+03
1,1-Dichloroethane	75-34-3	2.04E+05	- - -	1.40E+05
1,1-Dichloroethene	75-35-4	1.02E+05	- - -	1.02E+05
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -
1,2,3-Trichloropropane	96-18-4	1.23E+04	- - -	1.23E+04
1,2,4-Trimethylbenzene	95-63-6	1.02E+05	1.75E+02	1.75E+02
1,2-Dibromo-3-Chloropropane	96-12-8	- - -	7.30E+00	7.30E+00
1,2-Dichloroethane	107-06-2	- - -	- - -	- - -
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -
1,2-Dichloropropane	78-87-5	- - -	2.16E+01	2.16E+01
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	2.04E+04	- - -	2.04E+04
1,2-trans-Dichloroethene	156-60-5	4.09E+04	- - -	4.09E+04
1,3,5-Trimethylbenzene	108-67-8	1.02E+05	7.01E+01	7.00E+01
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -
2-Butanone	78-93-3	1.23E+06	- - -	9.30E+03
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
2-Chlorotoluene	95-49-8	4.09E+04	- - -	4.09E+04
2-Hexanone	591-78-6	- - -	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -
Acetone	67-64-1	1.84E+06	- - -	1.84E+06
Acetonitrile	75-05-8	- - -	2.01E+03	2.01E+03
Acrylonitrile	107-13-1	2.04E+03	2.63E+01	2.59E+01
Benzene	71-43-2	8.18E+03	- - -	4.90E+02
Benzyl Chloride	100-44-7	- - -	- - -	- - -
Bromochloromethane	74-97-5	- - -	- - -	- - -
Bromodichloromethane	75-27-4	4.09E+04	- - -	4.09E+04
Bromoform	75-25-2	4.09E+04	- - -	4.09E+04
Bromomethane	74-83-9	2.86E+03	1.31E+01	1.31E+01
Carbon Disulfide	75-15-0	2.04E+05	1.23E+03	1.22E+03
Carbon Tetrachloride	56-23-5	1.43E+03	5.84E+00	5.82E+00
Chlorobenzene	108-90-7	4.09E+04	5.52E+02	5.45E+02
Chloroethane	75-00-3	8.18E+05	1.60E+02	1.60E+02
Chloroform (Trichloromethane)	67-66-3	2.04E+04	- - -	1.50E+03
Chloromethane	74-87-3	- - -	1.58E+02	1.58E+02
Chlorotoluene	25168-05-2	- - -	- - -	- - -
Dibromochloromethane	124-48-1	4.09E+04	- - -	4.09E+04
Dibromomethane	74-95-3	- - -	- - -	- - -
Dichlorodifluoromethane	75-71-8	4.09E+05	- - -	4.09E+05
Dichloromethane (Methylene Chloride	75-09-2	1.23E+05	1.00E+03	1.00E+03
Ethylbenzene	100-41-4	2.04E+05	4.80E-01	4.80E-01
Ethylene Dibromide (1,2-Dibromoetha	106-93-4	- - -	2.69E+00	2.69E+00
Fluorobenzene	462-06-6	- - -	- - -	- - -
FREON-113	76-13-1	6.13E+07	7.01E+04	7.00E+04
Hexane	110-54-3	1.23E+05	9.10E+01	9.10E+01
Iodomethane	74-88-4	- - -	- - -	- - -
Isopropyl Benzene	98-82-8	2.04E+05	5.43E+02	5.42E+02
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -

Table 5.1.2		Site Employee - Soil Exposure Pathway (Chemical - Noncarcinogens) (mg/kg)		
Chemical	CAS Number	HI Ingestion	HI Inhalation	HI Total
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -
Styrene	100-42-5	4.09E+05	2.19E+04	2.08E+04
Tetrachloroethene	127-18-4	2.04E+04	- - -	2.04E+04
Toluene	108-88-3	4.09E+05	2.50E+02	2.50E+02
Total VOC's	TVOC	- - -	- - -	- - -
Trichloroethene	79-01-6	1.02E+06	4.40E+02	4.40E+02
Trichlorofluoromethane	75-69-4	6.13E+05	- - -	7.30E+02
Vinyl Acetate	108-05-4	2.04E+06	1.40E+03	1.40E+03
Vinyl Chloride	75-01-4	6.13E+03	1.46E+02	1.43E+02
Xylenes, Total	1330-20-7	4.09E+05	- - -	4.09E+05
m-Xylene	108-38-3	4.09E+06	- - -	4.09E+06
mp-Xylene	mp-Xylene	- - -	- - -	- - -
n-Butylbenzene	104-51-8	8.18E+04	- - -	8.18E+04
n-propylbenzene	103-65-1	8.18E+04	- - -	8.18E+04
o-Xylene	95-47-6	4.09E+06	- - -	4.09E+06
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -
p-Xylene	106-42-3	4.09E+06	- - -	4.09E+06
sec-Butylbenzene	135-98-8	8.18E+04	- - -	8.18E+04
tert-Butylbenzene	98-06-6	8.18E+04	- - -	8.18E+04

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Environmental Restoration Program

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Miamisburg Closure Project

Table 5.1.3		Site Employee - Soil Exposure Pathway (Radionuclides) (pCi/kg)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Radiological					
Actinium-227	14952-40-0	8.40E+00	7.09E+01	2.52E+03	7.49E+00
Actinium-227 +D	14952-40-0(+D)	2.76E+00	5.05E+01	5.96E-01	4.85E-01
Actinium-227 long lived decay	14952-40-0L	2.76E+00	5.05E+01	5.96E-01	4.85E-01
Actinium-228	14331-83-0	5.77E+02	2.15E+05	1.93E-01	1.93E-01
Americium-241	14596-10-2	1.47E+01	3.76E+02	3.17E+01	9.81E+00
Antimony-124	14683-10-4	9.14E+01	4.35E+05	9.85E-02	9.84E-02
Antimony-125	14234-35-6	2.86E+02	6.36E+05	4.84E-01	4.83E-01
Antimony-125+D	14234-35-6(+D)	2.42E+02	5.47E+05	4.84E-01	4.83E-01
Barium-133	13981-41-4	2.30E+02	9.10E+05	6.08E-01	6.07E-01
Barium-133m	13981-41-4m	3.53E+02	5.18E+06	4.47E+00	4.41E+00
Barium-140	14798-08-4	7.66E+01	5.20E+05	1.15E+00	1.13E+00
Beryllium-7	13966-02-4	1.58E+04	4.96E+07	4.11E+00	4.11E+00
Bismuth-207	13982-38-2	2.15E+02	5.03E+05	1.24E-01	1.24E-01
Bismuth-210	14331-79-4	1.25E+02	3.33E+04	3.17E+02	8.97E+01
Bismuth-210m	14331-79-4m	2.21E+01	9.03E+02	8.67E-01	8.34E-01
Bismuth-211	15229-37-5	- - -	- - -	4.66E+00	4.66E+00
Bismuth-212	14913-49-6	1.80E+03	1.36E+05	9.87E-01	9.87E-01
Bismuth-214	14733-03-0	7.39E+03	3.64E+05	1.17E-01	1.17E-01
Cerium-139	CE-139	- - -	- - -	- - -	- - -
Cerium-141	13967-74-3	2.39E+02	9.26E+05	3.86E+00	3.80E+00
Cerium-144	14762-78-8	3.14E+01	9.60E+04	1.74E+01	1.12E+01
Cerium-144+D	14762-78-8(+D)	3.14E+01	9.60E+04	3.59E+00	3.22E+00
Cesium-134	13967-70-9	5.51E+01	6.40E+05	1.23E-01	1.23E-01
Cesium-134m	13967-70-9m	3.62E+04	5.31E+08	1.74E+01	1.74E+01
Cesium-137	10045-97-3	7.39E+01	8.87E+05	1.65E+03	7.07E+01
Cesium-137 +D	10045-97-3(+D)	7.39E+01	8.87E+05	3.43E-01	3.42E-01
Cesium-137 long lived decay	10045-97-3L	7.39E+01	8.87E+05	3.43E-01	3.42E-01
Chromium-51	14392-02-0	6.45E+03	6.32E+07	6.90E+00	6.89E+00
Cobalt-57	13981-50-5	1.15E+03	5.05E+06	2.47E+00	2.46E+00
Cobalt-58	13981-38-9	4.30E+02	1.76E+06	1.96E-01	1.95E-01
Cobalt-58m	13981-38-9m	9.22E+03	1.53E+08	8.76E+05	9.13E+03
Cobalt-60	10198-40-0	7.94E+01	2.95E+05	7.06E-02	7.06E-02

L = used for long lived decay lookup value

Table 5.1.3		Site Employee - Soil Exposure Pathway (Radionuclides) (pCi/kg)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Cobalt-60m	10198-40-0m	5.44E+05	2.67E+09	4.71E+01	4.71E+01
Curium-244	13981-15-2	1.77E+01	4.17E+02	1.81E+04	1.69E+01
Europium-152	14683-23-9	1.98E+02	1.16E+05	1.65E-01	1.65E-01
Europium-152m	14683-23-9m	3.76E+02	9.43E+06	6.59E-01	6.57E-01
Europium-154	15585-10-1	1.12E+02	9.18E+04	1.50E-01	1.50E-01
Europium-155	14391-16-3	5.93E+02	7.14E+05	7.06E+00	6.98E+00
Iodine-131	24267-56-9	- - -	- - -	- - -	- - -
Iridium-192	12154-84-6	- - -	- - -	- - -	- - -
Iron-59	14596-12-4	1.55E+02	7.94E+05	1.50E-01	1.50E-01
Lanthanum-140	13981-28-7	1.05E+02	2.21E+06	7.62E-02	7.61E-02
Lead-210	14255-04-0	1.74E+00	3.81E+03	6.21E+02	1.73E+00
Lead-210+D	14255-04-0(+D)	1.20E+00	7.60E+02	2.08E+02	1.19E+00
Lead-210 long lived decay	14255-04-0L	1.20E+00	7.60E+02	2.08E+02	1.19E+00
Lead-212	15092-94-1	4.78E+01	1.83E+04	1.72E+00	1.66E+00
Lead-214	15067-28-4	3.76E+03	2.91E+05	8.92E-01	8.92E-01
Manganese-54	13966-31-9	6.23E+02	1.80E+06	2.25E-01	2.25E-01
Mercury-203	13982-78-0	2.52E+02	4.31E+05	9.51E-01	9.47E-01
Neptunium-237	13994-20-2	2.19E+01	5.97E+02	1.63E+01	9.22E+00
Neptunium-237+D	13994-20-2(+D)	1.98E+01	5.97E+02	1.10E+00	1.04E+00
Niobium-95	13967-76-5	5.03E+02	1.94E+06	2.48E-01	2.48E-01
Niobium-95m	13967-76-5m	3.05E+02	3.23E+06	3.78E+00	3.73E+00
Plutonium-238	13981-16-3	1.18E+01	3.14E+02	1.21E+04	1.13E+01
Plutonium-238/239	PU-238/239	1.16E+01	3.17E+02	4.38E+03	1.12E+01
Plutonium-239	15117-48-3	1.16E+01	3.17E+02	4.38E+03	1.12E+01
Plutonium-239/240	PU-239/240	1.16E+01	3.17E+02	4.38E+03	1.12E+01
Plutonium-241	14119-32-5	9.73E+02	3.16E+04	2.13E+05	9.39E+02
Plutonium-242	13982-10-0	1.22E+01	3.37E+02	1.40E+04	1.17E+01
Polonium-210	13981-52-7	4.02E+00	9.78E+02	2.22E+04	4.00E+00
Potassium-40	13966-00-2	5.18E+01	1.03E+06	1.10E+00	1.08E+00
Protactinium-231	14331-85-2	8.56E+00	2.32E+02	6.30E+00	3.57E+00
Protactinium-231 long lived decay	14331-85-2L	2.09E+00	4.15E+01	5.44E-01	4.27E-01
Protactinium-233	13981-14-1	2.01E+02	7.44E+05	1.18E+00	1.17E+00
Protactinium-234	15100-28-4	4.55E+02	7.23E+06	1.01E-01	1.01E-01

L = used for long lived decay lookup value

Table 5.1.3		Site Employee - Soil Exposure Pathway (Radionuclides) (pCi/kg)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Protactinium-234m	15100-28-4m	- - -	- - -	1.27E+01	1.27E+01
Radium-223	15623-45-7	4.97E+00	4.22E+02	2.02E+00	1.43E+00
Radium-224	13233-32-4	7.10E+00	1.06E+03	2.35E+01	5.42E+00
Radium-225	13981-53-8	1.18E+01	5.03E+02	1.48E+02	1.07E+01
Radium-226	13982-63-3	4.39E+00	9.18E+02	3.82E+01	3.92E+00
Radium-226+D	13982-63-3(+D)	4.38E+00	9.10E+02	1.03E-01	1.01E-01
Radium-226 long lived decay	13982-63-3L	9.44E-01	4.14E+02	1.03E-01	9.29E-02
Radium-228	15262-20-1	1.40E+00	2.04E+03	- - -	1.40E+00
Radium-228+D	15262-20-1(+D)	1.40E+00	2.02E+03	1.93E-01	1.70E-01
Radium-228 long lived decay	15262-20-1L	1.03E+00	7.12E+01	7.13E-02	6.66E-02
Ruthenium-103	13968-53-1	3.05E+02	2.04E+06	4.29E-01	4.29E-01
Ruthenium-106	13967-48-1	2.69E+01	1.23E+05	- - -	2.69E+01
Ruthenium-106+D	13967-48-1(+D)	2.69E+01	1.04E+05	9.07E-01	8.77E-01
Scandium-46	13967-63-0	1.98E+02	4.28E+05	9.10E-02	9.09E-02
Silver-108m	14391-65-2m	1.67E+02	3.96E+05	1.22E-01	1.22E-01
Silver-109m	14378-38-2m	- - -	- - -	1.14E+02	1.14E+02
Sodium-22	13966-32-0	1.62E+02	2.71E+06	8.50E-02	8.50E-02
Strontium-85	13967-73-2	6.36E+02	4.13E+06	3.98E-01	3.98E-01
Strontium-85m	13967-73-2m	8.56E+04	1.27E+09	1.07E+00	1.07E+00
Strontium-89	14158-27-1	9.22E+01	4.51E+05	1.22E+02	5.25E+01
Strontium-90	10098-97-2	3.49E+01	1.01E+05	1.82E+03	3.42E+01
Strontium-90+D	10098-97-2(+D)	2.22E+01	9.35E+04	4.47E+01	1.48E+01
Technetium-99	14133-76-7	4.18E+02	7.49E+05	1.08E+04	4.02E+02
Thallium-208	14913-50-9	- - -	- - -	4.98E-02	4.98E-02
Thorium-227	15623-47-9	2.34E+01	3.01E+02	2.32E+00	2.09E+00
Thorium-228	14274-82-9	1.11E+01	8.00E+01	1.57E+02	9.16E+00
Thorium-228+D	14274-82-9(+D)	3.96E+00	7.38E+01	1.13E-01	1.10E-01
Thorium-228 long lived decay	14274-82-9L	3.96E+00	7.38E+01	1.13E-01	1.10E-01
Thorium-229	15594-54-4	6.45E+00	6.03E+01	3.89E+00	2.33E+00
Thorium-229+D	15594-54-4(+D)	2.48E+00	4.69E+01	7.49E-01	5.68E-01
Thorium-229 long lived decay	15594-54-4L	2.48E+00	4.69E+01	7.49E-01	5.68E-01
Thorium-230	14269-63-7	1.58E+01	3.71E+02	1.07E+03	1.50E+01
Thorium-230 long lived decay	14269-63-7L	8.91E-01	1.96E+02	1.03E-01	9.24E-02

L = used for long lived decay lookup value

Table 5.1.3		Site Employee - Soil Exposure Pathway (Radionuclides) (pCi/kg)			
Chemical	CAS Number	GV Ingestion	GV Inhalation	GV External Exposure	GV Total
Thorium-232	7440-29-1	1.39E+01	2.44E+02	2.56E+03	1.30E+01
Thorium-232 long lived decay	7440-29-1L	9.61E-01	5.51E+01	7.13E-02	6.63E-02
Thorium-234	15065-10-8	4.78E+01	3.44E+05	5.37E+01	2.53E+01
Tin-113	13966-06-8	2.62E+02	1.06E+06	4.34E+01	3.72E+01
Tin-126	15832-50-5	4.53E+01	1.06E+05	8.79E+00	7.36E+00
Tritium (particulate)	10028-17-8p	1.45E+04	5.31E+07	- - -	1.45E+04
Tritium (water)	10028-17-8w	3.46E+04	1.88E+08	- - -	3.46E+04
Uranium-232	14158-29-3	5.57E+00	5.42E+02	1.46E+03	5.50E+00
Uranium-233	13968-55-3	2.00E+01	9.10E+02	8.92E+02	1.91E+01
Uranium-233 long lived decay	13968-55-3L	2.21E+00	4.46E+01	7.48E-01	5.52E-01
Uranium-233/234	U-233/234	2.21E+00	4.46E+01	7.48E-01	5.52E-01
Uranium-234	13966-29-5	2.03E+01	9.26E+02	3.48E+03	1.97E+01
Uranium-235	15117-96-1	2.04E+01	1.05E+03	1.69E+00	1.56E+00
Uranium-235+D	15117-96-1(+D)	1.96E+01	1.05E+03	1.61E+00	1.49E+00
Uranium-235 long lived decay	15117-96-1L	1.89E+00	3.99E+01	4.07E-01	3.32E-01
Uranium-235/236	U-235/236	1.89E+00	3.99E+01	4.07E-01	3.32E-01
Uranium-238	7440-61-1	2.24E+01	1.13E+03	1.76E+04	2.19E+01
Uranium-238+D	7440-61-1(+D)	1.52E+01	1.13E+03	7.68E+00	5.08E+00
Uranium-238 long lived decay	7440-61-1L	8.08E-01	1.41E+02	1.02E-01	9.03E-02
Yttrium-88	7440-65-5	- - -	- - -	- - -	- - -
Zinc-65	13982-39-3	1.31E+02	1.82E+06	3.12E-01	3.11E-01
Zirconium-95	13967-71-0	2.60E+02	6.40E+05	2.58E-01	2.57E-01

L = used for long lived decay lookup value

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Inorganics					
Actinium	7440-34-8	- - -	- - -	- - -	
Aluminum	7429-90-5	- - -	2.04E+05	2.04E+05	b
Antimony	7440-36-0	- - -	8.18E+01	8.18E+01	b
Arsenic	7440-38-2	3.80E+00	6.13E+01	3.80E+00	a
Barium	7440-39-3	- - -	1.43E+04	1.43E+04	b
Beryllium	7440-41-7	2.25E+03	3.70E+02	3.70E+02	b
Bismuth	7440-69-9	- - -	- - -	- - -	
Boron	7440-42-8	- - -	1.84E+04	1.84E+04	b
Cadmium	7440-43-9s	3.00E+03	2.04E+02	2.04E+02	b
Calcium	7440-70-2	- - -	- - -	- - -	
Cerium	7440-45-1	- - -	- - -	- - -	
Chromium	7440-47-3	- - -	3.07E+05	3.07E+05	b
Chromium III	16065-83-1	- - -	3.07E+05	3.07E+05	b
Chromium VI	18540-29-9	4.50E+02	5.94E+02	4.50E+02	a
Cobalt	7440-48-4	- - -	1.23E+04	1.23E+04	b
Copper	7440-50-8	- - -	8.18E+03	8.18E+03	b
Cyanide	57-12-5	- - -	4.09E+03	4.09E+03	b
Dypsprosium	7429-91-6	- - -	- - -	- - -	
Erbium	7440-52-0	- - -	- - -	- - -	
Europium	7440-53-1	- - -	- - -	- - -	
Gadolinium	7440-54-2	- - -	- - -	- - -	
Holmium	7440-60-0	- - -	- - -	- - -	
Iron	7439-89-6	- - -	- - -	- - -	
Lanthanum	7439-91-0	- - -	- - -	- - -	
Lead	7439-92-1	- - -	- - -	- - -	
Lithium	7439-93-2	- - -	- - -	- - -	
Lutetium	7439-94-3	- - -	- - -	- - -	
Magnesium	7439-95-4	- - -	- - -	- - -	
Manganese	7439-96-5s	- - -	7.21E+03	7.21E+03	b
Mercury	7439-97-6	- - -	6.13E+01	6.13E+01	b

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Molybdenum	7439-98-7	- - -	1.02E+03	1.02E+03	b
Neodymium	7440-00-8	- - -	- - -	- - -	
Nickel	7440-02-0	1.12E+04	4.09E+03	4.09E+03	b
Nitrate	14797-55-8	- - -	3.27E+05	3.27E+05	b
Nitrite	14797-65-0	- - -	2.04E+04	2.04E+04	b
Osmium	7440-04-2	- - -	- - -	- - -	
Potassium	7440-09-7	- - -	- - -	- - -	
Praseodymium	7440-10-0	- - -	- - -	- - -	
Rubidium	7440-17-7	- - -	- - -	- - -	
Samarium	7440-19-9	- - -	- - -	- - -	
Selenium	7782-49-2	- - -	1.02E+03	1.02E+03	b
Silicon	7440-21-3	- - -	- - -	- - -	
Silver	7440-22-4	- - -	1.02E+03	1.02E+03	b
Sodium	7440-23-5	- - -	- - -	- - -	
Strontium	7440-24-6	- - -	- - -	- - -	
Tantalum	7440-25-7	- - -	- - -	- - -	
Terbium	7440-27-9	- - -	- - -	- - -	
Thallium	7440-28-0	- - -	1.64E+01	1.64E+01	b
Tin	7440-31-5	- - -	1.23E+05	1.23E+05	b
Titanium	7440-32-6	- - -	- - -	- - -	
Uranium	7440-61-1	- - -	- - -	- - -	
Vanadium	7440-62-2	- - -	1.43E+03	1.43E+03	b
Ytterbium	7440-64-4	- - -	- - -	- - -	
Zinc	7440-66-6	- - -	6.13E+04	6.13E+04	b
Zirconium	7440-67-7	- - -	- - -	- - -	
Dioxins/Dibenzofurans					
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -	
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -	
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -	

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDF	55684-94-1	3.81E-04	- - -	3.81E-04	a
1,2,3,7,8,9-HxCDD	19408-74-3	9.23E-04	- - -	9.23E-04	a
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -	
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -	
1,2,3,7,8-PeCDF	57117-41-6	7.63E-05	- - -	7.63E-05	a
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -	
2,3,4,7,8-PeCDF	57117-31-4	7.63E-04	- - -	7.63E-04	a
2,3,7,8-TCDD	1746-01-6	3.81E-05	- - -	3.81E-05	a
2,3,7,8-TCDF	51207-31-9	3.81E-04	- - -	3.81E-04	a
HpCDD	37871-00-4	3.81E-03	- - -	3.81E-03	a
HpCDF	38998-75-3	3.81E-03	- - -	3.81E-03	a
HxCDD	34465-46-8	3.81E-04	- - -	3.81E-04	a
OCDD	3268-87-9	3.81E-02	- - -	3.81E-02	a
OCDF	39001-02-0	3.81E-02	- - -	3.81E-02	a
PeCDD	36088-22-9	7.63E-05	- - -	7.63E-05	a
PeCDF	30402-15-4	- - -	- - -	- - -	
TCDD, Total	41903-57-5	- - -	- - -	- - -	
TCDF	30402-14-3	- - -	- - -	- - -	
Explosives					
1,3,5-Trinitrobenzene	99-35-4	- - -	6.13E+03	6.13E+03	b
1,3-Dinitrobenzene	99-65-0	- - -	2.04E+01	2.04E+01	b
2,4,6-Trinitrotoluene	118-96-7	1.91E+02	1.02E+02	1.02E+02	b
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -	
HMX	2691-41-0	- - -	1.02E+04	1.02E+04	b
Nitroglycerin	55-63-0	- - -	- - -	- - -	
PETN	78-11-5	- - -	- - -	- - -	
RDX	121-82-4	5.20E+01	6.13E+02	5.20E+01	a
Tetryl	479-45-8	- - -	2.04E+03	2.04E+03	b
Pesticides and/or PCBs					

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
4,4'-DDD	72-54-8	2.38E+01	- - -	2.38E+01	a
4,4'-DDE	72-55-9	1.68E+01	- - -	1.68E+01	a
4,4'-DDT	50-29-3	1.68E+01	1.02E+02	1.68E+01	a
Aldrin	309-00-2	3.37E-01	6.13E+00	3.37E-01	a
Alpha Chlordane	5103-71-9	- - -	- - -	- - -	
Alpha-BHC	319-84-6	9.08E-01	- - -	9.08E-01	a
Aroclor-1016	12674-11-2	2.86E+00	1.43E+01	2.86E+00	a
Aroclor-1221	11104-28-2	2.86E+00	- - -	2.86E+00	a
Aroclor-1232	11141-16-5	2.86E+00	- - -	2.86E+00	a
Aroclor-1242	53469-21-9	2.86E+00	- - -	2.86E+00	a
Aroclor-1248	12672-29-6	2.86E+00	- - -	2.86E+00	a
Aroclor-1254	11097-69-1	2.86E+00	4.09E+00	2.86E+00	a
Aroclor-1260	11096-82-5	2.86E+00	- - -	2.86E+00	a
Beta-BHC	319-85-7	3.18E+00	- - -	3.18E+00	a
Chlordane	57-74-9	- - -	- - -	- - -	
Delta-BHC	319-86-8	- - -	- - -	- - -	
Dieldrin	60-57-1	3.58E-01	1.02E+01	3.58E-01	a
Endosulfan I	959-98-8	- - -	- - -	- - -	
Endosulfan II	33213-65-9	- - -	- - -	- - -	
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -	
Endrin	72-20-8	- - -	6.13E+01	6.13E+01	b
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -	
Endrin Ketone	53494-70-5	- - -	- - -	- - -	
Gamma Chlordane	5103-74-2	- - -	- - -	- - -	
Gamma-BHC (Lindane)	58-89-9	4.40E+00	6.13E+01	4.40E+00	a
Heptachlor	76-44-8	1.27E+00	1.02E+02	1.27E+00	a
Heptachlor Epoxide	1024-57-3	6.29E-01	2.66E+00	6.29E-01	a
Methoxychlor	72-43-5	- - -	1.02E+03	1.02E+03	b
Polychlorinated Biphenyls (PCBs)	1336-36-3	2.86E+00	4.09E+00	2.86E+00	a
Toxaphene	8001-35-2	5.20E+00	- - -	5.20E+00	a

Semi-Volatile Organics

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
1,2,4-Trichlorobenzene	120-82-1	- - -	2.04E+03	2.04E+03	b
1,2-Dichlorobenzene	95-50-1	- - -	1.84E+04	1.84E+04	b
1,2-Diphenylhydrazine	122-66-7	7.15E+00	- - -	7.15E+00	a
1,3-Dichlorobenzene	541-73-1	- - -	6.11E+03	6.11E+03	b
1,4-Dichlorobenzene	106-46-7	2.38E+02	1.54E+08	2.38E+02	a
2,2'-oxybis(1-chloropropane)	108-60-1	8.17E+01	8.18E+03	8.17E+01	a
2,4,5-Trichlorophenol	95-95-4	- - -	2.04E+04	2.04E+04	b
2,4,6-Trichlorophenol	88-06-2	5.20E+02	- - -	5.20E+02	a
2,4-Dichlorophenol	120-83-2	- - -	6.13E+02	6.13E+02	b
2,4-Dimethylphenol	105-67-9	- - -	4.09E+03	4.09E+03	b
2,4-Dinitrophenol	51-28-5	- - -	4.09E+02	4.09E+02	b
2,4-Dinitrotoluene	121-14-2	8.42E+00	4.09E+02	8.42E+00	a
2,6-Dinitrotoluene	606-20-2	8.42E+00	2.04E+02	8.42E+00	a
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -	
2-Chloronaphthalene	91-58-7	- - -	1.64E+04	1.64E+04	b
2-Chlorophenol	95-57-8	- - -	1.02E+03	1.02E+03	b
2-Methylnaphthalene	91-57-6	- - -	8.18E+02	8.18E+02	b
2-Methylphenol	95-48-7	- - -	1.02E+04	1.02E+04	b
2-Nitroaniline	88-74-4	- - -	6.12E+01	6.12E+01	b
2-Nitrophenol	88-75-5	- - -	- - -	- - -	
3,3'-Dichlorobenzidine	91-94-1	1.27E+01	- - -	1.27E+01	a
3-Nitroaniline	99-09-2	1.51E+02	6.13E+01	6.13E+01	b
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -	
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -	
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -	
4-Chloroaniline	106-47-8	- - -	8.18E+02	8.18E+02	b
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -	
4-Methylphenol	106-44-5	- - -	1.02E+03	1.02E+03	b
4-Nitroaniline	100-01-6	1.51E+02	6.13E+02	1.51E+02	a
4-Nitrophenol	100-02-7	- - -	- - -	- - -	
Acenaphthene	83-32-9	- - -	1.23E+04	1.23E+04	b

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Acenaphthylene	208-96-8	- - -	- - -	- - -	
Anthracene	120-12-7	- - -	6.13E+04	6.13E+04	b
Benzidine	92-87-5	2.49E-02	6.13E+02	2.49E-02	a
Benzo(a)anthracene	56-55-3	7.84E+00	- - -	7.84E+00	a
Benzo(a)pyrene	50-32-8	7.84E-01	- - -	7.84E-01	a
Benzo(b)fluoranthene	205-99-2	7.84E+00	- - -	7.84E+00	a
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -	
Benzo(k)fluoranthene	207-08-9	7.84E+01	- - -	7.84E+01	a
Benzoic Acid	65-85-0	- - -	8.18E+05	8.18E+05	b
Benzyl Alcohol	100-51-6	- - -	6.13E+04	6.13E+04	b
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -	
Bis(2-chloroethyl)ether	111-44-4	5.20E+00	- - -	5.20E+00	a
Bis(2-ethylhexyl)phthalate	117-81-7	4.09E+02	4.09E+03	4.09E+02	a
Butyl Benzyl Phthalate	85-68-7	- - -	4.09E+04	4.09E+04	b
Carbazole	86-74-8	2.86E+02	- - -	2.86E+02	a
Chrysene	218-01-9	7.84E+02	- - -	7.84E+02	a
Di-n-butyl Phthalate	84-74-2	- - -	2.04E+04	2.04E+04	b
Di-n-octyl Phthalate	117-84-0	- - -	4.09E+03	4.09E+03	b
Dibenz(a,h)anthracene	53-70-3	7.84E-01	- - -	7.84E-01	a
Dibenzofuran	132-64-9	- - -	8.18E+02	8.18E+02	b
Diethyl Phthalate	84-66-2	- - -	1.64E+05	1.64E+05	b
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -	
Fluoranthene	206-44-0	- - -	8.18E+03	8.18E+03	b
Fluorene	86-73-7	- - -	8.18E+03	8.18E+03	b
Hexachlorobenzene	118-74-1	3.58E+00	1.64E+02	3.58E+00	a
Hexachlorobutadiene	87-68-3	7.34E+01	4.09E+01	4.09E+01	b
Hexachlorocyclopentadiene	77-47-4	- - -	1.19E+03	1.19E+03	b
Hexachloroethane	67-72-1	4.09E+02	2.04E+02	2.04E+02	b
Indeno(1,2,3-cd)pyrene	193-39-5	7.84E+00	- - -	7.84E+00	a
Isophorone	78-59-1	6.02E+03	4.09E+04	6.02E+03	a
N-Nitroso-di-n-propylamine	621-64-7	8.18E-01	- - -	8.18E-01	a

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
N-Nitrosodimethylamine	62-75-9	1.12E-01	- - -	1.12E-01	a
N-Nitrosodiphenylamine	86-30-6	1.17E+03	- - -	1.17E+03	a
Naphthalene	91-20-3	- - -	4.06E+03	4.06E+03	b
Nitrobenzene	98-95-3	- - -	1.02E+02	1.02E+02	b
Pentachlorophenol	87-86-5	4.77E+01	6.13E+03	4.77E+01	a
Phenanthrene	85-01-8	- - -	- - -	- - -	
Phenol	108-95-2	- - -	1.23E+05	1.23E+05	b
Pyrene	129-00-0	- - -	6.13E+03	6.13E+03	b
Pyridine	110-86-1	- - -	2.04E+02	2.04E+02	b
Tributyl phosphate	126-73-8	- - -	- - -	- - -	
Volatile Organics					
1,1,1,2-Tetrachloroethane	630-20-6	6.95E+00	6.13E+03	6.95E+00	a
1,1,1-Trichloroethane	71-55-6	- - -	3.48E+02	3.48E+02	b
1,1,2,2-Tetrachloroethane	79-34-5	8.88E-01	- - -	8.88E-01	a
1,1,2-Trichloroethane	79-00-5	1.90E+00	8.18E+02	1.90E+00	a
1,1-Dichloroethane	75-34-3	- - -	1.40E+04	1.40E+04	b
1,1-Dichloroethene	75-35-4	- - -	1.02E+04	1.02E+04	b
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -	
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -	
1,2,3-Trichloropropane	96-18-4	8.18E-01	1.23E+03	8.18E-01	a
1,2,4-Trimethylbenzene	95-63-6	- - -	1.75E+01	1.75E+01	b
1,2-Dibromo-3-Chloropropane	96-12-8	3.98E+00	7.30E-01	7.30E-01	b
1,2-Dichloroethane	107-06-2	7.61E-01	- - -	7.61E-01	a
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -	
1,2-Dichloropropane	78-87-5	8.42E+01	2.16E+00	2.16E+00	b
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -	
1,2-cis-Dichloroethene	156-59-2	- - -	2.04E+03	2.04E+03	b
1,2-trans-Dichloroethene	156-60-5	- - -	4.09E+03	4.09E+03	b
1,3,5-Trimethylbenzene	108-67-8	- - -	7.00E+00	7.00E+00	b
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -	
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -	

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -	
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -	
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -	
1-Chlorohexane	544-10-5	- - -	- - -	- - -	
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -	
2-Butanone	78-93-3	- - -	9.30E+02	9.30E+02	b
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -	
2-Chlorotoluene	95-49-8	- - -	4.09E+03	4.09E+03	b
2-Hexanone	591-78-6	- - -	- - -	- - -	
4-Chlorotoluene	106-43-4	- - -	- - -	- - -	
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -	
Acetone	67-64-1	- - -	1.84E+05	1.84E+05	b
Acetonitrile	75-05-8	- - -	2.01E+02	2.01E+02	b
Acrylonitrile	107-13-1	5.15E-01	2.59E+00	5.15E-01	a
Benzene	71-43-2	1.04E+02	4.90E+01	4.90E+01	b
Benzyl Chloride	100-44-7	3.37E+01	- - -	3.37E+01	a
Bromochloromethane	74-97-5	- - -	- - -	- - -	
Bromodichloromethane	75-27-4	9.23E+01	4.09E+03	9.23E+01	a
Bromoform	75-25-2	7.24E+02	4.09E+03	7.24E+02	a
Bromomethane	74-83-9	- - -	1.31E+00	1.31E+00	b
Carbon Disulfide	75-15-0	- - -	1.22E+02	1.22E+02	b
Carbon Tetrachloride	56-23-5	5.38E-01	5.82E-01	5.38E-01	a
Chlorobenzene	108-90-7	- - -	5.45E+01	5.45E+01	b
Chloroethane	75-00-3	- - -	1.60E+01	1.60E+01	b
Chloroform (Trichloromethane)	67-66-3	5.15E-01	1.50E+02	5.15E-01	a
Chloromethane	74-87-3	2.71E+00	1.58E+01	2.71E+00	a
Chlorotoluene	25168-05-2	- - -	- - -	- - -	
Dibromochloromethane	124-48-1	6.81E+01	4.09E+03	6.81E+01	a
Dibromomethane	74-95-3	- - -	- - -	- - -	
Dichlorodifluoromethane	75-71-8	- - -	4.09E+04	4.09E+04	b
Dichloromethane (Methylene Chloride)	75-09-2	2.03E+01	1.00E+02	2.03E+01	a

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Ethylbenzene	100-41-4	- - -	4.80E-02	4.80E-02	b
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	4.83E-02	2.69E-01	4.83E-02	a
Fluorobenzene	462-06-6	- - -	- - -	- - -	
FREON-113	76-13-1	- - -	7.00E+03	7.00E+03	b
Hexane	110-54-3	- - -	9.10E+00	9.10E+00	b
Iodomethane	74-88-4	- - -	- - -	- - -	
Isopropyl Benzene	98-82-8	- - -	5.42E+01	5.42E+01	b
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -	
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -	
Styrene	100-42-5	- - -	2.08E+03	2.08E+03	b
Tetrachloroethene	127-18-4	1.87E+01	2.04E+03	1.87E+01	a
Toluene	108-88-3	- - -	2.50E+01	2.50E+01	b
Total VOC's	TVOC	- - -	- - -	- - -	
Trichloroethene	79-01-6	5.25E+00	4.40E+01	5.25E+00	a
Trichlorofluoromethane	75-69-4	- - -	7.30E+01	7.30E+01	b
Vinyl Acetate	108-05-4	- - -	1.40E+02	1.40E+02	b
Vinyl Chloride	75-01-4	4.14E-01	1.43E+01	4.14E-01	a
Xylenes, Total	1330-20-7	- - -	4.09E+04	4.09E+04	b
m-Xylene	108-38-3	- - -	4.09E+05	4.09E+05	b
mp-Xylene	mp-Xylene	- - -	- - -	2.79E+02	b
n-Butylbenzene	104-51-8	- - -	8.18E+03	8.18E+03	b
n-propylbenzene	103-65-1	- - -	8.18E+03	8.18E+03	b
o-Xylene	95-47-6	- - -	4.09E+05	4.09E+05	b
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -	
p-Xylene	106-42-3	- - -	4.09E+05	4.09E+05	b
sec-Butylbenzene	135-98-8	- - -	8.18E+03	8.18E+03	b
tert-Butylbenzene	98-06-6	- - -	8.18E+03	8.18E+03	b
Radiological					
Actinium-227	14952-40-0	7.49E+00			
Actinium-227 +D	14952-40-0(+D)	4.85E-01			
Actinium-227 long lived decay	14952-40-0L	4.85E-01			

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Actinium-228	14331-83-0			1.93E-01	
Americium-241	14596-10-2			9.81E+00	
Antimony-124	14683-10-4			9.84E-02	
Antimony-125	14234-35-6			4.83E-01	
Antimony-125+D	14234-35-6(+D)			4.83E-01	
Barium-133	13981-41-4			6.07E-01	
Barium-133m	13981-41-4m			4.41E+00	
Barium-140	14798-08-4			1.13E+00	
Beryllium-7	13966-02-4			4.11E+00	
Bismuth-207	13982-38-2			1.24E-01	
Bismuth-210	14331-79-4			8.97E+01	
Bismuth-210m	14331-79-4m			8.34E-01	
Bismuth-211	15229-37-5			4.66E+00	
Bismuth-212	14913-49-6			9.87E-01	
Bismuth-214	14733-03-0			1.17E-01	
Cerium-139	CE-139			- - -	
Cerium-141	13967-74-3			3.80E+00	
Cerium-144	14762-78-8			1.12E+01	
Cerium-144+D	14762-78-8(+D)			3.22E+00	
Cesium-134	13967-70-9			1.23E-01	
Cesium-134m	13967-70-9m			1.74E+01	
Cesium-137	10045-97-3			7.07E+01	
Cesium-137 +D	10045-97-3(+D)			3.42E-01	
Cesium-137 long lived decay	10045-97-3L			3.42E-01	
Chromium-51	14392-02-0			6.89E+00	
Cobalt-57	13981-50-5			2.46E+00	
Cobalt-58	13981-38-9			1.95E-01	
Cobalt-58m	13981-38-9m			9.13E+03	
Cobalt-60	10198-40-0			7.06E-02	
Cobalt-60m	10198-40-0m			4.71E+01	
Curium-244	13981-15-2			1.69E+01	

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Europium-152	14683-23-9			1.65E-01	
Europium-152m	14683-23-9m			6.57E-01	
Europium-154	15585-10-1			1.50E-01	
Europium-155	14391-16-3			6.98E+00	
Iodine-131	24267-56-9			- - -	
Iridium-192	12154-84-6			- - -	
Iron-59	14596-12-4			1.50E-01	
Lanthanum-140	13981-28-7			7.61E-02	
Lead-210	14255-04-0			1.73E+00	
Lead-210+D	14255-04-0(+D)			1.19E+00	
Lead-210 long lived decay	14255-04-0L			1.19E+00	
Lead-212	15092-94-1			1.66E+00	
Lead-214	15067-28-4			8.92E-01	
Manganese-54	13966-31-9			2.25E-01	
Mercury-203	13982-78-0			9.47E-01	
Neptunium-237	13994-20-2			9.22E+00	
Neptunium-237+D	13994-20-2(+D)			1.04E+00	
Niobium-95	13967-76-5			2.48E-01	
Niobium-95m	13967-76-5m			3.73E+00	
Plutonium-238	13981-16-3			1.13E+01	
Plutonium-238/239	PU-238/239			1.12E+01	
Plutonium-239	15117-48-3			1.12E+01	
Plutonium-239/240	PU-239/240			1.12E+01	
Plutonium-241	14119-32-5			9.39E+02	
Plutonium-242	13982-10-0			1.17E+01	
Polonium-210	13981-52-7			4.00E+00	
Potassium-40	13966-00-2			1.08E+00	
Protactinium-231	14331-85-2			3.57E+00	
Protactinium-231 long lived decay	14331-85-2L			4.27E-01	
Protactinium-233	13981-14-1			1.17E+00	
Protactinium-234	15100-28-4			1.01E-01	

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Protactinium-234m	15100-28-4m			1.27E+01	
Radium-223	15623-45-7			1.43E+00	
Radium-224	13233-32-4			5.42E+00	
Radium-225	13981-53-8			1.07E+01	
Radium-226	13982-63-3			3.92E+00	
Radium-226+D	13982-63-3(+D)			1.01E-01	
Radium-226 long lived decay	13982-63-3L			9.29E-02	
Radium-228	15262-20-1			1.40E+00	
Radium-228+D	15262-20-1(+D)			1.70E-01	
Radium-228 long lived decay	15262-20-1L			6.66E-02	
Ruthenium-103	13968-53-1			4.29E-01	
Ruthenium-106	13967-48-1			2.69E+01	
Ruthenium-106+D	13967-48-1(+D)			8.77E-01	
Scandium-46	13967-63-0			9.09E-02	
Silver-108m	14391-65-2m			1.22E-01	
Silver-109m	14378-38-2m			1.14E+02	
Sodium-22	13966-32-0			8.50E-02	
Strontium-85	13967-73-2			3.98E-01	
Strontium-85m	13967-73-2m			1.07E+00	
Strontium-89	14158-27-1			5.25E+01	
Strontium-90	10098-97-2			3.42E+01	
Strontium-90+D	10098-97-2(+D)			1.48E+01	
Technetium-99	14133-76-7			4.02E+02	
Thallium-208	14913-50-9			4.98E-02	
Thorium-227	15623-47-9			2.09E+00	
Thorium-228	14274-82-9			9.16E+00	
Thorium-228+D	14274-82-9(+D)			1.10E-01	
Thorium-228 long lived decay	14274-82-9L			1.10E-01	
Thorium-229	15594-54-4			2.33E+00	
Thorium-229+D	15594-54-4(+D)			5.68E-01	
Thorium-229 long lived decay	15594-54-4L			5.68E-01	

Site Employee - Soil/Sediment Exposure Pathway					
Table 5.1.4		Chemical - Carcinogens (mg/kg)	Chemical - Noncarcinogens 1/ 10 Hazard Index (mg/kg)	Screening Values (mg/kg) / GV Total (PCI/G)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	RBGV	See Footnote
Thorium-230	14269-63-7			1.50E+01	
Thorium-230 long lived decay	14269-63-7L			9.24E-02	
Thorium-232	7440-29-1			1.30E+01	
Thorium-232 long lived decay	7440-29-1L			6.63E-02	
Thorium-234	15065-10-8			2.53E+01	
Tin-113	13966-06-8			3.72E+01	
Tin-126	15832-50-5			7.36E+00	
Tritium (particulate)	10028-17-8p			1.45E+04	
Tritium (water)	10028-17-8w			3.46E+04	
Uranium-232	14158-29-3			5.50E+00	
Uranium-233	13968-55-3			1.91E+01	
Uranium-233 long lived decay	13968-55-3L			5.52E-01	
Uranium-233/234	U-233/234			5.52E-01	
Uranium-234	13966-29-5			1.97E+01	
Uranium-235	15117-96-1			1.56E+00	
Uranium-235+D	15117-96-1(+D)			1.49E+00	
Uranium-235 long lived decay	15117-96-1L			3.32E-01	
Uranium-235/236	U-235/236			3.32E-01	
Uranium-238	7440-61-1			2.19E+01	
Uranium-238+D	7440-61-1(+D)			5.08E+00	
Uranium-238 long lived decay	7440-61-1L			9.03E-02	
Yttrium-88	7440-65-5			- - -	
Zinc-65	13982-39-3			3.11E-01	
Zirconium-95	13967-71-0			2.57E-01	

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Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
Inorganics			
Actinium	7440-34-8	- - -	- - -
Aluminum	7429-90-5	- - -	- - -
Antimony	7440-36-0	- - -	6.00E-03
Arsenic	7440-38-2	1.91E-04	1.00E-02
Barium	7440-39-3	- - -	2.00E+00
Beryllium	7440-41-7	- - -	4.00E-03
Bismuth	7440-69-9	- - -	- - -
Boron	7440-42-8	- - -	- - -
Cadmium	7440-43-9w	- - -	5.00E-03
Calcium	7440-70-2	- - -	- - -
Cerium	7440-45-1	- - -	- - -
Chromium	7440-47-3	- - -	1.00E-01
Chromium III	16065-83-1	- - -	1.00E-01
Chromium VI	18540-29-9	- - -	- - -
Cobalt	7440-48-4	- - -	- - -
Copper	7440-50-8	- - -	- - -
Cyanide	57-12-5	- - -	- - -
Dypsprosium	7429-91-6	- - -	- - -
Erbium	7440-52-0	- - -	- - -
Europium	7440-53-1	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -
Holmium	7440-60-0	- - -	- - -
Iron	7439-89-6	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -
Lead	7439-92-1	- - -	- - -
Lithium	7439-93-2	- - -	- - -
Lutetium	7439-94-3	- - -	- - -
Magnesium	7439-95-4	- - -	- - -
Manganese	7439-96-5w	- - -	- - -
Mercury	7439-97-6	- - -	2.00E-03
Molybdenum	7439-98-7	- - -	- - -
Neodymium	7440-00-8	- - -	- - -
Nickel	7440-02-0	- - -	- - -
Nitrate	14797-55-8	- - -	1.00E+01
Nitrite	14797-65-0	- - -	1.00E+00
Osmium	7440-04-2	- - -	- - -

Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
Potassium	7440-09-7	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -
Rubidium	7440-17-7	- - -	- - -
Samarium	7440-19-9	- - -	- - -
Selenium	7782-49-2	- - -	5.00E-02
Silicon	7440-21-3	- - -	- - -
Silver	7440-22-4	- - -	- - -
Sodium	7440-23-5	- - -	- - -
Strontium	7440-24-6	- - -	- - -
Tantalum	7440-25-7	- - -	- - -
Terbium	7440-27-9	- - -	- - -
Thallium	7440-28-0	- - -	2.00E-03
Tin	7440-31-5	- - -	- - -
Titanium	7440-32-6	- - -	- - -
Uranium	7440-61-1	- - -	3.00E+01
Vanadium	7440-62-2	- - -	- - -
Ytterbium	7440-64-4	- - -	- - -
Zinc	7440-66-6	- - -	- - -
Zirconium	7440-67-7	- - -	- - -
Dioxins/Dibenzofurans			
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -
1,2,3,6,7,8-HxCDF	55684-94-1	1.91E-08	- - -
1,2,3,7,8,9-HxCDD	19408-74-3	4.62E-08	- - -
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	3.82E-09	- - -
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -
2,3,4,7,8-PeCDF	57117-31-4	3.82E-08	- - -
2,3,7,8-TCDD	1746-01-6	1.91E-09	3.00E-08
2,3,7,8-TCDF	51207-31-9	1.91E-08	- - -
HpCDD	37871-00-4	1.91E-07	- - -

Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
HpCDF	38998-75-3	1.91E-07	- - -
HxCDD	34465-46-8	1.91E-08	- - -
OCDD	3268-87-9	1.91E-06	- - -
OCDF	39001-02-0	1.91E-06	- - -
PeCDD	36088-22-9	3.82E-09	- - -
PeCDF	30402-15-4	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -
TCDF	30402-14-3	- - -	- - -
Explosives			
1,3,5-Trinitrobenzene	99-35-4	- - -	- - -
1,3-Dinitrobenzene	99-65-0	- - -	- - -
2,4,6-Trinitrotoluene	118-96-7	9.54E-03	- - -
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -
HMX	2691-41-0	- - -	- - -
Nitroglycerin	55-63-0	- - -	- - -
PETN	78-11-5	- - -	- - -
RDX	121-82-4	2.60E-03	- - -
Tetryl	479-45-8	- - -	- - -
Pesticides and/or PCBs			
4,4'-DDD	72-54-8	1.19E-03	- - -
4,4'-DDE	72-55-9	8.42E-04	- - -
4,4'-DDT	50-29-3	8.42E-04	- - -
Aldrin	309-00-2	1.68E-05	- - -
Alpha Chlordane	5103-71-9	- - -	- - -
Alpha-BHC	319-84-6	4.54E-05	- - -
Aroclor-1016	12674-11-2	1.43E-04	- - -
Aroclor-1221	11104-28-2	1.43E-04	- - -
Aroclor-1232	11141-16-5	1.43E-04	- - -
Aroclor-1242	53469-21-9	1.43E-04	- - -
Aroclor-1248	12672-29-6	1.43E-04	- - -
Aroclor-1254	11097-69-1	1.43E-04	- - -
Aroclor-1260	11096-82-5	1.43E-04	- - -
Beta-BHC	319-85-7	1.59E-04	- - -
Chlordane	57-74-9	- - -	2.00E-03
Delta-BHC	319-86-8	- - -	- - -
Dieldrin	60-57-1	1.79E-05	- - -
Endosulfan I	959-98-8	- - -	- - -

Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
Endosulfan II	33213-65-9	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -
Endrin	72-20-8	- - -	2.00E-03
Endrin Aldehyde	7421-93-4	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	2.20E-04	2.00E-04
Heptachlor	76-44-8	6.36E-05	4.00E-04
Heptachlor Epoxide	1024-57-3	3.14E-05	2.00E-04
Methoxychlor	72-43-5	- - -	4.00E-02
Polychlorinated Biphenyls (PCBs)	1336-36-3	1.43E-04	5.00E-04
Toxaphene	8001-35-2	2.60E-04	3.00E-03
Semi-Volatile Organics			
1,2,4-Trichlorobenzene	120-82-1	- - -	7.00E-02
1,2-Dichlorobenzene	95-50-1	- - -	6.00E-01
1,2-Diphenylhydrazine	122-66-7	3.58E-04	- - -
1,3-Dichlorobenzene	541-73-1	- - -	- - -
1,4-Dichlorobenzene	106-46-7	1.19E-02	7.50E-02
2,2'-oxybis(1-chloropropane)	108-60-1	4.09E-03	- - -
2,4,5-Trichlorophenol	95-95-4	- - -	- - -
2,4,6-Trichlorophenol	88-06-2	2.60E-02	- - -
2,4-Dichlorophenol	120-83-2	- - -	- - -
2,4-Dimethylphenol	105-67-9	- - -	- - -
2,4-Dinitrophenol	51-28-5	- - -	- - -
2,4-Dinitrotoluene	121-14-2	4.21E-04	- - -
2,6-Dinitrotoluene	606-20-2	4.21E-04	- - -
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -
2-Chloronaphthalene	91-58-7	- - -	- - -
2-Chlorophenol	95-57-8	- - -	- - -
2-Methylnaphthalene	91-57-6	- - -	- - -
2-Methylphenol	95-48-7	- - -	- - -
2-Nitroaniline	88-74-4	- - -	- - -
2-Nitrophenol	88-75-5	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	6.36E-04	- - -
3-Nitroaniline	99-09-2	7.53E-03	- - -
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -

Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -
4-Chloroaniline	106-47-8	- - -	- - -
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -
4-Methylphenol	106-44-5	- - -	- - -
4-Nitroaniline	100-01-6	7.53E-03	- - -
4-Nitrophenol	100-02-7	- - -	- - -
Acenaphthene	83-32-9	- - -	- - -
Acenaphthylene	208-96-8	- - -	- - -
Anthracene	120-12-7	- - -	- - -
Benzidine	92-87-5	1.24E-06	- - -
Benzo(a)anthracene	56-55-3	3.92E-04	- - -
Benzo(a)pyrene	50-32-8	3.92E-05	2.00E-04
Benzo(b)fluoranthene	205-99-2	3.92E-04	- - -
Benzo(g,h,i)perylene	191-24-2	- - -	- - -
Benzo(k)fluoranthene	207-08-9	3.92E-03	- - -
Benzoic Acid	65-85-0	- - -	- - -
Benzyl Alcohol	100-51-6	- - -	- - -
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	2.60E-04	- - -
Bis(2-ethylhexyl)phthalate	117-81-7	2.04E-02	6.00E-03
Butyl Benzyl Phthalate	85-68-7	- - -	- - -
Carbazole	86-74-8	1.43E-02	- - -
Chrysene	218-01-9	3.92E-02	- - -
Di-n-butyl Phthalate	84-74-2	- - -	- - -
Di-n-octyl Phthalate	117-84-0	- - -	- - -
Dibenz(a,h)anthracene	53-70-3	3.92E-05	- - -
Dibenzofuran	132-64-9	- - -	- - -
Diethyl Phthalate	84-66-2	- - -	- - -
Dimethyl Phthalate	131-11-3	- - -	- - -
Fluoranthene	206-44-0	- - -	- - -
Fluorene	86-73-7	- - -	- - -
Hexachlorobenzene	118-74-1	1.79E-04	1.00E-03
Hexachlorobutadiene	87-68-3	3.67E-03	- - -
Hexachlorocyclopentadiene	77-47-4	- - -	5.00E-02
Hexachloroethane	67-72-1	2.04E-02	- - -
Indeno(1,2,3-cd)pyrene	193-39-5	3.92E-04	- - -
Isophorone	78-59-1	3.01E-01	- - -

Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
N-Nitroso-di-n-propylamine	621-64-7	4.09E-05	- - -
N-Nitrosodimethylamine	62-75-9	5.61E-06	- - -
N-Nitrosodiphenylamine	86-30-6	5.84E-02	- - -
Naphthalene	91-20-3	- - -	- - -
Nitrobenzene	98-95-3	- - -	- - -
Pentachlorophenol	87-86-5	2.38E-03	1.00E-03
Phenanthrene	85-01-8	- - -	- - -
Phenol	108-95-2	- - -	- - -
Pyrene	129-00-0	- - -	- - -
Pyridine	110-86-1	- - -	- - -
Tributyl phosphate	126-73-8	- - -	- - -
Volatile Organics			
1,1,1,2-Tetrachloroethane	630-20-6	1.10E-02	- - -
1,1,1-Trichloroethane	71-55-6	- - -	2.00E-01
1,1,2,2-Tetrachloroethane	79-34-5	1.43E-03	- - -
1,1,2-Trichloroethane	79-00-5	5.02E-03	5.00E-03
1,1-Dichloroethane	75-34-3	- - -	- - -
1,1-Dichloroethene	75-35-4	- - -	7.00E-03
1,1-Dichloropropene	563-58-6	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -
1,2,3-Trichloropropane	96-18-4	4.09E-05	- - -
1,2,4-Trimethylbenzene	95-63-6	- - -	- - -
1,2-Dibromo-3-Chloropropane	96-12-8	2.04E-04	2.00E-04
1,2-Dichloroethane	107-06-2	3.14E-03	5.00E-03
1,2-Dichloroethene	540-59-0	- - -	- - -
1,2-Dichloropropane	78-87-5	4.21E-03	5.00E-03
1,2-Diethylbenzene	135-01-3	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	- - -	7.00E-02
1,2-trans-Dichloroethene	156-60-5	- - -	1.00E-01
1,3,5-Trimethylbenzene	108-67-8	- - -	- - -
1,3-Dichloropropane	142-28-9	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -

Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
2-Butanone	78-93-3	- - -	- - -
2-Chloroethylvinylether	110-75-8	- - -	- - -
2-Chlorotoluene	95-49-8	- - -	- - -
2-Hexanone	591-78-6	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -
Acetone	67-64-1	- - -	- - -
Acetonitrile	75-05-8	- - -	- - -
Acrylonitrile	107-13-1	5.30E-04	- - -
Benzene	71-43-2	5.20E-03	5.00E-03
Benzyl Chloride	100-44-7	1.68E-03	- - -
Bromobenzene (Phenyl bromide, Monobromobenzene)	108-86-1	- - -	- - -
Bromochloromethane	74-97-5	- - -	- - -
Bromodichloromethane	75-27-4	4.62E-03	- - -
Bromoform	75-25-2	3.62E-02	- - -
Bromomethane	74-83-9	- - -	- - -
Carbon Disulfide	75-15-0	- - -	- - -
Carbon Tetrachloride	56-23-5	2.20E-03	- - -
Chlorobenzene	108-90-7	- - -	1.00E-01
Chloroethane	75-00-3	- - -	- - -
Chloroform (Trichloromethane)	67-66-3	- - -	- - -
Chloromethane	74-87-3	2.20E-02	- - -
Chlorotoluene	25168-05-2	- - -	- - -
Dibromochloromethane	124-48-1	3.41E-03	- - -
Dibromomethane	74-95-3	- - -	- - -
Dichlorodifluoromethane	75-71-8	- - -	- - -
Dichloromethane (Methylene Chloride)	75-09-2	3.82E-02	5.00E-03
Ethylbenzene	100-41-4	- - -	7.00E-01
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	3.37E-06	5.00E-05
Fluorobenzene	462-06-6	- - -	- - -
FREON-113	76-13-1	- - -	- - -
Hexane	110-54-3	- - -	- - -
Iodomethane	74-88-4	- - -	- - -
Isopropyl Benzene	98-82-8	- - -	- - -
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -
O-Chloroflurobenzene	348-51-6	- - -	- - -
Styrene	100-42-5	- - -	1.00E-01

Table 5.2.1		Site Employee - Groundwater Exposure Pathway (Chemical - Carcinogens) (mg/L)	
Chemical	CAS Number	10^{-6} GV Ingestion	MCL
Tetrachloroethene	127-18-4	5.50E-03	5.00E-03
Toluene	108-88-3	- - -	1.00E+00
Total VOC's	TVOC	- - -	- - -
Trichloroethene	79-01-6	2.20E-02	5.00E-03
Trichlorofluoromethane	75-69-4	- - -	- - -
Vinyl Acetate	108-05-4	- - -	- - -
Vinyl Chloride	75-01-4	1.91E-04	2.00E-03
Xylenes, Total	1330-20-7	- - -	1.00E+01
m-Xylene	108-38-3	- - -	- - -
mp-Xylene	mp-Xylene	- - -	- - -
n-Butylbenzene	104-51-8	- - -	- - -
n-propylbenzene	103-65-1	- - -	- - -
o-Xylene	95-47-6	- - -	- - -
p-Isopropyltoluene	99-87-6	- - -	- - -
p-Xylene	106-42-3	- - -	- - -
sec-Butylbenzene	135-98-8	- - -	- - -
tert-Butylbenzene	98-06-6	- - -	- - -

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
Inorganics			
Actinium	7440-34-8	- - -	- - -
Aluminum	7429-90-5	1.02E+02	- - -
Antimony	7440-36-0	4.09E-02	6.00E-03
Arsenic	7440-38-2	3.07E-02	1.00E-02
Barium	7440-39-3	7.15E+00	2.00E+00
Beryllium	7440-41-7	2.04E-01	4.00E-03
Bismuth	7440-69-9	- - -	- - -
Boron	7440-42-8	9.20E+00	- - -
Cadmium	7440-43-9w	5.11E-02	5.00E-03
Calcium	7440-70-2	- - -	- - -
Cerium	7440-45-1	- - -	- - -
Chromium	7440-47-3	1.53E+02	1.00E-01
Chromium III	16065-83-1	1.53E+02	1.00E-01
Chromium VI	18540-29-9	3.07E-01	- - -
Cobalt	7440-48-4	6.13E+00	- - -
Copper	7440-50-8	4.09E+00	- - -
Cyanide	57-12-5	2.04E+00	- - -
Dypsprosium	7429-91-6	- - -	- - -
Erbium	7440-52-0	- - -	- - -
Europium	7440-53-1	- - -	- - -
Gadolinium	7440-54-2	- - -	- - -
Holmium	7440-60-0	- - -	- - -
Iron	7439-89-6	- - -	- - -
Lanthanum	7439-91-0	- - -	- - -
Lead	7439-92-1	- - -	- - -
Lithium	7439-93-2	- - -	- - -
Lutetium	7439-94-3	- - -	- - -
Magnesium	7439-95-4	- - -	- - -
Manganese	7439-96-5w	4.80E+00	- - -
Mercury	7439-97-6	3.07E-02	2.00E-03
Molybdenum	7439-98-7	5.11E-01	- - -
Neodymium	7440-00-8	- - -	- - -
Nickel	7440-02-0	2.04E+00	- - -
Nitrate	14797-55-8	1.64E+02	1.00E+01
Nitrite	14797-65-0	1.02E+01	1.00E+00
Osmium	7440-04-2	- - -	- - -

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
Potassium	7440-09-7	- - -	- - -
Praseodymium	7440-10-0	- - -	- - -
Rubidium	7440-17-7	- - -	- - -
Samarium	7440-19-9	- - -	- - -
Selenium	7782-49-2	5.11E-01	5.00E-02
Silicon	7440-21-3	- - -	- - -
Silver	7440-22-4	5.11E-01	- - -
Sodium	7440-23-5	- - -	- - -
Strontium	7440-24-6	- - -	- - -
Tantalum	7440-25-7	- - -	- - -
Terbium	7440-27-9	- - -	- - -
Thallium	7440-28-0	8.18E-03	2.00E-03
Tin	7440-31-5	6.13E+01	- - -
Titanium	7440-32-6	- - -	- - -
Uranium	7440-61-1	- - -	3.00E+01
Vanadium	7440-62-2	7.15E-01	- - -
Ytterbium	7440-64-4	- - -	- - -
Zinc	7440-66-6	3.07E+01	- - -
Zirconium	7440-67-7	- - -	- - -
Dioxins/Dibenzofurans			
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -
1,2,3,6,7,8-HxCDF	55684-94-1	- - -	- - -
1,2,3,7,8,9-HxCDD	19408-74-3	- - -	- - -
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -
1,2,3,7,8-PeCDF	57117-41-6	- - -	- - -
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -
2,3,4,7,8-PeCDF	57117-31-4	- - -	- - -
2,3,7,8-TCDD	1746-01-6	- - -	3.00E-08
2,3,7,8-TCDF	51207-31-9	- - -	- - -
HpCDD	37871-00-4	- - -	- - -

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
HpCDF	38998-75-3	- - -	- - -
HxCDD	34465-46-8	- - -	- - -
OCDD	3268-87-9	- - -	- - -
OCDF	39001-02-0	- - -	- - -
PeCDD	36088-22-9	- - -	- - -
PeCDF	30402-15-4	- - -	- - -
TCDD, Total	41903-57-5	- - -	- - -
TCDF	30402-14-3	- - -	- - -
Explosives			
1,3,5-Trinitrobenzene	99-35-4	3.07E+00	- - -
1,3-Dinitrobenzene	99-65-0	1.02E-02	- - -
2,4,6-Trinitrotoluene	118-96-7	5.11E-02	- - -
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -
HMX	2691-41-0	5.11E+00	- - -
Nitroglycerin	55-63-0	- - -	- - -
PETN	78-11-5	- - -	- - -
RDX	121-82-4	3.07E-01	- - -
Tetryl	479-45-8	1.02E+00	- - -
Pesticides and/or PCBs			
4,4'-DDD	72-54-8	- - -	- - -
4,4'-DDE	72-55-9	- - -	- - -
4,4'-DDT	50-29-3	5.11E-02	- - -
Aldrin	309-00-2	3.07E-03	- - -
Alpha Chlordane	5103-71-9	- - -	- - -
Alpha-BHC	319-84-6	- - -	- - -
Aroclor-1016	12674-11-2	7.15E-03	- - -
Aroclor-1221	11104-28-2	- - -	- - -
Aroclor-1232	11141-16-5	- - -	- - -
Aroclor-1242	53469-21-9	- - -	- - -
Aroclor-1248	12672-29-6	- - -	- - -
Aroclor-1254	11097-69-1	2.04E-03	- - -
Aroclor-1260	11096-82-5	- - -	- - -
Beta-BHC	319-85-7	- - -	- - -
Chlordane	57-74-9	- - -	2.00E-03
Delta-BHC	319-86-8	- - -	- - -
Dieldrin	60-57-1	5.11E-03	- - -
Endosulfan I	959-98-8	- - -	- - -

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
Endosulfan II	33213-65-9	- - -	- - -
Endosulfan Sulfate	1031-07-8	- - -	- - -
Endrin	72-20-8	3.07E-02	2.00E-03
Endrin Aldehyde	7421-93-4	- - -	- - -
Endrin Ketone	53494-70-5	- - -	- - -
Gamma Chlordane	5103-74-2	- - -	- - -
Gamma-BHC (Lindane)	58-89-9	3.07E-02	2.00E-04
Heptachlor	76-44-8	5.11E-02	4.00E-04
Heptachlor Epoxide	1024-57-3	1.33E-03	2.00E-04
Methoxychlor	72-43-5	5.11E-01	4.00E-02
Polychlorinated Biphenyls (PCBs)	1336-36-3	2.04E-03	5.00E-04
Toxaphene	8001-35-2	- - -	3.00E-03
Semi-Volatile Organics			
1,2,4-Trichlorobenzene	120-82-1	1.02E+00	7.00E-02
1,2-Dichlorobenzene	95-50-1	9.20E+00	6.00E-01
1,2-Diphenylhydrazine	122-66-7	- - -	- - -
1,3-Dichlorobenzene	541-73-1	3.07E+00	- - -
1,4-Dichlorobenzene	106-46-7	- - -	7.50E-02
2,2'-oxybis(1-chloropropane)	108-60-1	4.09E+00	- - -
2,4,5-Trichlorophenol	95-95-4	1.02E+01	- - -
2,4,6-Trichlorophenol	88-06-2	- - -	- - -
2,4-Dichlorophenol	120-83-2	3.07E-01	- - -
2,4-Dimethylphenol	105-67-9	2.04E+00	- - -
2,4-Dinitrophenol	51-28-5	2.04E-01	- - -
2,4-Dinitrotoluene	121-14-2	2.04E-01	- - -
2,6-Dinitrotoluene	606-20-2	1.02E-01	- - -
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -
2-Chloronaphthalene	91-58-7	8.18E+00	- - -
2-Chlorophenol	95-57-8	5.11E-01	- - -
2-Methylnaphthalene	91-57-6	4.09E-01	- - -
2-Methylphenol	95-48-7	5.11E+00	- - -
2-Nitroaniline	88-74-4	3.07E-02	- - -
2-Nitrophenol	88-75-5	- - -	- - -
3,3'-Dichlorobenzidine	91-94-1	- - -	- - -
3-Nitroaniline	99-09-2	3.07E-02	- - -
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -
4-Chloroaniline	106-47-8	4.09E-01	- - -
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -
4-Methylphenol	106-44-5	5.11E-01	- - -
4-Nitroaniline	100-01-6	3.07E-01	- - -
4-Nitrophenol	100-02-7	- - -	- - -
Acenaphthene	83-32-9	6.13E+00	- - -
Acenaphthylene	208-96-8	- - -	- - -
Anthracene	120-12-7	3.07E+01	- - -
Benzidine	92-87-5	3.07E-01	- - -
Benzo(a)anthracene	56-55-3	- - -	- - -
Benzo(a)pyrene	50-32-8	- - -	2.00E-04
Benzo(b)fluoranthene	205-99-2	- - -	- - -
Benzo(g,h,i)perylene	191-24-2	- - -	- - -
Benzo(k)fluoranthene	207-08-9	- - -	- - -
Benzoic Acid	65-85-0	4.09E+02	- - -
Benzyl Alcohol	100-51-6	3.07E+01	- - -
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -
Bis(2-chloroethyl)ether	111-44-4	- - -	- - -
Bis(2-ethylhexyl)phthalate	117-81-7	2.04E+00	6.00E-03
Butyl Benzyl Phthalate	85-68-7	2.04E+01	- - -
Carbazole	86-74-8	- - -	- - -
Chrysene	218-01-9	- - -	- - -
Di-n-butyl Phthalate	84-74-2	1.02E+01	- - -
Di-n-octyl Phthalate	117-84-0	2.04E+00	- - -
Dibenz(a,h)anthracene	53-70-3	- - -	- - -
Dibenzofuran	132-64-9	4.09E-01	- - -
Diethyl Phthalate	84-66-2	8.18E+01	- - -
Dimethyl Phthalate	131-11-3	- - -	- - -
Fluoranthene	206-44-0	4.09E+00	- - -
Fluorene	86-73-7	4.09E+00	- - -
Hexachlorobenzene	118-74-1	8.18E-02	1.00E-03
Hexachlorobutadiene	87-68-3	2.04E-02	- - -
Hexachlorocyclopentadiene	77-47-4	6.13E-01	5.00E-02
Hexachloroethane	67-72-1	1.02E-01	- - -
Indeno(1,2,3-cd)pyrene	193-39-5	- - -	- - -
Isophorone	78-59-1	2.04E+01	- - -

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
N-Nitroso-di-n-propylamine	621-64-7	- - -	- - -
N-Nitrosodimethylamine	62-75-9	- - -	- - -
N-Nitrosodiphenylamine	86-30-6	- - -	- - -
Naphthalene	91-20-3	2.04E+00	- - -
Nitrobenzene	98-95-3	5.11E-02	- - -
Pentachlorophenol	87-86-5	3.07E+00	1.00E-03
Phenanthrene	85-01-8	- - -	- - -
Phenol	108-95-2	6.13E+01	- - -
Pyrene	129-00-0	3.07E+00	- - -
Pyridine	110-86-1	1.02E-01	- - -
Tributyl phosphate	126-73-8	- - -	- - -
Volatile Organics			
1,1,1,2-Tetrachloroethane	630-20-6	3.07E+00	- - -
1,1,1-Trichloroethane	71-55-6	2.86E+01	2.00E-01
1,1,2,2-Tetrachloroethane	79-34-5	- - -	- - -
1,1,2-Trichloroethane	79-00-5	4.09E-01	5.00E-03
1,1-Dichloroethane	75-34-3	1.02E+01	- - -
1,1-Dichloroethene	75-35-4	5.11E+00	7.00E-03
1,1-Dichloropropene	563-58-6	- - -	- - -
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -
1,2,3-Trichloropropane	96-18-4	6.13E-01	- - -
1,2,4-Trimethylbenzene	95-63-6	5.11E+00	- - -
1,2-Dibromo-3-Chloropropane	96-12-8	- - -	2.00E-04
1,2-Dichloroethane	107-06-2	- - -	5.00E-03
1,2-Dichloroethene	540-59-0	- - -	- - -
1,2-Dichloropropane	78-87-5	- - -	5.00E-03
1,2-Diethylbenzene	135-01-3	- - -	- - -
1,2-cis-Dichloroethene	156-59-2	1.02E+00	7.00E-02
1,2-trans-Dichloroethene	156-60-5	2.04E+00	1.00E-01
1,3,5-Trimethylbenzene	108-67-8	5.11E+00	- - -
1,3-Dichloropropane	142-28-9	- - -	- - -
1,3-Diethylbenzene	141-93-5	- - -	- - -
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -
1,4-Diethylbenzene	105-05-5	- - -	- - -
1-Chlorohexane	544-10-5	- - -	- - -
2,2-Dichloropropane	594-20-7	- - -	- - -

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
2-Butanone	78-93-3	6.13E+01	- - -
2-Chloroethylvinylether	110-75-8	- - -	- - -
2-Chlorotoluene	95-49-8	2.04E+00	- - -
2-Hexanone	591-78-6	- - -	- - -
4-Chlorotoluene	106-43-4	- - -	- - -
4-Methyl-2-pentanone	108-10-1	- - -	- - -
Acetone	67-64-1	9.20E+01	- - -
Acetonitrile	75-05-8	- - -	- - -
Acrylonitrile	107-13-1	1.02E-01	- - -
Benzene	71-43-2	4.09E-01	5.00E-03
Benzyl Chloride	100-44-7	- - -	- - -
Bromobenzene (Phenyl bromide, Monobromobenzene)	108-86-1	- - -	- - -
Bromochloromethane	74-97-5	- - -	- - -
Bromodichloromethane	75-27-4	2.04E+00	- - -
Bromoform	75-25-2	2.04E+00	- - -
Bromomethane	74-83-9	1.43E-01	- - -
Carbon Disulfide	75-15-0	1.02E+01	- - -
Carbon Tetrachloride	56-23-5	7.15E-02	- - -
Chlorobenzene	108-90-7	2.04E+00	1.00E-01
Chloroethane	75-00-3	4.09E+01	- - -
Chloroform (Trichloromethane)	67-66-3	1.02E+00	- - -
Chloromethane	74-87-3	- - -	- - -
Chlorotoluene	25168-05-2	- - -	- - -
Dibromochloromethane	124-48-1	2.04E+00	- - -
Dibromomethane	74-95-3	- - -	- - -
Dichlorodifluoromethane	75-71-8	2.04E+01	- - -
Dichloromethane (Methylene Chloride)	75-09-2	6.13E+00	5.00E-03
Ethylbenzene	100-41-4	1.02E+01	7.00E-01
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	- - -	5.00E-05
Fluorobenzene	462-06-6	- - -	- - -
FREON-113	76-13-1	3.07E+03	- - -
Hexane	110-54-3	6.13E+00	- - -
Iodomethane	74-88-4	- - -	- - -
Isopropyl Benzene	98-82-8	1.02E+01	- - -
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -
O-Chloroflurobenzene	348-51-6	- - -	- - -
Styrene	100-42-5	2.04E+01	1.00E-01

Table 5.2.2		Site Employee - Groundwater Exposure Pathway (Chemical - Noncarcinogens) (mg/L)	
Chemical	CAS Number	HI Ingestion	MCL
Tetrachloroethene	127-18-4	1.02E+00	5.00E-03
Toluene	108-88-3	2.04E+01	1.00E+00
Total VOC's	TVOC	- - -	- - -
Trichloroethene	79-01-6	5.11E+01	5.00E-03
Trichlorofluoromethane	75-69-4	3.07E+01	- - -
Vinyl Acetate	108-05-4	1.02E+02	- - -
Vinyl Chloride	75-01-4	3.07E-01	2.00E-03
Xylenes, Total	1330-20-7	2.04E+01	1.00E+01
m-Xylene	108-38-3	2.04E+02	- - -
mp-Xylene	mp-Xylene	- - -	- - -
n-Butylbenzene	104-51-8	4.09E+00	- - -
n-propylbenzene	103-65-1	4.09E+00	- - -
o-Xylene	95-47-6	2.04E+02	- - -
p-Isopropyltoluene	99-87-6	- - -	- - -
p-Xylene	106-42-3	2.04E+02	- - -
sec-Butylbenzene	135-98-8	4.09E+00	- - -
tert-Butylbenzene	98-06-6	4.09E+00	- - -

Table 5.2.3		Site Employee - Groundwater Exposure Pathway (Radionuclides) (pCi/L)
Chemical	CAS Number	GV Ingestion
Radiological		
Actinium-227	14952-40-0	7.96E-01
Actinium-227 +D	14952-40-0(+D)	3.29E-01
Actinium-227 long lived decay	14952-40-0L	3.29E-01
Actinium-228	14331-83-0	8.04E+01
Americium-241	14596-10-2	1.54E+00
Antimony-124	14683-10-4	1.24E+01
Antimony-125	14234-35-6	3.66E+01
Antimony-125+D	14234-35-6(+D)	3.12E+01
Barium-133	13981-41-4	2.35E+01
Barium-133m	13981-41-4m	5.02E+01
Barium-140	14798-08-4	1.07E+01
Beryllium-7	13966-02-4	1.85E+03
Bismuth-207	13982-38-2	2.83E+01
Bismuth-210	14331-79-4	1.79E+01
Bismuth-210m	14331-79-4m	2.90E+00
Bismuth-211	15229-37-5	- - -
Bismuth-212	14913-49-6	2.25E+02
Bismuth-214	14733-03-0	8.33E+02
Cerium-139	CE-139	- - -
Cerium-141	13967-74-3	3.46E+01
Cerium-144	14762-78-8	4.55E+00
Cerium-144+D	14762-78-8(+D)	4.53E+00
Cesium-134	13967-70-9	3.79E+00
Cesium-134m	13967-70-9m	3.86E+03
Cesium-137	10045-97-3	5.26E+00
Cesium-137 +D	10045-97-3(+D)	5.26E+00
Cesium-137 long lived decay	10045-97-3L	5.26E+00
Chromium-51	14392-02-0	8.65E+02
Cobalt-57	13981-50-5	1.54E+02
Cobalt-58	13981-38-9	5.42E+01
Cobalt-58m	13981-38-9m	1.27E+03
Cobalt-60	10198-40-0	1.02E+01
Cobalt-60m	10198-40-0m	6.02E+04
Curium-244	13981-15-2	1.91E+00
Europium-152	14683-23-9	2.64E+01

L = used for long lived decay lookup value

Table 5.2.3		Site Employee - Groundwater Exposure Pathway (Radionuclides) (pCi/L)
Chemical	CAS Number	GV Ingestion
Europium-152m	14683-23-9m	5.37E+01
Europium-154	15585-10-1	1.55E+01
Europium-155	14391-16-3	8.42E+01
Iodine-131	24267-56-9	- - -
Iridium-192	12154-84-6	- - -
Iron-59	14596-12-4	2.03E+01
Lanthanum-140	13981-28-7	1.45E+01
Lead-210	14255-04-0	1.82E-01
Lead-210+D	14255-04-0(+D)	1.26E-01
Lead-210 long lived decay	14255-04-0L	1.26E-01
Lead-212	15092-94-1	6.40E+00
Lead-214	15067-28-4	4.65E+02
Manganese-54	13966-31-9	7.02E+01
Mercury-203	13982-78-0	2.81E+01
Neptunium-237	13994-20-2	2.59E+00
Neptunium-237+D	13994-20-2(+D)	2.37E+00
Niobium-95	13967-76-5	6.53E+01
Niobium-95m	13967-76-5m	4.37E+01
Plutonium-238	13981-16-3	1.22E+00
Plutonium-238/239	PU-238/239	1.19E+00
Plutonium-239	15117-48-3	1.19E+00
Plutonium-239/240	PU-239/240	1.19E+00
Plutonium-241	14119-32-5	9.09E+01
Plutonium-242	13982-10-0	1.25E+00
Polonium-210	13981-52-7	4.24E-01
Potassium-40	13966-00-2	6.48E+00
Protactinium-231	14331-85-2	9.25E-01
Protactinium-231 long lived decay	14331-85-2L	2.43E-01
Protactinium-233	13981-14-1	2.88E+01
Protactinium-234	15100-28-4	6.25E+01
Protactinium-234m	15100-28-4m	- - -
Radium-223	15623-45-7	6.72E-01
Radium-224	13233-32-4	9.58E-01
Radium-225	13981-53-8	1.40E+00
Radium-226	13982-63-3	4.16E-01
Radium-226+D	13982-63-3(+D)	4.15E-01

L = used for long lived decay lookup value

Table 5.2.3		Site Employee - Groundwater Exposure Pathway (Radionuclides) (pCi/L)
Chemical	CAS Number	GV Ingestion
Radium-226 long lived decay	13982-63-3L	9.66E-02
Radium-228	15262-20-1	1.54E-01
Radium-228+D	15262-20-1(+D)	1.54E-01
Radium-228 long lived decay	15262-20-1L	1.19E-01
Ruthenium-103	13968-53-1	4.16E+01
Ruthenium-106	13967-48-1	3.79E+00
Ruthenium-106+D	13967-48-1(+D)	3.79E+00
Scandium-46	13967-63-0	2.57E+01
Silver-108m	14391-65-2m	1.97E+01
Silver-109m	14378-38-2m	- - -
Sodium-22	13966-32-0	1.66E+01
Strontium-85	13967-73-2	7.08E+01
Strontium-85m	13967-73-2m	9.58E+03
Strontium-89	14158-27-1	1.25E+01
Strontium-90	10098-97-2	2.86E+00
Strontium-90+D	10098-97-2(+D)	2.16E+00
Technetium-99	14133-76-7	5.82E+01
Thallium-208	14913-50-9	- - -
Thorium-227	15623-47-9	3.38E+00
Thorium-228	14274-82-9	1.50E+00
Thorium-228+D	14274-82-9(+D)	5.33E-01
Thorium-228 long lived decay	14274-82-9L	5.33E-01
Thorium-229	15594-54-4	7.14E-01
Thorium-229+D	15594-54-4(+D)	3.03E-01
Thorium-229 long lived decay	15594-54-4L	3.03E-01
Thorium-230	14269-63-7	1.76E+00
Thorium-230 long lived decay	14269-63-7L	9.16E-02
Thorium-232	7440-29-1	1.58E+00
Thorium-232 long lived decay	7440-29-1L	1.11E-01
Thorium-234	15065-10-8	6.93E+00
Tin-113	13966-06-8	3.70E+01
Tin-126	15832-50-5	6.25E+00
Tritium (particulate)	10028-17-8p	1.43E+03
Tritium (water)	10028-17-8w	3.16E+03
Uranium-232	14158-29-3	5.48E-01
Uranium-233	13968-55-3	2.23E+00

L = used for long lived decay lookup value

Table 5.2.3		Site Employee - Groundwater Exposure Pathway (Radionuclides) (pCi/L)
Chemical	CAS Number	GV Ingestion
Uranium-233 long lived decay	13968-55-3L	2.67E-01
Uranium-233/234	U-233/234	2.67E-01
Uranium-234	13966-29-5	2.26E+00
Uranium-235	15117-96-1	2.30E+00
Uranium-235+D	15117-96-1(+D)	2.23E+00
Uranium-235 long lived decay	15117-96-1L	2.19E-01
Uranium-235/236	U-235/236	2.19E-01
Uranium-238	7440-61-1	2.50E+00
Uranium-238+D	7440-61-1(+D)	1.84E+00
Uranium-238 long lived decay	7440-61-1L	8.40E-02
Yttrium-88	7440-65-5	- - -
Zinc-65	13982-39-3	1.37E+01
Zirconium-95	13967-71-0	3.49E+01

L = used for long lived decay lookup value

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Inorganics						
Actinium	7440-34-8	- - -	- - -	- - -	- - -	
Aluminum	7429-90-5	- - -	1.02E+01	- - -	1.02E+01	b
Antimony	7440-36-0	- - -	4.09E-03	6.00E-03	4.09E-03	b
Arsenic	7440-38-2	1.91E-04	3.07E-03	1.00E-02	1.91E-04	a
Barium	7440-39-3	- - -	7.15E-01	2.00E+00	7.15E-01	b
Beryllium	7440-41-7	- - -	2.04E-02	4.00E-03	4.00E-03	c
Bismuth	7440-69-9	- - -	- - -	- - -	- - -	
Boron	7440-42-8	- - -	9.20E-01	- - -	9.20E-01	b
Cadmium	7440-43-9w	- - -	5.11E-03	5.00E-03	5.00E-03	c
Calcium	7440-70-2	- - -	- - -	- - -	- - -	
Cerium	7440-45-1	- - -	- - -	- - -	- - -	
Chromium	7440-47-3	- - -	1.53E+01	1.00E-01	1.00E-01	c
Chromium III	16065-83-1	- - -	1.53E+01	1.00E-01	1.00E-01	c
Chromium VI	18540-29-9	- - -	3.07E-02	- - -	3.07E-02	b
Cobalt	7440-48-4	- - -	6.13E-01	- - -	6.13E-01	b
Copper	7440-50-8	- - -	4.09E-01	- - -	4.09E-01	b
Cyanide	57-12-5	- - -	2.04E-01	- - -	2.04E-01	b
Dypsprosium	7429-91-6	- - -	- - -	- - -	- - -	
Erbium	7440-52-0	- - -	- - -	- - -	- - -	
Europium	7440-53-1	- - -	- - -	- - -	- - -	
Gadolinium	7440-54-2	- - -	- - -	- - -	- - -	
Holmium	7440-60-0	- - -	- - -	- - -	- - -	
Iron	7439-89-6	- - -	- - -	- - -	- - -	
Lanthanum	7439-91-0	- - -	- - -	- - -	- - -	
Lead	7439-92-1	- - -	- - -	- - -	- - -	
Lithium	7439-93-2	- - -	- - -	- - -	- - -	
Lutetium	7439-94-3	- - -	- - -	- - -	- - -	
Magnesium	7439-95-4	- - -	- - -	- - -	- - -	
Manganese	7439-96-5w	- - -	4.80E-01	- - -	4.80E-01	b
Mercury	7439-97-6	- - -	3.07E-03	2.00E-03	2.00E-03	c
Molybdenum	7439-98-7	- - -	5.11E-02	- - -	5.11E-02	b
Neodymium	7440-00-8	- - -	- - -	- - -	- - -	
Nickel	7440-02-0	- - -	2.04E-01	- - -	2.04E-01	b
Nitrate	14797-55-8	- - -	1.64E+01	1.00E+01	1.00E+01	c

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Nitrite	14797-65-0	- - -	1.02E+00	1.00E+00	1.00E+00	c
Osmium	7440-04-2	- - -	- - -	- - -	- - -	
Potassium	7440-09-7	- - -	- - -	- - -	- - -	
Praseodymium	7440-10-0	- - -	- - -	- - -	- - -	
Rubidium	7440-17-7	- - -	- - -	- - -	- - -	
Samarium	7440-19-9	- - -	- - -	- - -	- - -	
Selenium	7782-49-2	- - -	5.11E-02	5.00E-02	5.00E-02	c
Silicon	7440-21-3	- - -	- - -	- - -	- - -	
Silver	7440-22-4	- - -	5.11E-02	- - -	5.11E-02	b
Sodium	7440-23-5	- - -	- - -	- - -	- - -	
Strontium	7440-24-6	- - -	- - -	- - -	- - -	
Tantalum	7440-25-7	- - -	- - -	- - -	- - -	
Terbium	7440-27-9	- - -	- - -	- - -	- - -	
Thallium	7440-28-0	- - -	8.18E-04	2.00E-03	8.18E-04	b
Tin	7440-31-5	- - -	6.13E+00	- - -	6.13E+00	b
Titanium	7440-32-6	- - -	- - -	- - -	- - -	
Uranium	7440-61-1	- - -	- - -	3.00E+01	3.00E+01	c
Vanadium	7440-62-2	- - -	7.15E-02	- - -	7.15E-02	b
Ytterbium	7440-64-4	- - -	- - -	- - -	- - -	
Zinc	7440-66-6	- - -	3.07E+00	- - -	3.07E+00	b
Zirconium	7440-67-7	- - -	- - -	- - -	- - -	
Dioxins/Dibenzofurans						
1,2,3,4,6,7,8-HpCDD	35822-46-9	- - -	- - -	- - -	- - -	
1,2,3,4,6,7,8-HpCDF	67562-39-4	- - -	- - -	- - -	- - -	
1,2,3,4,7,8,9-HpCDF	55673-89-7	- - -	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDD	39227-28-6	- - -	- - -	- - -	- - -	
1,2,3,4,7,8-HxCDF	70648-26-9	- - -	- - -	- - -	- - -	
1,2,3,5,7,8-HxCDF	57117-44-9	- - -	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDD	57653-85-7	- - -	- - -	- - -	- - -	
1,2,3,6,7,8-HxCDF	55684-94-1	1.91E-08	- - -	- - -	1.91E-08	a
1,2,3,7,8,9-HxCDD	19408-74-3	4.62E-08	- - -	- - -	4.62E-08	a
1,2,3,7,8,9-HxCDF	72918-21-9	- - -	- - -	- - -	- - -	
1,2,3,7,8-PeCDD	40321-76-4	- - -	- - -	- - -	- - -	
1,2,3,7,8-PeCDF	57117-41-6	3.82E-09	- - -	- - -	3.82E-09	a
2,3,4,6,7,8-HxCDF	60851-34-5	- - -	- - -	- - -	- - -	

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
2,3,4,7,8-PeCDF	57117-31-4	3.82E-08	- - -	- - -	3.82E-08	a
2,3,7,8-TCDD	1746-01-6	1.91E-09	- - -	3.00E-08	1.91E-09	a
2,3,7,8-TCDF	51207-31-9	1.91E-08	- - -	- - -	1.91E-08	a
HpCDD	37871-00-4	1.91E-07	- - -	- - -	1.91E-07	a
HpCDF	38998-75-3	1.91E-07	- - -	- - -	1.91E-07	a
HxCDD	34465-46-8	1.91E-08	- - -	- - -	1.91E-08	a
OCDD	3268-87-9	1.91E-06	- - -	- - -	1.91E-06	a
OCDF	39001-02-0	1.91E-06	- - -	- - -	1.91E-06	a
PeCDD	36088-22-9	3.82E-09	- - -	- - -	3.82E-09	a
PeCDF	30402-15-4	- - -	- - -	- - -	- - -	
TCDD, Total	41903-57-5	- - -	- - -	- - -	- - -	
TCDF	30402-14-3	- - -	- - -	- - -	- - -	
Explosives						
1,3,5-Trinitrobenzene	99-35-4	- - -	3.07E-01	- - -	3.07E-01	b
1,3-Dinitrobenzene	99-65-0	- - -	1.02E-03	- - -	1.02E-03	b
2,4,6-Trinitrotoluene	118-96-7	9.54E-03	5.11E-03	- - -	5.11E-03	b
2-Amino-4,6-Dinitrotoluene	35572-78-2	- - -	- - -	- - -	- - -	
HMX	2691-41-0	- - -	5.11E-01	- - -	5.11E-01	b
Nitroglycerin	55-63-0	- - -	- - -	- - -	- - -	
PETN	78-11-5	- - -	- - -	- - -	- - -	
RDX	121-82-4	2.60E-03	3.07E-02	- - -	2.60E-03	a
Tetryl	479-45-8	- - -	1.02E-01	- - -	1.02E-01	b
Pesticides and/or PCBs						
4,4'-DDD	72-54-8	1.19E-03	- - -	- - -	1.19E-03	a
4,4'-DDE	72-55-9	8.42E-04	- - -	- - -	8.42E-04	a
4,4'-DDT	50-29-3	8.42E-04	5.11E-03	- - -	8.42E-04	a
Aldrin	309-00-2	1.68E-05	3.07E-04	- - -	1.68E-05	a
Alpha Chlordane	5103-71-9	- - -	- - -	- - -	- - -	
Alpha-BHC	319-84-6	4.54E-05	- - -	- - -	4.54E-05	a
Aroclor-1016	12674-11-2	1.43E-04	7.15E-04	- - -	1.43E-04	a
Aroclor-1221	11104-28-2	1.43E-04	- - -	- - -	1.43E-04	a
Aroclor-1232	11141-16-5	1.43E-04	- - -	- - -	1.43E-04	a
Aroclor-1242	53469-21-9	1.43E-04	- - -	- - -	1.43E-04	a
Aroclor-1248	12672-29-6	1.43E-04	- - -	- - -	1.43E-04	a
Aroclor-1254	11097-69-1	1.43E-04	2.04E-04	- - -	1.43E-04	a

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Aroclor-1260	11096-82-5	1.43E-04	- - -	- - -	1.43E-04	a
Beta-BHC	319-85-7	1.59E-04	- - -	- - -	1.59E-04	a
Chlordane	57-74-9	- - -	- - -	2.00E-03	2.00E-03	c
Delta-BHC	319-86-8	- - -	- - -	- - -	- - -	
Dieldrin	60-57-1	1.79E-05	5.11E-04	- - -	1.79E-05	a
Endosulfan I	959-98-8	- - -	- - -	- - -	- - -	
Endosulfan II	33213-65-9	- - -	- - -	- - -	- - -	
Endosulfan Sulfate	1031-07-8	- - -	- - -	- - -	- - -	
Endrin	72-20-8	- - -	3.07E-03	2.00E-03	2.00E-03	c
Endrin Aldehyde	7421-93-4	- - -	- - -	- - -	- - -	
Endrin Ketone	53494-70-5	- - -	- - -	- - -	- - -	
Gamma Chlordane	5103-74-2	- - -	- - -	- - -	- - -	
Gamma-BHC (Lindane)	58-89-9	2.20E-04	3.07E-03	2.00E-04	2.00E-04	c
Heptachlor	76-44-8	6.36E-05	5.11E-03	4.00E-04	6.36E-05	a
Heptachlor Epoxide	1024-57-3	3.14E-05	1.33E-04	2.00E-04	3.14E-05	a
Methoxychlor	72-43-5	- - -	5.11E-02	4.00E-02	4.00E-02	c
Polychlorinated Biphenyls (PCBs)	1336-36-3	1.43E-04	2.04E-04	5.00E-04	1.43E-04	a
Toxaphene	8001-35-2	2.60E-04	- - -	3.00E-03	2.60E-04	a
Semi-Volatile Organics						
1,2,4-Trichlorobenzene	120-82-1	- - -	1.02E-01	7.00E-02	7.00E-02	c
1,2-Dichlorobenzene	95-50-1	- - -	9.20E-01	6.00E-01	6.00E-01	c
1,2-Diphenylhydrazine	122-66-7	3.58E-04	- - -	- - -	3.58E-04	a
1,3-Dichlorobenzene	541-73-1	- - -	3.07E-01	- - -	3.07E-01	b
1,4-Dichlorobenzene	106-46-7	1.19E-02	- - -	7.50E-02	1.19E-02	a
2,2'-oxybis(1-chloropropane)	108-60-1	4.09E-03	4.09E-01	- - -	4.09E-03	a
2,4,5-Trichlorophenol	95-95-4	- - -	1.02E+00	- - -	1.02E+00	b
2,4,6-Trichlorophenol	88-06-2	2.60E-02	- - -	- - -	2.60E-02	a
2,4-Dichlorophenol	120-83-2	- - -	3.07E-02	- - -	3.07E-02	b
2,4-Dimethylphenol	105-67-9	- - -	2.04E-01	- - -	2.04E-01	b
2,4-Dinitrophenol	51-28-5	- - -	2.04E-02	- - -	2.04E-02	b
2,4-Dinitrotoluene	121-14-2	4.21E-04	2.04E-02	- - -	4.21E-04	a
2,6-Dinitrotoluene	606-20-2	4.21E-04	1.02E-02	- - -	4.21E-04	a
2-Benzyl-4-Chlorophenol	120-32-1	- - -	- - -	- - -	- - -	
2-Chloronaphthalene	91-58-7	- - -	8.18E-01	- - -	8.18E-01	b
2-Chlorophenol	95-57-8	- - -	5.11E-02	- - -	5.11E-02	b

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
2-Methylnaphthalene	91-57-6	- - -	4.09E-02	- - -	4.09E-02	b
2-Methylphenol	95-48-7	- - -	5.11E-01	- - -	5.11E-01	b
2-Nitroaniline	88-74-4	- - -	3.07E-03	- - -	3.07E-03	b
2-Nitrophenol	88-75-5	- - -	- - -	- - -	- - -	
3,3'-Dichlorobenzidine	91-94-1	6.36E-04	- - -	- - -	6.36E-04	a
3-Nitroaniline	99-09-2	7.53E-03	3.07E-03	- - -	3.07E-03	b
4,6-Dinitro-o-Cresol	534-52-1	- - -	- - -	- - -	- - -	
4-Bromophenyl-phenyl Ether	101-55-3	- - -	- - -	- - -	- - -	
4-Chloro-3-Methylphenol	59-50-7	- - -	- - -	- - -	- - -	
4-Chloroaniline	106-47-8	- - -	4.09E-02	- - -	4.09E-02	b
4-Chlorophenyl-Phenylether	7005-72-3	- - -	- - -	- - -	- - -	
4-Methylphenol	106-44-5	- - -	5.11E-02	- - -	5.11E-02	b
4-Nitroaniline	100-01-6	7.53E-03	3.07E-02	- - -	7.53E-03	a
4-Nitrophenol	100-02-7	- - -	- - -	- - -	- - -	
Acenaphthene	83-32-9	- - -	6.13E-01	- - -	6.13E-01	b
Acenaphthylene	208-96-8	- - -	- - -	- - -	- - -	
Anthracene	120-12-7	- - -	3.07E+00	- - -	3.07E+00	b
Benzidine	92-87-5	1.24E-06	3.07E-02	- - -	1.24E-06	a
Benzo(a)anthracene	56-55-3	3.92E-04	- - -	- - -	3.92E-04	a
Benzo(a)pyrene	50-32-8	3.92E-05	- - -	2.00E-04	3.92E-05	a
Benzo(b)fluoranthene	205-99-2	3.92E-04	- - -	- - -	3.92E-04	a
Benzo(g,h,i)perylene	191-24-2	- - -	- - -	- - -	- - -	
Benzo(k)fluoranthene	207-08-9	3.92E-03	- - -	- - -	3.92E-03	a
Benzoic Acid	65-85-0	- - -	4.09E+01	- - -	4.09E+01	b
Benzyl Alcohol	100-51-6	- - -	3.07E+00	- - -	3.07E+00	b
Bis(2-chloroethoxy)methane	111-91-1	- - -	- - -	- - -	- - -	
Bis(2-chloroethyl)ether	111-44-4	2.60E-04	- - -	- - -	2.60E-04	a
Bis(2-ethylhexyl)phthalate	117-81-7	2.04E-02	2.04E-01	6.00E-03	6.00E-03	c
Butyl Benzyl Phthalate	85-68-7	- - -	2.04E+00	- - -	2.04E+00	b
Carbazole	86-74-8	1.43E-02	- - -	- - -	1.43E-02	a
Chrysene	218-01-9	3.92E-02	- - -	- - -	3.92E-02	a
Di-n-butyl Phthalate	84-74-2	- - -	1.02E+00	- - -	1.02E+00	b
Di-n-octyl Phthalate	117-84-0	- - -	2.04E-01	- - -	2.04E-01	b
Dibenz(a,h)anthracene	53-70-3	3.92E-05	- - -	- - -	3.92E-05	a
Dibenzofuran	132-64-9	- - -	4.09E-02	- - -	4.09E-02	b

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Diethyl Phthalate	84-66-2	- - -	8.18E+00	- - -	8.18E+00	b
Dimethyl Phthalate	131-11-3	- - -	- - -	- - -	- - -	
Fluoranthene	206-44-0	- - -	4.09E-01	- - -	4.09E-01	b
Fluorene	86-73-7	- - -	4.09E-01	- - -	4.09E-01	b
Hexachlorobenzene	118-74-1	1.79E-04	8.18E-03	1.00E-03	1.79E-04	a
Hexachlorobutadiene	87-68-3	3.67E-03	2.04E-03	- - -	2.04E-03	b
Hexachlorocyclopentadiene	77-47-4	- - -	6.13E-02	5.00E-02	5.00E-02	c
Hexachloroethane	67-72-1	2.04E-02	1.02E-02	- - -	1.02E-02	b
Indeno(1,2,3-cd)pyrene	193-39-5	3.92E-04	- - -	- - -	3.92E-04	a
Isophorone	78-59-1	3.01E-01	2.04E+00	- - -	3.01E-01	a
N-Nitroso-di-n-propylamine	621-64-7	4.09E-05	- - -	- - -	4.09E-05	a
N-Nitrosodimethylamine	62-75-9	5.61E-06	- - -	- - -	5.61E-06	a
N-Nitrosodiphenylamine	86-30-6	5.84E-02	- - -	- - -	5.84E-02	a
Naphthalene	91-20-3	- - -	2.04E-01	- - -	2.04E-01	b
Nitrobenzene	98-95-3	- - -	5.11E-03	- - -	5.11E-03	b
Pentachlorophenol	87-86-5	2.38E-03	3.07E-01	1.00E-03	1.00E-03	c
Phenanthrene	85-01-8	- - -	- - -	- - -	- - -	
Phenol	108-95-2	- - -	6.13E+00	- - -	6.13E+00	b
Pyrene	129-00-0	- - -	3.07E-01	- - -	3.07E-01	b
Pyridine	110-86-1	- - -	1.02E-02	- - -	1.02E-02	b
Tributyl phosphate	126-73-8	- - -	- - -	- - -	- - -	
Volatile Organics						
1,1,1,2-Tetrachloroethane	630-20-6	1.10E-02	3.07E-01	- - -	1.10E-02	a
1,1,1-Trichloroethane	71-55-6	- - -	2.86E+00	2.00E-01	2.00E-01	c
1,1,2,2-Tetrachloroethane	79-34-5	1.43E-03	- - -	- - -	1.43E-03	a
1,1,2-Trichloroethane	79-00-5	5.02E-03	4.09E-02	5.00E-03	5.00E-03	c
1,1-Dichloroethane	75-34-3	- - -	1.02E+00	- - -	1.02E+00	b
1,1-Dichloroethene	75-35-4	- - -	5.11E-01	7.00E-03	7.00E-03	c
1,1-Dichloropropene	563-58-6	- - -	- - -	- - -	- - -	
1,2,3-Trichlorobenzene	87-61-6	- - -	- - -	- - -	- - -	
1,2,3-Trichloropropane	96-18-4	4.09E-05	6.13E-02	- - -	4.09E-05	a
1,2,4-Trimethylbenzene	95-63-6	- - -	5.11E-01	- - -	5.11E-01	b
1,2-Dibromo-3-Chloropropane	96-12-8	2.04E-04	- - -	2.00E-04	2.00E-04	c
1,2-Dichloroethane	107-06-2	3.14E-03	- - -	5.00E-03	3.14E-03	a
1,2-Dichloroethene	540-59-0	- - -	- - -	- - -	- - -	

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
1,2-Dichloropropane	78-87-5	4.21E-03	- - -	5.00E-03	4.21E-03	a
1,2-Diethylbenzene	135-01-3	- - -	- - -	- - -	- - -	
1,2-cis-Dichloroethene	156-59-2	- - -	1.02E-01	7.00E-02	7.00E-02	c
1,2-trans-Dichloroethene	156-60-5	- - -	2.04E-01	1.00E-01	1.00E-01	c
1,3,5-Trimethylbenzene	108-67-8	- - -	5.11E-01	- - -	5.11E-01	b
1,3-Dichloropropane	142-28-9	- - -	- - -	- - -	- - -	
1,3-Diethylbenzene	141-93-5	- - -	- - -	- - -	- - -	
1,3-cis-Dichloropropene	10061-01-5	- - -	- - -	- - -	- - -	
1,3-trans-Dichloropropene	10061-02-6	- - -	- - -	- - -	- - -	
1,4-Diethylbenzene	105-05-5	- - -	- - -	- - -	- - -	
1-Chlorohexane	544-10-5	- - -	- - -	- - -	- - -	
2,2-Dichloropropane	594-20-7	- - -	- - -	- - -	- - -	
2-Butanone	78-93-3	- - -	6.13E+00	- - -	6.13E+00	b
2-Chloroethylvinylether	110-75-8	- - -	- - -	- - -	- - -	
2-Chlorotoluene	95-49-8	- - -	2.04E-01	- - -	2.04E-01	b
2-Hexanone	591-78-6	- - -	- - -	- - -	- - -	
4-Chlorotoluene	106-43-4	- - -	- - -	- - -	- - -	
4-Methyl-2-pentanone	108-10-1	- - -	- - -	- - -	- - -	
Acetone	67-64-1	- - -	9.20E+00	- - -	9.20E+00	b
Acetonitrile	75-05-8	- - -	- - -	- - -	- - -	
Acrylonitrile	107-13-1	5.30E-04	1.02E-02	- - -	5.30E-04	a
Benzene	71-43-2	5.20E-03	4.09E-02	5.00E-03	5.00E-03	c
Benzyl Chloride	100-44-7	1.68E-03	- - -	- - -	1.68E-03	a
Bromochloromethane	74-97-5	- - -	- - -	- - -	- - -	
Bromodichloromethane	75-27-4	4.62E-03	2.04E-01	- - -	4.62E-03	a
Bromoform	75-25-2	3.62E-02	2.04E-01	- - -	3.62E-02	a
Bromomethane	74-83-9	- - -	1.43E-02	- - -	1.43E-02	b
Carbon Disulfide	75-15-0	- - -	1.02E+00	- - -	1.02E+00	b
Carbon Tetrachloride	56-23-5	2.20E-03	7.15E-03	- - -	2.20E-03	a
Chlorobenzene	108-90-7	- - -	2.04E-01	1.00E-01	1.00E-01	c
Chloroethane	75-00-3	- - -	4.09E+00	- - -	4.09E+00	b
Chloroform (Trichloromethane)	67-66-3	- - -	1.02E-01	- - -	1.02E-01	b
Chloromethane	74-87-3	2.20E-02	- - -	- - -	2.20E-02	a
Chlorotoluene	25168-05-2	- - -	- - -	- - -	- - -	
Dibromochloromethane	124-48-1	3.41E-03	2.04E-01	- - -	3.41E-03	a

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Dibromomethane	74-95-3	- - -	- - -	- - -	- - -	
Dichlorodifluoromethane	75-71-8	- - -	2.04E+00	- - -	2.04E+00	b
Dichloromethane (Methylene Chloride)	75-09-2	3.82E-02	6.13E-01	5.00E-03	5.00E-03	c
Ethylbenzene	100-41-4	- - -	1.02E+00	7.00E-01	7.00E-01	c
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	3.37E-06	- - -	5.00E-05	3.37E-06	a
Fluorobenzene	462-06-6	- - -	- - -	- - -	- - -	
FREON-113	76-13-1	- - -	3.07E+02	- - -	3.07E+02	b
Hexane	110-54-3	- - -	6.13E-01	- - -	6.13E-01	b
Iodomethane	74-88-4	- - -	- - -	- - -	- - -	
Isopropyl Benzene	98-82-8	- - -	1.02E+00	- - -	1.02E+00	b
O-Chloroflurobenzene	348-51-6	- - -	- - -	- - -	- - -	
Monobromobenzene (Phenyl bromide)	108-86-1	- - -	- - -	- - -	- - -	
Styrene	100-42-5	- - -	2.04E+00	1.00E-01	1.00E-01	c
Tetrachloroethene	127-18-4	5.50E-03	1.02E-01	5.00E-03	5.00E-03	c
Toluene	108-88-3	- - -	2.04E+00	1.00E+00	1.00E+00	c
Total VOC's	TVOC	- - -	- - -	- - -	- - -	
Trichloroethene	79-01-6	2.20E-02	5.11E+00	5.00E-03	5.00E-03	c
Trichlorofluoromethane	75-69-4	- - -	3.07E+00	- - -	3.07E+00	b
Vinyl Acetate	108-05-4	- - -	1.02E+01	- - -	1.02E+01	b
Vinyl Chloride	75-01-4	1.91E-04	3.07E-02	2.00E-03	1.91E-04	a
Xylenes, Total	1330-20-7	- - -	2.04E+00	1.00E+01	2.04E+00	b
m-Xylene	108-38-3	- - -	2.04E+01	- - -	2.04E+01	b
mp-Xylene	mp-Xylene	- - -	- - -	- - -	1.00E+01	c
n-Butylbenzene	104-51-8	- - -	4.09E-01	- - -	4.09E-01	b
n-propylbenzene	103-65-1	- - -	4.09E-01	- - -	4.09E-01	b
o-Xylene	95-47-6	- - -	2.04E+01	- - -	2.04E+01	b
p-Isopropyltoluene	99-87-6	- - -	- - -	- - -	- - -	
p-Xylene	106-42-3	- - -	2.04E+01	- - -	2.04E+01	b
sec-Butylbenzene	135-98-8	- - -	4.09E-01	- - -	4.09E-01	b
tert-Butylbenzene	98-06-6	- - -	4.09E-01	- - -	4.09E-01	b
Radiological						
Actinium-227	14952-40-0				7.96E-01	
Actinium-227 +D	14952-40-0(+D)				3.29E-01	
Actinium-227 long lived decay	14952-40-0L				3.29E-01	
Actinium-228	14331-83-0				8.04E+01	

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Americium-241	14596-10-2				1.54E+00	
Antimony-124	14683-10-4				1.24E+01	
Antimony-125	14234-35-6				3.66E+01	
Antimony-125+D	14234-35-6(+D)				3.12E+01	
Barium-133	13981-41-4				2.35E+01	
Barium-133m	13981-41-4m				5.02E+01	
Barium-140	14798-08-4				1.07E+01	
Beryllium-7	13966-02-4				1.85E+03	
Bismuth-207	13982-38-2				2.83E+01	
Bismuth-210	14331-79-4				1.79E+01	
Bismuth-210m	14331-79-4m				2.90E+00	
Bismuth-211	15229-37-5				- - -	
Bismuth-212	14913-49-6				2.25E+02	
Bismuth-214	14733-03-0				8.33E+02	
Cerium-139	CE-139				- - -	
Cerium-141	13967-74-3				3.46E+01	
Cerium-144	14762-78-8				4.55E+00	
Cerium-144+D	14762-78-8(+D)				4.53E+00	
Cesium-134	13967-70-9				3.79E+00	
Cesium-134m	13967-70-9m				3.86E+03	
Cesium-137	10045-97-3				5.26E+00	
Cesium-137 +D	10045-97-3(+D)				5.26E+00	
Cesium-137 long lived decay	10045-97-3L				5.26E+00	
Chromium-51	14392-02-0				8.65E+02	
Cobalt-57	13981-50-5				1.54E+02	
Cobalt-58	13981-38-9				5.42E+01	
Cobalt-58m	13981-38-9m				1.27E+03	
Cobalt-60	10198-40-0				1.02E+01	
Cobalt-60m	10198-40-0m				6.02E+04	
Curium-244	13981-15-2				1.91E+00	
Europium-152	14683-23-9				2.64E+01	
Europium-152m	14683-23-9m				5.37E+01	
Europium-154	15585-10-1				1.55E+01	
Europium-155	14391-16-3				8.42E+01	
Iodine-131	24267-56-9				- - -	

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Iridium-192	12154-84-6				- - -	
Iron-59	14596-12-4				2.03E+01	
Lanthanum-140	13981-28-7				1.45E+01	
Lead-210	14255-04-0				1.82E-01	
Lead-210+D	14255-04-0(+D)				1.26E-01	
Lead-210 long lived decay	14255-04-0L				1.26E-01	
Lead-212	15092-94-1				6.40E+00	
Lead-214	15067-28-4				4.65E+02	
Manganese-54	13966-31-9				7.02E+01	
Mercury-203	13982-78-0				2.81E+01	
Neptunium-237	13994-20-2				2.59E+00	
Neptunium-237+D	13994-20-2(+D)				2.37E+00	
Niobium-95	13967-76-5				6.53E+01	
Niobium-95m	13967-76-5m				4.37E+01	
Plutonium-238	13981-16-3				1.22E+00	
Plutonium-238/239	PU-238/239				1.19E+00	
Plutonium-239	15117-48-3				1.19E+00	
Plutonium-239/240	PU-239/240				1.19E+00	
Plutonium-241	14119-32-5				9.09E+01	
Plutonium-242	13982-10-0				1.25E+00	
Polonium-210	13981-52-7				4.24E-01	
Potassium-40	13966-00-2				6.48E+00	
Protactinium-231	14331-85-2				9.25E-01	
Protactinium-231 long lived decay	14331-85-2L				2.43E-01	
Protactinium-233	13981-14-1				2.88E+01	
Protactinium-234	15100-28-4				6.25E+01	
Protactinium-234m	15100-28-4m				- - -	
Radium-223	15623-45-7				6.72E-01	
Radium-224	13233-32-4				9.58E-01	
Radium-225	13981-53-8				1.40E+00	
Radium-226	13982-63-3				4.16E-01	
Radium-226+D	13982-63-3(+D)				4.15E-01	
Radium-226 long lived decay	13982-63-3L				9.66E-02	
Radium-228	15262-20-1				1.54E-01	
Radium-228+D	15262-20-1(+D)				1.54E-01	

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Radium-228 long lived decay	15262-20-1L				1.19E-01	
Ruthenium-103	13968-53-1				4.16E+01	
Ruthenium-106	13967-48-1				3.79E+00	
Ruthenium-106+D	13967-48-1(+D)				3.79E+00	
Scandium-46	13967-63-0				2.57E+01	
Silver-108m	14391-65-2m				1.97E+01	
Silver-109m	14378-38-2m				- - -	
Sodium-22	13966-32-0				1.66E+01	
Strontium-85	13967-73-2				7.08E+01	
Strontium-85m	13967-73-2m				9.58E+03	
Strontium-89	14158-27-1				1.25E+01	
Strontium-90	10098-97-2				2.86E+00	
Strontium-90+D	10098-97-2(+D)				2.16E+00	
Technetium-99	14133-76-7				5.82E+01	
Thallium-208	14913-50-9				- - -	
Thorium-227	15623-47-9				3.38E+00	
Thorium-228	14274-82-9				1.50E+00	
Thorium-228+D	14274-82-9(+D)				5.33E-01	
Thorium-228 long lived decay	14274-82-9L				5.33E-01	
Thorium-229	15594-54-4				7.14E-01	
Thorium-229+D	15594-54-4(+D)				3.03E-01	
Thorium-229 long lived decay	15594-54-4L				3.03E-01	
Thorium-230	14269-63-7				1.76E+00	
Thorium-230 long lived decay	14269-63-7L				9.16E-02	
Thorium-232	7440-29-1				1.58E+00	
Thorium-232 long lived decay	7440-29-1L				1.11E-01	
Thorium-234	15065-10-8				6.93E+00	
Tin-113	13966-06-8				3.70E+01	
Tin-126	15832-50-5				6.25E+00	
Tritium (particulate)	10028-17-8p				1.43E+03	
Tritium (water)	10028-17-8w				3.16E+03	
Uranium-232	14158-29-3				5.48E-01	
Uranium-233	13968-55-3				2.23E+00	
Uranium-233 long lived decay	13968-55-3L				2.67E-01	
Uranium-233/234	U-233/234				2.67E-01	

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Site Employee - Groundwater Exposure Pathway

Table 5.2.4		Chemical - Carcinogens (mg/L)	Chemical - Noncarcinogens 1/10 Hazard Index (mg/L)	Maximum Contaminant Level (mg/L)	Screening Values (mg/L) / GV Total (PCI/L)	
Chemical	CAS Number	10^{-6} GV Total	1/10 Hazard Index	MCL	RBGV	See Footnote
Uranium-234	13966-29-5				2.26E+00	
Uranium-235	15117-96-1				2.30E+00	
Uranium-235+D	15117-96-1(+D)				2.23E+00	
Uranium-235 long lived decay	15117-96-1L				2.19E-01	
Uranium-235/236	U-235/236				2.19E-01	
Uranium-238	7440-61-1				2.50E+00	
Uranium-238+D	7440-61-1(+D)				1.84E+00	
Uranium-238 long lived decay	7440-61-1L				8.40E-02	
Yttrium-88	7440-65-5				- - -	
Zinc-65	13982-39-3				1.37E+01	
Zirconium-95	13967-71-0				3.49E+01	

a = carcinogenic risk
b = non-carcinogenic risk
c = MCL

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
75-68-3	1-Chloro-1,1-difluoroethane (HCFC-142b)	- - -	- - -	- - -	- - -	- - -	- - -	1.100E+03	- - -	- - -
109-69-3	1-Chlorobutane	- - -	- - -	- - -	- - -	- - -	- - -	1.200E+03	- - -	- - -
532-27-4	2-Chloroacetophenone	- - -	- - -	- - -	- - -	- - -	- - -	2.600E+03	- - -	- - -
83-32-9	Acenaphthene	- - -	6.000E-02	- - -	- - -	- - -	- - -	1.800E+05	- - -	- - -
208-96-8	Acenaphthylene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-07-0	Acetaldehyde	- - -	- - -	2.200E-06	7.700E-03	9.000E-03	2.571E-03	1.300E+04	- - -	- - -
64-19-7	Acetic acid*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
67-64-1	Acetone (2-propanone)	- - -	9.000E-01	- - -	- - -	- - -	- - -	1.300E+04	- - -	- - -
75-86-5	Acetone cyanohydrin	- - -	8.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-05-8	Acetonitrile	- - -	- - -	- - -	- - -	6.000E-02	1.714E-02	2.300E+04	- - -	- - -
98-86-2	Acetophenone	- - -	1.000E-01	- - -	- - -	- - -	- - -	5.500E+04	- - -	- - -
62476-59-9	Acifluorfen, sodium	- - -	1.300E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
260-94-6	Acridine	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-02-8	Acrolein	- - -	5.000E-04	- - -	- - -	2.000E-05	5.714E-06	1.200E+04	- - -	- - -
79-06-1	Acrylamide	4.500E+00	2.000E-04	1.300E-03	4.550E+00	- - -	- - -	- - -	- - -	- - -
79-10-7	Acrylic acid (propenoic acid)	- - -	5.000E-01	- - -	- - -	1.000E-03	2.857E-04	- - -	- - -	- - -
107-13-1	Acrylonitrile	5.400E-01	1.000E-03	6.800E-05	2.380E-01	2.000E-03	5.714E-04	9.000E+03	- - -	- - -
124-04-9	Adipic acid (hexanedioic acid)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
15972-60-8	Alachlor	8.000E-02	1.000E-02	- - -	- - -	- - -	- - -	- - -	2.000E-03	mg/L
116-06-3	Aldicarb	- - -	1.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1646-88-4	Aldicarb sulfone	- - -	1.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
309-00-2	Aldrin	1.700E+01	3.000E-05	4.900E-03	1.715E+01	- - -	- - -	- - -	- - -	- - -
107-18-6	Allyl alcohol	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-05-1	Allyl chloride	- - -	1.000E-02	- - -	- - -	1.000E-03	2.857E-04	- - -	- - -	- - -
7429-90-5	Aluminum	- - -	1.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
19406-51-0	Amino-2,6-dinitrotoluene, 4-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
35572-78-2	Amino-4,6-dinitrotoluene, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
92-67-1	Aminobiphenyl, 4- (1,1-biphenyl-4-amine)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
504-24-5	Aminopyridine, 4-	- - -	2.000E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7664-41-7	Ammonia	- - -	- - -	- - -	- - -	1.000E-01	2.857E-02	- - -	- - -	- - -
7783-20-2	Ammonium sulfate*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
62-53-3	Aniline	5.700E-03	- - -	- - -	- - -	1.000E-03	2.857E-04	- - -	- - -	- - -
120-12-7	Anthracene	- - -	3.000E-01	- - -	- - -	- - -	- - -	7.000E+05	- - -	- - -
84-65-1	Anthraquinone, 9,10-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-36-0	Antimony	- - -	4.000E-04	- - -	- - -	- - -	- - -	- - -	6.000E-03	mg/L
140-57-8	Aramite	2.500E-02	5.000E-02	7.100E-06	2.485E-02	- - -	- - -	- - -	- - -	- - -
7440-38-2	Arsenic	1.500E+00	3.000E-04	4.300E-03	1.505E+01	- - -	- - -	- - -	1.000E-02	mg/L
7784-42-1	Arsine	- - -	- - -	- - -	- - -	5.000E-05	1.429E-05	- - -	- - -	- - -
1332-21-4	Asbestos	- - -	- - -	7.700E-03	2.695E+01	- - -	- - -	- - -	- - -	- - -
1912-24-9	Atrazine	2.220E-01	3.500E-02	- - -	- - -	- - -	- - -	- - -	3.000E-03	mg/L
86-50-0	Azinphos-methyl (guthion)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-39-3	Barium	- - -	7.000E-02	- - -	- - -	- - -	- - -	- - -	2.000E+00	mg/L
43121-43-3	Bayleton	- - -	3.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1861-40-1	Benefin (benfluralin)	- - -	3.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
56-55-3	Benz-a-anthracene	7.300E-01	- - -	8.800E-05	3.080E-01	- - -	- - -	- - -	- - -	- - -
100-52-7	Benzaldehyde	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
71-43-2	Benzene	5.500E-02	4.000E-03	7.800E-06	- - -	3.000E-02	- - -	2.800E+03	5.000E-03	mg/L
108-98-5	Benzenethiol	- - -	1.000E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
92-87-5	Benzidine	2.300E+02	3.000E-03	6.700E-02	2.345E+02	- - -	- - -	- - -	- - -	- - -
50-32-8	Benzo-a-pyrene	7.300E+00	- - -	8.800E-04	3.080E+00	- - -	- - -	- - -	2.000E-04	mg/L
205-99-2	Benzo-b-fluoranthene	7.300E-01	- - -	8.800E-05	3.080E-01	- - -	- - -	- - -	- - -	- - -
192-97-2	Benzo-e-pyrene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
191-24-2	Benzo-g,h,i-perylene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
65-85-0	Benzoic acid	- - -	4.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
207-08-9	Benzo-k-fluoranthene	7.300E-02	- - -	8.800E-06	3.080E-02	- - -	- - -	- - -	- - -	- - -
98-07-7	Benzotrichloride	1.300E+01	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-51-6	Benzyl alcohol	- - -	3.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-44-7	Benzyl chloride	1.700E-01	---	- - -	- - -	- - -	- - -	2.900E+04	- - -	- - -
7440-41-7	Beryllium	- - -	2.000E-03	2.400E-03	8.400E+00	2.000E-05	5.714E-06	- - -	4.000E-03	mg/L
92-52-4	Biphenyl, 1,1-	- - -	5.000E-02	- - -	- - -	- - -	- - -	1.700E+05	- - -	- - -
119-91-5	Biquinoline, 2,2'-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
111-91-1	Bis (2-chloroethoxy) methane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
111-44-4	Bis (2-chloroethyl) ether	1.100E+00	- - -	3.300E-04	1.155E+00	- - -	- - -	5.700E+04	- - -	- - -
108-60-1	Bis (2-chloroisopropyl) ether	7.000E-02	4.000E-02	1.000E-05	3.500E-02	- - -	- - -	2.200E+04	- - -	- - -
542-88-1	Bis (2-chloromethyl) ether	2.200E+02	---	6.200E-02	2.170E+02	- - -	- - -	6.700E+03	- - -	- - -
117-81-7	Bis (2-ethyl-hexyl) phthalate	1.400E-02	2.000E-02	- - -	- - -	- - -	- - -	- - -	6.000E-03	mg/L
80-05-7	Bisphenol A	- - -	5.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-42-8	Boron	- - -	9.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-86-1	Bromobenzene	- - -	- - -	- - -	- - -	- - -	- - -	6.300E+03	- - -	- - -
75-27-4	Bromodichloromethane	6.200E-02	2.000E-02	- - -	- - -	- - -	- - -	1.000E+04	- - -	- - -
75-25-2	Bromoform	7.900E-03	2.000E-02	1.100E-06	3.850E-03	- - -	- - -	- - -	- - -	- - -
74-83-9	Bromomethane	- - -	1.400E-03	---	- - -	5.000E-03	1.429E-03	1.800E+03	- - -	- - -
101-55-3	Bromophenyl phenylether, 4-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-99-0	Butadiene, 1,3-	- - -	- - -	3.000E-05	- - -	2.000E-03	- - -	9.600E+02	- - -	- - -
123-72-8	Butanal (butyraldehyde)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-92-6	Butanoic acid (butyric acid)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
71-36-3	Butanol, n-	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
123-86-4	Butyl acetate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
141-32-2	Butyl acrylate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
85-68-7	Butyl benzyl phthalate	- - -	2.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
142-96-1	Butyl ether, n- (dibutyl ether)	- - -	---	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2008-41-5	Butylate	- - -	5.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
104-51-8	Butylbenzene, n-	- - -	4.000E-02	- - -	- - -	- - -	- - -	1.100E+04	- - -	- - -
135-98-8	Butylbenzene, sec-	- - -	4.000E-02	- - -	- - -	- - -	- - -	8.300E+03	- - -	- - -
98-06-6	Butylbenzene, tert-	- - -	4.000E-02	- - -	- - -	- - -	- - -	1.000E+04	- - -	- - -
75-60-5	Cacodylic acid	- - -	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-43-9	Cadmium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	5.000E-03	mg/L
7440-43-9s	Cadmium	- - -	1.000E-03	1.800E-03	6.300E+00	- - -	- - -	- - -	5.000E-03	mg/L
7440-43-9w	Cadmium	- - -	5.000E-04	1.800E-03	6.300E+00	- - -	- - -	- - -	5.000E-03	mg/L
7440-70-2	Calcium*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
105-60-2	Caprolactam	- - -	5.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
133-06-2	Captan	3.500E-03	1.300E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
63-25-2	Carbaryl	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
86-74-8	Carbazole	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1563-66-2	Carbofuran	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	4.000E-02	mg/L
75-15-0	Carbon disulfide	- - -	1.000E-01	- - -	- - -	7.000E-01	2.000E-01	1.200E+03	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
56-23-5	Carbon tetrachloride	1.300E-01	7.000E-04	1.500E-05	5.250E-02	2.000E-03	5.714E-04	2.000E+03	- - -	- - -
55285-14-8	Carbosulfan	- - -	1.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-87-6	Chloral	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
302-17-0	Chloral hydrate (1,1-ethanediol, 2,2,2-trichl	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
133-90-4	Chloramben (amiben; 3-amino-2,5-dichlorobenzo	- - -	1.500E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
12789-03-6	Chlordane (technical)	3.500E-01	5.000E-04	1.000E-04	3.500E-01	7.000E-04	2.000E-04	- - -	- - -	- - -
5103-71-9	Chlordane, cis- (alpha chlordane)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57-74-9	Chlordane (gamma chlordane)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	2.000E-03	mg/L
470-90-6	Chlorfenvinphos	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
16887-00-6	Chloride*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7782-50-5	Chlorine	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
126-99-8	Chloro-1,3-butadiene, 2-	- - -	- - -	- - -	- - -	7.000E-03	2.000E-03	1.200E+03	- - -	- - -
127-00-4	Chloro-2-propanol, 1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
59-50-7	Chloro-3-methylphenol, 4-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-47-8	Chloroaniline, p-	- - -	4.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-90-7	Chlorobenzene	- - -	2.000E-02	- - -	- - -	6.000E-02	1.714E-02	6.300E+03	1.000E-01	mg/L
510-15-6	Chlorobenzilate	2.700E-01	2.000E-02	7.800E-05	2.730E-01	- - -	- - -	- - -	- - -	- - -
74-97-5	Chlorobromomethane (bromochloromethane)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-45-6	Chlorodifluoromethane	- - -	- - -	- - -	- - -	5.000E+01	1.429E+01	1.100E+03	- - -	- - -
75-00-3	Chloroethane (ethyl chloride)	- - -	4.000E-01	- - -	- - -	1.000E+01	2.857E+00	1.300E+03	- - -	- - -
110-75-8	Chloroethoxy ethene, 2- (2-chloroethylvinylet	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
67-66-3	Chloroform	- - -	1.000E-02	2.300E-05	8.050E-02	- - -	- - -	2.900E+03	- - -	- - -
544-10-5	Chlorohexane, 1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
74-87-3	Chloromethane (methyl chloride)	1.300E-02	- - -	1.800E-06	6.300E-03	9.000E-02	2.571E-02	1.200E+03	- - -	- - -
91-58-7	Chloronaphthalene, 2- (chloronaphthalene, bet	- - -	8.000E-02	- - -	- - -	- - -	- - -	8.000E+04	- - -	- - -
100-00-5	Chloronitrobenzene, p- (1-chloro-4-nitrobenze	1.800E-02	- - -	- - -	- - -	- - -	- - -	4.400E+04	- - -	- - -
95-57-8	Chlorophenol, 2-	- - -	5.000E-03	- - -	- - -	- - -	- - -	9.700E+03	- - -	- - -
7005-72-3	Chlorophenyl phenylether, 4-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-29-6	Chloropropane, 2-	- - -	- - -	- - -	- - -	1.000E-01	2.857E-02	4.100E+03	- - -	- - -
1897-45-6	Chlorothalonil	1.100E-02	1.500E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
95-49-8	Chlorotoluene, o- (2-chlorotoluene)	- - -	2.000E-02	- - -	- - -	- - -	- - -	5.600E+03	- - -	- - -
106-43-4	Chlorotoluene, p- (4-chlorotoluene)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2921-88-2	Chlorpyrifos	- - -	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-47-3	Chromium	- - -	1.500E+00	- - -	- - -	- - -	- - -	- - -	1.000E-01	mg/L
16065-83-1	Chromium (III) (total chromium)	- - -	1.500E+00	- - -	- - -	- - -	- - -	- - -	1.000E-01	mg/L
18540-29-9	Chromium (VI)	- - -	3.000E-03	1.200E-02	4.200E+01	1.000E-04	2.857E-05	- - -	- - -	- - -
218-01-9	Chrysene	7.300E-03	- - -	8.800E-07	3.080E-03	- - -	- - -	2.700E+06	- - -	- - -
7440-48-4	Cobalt	- - -	6.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
69418-26-4	Copolymer acrylamide	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-50-8	Copper	- - -	4.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
191-07-1	Coronene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
56-72-4	Coumaphos	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-39-4	Cresol, m- (3-methylphenol)	- - -	5.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
95-48-7	Cresol, o- (2-methylphenol)	- - -	5.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-44-5	Cresol, p- (4-methylphenol)	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
123-73-9	Crotonaldehyde	1.900E+00	- - -	- - -	- - -	- - -	- - -	1.500E+03	- - -	- - -
98-82-8	Cumene (isopropylbenzene)	- - -	1.000E-01	- - -	- - -	4.000E-01	1.143E-01	9.300E+02	- - -	- - -
21725-46-2	Cyanazine	8.400E-01	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
57-12-5	Cyanide	- - -	2.000E-02	- - -	- - -	- - -	- - -	8.100E+03	- - -	- - -
460-19-5	Cyanogen	- - -	4.000E-02	- - -	- - -	- - -	- - -	2.100E+03	- - -	- - -
506-68-3	Cyanogen bromide	- - -	- - -	- - -	- - -	- - -	- - -	2.100E+03	- - -	- - -
506-77-4	Cyanogen chloride	- - -	- - -	- - -	- - -	- - -	- - -	2.100E+03	- - -	- - -
110-82-7	Cyclohexane	- - -	- - -	- - -	- - -	6.000E+00	- - -	1.100E+03	- - -	- - -
108-93-0	Cyclohexanol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-94-1	Cyclohexanone	- - -	5.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2691-41-0	Cyclotetramethylenetetranitramine (HMX)	- - -	5.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
121-82-4	Cyclotrimethylenetrinitramine (RDX)	1.100E-01	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
99-87-6	Cymene (isopropyltoluene)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1861-32-1	Dacthal (DCPA)	- - -	1.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-99-0	Dalapon, sodium salt (2,2-dichloropropanoic a	- - -	3.000E-02	- - -	- - -	- - -	- - -	- - -	2.000E-01	mg/L
72-54-8	DDD	2.400E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
72-55-9	DDE	3.400E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
50-29-3	DDT	3.400E-01	5.000E-04	9.700E-05	3.395E-01	- - -	- - -	- - -	- - -	- - -
123-42-2	Diacetone alcohol (4-hydroxy-4-methyl-2-penta	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2303-16-4	Diallate	6.100E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
333-41-5	Diazinon	- - -	9.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
226-36-8	Dibenz-a,h-acridine	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
53-70-3	Dibenz-a,h-anthracene	7.300E+00	- - -	8.800E-04	3.080E+00	- - -	- - -	- - -	- - -	- - -
224-42-0	Dibenz-a,j-acridine	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
132-64-9	Dibenzofuran	- - -	4.000E-03	- - -	- - -	- - -	- - -	6.500E+05	- - -	- - -
132-65-0	Dibenzothiophene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
96-12-8	Dibromo-3-chloropropane, 1,2-	1.400E+00	- - -	6.900E-07	2.415E-03	2.000E-04	5.714E-05	2.500E+04	2.000E-04	mg/L
124-48-1	Dibromochloromethane (chlorodibromomethane)	8.400E-02	2.000E-02	- - -	- - -	- - -	- - -	1.600E+04	- - -	- - -
1918-00-9	Dicamba	- - -	3.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
764-41-0	Dichloro-2-butene, 1,4-	- - -	- - -	2.600E-03	9.100E+00	- - -	- - -	1.200E+04	- - -	- - -
110-57-6	Dichloro-2-butene, 1,4- trans	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
95-50-1	Dichlorobenzene, 1,2-	- - -	9.000E-02	- - -	- - -	- - -	- - -	1.200E+04	6.000E-01	mg/L
541-73-1	Dichlorobenzene, 1,3-	- - -	3.000E-02	- - -	- - -	8.000E-03	2.286E-03	1.200E+04	- - -	- - -
106-46-7	Dichlorobenzene, 1,4-	2.400E-02	- - -	- - -	- - -	8.000E-01	2.286E-01	1.300E+04	7.500E-02	mg/L
91-94-1	Dichlorobenzidine, 3,3-	4.500E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7581-97-7	Dichlorobutane, 2,3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-71-8	Dichlorodifluoromethane	- - -	2.000E-01	- - -	- - -	- - -	- - -	1.100E+03	- - -	- - -
75-34-3	Dichloroethane, 1,1-	- - -	1.000E-01	- - -	- - -	- - -	- - -	2.900E+03	- - -	- - -
107-06-2	Dichloroethane, 1,2-	9.100E-02	- - -	2.600E-05	9.100E-02	- - -	- - -	4.900E+03	5.000E-03	mg/L
75-35-4	Dichloroethylene, 1,1-	- - -	5.000E-02	5.000E-05	- - -	2.000E-01	- - -	1.500E+03	7.000E-03	mg/L
156-59-2	Dichloroethylene, cis-1,2-	- - -	1.000E-02	- - -	- - -	- - -	- - -	2.900E+03	7.000E-02	mg/L
156-60-5	Dichloroethylene, trans-1,2	- - -	2.000E-02	- - -	- - -	- - -	- - -	2.100E+03	1.000E-01	mg/L
120-83-2	Dichlorophenol, 2,4-	- - -	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
87-65-0	Dichlorophenol, 2,6-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
94-82-6	Dichlorophenoxy, 2,4- butyric acid, 4- (2,4-D	- - -	8.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
94-75-7	Dichlorophenoxyacetic acid, 2,4- (2,4-D)	- - -	1.000E-02	- - -	- - -	- - -	- - -	- - -	7.000E-02	mg/L
120-36-5	Dichloroprop (2-(2,4-dichlorophenoxy) propano	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
78-87-5	Dichloropropane, 1,2-	6.800E-02	- - -	- - -	- - -	4.000E-03	1.143E-03	3.700E+03	5.000E-03	mg/L
142-28-9	Dichloropropane, 1,3-	- - -	- - -	- - -	- - -	- - -	- - -	1.600E+03	- - -	- - -
594-20-7	Dichloropropane, 2,2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
616-23-9	Dichloropropanol, 2,3-	- - -	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
563-58-6	Dichloropropene, 1,1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
542-75-6	Dichloropropene, 1,3- (mixed isomers)	1.000E-01	3.000E-02	4.000E-06	1.400E-02	2.000E-02	5.714E-03	- - -	- - -	- - -
10061-01-5	Dichloropropene, cis 1,3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
10061-02-6	Dichloropropene, trans 1,3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
62-73-7	Dichlorvos	2.900E-01	5.000E-04	- - -	- - -	5.000E-04	1.429E-04	- - -	- - -	- - -
141-66-2	Dicrotophos (bidrin)	- - -	1.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
77-73-6	Dicyclopentadiene	- - -	3.000E-02	- - -	- - -	- - -	- - -	6.100E+03	- - -	- - -
60-57-1	Dieldrin	1.600E+01	5.000E-05	4.600E-03	1.610E+01	- - -	- - -	- - -	- - -	- - -
111-42-2	Diethanolamine	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
84-66-2	Diethyl phthalate	- - -	8.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
112-34-5	Diethylene glycol monobutyl ether	- - -	- - -	- - -	- - -	2.000E-02	5.714E-03	- - -	- - -	- - -
103-23-1	Diethylhexyl adipate	1.200E-03	6.000E-01	- - -	- - -	- - -	- - -	- - -	4.000E-01	mg/L
56-53-1	Diethylstilbestrol	4.700E+03	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-39-1	Diisobutylene (trimethyl-1-pentene, 2,4,4-)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-20-3	Diisopropyl ether (2,2'-oxybis-propane)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
87674-68-8	Dimethenamid	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
60-51-5	Dimethoate	- - -	2.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
119-90-4	Dimethoxybenzidine, 3,3'-	1.400E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
105-67-9	Dimethyl phenol, 2,4-	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
124-40-3	Dimethylamine	- - -	- - -	- - -	- - -	- - -	- - -	8.800E+03	- - -	- - -
57-97-6	Dimethylbenz-a-anthracene, 7,12-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
119-93-7	Dimethylbenzidine, 3,3'-	9.200E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
575-41-7	Dimethylnaphthalene, 1,3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
131-11-3	Dimethylphthalate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
84-74-2	Di-n-butyl phthalate	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
534-52-1	Dinitro-2-methylphenol, 4,6- (dinitro-o-creso	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
99-65-0	Dinitrobenzene, 1,3- (dinitrobenzene, 2,4-)	- - -	1.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-25-4	Dinitrobenzene, 1,4-	- - -	4.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
51-28-5	Dinitrophenol, 2,4-	- - -	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
121-14-2	Dinitrotoluene, 2,4-	6.800E-01	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
606-20-2	Dinitrotoluene, 2,6-	6.800E-01	1.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
117-84-0	Di-n-octyl phthalate	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
88-85-7	Dinoseb	- - -	1.000E-03	- - -	- - -	- - -	- - -	- - -	7.000E-03	mg/L
123-91-1	Dioxane 1,4-	1.100E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
122-39-4	Diphenylamine	- - -	2.500E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
122-66-7	Diphenylhydrazine, 1,2-	8.000E-01	- - -	2.200E-04	7.700E-01	- - -	- - -	- - -	- - -	- - -
85-00-7	Diquat	- - -	2.200E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
298-04-4	Disulfoton	- - -	4.000E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -
330-54-1	Diuron	- - -	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
115-29-7	Endosulfan	- - -	6.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
959-98-8	Endosulfan I	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
33213-65-9	Endosulfan II	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1031-07-8	Endosulfan sulfate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
145-73-3	Endothall	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	1.000E-01	mg/L
72-20-8	Endrin	- - -	3.000E-04	- - -	- - -	- - -	- - -	- - -	2.000E-03	mg/L
7421-93-4	Endrin aldehyde	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-89-8	Epichlorohydrin	9.900E-03	2.000E-03	1.200E-06	4.200E-03	1.000E-03	2.857E-04	1.800E+04	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
2104-64-5	EPN (o-ethyl o-(4-nitrophenyl)phenylphosphono	- - -	1.000E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -
66230-04-4	Esfenvalerate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
55283-68-6	Ethalfluralin (sonolan)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
64-17-5	Ethanol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
563-12-2	Ethion	- - -	5.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
110-80-5	Ethoxy ethanol, 2-	- - -	4.000E-01	- - -	- - -	2.000E-01	5.714E-02	- - -	- - -	- - -
141-78-6	Ethyl acetate	- - -	9.000E-01	- - -	- - -	- - -	- - -	1.800E+04	- - -	- - -
140-88-5	Ethyl acrylate	4.800E-02	- - -	- - -	- - -	- - -	- - -	1.500E+03	- - -	- - -
100-41-4	Ethyl benzene	- - -	1.000E-01	- - -	- - -	1.000E+00	2.857E-01	4.200E+03	7.000E-01	mg/L
759-94-4	Ethyl dipropylthiocarbamate, S-	- - -	2.500E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
60-29-7	Ethyl ether	- - -	2.000E-01	- - -	- - -	- - -	- - -	3.800E+04	- - -	- - -
97-63-2	Ethyl methacrylate	- - -	9.000E-02	- - -	- - -	- - -	- - -	1.500E+03	- - -	- - -
637-92-3	Ethyl tert-butyl ether (2-ethyl-2-ethoxypropa	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
104-76-7	Ethyl-1-hexanol, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
645-62-5	Ethyl-2-hexenal, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
611-14-3	Ethyl-2-methyl benzene, 1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
622-96-8	Ethyl-4-methyl benzene, 1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-93-4	Ethylene dibromide (dibromoethane, 1,2-)	8.500E+01	- - -	2.200E-04	7.700E-01	2.000E-04	5.714E-05	9.200E+03	5.000E-05	mg/L
107-21-1	Ethylene glycol	- - -	2.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-21-8	Ethylene oxide	1.020E+00	- - -	1.000E-04	3.500E-01	- - -	- - -	9.400E+03	- - -	- - -
96-45-7	Ethylene thiourea	1.100E-01	8.000E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-15-3	Ethylenediamine	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
52-85-7	Famphur	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
206-44-0	Fluoranthene	- - -	4.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
86-73-7	Fluorene	- - -	4.000E-02	- - -	- - -	- - -	- - -	2.700E+05	- - -	- - -
7782-41-4	Fluorine (soluble fluoride)	- - -	6.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
50-00-0	Formaldehyde	- - -	2.000E-01	1.300E-05	4.550E-02	- - -	- - -	- - -	- - -	- - -
64-18-6	Formic acid	- - -	2.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
110-00-9	Furan	- - -	1.000E-03	- - -	- - -	- - -	- - -	1.700E+03	- - -	- - -
98-01-1	Furfural	- - -	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
765-34-4	Glycidylaldehyde	- - -	4.000E-04	- - -	- - -	1.000E-03	2.857E-04	- - -	- - -	- - -
76-44-8	Heptachlor	4.500E+00	5.000E-04	1.300E-03	4.550E+00	- - -	- - -	- - -	4.000E-04	mg/L
1024-57-3	Heptachlor epoxide	9.100E+00	1.300E-05	2.600E-03	9.100E+00	- - -	- - -	- - -	2.000E-04	mg/L
118-74-1	Hexachlorobenzene	1.600E+00	8.000E-04	4.600E-04	1.610E+00	- - -	- - -	- - -	1.000E-03	mg/L
87-68-3	Hexachlorobutadiene	7.800E-02	2.000E-04	2.200E-05	7.700E-02	- - -	- - -	- - -	- - -	- - -
319-84-6	Hexachlorocyclohexane, alpha (alpha-BHC)	6.300E+00	- - -	1.800E-03	6.300E+00	- - -	- - -	- - -	- - -	- - -
319-85-7	Hexachlorocyclohexane, beta (beta-BHC)	1.800E+00	- - -	5.300E-04	1.855E+00	- - -	- - -	- - -	- - -	- - -
319-86-8	Hexachlorocyclohexane, delta (delta-BHC)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
58-89-9	Hexachlorocyclohexane, gamma (lindane; gamma-	1.300E+00	3.000E-04	- - -	- - -	- - -	- - -	- - -	2.000E-04	mg/L
608-73-1	Hexachlorocyclohexane, techn (technical-BHC)	1.800E+00	- - -	5.100E-04	1.785E+00	- - -	- - -	- - -	- - -	- - -
77-47-4	Hexachlorocyclopentadiene (HCCPD)	- - -	6.000E-03	- - -	- - -	2.000E-04	5.714E-05	- - -	5.000E-02	mg/L
67-72-1	Hexachloroethane	1.400E-02	1.000E-03	4.000E-06	1.400E-02	- - -	- - -	- - -	- - -	- - -
70-30-4	Hexachlorophene	- - -	3.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
110-54-3	Hexane, n-	- - -	6.000E-02	- - -	- - -	2.000E-01	5.714E-02	1.400E+03	- - -	- - -
629-11-8	Hexanediol, 1,6-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
142-62-1	Hexanoic acid	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
591-78-6	Hexanone, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
51235-04-2	Hexazinone	- - -	3.300E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
107-41-5	Hexylene glycol (2-methyl-2,4-pentanediol)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
302-01-2	Hydrazine	3.000E+00	- - -	4.900E-03	1.715E+01	- - -	- - -	- - -	- - -	- - -
95-13-6	Indene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
193-39-5	Indeno-1,2,3-cd-pyrene	7.300E-01	- - -	8.800E-05	3.080E-01	- - -	- - -	- - -	- - -	- - -
7439-89-6	Iron*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
78-83-1	Isobutyl alcohol	- - -	3.000E-01	- - -	- - -	- - -	- - -	5.700E+04	- - -	- - -
115-11-7	Isobutylene (2-methyl-1-propene)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
465-73-6	Isodrin	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
78-59-1	Isophorone	9.500E-04	2.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-21-4	Isopropyl acetate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
67-63-0	Isopropyl alcohol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
120-58-1	Isosafrole	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
143-50-0	Kepone (chlordecone)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-92-1	Lead (inorganic)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
5989-27-5	Limonene, d-*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-93-2	Lithium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-95-4	Magnesium*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
121-75-5	Malathion	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-31-6	Maleic anhydride	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
123-33-1	Maleic hydrazide	- - -	5.000E-01	- - -	- - -	- - -	- - -	2.200E+03	- - -	- - -
109-77-3	Malononitrile	- - -	2.000E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-96-5	Manganese	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-96-5s	Manganese	- - -	1.400E-01	- - -	- - -	5.000E-05	1.429E-05	- - -	- - -	- - -
7439-96-5w	Manganese	- - -	4.700E-02	- - -	- - -	5.000E-05	1.429E-05	- - -	- - -	- - -
94-74-6	MCPA (4-(chloro-2-methylphenoxy) acetic acid)	- - -	5.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7085-19-0/ 93-65-2	MCPP (2-(4-chloro-2-methylphenoxy) propanoic	- - -	1.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-97-6	Mercury (pH = 4.9)	- - -	3.000E-04	- - -	- - -	3.000E-04	8.571E-05	- - -	2.000E-03	mg/L
7439-97-6	Mercury (pH = 6.8)	- - -	3.000E-04	- - -	- - -	3.000E-04	8.571E-05	- - -	2.000E-03	mg/L
79-41-4	Methacrylic acid (2-methyl-2-propenoic acid)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
126-98-7	Methacrylonitrile	- - -	1.000E-04	- - -	- - -	- - -	- - -	8.900E+03	- - -	- - -
67-56-1	Methanol	- - -	5.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
16752-77-5	Methomyl	- - -	2.500E-02	- - -	- - -	- - -	- - -	1.200E+03	- - -	- - -
72-43-5	Methoxychlor	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	4.000E-02	mg/L
109-86-4	Methoxyethanol, 2-	- - -	- - -	- - -	- - -	2.000E-02	5.714E-03	- - -	- - -	- - -
79-20-9	Methyl acetate (acetic acid, methyl ester)	- - -	1.000E+00	- - -	- - -	- - -	- - -	2.000E+04	- - -	- - -
96-33-3	Methyl acrylate	- - -	- - -	- - -	- - -	- - -	- - -	1.500E+03	- - -	- - -
3351-28-8	Methyl chrysene, 1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
3351-32-4	Methyl chrysene, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1705-85-7	Methyl chrysene, 6-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-87-2	Methyl cyclohexane	- - -	- - -	- - -	- - -	3.000E+00	8.571E-01	2.000E+03	- - -	- - -
78-93-3	Methyl ethyl ketone (2-butanone)	- - -	6.000E-01	- - -	- - -	5.000E+00	- - -	1.900E+04	- - -	- - -
74-88-4	Methyl iodide (iodomethane)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-10-1	Methyl isobutyl ketone (4-methyl-2-pentanone)	- - -	- - -	- - -	- - -	3.000E+00	- - -	2.500E+04	- - -	- - -
22967-92-6	Methyl mercury	- - -	1.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
80-62-6	Methyl methacrylate	- - -	1.400E+00	- - -	- - -	7.000E-01	2.000E-01	7.100E+03	- - -	- - -
298-00-0	Methyl parathion	- - -	2.500E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
98-83-9	Methyl styrene (alpha)	- - -	- - -	- - -	- - -	- - -	- - -	1.000E+04	- - -	- - -
7525-62-4	Methyl styrene (mixture)	- - -	- - -	- - -	- - -	- - -	- - -	1.000E+04	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
78-84-2	Methyl-1-propanal, 2- (isobutyraldehyde)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
623-36-9	Methyl-2-pentenal, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
99-55-8	Methyl-5-nitroaniline, 2- (5-nitro-o-toluidin	3.300E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
56-49-5	Methylcholanthrene, 3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
74-95-3	Methylene bromide (dibromomethane)	- - -	- - -	- - -	- - -	- - -	- - -	4.700E+03	- - -	- - -
75-09-2	Dichloromethane (Methylene Chloride)	7.500E-03	6.000E-02	4.700E-07	1.645E-03	3.000E+00	8.571E-01	2.400E+03	5.000E-03	mg/L
101-14-4	Methylene-bis (2-chloroaniline) 4,4'-	1.300E-01	7.000E-04	3.700E-05	1.295E-01	- - -	- - -	- - -	- - -	- - -
90-12-0	Methylnaphthalene, 1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
91-57-6	Methylnaphthalene, 2-	- - -	4.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
872-50-4	Methylpyrrolidone, N-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
96-47-9	Methyltetrahydrofuran, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
10141-72-7	Methyltetrahydropyran, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
51218-45-2	Metolachlor	- - -	1.500E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2212-67-1	Molinate	- - -	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-98-7	Molybdenum	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
110-91-8	Morpholine	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1634-04-4	MTBE (methyl tert-butyl ether)	- - -	- - -	- - -	- - -	3.000E+00	8.571E-01	4.700E+03	- - -	- - -
300-76-5	Naled	- - -	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
91-20-3	Naphthalene	- - -	2.000E-02	- - -	- - -	3.000E-03	8.571E-04	4.300E+04	- - -	- - -
130-15-4	Naphthoquinone, 1,4-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
134-32-7	Naphthylamine, 1-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-02-0	Nickel and compounds	- - -	2.000E-02	4.800E-04	1.680E+00	- - -	- - -	- - -	- - -	- - -
14797-55-8	Nitrate	- - -	1.600E+00	- - -	- - -	- - -	- - -	- - -	1.000E+01	mg/L
14797-65-0	Nitrite	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	1.000E+00	mg/L
88-74-4	Nitroaniline, 2-	- - -	3.000E-04	- - -	- - -	2.000E-04	5.714E-05	- - -	- - -	- - -
99-09-2	Nitroaniline, 3-	3.800E-02	3.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-01-6	Nitroaniline, 4-	3.800E-02	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
98-95-3	Nitrobenzene	- - -	5.000E-04	- - -	- - -	- - -	- - -	4.400E+04	- - -	- - -
55-63-0	Nitroglycerin	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
88-75-5	Nitrophenol, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
554-84-7	Nitrophenol, 3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-02-7	Nitrophenol, 4-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
79-46-9	Nitropropane, 2-	- - -	- - -	2.700E-03	9.450E+00	2.000E-02	5.714E-03	- - -	- - -	- - -
1116-54-7	Nitrosodiethanolamine	2.800E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
55-18-5	Nitrosodiethylamine, n-	1.500E+02	- - -	4.300E-02	1.505E+02	- - -	- - -	- - -	- - -	- - -
62-75-9	Nitrosodimethylamine, n-	5.100E+01	- - -	1.400E-02	4.900E+01	- - -	- - -	- - -	- - -	- - -
924-16-3	Nitrosodi-n-butylamine, n-	5.400E+00	- - -	1.600E-03	5.600E+00	- - -	- - -	2.600E+04	- - -	- - -
621-64-7	Nitrosodi-n-propylamine, n-	7.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
86-30-6	Nitrosodiphenylamine	4.900E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
10595-95-6	Nitroso-methyl-ethyl-amine, n-	2.200E+01	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
759-73-9	Nitroso-n-ethylurea, n-	1.400E+02	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-75-4	Nitrosopiperidine, N-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
930-55-2	Nitrosopyrrolidine, n-	2.100E+00	- - -	6.100E-04	2.135E+00	- - -	- - -	- - -	- - -	- - -
99-08-1	Nitrotoluene, m-	- - -	1.000E-02	- - -	- - -	- - -	- - -	4.400E+04	- - -	- - -
88-72-2	Nitrotoluene, o-	- - -	1.000E-02	- - -	- - -	- - -	- - -	4.400E+04	- - -	- - -
99-99-0	Nitrotoluene, p-	- - -	1.000E-02	- - -	- - -	- - -	- - -	4.400E+04	- - -	- - -
5103-73-1	Nonachlor, cis-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
39765-80-5	Nonachlor, trans-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
88-73-3	o-Chloronitrobenzene	- - -	- - -	- - -	- - -	- - -	- - -	4.400E+04	- - -	- - -
152-16-9	Octamethylpyrophosphoramide	- - -	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-68-3	Octanone	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
23135-22-0	Oxamyl	- - -	2.500E-02	- - -	- - -	- - -	- - -	- - -	2.000E-01	mg/L
27304-13-8	Oxychlordane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
56-38-2	Parathion (ethyl parathion)	- - -	6.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1114-71-2	Pebulate	- - -	5.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
40487-42-1	Pendimethalin	- - -	4.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
608-93-5	Pentachlorobenzene	- - -	8.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
76-01-7	Pentachloroethane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
82-68-8	Pentachloronitrobenzene	2.600E-01	3.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
87-86-5	Pentachlorophenol	1.200E-01	3.000E-02	- - -	- - -	- - -	- - -	- - -	1.000E-03	mg/L
111-29-5	Pentanediol, 1,5-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-87-9	Pentanone, 2-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
198-55-0	Perylene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
85-01-8	Phenanthrene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
229-87-8	Phenanthridine	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-95-2	Phenol	- - -	6.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
62-38-4	Phenyl mercuric acetate	- - -	8.000E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-45-2	Phenylene diamine, m-	- - -	3.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-50-3	Phenylene diamine, p-	- - -	1.900E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
298-02-2	Phorate	- - -	2.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2310-17-0	Phosalone	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7803-51-2	Phosphine	- - -	3.000E-04	- - -	- - -	3.000E-04	8.571E-05	- - -	- - -	- - -
7723-14-0	Phosphorus, total*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7723-14-0	Phosphorus, white	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
85-44-9	Phthalic anhydride	- - -	2.000E+00	- - -	- - -	1.200E-01	3.429E-02	- - -	- - -	- - -
1918-02-1	Picloram	- - -	- - -	- - -	- - -	- - -	- - -	- - -	5.000E-01	mg/L
109-06-8	Picoline, 2- (2-methylpyridine)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
67774-32-7	Polybrominated biphenyls (PBBs)	8.900E+00	7.000E-06	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1336-36-3	Polychlorinated biphenyls (PCBs)	2.000E+00	2.000E-05	5.700E-04	1.995E+00	- - -	- - -	- - -	5.000E-04	mg/L
7440-09-7	Potassium*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
68955-53-3	Primene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1610-18-0	Prometon (pramitol)	- - -	1.500E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
23950-58-5	Pronamide	- - -	7.500E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
123-38-6	Propanal (propionaldehyde)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2312-35-8	Propargite	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-19-7	Propargyl alcohol	- - -	2.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
139-40-2	Propazine	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
122-42-9	Propham	- - -	2.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-12-0	Propionitrile (propane nitrile)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
109-60-4	Propyl acetate, n-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
103-65-1	Propylbenzene, n-	- - -	4.000E-02	- - -	- - -	- - -	- - -	1.100E+04	- - -	- - -
57-55-6	Propylene glycol	- - -	2.000E+01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
107-98-2	Propylene glycol monomethyl ether	- - -	7.000E-01	- - -	- - -	2.000E+00	5.714E-01	- - -	- - -	- - -
75-56-9	Propylene oxide	2.400E-01	- - -	3.700E-06	1.295E-02	3.000E-02	8.571E-03	1.300E+04	- - -	- - -
6842-15-5	Propylene tetramer	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
129-00-0	Pyrene	- - -	3.000E-02	- - -	- - -	- - -	- - -	3.100E+06	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
110-86-1	Pyridine	- - -	1.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
91-22-5	Quinoline	3.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
94-59-7	Safrole	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7782-49-2	Selenium	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	5.000E-02	mg/L
630-10-4	Selenourea	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-22-4	Silver	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
122-34-9	Simazine	1.200E-01	5.000E-03	- - -	- - -	- - -	- - -	- - -	4.000E-03	mg/L
148-18-5	Sodium diethyldithiocarbamate	2.700E-01	3.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
9003-04-7	Sodium polyacrylate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-23-5	Sodium*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57-24-9	Strychnine	- - -	3.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-42-5	Styrene	- - -	2.000E-01	- - -	- - -	1.000E+00	2.857E-01	1.500E+04	1.000E-01	mg/L
14808-79-8	Sulfate*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
126-33-0	Sulfolane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7704-34-9	Sulfur*	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1746-01-6	TCDD, 2,3,7,8- (dioxin)	1.500E+05		3.30E-02b,i	1.500E+05	0.000E+00		- - -	3.000E-08	mg/L
13071-79-9	Terbufos	- - -	2.500E-05	- - -	- - -	- - -	- - -	- - -	- - -	- - -
994-05-8	Tert-amyl-methyl ether (TAME)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-65-0	Tert-butyl alcohol (2-methyl-2-propanol)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
634-90-2	Tetrachlorobenzene, 1,2,3,5-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
95-94-3	Tetrachlorobenzene, 1,2,4,5-	- - -	3.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
630-20-6	Tetrachloroethane, 1,1,1,2-	2.600E-02	3.000E-02	7.400E-06	2.590E-02	- - -	- - -	1.300E+04	- - -	- - -
79-34-5	Tetrachloroethane, 1,1,2,2-	2.000E-01	- - -	5.800E-05	2.030E-01	- - -	- - -	1.300E+04	- - -	- - -
127-18-4	Tetrachloroethylene	5.200E-02	1.000E-02	5.800E-07	2.030E-03	- - -	- - -	3.200E+03	5.000E-03	mg/L
58-90-2	Tetrachlorophenol, 2,3,4,6-	- - -	3.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
935-95-5	Tetrachlorophenol, 2,3,5,6-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
3689-24-5	Tetraethyl dithiopyrophosphate (sulfotep)	- - -	5.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
78-00-2	Tetraethyl lead	- - -	1.000E-07	- - -	- - -	- - -	- - -	- - -	- - -	- - -
109-99-9	Tetrahydrofuran	7.600E-03	2.000E-01	1.900E-06	6.650E-03	3.000E-01	8.571E-02	- - -	- - -	- - -
142-68-7	Tetrahydropyran	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-28-0	Thallium and compounds (as thallium chloride)	- - -	8.000E-05	- - -	- - -	- - -	- - -	- - -	2.000E-03	mg/L
39196-18-4	Thiofanox	- - -	3.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
297-97-2	Thionazin	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
23564-05-8	Thiophanate-methyl	- - -	8.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
137-26-8	Thiram	- - -	5.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-31-5	Tin	- - -	6.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-32-6	Titanium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-88-3	Toluene	- - -	2.000E-01	- - -	- - -	4.000E-01	1.143E-01	3.600E+03	1.000E+00	mg/L
26471-62-5	Toluene diisocyanate, 2,4/2,6-	- - -	- - -	- - -	- - -	7.000E-05	2.000E-05	- - -	- - -	- - -
95-80-7	Toluenediamine, 2,4-	3.200E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
823-40-5	Toluenediamine, 2,6-	- - -	2.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-49-0	Toluidine, p-	1.900E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
8001-35-2	Toxaphene	1.100E+00	- - -	3.200E-04	1.120E+00	- - -	- - -	- - -	3.000E-03	mg/L
93-72-1	TP Silvex, 2,4,5-	- - -	8.000E-03	- - -	- - -	- - -	- - -	- - -	5.000E-02	mg/L
2303-17-5	Triallate	- - -	1.300E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
3058-38-6	Triaminotrinitrobenzene (TATB)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
56-35-9	Tributyltin oxide	- - -	3.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
76-13-1	FREON 113	- - -	3.000E+01	- - -	- - -	3.000E+01	8.571E+00	1.600E+03	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
87-61-6	Trichlorobenzene, 1,2,3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
120-82-1	Trichlorobenzene, 1,2,4-	- - -	1.000E-02	- - -	- - -	2.000E-01	5.714E-02	4.200E+04	7.000E-02	mg/L
108-70-3	Trichlorobenzene, 1,3,5-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
71-55-6	Trichloroethane, 1,1,1-	- - -	2.800E-01	- - -	- - -	1.000E+00	2.857E-01	2.400E+03	2.000E-01	mg/L
79-00-5	Trichloroethane, 1,1,2-	5.700E-02	4.000E-03	1.600E-05	5.600E-02	- - -	- - -	7.600E+03	5.000E-03	mg/L
79-01-6	Trichloroethylene	1.300E-02	5.000E-01	2.000E-06	7.000E-03	- - -	1.700E-01	2.600E+03	5.000E-03	mg/L
75-69-4	Trichlorofluoromethane	- - -	3.000E-01	- - -	- - -	- - -	- - -	1.300E+03	- - -	- - -
95-95-4	Trichlorophenol, 2,4,5-	- - -	1.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
88-06-2	Trichlorophenol, 2,4,6-	1.100E-02	- - -	3.100E-06	1.085E-02	- - -	- - -	- - -	- - -	- - -
93-76-5	Trichlorophenoxyacetic acid, 2,4,5-	- - -	1.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
598-77-6	Trichloropropane, 1,1,2-	- - -	5.000E-03	- - -	- - -	- - -	- - -	2.000E+03	- - -	- - -
96-18-4	Trichloropropane, 1,2,3-	7.000E+00	6.000E-03	- - -	- - -	- - -	- - -	1.500E+03	- - -	- - -
102-71-6	Triethanolamine	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
121-44-8	Triethylamine	- - -	- - -	- - -	- - -	7.000E-03	2.000E-03	8.800E+03	- - -	- - -
126-68-1	Triethylphosphorothioate, O, O, O-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1582-09-8	Trifluralin	7.700E-03	7.500E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
526-73-8	Trimethylbenzene, 1,2,3-	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
95-63-6	Trimethylbenzene, 1,2,4-	- - -	5.000E-02	- - -	- - -	6.000E-03	1.714E-03	2.000E+04	- - -	- - -
108-67-8	Trimethylbenzene, 1,3,5-	- - -	5.000E-02	- - -	- - -	6.000E-03	1.714E-03	8.000E+03	- - -	- - -
99-35-4	Trinitrobenzene, 1,3,5-	- - -	3.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
479-45-8	Trinitrophenylmethylnitramine (tetryl; nitram	- - -	1.000E-02	- - -	- - -	- - -	- - -	- - -	- - -	- - -
118-96-7	Trinitrotoluene, 2,4,6-	3.000E-02	5.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-61-1	Uranium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	3.000E+01	ug/L
109-52-4	Valeric acid (pentanoic acid)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-62-2	Vanadium	- - -	7.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1929-77-7	Vernam	- - -	1.000E-03	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-05-4	Vinyl acetate	- - -	1.000E+00	- - -	- - -	2.000E-01	5.714E-02	4.800E+03	- - -	- - -
593-60-2	Vinyl bromide (bromoethene)	- - -	- - -	- - -	- - -	- - -	- - -	3.300E+03	- - -	- - -
75-01-4	Vinyl chloride	1.500E+00	3.000E-03	8.800E-06	3.080E-02	1.000E-01	2.857E-02	1.000E+03	2.000E-03	mg/L
81-81-2	Warfarin	- - -	3.000E-04	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-38-3	Xylene, m-	- - -	2.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
95-47-6	Xylene, o-	- - -	2.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-42-3	Xylene, p-	- - -	2.000E+00	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1330-20-7	Xylenes	- - -	2.000E-01	- - -	- - -	1.000E-01	- - -	4.400E+03	1.000E+01	mg/L
7440-66-6	Zinc	- - -	3.000E-01	- - -	- - -	- - -	- - -	- - -	- - -	- - -
12674-11-2	Aroclor-1016	2.00E+00	7.00E-05	5.71E-01ad	2.00E+00	- - -	- - -	- - -	- - -	- - -
11104-28-2	Aroclor-1221	2.00E+00	- - -	5.71E-01ad	2.00E+00	- - -	- - -	- - -	- - -	- - -
11141-16-5	Aroclor-1232	2.00E+00	- - -	5.71E-01ad	2.00E+00	- - -	- - -	- - -	- - -	- - -
53469-21-9	Aroclor-1242	2.00E+00	- - -	5.71E-01ad	2.00E+00	- - -	- - -	- - -	- - -	- - -
12672-29-6	Aroclor-1248	2.00E+00	- - -	5.71E-01ad	2.00E+00	- - -	- - -	- - -	- - -	- - -
11097-69-1	Aroclor-1254	2.00E+00	2.00E-05	5.71E-01ad	2.00E+00	- - -	- - -	- - -	- - -	- - -
11096-82-5	Aroclor-1260	2.00E+00	- - -	5.71E-01ad	2.00E+00	- - -	- - -	- - -	- - -	- - -
35822-46-9	1,2,3,4,6,7,8-HpCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
67562-39-4	1,2,3,4,6,7,8-HpCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
55673-89-7	1,2,3,4,7,8,9-HpCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
39227-28-6	1,2,3,4,7,8-HxCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
70648-26-9	1,2,3,4,7,8-HxCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57117-44-9	1,2,3,5,7,8-HxCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Toxicity Criteria Table

CAS #	Chemical of Concern	SF_o Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	RfD_o Oral Reference Dose (mg/kg-day)	URF Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Sf_i Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	RfC Inhalation Reference Concentration (mg/m^3)	RfD_i Inhalation Chronic (mg/kg-day)	VF (m^3/kg)	MCL	MCL Units
57653-85-7	1,2,3,6,7,8-HxCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
55684-94-1	1,2,3,6,7,8-HxCDF	1.500E+04	- - -	3.30E-03r	1.500E+04	- - -	- - -	- - -	- - -	- - -
19408-74-3	1,2,3,7,8,9-HxCDD	6.200E+03	- - -	1.30E+03a	4.550E+03	- - -	- - -	- - -	- - -	- - -
40321-76-4	1,2,3,7,8-PeCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57117-41-6	1,2,3,7,8-PeCDF	7.500E+04	- - -	1.65E-02r	7.500E+04	- - -	- - -	- - -	- - -	- - -
60851-34-5	2,3,4,6,7,8-HxCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57117-31-4	2,3,4,7,8-PeCDF	7.500E+03	- - -	1.65E-03r	7.500E+03	- - -	- - -	- - -	- - -	- - -
1746-01-6	2,3,7,8-TCDD	1.500E+05	- - -	3.30E-02b,i	1.500E+05	- - -	- - -	- - -	- - -	- - -
51207-31-9	2,3,7,8-TCDF	1.500E+04	- - -	3.30E-03r	1.500E+04	- - -	- - -	- - -	- - -	- - -
37871-00-4	HpCDD	1.500E+03	- - -	3.30E-04r	1.500E+03	- - -	- - -	- - -	- - -	- - -
38998-75-3	HpCDF	1.500E+03	- - -	3.30E-04r	1.500E+03	- - -	- - -	- - -	- - -	- - -
34465-46-8	HxCDD	1.500E+04	- - -	3.30E-03r	1.500E+04	- - -	- - -	- - -	- - -	- - -
3268-87-9	OCDD	1.500E+02	- - -	3.30E-05r	1.500E+02	- - -	- - -	- - -	- - -	- - -
39001-02-0	OCDF	1.500E+02	- - -	3.30E-05r	1.500E+02	- - -	- - -	- - -	- - -	- - -
36088-22-9	PeCDD	7.500E+04	- - -	1.65E-02r	7.500E+04	- - -	- - -	- - -	- - -	- - -
30402-15-4	PeCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
30402-14-3	TCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
14265-85-1	Actinium-225	5.180E-10	1.890E-10	2.860E-08	4.500E-08	2.710E-10
14952-40-0	Actinium-227	3.810E-10	2.010E-10	1.490E-07	3.480E-10	2.450E-10
14952-40-0L	Actinium-227 + long lived decay	1.160E-09	4.860E-10	2.090E-07	1.470E-06	---
14952-40-0(+D)	Actinium-227+D	1.160E-09	4.860E-10	2.090E-07	1.470E-06	6.530E-10
14331-83-0	Actinium-228	5.550E-12	1.990E-12	4.920E-11	4.530E-06	2.890E-12
14596-10-2	Americium-241	2.170E-10	1.040E-10	2.810E-08	2.760E-08	1.340E-10
13981-54-9	Americium-242	5.140E-12	1.790E-12	5.030E-11	3.480E-08	2.620E-12
13981-54-9m	Americium-242m	1.290E-10	7.070E-11	1.560E-08	1.050E-09	8.770E-11
13981-54-9m(+D)	Americium-242m+D	2.210E-10	1.040E-10	2.810E-08	4.830E-08	1.360E-10
14993-75-0	Americium-243	2.170E-10	1.030E-10	2.700E-08	9.470E-08	1.340E-10
14993-75-0(+D)	Americium-243+D	2.320E-10	1.080E-10	2.700E-08	6.360E-07	1.420E-10
14374-79-9	Antimony-122	3.030E-11	1.060E-11	5.480E-12	1.970E-06	1.550E-11
14683-10-4	Antimony-124	3.500E-11	1.290E-11	2.430E-11	8.890E-06	1.850E-11
14234-35-6	Antimony-125	1.120E-11	4.370E-12	1.660E-11	1.810E-06	6.140E-12
14234-35-6(+D)	Antimony-125+D	1.320E-11	5.130E-12	1.930E-11	1.810E-06	7.210E-12
15756-32-8	Antimony-126	2.930E-11	1.110E-11	1.150E-11	1.280E-05	1.590E-11
15756-32-8m	Antimony-126m	1.480E-13	6.660E-14	3.160E-14	6.940E-06	9.210E-14
13968-50-8	Antimony-127	2.850E-11	1.010E-11	7.510E-12	3.070E-06	1.470E-11
14331-88-5	Antimony-129	6.110E-12	2.190E-12	9.620E-13	6.850E-06	3.190E-12
14163-25-8	Argon-41	- - -	- - -	- - -	6.390E-06	- - -
17239-90-6	Astatine-217	- - -	- - -	- - -	1.320E-09	- - -
14914-75-1	Barium-131	5.250E-12	2.000E-12	2.910E-12	1.770E-06	2.870E-12
13981-41-4	Barium-133	1.390E-11	6.810E-12	1.160E-11	1.440E-06	9.440E-12
13981-41-4m	Barium-133m	9.070E-12	3.190E-12	2.040E-12	1.960E-07	4.660E-12
13981-97-0	Barium-137m	- - -	- - -	- - -	2.690E-06	- - -
14378-25-7	Barium-139	9.730E-13	3.700E-13	1.790E-13	1.650E-07	5.330E-13
14798-08-4	Barium-140	4.180E-11	1.490E-11	2.030E-11	7.610E-07	2.170E-11
13966-02-4	Beryllium-7	2.020E-13	8.660E-14	2.130E-13	2.130E-07	1.200E-13
15776-19-9	Bismuth-206	1.980E-11	7.730E-12	5.850E-12	1.520E-05	1.100E-11
13982-38-2	Bismuth-207	1.490E-11	5.660E-12	2.100E-11	7.080E-06	8.140E-12
14331-79-4	Bismuth-210	2.550E-11	8.920E-12	3.170E-10	2.760E-09	1.300E-11
14331-79-4m	Bismuth-210m	1.450E-10	5.510E-11	1.170E-08	1.010E-06	7.770E-11
15229-37-5	Bismuth-211	- - -	- - -	- - -	1.880E-07	- - -
14913-49-6	Bismuth-212	1.780E-12	7.100E-13	7.770E-11	8.870E-07	9.990E-13
15776-20-2	Bismuth-213	1.280E-12	5.110E-13	6.850E-11	5.650E-07	7.180E-13
14733-03-0	Bismuth-214	4.330E-13	1.920E-13	2.900E-11	7.480E-06	2.650E-13
14686-69-2	Bromine-82	3.700E-12	1.710E-12	1.660E-12	1.240E-05	2.300E-12
14109-32-1	Cadmium-109	1.140E-11	5.000E-12	2.190E-11	8.730E-09	6.700E-12
14336-68-6	Cadmium-115	2.470E-11	8.660E-12	5.140E-12	1.010E-06	1.270E-11
14336-68-6m	Cadmium-115m	4.740E-11	1.700E-11	2.920E-11	1.130E-07	2.460E-11

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
13966-05-7	Calcium-45	6.070E-12	2.470E-12	9.400E-12	3.960E-11	3.370E-12
14391-99-2	Calcium-47	2.020E-11	7.550E-12	7.880E-12	5.240E-06	1.080E-11
13981-17-4	Californium-252	- - -	- - -	- - -	8.660E-11	- - -
14333-33-6	Carbon-11	8.700E-14	4.070E-14	8.250E-15	4.450E-06	5.590E-14
14762-75-5	Carbon-14	2.790E-12	1.550E-12	1.990E-14	7.830E-12	2.000E-12
13967-74-3	Cerium-141	1.340E-11	4.630E-12	1.140E-11	2.270E-07	6.770E-12
14119-19-8	Cerium-143	2.040E-11	7.100E-12	3.740E-12	1.090E-06	1.040E-11
14762-78-8	Cerium-144	1.020E-10	3.520E-11	1.100E-10	5.020E-08	5.180E-11
14762-78-8(+D)	Cerium-144+D	1.020E-10	3.530E-11	1.100E-10	2.440E-07	5.190E-11
14914-76-2	Cesium-131	4.110E-13	1.860E-13	7.510E-14	4.900E-09	2.490E-13
13967-70-9	Cesium-134	5.810E-11	4.220E-11	1.650E-11	7.100E-06	5.140E-11
13967-70-9m	Cesium-134m	8.840E-14	4.140E-14	1.990E-14	5.020E-08	5.550E-14
15726-30-4	Cesium-135	7.180E-12	4.740E-12	1.860E-12	2.360E-11	5.880E-12
15726-30-4m	Cesium-135m	9.100E-14	4.510E-14	1.320E-14	7.370E-06	6.070E-14
14234-29-8	Cesium-136	1.650E-11	8.660E-12	3.490E-12	1.000E-05	1.120E-11
10045-97-3	Cesium-137	4.330E-11	3.040E-11	1.190E-11	5.320E-10	3.740E-11
10045-97-3L	Cesium-137 + long lived decay	4.330E-11	3.040E-11	1.190E-11	2.550E-06	- - -
10045-97-3(+D)	Cesium-137+D	4.330E-11	3.040E-11	1.190E-11	2.550E-06	3.740E-11
15758-29-9	Cesium-138	3.400E-13	1.580E-13	4.000E-14	1.190E-05	2.160E-13
13981-43-6	Chlorine-36	7.660E-12	3.300E-12	2.500E-11	1.740E-09	4.440E-12
14158-34-0	Chlorine-38	4.220E-13	1.930E-13	9.400E-14	7.930E-06	2.640E-13
14392-02-0	Chromium-51	4.960E-13	1.850E-13	1.670E-13	1.270E-07	2.660E-13
13981-50-5	Cobalt-57	2.780E-12	1.040E-12	2.090E-12	3.550E-07	1.490E-12
13981-38-9	Cobalt-58	7.440E-12	2.950E-12	5.990E-12	4.480E-06	4.180E-12
13981-38-9m	Cobalt-58m	3.470E-13	1.260E-13	6.880E-14	1.000E-12	1.830E-13
10198-40-0	Cobalt-60	4.030E-11	1.570E-11	3.580E-11	1.240E-05	2.230E-11
10198-40-0m	Cobalt-60m	5.880E-15	2.660E-15	3.960E-15	1.860E-08	3.660E-15
13981-25-4	Copper-64	1.720E-12	6.400E-13	4.330E-13	8.300E-07	9.320E-13
15510-73-3	Curium-242	1.050E-10	3.850E-11	1.510E-08	7.730E-11	5.480E-11
15757-87-6	Curium-243	2.050E-10	9.470E-11	2.690E-08	4.190E-07	1.230E-10
13981-15-2	Curium-244	1.810E-10	8.360E-11	2.530E-08	4.850E-11	1.080E-10
15621-76-8	Curium-245	2.180E-10	1.040E-10	2.770E-08	2.380E-07	1.350E-10
15757-90-1	Curium-246	2.120E-10	1.020E-10	2.770E-08	4.570E-11	1.310E-10
15758-32-4	Curium-247	2.110E-10	9.950E-11	2.500E-08	1.310E-06	1.300E-10
15758-33-5	Curium-248	- - -	- - -	- - -	3.420E-11	- - -
13967-64-1	Dysprosium-165	1.150E-12	4.140E-13	2.100E-13	9.490E-08	6.030E-13
15840-01-4	Dysprosium-166	3.220E-11	1.110E-11	8.360E-12	6.020E-08	1.630E-11
15840-13-8	Erbium-169	7.360E-12	2.530E-12	3.850E-12	9.100E-11	3.700E-12
14391-45-8	Erbium-171	5.740E-12	2.020E-12	9.400E-13	1.420E-06	2.960E-12
14683-23-9	Europium-152	1.620E-11	6.070E-12	9.100E-11	5.300E-06	8.700E-12

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
14683-23-9m	Europium-152m	8.510E-12	2.980E-12	1.120E-12	1.330E-06	4.370E-12
15585-10-1	Europium-154	2.850E-11	1.030E-11	1.150E-10	5.830E-06	1.490E-11
14391-16-3	Europium-155	5.400E-12	1.900E-12	1.480E-11	1.240E-07	2.770E-12
14280-35-4	Europium-156	3.560E-11	1.270E-11	1.370E-11	6.620E-06	1.840E-11
13981-56-1	Fluorine-18	2.000E-13	9.730E-14	1.210E-13	4.450E-06	1.300E-13
15756-41-9	Francium-221	- - -	- - -	- - -	1.110E-07	- - -
15756-98-6	Francium-223	1.780E-11	7.290E-12	3.060E-12	1.400E-07	1.000E-11
14276-65-4	Gadolinium-153	4.260E-12	1.520E-12	6.550E-12	1.620E-07	2.220E-12
14041-42-0	Gadolinium-159	9.210E-12	3.190E-12	1.460E-12	1.740E-07	4.660E-12
14119-09-6	Gallium-67	2.890E-12	1.040E-12	9.550E-13	5.360E-07	1.510E-12
13982-22-4	Gallium-72	1.530E-11	5.590E-12	2.170E-12	1.370E-05	8.070E-12
14374-81-3	Germanium-71	1.730E-13	6.480E-14	5.180E-14	4.740E-13	9.180E-14
10043-49-0	Gold-198	1.780E-11	6.290E-12	4.000E-12	1.700E-06	9.180E-12
10043-49-0m	Gold-198m	2.090E-11	7.440E-12	7.770E-12	1.890E-06	1.080E-11
13967-65-2	Holmium-166	2.670E-11	9.210E-12	3.850E-12	1.180E-07	1.350E-11
14885-78-0	Indium-113m	2.470E-13	9.470E-14	5.180E-14	1.050E-06	1.350E-13
13981-55-0	Indium-114	- - -	- - -	- - -	1.350E-08	- - -
13981-55-0m	Indium-114m	7.030E-11	2.480E-11	3.000E-11	3.570E-07	3.600E-11
14191-71-0	Indium-115	5.850E-11	3.380E-11	4.030E-10	2.700E-10	4.330E-11
14191-71-0m	Indium-115m	1.240E-12	4.400E-13	2.150E-13	6.270E-07	6.400E-13
18287-75-7	Iodine-122	- - -	- - -	- - -	4.170E-06	- - -
15715-08-9	Iodine-123	1.960E-12	6.960E-13	8.210E-13	5.100E-07	2.050E-12
14158-31-7	Iodine-125	5.550E-11	2.540E-11	2.770E-11	7.240E-09	6.290E-11
14158-32-8	Iodine-126	2.310E-10	8.730E-11	9.580E-11	1.960E-06	2.480E-10
15046-84-1	Iodine-129	2.710E-10	1.480E-10	1.600E-10	6.100E-09	3.220E-10
14914-02-4	Iodine-130	1.800E-11	6.360E-12	7.290E-12	9.670E-06	1.880E-11
10043-66-0	Iodine-131	1.260E-10	4.550E-11	5.030E-11	1.590E-06	1.340E-10
14683-16-0	Iodine-132	2.220E-12	8.440E-13	1.150E-12	1.060E-05	2.340E-12
14683-16-0m	Iodine-132m	1.700E-12	6.110E-13	8.770E-13	1.400E-06	1.780E-12
14834-67-4	Iodine-133	4.260E-11	1.440E-11	1.620E-11	2.720E-06	4.400E-11
14914-27-3	Iodine-134	5.960E-13	2.500E-13	4.400E-13	1.240E-05	6.440E-13
14834-68-5	Iodine-135	8.620E-12	3.050E-12	3.650E-12	7.830E-06	8.990E-12
14981-91-0	Iridium-190	1.500E-11	5.660E-12	8.810E-12	5.990E-06	8.100E-12
14981-91-0m	Iridium-190m	8.440E-14	3.170E-14	3.890E-14	8.690E-13	4.550E-14
14158-35-1	Iridium-194	2.490E-11	8.620E-12	3.400E-12	4.090E-07	1.260E-11
14158-35-1m	Iridium-194m	2.290E-11	8.880E-12	4.590E-11	1.010E-05	1.260E-11
14681-59-5	Iron-55	2.090E-12	8.620E-13	7.990E-13	- - -	1.160E-12
14596-12-4	Iron-59	2.070E-11	7.880E-12	1.330E-11	5.830E-06	1.110E-11
13965-98-5	Krypton-83m	- - -	- - -	- - -	1.340E-11	- - -

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
13983-27-2	Krypton-85	- - -	- - -	- - -	1.050E-08	- - -
13983-27-2m	Krypton-85m	- - -	- - -	- - -	5.460E-07	- - -
14809-68-8	Krypton-87	- - -	- - -	- - -	4.000E-06	- - -
14995-61-0	Krypton-88	- - -	- - -	- - -	1.020E-05	- - -
13981-28-7	Lanthanum-140	3.050E-11	1.100E-11	4.770E-12	1.150E-05	1.590E-11
14687-25-3	Lead-203	2.650E-12	1.020E-12	7.550E-13	1.090E-06	1.460E-12
14119-30-3	Lead-209	6.550E-13	2.410E-13	1.900E-13	5.370E-10	3.490E-13
14255-04-0	Lead-210	1.840E-09	8.810E-10	2.770E-09	1.410E-09	1.180E-09
14255-04-0L	Lead-210 + long lived decay	2.660E-09	1.270E-09	1.390E-08	4.210E-09	- - -
14255-04-0(+D)	Lead-210+D	2.660E-09	1.270E-09	1.390E-08	4.210E-09	3.440E-09
15816-77-0	Lead-211	1.040E-12	4.110E-13	3.700E-11	2.290E-07	5.810E-13
15092-94-1	Lead-212	6.700E-11	2.500E-11	5.770E-10	5.090E-07	3.540E-11
15067-28-4	Lead-214	8.510E-13	3.440E-13	3.630E-11	9.820E-07	4.850E-13
14265-75-9	Lutetium-177	1.020E-11	3.530E-12	4.660E-12	1.140E-07	5.180E-12
14265-75-9m	Lutetium-177m	2.600E-11	9.360E-12	5.700E-11	3.630E-06	1.360E-11
14092-99-0	Manganese-52	1.580E-11	6.440E-12	4.400E-12	1.670E-05	9.070E-12
14092-99-0m	Manganese-52m	2.820E-13	1.270E-13	5.070E-14	1.150E-05	1.750E-13
13966-31-9	Manganese-54	5.140E-12	2.280E-12	5.880E-12	3.890E-06	3.110E-12
14681-52-8	Manganese-56	2.780E-12	1.030E-12	4.140E-13	8.440E-06	1.480E-12
13981-51-6	Mercury-197	4.070E-12	1.430E-12	1.450E-11	1.140E-07	2.090E-12
13981-51-6m	Mercury-197m	8.620E-12	3.000E-12	1.920E-11	2.500E-07	4.400E-12
13982-78-0	Mercury-203	1.270E-11	5.700E-12	2.450E-11	9.210E-07	7.620E-12
14119-15-4	Molybdenum-99	3.500E-12	1.600E-12	4.290E-12	6.640E-07	2.110E-12
14269-74-0	Neodymium-147	2.010E-11	6.960E-12	9.360E-12	4.870E-07	1.020E-11
15749-81-2	Neodymium-149	1.510E-12	5.440E-13	3.190E-13	1.490E-06	7.920E-13
15700-36-4a	Neptunium-236a	2.560E-11	1.050E-11	9.770E-10	3.250E-07	1.440E-11
15700-36-4b	Neptunium-236b	3.190E-12	1.110E-12	8.070E-12	1.340E-07	1.630E-12
13994-20-2	Neptunium-237	1.460E-10	6.180E-11	1.770E-08	5.360E-08	8.290E-11
13994-20-2(+D)	Neptunium-237+D	1.620E-10	6.740E-11	1.770E-08	7.970E-07	9.100E-11
15766-25-3	Neptunium-238	1.520E-11	5.400E-12	4.180E-12	2.620E-06	7.880E-12
13968-59-7	Neptunium-239	1.470E-11	5.140E-12	4.000E-12	5.410E-07	7.510E-12
15690-84-3	Neptunium-240	5.550E-13	2.230E-13	1.950E-13	5.800E-06	3.160E-13
15690-84-3m	Neptunium-240m	- - -	- - -	- - -	1.510E-06	- - -
14336-70-0	Nickel-59	7.330E-13	2.740E-13	2.410E-12	- - -	3.890E-13
13981-37-8	Nickel-63	1.790E-12	6.700E-13	5.770E-12	- - -	9.510E-13
14833-49-9	Nickel-65	1.920E-12	6.960E-13	7.070E-13	2.740E-06	1.010E-12
7440-03-1	Niobium-93m	2.310E-12	8.030E-13	1.900E-12	3.830E-11	1.170E-12
14681-63-1	Niobium-94	2.050E-11	7.770E-12	3.770E-11	7.290E-06	1.110E-11
13967-76-5	Niobium-95	6.360E-12	2.450E-12	5.440E-12	3.530E-06	3.500E-12

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
13967-76-5m	Niobium-95m	1.050E-11	3.660E-12	3.270E-12	2.320E-07	5.370E-12
18496-04-3	Niobium-97	5.000E-13	1.960E-13	1.070E-13	2.970E-06	2.790E-13
18496-04-3m	Niobium-97m	- - -	- - -	- - -	3.340E-06	- - -
15766-50-4	Osmium-185	4.770E-12	1.920E-12	6.140E-12	3.110E-06	2.700E-12
14119-24-5	Osmium-191	1.050E-11	3.640E-12	7.100E-12	1.660E-07	5.330E-12
14119-24-5m	Osmium-191m	1.760E-12	6.110E-13	6.360E-13	1.050E-08	8.950E-13
16057-77-5	Osmium-193	1.530E-11	5.290E-12	2.710E-12	2.690E-07	7.770E-12
15690-69-4	Palladium-100	1.050E-11	4.030E-12	3.100E-12	2.220E-07	5.770E-12
15749-54-9	Palladium-101	1.120E-12	4.220E-13	1.970E-13	1.380E-06	6.070E-13
14967-68-1	Palladium-103	3.610E-12	1.250E-12	1.770E-12	1.150E-09	1.840E-12
17637-99-9	Palladium-107	7.250E-13	2.500E-13	1.690E-12	- - -	3.670E-13
14981-64-7	Palladium-109	1.010E-11	3.500E-12	1.850E-12	1.270E-08	5.140E-12
14596-37-3	Phosphorus-32	2.210E-11	8.950E-12	1.220E-11	9.410E-09	1.230E-11
15749-66-3	Phosphorus-33	2.470E-12	9.810E-13	5.110E-12	3.720E-11	1.360E-12
15706-36-2	Platinum-191	4.850E-12	1.760E-12	4.630E-13	9.780E-07	2.550E-12
15735-70-3	Platinum-193	6.140E-13	2.110E-13	1.110E-13	2.780E-12	3.090E-13
15735-70-3m	Platinum-193m	8.810E-12	3.030E-12	7.730E-13	1.680E-08	4.440E-12
15735-74-7	Platinum-197	7.590E-12	2.620E-12	5.220E-13	5.630E-08	3.850E-12
15735-74-7m	Platinum-197m	1.120E-12	4.000E-13	8.660E-14	2.380E-07	5.810E-13
15411-92-4	Plutonium-236	1.740E-10	7.470E-11	2.280E-08	1.190E-10	9.920E-11
13981-16-3	Plutonium-238	2.720E-10	1.310E-10	3.360E-08	7.220E-11	1.690E-10
15117-48-3	Plutonium-239	2.760E-10	1.350E-10	3.330E-08	2.000E-10	1.740E-10
14119-33-6	Plutonium-240	2.770E-10	1.350E-10	3.330E-08	6.980E-11	1.740E-10
14119-32-5	Plutonium-241	3.290E-12	1.760E-12	3.340E-10	4.110E-12	2.280E-12
13982-10-0	Plutonium-242	2.630E-10	1.280E-10	3.130E-08	6.250E-11	1.650E-10
15706-37-3	Plutonium-243	1.340E-12	4.740E-13	2.940E-13	5.500E-08	6.920E-13
14119-34-7	Plutonium-244	2.940E-10	1.370E-10	2.930E-08	3.010E-11	1.800E-10
14119-34-7(+D)	Plutonium-244+D	3.140E-10	1.440E-10	2.930E-08	1.510E-06	1.900E-10
13981-52-7	Polonium-210 1	7.960E-10	3.770E-10	1.080E-08	3.950E-11	2.250E-09
15389-34-1	Polonium-212	- - -	- - -	- - -	- - -	- - -
15756-57-7	Polonium-213	- - -	- - -	- - -	- - -	- - -
15735-67-8	Polonium-214	- - -	- - -	- - -	3.860E-10	- - -
15706-52-2	Polonium-215	- - -	- - -	- - -	7.480E-10	- - -
15756-58-8	Polonium-216	- - -	- - -	- - -	7.870E-11	- - -
15422-24-9	Polonium-218	- - -	- - -	- - -	4.260E-11	- - -
13966-00-2	Potassium-40	6.180E-11	2.470E-11	1.030E-11	7.970E-07	3.430E-11
14378-21-3	Potassium-42	3.060E-12	1.260E-12	4.330E-13	1.460E-06	1.740E-12
14191-64-1	Praseodymium-142	2.490E-11	8.580E-12	3.380E-12	3.140E-07	1.260E-11
14981-79-4	Praseodymium-143	2.290E-11	7.920E-12	9.730E-12	1.630E-09	1.160E-11

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
14119-05-2	Praseodymium-144	1.820E-13	8.100E-14	3.580E-14	1.940E-07	1.120E-13
14119-05-2m	Praseodymium-144m	- - -	- - -	- - -	8.730E-09	- - -
14380-75-7	Promethium-147	4.880E-12	1.690E-12	1.610E-11	3.210E-11	2.480E-12
14683-19-3	Promethium-148	4.960E-11	1.720E-11	1.050E-11	2.800E-06	2.520E-11
14683-19-3m	Promethium-148m	2.130E-11	7.990E-12	2.120E-11	8.980E-06	1.150E-11
15765-31-8	Promethium-149	1.930E-11	6.660E-12	3.660E-12	4.600E-08	9.770E-12
14331-85-2	Protactinium-231	3.740E-10	1.730E-10	4.550E-08	1.390E-07	2.260E-10
14331-85-2L	Protactinium-231 + long lived Deca	1.534E-09	6.590E-10	2.545E-07	1.609E-06	- - -
14331-85-2D	Protactinium-231 D+	1.534E-09	6.590E-10	2.545E-07	1.609E-06	- - -
13981-14-1	Protactinium-233	1.590E-11	5.550E-12	1.420E-11	7.430E-07	8.140E-12
15100-28-4	Protactinium-234	7.030E-12	2.560E-12	1.460E-12	8.710E-06	3.700E-12
15100-28-4m	Protactinium-234m	- - -	- - -	- - -	6.870E-08	- - -
15623-45-7	Radium-223	6.440E-10	2.380E-10	2.500E-08	4.340E-07	3.390E-10
13233-32-4	Radium-224	4.510E-10	1.670E-10	9.990E-09	3.720E-08	2.380E-10
13981-53-8	Radium-225	2.720E-10	1.140E-10	2.100E-08	5.910E-09	1.540E-10
13982-63-3	Radium-226	7.290E-10	3.850E-10	1.150E-08	2.290E-08	5.140E-10
13982-63-3L	Radium-226 + long lived decay	3.390E-09	1.656E-09	2.550E-08	8.494E-06	- - -
13982-63-3(+D)	Radium-226+D	7.300E-10	3.860E-10	1.160E-08	8.490E-06	5.150E-10
15262-20-1	Radium-228	2.280E-09	1.040E-09	5.180E-09	- - -	1.430E-09
15262-20-1L	Radium-228 + long lived decay	3.099E-09	1.340E-09	1.482E-07	1.229E-05	---
15262-20-1(+D)	Radium-228+D	2.290E-09	1.040E-09	5.230E-09	4.530E-06	1.430E-09
14835-02-0	Radon-219	- - -	- - -	- - -	2.250E-07	- - -
22481-48-7	Radon-220	- - -	- - -	- - -	1.700E-09	- - -
14859-67-7	Radon-222	- - -	- - -	- - -	1.740E-09	- - -
14859-67-7(+D)	Radon-222+D m	- - -	- - -	7.570E-12	- - -	- - -
7440-16-6	Rhodium-103m	2.400E-14	9.400E-15	9.140E-15	9.310E-11	1.340E-14
14913-89-4	Rhodium-105	6.730E-12	2.340E-12	1.590E-12	3.150E-07	3.430E-12
14234-34-5	Rhodium-106	- - -	- - -	- - -	9.660E-07	- - -
14391-63-0	Rubidium-82	- - -	- - -	- - -	4.850E-06	- - -
14391-63-0m	Rubidium-82m	7.250E-13	3.510E-13	1.350E-13	1.350E-05	4.700E-13
14932-53-7	Rubidium-86	2.370E-11	9.880E-12	4.000E-12	4.670E-07	1.340E-11
13982-13-3	Rubidium-87	1.250E-11	5.220E-12	2.140E-12	9.110E-11	7.070E-12
14928-36-0	Rubidium-88	3.060E-13	1.400E-13	3.170E-14	3.360E-06	1.920E-13
14191-65-2	Rubidium-89	1.700E-13	7.880E-14	2.090E-14	1.050E-05	1.080E-13
13968-53-1	Ruthenium-103	1.050E-11	3.850E-12	5.180E-12	2.040E-06	5.550E-12
14331-95-4	Ruthenium-105	3.770E-12	1.350E-12	9.320E-13	3.510E-06	1.960E-12
13967-48-1	Ruthenium-106	1.190E-10	4.220E-11	8.620E-11	- - -	6.110E-11
13967-48-1(+D)	Ruthenium-106+D	1.190E-10	4.220E-11	1.020E-10	9.660E-07	6.110E-11
15758-35-7	Ruthenium-97	1.650E-12	6.360E-13	5.440E-13	8.630E-07	9.070E-13

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
14392-33-7	Samarium-147	7.590E-11	3.740E-11	6.880E-09	- - -	4.770E-11
15715-94-3	Samarium-151	1.590E-12	5.550E-13	4.880E-12	3.600E-13	8.070E-13
15766-00-4	Samarium-153	1.400E-11	4.850E-12	2.950E-12	1.060E-07	7.100E-12
13967-63-0	Scandium-46	1.620E-11	6.220E-12	2.470E-11	9.630E-06	8.880E-12
14391-96-9	Scandium-47	1.000E-11	3.490E-12	3.050E-12	3.620E-07	5.110E-12
14391-86-7	Scandium-48	1.930E-11	7.330E-12	3.960E-12	1.620E-05	1.050E-11
14265-71-5	Selenium-75	1.670E-11	8.140E-12	3.770E-12	1.450E-06	1.080E-11
14276-49-4	Silicon-31	1.810E-12	6.480E-13	3.050E-13	1.110E-08	9.400E-13
14928-14-4	Silver-105	4.400E-12	1.770E-12	2.830E-12	2.150E-06	2.490E-12
14391-65-2	Silver-108	- - -	- - -	- - -	8.560E-08	- - -
14391-65-2m	Silver-108m	1.920E-11	8.140E-12	2.670E-11	7.180E-06	1.120E-11
14378-38-2m	Silver-109m	- - -	- - -	- - -	7.660E-09	- - -
14391-76-5	Silver-110	- - -	- - -	- - -	1.690E-07	- - -
14391-76-5m	Silver-110m	2.370E-11	9.880E-12	2.830E-11	1.300E-05	1.370E-11
15760-04-0	Silver-111	2.370E-11	8.210E-12	6.660E-12	1.090E-07	1.210E-11
13966-32-0	Sodium-22	1.970E-11	9.620E-12	3.890E-12	1.030E-05	1.260E-11
13982-04-2	Sodium-24	2.640E-12	1.230E-12	4.740E-13	2.200E-05	1.650E-12
14809-50-8	Strontium-82	8.470E-11	3.130E-11	3.690E-11	5.000E-11	4.480E-11
13967-73-2	Strontium-85	5.030E-12	2.260E-12	2.560E-12	2.200E-06	3.110E-12
13967-73-2m	Strontium-85m	3.740E-14	1.670E-14	8.320E-15	8.210E-07	2.310E-14
14158-27-1	Strontium-89	3.470E-11	1.280E-11	2.340E-11	7.190E-09	1.840E-11
10098-97-2	Strontium-90	9.180E-11	5.590E-11	1.050E-10	4.820E-10	6.880E-11
10098-97-2(+D)	Strontium-90+D	1.440E-10	7.400E-11	1.130E-10	1.960E-08	9.530E-11
14331-91-0	Strontium-91	8.810E-12	3.220E-12	1.700E-12	3.300E-06	4.660E-12
14928-29-1	Strontium-92	6.180E-12	2.250E-12	1.030E-12	6.690E-06	3.260E-12
15117-53-0	Sulfur-35	1.240E-12	5.140E-13	2.900E-12	8.770E-12	3.700E-12
13982-00-8	Tantaium-182	2.190E-11	7.960E-12	3.740E-11	6.040E-06	1.150E-11
13982-00-8m	Tantaium-182m	4.440E-14	1.990E-14	3.410E-14	7.380E-07	2.760E-14
14809-56-4	Technetium-95	1.350E-12	5.770E-13	2.630E-13	3.630E-06	8.030E-13
14809-56-4m	Technetium-95m	4.290E-12	1.800E-12	3.400E-12	2.930E-06	2.510E-12
14808-44-7	Technetium-96	7.810E-12	3.420E-12	2.000E-12	1.160E-05	4.740E-12
14808-44-7m	Technetium-96m	8.360E-14	3.590E-14	2.050E-14	2.130E-07	5.000E-14
15759-35-0	Technetium-97	7.400E-13	2.700E-13	8.510E-13	2.940E-10	3.890E-13
15759-35-0m	Technetium-97m	6.620E-12	2.380E-12	1.120E-11	1.040E-09	3.440E-12
14133-76-7	Technetium-99	7.660E-12	2.750E-12	1.410E-11	8.140E-11	4.000E-12
14133-76-7m	Technetium-99m	2.030E-13	7.960E-14	5.700E-14	3.930E-07	1.140E-13
14390-73-9	Tellurium-125m	8.920E-12	3.330E-12	3.770E-12	6.950E-09	4.700E-12
13981-49-2	Tellurium-127	2.870E-12	1.000E-12	3.420E-13	2.100E-08	1.480E-12
13981-49-2m	Tellurium-127m	2.250E-11	8.620E-12	1.210E-11	2.730E-09	1.200E-11
14269-71-7	Tellurium-129	4.400E-13	1.710E-13	9.950E-14	2.450E-07	2.440E-13

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
14269-71-7	Tellurium-129	- - -	- - -	1.130E-13	- - -	2.440E-13
14269-71-7m	Tellurium-129m	4.260E-11	1.530E-11	1.350E-11	1.380E-07	2.200E-11
14683-12-6	Tellurium-131	5.620E-13	2.170E-13	2.450E-13	1.790E-06	3.050E-13
14683-12-6m	Tellurium-131m	2.280E-11	8.250E-12	9.580E-12	6.610E-06	1.190E-11
14234-28-7	Tellurium-132	4.770E-11	1.700E-11	2.140E-11	7.830E-07	2.440E-11
15759-55-4	Terbium-158	1.320E-11	4.880E-12	8.290E-11	3.570E-06	6.990E-12
13981-29-8	Terbium-160	2.420E-11	8.700E-12	2.450E-11	5.230E-06	1.270E-11
15720-57-7	Thallium202	3.280E-12	1.490E-12	6.140E-13	1.830E-06	2.010E-12
13968-51-9	Thallium204	1.540E-11	5.850E-12	2.450E-12	2.760E-09	8.250E-12
14913-50-9	Thallium-208	- - -	- - -	- - -	1.760E-05	- - -
15690-73-0	Thallium-209	- - -	- - -	- - -	9.830E-06	- - -
15623-47-9	Thorium-227	1.370E-10	4.740E-11	3.510E-08	3.780E-07	6.920E-11
14274-82-9	Thorium-228	2.890E-10	1.070E-10	1.320E-07	5.590E-09	1.480E-10
14274-82-9L	Thorium-228 +Long lived Decay	8.090E-10	3.000E-10	1.430E-07	7.760E-06	- - -
14274-82-9(+D)	Thorium-228+D	8.090E-10	3.000E-10	1.430E-07	7.760E-06	- - -
15594-54-4	Thorium-229	4.960E-10	2.240E-10	1.750E-07	2.250E-07	2.900E-10
15594-54-4L	Thorium-229 +Long lived Decay	1.290E-09	5.280E-10	2.250E-07	1.170E-06	- - -
15594-54-4(+D)	Thorium-229+D	1.290E-09	5.280E-10	2.250E-07	1.170E-06	7.160E-10
14269-63-7	Thorium-230	2.020E-10	9.100E-11	2.850E-08	8.190E-10	1.190E-10
14269-63-7L	Thorium-230 + Long lived Decay	3.592E-09	1.747E-09	5.400E-08	8.495E-06	- - -
14269-63-7D	Thorium-230 D+	3.592E-09	1.747E-09	5.400E-08	8.495E-06	- - -
14932-40-2	Thorium-231	6.360E-12	2.210E-12	1.520E-12	2.450E-08	3.240E-12
7440-29-1	Thorium-232	2.310E-10	1.010E-10	4.330E-08	3.420E-10	1.330E-10
7440-29-1L	Thorium-232 + long lived decay	3.330E-09	1.441E-09	1.915E-07	1.229E-05	- - -
7440-29-1D	Thorium-232 D+	3.330E-09	1.441E-09	1.915E-07	1.229E-05	- - -
15065-10-8	Thorium-234	6.700E-11	2.310E-11	3.070E-11	1.630E-08	3.400E-11
13981-30-1	Thulium-170	2.590E-11	8.920E-12	2.430E-11	1.010E-08	1.310E-11
14333-45-0	Thulium-171	2.020E-12	6.990E-13	3.330E-12	6.970E-10	1.020E-12
13966-06-8	Tin-113	1.220E-11	4.330E-12	1.000E-11	2.020E-08	6.330E-12
14683-06-8	Tin-121	4.330E-12	1.500E-12	1.020E-12	1.300E-10	2.200E-12
14683-06-8m	Tin-121m	6.660E-12	2.340E-12	1.540E-11	8.850E-10	3.410E-12
14683-08-0	Tin-125	5.810E-11	2.010E-11	1.410E-11	1.530E-06	2.950E-11
15832-50-5	Tin-126	7.070E-11	2.560E-11	9.950E-11	9.960E-08	3.690E-11
10028-17-8p	Tritium (particulate)	2.200E-13	1.120E-13	1.990E-13	- - -	- - -
10028-17-8w	Tritium (water)	9.250E-14	5.070E-14	5.620E-14	- - -	- - -
14158-29-3	Uranium-232	5.740E-10	2.920E-10	1.950E-08	5.980E-10	3.850E-10
13968-55-3	Uranium-233	1.600E-10	7.180E-11	1.160E-08	9.820E-10	9.690E-11
13968-55-3L	Uranium-233 + long lived Decay	1.450E-09	5.998E-10	2.366E-07	1.171E-06	- - -
U-233/234	Uranium-233/234	- - -	- - -	- - -	- - -	- - -

Rad Values

CAS Number	Chemical	Oral Soil Ingestion SF (risk/pCi)	Oral Water Ingestion SF (risk/pCi)	Inhalation SF (risk/pCi)	External SF (risk/yr per pCi/g soil)	Food Ingestion (Risk/pCi)
13966-29-5	Uranium-234	1.580E-10	7.070E-11	1.140E-08	2.520E-10	9.550E-11
15117-96-1	Uranium-235	1.570E-10	6.960E-11	1.010E-08	5.180E-07	9.440E-11
15117-96-1L	Uranium-235 + long lived Decay	1.697E-09	7.308E-10	2.646E-07	2.152E-06	- - -
15117-96-1(+D)	Uranium-235+D	1.630E-10	7.180E-11	1.010E-08	5.430E-07	9.760E-11
13982-70-2	Uranium-236	1.490E-10	6.700E-11	1.050E-08	1.250E-10	9.030E-11
14269-75-1	Uranium-237	1.390E-11	4.880E-12	6.440E-12	3.760E-07	7.140E-12
7440-61-1	Uranium-238	1.430E-10	6.400E-11	9.320E-09	4.990E-11	8.660E-11
7440-61-1L	Uranium-238 + long lived Decay	3.960E-09	1.905E-09	7.475E-08	8.609E-06	- - -
7440-61-1(+D)	Uranium-238+D	2.100E-10	8.710E-11	9.350E-09	1.140E-07	1.210E-10
7440-61-1D	Uranium-238+D+	3.960E-09	1.905E-09	7.475E-08	8.609E-06	- - -
15687-53-3	Uranium-240	2.020E-11	7.030E-12	2.960E-12	7.330E-10	1.030E-11
14331-97-6	Vanadium-48	2.130E-11	8.210E-12	9.290E-12	1.400E-05	1.170E-11
15749-46-9	Wolfram-181	1.070E-12	3.960E-13	1.350E-13	4.860E-08	5.700E-13
14932-41-3	Wolfram-185	8.360E-12	2.930E-12	9.360E-13	2.920E-10	4.290E-12
14983-48-3	Wolfram-187	1.030E-11	3.670E-12	1.110E-12	2.040E-06	5.370E-12
15151-09-4	Xenon-122	- - -	- - -	- - -	1.830E-07	- - -
15700-10-4	Xenon-123	- - -	- - -	- - -	2.720E-06	- - -
13994-18-8	Xenon-125	- - -	- - -	- - -	9.380E-07	- - -
13994-19-9	Xenon-127	- - -	- - -	- - -	9.520E-07	- - -
13965-99-6	Xenon-129m	- - -	- - -	- - -	4.250E-08	- - -
14683-11-5	Xenon-131m	- - -	- - -	- - -	1.410E-08	- - -
14932-42-4	Xenon-133	- - -	- - -	- - -	6.620E-08	- - -
14932-42-4m	Xenon-133m	- - -	- - -	- - -	9.250E-08	- - -
14995-62-1	Xenon-135	- - -	- - -	- - -	9.700E-07	- - -
14995-62-1m	Xenon-135m	- - -	- - -	- - -	1.860E-06	- - -
15751-81-2	Xenon-138	- - -	- - -	- - -	5.620E-06	- - -
10098-91-6	Yttrium-90	5.250E-11	1.810E-11	8.400E-12	1.910E-08	2.650E-11
14234-24-3	Yttrium-91	4.660E-11	1.600E-11	3.360E-11	2.510E-08	2.350E-11
14234-24-3m	Yttrium-91m	8.510E-14	3.520E-14	3.010E-14	2.340E-06	4.960E-14
15751-59-4	Yttrium-92	7.030E-12	2.480E-12	9.320E-13	1.260E-06	3.610E-12
14981-70-5	Yttrium-93	2.080E-11	7.180E-12	2.640E-12	4.600E-07	1.050E-11
13982-39-3	Zinc-65	2.450E-11	1.170E-11	5.810E-12	2.810E-06	1.540E-11
13982-23-5	Zinc-69	1.790E-13	7.220E-14	6.110E-14	1.670E-09	1.030E-13
13982-23-5m	Zinc-69m	5.070E-12	1.860E-12	1.280E-12	1.770E-06	2.730E-12
15751-77-6	Zirconium-93	2.120E-12	1.110E-12	7.290E-12	---	1.440E-12
13967-71-0	Zirconium-95	1.230E-11	4.590E-12	1.650E-11	3.400E-06	6.590E-12
14928-30-4	Zirconium-97	3.570E-11	1.250E-11	4.810E-12	8.620E-07	1.830E-11

CH2MHILL

MOUND
Environmental
Restoration
Program

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Created for the Department of Energy
Miamisburg Closure Project

ER / Site Transition Added Summary Worksheet

Chemical Information		Screening				10^{-6} (column 1)				Hazard Index = 1 (column 6)				MCL (column 5)
		Groundwater		Soil		Groundwater		Soil		Groundwater		Soil		
CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
Inorganics														
7440-34-8	Actinium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7429-90-5	Aluminum	1.02E+01	CW	2.13E+04	CW	- - -	- - -	- - -	- - -	1.02E+02	CW	2.13E+05	CW	- - -
7440-36-0	Antimony	4.07E-03	CW	8.52E+00	CW	- - -	- - -	- - -	- - -	4.07E-02	CW	8.52E+01	CW	6.00E-03
7440-38-2	Arsenic	1.91E-04	SE	1.99E+00	CW	1.91E-04	SE	1.99E+00	CW	3.06E-02	CW	6.39E+01	CW	1.00E-02
7440-39-3	Barium	7.13E-01	CW	1.49E+03	CW	- - -	- - -	- - -	- - -	7.13E+00	CW	1.49E+04	CW	2.00E+00
7440-41-7	Beryllium	2.04E-02	CW	4.21E+01	CW	- - -	- - -	2.25E+03	SE	2.04E-01	CW	4.21E+02	CW	4.00E-03
7440-69-9	Bismuth	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-42-8	Boron	9.17E-01	CW	1.92E+03	CW	- - -	- - -	- - -	- - -	9.17E+00	CW	1.92E+04	CW	- - -
7440-43-9s	Cadmium	5.09E-03	CW	2.13E+01	CW	- - -	- - -	3.00E+03	SE	5.09E-02	CW	2.13E+02	CW	5.00E-03
7440-70-2	Calcium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-45-1	Cerium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-47-3	Chromium	1.53E+01	SE	3.19E+04	CW	- - -	- - -	- - -	- - -	1.53E+02	SE	3.19E+05	CW	1.00E-01
16065-83-1	Chromium III	1.53E+01	CW	3.19E+04	CW	- - -	- - -	- - -	- - -	1.53E+02	CW	3.19E+05	CW	1.00E-01
18540-29-9	Chromium VI	3.06E-02	CW	6.37E+01	CW	- - -	- - -	4.50E+02	SE	3.06E-01	CW	6.37E+02	CW	- - -
7440-48-4	Cobalt	6.11E-01	CW	1.28E+03	CW	- - -	- - -	- - -	- - -	6.11E+00	CW	1.28E+04	CW	- - -
7440-50-8	Copper	4.07E-01	CW	8.52E+02	CW	- - -	- - -	- - -	- - -	4.07E+00	CW	8.52E+03	CW	- - -
57-12-5	Cyanide	2.00E-01	CW	4.26E+02	CW	- - -	- - -	- - -	- - -	2.00E+00	CW	4.26E+03	CW	- - -
7429-91-6	Dypsprosium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-52-0	Erbium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-53-1	Europium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-54-2	Gadolinium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-60-0	Holmium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-89-6	Iron	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-91-0	Lanthanum	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-92-1	Lead	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-93-2	Lithium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-94-3	Lutetium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-95-4	Magnesium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7439-96-5s	Manganese	4.79E-01	CW	2.28E+03	CW	- - -	- - -	- - -	- - -	4.79E+00	CW	2.28E+04	CW	- - -
7439-97-6	Mercury	3.06E-03	CW	6.39E+00	CW	- - -	- - -	- - -	- - -	3.06E-02	CW	6.39E+01	CW	2.00E-03
7439-98-7	Molybdenum	5.09E-02	CW	1.06E+02	CW	- - -	- - -	- - -	- - -	5.09E-01	CW	1.06E+03	CW	- - -
7440-00-8	Neodymium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-02-0	Nickel	2.04E-01	CW	4.26E+02	CW	- - -	- - -	1.12E+04	SE	2.04E+00	CW	4.26E+03	CW	- - -
14797-55-8	Nitrate	1.63E+01	CW	3.41E+04	CW	- - -	- - -	- - -	- - -	1.63E+02	CW	3.41E+05	CW	1.00E+01
14797-65-0	Nitrite	1.02E+00	CW	2.13E+03	CW	- - -	- - -	- - -	- - -	1.02E+01	CW	2.13E+04	CW	1.00E+00
7440-04-2	Osmium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-09-7	Potassium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-10-0	Praseodymium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-17-7	Rubidium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-19-9	Samarium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7782-49-2	Selenium	5.09E-02	CW	1.06E+02	CW	- - -	- - -	- - -	- - -	5.09E-01	CW	1.06E+03	CW	5.00E-02
7440-21-3	Silicon	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-22-4	Silver	5.09E-02	CW	1.06E+02	CW	- - -	- - -	- - -	- - -	5.09E-01	CW	1.06E+03	CW	- - -

Date Printed 3/4/2008
Date of Revision 02/19/2004

CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
7440-23-5	Sodium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-24-6	Strontium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-25-7	Tantalum	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-27-9	Terbium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-28-0	Thallium	8.15E-04	CW	1.70E+00	CW	- - -	- - -	- - -	- - -	8.15E-03	CW	1.70E+01	CW	2.00E-03
7440-31-5	Tin	6.11E+00	CW	1.28E+04	CW	- - -	- - -	- - -	- - -	6.11E+01	CW	1.28E+05	CW	- - -
7440-32-6	Titanium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-61-1	Uranium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	3.00E+01
7440-62-2	Vanadium	7.13E-02	CW	1.49E+02	CW	- - -	- - -	- - -	- - -	7.13E-01	CW	1.49E+03	CW	- - -
7440-64-4	Ytterbium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7440-66-6	Zinc	3.06E+00	CW	6.39E+03	CW	- - -	- - -	- - -	- - -	3.06E+01	CW	6.39E+04	CW	- - -
7440-67-7	Zirconium	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Dioxins/Dibenzofurans														
35822-46-9	1,2,3,4,6,7,8-HpCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
67562-39-4	1,2,3,4,6,7,8-HpCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
55673-89-7	1,2,3,4,7,8,9-HpCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
39227-28-6	1,2,3,4,7,8-HxCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
70648-26-9	1,2,3,4,7,8-HxCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57117-44-9	1,2,3,5,7,8-HxCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57653-85-7	1,2,3,6,7,8-HxCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
55684-94-1	1,2,3,6,7,8-HxCDF	1.91E-08	SE	1.99E-04	CW	1.91E-08	SE	1.99E-04	CW	- - -	- - -	- - -	- - -	- - -
19408-74-3	1,2,3,7,8,9-HxCDD	4.62E-08	SE	4.81E-04	CW	4.62E-08	SE	4.81E-04	CW	- - -	- - -	- - -	- - -	- - -
72918-21-9	1,2,3,7,8,9-HxCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
40321-76-4	1,2,3,7,8-PeCDD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57117-41-6	1,2,3,7,8-PeCDF	3.82E-09	SE	3.97E-05	CW	3.82E-09	SE	3.97E-05	CW	- - -	- - -	- - -	- - -	- - -
60851-34-5	2,3,4,6,7,8-HxCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
57117-31-4	2,3,4,7,8-PeCDF	3.82E-08	SE	3.97E-04	CW	3.82E-08	SE	3.97E-04	CW	- - -	- - -	- - -	- - -	- - -
1746-01-6	2,3,7,8-TCDD	1.08E-10	CW	1.99E-05	CW	1.08E-10	CW	1.99E-05	CW	- - -	- - -	- - -	- - -	3.00E-08
51207-31-9	2,3,7,8-TCDF	1.91E-08	SE	1.99E-04	CW	1.91E-08	SE	1.99E-04	CW	- - -	- - -	- - -	- - -	- - -
37871-00-4	HpCDD	1.91E-07	SE	1.99E-03	CW	1.91E-07	SE	1.99E-03	CW	- - -	- - -	- - -	- - -	- - -
38998-75-3	HpCDF	1.91E-07	SE	1.99E-03	CW	1.91E-07	SE	1.99E-03	CW	- - -	- - -	- - -	- - -	- - -
34465-46-8	HxCDD	1.91E-08	SE	1.99E-04	CW	1.91E-08	SE	1.99E-04	CW	- - -	- - -	- - -	- - -	- - -
3268-87-9	OCDD	1.91E-06	SE	1.99E-02	CW	1.91E-06	SE	1.99E-02	CW	- - -	- - -	- - -	- - -	- - -
39001-02-0	OCDF	1.91E-06	SE	1.99E-02	CW	1.91E-06	SE	1.99E-02	CW	- - -	- - -	- - -	- - -	- - -
36088-22-9	PeCDD	3.82E-09	SE	3.97E-05	CW	3.82E-09	SE	3.97E-05	CW	- - -	- - -	- - -	- - -	- - -
30402-15-4	PeCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
41903-57-5	TCDD, Total	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
30402-14-3	TCDF	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Explosives														
99-35-4	1,3,5-Trinitrobenzene	3.07E-01	SE	6.39E+02	CW	- - -	- - -	- - -	- - -	3.07E+00	SE	6.39E+03	CW	- - -
99-65-0	1,3-Dinitrobenzene	1.02E-03	SE	2.13E+00	CW	- - -	- - -	- - -	- - -	1.02E-02	SE	2.13E+01	CW	- - -
118-96-7	2,4,6-Trinitrotoluene	5.11E-03	SE	1.06E+01	CW	9.54E-03	SE	9.94E+01	CW	5.11E-02	SE	1.06E+02	CW	- - -
35572-78-2	2-Amino-4,6-Dinitrotoluene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2691-41-0	HMX	5.11E-01	SE	1.06E+03	CW	- - -	- - -	- - -	- - -	5.11E+00	SE	1.06E+04	CW	- - -
55-63-0	Nitroglycerin	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
78-11-5	PETN	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
121-82-4	RDX	2.60E-03	SE	2.71E+01	CW	2.60E-03	SE	2.71E+01	CW	3.07E-01	SE	6.39E+02	CW	- - -
479-45-8	Tetryl	1.02E-01	SE	2.13E+02	CW	- - -	- - -	- - -	- - -	1.02E+00	SE	2.13E+03	CW	- - -
Pesticides and/or PCBs														
72-54-8	4,4'-DDD	3.29E-04	CW	1.24E+01	CW	3.29E-04	CW	1.24E+01	CW	- - -	- - -	- - -	- - -	- - -
72-55-9	4,4'-DDE	2.72E-04	CW	8.77E+00	CW	2.72E-04	CW	8.77E+00	CW	- - -	- - -	- - -	- - -	- - -
50-29-3	4,4'-DDT	1.20E-04	CW	8.77E+00	CW	1.20E-04	CW	8.77E+00	CW	1.46E-03	CW	1.06E+02	CW	- - -

CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
309-00-2	Aldrin	1.68E-05	SE	1.75E-01	CW	1.68E-05	SE	1.75E-01	CW	2.70E-03	CW	6.39E+00	CW	- - -
5103-71-9	Alpha Chlordane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
319-84-6	Alpha-BHC	4.54E-05	SE	4.73E-01	CW	4.54E-05	SE	4.73E-01	CW	- - -	- - -	- - -	- - -	- - -
12674-11-2	Aroclor-1016	1.43E-04	SE	1.49E+00	CW	1.43E-04	SE	1.49E+00	CW	7.15E-03	SE	1.49E+01	CW	- - -
11104-28-2	Aroclor-1221	1.43E-04	SE	1.49E+00	CW	1.43E-04	SE	1.49E+00	CW	- - -	- - -	- - -	- - -	- - -
11141-16-5	Aroclor-1232	1.43E-04	SE	1.49E+00	CW	1.43E-04	SE	1.49E+00	CW	- - -	- - -	- - -	- - -	- - -
53469-21-9	Aroclor-1242	1.43E-04	SE	1.49E+00	CW	1.43E-04	SE	1.49E+00	CW	- - -	- - -	- - -	- - -	- - -
12672-29-6	Aroclor-1248	1.43E-04	SE	1.49E+00	CW	1.43E-04	SE	1.49E+00	CW	- - -	- - -	- - -	- - -	- - -
11097-69-1	Aroclor-1254	1.43E-04	SE	4.26E-01	CW	1.43E-04	SE	1.49E+00	CW	2.04E-03	SE	4.26E+00	CW	- - -
11096-82-5	Aroclor-1260	1.43E-04	SE	1.49E+00	CW	1.43E-04	SE	1.49E+00	CW	- - -	- - -	- - -	- - -	- - -
319-85-7	Beta-BHC	1.59E-04	SE	1.66E+00	CW	1.59E-04	SE	1.66E+00	CW	- - -	- - -	- - -	- - -	- - -
57-74-9	Chlordane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	2.00E-03
319-86-8	Delta-BHC	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
60-57-1	Dieldrin	1.79E-05	SE	1.86E-01	CW	1.79E-05	SE	1.86E-01	CW	2.05E-03	CW	1.06E+01	CW	- - -
959-98-8	Endosulfan I	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
33213-65-9	Endosulfan II	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1031-07-8	Endosulfan Sulfate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
72-20-8	Endrin	1.23E-03	CW	6.39E+00	CW	- - -	- - -	- - -	- - -	1.23E-02	CW	6.39E+01	CW	2.00E-03
7421-93-4	Endrin Aldehyde	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
53494-70-5	Endrin Ketone	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
5103-74-2	Gamma Chlordane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
58-89-9	Gamma-BHC (Lindane)	2.20E-04	SE	2.29E+00	CW	2.20E-04	SE	2.29E+00	CW	1.80E-02	CW	6.39E+01	CW	2.00E-04
76-44-8	Heptachlor	2.91E-05	CW	6.62E-01	CW	2.91E-05	CW	6.62E-01	CW	4.67E-03	CW	1.06E+02	CW	4.00E-04
1024-57-3	Heptachlor Epoxide	3.14E-05	SE	2.77E-01	CW	3.14E-05	SE	3.28E-01	CW	1.33E-03	SE	2.77E+00	CW	2.00E-04
72-43-5	Methoxychlor	5.11E-02	SE	1.06E+02	CW	- - -	- - -	- - -	- - -	5.11E-01	SE	1.06E+03	CW	4.00E-02
1336-36-3	Polychlorinated Biphenyls (PCBs)	1.43E-04	SE	4.26E-01	CW	1.43E-04	SE	1.49E+00	CW	2.04E-03	SE	4.26E+00	CW	5.00E-04
8001-35-2	Toxaphene	2.60E-04	SE	2.71E+00	CW	2.60E-04	SE	2.71E+00	CW	- - -	- - -	- - -	- - -	3.00E-03
Semi-Volatile Organics														
120-82-1	1,2,4-Trichlorobenzene	3.10E-02	CW	2.13E+02	CW	- - -	- - -	- - -	- - -	3.10E-01	CW	2.13E+03	CW	7.00E-02
95-50-1	1,2-Dichlorobenzene	4.36E-01	CW	1.92E+03	CW	- - -	- - -	- - -	- - -	4.36E+00	CW	1.92E+04	CW	6.00E-01
122-66-7	1,2-Diphenylhydrazine	3.58E-04	SE	3.73E+00	CW	3.58E-04	SE	3.73E+00	CW	- - -	- - -	- - -	- - -	- - -
541-73-1	1,3-Dichlorobenzene	1.19E-01	CW	6.38E+02	CW	- - -	- - -	- - -	- - -	1.19E+00	CW	6.38E+03	CW	- - -
106-46-7	1,4-Dichlorobenzene	1.19E-02	SE	1.24E+02	CW	1.19E-02	SE	1.24E+02	CW	- - -	- - -	1.54E+09	SE	7.50E-02
108-60-1	2,2'-oxybis(1-chloropropane)	4.09E-03	SE	4.26E+01	CW	4.09E-03	SE	4.26E+01	CW	4.09E+00	SE	8.52E+03	CW	- - -
95-95-4	2,4,5-Trichlorophenol	1.02E+00	SE	2.13E+03	CW	- - -	- - -	- - -	- - -	1.02E+01	SE	2.13E+04	CW	- - -
88-06-2	2,4,6-Trichlorophenol	2.60E-02	SE	2.71E+02	CW	2.60E-02	SE	2.71E+02	CW	- - -	- - -	- - -	- - -	- - -
120-83-2	2,4-Dichlorophenol	1.38E-02	CW	6.39E+01	CW	- - -	- - -	- - -	- - -	1.38E-01	CW	6.39E+02	CW	- - -
105-67-9	2,4-Dimethylphenol	8.07E-02	CW	4.26E+02	CW	- - -	- - -	- - -	- - -	8.07E-01	CW	4.26E+03	CW	- - -
51-28-5	2,4-Dinitrophenol	1.90E-02	CW	4.26E+01	CW	- - -	- - -	- - -	- - -	1.90E-01	CW	4.26E+02	CW	- - -
121-14-2	2,4-Dinitrotoluene	4.21E-04	SE	4.38E+00	CW	4.21E-04	SE	4.38E+00	CW	1.88E-01	CW	4.26E+02	CW	- - -
606-20-2	2,6-Dinitrotoluene	4.21E-04	SE	4.38E+00	CW	4.21E-04	SE	4.38E+00	CW	9.66E-02	CW	2.13E+02	CW	- - -
120-32-1	2-Benzyl-4-Chlorophenol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
91-58-7	2-Chloronaphthalene	8.18E-01	SE	1.70E+03	CW	- - -	- - -	- - -	- - -	8.18E+00	SE	1.70E+04	CW	- - -
95-57-8	2-Chlorophenol	3.35E-02	CW	1.06E+02	CW	- - -	- - -	- - -	- - -	3.35E-01	CW	1.06E+03	CW	- - -
91-57-6	2-Methylnaphthalene	4.09E-02	SE	8.52E+01	CW	- - -	- - -	- - -	- - -	4.09E-01	SE	8.52E+02	CW	- - -
95-48-7	2-Methylphenol	4.18E-01	CW	1.06E+03	CW	- - -	- - -	- - -	- - -	4.18E+00	CW	1.06E+04	CW	- - -
88-74-4	2-Nitroaniline	3.07E-03	SE	6.39E+00	CW	- - -	- - -	- - -	- - -	3.07E-02	SE	6.39E+01	CW	- - -
88-75-5	2-Nitrophenol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
91-94-1	3,3'-Dichlorobenzidine	6.36E-04	SE	6.62E+00	CW	6.36E-04	SE	6.62E+00	CW	- - -	- - -	- - -	- - -	- - -
99-09-2	3-Nitroaniline	3.07E-03	SE	6.39E+00	CW	7.53E-03	SE	7.84E+01	CW	3.07E-02	SE	6.39E+01	CW	- - -
534-52-1	4,6-Dinitro-o-Cresol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
101-55-3	4-Bromophenyl-phenyl Ether	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
59-50-7	4-Chloro-3-Methylphenol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-47-8	4-Chloroaniline	4.09E-02	SE	8.52E+01	CW	- - -	- - -	- - -	- - -	4.09E-01	SE	8.52E+02	CW	- - -
7005-72-3	4-Chlorophenyl-Phenylether	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-44-5	4-Methylphenol	4.09E-02	CW	1.06E+02	CW	- - -	- - -	- - -	- - -	4.09E-01	CW	1.06E+03	CW	- - -
100-01-6	4-Nitroaniline	7.53E-03	SE	6.39E+01	CW	7.53E-03	SE	7.84E+01	CW	3.07E-01	SE	6.39E+02	CW	- - -
100-02-7	4-Nitrophenol	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
83-32-9	Acenaphthene	6.13E-01	SE	1.28E+03	CW	- - -	- - -	- - -	- - -	6.13E+00	SE	1.28E+04	CW	- - -
208-96-8	Acenaphthylene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
120-12-7	Anthracene	3.07E+00	SE	6.39E+03	CW	- - -	- - -	- - -	- - -	3.07E+01	SE	6.39E+04	CW	- - -
92-87-5	Benzidine	1.24E-06	SE	1.30E-02	CW	1.24E-06	SE	1.30E-02	CW	2.97E-01	CW	6.39E+02	CW	- - -
56-55-3	Benzo(a)anthracene	7.17E-05	CW	4.08E+00	CW	7.17E-05	CW	4.08E+00	CW	- - -	- - -	- - -	- - -	- - -
50-32-8	Benzo(a)pyrene	4.28E-06	CW	4.08E-01	CW	4.28E-06	CW	4.08E-01	CW	- - -	- - -	- - -	- - -	2.00E-04
205-99-2	Benzo(b)fluoranthene	4.21E-05	CW	4.08E+00	CW	4.21E-05	CW	4.08E+00	CW	- - -	- - -	- - -	- - -	- - -
191-24-2	Benzo(g,h,i)perylene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
207-08-9	Benzo(k)fluoranthene	3.92E-03	SE	4.08E+01	CW	3.92E-03	SE	4.08E+01	CW	- - -	- - -	- - -	- - -	- - -
65-85-0	Benzoic Acid	3.68E+01	CW	8.52E+04	CW	- - -	- - -	- - -	- - -	3.68E+02	CW	8.52E+05	CW	- - -
100-51-6	Benzyl Alcohol	3.07E+00	SE	6.39E+03	CW	- - -	- - -	- - -	- - -	3.07E+01	SE	6.39E+04	CW	- - -
111-91-1	Bis(2-chloroethoxy)methane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
111-44-4	Bis(2-chloroethyl)ether	2.60E-04	SE	2.71E+00	CW	2.60E-04	SE	2.71E+00	CW	- - -	- - -	- - -	- - -	- - -
117-81-7	Bis(2-ethylhexyl)phthalate	2.04E-02	SE	2.13E+02	CW	2.04E-02	SE	2.13E+02	CW	4.74E-01	CW	4.26E+03	CW	6.00E-03
85-68-7	Butyl Benzyl Phthalate	2.04E+00	SE	4.26E+03	CW	- - -	- - -	- - -	- - -	2.04E+01	SE	4.26E+04	CW	- - -
86-74-8	Carbazole	1.43E-02	SE	1.49E+02	CW	1.43E-02	SE	1.49E+02	CW	- - -	- - -	- - -	- - -	- - -
218-01-9	Chrysene	7.17E-03	CW	4.08E+02	CW	7.17E-03	CW	4.08E+02	CW	- - -	- - -	- - -	- - -	- - -
84-74-2	Di-n-butyl Phthalate	4.09E-01	CW	2.13E+03	CW	- - -	- - -	- - -	- - -	4.09E+00	CW	2.13E+04	CW	- - -
117-84-0	Di-n-octyl Phthalate	2.04E-01	SE	4.26E+02	CW	- - -	- - -	- - -	- - -	2.04E+00	SE	4.26E+03	CW	- - -
53-70-3	Dibenz(a,h)anthracene	1.57E-06	CW	4.08E-01	CW	1.57E-06	CW	4.08E-01	CW	- - -	- - -	- - -	- - -	- - -
132-64-9	Dibenzofuran	4.09E-02	SE	8.52E+01	CW	- - -	- - -	- - -	- - -	4.09E-01	SE	8.52E+02	CW	- - -
84-66-2	Diethyl Phthalate	7.12E+00	CW	1.70E+04	CW	- - -	- - -	- - -	- - -	7.12E+01	CW	1.70E+05	CW	- - -
131-11-3	Dimethyl Phthalate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
206-44-0	Fluoranthene	3.83E-02	CW	8.52E+02	CW	- - -	- - -	- - -	- - -	3.83E-01	CW	8.52E+03	CW	- - -
86-73-7	Fluorene	4.09E-01	SE	8.52E+02	CW	- - -	- - -	- - -	- - -	4.09E+00	SE	8.52E+03	CW	- - -
118-74-1	Hexachlorobenzene	8.07E-05	CW	1.86E+00	CW	8.07E-05	CW	1.86E+00	CW	7.38E-03	CW	1.70E+02	CW	1.00E-03
87-68-3	Hexachlorobutadiene	3.49E-04	CW	4.26E+00	CW	3.14E-03	CW	3.82E+01	CW	3.49E-03	CW	4.26E+01	CW	- - -
77-47-4	Hexachlorocyclopentadiene	6.13E-02	SE	1.27E+02	CW	- - -	- - -	- - -	- - -	6.13E-01	SE	1.27E+03	CW	5.00E-02
67-72-1	Hexachloroethane	4.21E-03	CW	2.13E+01	CW	2.04E-02	SE	2.13E+02	CW	4.21E-02	CW	2.13E+02	CW	- - -
193-39-5	Indeno(1,2,3-cd)pyrene	2.27E-05	CW	4.08E+00	CW	2.27E-05	CW	4.08E+00	CW	- - -	- - -	- - -	- - -	- - -
78-59-1	Isophorone	3.01E-01	SE	3.14E+03	CW	3.01E-01	SE	3.14E+03	CW	1.91E+01	CW	4.26E+04	CW	- - -
621-64-7	N-Nitroso-di-n-propylamine	4.09E-05	SE	4.26E-01	CW	4.09E-05	SE	4.26E-01	CW	- - -	- - -	- - -	- - -	- - -
62-75-9	N-Nitrosodimethylamine	5.61E-06	SE	5.84E-02	CW	5.61E-06	SE	5.84E-02	CW	- - -	- - -	- - -	- - -	- - -
86-30-6	N-Nitrosodiphenylamine	5.84E-02	SE	6.08E+02	CW	5.84E-02	SE	6.08E+02	CW	- - -	- - -	- - -	- - -	- - -
91-20-3	Naphthalene	9.73E-02	CW	4.26E+02	CW	- - -	- - -	- - -	- - -	9.73E-01	CW	4.26E+03	CW	- - -
98-95-3	Nitrobenzene	5.11E-03	SE	1.06E+01	CW	- - -	- - -	- - -	- - -	5.11E-02	SE	1.06E+02	CW	- - -
87-86-5	Pentachlorophenol	4.20E-04	CW	2.48E+01	CW	4.20E-04	CW	2.48E+01	CW	1.08E-01	CW	6.39E+03	CW	1.00E-03
85-01-8	Phenanthrene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-95-2	Phenol	5.56E+00	CW	1.28E+04	CW	- - -	- - -	- - -	- - -	5.56E+01	CW	1.28E+05	CW	- - -
129-00-0	Pyrene	3.07E-01	SE	6.39E+02	CW	- - -	- - -	- - -	- - -	3.07E+00	SE	6.39E+03	CW	- - -
110-86-1	Pyridine	1.02E-02	SE	2.13E+01	CW	- - -	- - -	- - -	- - -	1.02E-01	SE	2.13E+02	CW	- - -
126-73-8	Tributyl phosphate	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Volatile Organics														
630-20-6	1,1,1,2-Tetrachloroethane	1.10E-02	SE	6.95E+00	SE	1.10E-02	SE	6.95E+00	SE	3.07E+00	SE	6.39E+03	CW	- - -

CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
71-55-6	1,1,1-Trichloroethane	2.12E+00	CW	3.31E+02	CW	- - -	- - -	- - -	- - -	2.12E+01	CW	3.31E+03	CW	2.00E-01
79-34-5	1,1,2,2-Tetrachloroethane	1.43E-03	SE	8.88E-01	SE	1.43E-03	SE	8.88E-01	SE	- - -	- - -	- - -	- - -	- - -
79-00-5	1,1,2-Trichloroethane	5.02E-03	SE	1.90E+00	SE	5.02E-03	SE	1.90E+00	SE	3.59E-01	CW	8.18E+03	SE	5.00E-03
75-34-3	1,1-Dichloroethane	9.16E-01	CW	1.06E+03	CW	- - -	- - -	- - -	- - -	9.16E+00	CW	1.06E+04	CW	- - -
75-35-4	1,1-Dichloroethene	4.24E-01	CW	1.02E+04	SE	- - -	- - -	- - -	- - -	4.24E+00	CW	1.02E+05	SE	7.00E-03
563-58-6	1,1-Dichloropropene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
87-61-6	1,2,3-Trichlorobenzene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
96-18-4	1,2,3-Trichloropropane	4.09E-05	SE	4.26E-01	CW	4.09E-05	SE	4.26E-01	CW	6.13E-01	SE	1.28E+03	CW	- - -
95-63-6	1,2,4-Trimethylbenzene	1.69E-01	CW	1.72E+01	CW	- - -	- - -	- - -	- - -	1.69E+00	CW	1.72E+02	CW	- - -
96-12-8	1,2-Dibromo-3-Chloropropane	2.04E-04	SE	7.30E-01	SE	2.04E-04	SE	2.12E+00	CW	8.39E-02	CW	7.30E+00	SE	2.00E-04
107-06-2	1,2-Dichloroethane	3.14E-03	SE	7.61E-01	SE	3.14E-03	SE	7.61E-01	SE	- - -	- - -	- - -	- - -	5.00E-03
540-59-0	1,2-Dichloroethene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
78-87-5	1,2-Dichloropropane	4.21E-03	SE	2.16E+00	SE	4.21E-03	SE	4.38E+01	CW	1.68E+00	CW	2.16E+01	SE	5.00E-03
135-01-3	1,2-Diethylbenzene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
156-59-2	1,2-cis-Dichloroethene	1.02E-01	SE	2.13E+02	CW	- - -	- - -	- - -	- - -	1.02E+00	SE	2.13E+03	CW	7.00E-02
156-60-5	1,2-trans-Dichloroethene	2.04E-01	SE	4.26E+02	CW	- - -	- - -	- - -	- - -	2.04E+00	SE	4.26E+03	CW	1.00E-01
108-67-8	1,3,5-Trimethylbenzene	1.69E-01	CW	6.96E+00	CW	- - -	- - -	- - -	- - -	1.69E+00	CW	6.96E+01	CW	- - -
142-28-9	1,3-Dichloropropane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
141-93-5	1,3-Diethylbenzene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
10061-01-5	1,3-cis-Dichloropropene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
10061-02-6	1,3-trans-Dichloropropene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
105-05-5	1,4-Diethylbenzene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
544-10-5	1-Chlorohexane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
594-20-7	2,2-Dichloropropane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
78-93-3	2-Butanone	5.82E+00	CW	9.30E+02	SE	- - -	- - -	- - -	- - -	5.82E+01	CW	9.30E+03	SE	- - -
110-75-8	2-Chloroethylvinylether	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
95-49-8	2-Chlorotoluene	2.04E-01	SE	4.26E+02	CW	- - -	- - -	- - -	- - -	2.04E+00	SE	4.26E+03	CW	- - -
591-78-6	2-Hexanone	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-43-4	4-Chlorotoluene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
108-10-1	4-Methyl-2-pentanone	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
67-64-1	Acetone	9.20E+00	SE	1.92E+04	CW	- - -	- - -	- - -	- - -	9.20E+01	SE	1.92E+05	CW	- - -
75-05-8	Acetonitrile	2.52E+00	CW	2.01E+02	SE	- - -	- - -	- - -	- - -	2.52E+01	CW	2.01E+03	SE	- - -
107-13-1	Acrylonitrile	5.30E-04	SE	5.15E-01	SE	5.30E-04	SE	5.15E-01	SE	9.01E-02	CW	2.34E+01	CW	- - -
71-43-2	Benzene	5.20E-03	SE	4.90E+01	SE	5.20E-03	SE	5.42E+01	CW	1.83E-01	CW	4.90E+02	SE	5.00E-03
100-44-7	Benzyl Chloride	1.68E-03	SE	1.75E+01	CW	1.68E-03	SE	1.75E+01	CW	- - -	- - -	- - -	- - -	- - -
74-97-5	Bromochloromethane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-27-4	Bromodichloromethane	4.62E-03	SE	4.81E+01	CW	4.62E-03	SE	4.81E+01	CW	1.83E+00	CW	4.26E+03	CW	- - -
75-25-2	Bromoform	3.62E-02	SE	3.77E+02	CW	3.62E-02	SE	3.77E+02	CW	1.86E+00	CW	4.26E+03	CW	- - -
74-83-9	Bromomethane	1.29E-02	CW	1.26E+00	CW	- - -	- - -	- - -	- - -	1.29E-01	CW	1.26E+01	CW	- - -
75-15-0	Carbon Disulfide	1.52E-01	CW	1.16E+02	CW	- - -	- - -	- - -	- - -	1.52E+00	CW	1.16E+03	CW	- - -
56-23-5	Carbon Tetrachloride	2.20E-03	SE	5.38E-01	SE	2.20E-03	SE	5.38E-01	SE	4.75E-02	CW	5.62E+00	CW	- - -
108-90-7	Chlorobenzene	1.22E-01	CW	4.89E+01	CW	- - -	- - -	- - -	- - -	1.22E+00	CW	4.89E+02	CW	1.00E-01
75-00-3	Chloroethane	3.74E+00	CW	1.60E+01	SE	- - -	- - -	- - -	- - -	3.74E+01	CW	1.60E+02	SE	- - -
67-66-3	Chloroform (Trichloromethane)	3.46E-02	CW	5.15E-01	SE	2.55E-01	CW	5.15E-01	SE	3.46E-01	CW	1.50E+03	SE	- - -
74-87-3	Chloromethane	2.20E-02	SE	2.71E+00	SE	2.20E-02	SE	2.71E+00	SE	3.78E+01	CW	1.58E+02	SE	- - -
25168-05-2	Chlorotoluene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
124-48-1	Dibromochloromethane	3.41E-03	SE	3.55E+01	CW	3.41E-03	SE	3.55E+01	CW	1.84E+00	CW	4.26E+03	CW	- - -
74-95-3	Dibromomethane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
75-71-8	Dichlorodifluoromethane	1.73E+00	CW	4.26E+03	CW	- - -	- - -	- - -	- - -	1.73E+01	CW	4.26E+04	CW	- - -
75-09-2	Dichloromethane (Methylene Chloride)	3.82E-02	SE	2.03E+01	SE	3.82E-02	SE	2.03E+01	SE	5.80E+00	CW	1.00E+03	SE	5.00E-03
100-41-4	Ethylbenzene	6.95E-02	CW	4.80E-02	SE	- - -	- - -	- - -	- - -	6.95E-01	CW	4.80E-01	SE	7.00E-01

CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
106-93-4	Ethylene Dibromide (1,2-Dibromoethane)	3.37E-06	SE	3.37E-02	CW	3.37E-06	SE	3.37E-02	CW	8.39E-02	CW	2.69E+00	SE	5.00E-05
462-06-6	Fluorobenzene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
76-13-1	FREON-113	2.47E+02	CW	6.93E+03	CW	- - -	- - -	- - -	- - -	2.47E+03	CW	6.93E+04	CW	- - -
110-54-3	Hexane	5.71E-01	CW	9.10E+00	SE	- - -	- - -	- - -	- - -	5.71E+00	CW	9.10E+01	SE	- - -
74-88-4	Iodomethane	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
98-82-8	Isopropyl Benzene	9.63E-01	CW	5.30E+01	CW	- - -	- - -	- - -	- - -	9.63E+00	CW	5.30E+02	CW	- - -
108-86-1	Monobromobenzene (Phenyl bromide)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
348-51-6	O-Chloroflurobenzene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
100-42-5	Styrene	2.02E-01	CW	1.45E+03	CW	- - -	- - -	- - -	- - -	2.02E+00	CW	1.45E+04	CW	1.00E-01
127-18-4	Tetrachloroethene	3.16E-03	CW	1.87E+01	SE	3.16E-03	CW	1.87E+01	SE	1.18E-01	CW	2.13E+03	CW	5.00E-03
108-88-3	Toluene	1.51E-01	CW	2.50E+01	SE	- - -	- - -	- - -	- - -	1.51E+00	CW	2.50E+02	SE	1.00E+00
TVOC	Total VOC's	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
79-01-6	Trichloroethene	2.20E-02	SE	5.25E+00	SE	2.20E-02	SE	5.25E+00	SE	1.03E+01	CW	4.40E+02	SE	5.00E-03
75-69-4	Trichlorofluoromethane	2.38E+00	CW	7.30E+01	SE	- - -	- - -	- - -	- - -	2.38E+01	CW	7.30E+02	SE	- - -
108-05-4	Vinyl Acetate	4.61E+00	CW	1.39E+02	CW	- - -	- - -	- - -	- - -	4.61E+01	CW	1.39E+03	CW	- - -
75-01-4	Vinyl Chloride	1.91E-04	SE	4.14E-01	SE	1.91E-04	SE	4.14E-01	SE	2.84E-01	CW	1.19E+02	CW	2.00E-03
1330-20-7	Xylenes, Total	2.04E+00	SE	4.26E+03	CW	- - -	- - -	- - -	- - -	2.04E+01	SE	4.26E+04	CW	1.00E+01
108-38-3	m-Xylene	9.39E+00	CW	4.26E+04	CW	- - -	- - -	- - -	- - -	9.39E+01	CW	4.26E+05	CW	- - -
mp-Xylene	mp-Xylene	- - -	- - -	2.77E+02	CW	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
104-51-8	n-Butylbenzene	4.09E-01	SE	8.52E+02	CW	- - -	- - -	- - -	- - -	4.09E+00	SE	8.52E+03	CW	- - -
103-65-1	n-propylbenzene	4.09E-01	SE	8.52E+02	CW	- - -	- - -	- - -	- - -	4.09E+00	SE	8.52E+03	CW	- - -
95-47-6	o-Xylene	2.04E+01	SE	4.26E+04	CW	- - -	- - -	- - -	- - -	2.04E+02	SE	4.26E+05	CW	- - -
99-87-6	p-Isopropyltoluene	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
106-42-3	p-Xylene	2.04E+01	SE	4.26E+04	CW	- - -	- - -	- - -	- - -	2.04E+02	SE	4.26E+05	CW	- - -
135-98-8	sec-Butylbenzene	4.09E-01	SE	8.52E+02	CW	- - -	- - -	- - -	- - -	4.09E+00	SE	8.52E+03	CW	- - -
98-06-6	tert-Butylbenzene	4.09E-01	SE	8.52E+02	CW	- - -	- - -	- - -	- - -	4.09E+00	SE	8.52E+03	CW	- - -
Radiological														
14952-40-0	Actinium-227	7.96E-01	SE	4.37E+00	CW	7.96E-01	SE	4.37E+00	SE	N/A	N/A	N/A	N/A	N/A
14952-40-0(+D)	Actinium-227 +D	3.29E-01	SE	4.53E-01	CW	3.29E-01	SE	4.53E-01	SE	N/A	N/A	N/A	N/A	N/A
14952-40-0L	Actinium-227 long lived decay	3.29E-01	SE	4.53E-01	CW	3.29E-01	SE	4.53E-01	SE	N/A	N/A	N/A	N/A	N/A
14331-83-0	Actinium-228	8.04E+01	SE	1.93E-01	SE	8.04E+01	SE	1.93E-01	SE	N/A	N/A	N/A	N/A	N/A
14596-10-2	Americium-241	1.54E+00	SE	6.31E+00	CW	1.54E+00	SE	6.31E+00	SE	N/A	N/A	N/A	N/A	N/A
14683-10-4	Antimony-124	1.24E+01	SE	9.84E-02	SE	1.24E+01	SE	9.84E-02	SE	N/A	N/A	N/A	N/A	N/A
14234-35-6	Antimony-125	3.66E+01	SE	4.83E-01	SE	3.66E+01	SE	4.83E-01	SE	N/A	N/A	N/A	N/A	N/A
14234-35-6(+D)	Antimony-125+D	3.12E+01	SE	4.83E-01	SE	3.12E+01	SE	4.83E-01	SE	N/A	N/A	N/A	N/A	N/A
13981-41-4	Barium-133	2.35E+01	SE	6.07E-01	SE	2.35E+01	SE	6.07E-01	SE	N/A	N/A	N/A	N/A	N/A
13981-41-4m	Barium-133m	5.02E+01	SE	4.41E+00	SE	5.02E+01	SE	4.41E+00	SE	N/A	N/A	N/A	N/A	N/A
14798-08-4	Barium-140	1.07E+01	SE	1.13E+00	SE	1.07E+01	SE	1.13E+00	SE	N/A	N/A	N/A	N/A	N/A
13966-02-4	Beryllium-7	1.85E+03	SE	4.11E+00	SE	1.85E+03	SE	4.11E+00	SE	N/A	N/A	N/A	N/A	N/A
13982-38-2	Bismuth-207	2.83E+01	SE	1.24E-01	SE	2.83E+01	SE	1.24E-01	SE	N/A	N/A	N/A	N/A	N/A
14331-79-4	Bismuth-210	1.79E+01	SE	5.51E+01	CW	1.79E+01	SE	5.51E+01	SE	N/A	N/A	N/A	N/A	N/A
14331-79-4m	Bismuth-210m	2.90E+00	SE	8.34E-01	SE	2.90E+00	SE	8.34E-01	SE	N/A	N/A	N/A	N/A	N/A
15229-37-5	Bismuth-211	- - -	- - -	4.66E+00	SE	- - -	SE	4.66E+00	SE	N/A	N/A	N/A	N/A	N/A
14913-49-6	Bismuth-212	2.25E+02	SE	9.87E-01	SE	2.25E+02	SE	9.87E-01	SE	N/A	N/A	N/A	N/A	N/A
14733-03-0	Bismuth-214	8.33E+02	SE	1.17E-01	SE	8.33E+02	SE	1.17E-01	SE	N/A	N/A	N/A	N/A	N/A
CE-139	Cerium-139	- - -	- - -	- - -	- - -	- - -	SE	- - -	SE	N/A	N/A	N/A	N/A	N/A
13967-74-3	Cerium-141	3.46E+01	SE	3.80E+00	SE	3.46E+01	SE	3.80E+00	SE	N/A	N/A	N/A	N/A	N/A
14762-78-8	Cerium-144	4.55E+00	SE	8.87E+00	CW	4.55E+00	SE	8.87E+00	SE	N/A	N/A	N/A	N/A	N/A
14762-78-8(+D)	Cerium-144+D	4.53E+00	SE	3.21E+00	CW	4.53E+00	SE	3.21E+00	SE	N/A	N/A	N/A	N/A	N/A
13967-70-9	Cesium-134	3.79E+00	SE	1.23E-01	SE	3.79E+00	SE	1.23E-01	SE	N/A	N/A	N/A	N/A	N/A
13967-70-9m	Cesium-134m	3.86E+03	SE	1.74E+01	SE	3.86E+03	SE	1.74E+01	SE	N/A	N/A	N/A	N/A	N/A

CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
10045-97-3	Cesium-137	5.26E+00	SE	3.77E+01	CW	5.26E+00	SE	3.77E+01	SE	N/A	N/A	N/A	N/A	N/A
10045-97-3(+D)	Cesium-137 +D	5.26E+00	SE	3.42E-01	SE	5.26E+00	SE	3.42E-01	SE	N/A	N/A	N/A	N/A	N/A
10045-97-3L	Cesium-137 long lived decay	5.26E+00	SE	3.42E-01	SE	5.26E+00	SE	3.42E-01	SE	N/A	N/A	N/A	N/A	N/A
14392-02-0	Chromium-51	8.65E+02	SE	6.89E+00	SE	8.65E+02	SE	6.89E+00	SE	N/A	N/A	N/A	N/A	N/A
13981-50-5	Cobalt-57	1.54E+02	SE	2.46E+00	SE	1.54E+02	SE	2.46E+00	SE	N/A	N/A	N/A	N/A	N/A
13981-38-9	Cobalt-58	5.42E+01	SE	1.95E-01	SE	5.42E+01	SE	1.95E-01	SE	N/A	N/A	N/A	N/A	N/A
13981-38-9m	Cobalt-58m	1.27E+03	SE	4.78E+03	CW	1.27E+03	SE	4.78E+03	SE	N/A	N/A	N/A	N/A	N/A
10198-40-0	Cobalt-60	1.02E+01	SE	7.06E-02	SE	1.02E+01	SE	7.06E-02	SE	N/A	N/A	N/A	N/A	N/A
10198-40-0m	Cobalt-60m	6.02E+04	SE	4.71E+01	SE	6.02E+04	SE	4.71E+01	SE	N/A	N/A	N/A	N/A	N/A
13981-15-2	Curium-244	1.91E+00	SE	9.20E+00	CW	1.91E+00	SE	9.20E+00	SE	N/A	N/A	N/A	N/A	N/A
14683-23-9	Europium-152	2.64E+01	SE	1.65E-01	SE	2.64E+01	SE	1.65E-01	SE	N/A	N/A	N/A	N/A	N/A
14683-23-9m	Europium-152m	5.37E+01	SE	6.57E-01	SE	5.37E+01	SE	6.57E-01	SE	N/A	N/A	N/A	N/A	N/A
15585-10-1	Europium-154	1.55E+01	SE	1.50E-01	SE	1.55E+01	SE	1.50E-01	SE	N/A	N/A	N/A	N/A	N/A
14391-16-3	Europium-155	8.42E+01	SE	6.98E+00	SE	8.42E+01	SE	6.98E+00	SE	N/A	N/A	N/A	N/A	N/A
24267-56-9	Iodine-131	- - -	- - -	- - -	- - -	- - -	SE	- - -	SE	N/A	N/A	N/A	N/A	N/A
12154-84-6	Iridium-192	- - -	- - -	- - -	- - -	- - -	SE	- - -	SE	N/A	N/A	N/A	N/A	N/A
14596-12-4	Iron-59	2.03E+01	SE	1.50E-01	SE	2.03E+01	SE	1.50E-01	SE	N/A	N/A	N/A	N/A	N/A
13981-28-7	Lanthanum-140	1.45E+01	SE	7.61E-02	SE	1.45E+01	SE	7.61E-02	SE	N/A	N/A	N/A	N/A	N/A
14255-04-0	Lead-210	1.82E-01	SE	9.05E-01	CW	1.82E-01	SE	9.05E-01	SE	N/A	N/A	N/A	N/A	N/A
14255-04-0(+D)	Lead-210+D	1.26E-01	SE	6.25E-01	CW	1.26E-01	SE	6.25E-01	SE	N/A	N/A	N/A	N/A	N/A
14255-04-0L	Lead-210 long lived decay	1.26E-01	SE	6.25E-01	CW	1.26E-01	SE	6.25E-01	SE	N/A	N/A	N/A	N/A	N/A
15092-94-1	Lead-212	6.40E+00	SE	1.66E+00	SE	6.40E+00	SE	1.66E+00	SE	N/A	N/A	N/A	N/A	N/A
15067-28-4	Lead-214	4.65E+02	SE	8.92E-01	SE	4.65E+02	SE	8.92E-01	SE	N/A	N/A	N/A	N/A	N/A
13966-31-9	Manganese-54	7.02E+01	SE	2.25E-01	SE	7.02E+01	SE	2.25E-01	SE	N/A	N/A	N/A	N/A	N/A
13982-78-0	Mercury-203	2.81E+01	SE	9.47E-01	SE	2.81E+01	SE	9.47E-01	SE	N/A	N/A	N/A	N/A	N/A
13994-20-2	Neptunium-237	2.59E+00	SE	7.01E+00	CW	2.59E+00	SE	7.01E+00	SE	N/A	N/A	N/A	N/A	N/A
13994-20-2(+D)	Neptunium-237+D	2.37E+00	SE	1.04E+00	SE	2.37E+00	SE	1.04E+00	SE	N/A	N/A	N/A	N/A	N/A
13967-76-5	Niobium-95	6.53E+01	SE	2.48E-01	SE	6.53E+01	SE	2.48E-01	SE	N/A	N/A	N/A	N/A	N/A
13967-76-5m	Niobium-95m	4.37E+01	SE	3.73E+00	SE	4.37E+01	SE	3.73E+00	SE	N/A	N/A	N/A	N/A	N/A
13981-16-3	Plutonium-238	1.22E+00	SE	6.12E+00	CW	1.22E+00	SE	6.12E+00	SE	N/A	N/A	N/A	N/A	N/A
PU-238/239	Plutonium-238/239	1.19E+00	SE	6.03E+00	CW	1.19E+00	SE	6.03E+00	SE	N/A	N/A	N/A	N/A	N/A
15117-48-3	Plutonium-239	1.19E+00	SE	6.03E+00	CW	1.19E+00	SE	6.03E+00	SE	N/A	N/A	N/A	N/A	N/A
PU-239/240	Plutonium-239/240	1.19E+00	SE	6.03E+00	CW	1.19E+00	SE	6.03E+00	SE	N/A	N/A	N/A	N/A	N/A
14119-32-5	Plutonium-241	9.09E+01	SE	5.06E+02	CW	9.09E+01	SE	5.06E+02	SE	N/A	N/A	N/A	N/A	N/A
13982-10-0	Plutonium-242	1.25E+00	SE	6.33E+00	CW	1.25E+00	SE	6.33E+00	SE	N/A	N/A	N/A	N/A	N/A
13981-52-7	Polonium-210	4.24E-01	SE	2.09E+00	CW	4.24E-01	SE	2.09E+00	SE	N/A	N/A	N/A	N/A	N/A
13966-00-2	Potassium-40	6.48E+00	SE	1.08E+00	SE	6.48E+00	SE	1.08E+00	SE	N/A	N/A	N/A	N/A	N/A
14331-85-2	Protactinium-231	9.25E-01	SE	2.72E+00	CW	9.25E-01	SE	2.72E+00	SE	N/A	N/A	N/A	N/A	N/A
14331-85-2L	Protactinium-231 long lived decay	2.43E-01	SE	3.89E-01	CW	2.43E-01	SE	3.89E-01	SE	N/A	N/A	N/A	N/A	N/A
13981-14-1	Protactinium-233	2.88E+01	SE	1.17E+00	SE	2.88E+01	SE	1.17E+00	SE	N/A	N/A	N/A	N/A	N/A
15100-28-4	Protactinium-234	6.25E+01	SE	1.01E-01	SE	6.25E+01	SE	1.01E-01	SE	N/A	N/A	N/A	N/A	N/A
15100-28-4m	Protactinium-234m	- - -	- - -	1.27E+01	SE	- - -	SE	1.27E+01	SE	N/A	N/A	N/A	N/A	N/A
15623-45-7	Radium-223	6.72E-01	SE	1.20E+00	CW	6.72E-01	SE	1.20E+00	SE	N/A	N/A	N/A	N/A	N/A
13233-32-4	Radium-224	9.58E-01	SE	3.24E+00	CW	9.58E-01	SE	3.24E+00	SE	N/A	N/A	N/A	N/A	N/A
13981-53-8	Radium-225	1.40E+00	SE	5.91E+00	CW	1.40E+00	SE	5.91E+00	SE	N/A	N/A	N/A	N/A	N/A
13982-63-3	Radium-226	4.16E-01	SE	2.17E+00	CW	4.16E-01	SE	2.17E+00	SE	N/A	N/A	N/A	N/A	N/A
13982-63-3(+D)	Radium-226+D	4.15E-01	SE	1.01E-01	SE	4.15E-01	SE	1.01E-01	SE	N/A	N/A	N/A	N/A	N/A
13982-63-3L	Radium-226 long lived decay	9.66E-02	SE	9.29E-02	CW	9.66E-02	SE	9.29E-02	SE	N/A	N/A	N/A	N/A	N/A
15262-20-1	Radium-228	1.54E-01	SE	7.31E-01	CW	1.54E-01	SE	7.31E-01	SE	N/A	N/A	N/A	N/A	N/A
15262-20-1(+D)	Radium-228+D	1.54E-01	SE	1.66E-01	CW	1.54E-01	SE	1.66E-01	SE	N/A	N/A	N/A	N/A	N/A
15262-20-1L	Radium-228 long lived decay	1.19E-01	SE	6.66E-02	SE	1.19E-01	SE	6.66E-02	SE	N/A	N/A	N/A	N/A	N/A

CAS Number	CAS Name	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	CW/SE (MG/L) (PCI/L)	Table w/lowest value	CW/SE (MG/KG) (PCI/G)	Table w/lowest value	MCL (MG/L)
13968-53-1	Ruthenium-103	4.16E+01	SE	4.29E-01	SE	4.16E+01	SE	4.29E-01	SE	N/A	N/A	N/A	N/A	N/A
13967-48-1	Ruthenium-106	3.79E+00	SE	1.40E+01	CW	3.79E+00	SE	1.40E+01	SE	N/A	N/A	N/A	N/A	N/A
13967-48-1(+D)	Ruthenium-106+D	3.79E+00	SE	8.77E-01	SE	3.79E+00	SE	8.77E-01	SE	N/A	N/A	N/A	N/A	N/A
13967-63-0	Scandium-46	2.57E+01	SE	9.09E-02	SE	2.57E+01	SE	9.09E-02	SE	N/A	N/A	N/A	N/A	N/A
14391-65-2m	Silver-108m	1.97E+01	SE	1.22E-01	SE	1.97E+01	SE	1.22E-01	SE	N/A	N/A	N/A	N/A	N/A
14378-38-2m	Silver-109m	- - -	- - -	1.14E+02	SE	- - -	SE	1.14E+02	SE	N/A	N/A	N/A	N/A	N/A
13966-32-0	Sodium-22	1.66E+01	SE	8.50E-02	SE	1.66E+01	SE	8.50E-02	SE	N/A	N/A	N/A	N/A	N/A
13967-73-2	Strontium-85	7.08E+01	SE	3.98E-01	SE	7.08E+01	SE	3.98E-01	SE	N/A	N/A	N/A	N/A	N/A
13967-73-2m	Strontium-85m	9.58E+03	SE	1.07E+00	SE	9.58E+03	SE	1.07E+00	SE	N/A	N/A	N/A	N/A	N/A
14158-27-1	Strontium-89	1.25E+01	SE	3.55E+01	CW	1.25E+01	SE	3.55E+01	SE	N/A	N/A	N/A	N/A	N/A
10098-97-2	Strontium-90	2.86E+00	SE	1.80E+01	CW	2.86E+00	SE	1.80E+01	SE	N/A	N/A	N/A	N/A	N/A
10098-97-2(+D)	Strontium-90+D	2.16E+00	SE	9.39E+00	CW	2.16E+00	SE	9.39E+00	SE	N/A	N/A	N/A	N/A	N/A
14133-76-7	Technetium-99	5.82E+01	SE	2.14E+02	CW	5.82E+01	SE	2.14E+02	SE	N/A	N/A	N/A	N/A	N/A
14913-50-9	Thallium-208	- - -	- - -	4.98E-02	SE	- - -	SE	4.98E-02	SE	N/A	N/A	N/A	N/A	N/A
15623-47-9	Thorium-227	3.38E+00	SE	2.09E+00	SE	3.38E+00	SE	2.09E+00	SE	N/A	N/A	N/A	N/A	N/A
14274-82-9	Thorium-228	1.50E+00	SE	5.58E+00	CW	1.50E+00	SE	5.58E+00	SE	N/A	N/A	N/A	N/A	N/A
14274-82-9(+D)	Thorium-228+D	5.33E-01	SE	1.10E-01	SE	5.33E-01	SE	1.10E-01	SE	N/A	N/A	N/A	N/A	N/A
14274-82-9L	Thorium-228 long lived decay	5.33E-01	SE	1.10E-01	SE	5.33E-01	SE	1.10E-01	SE	N/A	N/A	N/A	N/A	N/A
15594-54-4	Thorium-229	7.14E-01	SE	1.89E+00	CW	7.14E-01	SE	1.89E+00	SE	N/A	N/A	N/A	N/A	N/A
15594-54-4(+D)	Thorium-229+D	3.03E-01	SE	5.06E-01	CW	3.03E-01	SE	5.06E-01	SE	N/A	N/A	N/A	N/A	N/A
15594-54-4L	Thorium-229 long lived decay	3.03E-01	SE	5.06E-01	CW	3.03E-01	SE	5.06E-01	SE	N/A	N/A	N/A	N/A	N/A
14269-63-7	Thorium-230	1.76E+00	SE	8.19E+00	CW	1.76E+00	SE	8.19E+00	SE	N/A	N/A	N/A	N/A	N/A
14269-63-7L	Thorium-230 long lived decay	9.16E-02	SE	9.19E-02	CW	9.16E-02	SE	9.19E-02	SE	N/A	N/A	N/A	N/A	N/A
7440-29-1	Thorium-232	1.58E+00	SE	7.20E+00	CW	1.58E+00	SE	7.20E+00	SE	N/A	N/A	N/A	N/A	N/A
7440-29-1L	Thorium-232 long lived decay	1.11E-01	SE	6.63E-02	SE	1.11E-01	SE	6.63E-02	SE	N/A	N/A	N/A	N/A	N/A
15065-10-8	Thorium-234	6.93E+00	SE	1.76E+01	CW	6.93E+00	SE	1.76E+01	SE	N/A	N/A	N/A	N/A	N/A
13966-06-8	Tin-113	3.70E+01	SE	3.56E+01	CW	3.70E+01	SE	3.56E+01	SE	N/A	N/A	N/A	N/A	N/A
15832-50-5	Tin-126	6.25E+00	SE	6.91E+00	CW	6.25E+00	SE	6.91E+00	SE	N/A	N/A	N/A	N/A	N/A
10028-17-8p	Tritium (particulate)	1.43E+03	SE	7.58E+03	CW	1.43E+03	SE	7.58E+03	SE	N/A	N/A	N/A	N/A	N/A
10028-17-8w	Tritium (water)	3.16E+03	SE	1.80E+04	CW	3.16E+03	SE	1.80E+04	SE	N/A	N/A	N/A	N/A	N/A
14158-29-3	Uranium-232	5.48E-01	SE	2.90E+00	CW	5.48E-01	SE	2.90E+00	SE	N/A	N/A	N/A	N/A	N/A
13968-55-3	Uranium-233	2.23E+00	SE	1.03E+01	CW	2.23E+00	SE	1.03E+01	SE	N/A	N/A	N/A	N/A	N/A
13968-55-3L	Uranium-233 long lived decay	2.67E-01	SE	4.82E-01	CW	2.67E-01	SE	4.82E-01	SE	N/A	N/A	N/A	N/A	N/A
U-233/234	Uranium-233/234	2.67E-01	SE	4.82E-01	CW	2.67E-01	SE	4.82E-01	SE	N/A	N/A	N/A	N/A	N/A
13966-29-5	Uranium-234	2.26E+00	SE	1.05E+01	CW	2.26E+00	SE	1.05E+01	SE	N/A	N/A	N/A	N/A	N/A
15117-96-1	Uranium-235	2.30E+00	SE	1.56E+00	SE	2.30E+00	SE	1.56E+00	SE	N/A	N/A	N/A	N/A	N/A
15117-96-1(+D)	Uranium-235+D	2.23E+00	SE	1.49E+00	SE	2.23E+00	SE	1.49E+00	SE	N/A	N/A	N/A	N/A	N/A
15117-96-1L	Uranium-235 long lived decay	2.19E-01	SE	3.10E-01	CW	2.19E-01	SE	3.10E-01	SE	N/A	N/A	N/A	N/A	N/A
U-235/236	Uranium-235/236	2.19E-01	SE	3.10E-01	CW	2.19E-01	SE	3.10E-01	SE	N/A	N/A	N/A	N/A	N/A
7440-61-1	Uranium-238	2.50E+00	SE	1.16E+01	CW	2.50E+00	SE	1.16E+01	SE	N/A	N/A	N/A	N/A	N/A
7440-61-1(+D)	Uranium-238+D	1.84E+00	SE	4.11E+00	CW	1.84E+00	SE	4.11E+00	SE	N/A	N/A	N/A	N/A	N/A
7440-61-1L	Uranium-238 long lived decay	8.40E-02	SE	8.91E-02	CW	8.40E-02	SE	8.91E-02	SE	N/A	N/A	N/A	N/A	N/A
7440-65-5	Yttrium-88	- - -	- - -	- - -	- - -	- - -	SE	- - -	SE	N/A	N/A	N/A	N/A	N/A
13982-39-3	Zinc-65	1.37E+01	SE	3.11E-01	SE	1.37E+01	SE	3.11E-01	SE	N/A	N/A	N/A	N/A	N/A
13967-71-0	Zirconium-95	3.49E+01	SE	2.57E-01	SE	3.49E+01	SE	2.57E-01	SE	N/A	N/A	N/A	N/A	N/A

Values in IRIS changed since Phase 1 update (August 2002)

Date of change	Contaminant	CAS No	Sfo $(mg/kg\text{-}day)^{-1}$	Sfi $(mg/kg\text{-}day)^{-1}$	RfDo mg/kg-day	RfDi mg/kg-day	URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
7/23/2003	Acetone (2-propanone)	67-64-1			0.9			
6/3/2003	Acrolein	107-02-8			5.00E-04	deleted 5.714e-6 ★		2.00E-05
4/17/2003	Benzene	71-43-2	5.50E-02	deleted 2.73e-2 ★	4.00E-03	deleted 1.714e-3 ★	7.80E-06	3.00E-02
11/5/2002	Butadiene,1,3-	106-99-0					3.00E-05	2.00E-03
9/11/2003	Cyclohexane	110-82-7						6
8/13/2002	Dichloroethylene,1,1-	75-35-4	deleted 6.0e-1 ★	deleted 1.75e-1 ★	5.00E-02		deleted 5.0e-5 ★	2.00E-01
9/26/2003	Methyl ethyl ketone (2-butanone)	78-93-3			6.00E-01	deleted 2.857e-1 ★		5
4/25/2003	Methyl isobutyl ketone (4-methyl-2-pentanone)	108-10-1			deleted 8.0e-2 ★			3
9/30/2002	Phenol	108-45-2			3.00E-01			
2/21/2003	Xylenes	1330-20-7			0.2			0.1
7/28/2003	Hydrogen Sulfide	7783-06-4						2.00E-03
9/11/2003	Dichloroacetic Acid	79-43-6	5.00E-02		4.00E-03			
12/22/2003	2-Methylnaphthalene	91-57-6			4.00E-03			
	Trichloroethylene	79-01-6	1.30E-02	7.00E-03	5.00E-01	1.70E-01	2.00E-06	

Per Dave Rakel E-mail of 02/18/2004

Green/Shaded were made

The two analytes not shaded were not incorporated since they are not in MEIMS or GIS

★ values deleted from previous revision, marked deleted and the value deleted recorded

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