

Table A
Residential Closure Levels
Commercial/Industrial Closure Levels

Table A Default Closure Table - Residential July 24, 2001

Constituent	Soil							Ground Water						
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)	Direct (mg/kg)	Migration to G W (mg/kg)	Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Residential (mg/l)	Default Closure Level (mg/l)				
Acenaphthene	6000/2000		50,000	NC	9,500	NC	130	NC	130	4.2		0.46	NC	0.46
Acetone (2-Propanone)	6000/2000	100,000	25,000	NC	3,900	NC	3.1	NC	3.1	1,000,000		0.77	NC	0.77
Acrolein ⁵	6000/2000	28,000	1.2	NC	0.18	NC	0.00023	NC	0.00023	260,000		0.000055	NC	0.000055
Aldrin	6000/2000		27	NC	0.25	C	4.9	C	0.25	0.13		0.000050	C	0.000050
Anthracene	6000/2000		250,000	NC	47,000	NC	51	NC	51	0.043		2.3	NC	0.043
Antimony	10,000		460	NC	140	NC	5.4	NC	5.4		0.0060	0.015	NC	0.0060
Arsenic ^{3,6}	10,000		320	NC	3.9	C	29	C	3.9		0.050	0.00057	C	0.050
Barium ⁶	10,000		79,000	NC	23,000	NC	1,600	NC	1,600		2.0	2.6	NC	2.0
Benz(a)anthracene	6000/2000		790	C	5.0	C	19	C	5.0	0.0094		0.0012	C	0.0012
Benzene ¹⁰	6000/2000	870	120	NC	8.2	C	0.034	C	0.034	1,800	0.0050	0.0062	C	0.0050
Benzo(b)fluoranthene	6000/2000		790	C	5.0	C	57	C	5.0	0.0015		0.0012	C	0.0012
Benzo(k)fluoranthene	6000/2000		7,900	C	50	C	39	C	39	0.00080		0.012	C	0.00080
Benzoic acid ⁶	6000/2000		1,000,000	NC	730,000	NC	590	NC	590	3,500		150	NC	150
Benzo(a)pyrene	6000/2000		79	C	0.50	C	8.2	C	0.50	0.0016	0.00020	0.00012	C	0.00020
Benzyl Alcohol	6000/2000	6,400	270,000	NC	55,000	NC	48	NC	48	40,000		11	NC	11
Beryllium ⁹	10,000		2,300	NC	680	NC	63	C	63		0.0040	0.073	NC	0.0040
Bis(2-Chloroethyl)ether	6000/2000	3,300	280	C	1.6	C	0.00070	C	0.00070	17,000		0.00015	C	0.00015
Bis(2-chloroisopropyl)ether ⁵	6000/2000	790	5,200	C	30	C	0.027	C	0.027	1,700		0.0042	C	0.0042
Bis(2-ethylhexyl)phthalate	6000/2000	31,000	18,000	NC	300	C	3,600	C	300	0.34	0.0060	0.061	C	0.0060
Bromodichloromethane ⁷	6000/2000	3,000	2,100	C	10	C	0.63	C	0.63	6,700	0.100	0.0029	C	0.100
Bromoform(tribromomethane)	6000/2000	1,900	7,700	NC	280	C	0.75	C	0.75	3,100	0.100	0.11	C	0.100
N-Butanol	6000/2000	10,000	48,000	NC	8,200	NC	16	NC	16	74,000		3.7	NC	3.7
Butylbenzylphthalate	6000/2000	930	180,000	NC	37,000	NC	6,200	NC	930	2.7		7.3	NC	2.7
Cadmium ^{3,6}	10,000		570	NC	12	NC	7.5	C	7.5		0.0050	0.018	NC	0.0050
Carbazole	6000/2000		31,000	C	210	C	5.9	C	5.9	7.5		0.043	C	0.043
Carbon disulfide	6000/2000	720	6,200	NC	900	NC	10	NC	10	1,200		1.3	NC	1.3
Carbon tetrachloride	6000/2000	1,100	31	NC	3.3	C	0.066	C	0.066	790	0.0050	0.0026	C	0.0050

Appendix 1
Default Closure Tables

Table A Default Closure Table - Residential July 24, 2001

Constituent	Soil								Ground Water					
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)	Direct (mg/kg)	Migration to G W (mg/kg)	Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Residential (mg/l)	Default Closure Level (mg/l)				
Chlordane	6000/2000		510	NC	17	C	9.6	C	9.6	0.056	0.0020	0.0024	C	0.0020
p-Chloroaniline ⁶	6000/2000		3,600	NC	730	NC	0.97	NC	0.97	5,300		0.15	NC	0.15
Chlorobenzene	6000/2000	680	2,600	NC	380	NC	1.3	NC	1.3	470	0.100	0.13	NC	0.100
Chloroethane	6000/2000	1500	9,600	C	46	C	0.32	C	0.32	5,700		0.062	C	0.062
Chloroform	6000/2000	2,900	6.4	NC	0.91	NC	0.59	C	0.59	7,900	0.100	0.00084	NC	0.100
2-Chlorophenol ⁶	6000/2000	53,000	2,200	NC	360	NC	0.75	NC	0.75	22,000		0.038	NC	0.038
Chromium III ⁶	10,000		1,000,000	NC	520,000	NC	1,000,000	NC	10,000		0.100	55	NC	0.1
Chromium VI ^{6,12}	10,000		3,400	NC	430	C	38	C	38		0.100	0.11	NC	0.100
Chrysene	6000/2000		79,000	C	500	C	25	C	25	0.0016		0.12	C	0.0016
Copper ⁵	10,000		42,000	NC	13,000	NC	580	NC	580	0	1.3	1.4	NC	1.3
Cyanide, Free ¹³	10,000		18,000	NC	3,700	NC	150	NC	150	1,000,000	0.2	0.73	NC	0.2
DDD	6000/2000		3,100	C	28	C	140	C	28	0.090		0.0035	C	0.0035
DDE	6000/2000		2,200	C	20	C	450	C	20	0.12		0.0025	C	0.0025
DDT	6000/2000		540	NC	20	C	260	C	20	0.025		0.0025	C	0.0025
Dibenzo(a,h)anthracene	6000/2000		79	C	0.50	C	18	C	0.50	0.0025		0.00012	C	0.00012
Di-n-butyl phthalate	6000/2000	2,300	89,000	NC	18,000	NC	5,000	NC	2,000	11		3.7	NC	3.7
1,2-Dichlorobenzene	6000/2000	600	18,000	NC	2,800	NC	17	NC	17	160	0.60	0.48	NC	0.60
1,3-Dichlorobenzene	6000/2000	310	180	NC	27	NC	0.13	NC	0.13	130		0.0069	NC	0.0069
1,4-Dichlorobenzene	6000/2000		8,000	C	42	C	2.2	C	2.2	74	0.075	0.0080	C	0.075
3,3-Dichlorobenzidine	6000/2000		1,400	C	9.5	C	0.062	C	0.062	3.1		0.0019	C	0.0019
1,1-Dichloroethane	6000/2000	1,700	8,600	NC	1,300	NC	5.6	NC	5.6	5,100		0.99	NC	0.99
1,2-Dichloroethane	6000/2000	1,800	150	NC	3.7	C	0.024	C	0.024	8,500	0.0050	0.0020	C	0.0050
1,1-Dichloroethylene	6000/2000	1,500	140	C	0.67	C	0.058	C	0.058	2,300	0.0070	0.00067	C	0.0070
cis-1,2-Dichloroethylene	6000/2000	1,200	750	NC	110	NC	0.40	NC	0.40	3,500	0.070	0.077	NC	0.070
trans-1,2-Dichloroethylene	6000/2000	3,100	1,200	NC	180	NC	0.68	NC	0.68	6,300	0.100	0.15	NC	0.100
2,4-Dichlorophenol ⁶	6000/2000		2,700	NC	550	NC	1.1	NC	1.1	4,500		0.11	NC	0.11
1,2-Dichloropropane	6000/2000	1,100	100	NC	4.5	C	0.030	C	0.030	2,800	0.0050	0.0026	C	0.0050
1,3-Dichloropropene	6000/2000	1,400	290	NC	9.5	C	0.040	C	0.040	2,800		0.0056	C	0.0056
Dieldrin	6000/2000		39	C	0.27	C	0.046	C	0.046	0.20		0.000053	C	0.000053
Diethylphthalate	6000/2000	2,000	710,000	NC	150,000	NC	450	NC	450	1,100		29	NC	29
Dimethyl phthalate	6000/2000	1400	1,000,000	NC	1,000,000	NC	2000	NC	1400	4300		370	NC	370
2,4-Dimethylphenol ⁶	6000/2000		18,000	NC	3,700	NC	9.0	NC	9.0	7,900		0.73	NC	0.73
2,4-Dinitrophenol ⁶	6000/2000		1,800	NC	370	NC	0.29	NC	0.29	2,800		0.073	NC	0.073
Dinitrotoluene mixture	6000/2000		890	NC	6.3	C	0.0085	C	0.0085	180		0.0013	C	0.0013
Di-n-octyl phthalate	6000/2000	10,000	18,000	NC	3,700	NC	67,000	NC	2,000	0.020		0.73	NC	0.020

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Endosulfan	6000/2000		5,300	NC	1,100	NC	20	NC	20	0.51		0.22	NC	0.22
Endrin	6000/2000		270	NC	55	NC	0.99	NC	0.99	0.25	0.0020	0.011	NC	0.0020
Ethylbenzene	6000/2000	400	29,000	NC	4,600	NC	13	NC	13	170	0.70	1.6	NC	0.70
Fluoranthene	6000/2000		33,000	NC	6,300	NC	880	NC	880	0.21		1.5	NC	0.21
Fluorene	6000/2000		33,000	NC	6,300	NC	170	NC	170	2.0		0.31	NC	0.31
Heptachlor	6000/2000		91	C	0.54	C	23	C	0.54	0.18	0.00040	0.00019	C	0.00040
Heptachlor epoxide	6000/2000		12	NC	0.47	C	0.67	C	0.47	0.20	0.00020	0.000094	C	0.00020
Hexachlorobenzene	6000/2000		390	C	2.7	C	2.2	C	2.2	6.2	0.00100	0.00053	C	0.00100
Hexachloro-1,3-butadiene	6000/2000	1,000	180	NC	37	NC	16	C	16	3.2		0.0073	NC	0.0073
alpha-HCH(alpha-BHC)	6000/2000		120	C	0.99	C	0.0072	C	0.0072	2.0		0.00014	C	0.00014
beta-HCH(beta-BHC)	6000/2000		410	C	3.5	C	0.026	C	0.026	0.24		0.00047	C	0.00047
gamma-HCH(Lindane)	6000/2000		310	NC	4.8	C	0.0094	C	0.0094	6.8	0.00020	0.00066	C	0.00020
Hexachlorocyclopentadiene	6000/2000	2,200	6,200	NC	1,300	NC	400	NC	400	1.8	0.050	0.26	NC	0.050
Hexachloroethane	6000/2000		660	NC	120	NC	2.8	C	2.8	50		0.037	NC	0.037
Indeno(1,2,3-cd)pyrene	6000/2000		790	C	5.0	C	3.1	C	3.1	0.000022		0.0012	C	0.000022
Isophorone	6000/2000	4,600	180,000	NC	4,500	C	5.3	C	5.3	12,000		0.90	C	0.90
Lead ⁸	10,000		970		400		81		81			0.015		0.015
Mercury ⁹	10,000		270	NC	55	NC	2.1	NC	2.1		0.0020	0.011	NC	0.0020
Methoxychlor	6000/2000		4,400	NC	910	NC	160	NC	160	0.045	0.040	0.18	NC	0.040
Methyl bromide	6000/2000	3,200	69	NC	9.9	NC	0.052	NC	0.052	15,000		0.011	NC	0.011
Methylene chloride	6000/2000	2,400	22,000	C	120	C	0.023	C	0.023	13,000	0.0050	0.063	C	0.0050
Methyl ethyl ketone (MEK)	6000/2000	35,000	130,000	NC	20,000	NC	11	NC	11	270,000		2.5	NC	2.5
4-methyl-2-pentanone (MIBK)	6000/2000	4,100	7,200	NC	1,000	NC	0.99	NC	0.99	19,000		0.21	NC	0.21
2-Methylphenol(o-cresol) ⁶	6000/2000		39,000	NC	7,500	NC	14	NC	14	26,000		1.8	NC	1.8
3-methylphenol (m-cresol) ⁶	6000/2000	8,900	44,000	NC	9,100	NC	11	NC	11	23,000		1.8	NC	1.8
4-methylphenol (p-cresol) ⁶	6000/2000		4,400	NC	910	NC	1.1	NC	1.1	22,000		0.18	NC	0.18
Methyl tertiary butyl ether (MTBE)	6000/2000	32,000	38,000	C	190	C	0.35	C	0.35	48,000		0.045	C	0.045
Naphthalene	6000/2000		17,000	NC	3,200	NC	0.70	NC	0.70	31		0.0083	NC	0.0083
Nickel ⁶	10,000		23,000	NC	6,900	NC	950	C	950			0.73	NC	0.73
2-nitroaniline	6000/2000		51	NC	10	NC	0.011	NC	0.011	290		0.0021	NC	0.0021
Nitrobenzene	6000/2000	1,000	440	NC	91	NC	0.028	NC	0.028	2,100		0.0043	NC	0.0043
N-Nitrosodiphenylamine ⁶	6000/2000		130,000	C	870	C	9.7	C	9.7	35		0.17	C	0.17
N-Nitrosodi-n-propylamine ^{5,6}	6000/2000		89	C	0.61	C	0.00060	C	0.00060	9,900		0.00012	C	0.00012
PCBs ¹¹	6000/2000		16	NC	1.8	C	6.2	C	1.8	0.70	0.00050	0.00043	C	0.00050
Pentachlorophenol ⁶	6000/2000		3,800	C	20	C	0.028	C	0.028	2,000	0.00100	0.0071	C	0.00100

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Constituent	Soil							Ground Water						
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)	Direct (mg/kg)	Migration to G W (mg/kg)	Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Residential (mg/l)	Default Closure Level (mg/l)				
Phenol ⁶	6000/2000		460,000	NC	88,000	NC	110	NC	110	83,000		22	NC	22
Pyrene	6000/2000		27,000	NC	5,500	NC	570	NC	570	0.14		1.1	NC	0.14
Selenium ⁶	10,000		5,700	NC	1,700	NC	5.2	NC	5.2		0.050	0.18	NC	0.050
Silver ⁶	10,000		5,700	NC	1,700	NC	31	NC	31			0.18	NC	0.18
Styrene	6000/2000	1,500	68,000	NC	11,000	NC	3.5	NC	3.5	310	0.100	2.0	NC	0.100
1,1,2,2-Tetrachloroethane	6000/2000	2,000	960	C	5.0	C	0.0070	C	0.0070	3,000		0.00090	C	0.00090
1,1,1,2-Tetrachloroethane	6000/2000	640	7,900	C	37	C	0.05	C	0.05	1,100		0.0069	C	0.0069
Tetrachloroethylene (PCE)	6000/2000	230	4,200	NC	48	C	0.058	C	0.058	200	0.0050	0.014	C	0.0050
Thallium ⁶	10,000		100	NC	31	NC	2.8	NC	2.8		0.0020	0.0033	NC	0.0020
Toluene	6000/2000	650	11,000	NC	1,700	NC	12	NC	12	530	1.0	0.93	NC	1.0
Toxaphene	6000/2000		560	C	3.9	C	31	C	3.9	0.74	0.0030	0.00077	C	0.0030
1,2,4-Trichlorobenzene	6000/2000	3,200	8,900	NC	1,800	NC	5.3	NC	5.3	300	0.070	0.22	NC	0.070
1,1,1-Trichloroethane	6000/2000	1,200	11,000	NC	1,800	NC	1.9	NC	1.9	1,300	0.20	0.88	NC	0.20
1,1,2-Trichloroethane	6000/2000	1,800	600	NC	9.4	C	0.030	C	0.030	4,400	0.0050	0.0032	C	0.0050
Trichloroethylene (TCE)	6000/2000	1,300	500	NC	45	C	0.057	C	0.057	1,100	0.0050	0.025	C	0.0050
2,4,5-Trichlorophenol ⁶	6000/2000		89,000	NC	18,000	NC	250	NC	250	1,200		3.7	NC	3.7
2,4,6-Trichlorophenol ⁶	6000/2000		57,000	C	390	C	1.5	C	1.5	800		0.077	C	0.077
Vinyl acetate	6000/2000	2,700	7,600	NC	1,100	NC	2.3	NC	2.3	20,000		0.55	NC	0.55
Vinyl chloride (chloroethene)	6000/2000	1,200	56	C	0.28	C	0.013	C	0.013	2,800	0.0020	0.00028	C	0.0020
Xylene mixed	6000/2000	410	34,000	NC	4,800	NC	190	NC	190	180	10	1.9	NC	10
Zinc ⁶	10,000		340,000	NC	100,000	NC	14,000	NC	10,000			11	NC	11

Appendix 1
Default Closure Tables

Table A Default Closure Table - Industrial July 24, 2001

Constituent	Soil							Ground Water						
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)	Direct (mg/kg)	Migration to G W (mg/kg)	Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Industrial (mg/l)	Default Closure Level (mg/l)				
Acenaphthene	6000/2000		50,000	NC	24,000	NC	1,200	NC	1,200	4.2		6.1	NC	4.2
Acetone (2-Propanone)	6000/2000	100,000	25,000	NC	5,600	NC	41	NC	41	1,000,000		10	NC	10
Acrolein ⁵	6000/2000	28,000	1.2	NC	0.22	NC	8.3	NC	0.22	260,000		2.0	NC	2.0
Aldrin	6000/2000		27	NC	0.80	C	16	C	0.80	0.13		0.00017	C	0.00017
Anthracene	6000/2000		250,000	NC	120,000	NC	51	NC	51	0.043		31	NC	0.043
Antimony	10,000		460	NC	620	NC	37	NC	37		0.0060	0.041	NC	0.041
Arsenic ⁶	10,000		320	NC	20	C	29	C	20		.050	0.0019	C	0.050
Barium ⁶	10,000		79,000	NC	98,000	NC	5,900	NC	5,900		2.0	7.2	NC	7.2
Benz(a)anthracene	6000/2000		790	C	15	C	62	C	15	0.0094		0.0039	C	0.0039
Benzene ¹⁰	6000/2000	870	120	NC	13	C	0.67	C	0.67	1,800	0.0050	0.099	C	0.099
Benzo(b)fluoranthene	6000/2000		790	C	15	C	74	C	15	0.0015		0.0039	C	0.0015
Benzo(k)fluoranthene	6000/2000		7,900	C	150	C	39	C	39	0.00080		0.039	C	0.00080
Benzoic acid ⁶	6000/2000		1,000,000	NC	1,000,000	NC	1,600	NC	1,600	3,500		410	NC	410
Benzo(a)pyrene	6000/2000		79	C	1.5	C	16	C	1.5	0.0016	0.00020	0.00039	C	0.00039
Benzyl Alcohol	6000/2000	6,400	270,000	NC	150,000	NC	140	NC	140	40,000		31	NC	31
Beryllium ⁹	10,000		2,300	NC	2,900	NC	3,200	C	2,300		0.0040	0.20	NC	0.20
Bis(2-Chloroethyl)ether	6000/2000	3,300	280	C	3.0	C	0.012	C	0.012	17,000		0.0026	C	0.0026
Bis(2-chloroisopropyl)ether ⁵	6000/2000	790	5,200	C	61	C	0.26	C	0.26	1,700		0.041	C	0.041
Bis(2-ethylhexyl)phthalate	6000/2000	31,000	18,000	NC	980	C	120,000	C	980	0.34	0.0060	0.20	C	0.20
Bromodichloromethane ⁷	6000/2000	3,000	2,100	C	17	C	0.63	C	0.63	6,700	0.100	0.046	C	0.100
Bromoform(tribromomethane)	6000/2000	1,900	7,700	NC	580	C	2.7	C	2.7	3,100	0.100	0.36	C	0.36
N-Butanol	6000/2000	10,000	48,000	NC	14,000	NC	44	NC	44	74,000		10	NC	10
Butylbenzylphthalate	6000/2000	930	180,000	NC	98,000	NC	6,200	NC	930	2.7		20	NC	2.7
Cadmium ⁶	10,000		570	NC	780	NC	77	C	77		0.0050	0.051	NC	0.051
Carbazole	6000/2000		31,000	C	690	C	20	C	20	7.5		0.14	C	0.14
Carbon disulfide	6000/2000	720	6,200	NC	1,200	NC	82	NC	82	1,200		10	NC	10
Carbon tetrachloride	6000/2000	1,100	31	NC	5.2	C	0.29	C	0.29	790	0.0050	0.022	C	0.022
Chlordane	6000/2000		510	NC	68	C	39	C	39	0.056	0.0020	0.0082	C	0.0082
p-Chloroaniline ⁶	6000/2000		3,600	NC	2,000	NC	2.7	NC	2.7	5,300		0.41	NC	0.41
Chlorobenzene	6000/2000	680	2,600	NC	510	NC	27	NC	27	470	0.100	2.0	NC	2.0
Chloroethane	6000/2000	1,500	9,600	C	71	C	5.2	C	5.2	5,700		0.99	C	0.99
Chloroform	6000/2000	2,900	6.4	NC	1.2	NC	2.7	C	1.2	7,900	0.100	0.47	C	0.47
2-Chlorophenol ⁶	6000/2000	53,000	2,200	NC	580	NC	10.0	NC	10.0	22,000		0.51	NC	0.51
Chromium III ⁶	10,000		1,000,000	NC	1,000,000	NC	1,000,000	NC	10,000		0.100	150	NC	150

Appendix 1
Default Closure Tables

Table A Default Closure Table - Industrial July 24, 2001

Constituent	Soil						Ground Water							
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)	Direct (mg/kg)	Migration to G W (mg/kg)	Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Industrial (mg/l)	Default Closure Level (mg/l)				
Chromium VI ^{12, 6}	10,000		3,400	NC	650	C	120	C	120		0.100	0.31	NC	0.31
Chrysene	6000/2000		79,000	C	1,500	C	25	C	25	0.0016		0.39	C	0.0016
Copper ⁶	10,000		42,000	NC	57,000	NC	1,700	NC	1,700		1.3	3.8	NC	3.8
Cyanide, Free ¹³	10,000		18,000	NC	9,800	NC	410	NC	410	1,000,000	0.2	2.0	NC	2.0
DDD	6000/2000		3,100	C	120	C	480	C	120	0.090		0.012	C	0.012
DDE	6000/2000		2,200	C	86	C	1,500	C	86	0.12		0.0084	C	0.0084
DDT	6000/2000		540	NC	86	C	890	C	86	0.025		0.0084	C	0.0084
Dibenzo(a,h)anthracene	6000/2000		79	C	1.5	C	60	C	1.5	0.0025		0.00039	C	0.00039
Di-n-butyl phthalate	6000/2000	2,300	89,000	NC	49,000	NC	14,000	NC	2,000	11		10	NC	10
1,2-Dichlorobenzene	6000/2000	600	18,000	NC	3,900	NC	270	NC	270	160	0.60	9.2	NC	9.2
1,3-Dichlorobenzene	6000/2000	310	180	NC	38	NC	1.8	NC	1.8	130		0.092	NC	0.092
1,4-Dichlorobenzene	6000/2000		8,000	C	73	C	3.4	C	3.4	74	0.075	0.12	C	0.12
3,3-Dichlorobenzidine	6000/2000		1,400	C	31	C	0.21	C	0.21	3.1		0.0064	C	0.0064
1,1-Dichloroethane	6000/2000	1,700	8,600	NC	1,700	NC	58	NC	58	5,100		10	NC	10
1,2-Dichloroethane	6000/2000	1,800	150	NC	5.8	C	0.15	C	0.15	8,500	0.0050	0.031	C	0.031
1,1-Dichloroethylene	6000/2000	1,500	140	C	1.1	C	0.058	C	0.058	2,300	0.0070	0.0048	C	0.0070
cis-1,2-Dichloroethylene	6000/2000	1,200	750	NC	140	NC	5.8	NC	5.8	3,500	0.070	1.0	NC	1.0
trans-1,2-Dichloroethylene	6000/2000	3,100	1,200	NC	230	NC	14	NC	14	6,300	0.100	2.0	NC	2.0
2,4-Dichlorophenol ⁶	6000/2000		2,700	NC	1,500	NC	3.0	NC	3.0	4,500		0.31	NC	0.31
1,2-Dichloropropane	6000/2000	1,100	100	NC	7.2	C	0.25	C	0.25	2,800	0.0050	0.042	C	0.042
1,3-Dichloropropene	6000/2000	1,400	290	NC	16	C	0.20	C	0.20	2,800		0.029	C	0.029
Dieldrin	6000/2000		39	C	0.86	C	0.15	C	0.15	0.20		0.00018	C	0.00018
Diethylphthalate	6000/2000	2,000	710,000	NC	390,000	NC	1,300	NC	1,300	1,100		82	NC	82
Dimethyl phthalate	6000/2000	1400	1,000,000	NC	1,000,000	NC	5,600	NC	1400	4300		1,000	NC	1000
2,4-Dimethylphenol ⁶	6000/2000		18,000	NC	9,800	NC	25	NC	25	7,900		2.0	NC	2.0
2,4-Dinitrophenol ⁶	6000/2000		1,800	NC	980	NC	0.82	NC	0.82	2,800		0.20	NC	0.20
Dinitrotoluene mixture	6000/2000		890	NC	20	C	0.028	C	0.028	180		0.0042	C	0.0042
Di-n-octyl phthalate	6000/2000	10,000	18,000	NC	9,800	NC	67,000	NC	2,000	0.020		2.0	NC	0.020
Endosulfan	6000/2000		5,300	NC	2,900	NC	46	NC	46	0.51		0.61	NC	0.51
Endrin	6000/2000		270	NC	150	NC	15	NC	15	0.25	0.0020	0.031	NC	0.031
Ethylbenzene	6000/2000	400	29,000	NC	6,800	NC	200	NC	200	170	0.70	10	NC	10
Fluoranthene	6000/2000		33,000	NC	16,000	NC	880	NC	880	0.21		4.1	NC	0.21
Fluorene	6000/2000		33,000	NC	16,000	NC	1,100	NC	1,100	2.0		4.1	NC	2.0
Heptachlor	6000/2000		91	C	1.2	C	36	C	1.2	0.18	0.00040	0.00064	C	0.00064
Heptachlor epoxide	6000/2000		12	NC	1.5	C	1.0	C	1.0	0.20	0.00020	0.00031	C	0.00031

**Appendix 1
Default Closure Tables**

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Constituent	Soil						Ground Water							
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)	Direct (mg/kg)	Migration to G W (mg/kg)	Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Industrial (mg/l)	Default Closure Level (mg/l)				
Hexachlorobenzene	6000/2000		390	C	8.6	C	3.9	C	3.9	6.2	0.00100	0.0018	C	0.0018
Hexachloro-1,3-butadiene	6000/2000	1,000	180	NC	98	NC	44	C	44	3.2		0.020	NC	0.020
alpha-HCH(alpha-BHC)	6000/2000		120	C	4.0	C	0.024	C	0.024	2.0		0.00045	C	0.00045
beta-HCH(beta-BHC)	6000/2000		410	C	14	C	0.086	C	0.086	0.24		0.0016	C	0.0016
gamma-HCH(Lindane)	6000/2000		310	NC	19	C	0.10	C	0.10	6.8	0.00020	0.0022	C	0.0022
Hexachlorocyclopentadiene	6000/2000	2,200	6,200	NC	3,400	NC	5,700	NC	2,000	1.8	0.050	0.72	NC	0.72
Hexachloroethane	6000/2000		660	NC	240	NC	7.7	C	7.7	50		0.10	NC	0.10
Indeno(1,2,3-cd)pyrene	6000/2000		790	C	15	C	3.1	C	3.1	0.00022		0.0039	C	0.00022
Isophorone	6000/2000	4,600	180,000	NC	14,000	C	18	C	18	12,000		3.0	C	3.0
Lead ^{b,6}	10,000		970		1,300		230		230			0.042		0.042
Mercury ^g	10,000		270	NC	150	NC	32	NC	32		0.0020	0.031	NC	0.031
Methoxychlor	6000/2000		4,400	NC	2,500	NC	180	NC	180	0.045	0.040	0.51	NC	0.045
Methyl bromide	6000/2000	3,200	69	NC	13	NC	0.70	NC	0.70	15,000		0.14	NC	0.14
Methylene chloride	6000/2000	2,400	22,000	C	200	C	1.8	C	1.8	13,000	0.0050	0.38	C	0.38
Methyl ethyl ketone (MEK)	6000/2000	35,000	130,000	NC	28,000	NC	260	NC	260	270,000		61	NC	61
4-methyl-2-pentanone (MIBK)	6000/2000	4,100	7,200	NC	1,400	NC	39	NC	39	19,000		8.2	NC	8.2
2-Methylphenol(o-cresol) ⁶	6000/2000		39,000	NC	17,000	NC	39	NC	39	26,000		5.1	NC	5.1
3-methylphenol (m-cresol) ⁶	6000/2000	8,900	44,000	NC	25,000	NC	30	NC	30	23,000		5.1	NC	5.1
4-methylphenol (p-cresol) ⁶	6000/2000		4,400	NC	2,500	NC	3.0	NC	3.0	22,000		0.51	NC	0.51
Methyl tertiary butyl ether (MTBE)	6000/2000	32,000	38,000	C	330	C	5.6	C	5.6	48,000		0.72	C	0.72
Naphthalene	6000/2000		17,000	NC	8,000	NC	170	NC	170	31		2.0	NC	2.0
Nickel ⁶	10,000		23,000	NC	31,000	NC	2,700	C	2,700			2.0	NC	2.0
2-nitroaniline	6000/2000		51	NC	28	NC	0.029	NC	0.029	290		0.0058	NC	0.0058
Nitrobenzene	6000/2000	1,000	440	NC	250	NC	0.34	NC	0.34	2,100		0.051	NC	0.051
N-Nitrosodiphenylamine ⁶	6000/2000		130,000	C	2,800	C	32	C	32	35		0.58	C	0.58
N-Nitrosodi-n-propylamine ^{5,6}	6000/2000		89	C	2.0	C	0.0020	C	0.0020	9,900		0.00041	C	0.00041
PCBs ¹¹	6000/2000		16	NC	5.3	C	18	C	5.3	0.70	0.00050	0.0014	C	0.0014
Pentachlorophenol ⁶	6000/2000		3,800	C	54	C	0.66	C	0.66	2,000	0.00100	0.024	C	0.024
Phenol ⁶	6000/2000		460,000	NC	190,000	NC	320	NC	320	83,000		61	NC	61
Pyrene	6000/2000		27,000	NC	15,000	NC	570	NC	570	0.14		3.1	NC	0.14
Selenium ⁶	10,000		5,700	NC	7,800	NC	53	NC	53		0.050	0.51	NC	0.51
Silver ⁶	10,000		5,700	NC	7,800	NC	87	NC	87			0.51	NC	0.51
Styrene	6000/2000	1,500	68,000	NC	16,000	NC	720	NC	720	310	0.100	20	NC	20
1,1,2,2-Tetrachloroethane	6000/2000	2,000	960	C	8.7	C	0.11	C	0.11	3,000		0.014	C	0.014

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Constituent	Soil							Ground Water				
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)		Direct (mg/kg)	Migration to G W (mg/kg)	Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Industrial (mg/l)	Default Closure Level (mg/l)	
1,1,1,2-Tetrachloroethane	6000/2000	640	7900	C	63	C 0.79	C 0.79	1,100		0.11	C 0.11	
Tetrachloroethylene (PCE)	6000/2000	230	4,200	NC	110	C 0.64	C 0.64	200	0.0050	0.055	C 0.055	
Thallium ⁶	10,000		100	NC	140	NC 13	NC 13		0.0020	0.0092	NC 0.0092	
Toluene	6000/2000	650	11,000	NC	2,200	NC 240	NC 240	530	1.0	20	NC 20	
Toxaphene	6000/2000		560	C	12	C 31	C 12	0.74	0.0030	0.0026	C 0.0030	
1,2,4-Trichlorobenzene	6000/2000	3,200	8,900	NC	4,900	NC 77	NC 77	300	0.070	1.0	NC 1.0	
1,1,1-Trichloroethane	6000/2000	1,200	11,000	NC	2,700	NC 35	NC 35	1,300	0.20	3.6	NC 3.6	
1,1,2-Trichloroethane	6000/2000	1,800	600	NC	15	C 0.30	C 0.30	4,400	0.0050	0.050	C 0.050	
Trichloroethylene (TCE)	6000/2000	1,300	500	NC	72	C 3.0	C 3.0	1,100	0.0050	0.26	C 0.26	
2,4,5-Trichlorophenol ⁶	6000/2000		89,000	NC	49,000	NC 690	NC 690	1,200		10	NC 10	
2,4,6-Trichlorophenol ⁶	6000/2000		57,000	C	1,300	C 5.0	C 5.0	800		0.26	C 0.26	
Vinyl acetate	6000/2000	2,700	7,600	NC	1,400	NC 430	NC 430	20,000		100	NC 100	
Vinyl chloride (chloroethene)	6000/2000	1,200	56	C	0.46	C 0.013	C 0.013	2,800	0.0020	0.0015	C 0.0020	
Xylene mixed	6000/2000	410	34,000	NC	6,200	NC 3,400	NC 410	180	10	200	NC 180	
Zinc ⁶	10,000		340,000	NC	470,000	NC 38,000	NC 10,000			31	NC 31	

Table A Footnotes

1. The default values for certain compounds may be listed as a carcinogen in one column and a non carcinogen in another column. This is the result of calculating both a carcinogenic and noncarcinogenic response for a given chemical and taking the lowest of the two. If a compound has a “C” next to the concentration, then the closure level is evaluated from a carcinogen endpoint, and the compound should be treated as a carcinogen when considering additivity. If a compound does not have a “C” next to the concentration, then the closure level is evaluated from a non-carcinogen endpoint, and the compound should be treated as noncarcinogenic when considering additivity.
2. Certain chemicals that are not liquid at normal soil temperature will not have C_{sat} values.
3. Soil direct contact values are based on the potential for soil-plant-human uptake.
4. Construction values are listed as the raw calculated values. When applying construction values to closures, care should be taken to recognize that values will be capped at the SAC value (defaulted at 6000 mg/kg and 10,000 mg/kg for organics and metals, respectively) or the C_{sat} whichever is less. Direct contact and Migration to ground water closure levels are listed as the raw calculated values. When applying these values separately to closure care should be taken to recognize that these values may be capped at the SAC (defaulted at 6000/2000 or 10,000 for organics and metals, respectively), the C_{sat} , or the construction value, whichever is less. Site specific values for SAC and C_{sat} may be determined. The lesser of these values may then be used up to the raw calculated Construction or Direct/Migration values in these three columns. (note that non-default options also exist for changing the Direct/Migration columns See Chapter 7).
5. Acrolein, Bis(2-chloroethyl)ether, and N-Nitroso-di-n-propylamine may not have an analytical method available with a detection or quantitation limit able to meet the closure level for the matrix without modification. Appendix 2 should be consulted to verify analytical procedures.
6. Ionizing organics and metals Koc and Kd values will vary depending on pH. If the source area pH is outside of the range of 6.0-8.0 then see the discussion in Section A1.0, under “Table A”, pages A.1-1 and A.1-2.
7. Under certain circumstances a “trihalomethane” standard may apply to bromoform, chloroform, and bromodichloromethane. The composite standard may reduce the closure level.
8. Lead values were calculated using the:

1994 Integrated Exposure Uptake Biokinetic Model (see EPA/540/R-93/081, PB-963510) for residential exposures;

The Methodology for Assessing Risks Associated with Adult Exposures to Lead

in Soil, SRC-GLD-FO162-209-DRAFT-7/21/96, and;

Review of A Methodology for Establishing Risk-Based Soil Remediation Goals for Commercial Areas of the California Gulch Site, USEPA, Technical Review Workgroup for Lead, October 26, 1995 for industrial and construction exposures, and;

The Drinking Water Regulation and Health Advisories EPA 822-R-96-001, February, 1996 action levels for residential ground water, and an extrapolation to determine industrial ground water levels.

The Kd value for lead was taken from Sheppard and Thibault (Default Soil Solid Liquid Partition Coefficients , Kds for Four Major Soil Types: A Compendium, Health Physics Vol 59, No. 4, pp 471-482, 1990) for sandy soils and is considered to be applicable anywhere in the state. IDEM recommends site specific determinations and/or use of the Synthetic Precipitation Leaching Procedure (SPLP) for lead (see section 7.1.1).

9. Closure levels for beryllium and mercury must be determined with a site specific pH. See discussion in section A1.0 under Table A, pages A.1-1 and A.1-2.
10. Benzene values may soon change. IRIS has listed the slope factor for this compound as a range and IDEM is currently determining the application to closure levels
11. PCBs are assumed to be a mixture and that Aroclor 1016 and 1254 are present.
12. Chromium VI should be used to represent total chromium unless a species specific ratio evaluation is made.
13. Cyanide values apply to free cyanide only. The closure levels are not applicable to copper cyanide or other complexed cyanides. Total cyanides may not be representative of free cyanide.
14. The SAC value of 10,000 mg/kg for metals is a ceiling value that addresses the potential for a high level of one chemical to impact multiple chemical exposure in such a way that the combined effect is likely to be greater than the sum of the individual effects.
15. Table A lists default closure levels for individual chemicals only. Additivity or the potential for combined effects of multiple chemical exposure should be evaluated when there is more than one chemical present (see section 6.1 Chemical of Concern Additivity)