Table 2

Complementary Soil Cleanup Target Levels

Contaminants	CAS#s	Direct Exposure		Leachability Based on Groundwater Criteria	Leachability Based on Freshwater Surface Water Criteria	Leachability Based on Marine Surface Water Criteria	Leachability Based on Groundwater of Low Yield/ Poor Quality	Target Organs/Systems or Effects†	Carcinogen
		Residential	Commercial/ Industrial						
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		
Boron	7440-42-8	17000	430000	***	***	***	***	-Reproductive -Respiratory	
Bromobenzene	108-86-1	170	1200	0.6	4.2	NA	6	-Liver	
Butylbenzene, n-	104-51-8	80	450	5.3	NA	NA	53	-Developmental -Kidney -Liver	
Butylbenzene, sec-	135-98-8	270	1500	19	NA	NA	190	-Adrenals -Kidney	
Butylbenzene, tert-	98-06-6	270	1500	14	170	NA	140	-Adrenals -Kidney	
Cyclohexane	110-82-7	1900	10000	320	35	2.6	3200	-Reproductive	
Cymene, p- [or 4-isopropyltoluene]	99-87-6	960	5600	38	19	13	380	-Gastrointestinal -Skin	
D5 [see Decamethylcyclopentasiloxane]									
Decafluoropentane, 1,1,1,2,3,4,4,5,5,5-	138495-42-8	600	3200	30	9.7	NA	300	-Neurological	
Decamethylcyclopentasiloxane [or D5]	541-02-6	14000	80000	4800	NA	NA	48000	-Developmental -Respiratory	
DGME [see Diethylene glycol monomethyl ether]									
Dichloropropane, 1,3-	142-28-9	150	840	1.0	23	3.8	10	-Kidney -Liver	
Dicloran	99-30-9	1900	31000	1.7	0.5	0.9	17	-Body Weight -Liver -Spleen	
Diethylene glycol monomethyl ether [or DGME]	111-77-3	40000	470000	19	1500	NA	190	-Developmental	
Diisopropyl ether [or DIPE]	108-20-3	350	1900	4.6	21	1500	46	-Liver	
Diisopropylbenzene, 1,3-	99-62-7	84	480	12	NA	NA	120	-Eye -Liver	
Diisopropylbenzene, 1,4-	100-18-5	84	480	12	NA	NA	120	-Eye -Liver	

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		Residential	Commercial/ Industrial						
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		
DIPE [see Diisopropyl ether]									
ETBE [see Ethyl tert-butyl ether]									
Ethyl tert-butyl ether [or ETBE]	637-92-3	420	2300	4.5	NA	NA	45	-Kidney	
Imidacloprid	138261-41-3	4700	100000	82	2.3	0.4	820	-Body Weight -Thyroid	
Iodine	various	870	22000	***	***	NA	***	-Thyroid	
Iodomethane	74-88-4	200	1100	2.0	NA	NA	20	-Salivary gland	
Isopropanol	67-63-0	370000	*	310	850	230	3100	-Developmental	
Isopropyltoluene, 4- [see p-Cymene]									
Pinene, alpha-	80-56-8	650	3500	140	150	NA	1400	-Liver -Thyroid	
Propylbenzene, n-	103-65-1	69	390	3.0	NA	200	30	-Developmental -Kidney -Liver	
TAME [see Tertiary amyl methyl ether]									
Tertiary amyl methyl ether [or TAME]	994-05-8	160	860	2.3	NA	NA	23	-Liver	
Titanium	7440-32-6	340000	*	***	NA	NA	***	-None Specified	

Values expressed on a dry weight basis and rounded to two significant figures if >1 and to one significant figure if <1.

† = These default Target Organ(s)/Systems or Effects are those reported to occur at the doses used to derive the reference dose. Non-default Target Organ(s)/Systems or Effects may be justified through a detailed toxicological analysis of the chemicals present at a specific site.

* Contaminant is not a health concern for this exposure scenario.

** Direct exposure value based on acute toxicity considerations. This criterion is applicable in scenarios where children might be exposed to soils (e.g., residences, schools, playgrounds).

*** Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

DISCLAIMER - For matters affecting legal rights or for the official version of cleanup target levels for Chapter 62-777, F.A.C., please refer to the F.A.W. published version of Chapter 62-777, F.A.C.

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Contaminants	CAS#s	Direct Exposure		Leachability Based on Groundwater Criteria	Leachability Based on Freshwater Surface Water Criteria	Leachability Based on Marine Surface Water Criteria	Leachability Based on Groundwater of Low Yield/ Poor Quality	Target Organs/Systems or Effects†	Carcinogen
		Residential	Commercial/ Industrial						
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		

= Site concentrations for carcinogenic polycyclic aromatic hydrocarbons must be converted to Benzo(a)pyrene equivalents before comparison with the appropriate direct exposure SCTL for Benzo(a)pyrene using the approach described in the February 2005 "Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C."

(a) = See discussion on the development of SCTLs for Ammonia in the February 2005 "Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C."

(b) = Leachability values derived from USEPA Soil Screening Guidance (1996). These values were derived assuming soil pH 6.8. These leachability values are dependent upon both the metal concentration in soil and soil characteristics. Thus, if site-specific soil characteristics are different than the defaults, these leachability values may not apply. If this is the case, site-specific leachability values should be derived using methods such as TCLP or SPLP.

(c) = Phytotoxicity must be considered.

(d) = Residential direct exposure value from USEPA Revised Interm Soil Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12 (1994). The industrial direct exposure value was derived using methodologies outlined in USEPA "Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil", December 1996; and in "Blood Lead Concentrations of U.S. Adult Females: Summary Statistics from Phases 1 and 2 of the NHANES III", March 2002.

(e) = The SCTL for Dioxins, as total 2,3,7,8-TCDD equivalents should be compared to the total dioxin equivalents for chlorinated dibenzodioxin and dibenzofuran congeners using the approach described in the February 2005 "Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C."

(f) = The common name BHC is a misnomer for hexachlorocyclohexane.

(g) = Unless concentrations for both chromium III and VI are known, total chromium concentrations should by compared with direct exposure SCTLs for chromium VI.

(h) = Residential chronic SCTL for cadmium should be used as a not-to-exceed value because the residential chronic SCTL for cadmium is indistinguishable from the SCTL based on acute toxicity.

(i) = Residential chronic SCTL for vinyl chloride calculated by adding prorated and non-prorated risks, as discussed in the February 2005 "Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C."

(j) = 12789-03-6 or 57-74-9

Note: If more than one contaminant is present at a site, the direct exposure values are to be modified, if necessary, such that the sum of the hazard quotients for non-carcinogenic contaminants affecting the same organ(s) is 1. For carcinogens, the direct exposure values shall be modified such that the cumulative lifetime risk level posed by the contaminants is 1.0E-06, as presented in Appendix D of the February 2005 "Draft Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, F.A.C.".

None Specified = Target organ(s) not determined at time of criteria development.

NA = Not available at time of criteria development.