

APPENDIX A

TABLE 5. Permit by Rule Numerical Standards for Metals in Historic Fill and Soil or Dredged Material Exceeding Safe Fill Standards or impacted by Spill or Release

REGULATED SUBSTANCES Metals	CASRN	SHS ¹ (residential, used aquifer, TDS ≤2500mg/L)									
						Permit By Rule		Permit By Rule ³			
		Direct Contact (RDC)		100XMSC	Generic Value		Historic Fill		Soil Exceeding Safe Fill or Impacted by Spill/Release: Section 287.102(m)		
		Soil MSC ²		(M)	(G)		Section 287.102(n)		Higher of M or G		
		mg/kg		mg/kg		mg/kg		RDC ⁴ mg/kg	GWMSC ⁵ mg/L		
ALUMINUM ⁷	7429-90-5	190000	C	NA	NA	NA	NA	190000	C	0.2	SMCL
ANTIMONY	7440-36-0	88	G	0.6	27	27.0	88	G	0.006	M	
ARSENIC	7440-38-2	12	G	5	150	150.0	12	G	0.05	M	
ASBESTOS (fibers/L)	12001295									7,000,000	M
BARIUM AND COMPOUNDS	7440-39-3	15000	G	200	8200	8200.0	15000	G	2	M	
BERYLLIUM	7440-41-7	440	G	0.4	320	320.0	440	G	0.004	M	
BORON AND COMPOUNDS	7440-42-8	20000	G	60	6.7	60.0	20000	G	0.6	H	
CADMIUM	7440-43-9	47	G	0.5	38	38.0	47	G	0.005	M	
CHLORIDE		na	na	na	na	na	na			250	SMCL
CHROMIUM III	16065-83-1	190000	C	10	190000	190000.0	190000	C	0.1	M	
CHROMIUM VI	18540-29-9	94	G	10	190	190.0	94	G	0.1	M	
COBALT	7440-48-4	13000	G	220	24	220.0	13000	G	2.2	G	
COPPER ⁶	7440-50-8	8200		100	36000	4300.0	4300		1	M	
CYANIDE, FREE	57-12-5	4400	G	20	200	200.0	4400	G	0.2	M	
IRON	7439-89-6	66000	G	NA	NA	NA	66000	G	0		
LEAD	7439-92-1	500	U	0.5	450	450.0	500	U	0.005	M	
MANGANESE	7439-96-5	31000	G	NA	NA	0.0	31000	G	0		
MERCURY	7439-97-6	66	G	0.2	10	10.0	66	G	0.002	M	
NICKEL	7440-02-0	4400	G	10	650	650.0	4400	G	0.1	H	
SELENIUM	7782-49-2	1100	G	5	26	26.0	1100	G	0.05	M	
SILVER	7440-22-4	1100	G	10	84	84.0	1100	G	0.1	H	
THALLIUM	7440-28-0	15	G	0.2	14	14.0	15	G	0.002	M	
TIN	7440-31-5	130000	G	2200	240	2200.0	130000	G	22	G	
VANADIUM	7440-62-2	1500	G	26	26000	26000.0	1500	G	0.26	G	
ZINC ⁶	7440-66-6	66000	G	200	12000	7500.0	75006	G	2	H	

¹ Statewide health standards

² Medium specific concentration as defined in Section 250.1 of Act 2 regulations

³ Soil must meet both the RDC and GWMSC numeric standards under this permit by rule

⁴ Residential direct contact numeric standards as listed in Tables 3A of Chapter 250, Appendix A, to be met in soil exceeding safe fill stds or soil impacted by spill/release.

⁵ Groundwater MSC to be analyzed by leach test or SPLP analysis

⁶ Due to the plant toxicity of copper and zinc, numeric values under both PBRs are based on the 40 CFR Part 503 regulations

SMCL - Secondary Maximum Contaminant Level

G - Ingestion

N - Inhalation

C - Cap

E - Number calculated by the soil to groundwater equation in 25 Pa. Code Section 250.308

H - Lifetime Health Advisory Level

M - Maximum Contaminant Level