APPENDIX K

PRELIMINARY SPOIL CLASSIFICATION

CC Geotechnical

WASTE CALCULATION SHEETS

Determinand	Poteitially worst compound	Average Concentration (mg/kg)	Deteminand Concentration (% w/w)	Risk Phrases	Hazard Phrases	Threshold (%)	Classification
Arsenic	Arsenic Oxide	45.1	0.01	Carc Cat 1: R45	H7	0.1	Non Hazardous
			0.01	R23/R25	H6 (H5)	3	Non Hazardous
			0.01	R50,53	H14	25	Non Hazardous
	Arsenic Pentoxide	45.1	0.01	Carc Cat 1: R45	H7	0.1	Non Hazardous
			0.01	R23/R25	H6 (H5)	3	Non Hazardous
			0.01	R50-53	H14	25	Non Hazardous
Cadmium	Cadmium Chloride	0.2	0.00	Carc Cat2: R45	H7	0.1	Non Hazardous
			0.00	Muta Cat 2: R46	H11	0.1	Non Hazardous
			0.00	Repr Cat 2: R60,61	H10	0.5	Non Hazardous
			0.00	T+:R26	H6 (H5)	0.1	Non Hazardous
			0.00	T:R25, 48/23/25	H6 (H5)	3	Non Hazardous
			0.00	N:R50,53	H14	25	Non Hazardous
	Cadmium Oxide	0.2	0.00	Carc Cat 2:R49	H7	0.1	Non Hazardous
			0.00	T: R48/23/25	H6 (H5)	3	Non Hazardous
			0.00	Xn: R22	H5	25	Non Hazardous
	Cadmium Sulphate	0.2	0.00	Carc Cat 2:R49	H7	0.1	Non Hazardous
			0.00	T: R48/23/25	H6 (H5)	3	Non Hazardous
			0.00	Xn:R22	H5	25	Non Hazardous
			0.00	N:R50,53	H14	25	Non Hazardous
	Cadmium Hydroxide	0.2	0.00	N: R50-53	H14	0.25	Non Hazardous
			0.00	R20/21/22	H5	25	Non Hazardous
Chromium	Chromium Trioxide	14.5	0.00	Carc Cat 1: R49	H7	0.1	Non Hazardous
			0.00	R48/23/25	H6 (H5)	3	Non Hazardous
			0.00	R22	H5	1	Non Hazardous
			0.00	R50/53	H14	25	Non Hazardous
Lead	Lead Sulphate	35.3	0.01	R61	H10	0.5	Non Hazardous
			0.01	R63	N/A	5	Non Hazardous
			0.01	R20/22	H5	25	Non Hazardous
			0.01	R50-53	H14	0.25	Non Hazardous
Mercury	Inorganic Mercury	0.3	0.0000275	T:R23	H6 (H5)	3	Non Hazardous
			0.0000275	T+:R26/27/28	H6 (H5)	0.1	Non Hazardous
			0.0000275	N: R50,53	H14	25	Non Hazardous
Selenium	Selenium	1.0	0.0001	T: R23/25	H6 (H5)	3	Non Hazardous
			0.0001	R53	H14	25	Non Hazardous
Boron	Boron Tribromide	0.8	0.00	T+: R26/28	H6 (H5)	0.1	Non Hazardous
			0.00	C: R34	H8(H4)	5	Non Hazardous
	Boron Trichloride	0.8	0.00	T+: R26/28	H6 (H5)	0.1	Non Hazardous
			0.00	C: R34	H8(H4)	5	Non Hazardous
Copper	Copper Chloride	28.5	0.00	R22	H5	25	Non Hazardous
	Copper Oxide	28.5	0.00	R22	H5	25	Non Hazardous
	Copper Sulphate	28.5	0.01	R22	H5	25	Non Hazardous
Nickel	Nickel Carbonate	18.4	0.00	Carc Cat3: R40	H7	1	Non Hazardous
			0.00	R22	H5	25	Non Hazardous
			0.00	R50-53	H14	25	Non Hazardous
Naphthalene		1.3	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Acenaphthylene		0.1	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Acenaphthene		0.1	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Fluorene		0.2	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Phenanthrene		2.2	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Anthracene		0.2	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Fluoranthene		0.9	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Pyrene		0.7	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Benzo(a)anthracene		0.4	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
~~Chrysene~~		~~0.5~~	~~0.00~~	~~Cart Cat2:R45~~	~~H7~~	~~0.1~~	~~Non Hazardous~~
Benzo(b)fluoranthene		0.2	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Benzo(k)fluoranthene		0.2	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Benzo(a)pyrene		0.2	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Indeno(1,2,3-cd)pyrene		0.1	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Dibenz(a,h)anthracene		0.1	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
Benzo(g,h,i)perylene		0.1	0.00	Cart Cat2:R45	H7	0.1	Non Hazardous
ASSESSMENT OF TPH'S IN SOIL							
TOTAL TPH		173.4	0.02	Cart Cat2:R45	H7	0.1	
If Benzo(a)pyrene present at levels greater then 0.005% w/w then the TPH will classify as 'Hazardous'							
Benzo(a)pyrene level is	0.18	mg/kg					
Total oil content (w/w)	0.017%						
Benzo(a)pyrene threshold is	0.009	mg/kg					Non Hazardous
HIGHEST BANDED TPH		104.6	0.01	Cart Cat2:R45	H7	0.1	
If Benzo(a)pyrene present at levels greater then 0.005% w/w then the TPH will classify as 'Hazardous'							
Benzo(a)pyrene level is	0.18	mg/kg					
Total oil content (w/w)	0.010%						
Benzo(a)pyrene threshold is	0.005	mg/kg					Non Hazardous
TOTAL TPHCWG		55.3	0.01	Cart Cat2:R45	H7	0.1	
If Benzo(a)pyrene present at levels greater then 0.005% w/w then the TPH will classify as 'Hazardous'							
Benzo(a)pyrene level is	0.18	mg/kg					
Total oil content (w/w)	0.006%						
Benzo(a)pyrene threshold is	0.003	mg/kg					Non Hazardous

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