

Appendix 4G

Cleanup Targets for Soil Remediation

**R06100 - EIA for Decommissioning of Cheoy Lee Shipyard
Land Contamination - Cleanup Targets for Soil Remediation**

Cleanup Targets for Soil Remediation (for parameters with exceedance in action levels)

Item	Parameter	CAS No.	Value (mg/kg or otherwise specified)	Reference Standard
1	Carbon Chain C6-C10	DMO-710-018		
	Carbon Chain C11-C14	DMO-710-001		
	Carbon Chain C15-C18	DMO-710-003		
	Carbon Chain C19-C22	DMO-710-005	1000 (total)	Dutch 'B' Standards
	Carbon Chain C23-C26	DMO-710-007		
	Carbon Chain C27-C30	DMO-710-009		
	Carbon Chain C31-C36	DMO-710-010		
2	Arsenic	7440-38-2	5 (mg/L as TCLP)	Universal Treatment Standards
3	Barium	7440-39-3	21 (mg/L as TCLP)	Universal Treatment Standards
4	Cadmium	7440-43-9	0.11 (mg/L as TCLP)	Universal Treatment Standards
5	Chromium (total)	7440-47-3	0.6 (mg/L as TCLP)	Universal Treatment Standards
6	Cobalt	7440-48-4	Not available	Universal Treatment Standards
7	Copper	7440-50-8	7.8 (mg/L as TCLP) (See Remark 2)	Universal Treatment Standards
8	Lead	7439-92-1	0.75 (mg/L as TCLP)	Universal Treatment Standards
9	Nickel	7440-02-0	11 (mg/L as TCLP)	Universal Treatment Standards
10	Molybdenum	7439-98-7	Not available	Universal Treatment Standards
11	Tin	7440-31-5	Not available	Universal Treatment Standards
12	Zinc	7440-66-6	4.3 (mg/L as TCLP)	Universal Treatment Standards
13	Cyanide (total)	57-12-5	90 (mg/L as TCLP)	Universal Treatment Standards
14	Phenol	108-95-2	1	Dutch 'B' Standards
15	Styrene	100-42-5	5	Dutch 'B' Standards
16	Naphthalene	91-20-3	5	Dutch 'B' Standards
17	Benzo(a)pyrene (1,2-benzopyrene)	50-32-8	1	Dutch 'B' Standards
18	Aroclor-1016	12674-11-2		
	Aroclor-1221	11104-28-2		
	Aroclor-1232	11141-16-5		
	Aroclor-1242	53469-21-9		
	Aroclor-1248	12672-29-6	1 (total)	Dutch 'B' Standards
	Aroclor-1254	11097-69-1		
	Aroclor-1260	11096-82-5		
Aroclor-1262	37324-23-5			
19	Hexachlorobenzene	118-74-1	0.4	USEPA Federal Standards: SSLs
20	Benzo(a)anthracene	56-55-3	0.9	USEPA Federal Standards: SSLs
21	Bis(2-ethylhexyl)phthalate	117-81-7	46	USEPA Federal Standards: SSLs
22	Benzo(b)fluoranthene	205-99-2	0.9	USEPA Federal Standards: SSLs
23	Indeno(1,2,3-cd)pyrene	193-39-5	0.9	USEPA Federal Standards: SSLs
24	Dibenz(a,h)anthracene	53-70-3	0.09	USEPA Federal Standards: SSLs

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Item	Parameter	CAS No.	Value (mg/kg or otherwise specified)	Reference Standard
25	Antimony	7440-36-0	1.15 (mg/L as TCLP)	Universal Treatment Standards
26	Hexavalent Chromium	18540-29-9	Not available	Universal Treatment Standards
27	Dioxin (2,3,7,8-TCDD equivalent)	1746-01-6	0.001	USEPA OSWER Directive 9200.4-

Remarks:

- 1 For metal contaminants (except Copper) to be treated by solidification, the Universal Treatment Standards (UTS) of U.S. Resource Conservation and Recovery Act (RCRA) waste that contain metals (in 40 CFR 268) are referred.
- 2 For Copper, please refer to the section "Mitigation for Land Contamination" of the Final EIA Report for the details of the derivation of this value.