

ATTACHMENT D

LOW THREAT WATER QUALITY CRITERIA

Chemical Constituent	CAS Number	Basis	Inland Surface Waters, Enclosed Bays, and Estuaries Criteria ($\mu\text{g/L}$ or noted)	Ocean Discharge Criteria ($\mu\text{g/L}$ or noted)	Acceptable Analytical Methods ^B
VOLATILE ORGANICS					
1,1 Dichloroethane	75343	Primary MCL	5	--	GC, GCMS
1,1 Dichloroethene	75354	California Toxics Rule, Ocean Plan	0.057	0.9	GC
1,1,1 Trichloroethane	71556	Primary MCL, Ocean Plan	200	540,000	GC, GCMS
1,1,2 Trichloroethane	79005	California Toxics Rule, Ocean Plan	0.6	9.4	GC
1,1,2,2 Tetrachloroethane	79345	California Toxics Rule, Ocean Plan	0.17	2.3	GC
1,2 Dichlorobenzene	95501	Secondary MCL, Ocean Plan	10	5,100 ^A	GC, GCMS
1,2 Dichloroethane	107062	California Toxics Rule, Ocean Plan	0.38	28	GC
1,2 Dichloropropane	78875	California Toxics Rule	0.52	--	GC
1,3 Dichlorobenzene	541731	California Toxics Rule, Ocean Plan	400	5,100 ^A	GC, GCMS
1,3 Dichloropropene	542756	Primary MCL, Ocean Plan	0.5	8.9	GC, GCMS
1,4 Dichlorobenzene	106467	Primary MCL, Ocean Plan	5	18	GC, GCMS
Acrolein	107028	National Ambient Water Quality Criteria, Ocean Plan	21	220	GC, GCMS
Acrylonitrile	107131	California Toxics Rule, Ocean Plan	0.059	0.10	GC, GCMS
Benzene	71432	Primary MCL, Ocean Plan	1	5.9	GC
Bromoform	75252	California Toxics Rule, Ocean Plan	4.3	130 ^A	GC, GCMS
Methyl Bromide	74839	California Toxics Rule, Ocean Plan	48	130 ^A	GC, GCMS
Carbon Tetrachloride	56235	California Toxics Rule, Ocean Plan	0.25	0.90	GC
Chlorobenzene	108097	Primary MCL, Ocean Plan	70	570	GC, GCMS
Chlorodibromomethane	124481	California Toxics Rule, Ocean Plan	0.401	8.6	GC
Chloroethane	75003	Primary MCL	300	--	GC, GCMS
2-Chloroethyl vinyl ether	110758	No Criteria Available	--	--	GC, GCMS
Chloroform	67663	National Toxics Rule, Ocean Plan	5.7	130	GC, GCMS
Chloromethane	74873	USEPA Health Advisory, Ocean Plan	3	130 ^A	GC, GCMS
Dichlorobromo-methane	75274	California Toxics Rule, Ocean Plan	0.56	6.2	GC
Dichloromethane	75092	California Toxics Rule, Ocean Plan	4.7	450	GC, GCMS
Ethylbenzene	100414	Primary MCL, Ocean Plan	300	4,100	GC, GCMS
Tetrachloroethene	127184	National Toxics Rule, Ocean Plan	0.8	2.0	GC
Toluene	108883	Primary MCL, Ocean Plan	150	85,000	GC, GCMS
Trans-1,2 Dichloroethylene	156605	Primary MCL	10	--	GC
Trichloroethene	79016	National Toxics Rule, Ocean Plan	2.7	27	GC, GCMS
Vinyl Chloride	75014	Primary MCL, Ocean Plan	0.5	36	GC, GCMS

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SEMI VOLATILES					
1,2 Benzanthracene	56553	California Toxics Rule, Ocean Plan	0.0044	0.0088 ^A	GCMS
1,2 Diphenylhydrazine	122667	California Toxics Rule, Ocean Plan	0.04	0.16	GCMS
1,2,4 Trichlorobenzene	120821	Public Health Goal	5	--	GC, GCMS
2 Chlorophenol	95578	California Toxics Rule	120	--	GC, GCMS
2,4 Dichlorophenol	120832	California Toxics Rule	93	--	GC, GCMS
2,4 Dimethylphenol	105679	CA Notification Level (DHS)	100	--	GC, GCMS
2,4 Dinitrophenol	51285	California Toxics Rule, Ocean Plan	70	4.0	GC, GCMS
2,4 Dinitrotoluene	121142	California Toxics Rule, Ocean Plan	0.11	2.6	GCMS
2,4,6 Trichlorophenol	88062	California Toxics Rule, Ocean Plan	2.1	0.29	GC, GCMS
2,6 Dinitrotoluene	606202	National Ambient Water Quality Criteria	230	--	GCMS
2-Nitrophenol	25154557	National Ambient Water Quality Criteria	150 ^{C2}	--	GCMS
2-Chloronaphthalene	91587	National Ambient Water Quality Criteria	1600 ^{C3} / 7.5 ^F	--	GCMS
3,3' Dichlorobenzidine	91941	California Toxics Rule, Ocean Plan	0.04	0.0081	GCMS
3,4 Benzofluoranthene	205992	California Toxics Rule, Ocean Plan	0.0044	0.0088 ^A	GCMS, LC
4 Chloro-3-methylphenol	59507	National Ambient Water Quality Criteria	30	--	GC, GCMS
4,6 Dinitro-2-methylphenol	534521	National Ambient Water Quality Criteria, Ocean Plan	13.4	220	GCMS
4-Nitrophenol	100027	National Ambient Water Quality Criteria	150	--	GC, GCMS
4-Bromophenyl phenyl ether	101553	National Ambient Water Quality Criteria	122 ^{C1}	--	GC, GCMS
4-Chlorophenyl phenyl ether	7005723	National Ambient Water Quality Criteria	122 ^{C1}	--	GCMS
Acenaphthene	83329	National Ambient Water Quality Criteria	520 / 500 ^F	--	GC, GCMS, LC
Acenaphthylene	208968	National Ambient Water Quality Criteria, Ocean Plan	300 ^F	0.0088 ^A	GCMS, LC
Anthracene	120127	California Toxics Rule, Ocean Plan	9600	0.0088 ^A	GCMS, LC
Benzidine	92875	California Toxics Rule, Ocean Plan	0.00012	6.9 x 10 ⁻⁵	GCMS
Benzo(a)pyrene (3,4 Benzopyrene)	50328	California Toxics Rule, Ocean Plan	0.0044	0.0088 ^A	LC
Benzo(g,h,i)perylene	191242	National Ambient Water Quality Criteria, Ocean Plan	300 ^F	0.0088 ^A	GCMS, LC
Benzo(k)fluoranthene	207089	California Toxics Rule, Ocean Plan	0.0044	0.0088 ^A	LC
Bis (2-Chloroethoxy) methane	111911	No Criteria Available, Ocean Plan	--	4.4	GCMS
Bis(2-chloroethyl) ether	111444	California Toxics Rule, Ocean Plan	0.031	0.045	GCMS
Bis(2-chloroisopropyl) ether	39638329	National Ambient Water Quality Criteria, Ocean Plan	122 ^{C1}	1,200	GC, GCMS
Bis(2-Ethylhexyl) phthalate	117817	California Toxics Rule, Ocean Plan	1.8	3.5	GCMS
Butyl benzyl phthalate	85687	Basin Plan	2 ^{C4}	--	GC, GCMS
Chlorine Residual, Total	--	Ocean Plan	--	60	COLOR
Chrysene	218019	California Toxics Rule, Ocean Plan	0.0044	0.0088 ^A	LC

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Di-n-butylphthalate	84742	Basin Plan, Ocean Plan	2 ^{C4}	3,500	GCMS
Di-n-octylphthalate	117840	Basin Plan	2 ^{C4}	--	GCMS
Dibenzo(a,h)-anthracene	53703	California Toxics Rule, Ocean Plan	0.0044	0.0088 ^A	LC
Diethyl phthalate	84662	Basin Plan, Ocean Plan	2 ^{C4}	33,000	GC, GCMS
Dimethyl phthalate	131113	Basin Plan, Ocean Plan	2 ^{C4}	820,000	GC, GCMS
Fluoranthene	206440	California Toxics Rule, Ocean Plan	300	15	GC, GCMS, LC
Fluorene	86737	California Toxics Rule, Ocean Plan	1300	0.0088 ^A	GCMS, LC
Hexachlorocyclopentadiene	77474	National Ambient Water Quality Criteria, Ocean Plan	5.2	58	GC, GCMS
Hexachlorobenzene	118741	California Toxics Rule, Ocean Plan	0.00075	2.1 x 10 ⁻⁴	GCMS
Hexachlorobutadiene	87683	California Toxics Rule, Ocean Plan	0.44	14	GCMS
Hexachloroethane	67721	California Toxics Rule, Ocean Plan	1.9	2.5	GCMS
Indeno(1,2,3-cd)pyrene	193395	California Toxics Rule, Ocean Plan	0.0044	0.0088 ^A	LC
Isophorone	78591	California Toxics Rule, Ocean Plan	8.4	730	GCMS
N-Nitrosodiphenylamine	86306	California Toxics Rule, Ocean Plan	5	2.5	GCMS
N-Nitrosodimethylamine	62759	California Toxics Rule, Ocean Plan	0.00069	7.3	GCMS
N-Nitrosodi-n-propylamine	621647	California Toxics Rule, Ocean Plan	0.005	0.38	GCMS
Naphthalene	91203	Taste and Odor	21	--	GC, GCMS, LC
Nitrobenzene	98953	California Toxics Rule, Ocean Plan	17	4.9	GC, GCMS
Pentachlorophenol	87865	California Toxics Rule	0.28	--	GC
Phenanthrene	85108	National Ambient Water Quality Criteria, Ocean Plan	300 ^{C5,F}	0.0088 ^A	GCMS, LC
Phenol	108352	Basin Plan	1	--	GC, GCMS, COLOR
Pyrene	129000	California Toxics Rule, Ocean Plan	960	0.0088 ^A	GCMS, LC
PESTICIDES					
2,4'-DDT	--	Ocean Plan	--	1.7 x 10 ^{-4A}	GC
2,4'-DDE	--	Ocean Plan	--	1.7 x 10 ^{-4A}	GC
2,4'-DDD	--	Ocean Plan	--	1.7 x 10 ^{-4A}	GC
4,4'-DDD	72548	California Toxics Rule,	0.00083	1.7 x 10 ^{-4A}	GC
4,4'-DDE	72559	California Toxics Rule, Ocean Plan	0.00059	1.7 x 10 ^{-4A}	GC
4,4'-DDT	50293	California Toxics Rule, Ocean Plan	0.00059	1.7 x 10 ^{-4A}	GC
alpha-Endosulfan	959988	California Toxics Rule, Ocean Plan	0.056 ^{C6} / 0.0087 ^{C6,F}	0.027 ^A	GC
alpha-BHC	319846	California Toxics Rule, Ocean Plan	0.0039	0.012 ^A	GC
Aldrin	309002	California Toxics Rule, Ocean Plan	0.00013	2.2 x 10 ⁻⁵	GC
beta-Endosulfan	33213659	California Toxics Rule, Ocean Plan	0.056 ^{C6} / 0.0087 ^{C6,F}	0.027 ^A	GC
beta-BHC	319857	California Toxics Rule, Ocean Plan	0.014	0.012 ^A	GC
Chlordane	57749	CA Toxics Rule, Ocean Plan	0.00057	2.3 x 10 ⁻⁵	GC

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delta-BHC	319868	Ocean Plan	--	0.012 ^A	GC
Dieldrin	60571	California Toxics Rule, Ocean Plan	0.00014	4.0×10^{-5}	GC
Endosulfan Sulfate	1031078	National Ambient Water Quality Criteria, Ocean Plan	0.056 / 0.0087 ^F	0.009 ^A	GC
Endrin	72208	California Toxics Rule, Ocean Plan	0.036 / 0.0023 ^F	0.002	GC
Endrin Aldehyde	7421934	California Toxics Rule	0.76	--	GC
Heptachlor	76448	California Toxics Rule, Ocean Plan	0.00021	5×10^{-5}	GC
Heptachlor Epoxide	1024573	California Toxics Rule, Ocean Plan	0.0001	2×10^{-5}	GC
Lindane (gamma-BHC)	58899	California Toxics Rule, Ocean Plan	0.019	0.012 ^A	GC
Aroclor 1016	12674112	California Toxics Rule, Ocean Plan	0.0001 ^{C7}	1.9×10^{-5A}	GC
Aroclor 1221	11104282	California Toxics Rule, Ocean Plan	0.00017 ^{C7}	1.9×10^{-A}	GC
Aroclor 1232	11141165	California Toxics Rule, Ocean Plan	0.00017 ^{C7}	1.9×10^{-A}	GC
Aroclor 1242	53469219	California Toxics Rule, Ocean Plan	0.00017 ^{C7}	1.9×10^{-A}	GC
Aroclor 1248	12672296	California Toxics Rule, Ocean Plan	0.00017 ^{C7}	1.9×10^{-A}	GC
Aroclor 1254	11097691	California Toxics Rule, Ocean Plan	0.00017 ^{C7}	1.9×10^{-A}	GC
Aroclor 1260	11096825	California Toxics Rule, Ocean Plan	0.00017 ^{C7}	1.9×10^{-A}	GC
Toxaphene	8001352	California Toxics Rule, Ocean Plan	0.0002	2.1×10^{-4}	GC
2,3,7,8-TCDD (Dioxin)	1746016	California Toxics Rule	1.30E-08	--	GC
INORGANICS					
Ammonia as N	7664417	Ocean Plan	--	6,000	--
Antimony	7440360	Primary MCL, Ocean Plan	6	1,200	FAA, GFAA, ICPMS, SPGFAA, HYDRIDE
Arsenic	7440382	National Toxics Rule, Ocean Plan	0.018	8	GFAA, ICP, ICPMS, SPGFAA
Asbestos	1332214	California Toxics Rule	7 MFL ^D	--	TEM
Beryllium	7440417	Primary MCL, Ocean Plan	4	0.033	FAA, GFAA, ICP, ICPMS, SPGFAA, DCP
Cadmium	7440439	National Toxics Rule, Basin Plan, Ocean Plan	1 ^G / 0.2 ^E	1	GFAA, ICPMS, SPGFAA
Chromium III	7440473	Primary MCL, Ocean Plan	50 ^H	190,000	FAA, GFAA, ICP, ICPMS, SPGFAA
Chromium VI	18540299	National Toxics Rule, Ocean Plan	10	2	FAA, COLOR
Copper	7440508	California Toxics Rule, National Toxics Rule, Ocean Plan	9 ^G / 2.4 ^{F,G}	3	GFAA, ICPMS, SPGFAA
Cyanide	57125	CA Toxics Rule, Ocean Plan	5.2 ^G / 1 ^{F,G}	10	COLOR
Lead	7439921	California Toxics Rule, Ocean Plan	2.5 ^G	2	ICPMS, SPGFAA
Mercury	7439976	National Toxics Rule, Ocean Plan	0.012	0.04	CVAA

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Nickel	7440020	California Toxics Rule, Basin Plan, Ocean Plan	52 ^G / 2 ^{E1}	5	FAA, GFAA, ICP, ICPMS, SPGFAA
Selenium	7782492	California Toxics Rule, Ocean Plan	5	15	GFAA, ICPMS, SPGFAA, HYDRIDE
Silver	7440224	California Toxics Rule, Ocean Plan	3.4 ^G / 1.9 ^{F,G}	0.7	GFAA, ICPMS, SPGFAA
Thallium	7440280	California Toxics Rule, Ocean Plan	1.7	2	ICPMS
Zinc	7440666	National Toxics Rule, Basin Plan, Ocean Plan	100 ^G / 20 ^E	20	FAA, ICP, ICPMS, SPGFAA
OTHER PARAMETERS					
Ammonia as N	7664417	Ocean Plan	--	600	µg/L
Acute Toxicity	--	Ocean Plan	--	0.3	TUa
Chronic Toxicity	--	Ocean Plan	--	1	Tuc
Phenolic Compounds	--	Ocean Plan	--	30	µg/L
Chlorinated Phenolics	--	Ocean Plan	--	1	µg/L
Tributyltin	688733	Ocean Plan	--	0.0014	µg/L
TCDD Equivalents ¹	--	Ocean Plan	--	3.9 x 10 ⁻⁹	µg/L

NOTES:

A. Constituent Criteria shall mean the sum of:

Constituent	Criteria is Sum of Constituents
dichlorobenzenes	1,2 Dichlorobenzene and 1,3 Dichlorobenzene
halomethanes	Bromoform, Methyl Bromide, Chloromethane
PAHs	1,2 Benzantracene, 3,4 Benzofluoranthene, Acenaphthylene, Anthracene, Benzo(a)pyrene (3,4 Benzopyrene), Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)-anthracene, Fluorene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene
DDT	4,4'-DDD, 4,4'-DDE, 4,4'-DDT, 2,4-DDT, 2,4-DDE, 2,4-DDD
Endosulfan	alpha-Endosulfan, beta-Endosulfan, Endosulfan Sulfate
HCH	alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane
PCBs	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260

B. For each constituent the Discharger may select one of the indicated analytical methods, which are described in 40 CFR 136.3. The abbreviations refer to the following:

1. GC..... Gas Chromatography
2. GCMS Gas Chromatography/Mass Spectrometry
3. LC..... High Pressure Liquid Chromatography
4. FAA Flame Atomic Absorption
5. GFAA Graphite Furnace Atomic Absorption
6. Hydride..... Gaseous Hydride Atomic Absorption
7. CVAA Cold Vapor Atomic Absorption
8. ICP Inductively Coupled Plasma
9. ICPMS Inductively Coupled Plasma/Mass Spectrometry
10. SPGFAA..... Stabilized Platform Graphite Furnace Atomic Absorption
11. DCP..... Direct Current Plasma
12. TEM..... Transmission Electron Microscopy
13. COLOR Colorimetric

- C. Indicate a regulatory decision that the cited concentration is either necessary or sufficient for full protection of beneficial uses or indicate meaning of uncommon acronyms
- C1 – For haloethers
 - C2 – For nitrophenols
 - C3 – For chlorinated naphthalenes
 - C4 – For phthalate esters
 - C5 – For polynuclear aromatic hydrocarbons
 - C6 – Criteria for sum of alpha and beta forms
 - C7 – Criteria for sums of all PCBs
- D. MFL is defined as Million Fibers per Liter in the measurement of asbestos in water (EPA Method 600/R-93/116). Its detection limits are at 0.2 MFL of length greater than 10 microns
- E. Criteria for protection of Marine Habitat Beneficial Use (CCWB's Basin Plan)
- E¹ – value cited as objective pertains to nickel salts (not pure metallic nickel)
- F. Criteria only applies to discharges to saltwater inland surface waters, enclosed bays, and estuaries.
- G. Criteria values for metals are expressed as a function of a total hardness of 100 mg/L
- H. For total Chromium
- I. See "TCDD Equivalents" definition in Ocean Plan 2005