

ATTACHMENT J – REASONABLE POTENTIAL ANALYSIS

ATTACHMENT J

REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE B (2009) POLLUTANTS

Constituent, Unit CTR #	Antimony, µg/L #1	Arsenic, µg/L #2	Be, µg/L #3	Cadmium, µg/L #4	Cr (III), µg/L #5a	Cr (VI), µg/L #5b	Cu, µg/L #6	Lead, µg/L #7	Hg, µg/L #8	Nickel, µg/L #9	Se, µg/L #10	Silver, µg/L #11	Thallium, µg/L #12	Zinc, µg/L #13	Cyanide, µg/L #14
LEC, µg/L	ND<0.5	1.25	ND<0.1	ND<0.2	ND<0.2	ND<0.2	15	ND<0.1	ND<0.1	3.32	ND<0.3	ND<0.2	ND<0.2	48.6	ND<0.01
MEC, µg/L	0.736	3.16	ND<0.5	ND<0.5	0.729	0.729	28.2	0.121	ND<0.5	4.57	0.522	ND<0.5	ND<0.5	87.7	0.0152
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	3.0	0	0	0	0	2.0	0	0.005	0	0	0.16	0	8.0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6- month median), µg/L	1,200	8.0	0.033	1.0	190,000	2.0	3.0	2.0	0.04	5.0		0.7	2.0	20	1.0
Other factors (303d list, BPJ)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reasonable Potential	N	N	I	I	I	I	N	I	I	N	I	I	I	N	I

LEC= Lowest Effluent concentration; MEC= Maximum effluent concentration (based on the last 5 years of data).

BPJ = Best professional judgment -- (1) Chlorination occurs during operations and therefore chlorine related parameters are assigned effluent limitations; (2) Calculated performance goal (Cpg = Co+Dm/Co-Cs, where Co = effluent limitation, Dm = dilution ratio, Cs = background concentration) is less than the highest reported laboratory method detection limit (MDL) and the Ocean Plan stipulated minimum level (ML). These parameters are assigned effluent limitations.

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Reasonable Potential: (Y) Either BPJ or the RPCalc statistical results of the reported laboratory data show a reasonable potential to exceed Ocean Plan (2009) water quality objectives. These parameters are assigned effluent limitations.

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REASONABLE POTENTIAL ANALYSIS FOR OCEAN PLAN TABLE B (2009) POLLUTANTS

Constituent, Unit CTR #	2,3,7,8-TCDD (Dioxin), µg/L # 15	Acrolein, µg/L # 16	Acrylonitrile, µg/L # 17	Benzene, µg/L # 18	Bromoform, µg/L # 19	Carbon Tetrachloride, µg/L # 20	Chlorobenzene (Monochloro-benzene), µg/L # 21	Chlorodibromo- methane, µg/L # 22	Chloroform, µg/L # 23	Dichloro- methane, µg/L # 24	UN ORD PD # 25
LEC, µg/L	0.00233	ND<2	ND<2	ND<1	ND<1	ND<1	ND<1	7.2	24	17	
MEC, µg/L	0.487	ND<3	ND<3	ND<1	3.8	ND<1	ND<1	29	47	43	
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0	0	
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Ocean Plan Objective (30-day avg or 6-month median), µg/L	3.9×10^{-9}	220	0.10	5.9	130	0.90	570	8.6	130	6.2	
Other factors (303d list, BP,I)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Reasonable Potential	Y	I	I	I	I	I	I	N	N	N	

Constituent, Unit CTR #	1,2-Dichloro- ethane, µg/L # 25	1,1-Dichloro- ethylene, µg/L # 26	1,3-Dichloro- propene, µg/L # 27	Ethylbenzene, µg/L # 28	Methyl Bromide (Bromomethane), µg/L # 29	Methyl Chloride (Chloromethane), µg/L # 30	Methylene Chloride (dichloromethane), µg/L # 31	1,1,2,2-Tetra- chloroethane, µg/L # 32	Tetrachloro-ethylene, µg/L # 33
LEC, µg/L	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<1	ND<1	ND<1
MEC, µg/L	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<1	ND<1	ND<1
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	28	0.9	8.9	4,100	130	130	450	2.3	2.0
Other factors (303d list, BP,I)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reasonable Potential	I	I	I	I	I	I	I	I	I

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Constituent, Unit	Toluene, µg/L # 34	1,1,1 -Trichloro- ethane, µg/L # 35	1,1,2-Trichloro- ethane, µg/L # 36	Trichloro- ethylene, µg/L # 37	Vinyl Chloride, µg/L # 38	2-Chloro- phenol, µg/L # 39	2, 4 Dichlorophenol, µg/L # 40	2,4-Dimethyl - phenol, µg/L # 41	2-Methyl 4,6-Di- nitrophenol, µg/L # 42	2,4-Dinitrophenol, µg/L # 43
LEC, µg/L	ND<1	ND<1	ND<1	ND<1	ND<1	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7
MEC, µg/L	ND<1	ND<2.5	ND<1	ND<1	ND<1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	85,000	540,000	9.4	27	36	1.0	1.0	30	30	30
Other factors (303d list, BPJ)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reasonable Potential	I	I	I	I	I	I	I	I	I	I

Constituent, Unit	2-Nitrophenol, µg/L # 44	4-Nitro-phenol, µg/L # 45	4-chloro-3-methyl phenol, µg/L # 46	Pentachloro- phenol, µg/L # 47	Phenol, µg/L # 48	2, 4, 6 Trichloro- phenol, µg/L # 49	Acenaphthylene (PAH), µg/L # 50	Anthracene (PAH), µg/L # 51	Benzidine, µg/L # 52	Benzo(a) anthracene (PAH), µg/L # 53
LEC, µg/L	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<20	ND<4.7
MEC, µg/L	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<25	ND<5.1
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	30	30	1.0	1.0	30	1.0	0.0088	0.0088	6.9 x 10 ⁻⁵	0.0088
Other factors (303d list, BPJ)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reasonable Potential	I	I	I	I	I	I	I	I	I	I

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UNITED STATES NAVY
ORDER NO. R4-2013-XXX
NPDES NO. CA0110175

Constituent, Unit	Benzo(a) Pyrene (PAH), µg/L # 54	Benzo(b) fluoranthene (PAH), µg/L # 55	Benzo(ghi) perylene (PAH), µg/L # 56	Benzo(k) fluoranthene (PAH), µg/L # 57	Bis (2-Chloro- ethoxy) Methane, µg/L # 58	Bis (2-Chloroethyl) Ether, µg/L # 59	Bis (2-Chloroisopropyl) Ether, µg/L # 60	Bis (2-Ethylhexyl) Phthalate, µg/L # 61
LEC, µg/L	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	<4.9
MEC, µg/L	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	12
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	0.0088	0.0088	0.0088	0.0088	4.4	0.045	1,200	3.5
Other factors (303d list, BP-J)	BPJ	BPJ	BPJ	BPJ	N/A	N/A	N/A	N/A
Reasonable Potential	Y	Y	Y	Y	I	I	I	N

Constituent, Unit	Chrysene (PAH), µg/L # 62	Dibenzo (ah) anthracene (PAH), µg/L # 63	1,2 Dichloro- benzene, µg/L # 64	1, 3 Dichloro- benzene, µg/L # 65	1, 4 Dichloro- benzene, µg/L # 66	3,3-Dichloro- benzidine, µg/L # 67	Diethyl Phthalate, µg/L # 68	Dimethyl Phthalate, µg/L # 69	Di-n-Butyl Phthalate, µg/L # 70
LEC, µg/L	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7
MEC, µg/L	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	0.0088	0.0088	5,100	5,100	18	0.0081	33,000	820,000	3,500
Other factors (303d list, BP-J)	BPJ	BPJ	N/A	N/A	N/A	BPJ	N/A	N/A	N/A
Reasonable Potential	Y	Y	I	I	N	Y	I	I	I

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Constituent, Unit	2,4-Dinitro-toluene, µg/L # 71	1,2-Diphenyl - hydrazine, µg/L # 72	Fluoranthene, µg/L # 73	Fluorene (PAH), µg/L # 74	Hexachloro- benzene, µg/L # 75	Hexachloro - butadiene, µg/L # 76	Hexachloro - cyclopentadi- ene, µg/L # 77	Hexachloro- ethane, µg/L # 78	Indeno (1,2,3-cd) pyrene (PAH), µg/L # 79
LEC, µg/L	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7
MEC, µg/L	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1	ND<5.1
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	2.6	0.16	15	0.0088	0.00021	14	58	2.5	0.0088
Other factors (303d list...)	N/A	N/A	N/A	BPJ	BPJ	N/A	N/A	N/A	BPJ
Reasonable Potential	I	I	I	Y	Y	I	I	I	Y

Constituent, Unit	Isophorone, µg/L # 80	Nitrobenzene, µg/L # 81	N-Nitrosodimethyl- amine, µg/L # 82	Total Chlorine Residual, µg/L # 83	N-Nitrosodiphenyl- amine, µg/L # 84	Phenanthrene (PAH), µg/L # 85	Pyrene (PAH), µg/L # 86	Aldrin, µg/L # 87
LEC, µg/L	ND<4.7	ND<4.7	ND<4.7	ND<0.01	ND<4.7	ND<4.7	ND<4.7	ND<0.0096
MEC, µg/L	ND<5.1	ND<5.1	ND<5.1	6.3	ND<5.1	ND<5.1	ND<5.1	ND<0.022
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	730	4.9	7.3	2.0	2.5	0.0088	0.0088	0.000022
Other factors (303d list, BPJ)	N/A	N/A	N/A	BPJ	N/A	BPJ	BPJ	BPJ
Reasonable Potential	I	I	I	Y	I	Y	Y	Y

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Constituent, Unit	α-BHC, µg/L # 88	β-BHC, µg/L # 89	γ-BHC (Lindane), µg/L # 90	δ-BHC, µg/L # 91	Chlordane, µg/L # 92	4,4' DDT, µg/L # 93	4, 4'-DDE, µg/L # 94	4,4'-DDD, µg/L # 95	Dieldrin, µg/L # 96	alpha-Endo- sulfan, µg/L # 97
LEC, µg/L	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.0096
MEC, µg/L	ND<0.022	ND<0.022	ND<0.022	ND<0.022	ND<0.022	0.06	ND<0.019	ND<0.019	ND<0.022	ND<0.022
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	0.004	0.004	0.004	0.004	2.3 x 10 ⁻⁵	0.00017	0.00017	0.00017	0.00004	0.009
Other factors (303d list, BPJ)	N/A	N/A	N/A	N/A	BPJ	N/A	N/A	N/A	BPJ	N/A
Reasonable Potential	I	I	I	I	Y	Y	Y	Y	Y	I

Constituent, Unit	beta-Endo- sulfan, µg/L # 98	Endosulfan Sulfate, µg/L # 99	Endrin, µg/L # 100	Heptachlor, µg/L # 101	Heptachlor Epoxide, µg/L # 102	PCBs, µg/L # 103-109	Toxaphene, µg/L # 110	Triphenyltin, µg/L # 111	Ammonia as N, µg/L # 112	TCDD Equivalents µg/L # 113
LEC, µg/L	No Data	No Data	ND<0.0096	ND<0.0096	ND<0.0096	ND<0.48	ND<0.48	ND<0.005	ND<0.1	2.33 x 10 ⁻⁹
MEC, µg/L	N/A	N/A	ND<0.022	ND<0.022	ND<0.022	ND<0.54	ND<1.1	ND<3	0.373	4.67 x 10 ⁻⁷
Maximum Background, µg/L (Table C 2009 Ocean Plan)	0	0	0	0	0	0	0	0	0	0
Numeric BP Objective, µg/L (MCL not applicable since MUN beneficial use is not applicable)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ocean Plan Objective (30-day avg or 6-month median), µg/L	0.009	0.009	0.002	5. x 10 ⁻⁵	2 x 10 ⁻⁵	1.9 x 10 ⁻⁵	0.00021	0.0014	600	3.9 x 10 ⁻⁹
Other factors (303d list, BPJ)	N/A	N/A	N/A	BPJ	BPJ	BPJ	BPJ	BPJ	N/A	N/A
Reasonable Potential	I	I	I	Y	Y	Y	Y	Y	N	Y

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