The Boeing Company, Santa Susana Field Laboratory
(NPDES Permit No. CA0001309)

Revised Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002

Constituent	**Units** (Note b)	**Current Daily Maximum**	**Proposed Daily Maximum**	**Reason for Change** (Basis for Limit)
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	milligram per liter (mg/L)	30	30	No change
BOD (5-day @ 20°C)	pounds per day (lbs/day)	29,481	29,481	No change
Oil and Grease	mg/L	15	15	No change
Oil and Grease	lbs/day	14,741	14,741	No change
pH	standard units	6.5 to 8.5	6.5 to 8.5 (Note c)	No change
Total Suspended Solids (TSS)	mg/L	45	Remove limit	Non-stormwater discharge prohibited
TSS	lbs/day	44,222	Remove limit	Non-stormwater discharge prohibited
Barium, Total Recoverable (TR)	mg/L	1.0	1.0	No change
Barium, TR	lbs/day	983	983	No change
Chloride	mg/L	150	150	No change
Chloride	lbs/day	147,405	147,405	No change
Chlorine, TR	mg/L	0.1	0.1	No change
Chlorine, TR	lbs/day	98.3	98.3	No change
Chronic Toxicity (Note d)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	Pass or % Effect < 50	No change
Fluoride	mg/L	1.6	1.6	No change
Fluoride	lbs/day	1,572	1,572	No change
Detergents (as MBAS)	mg/L	0.5	0.5	No change
Detergents (as MBAS)	lbs/day	491.4	491.4	No change
Iron	mg/L	0.3	Remove limit	Basin Plan
Iron	lbs/day	295	Remove limit	Basin Plan
Manganese	µg/L	50	Remove limit	Basin Plan
Manganese	lbs/day	49.1	Remove limit	Basin Plan
Ammonia – N	mg/L	10.1	10.1	No change

Revised Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002

Constituent	Units (Note b)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Ammonia – N	lbs/day	9,925	9,925	No change
Nitrate – N	mg/L	8	8	No change
Nitrate – N	lbs/day	7,862	7,862	No change
Nitrite – N	mg/L	1	1	No change
Nitrite – N	lbs/day	983	983	No change
Nitrate + Nitrite – N	mg/L	8	8	No change
Nitrate + Nitrite – N	lbs/day	7,862	7,862	No change
Perchlorate	µg/L	6.0	6.0	No change
Perchlorate	lbs/day	5.9	5.9	No change
Settleable Solids	mL/L	0.3	Remove limit	Non-stormwater discharge prohibited
Sulfate	mg/L	300	300	No change
Sulfate	lbs/day	294,810	294,810	No change
Temperature	degrees Fahrenheit (ºF)	86	80 (Note e)	Basin Plan
Total Dissolved Solids	mg/L	950	950	No change
Total Dissolved Solids	lbs/day	933,565	933,565	No change
Radioactivity – Gross Alpha (Note f)	Picocuries per liter (pCi/L)	15	15	No change
Radioactivity – Gross Beta (Note f)	pCi/L	50	50	No change
Combined Radium-226 & Radium-228 (Note f)	pCi/L	5.0	5.0	No change
Tritium (Note f)	pCi/L	20,000	20,000	No change
Strontium-90 (Note f)	pCi/L	8.0	8.0	No change
Antimony, TR (Notes g and h)	micrograms per liter (µg/L)	6.0	6.0	No change
Antimony, TR (Notes g and h)	lbs/day	5.9	5.9	No change
Arsenic, TR (Notes g and h)	µg/L	10.0	10.0	No change
Arsenic, TR (Notes g and h)	lbs/day	9.83	9.83	No change

Revised Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002

Constituent	**Units** (Note b)	**Current Daily Maximum**	**Proposed Daily Maximum**	**Reason for Change** (Basis for Limit)
Beryllium, TR (Notes g and h)	µg/L	4.0	4.0	No change
Beryllium, TR (Notes g and h)	lbs/day	3.93	3.93	No change
Cadmium, TR (Note h)	µg/L	4/3.1	3.1	Non-stormwater discharge prohibited/TMDL
Cadmium, TR (Note h)	lbs/day	3.93/3.05	3.05	Non-stormwater discharge prohibited/TMDL
Chromium (VI), (Notes g, h, and i)	µg/L	16	16	No change
Chromium (VI), (Notes g, h, and i)	lbs/day	15.7	15.7	No change
Copper, TR (Note h)	µg/L	14	67.5	TMDL
Copper, TR (Note h)	lbs/day	13.76	66.3	TMDL
Lead, TR (Note h)	µg/L	5.2	~~94~~ 5.2	No change ~~TMDL~~
Lead, TR (Note h)	lbs/day	5.11	~~92.4~~ 5.11	No change ~~TMDL~~
Mercury, TR (Notes g and h)	µg/L	0.1	0.1	No change
Mercury, TR (Notes g and h)	lbs/day	0.1	0.1	No change
Nickel, TR (Notes g and h)	µg/L	94	Remove limit	RPA
Nickel, TR (Notes g and h)	lbs/day	92.4	Remove limit	RPA
Selenium, TR	µg/L	8.2/5	Remove limit	Non-stormwater discharge prohibited/TMDL
Selenium, TR	lbs/day	8.06/4.91	Remove limit	Non-stormwater discharge prohibited/TMDL
Silver, TR (Notes g and h)	µg/L	4.1	4.1	No change
Silver, TR (Notes g and h)	lbs/day	4.03	4.03	No change

Revised Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002

Constituent	Units (Note b)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Thallium, TR (Notes g and h)	µg/L	2.0	2.0	No change
Thallium, TR (Notes g and h)	lbs/day	1.97	1.97	No change
Zinc, TR (Note h)	µg/L	119	159	TMDL
Zinc, TR (Note h)	lbs/day	117	156.25	TMDL
Cyanide	µg/L	8.5	8.5	No change
Cyanide	lbs/day	8.4	8.4	No change
TCDD Equivalents (Note j)	µg/L	2.8E-08	2.8E-08	No change
TCDD Equivalents (Note j)	lbs/day	2.75E-08	2.75E-08	No change
1,2-Dichloroethane	µg/L	0.5	0.5	No change
1,2-Dichloroethane	lbs/day	0.49	0.49	No change
1,1-Dichlorethylene	µg/L	6.0	6.0	No change
1,1-Dichlorethylene	lbs/day	5.9	5.9	No change
Trichloroethylene	µg/L	5	5	No change
Trichloroethylene	lbs/day	4.9	4.9	No change
Pentachlorophenol	µg/L	16.5	16.5	No change
Pentachlorophenol	lbs/day	16.22	16.22	No change
2,4,6-Trichlorophenol	µg/L	13	13	No change
2,4,6-Trichlorophenol	lbs/day	12.8	12.8	No change
Benzidine	µg/L	--	0.00054	RPA
Benzidine	lbs/day	--	0.00053	RPA
Bis(2-ethylhexyl)Phthalate	µg/L	4	4	No change
Bis(2-ethylhexyl)Phthalate	lbs/day	3.93	3.93	No change
3,3-Dichlorobenzidine	µg/L	--	0.077	RPA
3,3-Dichlorobenzidine	lbs/day	--	0.076	RPA
2,4-Dinitrotoluene	µg/L	18	18	No change
2,4-Dinitrotoluene	lbs/day	17.7	17.7	No change
N-Nitrosodimethylamine	µg/L	16	16	No change
N-Nitrosodimethylamine	lbs/day	15.72	15.72	No change
alpha-BHC	µg/L	0.03	0.03	No change
alpha-BHC	lbs/day	0.03	0.03	No change
4,4-DDE	µg/L	--	0.00059	RPA
4,4-DDE	lbs/day	--	0.00058	RPA

Footnotes for Table 1

a. A "benchmark" is a performance-based value that is used to evaluate the performance of best management practices (BMPs) with regard to the removal of pollutants present in the discharge. In this Order, the benchmarks are established based on water quality-based effluent limitations for Discharge Points 001 and 002. Exceedance of a benchmark triggers an evaluation of the BMPs implemented at the site. The evaluation may determine that the BMPs require augmentation, upgrading, or replacement. If so, the Discharger must develop a plan to implement the required upgrades and report to the Los Angeles Water Board within 60 days of the reported exceedance. The Discharger shall continue monitoring as directed in the Monitoring and Reporting Program during plan development and implementation.

b. The mass-based effluent limitations are calculated using the maximum flow of 117.83 million gallons per day (MGD) for Outfalls 001, 002, 011, and 018 combined as follows:

   Mass (lbs/day) = Flow (mgd) * 8.34 * concentration (mg/L).

c. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.

d. The Maximum Daily Effluent Limitation (MDEL) shall be reported "Pass" or "Fail" and "% Effect". The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:

   1) The chronic toxicity testing result is "Pass"; or
   2) The percent effect is less than 50 if the chronic toxicity result is "Fail".

e. The effluent limitation for temperature is 80ºF based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. The applicable water quality objective (WQO) states: "For waters designated WARM, water temperature shall not be altered by more than 5 ºF above the natural temperature. At no time shall these WARM-designated waters be raised above 80 ºF as a result of waste discharges."

f. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic

analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don't exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.

g. Concentrations correspond to a total hardness of 100 mg/L.

h. Samples analyzed must be unfiltered samples.

i. The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in a replicate sample and the result reported is within the hexavalent chromium limits.

j. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), toxicity equivalency factors (TEFs), and bioaccumulation equivalency factor (BEF) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD equivalents)} = \Sigma(C_x \times TEF_x \times BEF_x)$$

where: C_X = concentration of dioxin or furan congener x
TEF_X = TEF for congener x
BEF_X = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table 1

Revised Limits Comparison Table 2
Outfalls 003, 004, 005, 006, 007, 009, and 010

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Oil and grease	mg/L	15	15	No change
Oil and grease	lbs/day	8,048	8,048	No change
pH	standard units	6.5 to 8.5	6.5 to 8.5 (Note b)	No change
Boron	mg/L	1.0	1.0	No change
Boron	lbs/day	537	537	No change
Chloride	mg/L	150	150	No change
Chloride	lbs/day	80,477	80,477	No change
Chronic Toxicity (Note c)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	Pass or % Effect < 50	No change
Fluoride	mg/L	1.6	1.6	No change
Fluoride	lbs/day	858	858	No change
Nitrate + Nitrite - N	mg/L	10	10	No change
Nitrate + Nitrite - N	lbs/day	5,365	5,365	No change
Perchlorate	µg/L	6.0	6.0	No change
Perchlorate	lbs/day	3.22	3.22	No change
Sulfate	mg/L	250	250	No change
Sulfate	lbs/day	134,128	134,128	No change
Temperature	ºF	86	80 (Note d)	Basin Plan
Total Dissolved Solids	mg/L	850	850	No change
Total Dissolved Solids	lbs/day	456,034	456,034	No change
Radioactivity – Gross Alpha (Note e)	pCi/L	15	15	No change
Radioactivity – Gross Beta (Note e)	pCi/L	50	50	No change

Revised Limits Comparison Table 2
Outfalls 003, 004, 005, 006, 007, 009, and 010

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Combined Radium-226 & Radium-228 (Note e)	pCi/L	5.0	5.0	No change
Tritium (Note e)	pCi/L	20,000	20,000	No change
Strontium-90 (Note e)	pCi/L	8.0	8.0	No change
Antimony, TR (Notes f and g)	µg/L	6.0	6.0	No change
Antimony, TR (Notes f and g)	lbs/day	3.2	3.2	No change
Cadmium, TR (Note g)	µg/L	4.0	4.0	No change
Cadmium, TR (Note g)	lbs/day	2.1	2.1	No change
Copper, TR (Note g)	µg/L	13	31	TMDL
Copper, TR (Note g)	lbs/day	7	16.6	TMDL
Lead, TR (Note g)	µg/L	5.2	5.2	No change
Lead, TR (Note g)	lbs/day	2.8	2.8	No change
Mercury, TR (Notes f and g)	µg/L	0.13	0.051	TMDL
Mercury, TR (Notes f and g)	lbs/day	0.07	0.027	TMDL
Nickel, TR (Notes f and g)	µg/L	86	~~958~~100	TMDL/Basin Plan
Nickel, TR (Notes f and g)	lbs/day	46.14	~~514~~ 53.7	TMDL/Basin Plan
Selenium	µg/L	--	8.21	RPA
Selenium	lbs/day	--	4.41	RPA
Thallium, TR (Notes f and g)	µg/L	2	2	No change
Thallium, TR (Notes f and g)	lbs/day	1.1	1.1	No change
Zinc, TR (Note g)	µg/L	120	120	No change
Zinc, TR (Note g)	lbs/day	64.4	64.4	No change
Cyanide	µg/L	9.5	9.5	No change
Cyanide	lbs/day	5.1	5.1	No change
TCDD Equivalents (Note h)	µg/L	2.8E-08	2.8E-08	No change
TCDD Equivalents (Note h)	lbs/day	1.5E-08	1.5E-08	No change
Pentachlorophenol	µg/L	--	1.0	RPA
Pentachlorophenol	lbs/day	--	0.54	RPA
Bis(2-ethylhexyl)Phthalate	µg/L	--	4.0	RPA
Bis(2-ethylhexyl)Phthalate	lbs/day	--	2.1	RPA

Footnotes for Table 2

a. The mass-based effluent limitations are calculated using the maximum flow for Outfalls 003, 004, 005, 006, 007, 009, and 010, which is 64.33 MGD, as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

b. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.

c. The MDEL shall be reported "Pass" or "Fail" and "% Effect". The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:

   1) The chronic toxicity testing result is "Pass"; or
   2) The percent effect is less than 50 if the chronic toxicity result is "Fail".

d. The effluent limitation for temperature is 80^{o}F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. The applicable WQO states: "For waters designated WARM, water temperature shall not be altered by more than 5 ºF above the natural temperature. At no time shall these WARM-designated waters be raised above 80 ºF as a result of waste discharges."

e. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don't exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.

f. Concentrations correspond to a total hardness of 100 mg/L.

g. Samples analyzed must be unfiltered samples.

h. TCDD equivalents shall be calculated using the following formula, where the MLs, TEFs, and BEF are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener

concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD equivalents) = $\Sigma(C_x \times TEF_x \times BEF_x)$

where: C_X = concentration of dioxin or furan congener x
TEF_X = TEF for congener x
BEF_X = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table 2

Revised Limits Comparison Table 3
Outfall 008

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Oil and Grease	mg/L	15	15	No change
Oil and Grease	lbs/day	902	902	No change
pH	standard units	6.5 to 8.5	6.5 to 8.5 (Note b)	No change

Revised Limits Comparison Table 3
Outfall 008

Constituent	**Units** (Note a)	**Current Daily Maximum**	**Proposed Daily Maximum**	**Reason for Change** (Basis for Limit)
Boron	mg/L	1.0	1.0	No change
Boron	lbs/day	60	60	No change
Chloride	mg/L	150	150	No change
Chloride	lbs/day	9,020	9,020	No change
Chronic Toxicity (Note c)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	Pass or % Effect < 50	No change
Fluoride	mg/L	1.6	1.6	No change
Fluoride	lbs/day	96.2	96.2	No change
Ammonia – N	mg/L	10.1	10.1	No change
Ammonia – N	lbs/day	607.3	607.3	No change
Nitrate – N	mg/L	8	8	No change
Nitrate – N	lbs/day	481	481	No change
Nitrite – N	mg/L	1	1	No change
Nitrite – N	lbs/day	60	60	No change
Nitrate + Nitrite - N	mg/L	8	8	No change
Nitrate + Nitrite - N	lbs/day	481	481	No change
Perchlorate	µg/L	6.0	6.0	No change
Perchlorate	lbs/day	0.36	0.36	No change
Sulfate	mg/L	300	300	No change
Sulfate	lbs/day	18,039	18,039	No change
Temperature	ºF	86	80 (Note d)	Basin Plan
Total Dissolved Solids	mg/L	950	950	No change
Total Dissolved Solids	lbs/day	57,124	57,124	No change
Radioactivity – Gross Alpha (Note e)	pCi/L	15	15	No change
Radioactivity – Gross Beta (Note e)	pCi/L	50	50	No change
Combined Radium-226 & Radium-228 (Note e)	pCi/L	5.0	5.0	No change
Tritium (Note e)	pCi/L	20,000	20,000	No change
Strontium-90 (Note e)	pCi/L	8.0	8.0	No change
Antimony, TR	µg/L	6.0	Remove limit	RPA
Antimony, TR	lbs/day	0.36	Remove limit	RPA
Arsenic, TR	µg/L	--	10.0	RPA
Arsenic, TR	lbs/day	--	0.6	RPA

Revised Limits Comparison Table 3
Outfall 008

Constituent	**Units** (Note a)	**Current Daily Maximum**	**Proposed Daily Maximum**	**Reason for Change** (Basis for Limit)
Cadmium, TR (Note f)	µg/L	4.0/3.1	3.1	Non-stormwater discharge prohibited/TMDL
Cadmium, TR (Note f)	lbs/day	0.24/0.19	0.19	Non-stormwater discharge prohibited/TMDL
Copper, TR (Note f)	µg/L	14	67.5	TMDL
Copper, TR (Note f)	lbs/day	0.84	4.1	TMDL
Lead, TR (Note f)	µg/L	5.2	~~94~~ 5.2	~~TMDL~~ No change
Lead, TR (Note f)	lbs/day	0.31	~~5.7~~ 0.31	~~TMDL~~ No change
Mercury, TR(Note f)	µg/L	0.13	~~Remove limit~~ 0.13	No change
Mercury, TR (Note f)	lbs/day	0.008	~~Remove limit~~ 0.008	No change
Nickel, TR	µg/L	86	Remove limit	RPA
Nickel, TR	lbs/day	5.2	Remove limit	RPA
Selenium, TR	µg/L	5	Remove limit	Non-stormwater discharge prohibited/TMDL
Selenium, TR	lbs/day	0.3	Remove limit	Non-stormwater discharge prohibited/TMDL
Thallium, TR	µg/L	2.0	Remove limit	RPA
Thallium, TR	lbs/day	0.12	Remove limit	RPA
Zinc, TR (Note f)	µg/L	120	159	TMDL
Zinc, TR (Note f)	lbs/day	7.22	9.6	TMDL
Cyanide	µg/L	9.5	9.5	No change
Cyanide	lbs/day	0.57	0.57	No change
TCDD Equivalents (Note g)	µg/L	2.8E-08	2.8E-08	No change
TCDD Equivalents (Note g)	lbs/day	1.7E-09	1.7E-09	No change
Benzidine	µg/L		0.00054	RPA
Benzidine	lbs/day		3.2E-05	RPA

Revised Limits Comparison Table 3
Outfall 008

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
3,3-Dichlorobenzidine	µg/L		0.077	RPA
3,3-Dichlorobenzidine	lbs/day		0.0046	RPA
4,4-DDE	µg/L		0.00059	RPA
4,4-DDE	lbs/day		3.5E-05	RPA

Footnotes for Table 3

a. The mass-based effluent limitations are calculated using the maximum flow for Outfall 008, which is 7.21 MGD, as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

b. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.

c. The MDEL shall be reported "Pass" or "Fail" and "% Effect". The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:
   1) The chronic toxicity testing result is "Pass"; or
   2) The percent effect is less than 50 if the chronic toxicity result is "Fail".

d. The effluent limitation for temperature is 80°F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. The applicable WQO states: "For waters designated WARM, water temperature shall not be altered by more than 5 °F above the natural temperature. At no time shall these WARM-designated waters be raised above 80 °F as a result of waste discharges."

e. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with

the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don't exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.

f. Samples analyzed must be unfiltered samples.

g. TCDD equivalents shall be calculated using the following formula, where the minimum levels, TEFs, and BEFs are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum level to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD equivalents) = $\Sigma(C_x \times TEF_x \times BEF)$

where: C_X = concentration of dioxin or furan congener x
TEF_X = TEF for congener x
BEF_X = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table 3