TEXTOX MENU #1 - INTERMITTENT STREAM

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2010 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
"Procedures to Implement the Texas Surface Water Quality Standards," Texas Commission on Environmental Quality, January 2003
"Procedures to Implement the Texas Surface Water Quality Standards," Appendix D, Texas Commission on Environmental Quality, June 2010

PERMIT INFORMATION

TPDES Permit No:	TX0125008
Permittee Name:	Southwest Ozona Gas Plant
Outfall No:	001
Prepared By:	Maria Okpala
Date:	4/10/12

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Howard Draw, thence to Lower Pecos River
Segment No:	2310
TSS (mg/L):	3
pH (Standard Units):	7.8
Hardness (mg/L as $CaCO_3$):	640
Chloride (mg/L):	890
Effluent Flow for Aquatic Life (MGD):	0.0052
Critical Low Flow [7Q2] (cfs):	0
Percent Effluent for Acute Aquatic Life:	100

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*		*Water Effect Ratio (WER)*	
Aluminum	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Arsenic	5.68	-0.73	214635.47	0.61		1	Assumed
Cadmium	6.60	-1.13	1150410.88	0.22		1	Assumed
Chromium (Total)	6.52	-0.93	1192002.68	0.22		1	Assumed
Chromium (+3)	6.52	-0.93	1192002.68	0.22		1	Assumed
Chromium (+6)	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Copper	6.02	-0.74	464440.70	0.42		1	Assumed
Lead	6.45	-0.80	1170315.61	0.22		1	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Nickel	5.69	-0.57	261842.95	0.56		1	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Silver	6.38	-1.03	773686.66	0.30		1	Assumed
Zinc	6.10	-0.70	583465.42	0.36		1	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (ug/L)*	*WLAa*	*LTAa*	*Daily Avg. (ug/L)*	*Daily Max. (ug/L)*
Aldrin	3	3	1.72	2.53	5.35
Aluminum	991	991	568	835	1766
Arsenic	340	558.92817	320.265844	470.79079	996.02677
Cadmium	51.9845915	231.39551	132.5896278	194.90675	412.35374
Carbaryl	2	2	1.15	1.68	3.56
Chlordane	2.4	2.4	1.38	2.02	4.28
Chlorpyrifos	0.083	0.083	0.048	0.070	0.148
Chromium (+3)	2605.88954	11924.572	6832.779485	10044.186	21249.944
Chromium (+6)	15.7	15.7	9.00	13.2	28.0
Copper	81.6444073	195.40136	111.9649819	164.58852	348.21109
Cyanide	45.8	45.8	26.2	38.6	81.6
4,4'-DDT	1.1	1.1	0.630	0.927	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.17	0.17	0.097	0.143	0.303
Dicofol	59.3	59.3	34.0	49.9	106
Dieldrin	0.24	0.24	0.138	0.202	0.428
Diuron	210	210	120	177	374
Endosulfan I (alpha)	0.22	0.22	0.126	0.185	0.392
Endosulfan II (beta)	0.22	0.22	0.126	0.185	0.392
Endosulfan sulfate	0.22	0.22	0.126	0.185	0.392
Endrin	0.086	0.086	0.049	0.072	0.153
Guthion	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.52	0.52	0.298	0.438	0.927
Hexachlorocyclohexane (Lindane)	1.126	1.126	0.645	0.948	2.01
Lead	451.472919	2036.5703	1166.954798	1715.4236	3629.2294
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.4	1.38	2.02	4.28
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	2251.60838	4020.3117	2303.638613	3386.3488	7164.3161
Nonylphenol	28	28	16.0	23.6	49.9
Parathion (ethyl)	0.065	0.065	0.037	0.055	0.116
Pentachlorophenol	19.4919196	19.49192	11.169	16.418	34.735

Phenanthrene	30	30	17.2	25.3	53.5
Polychlorinated Biphenyls (PCBs)	2	2	1.15	1.68	3.56
Selenium	20	20	11.5	16.8	35.6
Silver (free ion)	0.8	29.583466	16.95132598	24.918449	52.718624
Toxaphene	0.78	0.78	0.447	0.657	1.39
Tributyltin (TBT)	0.13	0.13	0.074	0.110	0.232
2,4,5 Trichlorophenol	136	136	77.9	115	242
Zinc	564.847835	1553.5554	890.1872288	1308.5752	2768.4823

CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life

Parameter	***70%***	***85%***	
Aldrin	1.77	2.15	
Aluminum	584	710	35.7
Arsenic	329.554	400.172	
Cadmium	136.435	165.671	
Carbaryl	1.18	1.43	
Chlordane	1.42	1.72	
Chlorpyrifos	0.049	0.059	
Chromium (+3)	7030.93	8537.56	
Chromium (+6)	9.26	11.2	
Copper	115.212	139.900	
Cyanide	27.0	32.8	
4,4'-DDT	0.649	0.788	
Demeton	N/A	N/A	
Diazinon	0.100	0.122	
Dicofol	35.0	42.5	
Dieldrin	0.142	0.172	
Diuron	124	150	
Endosulfan I (alpha)	0.130	0.158	
Endosulfan II (beta)	0.130	0.158	
Endosulfan sulfate	0.130	0.158	
Endrin	0.051	0.062	
Guthion	N/A	N/A	
Heptachlor	0.307	0.372	
Hexachlorocyclohexane (Lindane)	0.664	0.806	
Lead	1200.796	1458.110	
Malathion	N/A	N/A	
Mercury	1.42	1.72	
Methoxychlor	N/A	N/A	
Mirex	N/A	N/A	
Nickel	2370.44	2878.40	18.3
Nonylphenol	16.5	20.0	
Parathion (ethyl)	0.038	0.047	
Pentachlorophenol	11.4928	13.9555	
Phenanthrene	17.7	21.5	
Polychlorinated Biphenyls (PCBs)	1.18	1.43	
Selenium	11.8	14.3	
Silver (free ion)	17.443	21.181	
Toxaphene	0.460	0.558	
Tributyltin (TBT)	0.077	0.093	
2,4,5 Trichlorophenol	80.2	97.4	
Zinc	916.003	1112.289	101