

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 5064 and N001

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
E-1	Carbon Adsorption Unit	VOC	67.11	23.50
E-2	Carbon Adsorption Unit	VOC	9.92	1.40
E-3	Carbon Adsorption Unit	VOC	26.92	3.80
E-4-I	Incinerator Train I (4)	NO _x	134.00	130.90 (5)
		CO	13.60	54.70
		SO ₂	6.40	25.80
		PM ₁₀	6.29	27.55
		HCl	4.00	17.52
		Cl ₂	0.25	1.01
		As/Be/Cr	1.80 E-2	7.88 E-2
		Ag	0.05	0.22
		Ba	2.80	12.09
		Cd/Pb	4.44 E-2	0.19
		Hg	2.41 E-2	0.11
		Ni	0.03	0.12
		Sb	2.80	12.09
		Tl	0.50	2.02
		Vinyl Chloride	0.45	1.81
		Total Organics	--	0.85
		Total Dioxin/Furans	7.41 E-8	3.25 E-7
		Total PCB	2.35 E-3	9.47 E-3
		NH ₃	1.38	6.04
E-4-II	Incinerator Train II (4)	NO _x	134.00	130.90 (5)
		CO	20.40	82.10
		SO ₂	9.60	38.70
		PM ₁₀	6.29	27.55
		HCl	4.00	17.52

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY**</u>
		Cl ₂ 0.38	0.44	
		As/Be/Cr	1.80 E-2	7.88 E-2
		Ag 0.05	0.22	
		Ba 2.80	12.09	
		Cd/Pb 4.44 E-2	0.19	
		Hg 2.41 E-2	0.11	
		Ni 0.05	0.20	
		Sb 2.80	12.09	
		Tl 0.50	2.02	
		Vinyl Chloride	0.67	2.70
		Total Organics	—	2.29
		Total Dioxin/Furans	7.41 E-8	3.25 E-7
		Total PCB	2.35 E-3	9.47 E-3
		NH ₃ 1.38	6.04	
BCO-1	Blasting/Coating	VOC	5.94	6.32
		PM 20.40	17.99	
E-5	PCB Shredder	VOC	0.01	0.01
E-6	South Landfill Leachate Collection System	VOC	0.01	0.01
E-7	Carbon Adsorption Unit	VOC	0.04	0.02
F-2	North Landfill (Active Area)	VOC	2.14	9.38
F-3	North Landfill (Exposed Area)	VOC	4.76	6.19
		PM ₃₀	0.40	0.52
F-4	Paved Roads	PM ₃₀	5.44	8.50
F-5	Unpaved Roads	PM ₃₀	4.37	6.55
F-7	East Landfill	PM ₃₀	1.24	1.46

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			lb/hr	TPY**
		PM ₁₀	0.61	0.72
		PM _{2.5}	0.09	0.09
		VOC	0.01	0.01
5	Lime Storage Silo	PM ₃₀	0.24	0.06
D-1	1,215-HP Diesel Generator	VOC	0.86	0.03
		NO _x	29.16	0.73
		SO ₂	0.49	0.02
		PM ₁₀	0.20	0.01
		CO	6.69	0.17
D-2	1,215-HP Diesel Generator	VOC	0.86	0.03
		NO _x	29.16	0.73
		SO ₂	0.49	0.02
		PM ₁₀	0.20	0.01
		CO	6.69	0.17
D-3	1,215-HP Diesel Generator	VOC	0.86	0.03
		NO _x	29.16	0.73
		SO ₂	0.49	0.02
		PM ₁₀	0.20	0.01
		CO	6.69	0.17
D-4	1,215-HP Diesel Generator	VOC	0.86	0.03
		NO _x	29.16	0.73
		SO ₂	0.49	0.02
		PM ₁₀	0.20	0.01
		CO	6.69	0.17
G-1	North Fire Water Pump	VOC	0.76	0.02
		NO _x	9.30	0.24

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY**
		SO ₂	0.62	0.02
		PM ₁₀	0.66	0.02
		CO	2.01	0.05
G-2	South Fire Water Pump	VOC	0.72	0.02
		NO _x	8.84	0.23
		SO ₂	0.59	0.02
		PM ₁₀	0.63	0.02
		CO	1.91	0.05
FU-1	Fugitive Equipment Leaks (6)	VOC	0.54	2.38
		NH ₃	0.01	0.06
FU-2	Carbon Adsorption Units for Groundwater Treatment	VOC	0.01	0.01
T-150	Wastewater Tank	VOC	2.76	3.72
SE-1	S and E Baghouse Vents	PM ₁₀	7.20	4.32
SE-2	S and E Silo Vent V-1205	PM ₁₀	0.05	0.01
SE-3	S and E Silo Vent V-1206	PM ₁₀	0.05	0.01
SE-4	S and E Silo Vent V-1207	PM ₁₀	0.05	0.01
SE-5	S and E Silo Vent V-1208	PM ₁₀	0.05	0.01
RRR-1	Rotary Reagent BIN F-611	PM ₁₀	0.51	0.02

RRR-2	Rotary Reagent BIN F-612	PM ₁₀	0.51	0.03
RRR-3	Rotary Reagent BIN F-613	PM ₁₀	0.51	0.01
RRR-4	Rotary Reagent BIN F-622	PM ₁₀	0.51	0.01
RRR-5	Rotary Reagent BIN F-623	PM ₁₀	0.51	0.03
RRR-6	Rotary Reagent BIN F-624	PM ₁₀	0.51	0.02
B-1	Boiler	VOC	0.02	0.09
		NO _x	0.42	1.84
		SO ₂	0.06	0.26
		PM ₁₀	0.03	0.13
		CO	0.35	1.53
B-2	Boiler	VOC	0.02	0.09
		NO _x	0.42	1.84
		SO ₂	0.06	0.26
		PM ₁₀	0.03	0.13
		CO	0.35	1.53

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code §101.1
NO_x - total oxides of nitrogen

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CO	-	carbon monoxide
SO ₂	-	sulfur dioxide
PM	-	particulate matter, suspended in the atmosphere, including PM ₁₀
PM ₁₀	-	particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
PM _{2.5}	-	particulate matter equal to or less than 2.5 microns in diameter.
HCl	-	hydrogen chloride
Cl ₂	-	chlorine
As	-	arsenic
Ag	-	silver
Ba	-	barium
Be	-	beryllium
Cd	-	cadmium
Cr	-	chromium
Hg	-	mercury
Ni	-	nickel
NH ₃	-	ammonia
Pb	-	lead
Sb	-	antimony
Tl	-	thallium
PCB	-	polychlorinated biphenyls
PM ₃₀	-	particulate matter equal to or less than 30 microns in diameter

- (4) No later than September 30, 2004, a wet electrostatic precipitator system shall be operational on each of the incinerator trains and no later than March 31, 2007, a Selective Catalytic Reduction De-NO_x system shall be operational on each of the incinerator trains resulting in these allowables. In addition, each of the two incinerator trains will have a separate stack.
- (5) Clean Harbors Deer Park, L.P., is also subject to the Mass Emissions Cap and Trade Program as outlined in Title 30 Texas Administrative Code § 101.351. The Mass Cap and Trade Program limits annual NO_x emissions to a prescribed schedule of allowances, which are lower than the existing permit allowables.
- (6) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- * Emission rates are based on and the facilities are limited by the following maximum operating schedule:

- Engines at 50 hours per year total.

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- Pumps at 50 hours per year each.
- All emission rates are based on continuous operation.

** Compliance with annual emission limits is based on a rolling 12-month period. The annual emission limits for EPNs E-4-I and E-4-II are based on the calendar year. Emissions of air contaminants from EPNs E-4-I and E-4-II are permitted under NA and State.

Dated May 21, 2007