EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 9459

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	Emission Rates TPY
07	EPI Bottle Room	Acids	<<0.01	<<0.01
08	EPI 105 and 106	Arsenic (as As_2O_3)	<<0.01	<<0.01
		Silicon Dioxide	<0.01	0.02
		Hydrogen Chloride	0.01	0.04
		Diborane	<<0.01	<<0.01
		Hydrochloric Acid	0.03	0.14
09	EPI 103 and 104	Arsenic (as As_2O_3)	<<0.01	<<0.01
		Silicon Dioxide	<0.01	0.02
		Hydrogen Chloride	0.03	0.11
14	Photo	Tetramethyl Ammoniumde Hydroxide	0.12	0.54
		Hexamethyldisilazane	0.01	0.04
		VOC	0.02	0.06
18	WJ999	Diborane	<<0.01	<<0.01
		Hydrofluoric Acid	0.05	0.22
		Phosphine (as P_2O_5)	<<0.01	<<0.01
		Silicon Dioxide	0.01	0.05
19	WJ 998	Diborane	<0.01	0.01
		Hydrofluoric Acid	0.05	0.22
		Phosphine (as P_2O_5)	<<0.01	<<0.01
		Silicon Dioxide	0.01	0.05
21	Silane Burn Tubes	Silicon Dioxide	<0.01	<<0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
24	ILO	Hydrofluoric Acid	0.01	0.03
		Boron Trifluoride (as B_2O_3)	<<0.01	<0.01
		Hexafluoroethane	0.04	0.16
		VOC	0.02	0.08
25	PSG Bottle Room	Acids	<<0.01	<<0.01
27	Implant	Arsenic (as As_2O_3)	<0.01	0.01
		Phophorous (as P_2O_5)	<0.01	0.02
		Antimony Trioxide	<0.01	0.02
55	South-Side Sheetmetal	Tetrafluoromethane		0.02
0.06				
		Acetone	0.06	0.27
		Xylene	0.12	0.53
		Butyl Acetate	0.01	0.04
		Hydrofluoric Acid	<0.01	0.02
		VOC	0.01	0.03
		Isoproponal	0.04	0.16
		Tetramethyl Ammonium Hydroxide	0.02	0.09
62	Multi Probe Test Floor	Phosphoric Acid		<0.01
<0.01				
		Ammonia	<0.01	<0.01
		Hydrochloric Acid	<0.01	<0.01
		Methanol	<0.01	<0.01
		VOC	0.02	0.07
		Sulfuric Acid	<0.01	<0.01
		Nitric Acid	<0.01	<0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
67	Surface Analysis Lab	Acid	<0.01	<0.01
		VOC	0.02	0.09
		Nitrous Oxide	<0.01	<0.01
75	B1 Boiler (Boil 1)	PM_{10}	0.14	0.58
		VOC	0.05	0.19
		CO	0.12	0.53
		NO_x	1.21	5.30
		SO_2	0.01	0.03
85	B1 Boiler (Boil 2)	PM_{10}	0.24	1.04
		VOC	0.05	0.22
		CO	3.37	14.77
		NO_X	0.86	3.77
		SO_2	0.02	0.05
95	B1 Boiler (Boil 3)	PM_{10}	0.18	0.76
		VOC	0.04	0.16
		CO	0.17	0.75
		NO_X	0.81	3.55
		SO_2	0.34	1.46
104	B1 Emergency Generator 0.01	VOC	0.06	
	(Gen 1)	CO	0.25	<<0.01
		NO_X	0.99	<<0.01
		PM_{10}	0.10	<<0.01
		SO_2	<0.01	<<0.01
112	B1 Emergency Generator <0.01	VOC	0.05	
	(Gen 2)	CO	0.20	<<0.01
		NO_X	0.77	<<0.01
		PM_{10}	0.08	<<0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
		SO_2	<0.01	<<0.01
116	Solvent MCV Room	Propylene Glycol Monomethyl Ether Acetate	0.01	0.03
		Ethanolamine	0.01	0.03
		Isoproponal	0.01	0.05
		Hexamethyldisilazane	0.23	0.01
		Tetramethyl Ammonium Hydroxide	0.07	0.01
		n-Methylpyrrolidinone	1.13	0.12
		2-(2-Butoxyethoxy) Ethanol	3.84	0.41
129	Cafeteria Boiler	PM_{10}	0.07	0.29
		VOC	0.03	0.10
		CO	0.12	0.52
		NO_X	0.56	2.45
		SO_2	<0.01	0.02
133	Source Rebuild Exhaust	Arsenic (as As_2O_3)		<<0.01
	<<0.01			
		Phosphorus (as P_2O_5)	<<0.01	<<0.01
		Antimony Trioxide	<<0.01	<<0.01
		Boron Trifluoride (as B_2O_3)	<<0.01	<<0.01
202	Houston Deviation Analysis Lab	Nitric Acid	0.01	0.03
		Acetic Acid	<<0.01	<0.01
		Hydrochloric Acid	<0.01	<0.01
		Hydrofluoric Acid	<0.01	<0.01
		Sulfuric Acid	<<0.01	<0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
203	Houston Deviation Analysis Lab	Acetone	0.01	0.02
		Tetrafluoromethane	0.01	0.03
		Hydrofluoric Acid	<0.01	0.01
		Methanol	<0.01	0.02
		Nitrous Oxide	<0.01	0.01
		VOC	<0.01	0.02
209	B2 Emergency Generator 0.01 (Gen 3)	VOC		0.03
		CO	0.10	<<0.01
		NO_X	0.40	<<0.01
		PM_{10}	0.04	<<0.01
		SO_2	<0.01	<<0.01
211	B2 Boiler (Boil 5)	PM_{10}	0.01	0.03
		VOC	<0.01	0.01
		CO	0.01	0.05
		NO_X	0.05	0.21
		SO_2	<0.01	<0.01
219	B2 Boiler (Boil 6)	PM_{10}	0.07	0.29
		VOC	0.03	0.10
		CO	0.12	0.52
		NO_X	0.56	2.45
		SO_2	<0.01	0.02
303	Welding Shop	Chromium	<<0.01	<0.01
		Cobalt	<<0.01	<0.01
		Manganese	<0.01	<0.01
		Nickel	<<0.01	<<0.01
		PM_{10-U}	<0.01	<0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
316	Mod A Boiler (Boil 7) 0.14	PM_{10}		0.04
		VOC	0.02	0.05
		CO	0.32	1.41
		NO_X	0.13	0.57
		SO_2	<0.01	0.01
419	HF Treatment	Ammonia	2.00	9.00
		PM_{10}	0.28	0.50
		VOC	0.01	0.01
		CO	1.12	2.00
		NO_X	2.79	5.00
		SO_2	0.12	0.20
428	Thermal Oxidizer	Hexamethyldisilazane	0.04	0.04
		Propylene Glycol Monomethyl Ether Acetate	2.26	1.73
		Isoproponal	3.80	5.36
		Perchloroethylene	1.03	0.79
		Ortho-Dichlorobenzene	1.03	0.79
		Phenol	0.30	0.23
		Dihydro-2(3H)-Furanone	0.09	0.37
		Diethylene Glycol Monobutyl Ether	0.08	0.34
		Alkanolamine	0.02	0.07
		Dodecylbenzene Sulfonic Acid	0.59	0.46
		Acetone	<0.01	<0.01
		Ethanol	<0.01	0.02
		Methyl Siloxane Polymer	<0.01	0.01
		Ethanolamine	1.98	1.52
		n-Methyl-2-Pyrrolidinone	0.41	1.81
		2-(2 Butoxyethoxy) Ethanol	0.38	1.65
		PM_{10}	0.09	0.36

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1) *	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
		VOC	0.03	0.12
		CO	0.15	0.64
		NO_X	5.40	23.66
		SO_2	<0.01	0.02
431	Fuel Oil Tank	VOC	0.83	0.04
432	Spent Solvent Tank	Isopropyl Alcohol	0.06	0.10
		Propylene Glycol Monomethyl Ether Acetate	0.01	0.02
439	Chlorine Room	Chlorine	0.02	<0.01
441	Site Utilities Fuel Oil Tank	Fuel Oil		0.83
	0.04			
442	Site Utilities Emergency	VOC		0.42
	0.08			
	Generator	CO	11.67	2.03
		NO_X	0.02	<0.01
		SO_2	<0.01	<0.01
448	Diesel Fire Pump	VOC	0.96	0.03
		CO	2.54	0.08
		NO_X	11.73	0.37
		SO_2	0.78	0.03
		PM_{10}	0.84	0.03
452	Scrubber Yard	Acetic Acid	<0.01	<0.01
		Nitric Acid	<0.01	<0.01
		Ammonia	0.48	2.08

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
		Boron Trichloride (as B_2O_3)	0.01	0.04
		Chlorine	0.09	0.40
		Ammonium Fluoride	<<0.01	<<0.01
		Cupric Sulfate	<0.01	<0.01
		Hexafluoroethane	0.12	0.54
		Tetrafluoromethane	0.03	0.13
		Trifluoromethane	0.02	0.09
		Hydrochloric Acid	0.20	0.85
		Hydrofluoric Acid	0.32	1.39
		Hydrogen Bromide	0.01	0.03
		Tetramethyl Ammonium Hydroxide	0.99	4.34
		Nitrogen Trifluoride	<0.01	<0.01
		Nitrous Oxide	0.03	0.11
		Peroxydisulfuric Acid	<0.01	0.01
		Phosphoric Acid	<0.01	<0.01
		Phosphine (as P_2O_5)	<0.01	<0.01
		Silicon Dioxide	0.04	0.16
		Sulfur Hexafluoride	0.06	0.23
		Sulfur Dioxide	<0.01	0.03
		Sulfuric Acid	<0.01	0.02
		Teraethyl Ortho-Silicate	0.01	0.03
		Arsenic (as As_2O_3)	<<0.01	<<0.01
		Diborane	<<0.01	<<0.01

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

(3) PM_{10}- particulate matter less than 10 microns in diameter
VOC - volatile organic compounds as defined in General Rule 101.1
NO_X - total oxides of nitrogen
SO_2 - sulfur dioxide
CO - carbon monoxide

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760 Hrs/year

Dated_____