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	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
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	0.08	0.34
		Hexamethyldisilazane		0.01
	0.04			
		VOC	0.02	0.06
18	WJ999	Diborane	<<0.01	<<0.01
		Hydrofluoric Acid	0.02	0.06
		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	0.02	0.06
		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

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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	0.02	0.07
		Xylene	0.12	0.53
		Butyl Acetate	0.01	0.04
		Hydrofluoric Acid	<0.01	0.02
		VOC	<0.01	0.01
		Isoproponal	0.04	0.16
		Tetramethyl Ammonium Hydroxide	0.01	0.03
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
67	Surface Analysis Lab	Acid	<0.01	<0.01
		VOC	0.02	0.04
		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

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
		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 (Gen 1)	VOC	0.06	0.01
		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 (Gen 2)	VOC	0.05	<0.01
		CO	0.20	<<0.01
		NO_X	0.77	<<0.01
		PM_{10}	0.08	<<0.01
		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			

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
		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
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

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
209	B2 Emergency Generator (Gen 3)	VOC	0.03	0.01
		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
316	Mod A Boiler (Boil 7)	PM_{10}	0.04	0.14
		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

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
		NO_X	2.79	5.00
		SO_2	0.12	0.20

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
428	Thermal Oxidizer 0.04	Hexamethyldisilazane		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	<0.01
		Methyl Siloxane Polymer	<0.01	0.01
		Ethanolamine	1.98	1.52
		n-Methyl-2-Pyrrolidinone	0.04	0.17
		2-(2 Butoxyethoxy) Ethanol	0.38	1.65
		PM_{10}	0.09	0.36
		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

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
		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 Generator	VOC	0.42	0.08
		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	0.09	0.38
		Boron Trichloride (as B_2O_3)	0.01	0.04
		Chlorine	0.05	0.19
		Ammonium Fluoride	<<0.01	<<0.01
		Cupric Sulfate	<0.01	<0.01
		Hexafluoroethane	0.06	0.27
		Tetrafluoroethane	0.02	0.06
		Trifluoromethane	0.01	0.05
		Hydrochloric Acid	0.20	0.85
		Hydrofluoric Acid	0.32	1.39
		Hydrogen Bromide	0.01	0.03

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
*		Tetramethyl Ammonium Hydroxide	0.05	0.19
		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 P2O5)	<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	0.02
		Arsenic (as As2O3)	<<0.01	<<0.01
		Diborane	<<0.01	<<0.01
		Tetrafluromethane	0.02	0.06

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(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 - particulate matter
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 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_____