EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 20162

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
E-AN-A1,2 E-AS-A1,2 E-BR-1	Building A (Wet Scrubbers)	Acids	3.75	3.77
		Halocarbons	4.16	18.22
		Hydrides	0.13	0.18
		Inorganics	5.41	22.88
		VOC	2.06	9.03
E-AS-E1	Fab EPI (Wet Scrubber)	Acids	<0.01	<0.01
		Inorganics	<0.01	<0.01
E-AS-AMM	Ammonia Scrubber	Hydrides	9.76	4.07
E-AS-S1	Rotor Concentrator/ Thermal Oxidizer Stack	VOC	45.66	38.25
		CO	4.50	19.71
		NO_x	0.60	2.63
		SO_2	<0.01	0.01
		PM	0.10	0.42
E-BR-2,	Solvent Exhaust	VOC	0.08	0.34
E-BR-3	DI Lab	Acids	<0.01	<0.01
		Inorganics	<0.01	<0.01
		VOC	<0.01	0.01
E-BR-4	DI Lab	Acids	<0.01	<0.01
		Inorganics	<0.01	<0.01
		VOC	<0.01	<0.01

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CONTAMINANTS DATA Emission Rates Point No. (1)	Source Name (2)	Air Contaminant Name (3)	AIR Emission lb/hr	AIR Emission TPY
E-BR-5	Silane Cabinet Exhaust	Hydrides	<0.01	<0.01
E-BR-6	Pipe Clean Shop	Acids	<0.01	<0.01
		Inorganics	<0.01	<0.01
		VOC	<0.01	0.03
E-BR-7	Silane Purge Vent	PM	<0.01	<0.01
E-CR-1,2,3	Boilers (4) (Natural Gas-Fired)	PM	0.31	1.38
		SO_2	0.04	0.17
		CO	2.20	9.63
		NO_x	8.79	38.51
		VOC	0.18	0.77
	Boilers (4) (Fuel Oil-Fired)	PM	0.90	0.07
		SO_2	6.45	0.51
		CO	2.24	0.18
		NO_x	8.96	0.70
		VOC	0.09	<0.01
E-CR-4	A-Building Generator	PM	0.90	0.09
		SO_2	4.07	0.41
		CO	8.87	0.89
		NO_x	40.66	4.07
		VOC	1.22	0.12
E-CR-5	A-Building Generator	PM	0.90	0.09
		SO_2	4.07	0.41
		CO	8.87	0.89
		NO_x	40.66	4.07
		VOC	1.22	0.12

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	Emission Rates TPY
E-CR-6	DI Treatment	Acids	<0.01	<0.01
		Inorganics	0.02	0.08
		VOC	<0.01	<0.01
E-CR-7	HCl/NaOH Scrubber	HCl	4.73	0.08
		NaOH	<0.01	<0.01
E-CR-9	A-Building Generator	PM	5.91	0.59
		SO_2	5.51	0.55
		CO	12.89	1.29
		NO_x	58.07	5.81
		VOC	0.30	0.03
E-DR-1	Lab Exhaust	Acid	0.14	0.60
		Halocarbons	0.01	0.05
		Hydrides	<0.01	<0.01
		Inorganics/Bases	0.05	0.24
E-DR-2	Lab Exhaust	VOC	0.07	0.32
E-ER-1	Test Floor/ Lab Exhaust	Acids	0.01	0.05
		Halocarbons	0.01	0.05
		Inorganics	<0.01	0.01
		VOC	0.04	0.16
E-ER-2	Test Floor/ Labs Exhaust	Acids	<0.01	0.01
		Halocarbons	<0.01	0.01
		Inorganics	<0.01	<0.01
		VOC	0.01	0.03
E-ER-3	Test Floor/ Lab Exhaust	Acids	<0.01	0.01
		Halocarbons	<0.01	0.02
		Hydrides	<0.01	0.01
		Inorganics	<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	Emission Rates TPY
		VOC	0.01	0.05
E-ER-4	Test Floor/ Lab Exhaust	Acids	<0.01	<0.01
		Halocarbons	<0.01	0.01
		Hydrides	<0.01	<0.01
		Inorganics	<0.01	0.01
		VOC	0.01	0.03
E-ER-5	Boiler Stack (5) (Natural Gas-Fired)	PM	0.06	0.28
		SO_2	0.01	0.03
		CO	0.44	1.93
		NO_x	1.76	7.70
		VOC	0.07	0.29
	(Fuel Oil-Fired)	PM	0.18	0.01
		SO_2	1.30	0.10
		CO	0.45	0.04
		NO_x	1.80	0.14
		VOC	0.03	<0.01
E-FR-1	Test Floor/ Lab Exhaust	Acids	0.01	0.02
		Halocarbons	0.01	0.02
		Inorganics	<0.01	<0.01
		VOC	0.02	0.07
E-FR-2	Test Floor/ Lab Exhaust	Acids	<0.01	<0.01
		Halocarbons	<0.01	<0.01
		Inorganics	<0.01	<0.01
		VOC	<0.01	0.01
E-HR-1	General Exhaust	Acids	<0.01	<0.01
		Inorganics	<0.01	<0.01
		VOC	0.02	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	Emission Rates TPY
E-HR-2	Paint Booth Exhaust	VOC	4.26	0.90
		PM	<0.01	<0.01
E-HR-3	Welding/Machine	Acids	<0.01	<0.01
		Inorganics	<0.01	<0.01
		VOC	0.02	0.09
E-HR-4	Carpentry Filter Box Exhaust	PM	<0.01	<0.01
E-JR-1, E-JR-2	Boiler Stacks (5) (Natural Gas-Fired)	PM	0.06	0.28
		SO_2	0.01	0.03
		CO	0.44	1.93
		NO_x	1.76	7.71
		VOC	0.07	0.31
	(Fuel Oil-Fired)	PM	0.18	0.01
		SO_2	1.30	0.10
		CO	0.45	0.04
		NO_x	1.80	0.14
		VOC	0.03	<0.01
E-JR-3	General Exhaust Stack	Acids	0.01	0.03
		Halocarbons	0.02	0.09
		VOC	0.09	0.36
E-JR-4	General Exhaust	Acids	0.01	0.06
		Halocarbons	0.05	0.20
		VOC	0.01	0.03
E-SR-1	Acid Scrubber	Acids	<0.01	<0.01
		Halocarbons	<0.01	<0.01
		Hydrides	<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
		Inorganics	<0.01	<0.01
E-SR-2	Silane Cabinet Exhaust	Hydrides	<0.01	<0.01
E-SR-3	Silane Purge Vent	PM	<0.01	<0.01
E-ST-1	C-Building Diesel Tank	VOC	0.11	<0.01
E-ST-2	Fire Pump (Emergency Use)	PM	0.46	0.05
		SO_2	0.43	0.04
		CO	1.39	0.14
		NO_x	6.42	0.64
		VOC	0.62	0.06
E-ST-3	E-Building Diesel Tank	VOC	0.11	<0.01
E-ST-4	E-Building Emergency Generator	PM	0.64	0.06
		SO_2	0.60	0.06
		CO	1.94	0.19
		NO_x	8.98	0.90
		VOC	0.87	0.09
E-ST-5	C-Building Cooling Tower Corrosion Inhibitor Tank	Inorganics	0.10	<0.01
		VOC	<0.01	0.06
E-ST-10	C-Cooling Tower	Acids	0.27	0.01
		Inorganics	0.23	0.02
		VOC	0.13	<0.01
E-ST-11	H-Building Emergency Generator	PM	0.59	0.06
		SO_2	0.55	0.06
		CO	1.79	0.18

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
		NO_x	8.28	0.83
		VOC	0.80	0.08
E-ST-12	E-Building Cooling Towers	Acids	<0.01	<0.01
		Inorganics	<0.01	0.01
		VOC	<0.01	<0.01
E-ST-13	Emergency Generator (North of B-Building) 0.41	PM	0.90	0.09
		SO_2		4.07
		CO	8.87	0.89
		NO_x	40.66	4.07
		VOC	1.22	0.12
E-ST-14	Emergency Generator (North of B-Building) 0.41	PM	0.90	0.09
		SO_2		4.07
		CO	8.87	0.89
		NO_x	40.66	4.07
		VOC	1.22	0.12
E-ST-15	J-Building Emergency Generator	PM	0.74	0.07
		SO_2	0.69	0.07
		CO	2.24	0.22
		NO_x	10.35	1.03
		VOC	1.00	0.10
E-ST-16	C-Building Cooling Tower Biocide Tank	Inorganics	0.05	<0.01
		VOC	0.05	<0.01
E-ST-17	D-Building Emergency Generator	PM	0.29	0.03
		SO_2	0.62	0.06
		CO	1.55	0.16
		NO_x	5.81	0.58
		VOC	0.32	0.03

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
E-ST-18	J-Building Cooling Tower	Acids	0.15	<0.01
		Inorganics	0.13	0.01
		VOC	0.07	<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) VOC - volatile organic compounds as defined in General Rule 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
PM - particulate matter
SO_2 - sulfur dioxide
HCl - hydrogen chloride
NaOH - sodium hydroxide
Halocarbons - halogenated hydrocarbons
(4) Emission rates are summed for two operational boilers; one extra boiler is for backup only.
(5) Emission rates are summed for two boilers.

Dated_____