EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 19708

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
BLDG A, PHASE 1				
CD-1	THERMAL OXIXIZER, ROUTED FROM FAB 1A AND FAB 2A, PHASE 1	VOC	2.21	3.46
		NO_x	0.72	3.15
		CO	0.15	0.63
		SO_x	0.03	0.14
		PM	0.13	0.56
FAB 1A				
FS-33	FUME SCRUBBER PHASE 1	HCl	0.03	0.04
FS-34		HALOCARBONS	0.04	0.05
FS-35 (4)		INORGANIC ACIDS	0.46	0.69
		NO_x	0.01	0.02
		SO_x	0.39	0.58
		HF	0.10	0.15
		OTHER INORGANICS	0.09	0.13
FS-37	AMMONIA SCRUBBER PHASE 1	AMMONIA	0.13	0.19
SE-31	SOLVENT EXHAUST PHASE 1	VOC	9.87	14.69
SE-32		HALOCARBON	0.001	0.002
FUG-1A	FUGITIVES FAB 1A PHASE 1	VOC	2.46	3.66
FAB 2A				
FS-1	FUME SCRUBBER PHASE 1	VOC	0.1	0.14
FS-2		HCl	0.02	0.03
FS-3 (4)		HALOCARBONS	0.09	0.14

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	AIR CONTAMINANTS DATA Emission Rates * lb/hr	TPY
		INORGANIC ACIDS	0.19	0.28
		AMMONIA	0.10	0.15
		NO_x	0.17	0.25
		SO_x	0.29	0.43
		HF	0.10	0.15
		OTHER INORGANICS	0.2	0.28
FS-14	EPI SCRUBBER	HCl	0.10	0.14
FS-15	PHASE 1	OTHER INORGANICS	<.001	<.001
FS-16				
FS-17				
FS-18				
SE-12	SOLVENT EXHAUST PHASE 1	VOC	0.26	0.39
SE-4	SOLVENT EXHAUST PHASE 1	VOC	15.19	22.60
		AMMONIA	0.01	0.01
FUG-2A	FUGITIVES FAB 2A PHASE 1	VOC	2.59	3.98
BLDG C, PHASE 1				
FAB 1A				
SE-C	SOLVENT EXHAUST PHASE 1	VOC	3.44	5.12
FS-C	FUME SCRUBBER PHASE 1	HF	0.01	0.02
		INORGANIC ACIDS	0.01	0.02
		AMMONIA	0.003	0.01
		SO_x	<0.001	<0.001
		OTHER INORGANICS	0.01	0.02
FUG-C	FUGITIVES BLDG. C	VOC	0.32	0.47
BLDG A, PHASE 2				

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
CD-1DR	THERMAL OXIDIZER, ROUTED FROM FAB 1A AND FAB 2A, PHASE 2	VOC	6.8	10.13
		NO_x	0.06	0.27
		CO	0.02	0.06
		SO_x	<0.01	<0.01
		PM	<0.01	0.04
		AMMONIA	0.01	0.02
FAB 1A				
FS-33	FUME SCRUBBER PHASE 2	HCl	0.03	0.04
FS-34		HALOCARBONS	0.05	0.07
FS-35 (4)		INORGANIC ACIDS	0.56	0.84
		NO_x	<0.04	0.05
		SO_x	0.41	0.60
		HF	0.11	0.17
		OTHER INORGANICS	0.16	0.24
FS-37	AMMONIA SCRUBBER PHASE 2	AMMONIA	0.20	0.3
FS-38,FS-39	HORIZONTAL SCRUBBER PHASE 2	INORGANIC ACIDS	<0.01	<0.01
		HCl	<0.01	<0.01
		NH_3	0.01	<0.08
R-1	ACID REPROCESSOR PHASE 2	H_2SO_4	.04	.06
SE-31	SOLVENT EXHAUST PHASE 2	VOC	2.21	3.28
SE-32		HALOCARBON	0.002	0.003
FUG-1A	FUGITIVES FAB 1A PHASE 2	VOC	4.71	7.01
FAB 2A				

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		AIR CONTAMINANTS DATA		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
FS-1 FS-2 FS-3 (4)	FUME SCRUBBER PHASE 2	VOC HCl HALOCARBONS INORGANIC ACIDS AMMONIA NO_x SO_x HF OTHER INORGANICS	0.15 0.03 0.14 0.21 0.18 0.27 0.57 0.13 0.46	0.22 0.05 0.2 0.31 0.28 0.4 0.85 0.2 0.6
FS-14 FS-15 FS-16 FS-17 FS-18	EPI SCRUBBER PHASE 2	HCl OTHER INORGANICS	0.13 <.001	0.19 <.001
SE-12	SOLVENT EXHAUST PHASE 2	VOC	0.41	0.60
FUG-2A	FUGITIVES FAB 2A PHASE 2	VOC	4.88	7.27
BLDG C, PHASE 2				
FAB 1A				
SE-C	SOLVENT EXHAUST PHASE 2	VOC	5.73	8.52
FS-C	FUME SCRUBBER PHASE 2	HF INORGANIC ACIDS AMMONIA SO_x OTHER INORGANICS	0.01 0.02 0.01 <0.001 0.06	0.02 0.02 0.01 <0.001 0.09
FUG-C	FUGITIVES BLDG. C	VOC	0.49	0.73

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	AIR CONTAMINANTS DATA Emission Rates * lb/hr	TPY
BLDG A AND C, PHASE 3				
FAB 1A AND 2A				
CD-1DR	THERMAL OXIDIZER PHASE 3	VOC	10.17	15.17
		AMMONIA	0.01	0.02
		NO_x	0.14	0.62
		CO	0.03	0.13
		SO_x	<0.01	<0.01
		PM	0.02	0.08
		HALOCARBON	<0.01	<0.01
BLDG A, PHASE 3				
FAB 1A				
FS-33	FUME SCRUBBERS PHASE 3	HCl	0.05	0.07
FS-34		HALOCARBONS	0.09	0.13
FS-35 (4)		INORGANIC ACIDS	1.07	1.59
		NO_x	0.03	0.04
		SO_x	0.81	1.20
		HF	0.20	0.3
		OTHER INORGANICS	0.32	0.48
FS-37	AMMONIA SCRUBBER PHASE 3	AMMONIA	0.43	0.63
FS-38,FS-39	HORIZONTAL SCRUBBER PHASE 3	INORGANIC ACIDS	<0.01	<0.01
		HCl	<0.01	<0.01
		NH3	<0.01	<0.08
R-1	ACID REPROCESSOR	H_2SO_4	<0.001	<0.001
FUG-1A	FUGITIVES FAB 1A PHASE 3	VOC	9.2	13.7
FAB 2A				

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
FS-1	FUME SCRUBBERS	HCl	0.04	0.06
FS-2	PHASE 3	HALOCARBONS	0.14	0.2
FS-3 (4)		INORGANIC ACIDS	0.21	0.31
		AMMONIA	<0.2	<0.29
		NO_x	0.27	0.4
		SO_x	0.57	0.85
		HF	0.13	0.2
		OTHER INORGANICS	0.46	0.59
		VOC	0.15	0.22
FS-14	EPI SCRUBBERS	HCl	0.13	0.19
FS-15	PHASE 3	OTHER INORGANICS	<0.001	<0.001
FS-16				
FS-17				
FS-18				
SE-12	SOLVENT EXHAUST PHASE 3	VOC	0.41	0.60
FUG-2A	FUGITIVES FAB 2A PHASE 3	VOC	5.61	8.36
BLDG C, PHASE 3				
FS-C	FUME SCRUBBER PHASE 3	HF	0.02	0.02
		INORGANIC ACIDS	0.02	0.03
		AMMONIA	0.02	0.03
		SO_x	<0.001	0.001
		OTHER INORGANICS	0.06	0.09
		HALOCARBONS	0.003	0.01
FUG-C	FUGITIVES	VOC	0.82	1.23
STORAGE TANKS, PHASES 1, 2, AND 3				

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
T-1	DIESEL STORAGE	VOC	0.10	<0.001
T-2	NaOH STORAGE	NaOH	<0.001	<0.001
T-3	NaOH STORAGE	NaOH	<0.001	<0.001
T-4	H2SO4 STORAGE	H_2SO_4	0.0002	<0.0001
T-900	HCl STORAGE	HCl	0.10	0.002
BWS	SOLVENT WASTE STORAGE	VOC	0.39	0.002
IWT-1	NEUTRALIZATION	H_2SO_4	<0.01	<0.01
IWT-2	NEUTRALIZATION	H_2SO_4	<0.01	<0.01
BCV	BOTTLE CHANGE CABINET	SILANE	0.001	<0.001
BOILERS, PHASES 1, 2, AND 3				
BS-1	BOILER NO. 1 NATURAL GAS	VOC	0.06	0.24
		PM	0.05	0.23
		NO_x	1.05	4.58
		CO	0.21	0.92
		SO_x	0.007	0.03
BS-1	BOILER NO. 1 DIESEL	VOC	0.03	0.11
		PM	0.15	0.65
		NO_x	1.49	6.54
		CO	0.37	1.64
		SO_x	0.003	<0.001
BS-2	BOILER NO. 2 NATURAL GAS	VOC	0.06	0.24
		PM	0.05	0.23
		NO_x	1.05	4.58
		CO	0.21	0.92
		SO_x	0.007	0.03

BS-2	BOILER NO. 2 DIESEL	VOC PM NO_x CO SO_x	0.03 0.15 1.49 0.37 0.003	0.11 0.65 6.54 1.64 <0.001
BS-3	BOILER NO. 3	VOC PM NO_x CO SO_x	0.03 0.03 0.52 0.1 0.004	0.12 0.11 2.29 0.46 0.02
BS-4	BOILER NO. 4	VOC PM NO_x CO SO_x	0.03 0.03 0.52 0.1 0.004	0.12 0.11 2.29 0.46 0.02
G-1	BACK-UP GENERATOR 1 PHASES 1, 2, AND 3	VOC PM NO_x CO SO_x	1.61 1.21 16.98 3.67 0.35	0.02 0.02 0.21 0.04 0.01
G-1	BACK-UP GENERATOR 2 PHASES 2 AND 3	VOC PM NO_x CO SO_x	1.61 1.21 16.98 3.67 0.35	0.02 0.02 0.21 0.04 0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(1) Emission point identification - either specific equipment designation or emission point number from plot plan. Unless otherwise noted, where more than one emission point is listed, the values shown are the maximum allowable combined stack emissions.

(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
SO_x - sulfur oxides
CO - carbon monoxide
HF - hydrogen fluoride
HCl - hydrogen chloride
PM - particulate matter
H_2SO_4 - hydrogen sulfate
NaOH - sodium hydroxide

(4) Two of the three scrubbers are operating in parallel. One serves as a backup for maintenance or unscheduled outages.

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

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

Dated _____