

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 9627

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	Source	Air Contaminant	Emission Rates	
[*] Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
PF-1	Revolatilizing Furnace-1 Baghouse	PM ₁₀	0.307	1.237
		VOC	0.007	0.031
		NO _x	0.185	0.810
		SO ₂	0.001	0.005
		CO	0.039	0.170
		Sb**	0.017	0.067
PF-2	Revolatilizing Furnace-1 Baghouse	PM ₁₀	0.352	1.420
		VOC	0.007	0.031
		NO _x	0.185	0.810
		SO ₂	0.001	0.005
		CO	0.039	0.170
		Sb**	0.019	0.077
PF-3	Cupola Furnace Baghouse	PM ₁₀	0.307	1.237
		VOC	0.004	0.018
		NO _x	0.109	0.477
		SO ₂	<0.001	0.003
		CO	0.023	0.100
		Sb**	0.017	0.067
PF-4	Cupola Furnace Baghouse	PM ₁₀	0.278	1.122
		VOC	0.004	0.018
		NO _x	0.109	0.477
		SO ₂	<0.001	0.003
		CO	0.023	0.100
		Sb**	0.015	0.061
PF-5	Revolatilizing Furnace-3 Cartridge Filter	PM ₁₀	0.651	2.623
		VOC	0.014	
		NO _x	0.370	1.619

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PF-6	MS4 Classifier Baghouse	SO ₂	0.002	0.010
		CO	0.078	0.340
		Sb**	0.035	0.142
		PM ₁₀	0.246	0.493
		Sb**	0.013	0.054
PF-7	MS5 Classifier Baghouse	PM ₁₀	0.486	0.972
		Sb**	0.026	0.106
HF-1	North Fullers Blast Furnace Baghouse	PM ₁₀	0.774	3.121
		VOC	0.054	0.219
		NO _x	2.378	9.616
		SO ₂	29.840	120.310
		CO	0.171	0.691
		Sb**	0.042	0.169
HF-2	South Fullers Blast Furnace Baghouse	PM ₁₀	1.149	4.632
		VOC	0.054	0.219
		NO _x	2.378	9.616
		SO ₂	29.840	120.310
		CO	0.171	0.691
		Sb**	0.062	0.250
HF-3	Cupola Hygiene Baghouse	PM ₁₀	0.740	2.990
		Sb**	0.040	0.161
HF-4	Auger Packer Baghouse	Sb**	0.318	1.283
HF-10	Crude Oxide Silo Hygiene Baghouse	Sb**	0.037	0.148
HF-11	Nauta 1 (Stranding) Baghouse	Sb**	0.030	0.110
HF-12	Nauta 2 (Stranding) Baghouse	Sb**	0.030	0.110
CVS-1	Old Central Vacuum	Sb**	0.092	0.370

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	System Baghouse			
CVS-2	New Central Vacuum System Baghouse	Sb**	0.092	0.370
SODANTFURN	Sodium Antimonate Furnace	PM	0.019	0.076
		VOC	0.010	0.039
		NO _x	0.251	1.012
		SO ₂	0.002	0.006
		CO	0.053	0.213
HF-15	Ongard II Fugitive Baghouse	PM ₁₀	0.028	0.114
		VOC	0.014	0.058
		NO _x	0.378	1.530
		SO ₂	0.002	0.009
		CO	0.079	0.320
		ZnO	0.203	0.818
		MgO	0.304	1.227
PF-8	Ongard II Mill Baghouse	PM ₁₀	0.220	0.880
ATCBLR	Antimony Trichloride Boiler	PM	0.002	0.010
		VOC	0.001	0.005
		NO _x	0.033	0.133
		SO ₂	<0.001	<0.001
		CO	0.007	0.028
ATCFUG	Antimony Trichloride Area Fugitives (4)	Cl ₂	0.078	0.100
		Sb**	0.075	0.017
WS-1	Antimony Trichloride Venturi Scrubber	Sb**	0.150	0.605
PF-9	Antimony Sulfide Grinder Baghouse	Sb**	0.078	0.315

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HF-20	Compounding Plant	Sb**	0.275	1.109
	Baghouse			
HF-21	Pilot Plant Baghouse	Sb**	0.025	0.101
HF-22	Sodium Antimonate	PM ₁₀	0.354	1.427
	Hygiene Baghouse 2	Sb**	0.019	0.077
HF-24	Flexkleen Baghouse	Zinc Borate	0.070	0.283
HF-25	Feed Hopper Baghouse	Sb**	0.064	0.260
HF-26	Calciner, Milling, and	PM ₁₀	0.430	1.732
	Classifying Baghouse	Sb**	0.023	0.094
HF-27	Ongard Feed Bin	PM ₁₀	0.03	0.12
	Flexkleen Baghouse			
PF-11	Milling Baghouse	Sb**	0.142	0.571
SAF-2	Calciner Furnace	PM ₁₀	0.030	0.121
		VOC	0.013	0.053
		NO _x	0.251	1.011
		SO ₂	0.002	0.006
		CO	0.053	0.212
ZBPLNT1	Building Vent 1 (4)	Zinc Borate	0.004	0.015
		ZnO	0.019	0.077
		Boric Acid	0.047	0.190
ZBPLNT2	Building Vent 2 (4)	Zinc Borate	0.004	0.015
		ZnO	0.019	0.077
		Boric Acid	0.047	0.190
ZBPLNT3	Building Vent 3 (4)	Zinc Borate	0.004	0.015
		ZnO	0.019	0.077
		Boric Acid	0.047	0.190

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
ZBPLNT4	Building Vent 4 (4)	Zinc Borate	0.004	0.015
		ZnO	0.019	0.077
		Boric Acid	0.047	0.190
ZNBORBLR	Zinc Borate Boiler	PM	0.001	0.005
		VOC	<0.001	0.002
		NO _x	0.015	0.061
		SO ₂	<0.001	<0.001
		CO	0.003	0.013
TF-1	Transfer System	PM ₁₀	0.184	0.740
Slgcrusher	Slag Crusher (4)(5)	PM	0.001	0.005
		PM ₁₀	0.001	0.005
Slgscreen	Slag Screen (4)(5)	PM	0.027	0.109
		PM ₁₀	0.027	0.109
Slgpiles	Slag Stockpile (4)	PM		2.713
		PM ₁₀		1.308
AST-1	Diesel Tank Vent	VOC	0.014	<0.001
AST1-F	Diesel Tank System (4)	VOC	<0.001	<0.001
AST-2	Gasoline Tank Vent	VOC	2.415	0.051
AST2-F	Gasoline Tank System (4)	VOC	0.110	0.069
FUGC	Crude Building (4)	Sb**	0.001	0.004
FUGF	Furnace Building (4)	Sb**	0.001	0.004
FUGS	Sodium Antimony Building (4) 0.001		Sb**	<0.001
FUGB	Banbury Building (4)	Sb**	<0.001	<0.001
FUGN	Inter Warehouse North (4)	Sb**	0.001	0.004

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FUGW Inter Warehouse West (4) Sb** 0.001 0.004

- (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, suspended in the atmosphere, including PM₁₀
PM₁₀ - particulate matter less than or equal to 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
- VOC - volatile organic compounds as defined in General Rule 101.1
- NO_x - total oxides of nitrogen
- SO₂ - sulfur dioxide
- CO - carbon monoxide
- Sb - antimony or antimony compound
- ZnO - zinc oxide
- MgO - magnesium oxide
- Cl₂ - chlorine
- (4) Fugitive emissions are an estimate only.
- (5) Maximum allowable hourly throughput is 40 tons and the maximum annual throughput is 322,560 tons.

** Antimony and/or antimony compound. Where there is a PM₁₀ allowable listed, the antimony/antimony compound is a portion of the total allowable PM₁₀ from that emission point.

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

Hrs/day 24 Days/week 7 Weeks/year 48 or
Hrs/year 8,064

Dated _____