

# 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 Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
PF-1	Revolatilizing Furnace-1 Baghouse	PM <sub>10</sub>	0.307	1.237
		VOC	0.007	0.031
		NO <sub>x</sub>	0.185	0.810
		SO <sub>2</sub>	0.001	0.005
		CO	0.039	0.170
		Sb**	0.017	0.067
PF-2	Revolatilizing Furnace-1 Baghouse	PM <sub>10</sub>	0.352	1.420
		VOC	0.007	0.031
		NO <sub>x</sub>	0.185	0.810
		SO <sub>2</sub>	0.001	0.005
		CO	0.039	0.170
		Sb**	0.019	0.077
PF-3	Cupola Furnace Baghouse 1.237	PM <sub>10</sub>		0.307
		VOC	0.004	0.018
		NO <sub>x</sub>	0.109	0.477
		SO <sub>2</sub>	<0.001	0.003
		CO	0.023	0.100
		Sb**	0.017	0.067
PF-4	Cupola Furnace Baghouse	PM <sub>10</sub>	0.278	1.122
		VOC	0.004	0.018
		NO <sub>x</sub>	0.109	0.477
		SO <sub>2</sub>	<0.001	0.003
		CO	0.023	0.100
		Sb**	0.015	0.061
PF-5	Revolatilizing Furnace-3 Cartridge Filter 0.062	PM <sub>10</sub>	0.651	2.623
		VOC		0.014

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			<u>lb/hr</u>	<u>TPY</u>
PF-6	MS4 Classifier Baghouse	NO <sub>x</sub>	0.370	1.619
		SO <sub>2</sub>	0.002	0.010
		CO	0.078	0.340
		Sb**	0.035	0.142
		PM <sub>10</sub>	0.246	0.493
		Sb**	0.013	0.054
PF-7	MS5 Classifier Baghouse	PM <sub>10</sub>	0.486	0.972
		Sb**	0.026	0.106
HF-1	North Fullers Blast Furnace Baghouse	PM <sub>10</sub>	0.774	3.121
		VOC	0.004	0.018
		NO <sub>x</sub>	0.083	0.333
		SO <sub>2</sub>	<0.001	0.002
		CO	0.017	0.070
		Sb**	0.042	0.169
HF-2	South Fullers Blast Furnace Baghouse	PM <sub>10</sub>	1.149	4.632
		VOC	0.004	0.018
		NO <sub>x</sub>	0.083	0.333
		SO <sub>2</sub>	<0.001	0.002
		CO	0.017	0.070
		Sb**	0.062	0.250
HF-3	Cupola Hygiene Baghouse	PM <sub>10</sub>	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

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
CVS-1	Old Central Vacuum System Baghouse	Sb**	0.092	0.370

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
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 <sub>x</sub>	0.251	1.012
		SO <sub>2</sub>	0.002	0.006
		CO	0.053	0.213
HF-15	Ongard II Fugitive Baghouse	PM <sub>10</sub>	0.028	0.114
		VOC	0.014	0.058
		NO <sub>x</sub>	0.378	1.530
		SO <sub>2</sub>	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 <sub>10</sub>	0.220	0.880
ATCBLR	Antimony Trichloride Boiler	PM	0.002	0.010
		VOC	0.001	0.005
		NO <sub>x</sub>	0.033	0.133
		SO <sub>2</sub>	<0.001	<0.001
		CO	0.007	0.028
ATCFUG	Antimony Trichloride Area Fugitives (4)	Cl <sub>2</sub>	0.078	0.100
		Sb**	0.075	0.017
WS-1	Antimony Trichloride Venturi Scrubber	Sb**	0.120	0.484
PF-9	Antimony Sulfide Grinder 0.315 Baghouse	Sb**		0.078

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
HF-20	Compounding Plant Baghouse	Sb**	0.275	1.109
HF-21	Pilot Plant Baghouse	Sb**	0.025	0.101
HF-22	Sodium Antimonate Hygiene Baghouse 2	PM <sub>10</sub>	0.354	1.427
		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 Classifying Baghouse	PM <sub>10</sub>	0.430	1.732
		Sb**	0.023	0.094
HF-27	Ongard Feed Bin Flexkleen Baghouse	PM <sub>10</sub>	0.03	0.12
HF-28	Antimony Sulfide Hygiene 0.285 Baghouse		Sb	0.071
HF-29	Antimony Oxide Hygiene Baghouse	PM <sub>10</sub>	0.589	2.375
		Sb**	0.032	0.128
HF-31	Sodium Antimonate Silo Baghouse	Sb**	0.011	0.046
PF-11	Milling Baghouse	Sb**	0.168	0.675
SAF-2	Calciner Furnace	PM <sub>10</sub>	0.030	0.121
		VOC	0.013	0.053
		NO <sub>x</sub>	0.251	1.011
		SO <sub>2</sub>	0.002	0.006
		CO	0.053	0.212

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
ZBPLNT1	Building Vent 1 (4)	Zinc Borate	0.004	0.016
		ZnO	0.019	0.077
		Boric Acid	0.047	0.190

ZBPLNT2	Building Vent 2 (4)	Zinc Borate	0.004	0.016
		ZnO	0.019	0.077
		Boric Acid	0.047	0.190
ZBPLNT3	Building Vent 3 (4)	Zinc Borate	0.004	0.016
		ZnO	0.019	0.077
		Boric Acid	0.047	0.190
ZBPLNT4	Building Vent 4 (4)	Zinc Borate	0.004	0.016
		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 <sub>x</sub>	0.015	0.061
		SO <sub>2</sub>	<0.001	<0.001
		CO	0.003	0.013
TF-1	Transfer System	PM <sub>10</sub>	0.184	0.740
Slgcrusher	Slag Crusher (4) (5)	PM	0.001	0.005
		PM <sub>10</sub>	0.001	0.005
Slgscreen	Slag Screen (4) (5)	PM	0.027	0.109
		PM <sub>10</sub>	0.027	0.109
Slgpiles	Slag Stockpile (4)	PM		2.713
		PM <sub>10</sub>		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

## EMISSIONS FROM SOURCE MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)*	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
FUGS	Sodium Antimony Building (4) 0.001	Sb**	<0.001	
FUG-HF30	Sodium Antimonate Building (4) 0.021	Sb**	0.005	
FUGB	Banbury Building (4)	Sb**	<0.001	<0.001
FUGN	Inter Warehouse North (4) 0.004	Sb**	0.001	
FUGW	Inter Warehouse West (4) 0.004	Sb**	0.001	

(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 PM<sub>10</sub>  
 PM<sub>10</sub> - 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<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide

CO - carbon monoxide

Sb - antimony or antimony compound

ZnO - zinc oxide

MgO - magnesium oxide

Cl<sub>2</sub> - 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 PM<sub>10</sub> allowable



## EMISSIONS SOURCE INFORMATION AND EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)*	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			<u>lb/hr</u>	<u>TPY</u>
Point No. (1)	Name (2)	Name (3)	<u>lb/hr</u>	<u>TPY</u>

listed, the antimony/antimony compound is a portion of the total allowable PM<sub>10</sub> 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 \_\_\_\_\_