

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 20662

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
<u>Plant No. 1</u>				
KP-1	Zinc Kettle No. 1 Fabric Filter	PM <sub>10</sub> (5)	0.40	0.96
		NH <sub>4</sub> Cl	0.272	0.65
		ZnO	0.063	0.15
		ZnCl <sub>2</sub>	0.014	0.04
		Zn	0.019	0.05
		NH <sub>3</sub>	0.004	<0.01
FE-1	Zinc Kettle No. 1 (4)	PM <sub>10</sub> (5)	0.420	1.0
		NH <sub>4</sub> Cl	0.286	0.68
		ZnO	0.066	0.16
		Zn	0.021	0.05
		ZnCl <sub>2</sub>	0.015	0.04
		NH <sub>3</sub>	0.004	0.01
KB-1	Zinc Kettle No. 1 Burner Stack	NO <sub>x</sub>	1.848	5.032
		CO	0.462	1.258
		VOC	0.019	0.051
		SO <sub>2</sub>	0.008	0.022
		PM <sub>10</sub>	0.082	0.223
B-1		Primary Gas Boiler		NO <sub>x</sub>
0.0114	0.0214 Stack	CO	0.0049	0.0091
		VOC	0.0009	0.0017
		SO <sub>2</sub>	0.0001	0.0001
		PM <sub>10</sub>	<0.0001	<0.0001

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
RF-1	Roof Fan 1 (6)	HCl	0.085	0.088
RF-2	Roof Fan 2 (6)	HCl	0.085	0.088
RF-3	Roof Fan 3 (6)	HCl	0.085	0.088
RF-4	Roof Fan 4 (6)	HCl	0.085	0.088
8A	Cooling Tower (4 and 7) <0.00015	Cr VI		<0.00005
8B	Cooling Tower (4 and 7) <0.00015	Cr VI		<0.00005
9	Quench Tank (4)	Cr VI	<0.00008	<0.0004
<u>Plant No. 2</u>				
KP-2	Zinc Kettle No. 2 Fabric Filter	PM <sub>10</sub> (5)	0.04	0.17
		NH <sub>4</sub> Cl	0.03	0.11
		ZnO	0.01	0.03
		ZnCl <sub>2</sub>	0.002	0.01
		Zn	0.002	0.01
		NH <sub>3</sub>	0.0004	0.002
KB-2	Zinc Kettle No. 2 Burner Stack	NO <sub>x</sub>	1.32	4.20
		CO	1.11	3.53
		VOC	0.07	0.23
		SO <sub>2</sub>	0.01	0.03
		PM <sub>10</sub>	0.03	0.08
B-2	Waste Heat Boiler Stack	NO <sub>x</sub>	0.009	0.02
		CO	0.004	0.01
		VOC	0.0006	0.001
		SO <sub>2</sub>	0.0001	0.0001

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Emission *	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		PM <sub>10</sub>	0.0002	0.0004
RF-5	Roof Fan 5 (8)	HCl	0.029	0.031
RF-6	Roof Fan 6 (8)	HCl	0.029	0.031

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
RF-7	Roof Fan 7 (8)	HCl	0.029	0.031
10	Cooling Tower (4)	Cr VI	<0.00003	<0.0001
11	Quench Tank (4)	Cr VI	<0.00004	<0.0002

- (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, equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.  
 NH<sub>4</sub>Cl - ammonium chloride  
 ZnO - zinc oxide  
 Zn - zinc  
 ZnCl<sub>2</sub> - zinc chloride  
 NH<sub>3</sub> - ammonium  
 NO<sub>x</sub> - total oxides of nitrogen  
 CO - carbon monoxide  
 VOC - volatile organic compounds as defined in General Rule 101.1  
 SO<sub>2</sub> - sulfur dioxide  
 HCl - hydrogen chloride  
 Cr VI - chromium
- (4) Fugitive emissions are an estimate only.
- (5) Includes NH<sub>4</sub>Cl, NH<sub>3</sub>, ZnO, ZnCl<sub>2</sub>, and Zn.
- (6) Total HCl emissions from the Plant No. 1 roof fans shall not exceed the sum of the individual emission point values; however, the emissions from any one fan outlet may exceed the listed emission rate for the individual fan outlet.
- (7) Total Cr VI emissions from the Plant No. 1 cooling towers shall not exceed the sum of the individual emission point values; however, the

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emissions from either cooling tower may exceed the listed emission rate for the individual cooling tower.

- (8) Total HCl emissions from the Plant No. 2 roof fans shall not exceed the sum of the individual emission point values; however, the emissions from any one fan outlet may exceed the listed emission rate for the individual fan outlet.

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

Hrs/day 24 Days/week 7 Weeks/year 52

<u>Parameter</u>	<u>Plant No. 1</u>	<u>Plant No. 2</u>
Maximum daily throughput (pounds)	774,000	210,000
Maximum annual throughput (tons)	77,500	37,800
Annual zinc usage (tons)	6,500	2,160

Dated\_\_\_\_\_