### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. T-19438

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	<u>Emissio</u>	n Rates *
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
M3	M3 Furnace Stack	PM <sub>10</sub> **	0.465	1.061
		PM <sub>10</sub> ***	0.016	0.038
		$NO_x$	0.285	0.665
		$SO_2$	0.002	0.004
		CO	0.077	0.179
		VOC	0.015	0.036
1 Thru 6	Die Cast Machine (5 and 9)	PM <sub>10</sub>	0.004	0.004
	Stack	$NO_x$	0.062	0.072
		SO2	< 0.001	< 0.001
		CO	0.017	0.019
		VOC	< 0.004	< 0.004
19	Die Cast Machine (5 and 9)	$PM_{10}$	0.005	0.006

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

# AIR CONTAMINANTS DATA

Emission	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	<u>TPY</u>
	Stack	NO <sub>x</sub> SO <sub>2</sub> CO VOC	0.093 < 0.001 0.025 0.005	0.108 < 0.001 0.029 0.006
21 And 27 Thru 30	Die Cast Machine (5 and 9) Stack	$PM_{10}$ $NO_{x}$ $SO_{2}$ $CO$ $VOC$	0.004 0.062 < 0.001 0.017 < 0.004	0.004 0.072 < 0.001 0.019 < 0.004
22 Thru 26, 31, And 33 Thru 40	Die Cast Machine (5 and 9) Stack	$\begin{array}{c} PM_{10} \\ NO_{x} \\ SO_{2} \\ CO \\ VOC \end{array}$	0.005 0.093 < 0.001 0.025 0.005	0.006 0.108 < 0.001 0.029 0.006
41 Thru 43	Die Cast Machine (5 and 9) Stack	$\begin{array}{c} PM_{10} \\ NO_x \\ SO_2 \\ CO \\ VOC \end{array}$	0.004 0.062 < 0.001 0.017 < 0.004	0.004 0.072 < 0.001 0.019 < 0.004
FUG-1	Melting/Holding (4 and 6) Furnaces	PM <sub>10</sub> ** PM <sub>10</sub> *** NO <sub>x</sub> SO <sub>2</sub> CO VOC	0.296 0.010 0.179 0.001 0.048 0.010	0.849 0.025 0.425 0.003 0.114 0.023
FUG-2	Knobline Annealers (4 and 7)	$PM_{10}$ $NO_x$ $SO_2$ $CO$ $VOC$	0.032 0.560 0.004 0.151 0.030	0.071 1.227 0.008 0.330 0.066
FUG-3	Comfort Heaters (4 and 8)	PM <sub>10</sub>	0.091	0.034

#### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

### AIR CONTAMINANTS DATA

Emission	Source	Air Contaminant	Emission	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY	
		$NO_x$	1.585	0.581	
		$SO_2$	0.010	0.004	
		CO	0.427	0.156	
		VOC	0.085	0.031	

- (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)  $PM_{10}$  particulate matter less than 10 microns in diameter
  - 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
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Operates per Standard Exemption No. 37
- (6) Includes emissions for M1 and M2 Furnaces, Preheaters 1 and 2, and fugitives from M3 furnace.
- (7) Operates per Standard Exemption No. 7
- (8) Operates per Standard Exemption No. 3
- (9) Emissions for one casting machine stack. Total emissions equal to emissions from one stack times the number of stacks represented under Emission Point Number.
  - \* Emission rates are based on and the facilities are limited by the following maximum operating schedule and production:
    - <u>24</u> Hrs/day <u>6</u> Days/week <u>50</u> Weeks/year and <u>5,838</u> Hrs/year

Pag	ıe.	3

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES TABLE

Maximum annual consumption of 32,640,000 pounds of zinc alloy and 72,787,000 pounds of zinc alloy melted by M1, M2, and M3 furnaces and the casting machines. The total melt quantity is based on a 2.23 return/remelt factor for spruces and trees.

M3 Furnace: Maximum hourly throughput of 9,300 pounds of zinc alloy melted.

M1 and M2 Furnaces Combined: Maximum hourly throughput of 5,200 pounds of zinc alloy melted.

Maximum natural gas usage of 95,175,000 cubic feet per year or an equivalent amount of propane.

The M1, M2, and M3 melting pot furnaces and the casting machine holding pots operate continuously, i.e. 8,760 hours per year.

- \*\* Emissions from the melting pot and include zinc chloride, zinc oxide, ammonium chloride, aluminum oxide, ferric oxide, lead oxide, water, and trace carbonaceous material.
- \*\*\* Emissions from the combustion of natural gas.

Dated			
Jaica			