

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 39567

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, sources, and related activities. 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 (8)	
			lbs/hour	TPY (4)
1	Zinc Kettle Baghouse Stack (24 Foot Zinc Kettle and Recovery Kettle)	PM (6)	0.04	0.11
		PM <sub>10</sub> (6)	0.04	0.11
		PM <sub>2.5</sub> (6)	0.04	0.11
		NH <sub>4</sub> Cl	0.03	0.08
		ZnO	0.01	0.02
		ZnCl <sub>2</sub>	0.01	<0.01
		Zn	0.02	<0.01
		NH <sub>3</sub>	<0.01	<0.01
3	24 Foot Zinc Kettle Heater Stack	PM	0.02	0.05
		PM <sub>10</sub>	0.02	0.05
		PM <sub>2.5</sub>	0.02	0.05
		VOC	0.02	0.04
		NO <sub>x</sub>	0.29	0.64
		SO <sub>2</sub>	<0.01	0.04
		CO	0.25	0.54
5	Recovery Kettle Heater Stack	PM	<0.01	0.03
		PM <sub>10</sub>	<0.01	0.03
		PM <sub>2.5</sub>	<0.01	0.03
		VOC	0.02	0.02
		NO <sub>x</sub>	0.40	0.20
		SO <sub>2</sub>	<0.01	0.01
		CO	0.13	0.28

Emission Sources - Maximum Allowable Emission Rates

BFUG	Process Building Fugitives (5 and 7) (24 Foot Zinc Kettle, Recovery Kettle, 4 HCl Tanks, Caustic Tank, Preflux Tank, Caustic Tank Heater, Preflux Tank Heater)	PM	<0.28	0.25
		PM <sub>10</sub>	<0.28	0.25
		PM <sub>2.5</sub>	<0.28	0.25
		NH <sub>4</sub> Cl	0.023	0.08
		ZnO	0.006	0.02
		ZnCl <sub>2</sub>	0.003	0.011
		Zn	0.003	0.011
		NH <sub>3</sub>	0.002	0.011
		HCl	0.003	0.01
		VOC	0.01	0.01
		NO <sub>x</sub>	0.05	0.02
		SO <sub>2</sub>	<0.01	0.01
		CO	0.13	0.28
		NaOH	0.014	0.05
		ZnCl <sub>2</sub> •2NH <sub>4</sub> Cl	0.21	<0.06

- (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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- HCl - hydrogen chloride
- NH<sub>4</sub>Cl - ammonium chloride
- ZnO - zinc oxide
- ZnCl<sub>2</sub> - zinc chloride
- Zn - zinc
- NH<sub>3</sub> - ammonia
- NaOH - sodium hydroxide
- ZnCl<sub>2</sub>•2NH<sub>4</sub>Cl - zinc ammonium chloride
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Emission Sources - Maximum Allowable Emission Rates

- (6) Includes  $\text{NH}_4\text{Cl}$ ,  $\text{ZnO}$ ,  $\text{ZnCl}_2$ ,  $\text{Zn}$ , and  $\text{NH}_3$ .
- (7)  $\text{NH}_4\text{Cl}$ ,  $\text{ZnO}$ ,  $\text{ZnCl}_2$ ,  $\text{Zn}$ ,  $\text{NH}_3$ ,  $\text{HCl}$ ,  $\text{NaOH}$ , and  $\text{ZnCl}_2 \cdot 2\text{H}_2\text{O}$  included in the PM,  $\text{PM}_{10}$ , and  $\text{PM}_{2.5}$ .
- (8) Planned startup and shutdown for the sources identified on the MAERT have been reviewed and included in the MAERT. Maintenance activities are not authorized by this permit and will need separate authorization, unless the activity can meet the conditions of 30 TAC § 116.119.

Date: December 30, 2014