

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 9626

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		Air Contaminant		<u>Emission Rates *</u>	
	Name (2)	Name (3)	lb/hr	TPY		
FCC-3A	Feed Hopper Bag Filter			PM	<0.1	0.2
FCC-5A	Calciner			VOC	0.46	2.02
				NO _x	1.85	8.09
				SO ₂	0.01	0.04
				PM	0.08	0.34
				CO	0.54	2.36
FCC-8	Flash Dryer Bag Filter			VOC	0.05	0.22
				NO _x	1.39	6.08
				SO ₂	0.01	0.03
				PM	1.0	4.4
				CO	0.19	0.85
FCC-9	Molsieve Calciner			VOC	0.03	0.11
				NO _x	0.69	3.01
				SO ₂	<0.01	<0.01
				PM	0.02	0.11
				CO	0.10	0.42
FCC-9A	Final Product Bag Filter			PM	1.6	7.2
FCC-10	Flash Dryer Bag Filter			VOC	0.05	0.22
				NO _x	1.39	6.08
				SO ₂	<0.01	0.03
				PM	1.0	4.4
				CO	0.19	0.85
FCC-11	Reslurry Tank Bag Filter			PM	0.3	1.2
FCC-11A	Calciner Scrubber			NH ₃	2.4	10.5
				PM	<0.10	<0.10

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FCC-12	Molsieve Calciner	VOC	0.03	0.11
		NO _x	0.69	3.01
		SO ₂	<0.01	0.01
		PM	0.02	0.11
		CO	0.10	0.42

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
FCC-14	HCl Scrubber	HCl	<0.10	<0.10
FCC-15	Ammonia Scrubber	NH ₃	1.96	8.58
FCC-16	Portaclay/Reslurry Bag Filter	PM	0.05	0.24
FCC-17	Sulfuric Acid Tank	H ₂ SO ₄	<0.1	0.2
FCC-19	Kaolin Dosing Bag Hopper	PM	0.3	1.3
FCC-20	Kaolin Silo Bag Filter	PM	0.3	1.1
FCC-21	Spray Dryer Scrubbers	VOC	0.34	1.5
		NO _x	15.8	69.4
		SO ₂	0.04	0.30
		PM	12.5	55.0
		CO	3.81	16.7
21.1-21.3	Crude Product Bag Filter	PM	0.1	0.6
FCC-23	Separator Fines Bag Filter	PM	0.2	0.8
FCC-27	Steam Boiler	VOC	0.2	0.8
		NO _x	7.3	32.2
		SO ₂	<0.1	0.2
		PM	0.3	1.3
		CO	2.1	9.4

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FCC-34	Ammonia Absorber	NH ₃	<0.01	0.03
RDL-1	Spray Dryer No. 1	PM ₁₀	0.46	0.93
		SiO ₂ (4)	<0.01	<0.01
		Na ₂ SO ₄ (4)	0.06	0.12
		NO _x	0.77	1.54
		CO	0.02	0.04
		VOC	<0.01	0.01
		SO ₂	<0.01	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
RDL-3	Ammonia Scrubber	PM ₁₀ (4)	0.46	0.70
		SiO ₂ (4)	<0.01	<0.01
		Na ₂ SO ₄ (4)	0.02	0.03
		NO _x	3.96	2.97
		NH ₃	0.04	0.03
RDL-2	Spray Dryer No. 2	PM ₁₀ (4)	0.46	0.93
		SiO ₂ (4)	<0.01	<0.01
		Na ₂ SO ₄ (4)	0.06	0.12
		NO _x	0.77	1.54
		CO	0.02	0.04
		VOC	<0.01	0.01
RDL-5	Steam Boiler	SO ₂	<0.01	<0.01
		PM ₁₀	<0.01	0.01
		NO _x	0.05	0.20
		CO	<0.01	0.04
		VOC	<0.01	0.01
		SO ₂	<0.01	<0.01

- (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
 PM₁₀ - particulate matter less than 10 microns
 VOC - volatile organic compounds as defined in General Rule 101.1
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 CO - carbon monoxide
 NH₃ - ammonia
 HCl - hydrochloric acid
 H₂SO₄ - sulfuric acid
 SiO₂ - silicon oxide (crystalline quartz)
 Na₂SO₄ - sodium sulfate
- (4) Overall PM₁₀ emission rates include SiO₂ and Na₂SO₄ emission rates.

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

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

Dated _____