

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 4476

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 (6)	
			lbs/hour	TPY (4)
5C1-1	Reactor 5C1 Baghouse 1 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.93	4.07
		PM <sub>10</sub>	0.93	4.07
		PM <sub>2.5</sub>	0.93	4.07
		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44
5C1-2	Reactor 5C1 Baghouse 2 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.93	4.07
		PM <sub>10</sub>	0.93	4.07
		PM <sub>2.5</sub>	0.93	4.07
		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44
5C1-3	Reactor 5C1 Baghouse 3 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.93	4.07
		PM <sub>10</sub>	0.93	4.07
		PM <sub>2.5</sub>	0.93	4.07

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		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44
5C2-1	Reactor 5C2 Baghouse 1 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.70	3.07
		PM <sub>10</sub>	0.70	3.07
		PM <sub>2.5</sub>	0.70	3.07
		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44
5C2-2	Reactor 5C2 Baghouse 2 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.70	3.07
		PM <sub>10</sub>	0.70	3.07
		PM <sub>2.5</sub>	0.70	3.07
		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44
5C2-3	Reactor 5C2 Baghouse 3 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.70	3.07
		PM <sub>10</sub>	0.70	3.07
		PM <sub>2.5</sub>	0.70	3.07
		CO	8.13	35.61
		VOC	0.89	3.90

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		TF	0.36	1.58
		POM	0.33	1.44
5C3-1	Reactor 5C3 Baghouse 1 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.70	3.07
		PM <sub>10</sub>	0.70	3.07
		PM <sub>2.5</sub>	0.70	3.07
		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44
5C3-2	Reactor 5C3 Baghouse 2 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.70	3.07
		PM <sub>10</sub>	0.70	3.07
		PM <sub>2.5</sub>	0.70	3.07
		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44
5C3-3	Reactor 5C3 Baghouse 3 Stack	SO <sub>2</sub>	6.71	29.37
		NO <sub>x</sub>	1.77	7.75
		PM	0.70	3.07
		PM <sub>10</sub>	0.70	3.07
		PM <sub>2.5</sub>	0.70	3.07
		CO	8.13	35.61
		VOC	0.89	3.90
		TF	0.36	1.58
		POM	0.33	1.44

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5C1-1, 5C1-2, 5C1-3, 5C2-1, 5C2-2, 5C2-3 5C3-1, 5C3-2, and 5C3-3	Reactors 5C1, 5C2, and 5C3 Baghouse Stacks CAP for All	SO <sub>2</sub>	60.39	176.24
		NO <sub>x</sub>	15.93	46.52
		PM	6.99	21.43
		PM <sub>10</sub>	6.99	21.43
		PM <sub>2.5</sub>	6.99	21.43
		CO	73.17	213.71
		VOC	8.01	23.43
		TF	3.24	9.56
		POM	2.95	8.61
F5F160	Anode Bake Furnace Building Fugitives	PM	0.004	0.009
		PM <sub>10</sub>	0.002	0.005
		PM <sub>2.5</sub>	0.002	0.005

- (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
- TF - total fluorides
- POM - polycyclic organic matter
- (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.
- (6) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.

Date: July 14, 2015