

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 103832, N166M1

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	
			lbs/hour	TPY (4)
40-36-1013	Unit 40 Catalyst Activator Heater	VOC	0.05	0.14
		CO	0.82	2.17
		NO <sub>x</sub>	0.40	1.05
		PM2.5	0.07	0.20
		PM10	0.07	0.20
		PM	0.07	0.20
		SO <sub>2</sub>	0.14	0.37
40-36-1013	Unit 40 Catalyst Activator Heater MSS (7)	CO	4.24	--
		NO <sub>x</sub>	0.65	--
40-36-1113	Unit 41 Catalyst Activator Heater	VOC	0.05	0.14
		CO	0.82	2.17
		NO <sub>x</sub>	0.40	1.05
		PM2.5	0.07	0.02
		PM10	0.07	0.02
		PM	0.07	0.02
		SO <sub>2</sub>	0.14	0.37
40-36-1113	Unit 41 Catalyst Activator Heater MSS (7)	CO	4.24	--
		NO <sub>x</sub>	0.65	--
40-35-1014A/B	Unit 40 HEPA Activator Filter	VOC	2.50	0.30
		PM2.5	0.01	0.05
		PM10	0.01	0.05
		PM	0.01	0.05

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			lbs/hour	TPY (4)
40-35-1114A/B	Unit 41 HEPA Activator Filter	VOC	2.50	0.30
		PM2.5	0.01	0.05
		PM10	0.01	0.05
		PM	0.01	0.05
40-35-1018	Unit 40 Catalyst Fines Bag Filter	PM2.5	0.01	<0.01
		PM10	0.01	<0.01
		PM	0.01	<0.01
40-35-1118	Unit 41 Catalyst Fines Bag Filter	PM2.5	0.01	<0.01
		PM10	0.01	<0.01
		PM	0.01	<0.01
41-35-6201 41-35-6106	Unit 41 Extruder Feed Hopper Vent Filters (5)	VOC	0.60	--
		PM2.5	0.02	0.08
		PM10	0.02	0.08
		PM	0.02	0.08
40-35-6201 40-35-6106	Unit 40 Extruder Feed Hopper Vent Filters (5)	VOC	3.00	--
		PM2.5	0.02	0.08
		PM10	0.02	0.08
		PM	0.02	0.08
41-35-6310	Unit 41 Surge Hopper Filter	PM2.5	0.02	0.08
		PM10	0.02	0.08
		PM	0.02	0.08
40-35-6310	Unit 40 Surge Hopper Filter	PM2.5	0.02	0.08
		PM10	0.02	0.08
		PM	0.02	0.08
41-25-6301	Unit 41 Pellet Dewatering Dryer (5)	VOC	6.00	--
40-25-6300/6301	Unit 40 Pellet Dewatering Dryer (5)	VOC	12.00	--

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41-19-8040	Unit 41 Loadout Railcar Filters (5)	VOC	3.00	--
		PM2.5	0.02	0.08
		PM10	0.02	0.08
		PM	0.02	0.08
40-19-8040	Unit 40 Loadout Railcar Filters (5)	VOC	6.00	--
		PM2.5	0.02	0.08
		PM10	0.02	0.08
		PM	0.02	0.08
41-35-8011A/B/C	Unit 41 Pellet Silo Vent Filters (5)	VOC	3.00	--
		PM2.5	0.01	0.05
		PM10	0.01	0.05
		PM	0.01	0.05
40-35-8011A/B/C	Unit 40 Pellet Silo Vent Filters (5)	VOC	6.00	--
		PM2.5	0.01	0.05
		PM10	0.01	0.05
		PM	0.01	0.05
PVOC-CAP	Pellet VOC Cap	VOC	--	39.86
MSS-EQUIP	Equipment Opening MSS	VOC	4.98	0.25
MSS-MISC	Miscellaneous MSS	VOC	1.00	1.10
MSS-LOAD	Waste Loading to Trucks	VOC	1.93	0.01
MSS-PM	Filter Replacement and Reactor Leg MSS	PM2.5	<0.01	<0.01
		PM10	0.06	<0.01
		PM	0.13	0.11
42-97-9610	Flare (9)	VOC	252.86	-
		CO	307.74	-
		NOx	54.04	-
		SO2	8.19	-
42-97-9620	Vapor Destruction Unit (9)	VOC	5.16	-

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		CO	134.91	-
		NOx	26.48	-
		SO2	5.51	-
42-97-9610 & 42-97-9620	Flare & Vapor Destruction Unit (9)	VOC	-	25.80
		CO	-	95.31
		NOx	-	18.70
		SO2	-	1.58
42-97-9820	Wastewater API Separator	VOC	7.48	0.94
TK-01	Locomotive Engine Tank	VOC	0.49	<0.01
42-95-0421	Fresh 1-Hexene Tank	VOC	0.35	0.91
42-95-0422	Fresh 1-Hexene Tank	VOC	0.35	0.89
DG-01	Degreaser 1	VOC	0.03	0.03
DG-02	Degreaser 2	VOC	0.03	0.03
DG-03	Degreaser 3	VOC	0.03	0.03
SAND-01	Rail Repair Sandblasting	PM10	0.03	<0.01
		PM2.5	0.03	<0.01
		PM	0.23	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
42-05-9201	Cooling Tower	VOC	0.84	1.58
		PM2.5	0.87	3.82
		PM10	3.05	13.38
		PM	3.05	13.38
FUG-01	Fugitive Emissions (6)	VOC	4.63	20.29
EMG-ENG 1	Emergency Generator Engine (8)	VOC	0.18	-
		CO	0.52	-
		NOx	8.07	-
		PM2.5	0.08	-
		PM10	0.08	-
		PM	0.08	-
		SO2	1.55	-
EMG-ENG 2	Emergency Generator Engine (8)	VOC	0.18	-
		CO	0.52	-
		NOx	8.07	-
		PM2.5	0.08	-
		PM10	0.08	-
		PM	0.08	-
		SO2	1.55	-
EMG-ENG 3	Emergency Generator Engine (8)	VOC	0.18	-
		CO	0.52	-
		NOx	8.07	-
		PM2.5	0.08	-
		PM10	0.08	-
		PM	0.08	-
		SO2	1.55	-

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EMG-ENG 1, 2, 3	Emergency Generator Engines (8)	VOC	-	0.02
		CO	-	0.04
		NOx	-	0.63
		PM2.5	-	<0.01
		PM10	-	<0.01
		PM	-	<0.01
		SO2	-	0.12

- (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 PM10 and PM2.5, as represented  
 PM10 - total particulate matter equal to or less than 10 microns in diameter, including PM2.5, as represented  
 PM2.5 - particulate matter equal to or less than 2.5 microns in diameter  
 CO - carbon monoxide  
 SO<sub>x</sub> - sulfur oxides
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Annual VOC emissions for this source are authorized under the Pellet VOC Cap (EPN PVOC-CAP)
- (6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (7) MSS annual emissions included in routine.
- (8) 3 emergency engines are authorized and are represented to operate up to 52 hours each per year, with a combined total power output total of 1.5 MW and annual emission cap.
- (9) Flare and Vapor Destruction Unit emissions combined on an annual basis.

Date: October 25, 2018