Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 103832, N166M2, PSDTX1566

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	0.03	0.14
		CO	0.49	2.17
		NO_X	0.24	1.05
		PM	0.05	0.20
		PM_{10}	0.05	0.20
		$PM_{2.5}$	0.05	0.20
		SO_2	0.08	0.36
40-36-1013 MSS	Unit 40 Catalyst Activator Heater MSS (7)	CO	2.60	-
		NO_X	0.39	-
41-36-1113	Unit 41 Catalyst Activator Heater	VOC	0.03	0.14
		CO	0.49	2.17
		NO_X	0.24	1.05
		PM	0.05	0.20
		PM_{10}	0.05	0.20
		$PM_{2.5}$	0.05	0.20
		SO_2	0.08	0.37
41-36-1113 MSS	Unit 41 Catalyst Activator Heater MSS (7)	CO	2.60	-
		NO_X	0.39	-
40-35-1014	Unit 40 HEPA Activator Filters A/B	VOC	2.50	0.37
		SO_2	1.24	1.68
		PM	0.09	0.10
		PM_{10}	0.09	0.10
		$PM_{2.5}$	0.09	0.10

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41-35-1114	Unit 41 HEPA Activator Filters A/B	VOC	2.50	0.37
		SO_2	1.24	1.68
		PM	0.09	0.10
		PM_{10}	0.09	0.10
		$PM_{2.5}$	0.09	0.10
41-35-6105	Unit 41 Additive Bag Discharger Filter	PM	0.03	0.10
		PM_{10}	0.03	0.10
		$PM_{2.5}$	0.03	0.10
40-35-6105	Unit 40 Additive Bag Discharger Filter	PM	0.03	0.10
		PM_{10}	0.03	0.10
		$PM_{2.5}$	0.03	0.10
41-35-61AD	Unit 41 Additive Hopper Filters A, B, C, D	PM	0.09	0.01
		PM_{10}	0.09	0.01
		$PM_{2.5}$	0.09	0.01
40-35-61AF	Unit 40 Additive Hopper Filters A, B, C, D, E, F	PM	0.14	0.01
		PM_{10}	0.14	0.01
		$PM_{2.5}$	0.14	0.01
40-35-6181	Unit 40 Talc Additive Receiver Filter	PM	0.12	0.15
		PM_{10}	0.12	0.15
		$PM_{2.5}$	0.12	0.15
40-35-6191	Unit 40 Slip Additive Receiver Filter	PM	0.07	0.11
		PM_{10}	0.07	0.11
		$PM_{2.5}$	0.07	0.11
40-35-6401	Unit 40 Central Vacuum Secondary Filter	PM	0.03	0.03
		PM_{10}	0.03	0.03
		$PM_{2.5}$	0.03	0.03
40-35-8103	Unit 40 Blower Guard Filter	PM	0.06	0.06
		PM_{10}	0.06	0.06
		$PM_{2.5}$	0.06	0.06

Emission Sources - Maximum Allowable Emission Rates

41-35-6401	Unit 41 Central Vacuum Secondary Filter	PM	0.03	0.03
		PM_{10}	0.03	0.03
		$PM_{2.5}$	0.03	0.03
40-35-3102	Unit 40 S-1 Catalyst Charge Purge Filter	PM	0.01	0.05
		PM_{10}	0.01	0.05
		$PM_{2.5}$	0.01	0.05
41-35-3102	Unit 41 PF Catalyst Charge Purge Filter	PM	0.01	0.05
		PM_{10}	0.01	0.05
		$PM_{2.5}$	0.01	0.05
41-35-6310	Unit 41 Pellet Surge Hopper Filter	VOC	18.40	(5)
		PM	0.04	0.15
		PM_{10}	0.04	0.15
		$PM_{2.5}$	0.04	0.15
40-35-6310	Unit 40 Pellet Surge Hopper Filter	VOC	18.40	(5)
		PM	0.04	0.15
		PM_{10}	0.04	0.15
		$PM_{2.5}$	0.04	0.15
40-35-8120	Unit 40 Talc Additive Silo Vent Filter	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
40-35-8130	Unit 40 Slip Additive Silo Vent Filter	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
41-25-6301	Unit 41 Pellet Dewatering Dryer	VOC	18.40	(5)
40-25-6300, 40-25-6301	Unit 40 Pellet Dewatering Dryers	VOC	18.40	(5)
41-35-80LO, 41-35-8011, 41-35-8021	Unit 41 Loadout, Storage, and Off-Spec Silo Filters	VOC	18.40	(5)
		PM	0.16	0.54
		PM_{10}	0.16	0.54

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.16	0.54
40-35-80LO, 40-35-8011, 40-35-8021	Unit 40 Loadout, Storage, and Off-Spec Silo Filters	VOC	18.40	(5)
		PM	0.16	0.54
		PM_{10}	0.16	0.54
		$PM_{2.5}$	0.16	0.54
40-35-6500	Unit 40 Talc Vent Filter	PM	0.04	0.04
		PM_{10}	0.04	0.04
		$PM_{2.5}$	0.04	0.04
40-35-6501	Unit 40 Slip Vent Filter	PM	0.04	0.04
		PM_{10}	0.04	0.04
		$PM_{2.5}$	0.04	0.04
87-35-3120	SIT Deheeling Dust Filter	PM	0.18	0.38
		PM_{10}	0.18	0.38
		$PM_{2.5}$	0.18	0.38
PVOC-CAP	Pellet VOC Cap	VOC	(5)	42.61
MSS-EQUIP	Equipment Opening MSS	VOC	10.53	0.79
MSS-MISC	Miscellaneous MSS	VOC	1.00	1.10
MSS-LOAD	Waste Loading to Trucks	VOC	1.61	0.02
MSS-PM	Solids Handling	PM	3.75	0.67
		PM_{10}	1.77	0.31
		$PM_{2.5}$	0.27	0.05
42-97-9610	Flare	VOC	248.08	(9)
		CO	348.67	
		NO_x	72.11	
		SO_2	15.21	
		H_2S	0.08	
42-97-9620	Vapor Destruction Unit	VOC	29.82	(9)
		CO	335.88	

Emission Sources - Maximum Allowable Emission Rates

		NO_x	41.37	
		SO_2	4.29	
		H_2S	0.04	
42-97-9610 & 42-97-9620	Flare & Vapor Destruction Unit	VOC	(9)	65.22
		CO		446.91
		NO_x		89.96
		SO_2		9.59
		H_2S		0.12
TOX	Thermal Oxidizer	VOC	0.10	0.42
		CO	0.58	2.55
		NO_X	0.58	2.55
		SO_2	0.14	0.60
		PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.07	0.32
42-97-9820	Wastewater API Separator	VOC	2.20	0.04
TK-01	Locomotive Engine Tank	VOC	0.55	0.01
42-95-0421	Fresh 1-Hexene Tank	VOC	0.37	0.94
42-95-0422	Fresh 1-Hexene Tank	VOC	0.37	0.93
SAND-01	Rail Repair Sandblasting	PM	1.43	0.06
		PM_{10}	0.17	0.01
		$PM_{2.5}$	0.17	0.01
42-05-9201	Cooling Tower	VOC	0.84	1.58
		PM	3.30	10.95
		PM_{10}	3.27	10.87
		$PM_{2.5}$	0.85	3.05
FUG-01	Fugitive Emissions (6)	VOC	4.71	20.61
EMG-ENG 1		VOC	0.18	(8)

Emission Sources - Maximum Allowable Emission Rates

	Emergency Generator Engine	CO	0.52	
		NO_X	8.07	
		PM	0.08	
		PM_{10}	0.08	
		$PM_{2.5}$	0.08	
		SO_2	0.01	
EMG-ENG 2	Emergency Generator Engine	VOC	0.18	(8)
		CO	0.52	
		NO_X	8.07	
		PM	0.08	
		PM_{10}	0.08	
		$PM_{2.5}$	0.08	
		SO_2	0.01	
EMG-ENG 3	Emergency Generator Engine	VOC	0.18	(8)
		CO	0.52	
		NO_X	8.07	
		PM	0.08	
		PM_{10}	0.08	
		$PM_{2.5}$	0.08	
		SO_2	0.01	
EMG-ENG 1, 2, 3	Emergency Generator Engine 1, 2, 3	VOC	(8)	0.03
		CO		0.08
		NO_X		1.21
		PM		0.01
		PM_{10}		0.01
		$PM_{2.5}$		0.01
		SO_2		<0.01
87-97-1510	Fire Water Pump Engine	VOC	0.08	<0.01
		CO	0.40	0.02

Emission Sources - Maximum Allowable Emission Rates

		NO_X	1.00	0.05
		PM	0.04	<0.01
		PM_{10}	0.04	<0.01
		$PM_{2.5}$	0.04	<0.01
		SO_2	<0.01	<0.01
EMG-ENGTK-1	Emergency Generator Engine Diesel Tank No. 1	VOC	0.10	<0.01
EMG-ENGTK-2	Emergency Generator Engine Diesel Tank No. 2	VOC	0.10	<0.01
EMG-ENGTK-3	Emergency Generator Engine Diesel Tank No. 3	VOC	0.10	<0.01
EMG-ENGTK CAP	Emergency Generator Engine Diesel Tank Annual Cap	VOC	-	0.01
FWP-ENGTK	Fire Water Pump Engine Diesel Tank	VOC	0.01	<0.01
MSS-FRAC CC	Frac Tanks Carbon Control	VOC	0.07	<0.01
MSS-TKCONT	Temporary Control for Tank Roof Landing	VOC	2.43	0.01
		CO	1.03	5.08
		NO_X	0.77	3.81
		H_2S	<0.01	<0.01
		SO_2	0.04	0.19

(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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
IOC-U - inorganic compounds (unspeciated)
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter

Emission Sources - Maximum Allowable Emission Rates

CO - carbon monoxide
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C

(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 100 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: July 31, 2020