Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 9423 and N202

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)
EPNs Common to C-Line, D-Line, and E-Line				
30 + 34	LOG Flare (EPN 30) and Elevated Flare (EPN 34) (7)	VOC (6) (11)	153.73	77.69
		Ethylene (11)	153.73	77.69
		Propylene (11)	153.73	77.69
		NO_x (11)	24.84	19.89
		CO (11)	200.80	160.74
		SO_2 (11)	0.79	2.46
		VOC (6) (10)	143.70	75.50
		Ethylene (10)	143.70	75.50
		Propylene (10)	143.70	75.50
		NO_x (10)	19.71	10.40
		CO (10)	159.40	84.07
		SO_2 (10)	0.78	2.13
98	D-885 Waste Oil Loading	VOC (11)	0.06	<0.01
		VOC (10)	2.02	0.06
Cooling Towers				
99	West Marley Cooling Tower	VOC (5) (6)	1.41	6.20
		Ethylene	1.41	6.20
		Propylene	1.41	6.20
		PM	0.44	1.94
		PM_{10}	0.25	1.09
		$PM_{2.5}$	<0.01	<0.01
146	East Marley Cooling Tower	VOC (5) (6)	0.57	2.49
		Ethylene	0.57	2.49

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		Propylene	0.57	2.49
		PM	0.18	0.77
		PM_{10}	0.18	0.77
		$PM_{2.5}$	0.18	0.77
151	Excel Marley 3 Cooling Tower	VOC (5) (6)	1.28	5.58
		Ethylene	1.28	5.58
		Propylene	1.28	5.58
		PM	0.40	1.75
		PM_{10}	0.22	0.98
		$PM_{2.5}$	<0.01	<0.01
155	DLX Cooling Tower (12)	PM (11)	0.14	0.15
		PM_{10} (11)	0.02	0.07
		$PM_{2.5}$ (11)	<0.01	<0.01
C-Line EPNs				
39	D-3106 Catalyst Handling Drum	VOC	<0.01	<0.01
40	D-3504 Stabilizer Addition Drum	VOC	<0.01	<0.01
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
109	D-3103 TEAL Seal Pot Drum	VOC	<0.01	<0.01
110	D-3105 Oil and Grease Mixing	VOC	<0.01	<0.01
111	D-3107 Hydraulic Oil Drum	VOC	<0.01	<0.01
112	D-3110A Donor Storage Drum	VOC	<0.01	<0.01
113	D-3110B Donor Storage Drum	VOC	<0.01	<0.01
114	TK-3111 Donor Storage Drum	VOC	<0.01	<0.01
35	Fugitives (5)	VOC	5.17	22.65
143	Mineral Oil Tank	VOC	0.05	<0.01

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144	Mineral Oil Tank	VOC	0.05	<0.01
149	D-3106B Catalyst Handling Drum	VOC	<0.01	<0.01
D-Line EPNs				
37	D-4106 Catalyst Unloading	VOC	<0.01	<0.01
38	D-4504 Stabilizer Addition	VOC	<0.01	<0.01
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
41	Fugitives (5)	VOC	3.67	16.07
103	D-4105 Oil and Grease Mixing	VOC	<0.01	<0.01
104	D-4110A Donor Storage Drum	VOC	<0.01	<0.01
105	D-4110B Donor Storage Drum	VOC	<0.01	<0.01
106	TK-4111 Donor Storage Drum	VOC	<0.01	<0.01
107	D-4103 TEAL Seal Pot	VOC	<0.01	<0.01
156	D4107 Hydraulic Oil Drum	VOC	<0.01	<0.01
E-Line EPNs				
50A	Catalyst Handling	VOC	0.42	0.03
50B	Catalyst Handling	VOC	0.42	0.04
51	Stabilizer Addition	VOC	0.01	0.01
124	TEAL Seal Pot	VOC	0.01	0.01
125	Oil and Grease Mixing	VOC	0.01	0.01
126	Hydraulic Oil Drum	VOC	0.01	0.01
127	Donor Storage Drum	VOC	0.02	0.01
128	Donor Storage Drum	VOC	0.02	0.01
129	Donor Storage Drum	VOC	0.02	0.01
135	Additive Surge Drum	VOC	0.01	0.01
52	Fugitives (5)	VOC	7.73	33.78
147	Additive Storage	VOC	0.06	0.01

Emission Sources - Maximum Allowable Emission Rates

148	Additive Storage	VOC	0.02	0.01
EPNs Common to C-Line, D-Line, and E-Line Polymer Transfer, Extrusion and Loading				
120	M-574 Bag Filter	VOC	(8)	(8)
		PM	0.21	0.90
		PM_{10}	0.21	0.90
		$PM_{2.5}$	0.21	0.90
122	M-2574 Bag Filter	VOC	(8)	(8)
		PM	0.21	0.90
		PM_{10}	0.21	0.90
		$PM_{2.5}$	0.21	0.90
102	Railcar Loading/VOC Residual	VOC	(8)	(8)
116	Railcar Loading (Flake)	VOC	(8)	(8)
152	DLX Flake Transfer	VOC	(8)	(8)
		PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.13	0.56
153	DLX Pellet Silos	VOC	(8)	(8)
154	DLX Railcar Loading	VOC	(8)	(8)
		PM	0.20	0.88
		PM_{10}	0.20	0.88
		$PM_{2.5}$	0.20	0.88
14C	Pellet Transfer System	VOC	(8)	(8)
		PM	0.06	0.26
		PM_{10}	0.06	0.26
		$PM_{2.5}$	0.06	0.26
131	Pellet Transfer System	VOC	(8)	(8)
		PM	0.10	0.43
		PM_{10}	0.10	0.43
		$PM_{2.5}$	0.10	0.43

Emission Sources - Maximum Allowable Emission Rates

132	Railcar Loading CLX	VOC	(8)	(8)
		PM	0.05	0.20
		PM_{10}	0.05	0.20
		$PM_{2.5}$	0.05	0.20
133	Railcar Loading ELX	VOC	(8)	(8)
E-CAP (8)	VOC Emission Cap for EPNs 120, 122, 102,116, 152, 153, 154, 14C, 131, 132, and 133	VOC (11)	4.05	13.26
		VOC (10)	3.02	9.29
PP-WWTR	Polypropylene Waste Water	VOC	1.95	0.87
Maintenance, Startup, and Shutdown Activities				
30 + 34	LOG Flare and Elevated Flare MSS Activities (7)	VOC (6)	540.00	(9)
		Ethylene	265.00	(9)
		Propylene	540.00	(9)
		NO_x	74.50	(9)
		CO	602.14	(9)
MSS41	C-Line Maintenance Shutdown	VOC	15.48	0.06
MSS42	D-Line Maintenance Shutdown	VOC	15.48	0.06
MSS43	E-Line Maintenance Shutdown	VOC	26.22	0.10
MSS44	Bullets Area Maintenance Shutdown	VOC	26.22	0.01
MSS45	Monomer Supplier Proving	VOC	0.01	0.01
MSS46	C-Line Compressor Maintenance	VOC	0.01	0.01
MSS47	D-Line Compressor Maintenance	VOC	0.01	0.01
MSS48	E-Line Compressor Maintenance	VOC	0.01	0.01
MSS49	C-Line Pump Maintenance	VOC	0.06	0.01
MSS50	D-Line Pump Maintenance	VOC	0.06	0.01
MSS51	E-Line Pump Maintenance	VOC	0.06	0.01
MSS52	Bullet Pump Maintenance	VOC	0.06	0.01
MSS53	C-Line Commercial Shutdown	VOC	15.48	0.06
MSS54	D-Line Commercial Shutdown	VOC	15.48	0.06

Emission Sources - Maximum Allowable Emission Rates

MSS55	E-Line Commercial Shutdown	VOC	26.22	0.10
MSS56	E-Line Gas Phase Reactor Cleaning	VOC	11.04	0.14
MSS57	C-Line Filter Changes	VOC	0.03	0.01
MSS58	D-Line Filter Changes	VOC	0.03	0.01
MSS59	E-Line Filter Changes	VOC	0.03	0.01
MSS60	C/D/E Instrument Maintenance (repair/replace)	VOC	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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
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
CO - carbon monoxide
(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) The allowable emission rates for individual VOC species from this EPN are included in the total VOC emission rates.
(7) Emission rates shown are combined totals for EPN 30 and EPN 34.
(8) The combined total VOC emissions for all EPNs with this note shall not exceed the emission rates indicated for EPN E-CAP.
(9) The combined annual allowable emission limits for these EPNs are specified on Page 1.
(10) These emission rates will be in effect until the completion of the C-Line and D-Line upgrade. After that time, all emission values denoted with “(10)” will no longer be authorized
(11) These emission rates will be in effect upon completion of the C-Line and D-Line upgrade.
(12) The DLX Cooling Tower (EPN 155) will be authorized by PBR prior to the completion of the C-Line and D-Line upgrade.

Date: September 26, 2018