

Emission Sources - Maximum Allowable Emission Rates

Permit Number 3179

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 (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
A1333	HIPA Flare routine operations	Acetone	0.72	2.00
		CO	104.29	128.37
		NO _x	24.93	45.49
		SO ₂	3.43	14.99
		VOC	202.53	25.00
A307R1	Crude Oil Tank	VOC	1.73	1.66
		H ₂ S	0.01	0.01
ANALYZER	Process Analyzers	VOC	0.10	0.22
CPI	CPI Separator	VOC	3.84	3.00
CUMFE	Cumene Unit Fugitives (5)	VOC	4.94	21.63
CWT13	Cooling Tower	VOC	2.10	9.20
		PM	0.75	3.29
		PM ₁₀	0.23	0.99
		PM _{2.5}	0.01	0.02
CWT18	Cooling Tower	VOC	2.10	9.20
		PM	0.75	3.29
		PM ₁₀	0.23	0.99
		PM _{2.5}	0.01	0.02
D306/307/308	Phenol Tanks	VOC	49.6	8.8
D313	Toluene Tank	VOC	7.9	0.7
D342	Cumene Tank (6)	VOC	18.1	2.4
D342	Cumene Tank (7)	VOC	40.8	-

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D345	Acetone Tank	Acetone	0.7	1.1
D345	Acetone Tank	VOC	0.29	0.28
D390	Acetone Tank	Acetone	1.7	2.0
D391	Acetone Tank	Acetone	1.7	2.0
D392	Acetone Tank	Acetone	1.7	2.0
D392	Acetone Tank	VOC	0.5	2.1
D393	Benzene Tank	Benzene	0.49	1.2
D394	Cumene Tank	VOC	-	1.5
D395	Cumene Tank	VOC	-	0.5
D393/394	Cumene Tanks	VOC	35.3	-
D400	Cumene Tank	VOC	4.2	0.5
D402/403	Phenol Tanks	Phenol	6.2	5.1
D8100	Storage Tank	Benzene	0.34	0.42
		VOC	0.38	0.90
E8256	Cleavage Reactor	Acetone	1.3	5.7
E8309	Finishing Column	Acetone	1.0	4.4
EPFLARE	East Property Flare	CO	8.2	4.8
		NO _x	1.6	1.0
		SO ₂	0.01	0.01
		VOC	27.0	15.8
EX67	Caustic Tank	Caustic	0.5	0.1
EX80	Wastewater Tank	Acetone	0.1	0.2
		VOC	0.4	0.4
D335	Acetone Tank	Acetone	0.8	0.9
D354	Acetone Tank	Acetone	2.1	4.0
F8300	Heavy Ends Furnace	CO	0.96	4.54
		NO _x	1.63	7.73
		PM	0.09	0.41

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		PM ₁₀	0.09	0.41
		PM _{2.5}	0.09	0.41
		SO ₂	0.37	2.01
		VOC	0.05	0.30
F8301	Regen Furnace	CO	0.18	0.15
		NO _x	0.50	0.44
		PM	0.07	0.06
		PM ₁₀	0.07	0.06
		PM _{2.5}	0.07	0.06
		SO ₂	0.16	0.14
		VOC	0.01	0.01
FUGPAU3	Phenol 3 Fugitives (5)	Acetone	0.92	4.02
		VOC	6.00	26.27
G330/331	Cumene Tanks	VOC	40.8	15.2
H87002	Regenerative Thermal Oxidizer (RTO)	Acetone	1.51	3.40
		CO	1.75	2.45
		NO _x	3.15	4.41
		PM	0.15	0.45
		PM ₁₀	0.15	0.45
		PM _{2.5}	0.15	0.45
		SO ₂	0.01	0.01
		VOC	6.69	26.71
H9200	Catalytic Incinerator	Acetone	8.86	3.55
		CO	0.88	1.22
		NO _x	6.87	8.76
		PM	0.35	0.45
		PM ₁₀	0.35	0.45
		PM _{2.5}	0.35	0.45

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		SO ₂	0.02	0.02
		VOC	32.94	35.87
P87107	Diesel Engine Fire Water Pump (100 hours per year)	CO	1.60	0.08
		NO _x	7.44	0.37
		PM	0.53	0.03
		PM ₁₀	0.53	0.03
		PM _{2.5}	0.53	0.03
		SO ₂	0.49	0.03
		VOC	0.60	0.03
P87921	Diesel Engine Demin Water Pump (100 hours per year)	CO	0.40	0.02
		NO _x	1.86	0.09
		PM	0.13	0.01
		PM ₁₀	0.13	0.01
		PM _{2.5}	0.13	0.01
		SO ₂	0.12	0.01
		VOC	0.15	0.01
PAUFE	Phenol 2 Fugitives (5)	Acetone	0.58	2.55
		VOC	4.27	18.71
S303A	Sulfuric Acid Tank	Sulfuric Acid	0.1	0.1
SCRWRTC/ SCRWRTT	Acetone Land Loading	Acetone	1.08	1.33
V8217	V-8217 Relief Drum	VOC	0.1	0.4
V8321	Jet Condensate Receiver Vent	Acetone	4.91	12.03
		VOC	0.01	0.02
V8342	Vent Stream Collection Vessel	VOC	0.1	0.2
V9300	Phenol Land Loading	VOC	2.60	0.55
WRACKFE	Acetone Loading	Acetone	6.7	5.4
Maintenance, Startup and Shutdown operations				

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A1333	HIPA Flare MSS operations	CO	139.69	1.63
		NO _x	27.12	0.32
		VOC	365.60	4.82
A307R1	Crude Oil Tank MSS	VOC	1153.08	0.58
		H ₂ S	0.02	0.01
CUNSD	Cumene Unit Shutdown	VOC	0.33	0.02
EPFLARE	East Property Flare Cumene Unit Shutdown	CO	5.56	0.27
		NO _x	1.08	0.05
		VOC	8.98	0.43
		Benzene	1.60	0.08
V87003	Thermal Oxidizer MSS	Acetone	0.01	0.01
		VOC	0.08	0.03
PAU2SD	Phenol 2 Unit Shutdown	Acetone	0.74	0.04
		VOC	3.85	0.18
PAU3SD	Phenol 3 Unit Shutdown	Acetone	0.47	0.02
		VOC	3.04	0.15
H87002	RTO Phenol 3 Unit Shutdown	CO	0.12	0.01
		NO _x	0.17	0.01
		Acetone	1.49	0.08
		VOC	0.36	0.02
PAUMSSFUG	PAU MSS Fugitives	Acetone	1.55	0.19
		VOC	2.59	0.31
		Benzene	0.52	0.06
PAUPMPDCN	PAU Pump Decontamination	Acetone	9.23	0.04
		VOC	15.39	0.06
		Benzene	3.08	0.01
PAUSAMPL	PAU Loading Samples	Acetone	0.07	0.01
		VOC	0.11	0.02

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		Benzene	0.02	0.01
DSTMSSFUG	Distribution MSS Fugitives	VOC	3.18	0.38
DSTPMPDCN	Distribution MSS	VOC	15.75	0.05
DSTSAMPL	Distribution Sample	VOC	0.12	0.01
DSTCN	Vessel Shutdown and Degassing	VOC	1.54	0.04

- (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) CO - carbon monoxide
NO_x - total oxides of nitrogen
PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
PM₁₀ - particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
SO₂ - sulfur dioxide
H₂S - hydrogen sulfide
VOC - volatile organic compounds as defined in Title 30 TAC § 101.1
- (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) Emission limits during normal operations.
- (7) Emission limits in the event that it becomes necessary to off-load a cumene barge into Tank D342.

Date: November 10, 2016