

Emission Sources - Maximum Allowable Emission Rates

Permit Number 6289 and PSDTX76M8

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)
<u>Acrylonitrile Production Unit</u>				
<u>These sources are related to Permit PSDTX76</u>				
S-25	SO ₂ Storage Tank	SO ₂	0.09	0.38
BDS-5	Barge Dock Scrubber	VOC	1.05	0.72
		Acetone	0.05	0.01
FG-AN-III	Fugitives (5)	NH ₃	0.97	4.26
		VOC	6.28	27.49
		SO ₂	0.04	0.16
		CO	0.01	0.02
FG-1	Cooling Tower	NH ₃	1.58	11.03
		VOC	1.14	7.96
		Acetone	0.04	0.27
		PM	0.20	1.39
		PM ₁₀	0.20	1.39
		PM _{2.5}	0.20	1.39
FL-G14	CB and I Ammonia Flare	NH ₃	16.56	0.16
		CO	7.98	3.15
		NO _x	9.31	0.84
		SO ₂	0.06	0.26
FL-G32	CB and I Propylene Flare	CO	2.47	2.17
		NO _x	1.24	0.26
		VOC	3.89	0.10
		SO ₂	0.01	0.06
FL-G33	Barge Dock Ammonia Flare	NH ₃	0.10	0.01
		CO	0.24	0.85

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		NO _x	0.19	0.26
		SO ₂	0.06	0.22
FL-G34	Barge Dock Propylene Flare	CO	2.04	0.80
		NO _x	0.40	0.10
		SO ₂	0.05	0.20
		VOC	2.77	0.31
FL-G4	Process Flare All routine operations	CO	46.48	106.95
		NO _x	10.61	21.28
		SO ₂	1.15	4.59
		VOC	91.57	23.86
FL-G4	Process Flare MSS activities	CO	18.21	2.84
		NO _x	3.53	0.55
		VOC	88.84	13.86
FL-G4A	Ammonia Flare	NH ₃	0.92	0.13
		CO	4.13	2.22
		NO _x	1.32	0.34
		SO ₂	0.11	0.07
FL-G5	Hydrogen Cyanide (HCN) Flare	CO	5.09	8.11
		NO _x	1.14	3.31
		SO ₂	0.33	1.04
		VOC	2.60	11.39
G-2	Quench Water Clarifier Scrubber	VOC	1.25	0.08
		Acetone	0.01	0.01
H-4A and B	AOGIB No. 1 and No. 2 Absorber Off-Gas Incinerator/Boiler No. 1 and No. 2 Combined Annual Limits	NH ₃	--	17.80
		CO	--	131.00
		NO _x	--	630.80
		PM	--	18.60
		PM ₁₀	--	18.60
		PM _{2.5}	--	18.60

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		SO ₂	--	7.60
		VOC	--	24.97
H-4A and B	AOGIB No. 1 and No. 2 Absorber Off-Gas Incinerator/Boiler No. 1 and No. 2 Maximum hourly rate each	NH ₃	2.03	--
		CO	105.0	--
		NO _x	150.0	--
		PM	2.10	--
		PM ₁₀	2.10	--
		PM _{2.5}	2.10	--
		SO ₂	0.90	--
		VOC	9.46	--
H-4C	AOGIB No. 3 Absorber Off-Gas Incinerator/Boiler No. 3	NH ₃	1.10	4.70
		CO	63.0	9.70
		NO _x	90.0	119.60
		PM	1.30	5.58
		PM ₁₀	1.30	5.58
		PM _{2.5}	1.30	5.58
		SO ₂	0.40	1.90
		VOC	2.49	4.78
H4-D	AOGIB No. 4 Absorber Off-Gas Incinerator/Boiler No. 4	NH ₃	6.67	29.2
		CO	37.3	38.4
		NO _x	72.1	236.8
		PM	2.55	9.29
		PM ₁₀	2.55	9.29
		PM _{2.5}	2.55	9.29
		SO ₂	0.19	0.84
		VOC	6.84	13.14
S-11B	AN Rundown Tank B	VOC	0.49	-
S-11C	AN Rundown Tank C	VOC	0.49	-
S-11B and C	AN Rundown Tanks	VOC	-	1.49

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S-12A	AN Product Tank A	VOC	0.64	-
S-12B	AN Product Tank B	VOC	0.64	-
S-12D	AN Product Tank D	VOC	0.64	-
S-12A, B and C	AN Product Tanks	VOC	-	3.84
S-21	Catalyst Trap	PM	1.02	4.46
		PM ₁₀	1.02	4.46
		PM _{2.5}	1.02	4.46
S-22	Bag Filter	VOC	0.01	0.03
S-9A	Crude/Off Spec. AN Tank B	VOC	0.61	--
S-9B	Crude/Off Spec. AN Tank A	VOC	0.61	--
S-9A and B	Crude/Off Spec. AN Tanks	VOC	-	2.49
WW-1	3 Wastewater Tanks	VOC	0.21	0.50
WW-2	Oxazole Regen Tank	VOC	0.01	0.01
<u>Acetonitrile Purification Unit</u> <u>These sources are not related to Permit PSDTX76</u>				
ACTO-CF-1	Carbon Filter	VOC	0.15	0.03
ACTO-T35A	Rundown Tank A	VOC	0.43	0.16
ACTO-T35B	Rundown Tank B	VOC	0.12	0.16
ACTO-T35C	Rundown Tank C	VOC	0.12	0.16
ACTO-T36	Acetonitrile Tank	VOC	0.22	0.22
ACTO-T37	Light Ends Feed Tank	VOC	0.13	0.10
ACTO-T38	Unpurified Acetonitrile Tank	VOC	0.40	0.11
S-11A	Actetonitrile Tank	VOC	0.39	0.21
RRS-6	Loading Scrubber	VOC	0.56	0.11
		Acetone	0.01	0.03
FUG	Fugitives (5)	VOC	0.76	3.34
		Acetone	0.01	0.01
<u>Acetone Cyanohydrin (ACH) and Hydrogen Cyanide Unit</u> <u>These sources are not related to Permit PSDTX76</u>				

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AC-T-40	ACH Product Tank B	VOC	0.02	0.10
AC-T-41A	ACH Rundown Tank	VOC	0.32	0.08
AC-T-41B	ACH Rundown Tank	VOC	0.32	0.08
AC-T-41C	ACH Rundown Tank	VOC	0.32	0.08
AC-T-42	ACH Product Tank A	VOC	1.40	0.84
S-12-C	Acetone Tank	Acetone	0.37	1.38
FG-ACH-1	Fugitives (5)	VOC	8.81	38.61
		Acetone	0.35	1.52
		Ammonia	0.01	0.01
<u>Semi Works Operations and Catalyst Production Area</u> <u>These sources are not related to Permit PSDTX76</u>				
CP-B-1	Central Dust Collector	PM	0.05	0.20
		PM ₁₀	0.05	0.20
		PM _{2.5}	0.05	0.20
CP-B-3	Spray Dryer Baghouse	CO	0.13	0.56
		NO _x	0.10	0.42
		PM	0.18	0.79
		PM ₁₀	0.18	0.79
		PM _{2.5}	0.18	0.79
		SO ₂	0.01	0.01
		VOC	0.01	0.04
CP-B-4	South Semiworks Hopper Vent Filter	PM	0.70	0.39
		PM ₁₀	0.70	0.39
		PM _{2.5}	0.70	0.39
CP-B-5	Power Filler Receiver	PM	1.46	0.80
		PM ₁₀	1.46	0.80
		PM _{2.5}	1.46	0.80
CP-B-6	Vanadium Receiver Vent Filter	PM	0.01	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01

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CP-S-1	Fresh Tank (recycle)	VOC	34.94	1.65
CP-S-1	Fresh Tank (fresh)	VOC	3.74	0.18
CP-S-2	Spent Tank	VOC	2.33	0.57
CP-S-4	Recycle Tank (recycle)	VOC	30.62	0.89
CP-S-4	Recycle Tank (fresh)	VOC	3.28	0.10
CP-SC-1	Filter Press vent Scrubber	PM	0.04	0.18
		PM ₁₀	0.04	0.18
		PM _{2.5}	0.04	0.18
		VOC	5.37	4.15
CP-T-1	Truck Unloading	VOC	2.77	0.06
H-3	Incinerator	CO	101.10	141.30
		NO _x	5.26	9.74
		PM	2.10	3.90
		PM ₁₀	2.10	3.90
		PM _{2.5}	2.10	3.90
		SO ₂	0.47	0.88
		VOC	0.01	0.02
SW-H-2	Startup Heater	CO	0.08	0.33
		NO _x	0.53	2.34
		PM	0.02	0.10
		PM ₁₀	0.02	0.10
		PM _{2.5}	0.02	0.10
		SO ₂	0.01	0.01
		VOC	0.02	0.08
CP-F-1	Fugitives (5)	PM	0.04	0.18
		PM ₁₀	0.04	0.18
		PM _{2.5}	0.04	0.18
		VOC	1.45	6.33
FUG	Fugitives (5)	VOC	0.97	4.23

Emission Sources - Maximum Allowable Emission Rates

- (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)
 - NH₃ - ammonia
 - CO - carbon monoxide
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
 - PM₁₀ - total 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
- (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.

Date: January 27, 2017