

Emission Sources - Maximum Allowable Emission Rates

Permit Number 90163

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)
1	TDU Dryer	PM ₁₀	0.24	1.04
		PM _{2.5}	0.24	1.04
		SO ₂	0.02	0.08
		NO _x	3.14	13.74
		CO	2.64	11.54
		VOC	0.17	0.76
		HAP	0.06	0.32
7	TDU Steam Boiler	PM ₁₀	0.06	0.26
		PM _{2.5}	0.06	0.26
		SO ₂	0.01	0.02
		NO _x	0.78	3.44
		CO	0.66	2.89
		VOC	0.04	0.19
		HAP	0.01	0.06
8A	TDU Conveyor	PM		
		PM ₁₀	0.015	0.03
		PM _{2.5}	0.002	0.004
8B	TDU Transfer Points	PM		
		PM ₁₀	0.15	0.29
		PM _{2.5}	0.023	0.04

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BH/Venturi	TDU Baghouse/Venturi Scrubber	PM ₁₀	0.09	0.38
		PM _{2.5}	0.09	0.38
		VOC	0.20	0.37
		HAP	0.20	0.37
		H ₂ S	0.0004	0.0001
		Sulfuric acid	0.0025	0.0071
		HF	0.0001	0.0004
		HCl	0.0011	0.004
		Ammonia	0.0092	0.0039
		HNO ₃	0.0020	0.0039
		H ₃ PO ₄	0.0003	0.0008
		H ₂ O ₂	0.0090	0.0039
CT	TDU Cooling Tower	PM	0.62	2.72
		PM ₁₀	0.62	2.72
		PM _{2.5}	0.62	2.72
BOX-1	Centrifuge Cake Rolloff	VOC	4.23	1.76
		HAP	4.23	0.04
		H ₂ S	0.0001	0.0001
		HF	0.0031	0.0013
		HCl	0.029	0.015
		Ammonia	0.15	0.0097
		HNO ₃	0.013	0.0037
		H ₃ PO ₄	0.0011	0.0005
		H ₂ O ₂	0.0075	0.0005
BOX-1B	Centrifuge Cake Rolloff	VOC	4.23	1.76

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		HAP	4.23	0.04
		H ₂ S	0.0001	0.0001
		HF	0.0031	0.0013
		HCl	0.029	0.015
		Ammonia	0.15	0.0097
		HNO ₃	0.013	0.0037
		H ₃ PO ₄	0.0011	0.0005
		H ₂ O ₂	0.0075	0.0005
BOX-2	Gas Treatment Cake Box	VOC	0.13	0.42
		HAP	0.13	0.01
		H ₂ S	0.0001	0.0001
		HF	0.0001	0.0003
		HCl	0.0009	0.0036
		Ammonia	0.0046	0.0023
		HNO ₃	0.0004	0.0009
		H ₃ PO ₄	0.0001	0.0001
		H ₂ O ₂	0.0002	0.0001
SHAKER	Shaker Box	VOC	0.17	0.14
		HAP	0.17	0.003
		H ₂ S	0.0001	0.0001
		HF	0.0001	0.0001
		HCl	0.0012	0.0012
		Ammonia	0.0061	0.0008
		HNO ₃	0.0005	0.0003
		H ₃ PO ₄	0.0001	0.0001

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		H ₂ O ₂	0.0003	0.0001
BIN-FUG	Feed Bin Fugitives	VOC	10.18	18.64
		HAP	10.18	0.45
		H ₂ S	0.0001	0.0001
		HF	0.0037	0.0069
		HCl	0.035	0.081
		Ammonia	0.18	0.052
		HNO ₃	0.015	0.020
		H ₃ PO ₄	0.0014	0.0025
		H ₂ O ₂	0.0090	0.0026
CARBFLT1	Carbon Canister Set 1	VOC	0.008	0.013
		HAP	0.008	0.013
		H ₂ S	0.0002	0.0001
		HF	0.0001	0.0001
		HCl	0.0001	0.0002
		Ammonia	0.0003	0.0005
		HNO ₃	0.0001	0.0001
		H ₃ PO ₄	0.0001	0.0001
		H ₂ O ₂	0.0001	0.0001
CARBFLT2	Carbon Canister Set 2	VOC	0.008	0.0094
		HAP	0.008	0.0094
		H ₂ S	0.0002	0.0001
		HF	0.0001	0.0001
		HCl	0.0001	0.0002
		Ammonia	0.0003	0.0004

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		HNO ₃	0.0001	0.0001
		H ₃ PO ₄	0.0001	0.0001
		H ₂ O ₂	0.0001	0.0001
CARBFLT3	Carbon Canister Set 3	VOC	0.15	0.17
		HAP	0.15	0.17
		H ₂ S	0.0022	0.0001
		HF	0.0001	0.0001
		HCl	0.0004	0.0002
		Ammonia	0.0032	0.0004
		HNO ₃	0.0001	0.0001
		H ₃ PO ₄	0.0001	0.0001
		H ₂ O ₂	0.0001	0.0001
FUG-TDU	TDU Piping Fugitives (5)	VOC	0.16	0.18
		HAP	0.03	0.13
		H ₂ S	0.0002	0.0001
		HF	0.0002	0.0001
		HCl	0.0006	0.0005
		Ammonia	0.024	0.0049
		HNO ₃	0.0016	0.0012
		H ₃ PO ₄	0.0002	0.0001
		H ₂ O ₂	0.0096	0.0049
PROD-LOAD	TDU Product Loading	VOC	0.36	0.0001
		HAP	0.36	0.0001
		H ₂ S	0.0005	0.0001
		HF	0.0004	0.0001

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		HCl	0.0015	0.0001
		Ammonia	0.055	0.0001
		HNO ₃	0.0036	0.0001
		H ₃ PO ₄	0.0004	0.0001
		H ₂ O ₂	0.022	0.0001
FUG-2	CKD Pile	PM		
		PM ₁₀	0.014	0.05
		PM _{2.5}	0.014	0.05
BH5	Stabilization Building 2 Bins Dust Collector	PM ₁₀	0.002	0.003
		PM _{2.5}	0.0001	0.0001
BH6	Stabilization Building 2 Bins Dust Collector	PM ₁₀	0.002	0.003
		PM _{2.5}	0.0001	0.0001
FUG-1	Stabilization Building 2 Process Fugitives	PM ₁₀	0.020	0.020
		PM _{2.5}	0.0002	0.0003
		VOC	15.08	
		HAP	15.08	
		H ₂ S	0.0002	0.0004
		HF	0.012	0.019
		HCl	0.56	0.90
		Ammonia	0.36	2.90
		HNO ₃	0.12	1.11
		H ₃ PO ₄	0.026	0.42
		H ₂ O ₂	0.018	0.15
BH1	Stabilization Building 2 Pans Baghouse	PM ₁₀	0.032	0.04
		PM _{2.5}	0.0003	0.0005

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		VOC	135.76	
		HAP	135.76	
		H ₂ S	0.0022	0.0035
		HF	0.11	0.17
		HCl	5.03	8.08
		Ammonia	3.25	2.61
		HNO ₃	1.09	1.00
		H ₃ PO ₄	0.24	0.38
		H ₂ O ₂	0.16	0.13
BH2	Stabilization Building 3 Pans Baghouse	PM ₁₀	0.016	0.02
		PM _{2.5}	0.0002	0.0002
		VOC	122.74	
		HAP	122.74	
		H ₂ S	0.0006	0.0010
		HF	0.018	0.14
		HCl	2.53	4.06
		Ammonia	2.38	2.18
		HNO ₃	0.60	0.84
		H ₃ PO ₄	0.13	0.21
		H ₂ O ₂	0.14	0.11
BH7	Stabilization Building 3 Pans Baghouse	PM ₁₀	0.016	0.02
		PM _{2.5}	0.0002	0.0002
		VOC	122.74	
		HAP	122.74	
		H ₂ S	0.0006	0.0010

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		HF	0.018	0.14
		HCl	2.53	4.06
		Ammonia	2.38	2.18
		HNO ₃	0.60	0.84
		H ₃ PO ₄	0.13	0.21
		H ₂ O ₂	0.14	0.11
FUG-3	Stabilization Building 3 Process Fugitives	PM ₁₀	0.001	0.001
		PM _{2.5}	0.0001	0.0001
		VOC	27.28	
		HAP	27.28	
		H ₂ S	0.0001	0.0002
		HF	0.0040	0.032
		HCl	0.56	0.90
		Ammonia	0.53	0.49
		HNO ₃	0.13	0.19
		H ₃ PO ₄	0.029	0.047
		H ₂ O ₂	0.031	0.025
	Stabilization Buildings Annual Emission Caps	VOC		22.23
		HAP		4.28
BH3	Stabilization Building 3 CKD Bin Baghouse	PM ₁₀	0.0015	0.003
		PM _{2.5}	0.0001	0.0001
BH8	Stabilization Building 3 CKD Bin Baghouse	PM ₁₀	0.0015	0.003
		PM _{2.5}	0.0001	0.0001
BH4	Catalyst Building Baghouse	PM ₁₀	0.0031	0.01
		PM _{2.5}	0.0005	0.0021

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		HAP	0.001	0.01
CAT-FUG1	Drum Loading Fugitives 1	PM ₁₀	0.0021	0.009
		PM _{2.5}	0.0003	0.0014
		HAP	0.001	0.004
CAT-FUG2	Drum Loading Fugitives 2	PM ₁₀	0.0011	0.005
		PM _{2.5}	0.0002	0.001
		HAP	0.0005	0.002
TO	Thermal Oxidizer	PM ₁₀	0.12	0.51
		PM _{2.5}	0.12	0.51
		SO2	0.01	0.04
		NOx	6.24	23.10
		CO	1.24	5.41
		CO (7)	3.09	
		VOC	6.10	1.51
		HAP	3.45	0.47
		H ₂ S	0.071	0.002
		Sulfuric acid	0.013	0.032
		HF	2.39	3.40
		HCl	18.40	16.1
		Ammonia	0.17	0.020
		HNO ₃	17.5	19.4
		H ₃ PO ₄	2.40	4.76
H ₂ O ₂	0.064	0.019		
Maintenance, Startup, and Shutdown (MSS)				
TANK-MSS	Tank Opening MSS	VOC	3.25	0.07

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		HAP	0.13	0.004
EQUIP-MSS	Equipment Purging and Opening	VOC	17.36	0.04
		HAP	3.49	0.0048
		H ₂ S	0.0001	0.0001
		HF	0.0001	0.0001
		HCl	0.0002	0.0001
		Ammonia	0.0080	0.0001
		HNO ₃	0.0005	0.0001
		H ₃ PO ₄	0.0001	0.0001
		H ₂ O ₂	0.0032	0.0010
TPAINT-MSS	TDX Sitewide Painting	PM		
		PM ₁₀	0.49	0.05
		PM _{2.5}	0.49	0.05
		VOC	16.65	1.66
		HAP	0.40	0.04
UPAINT-MSS	USET Sitewide Painting	PM		
		PM ₁₀	0.0003	0.0001
		PM _{2.5}	0.0003	0.0001
		VOC	18.77	0.19
		HAP	0.80	0.01
TBLAST-MSS	TDX Sitewide Abrasive Blasting	PM		
		PM ₁₀	0.17	0.002
		PM _{2.5}	0.026	0.0003
UBLAST-MSS	USET Sitewide Abrasive Blasting	PM		
		PM ₁₀	0.34	0.0002

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		PM _{2.5}	0.05	0.0001
TO-VNTMSS	Thermal Oxidizer MSS Venting	VOC	8.55	0.028
		HAP	8.21	0.027
		H ₂ S	0.12	0.0001
		HF	1.44	0.0014
		HCl	17.8	0.017
		Ammonia	0.18	0.0001
		HNO ₃	5.49	0.0055
		H ₃ PO ₄	0.22	0.0002
		H ₂ O ₂	0.0010	0.0001
DWELL-MSS	Deepwell Maintenance	VOC	2.85	0.036
		HAP	2.85	0.036
		H ₂ S	0.0001	0.0001
		HF	0.0001	0.0001
		HCl	0.0001	0.0001
		Ammonia	0.0002	0.0001
		HNO ₃	0.0001	0.0001
		H ₃ PO ₄	0.0001	0.0001
		H ₂ O ₂	0.0001	0.0001
FLTCHG-MSS	Baghouse Filter Changes	PM	10.81	0.04
		PM ₁₀	0.012	0.0003
		PM _{2.5}	0.0019	0.0001

- (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
SO₂ - sulfur dioxide

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- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀ - 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
- 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
- H₂S - hydrogen sulfide

(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)

Date: _____