

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 18836

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. 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 (4)	
			lb/hr	TPY

Interim limits - The following emission rates are effective until start-up of Train 4:

CB-1	Compounding Building 1	VOC	6.20	27.20
		PM ₁₀	0.09	0.35
CB-2	Compounding Building 2	VOC	2.40	10.20
		PM ₁₀	0.06	0.27
CT-711	Cooling Tower (4)	VOC	1.05	4.60
CT-711A	Cooling Tower (4)	VOC	0.84	3.68
FLARE	Facility Flare	VOC	54.0	20.0
		NO _x	16.9	8.9
		CO	122.1	45.3
		SO ₂	0.01	0.05
FUGITIVE	Process Fugitives (4)	VOC	4.65	20.37
HF-405	Bag Unloading Filter	PM ₁₀	0.20	0.05
HF-415	Additive Baghouse	PM ₁₀	0.65	2.83
HF-463	Railcar Unloading Baghouse	PM ₁₀	0.10	0.44
HF-481	Vacuum Cleaning Baghouse	PM ₁₀	6.00	1.40

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates (4)</u>	
			lb/hr	TPY

Interim limits (continued)BOILERS: Case 1 - Natural gas/plant fuel gas

HH-731A, HH-731B	Boilers A and B	VOC	0.22	0.97
		NO _x	11.16	48.87
		CO	2.79	12.22
		SO ₂	1.05	4.62
		PM/PM ₁₀	1.09	4.88

BOILERS: Case 2 - Combination of natural gas/plant fuel gas plus by-product liquid wax

HH-731A, HH-731B	Boilers A and B	VOC	0.50	1.42
		NO _x	10.86	48.21
		CO	2.80	12.24
		SO ₂	2.90	8.67
		PM	10.17	24.71
		PM ₁₀	8.20	20.38
		HCl	2.23	4.88
HST-101	Catalyst Preparation Area Condenser (Backup service only)	VOC	61.0	0.68
HT-171	Toluene Tank	VOC	0.18	0.11
HT-601	Solvent Tank	VOC	0.40	0.72
HT-602	Solvent Tank	VOC	1.08	2.30
HT-606	Solvent Tank	VOC	0.58	1.02
HT-608	Seal Oil Tank	VOC	0.20	<0.01
HT-735	Boiler Liquid Fuel Tank	VOC	0.15	0.38
HT-793	Diesel Fuel Tank	VOC	0.02	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates (4)</u>	
			lb/hr	TPY
HT-794	Diesel Fuel Tank	VOC	0.02	<0.01
HT-797	Diesel Fuel Tank	VOC	0.03	<0.01
HT-798	Diesel Fuel Tank	VOC	0.06	<0.01
HT-799	Gasoline Tank	VOC	15.05	0.13
HT-801	Slop Oil Tank	VOC	5.41	0.02
HV-124	ATE System Seal Pot	VOC	11.49	3.90
HV-125	DEAC System Seal Pot	VOC	11.39	1.04
HV-305	Alcohol Feed Tank	VOC	0.13	<0.01
HX-411	Extruder CAS (Backup service only)	VOC	7.8	1.12
		PM ₁₀	1.9	1.90
PP-1	Pilot Plant	VOC	0.69	0.65
		PM ₁₀	0.01	0.01
WWTP-2	Aerated Lagoon	VOC	0.43	1.88
HBL-431	Product Blending System	PM ₁₀	1.18	2.50
		VOC (5)	38.00	71.00
HT-441	Product Storage Silos	PM ₁₀	0.24	0.63
		VOC (5)		
HF-454	Fines Removal Baghouse	PM ₁₀	0.65	2.85
		VOC (5)		
HF-456	Fines Removal Baghouse	PM ₁₀	2.69	11.78
		VOC (5)		

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates (4)</u>	
			lb/hr	TPY
HTB-451	Product Loading System	PM ₁₀	0.26	0.63
		VOC (5)		
HQ-460	Bagging and Boxing Silos	PM ₁₀	0.09	0.17
		VOC (5)		
<u>Final limits</u> - The following emission rates become effective upon start-up of Train 4:				
CB-1	Compounding Building 1	VOC	6.20	27.20
		PM ₁₀	0.09	0.35
CB-2	Compounding Building 2	VOC	2.40	10.20
		PM ₁₀	0.06	0.27
CB-3	Compounding Building 3	VOC	0.50	0.09
		PM ₁₀	0.06	0.19
CT-711	Cooling Tower (4)	VOC	1.05	4.60
CT-711A	Cooling Tower (4)	VOC	1.68	7.36
FLARE	Facility Flare	VOC	63.00	26.19
		NO _x	19.75	11.61
		CO	142.65	59.16
		SO ₂	0.01	0.05
FUGITIVE	Process Fugitives (4)	VOC	7.42	32.5
HF-405	Bag Unloading Filter	PM ₁₀	0.20	0.05
HF-415	Additive Baghouse	PM ₁₀	0.84	3.68
HF-463	Railcar Unloading Baghouse	PM ₁₀	0.10	0.44

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			lb/hr	TPY

HF-481	Vacuum Cleaning Baghouse	PM ₁₀	6.00	1.40
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BOILERS: Case 1 - Natural gas/plant fuel gas

HH-731A, HH-731B	Boilers A and B	VOC	0.22	0.97
		NO _x	4.78	20.95
		CO	5.81	25.43
		SO ₂	1.05	4.62
		PM/PM ₁₀	1.11	4.88

BOILERS: Case 2 - Combination of natural gas/plant fuel gas plus by-product liquid wax

HH-731A, HH-731B	Boilers A and B	VOC	0.50	1.42
		NO _x	8.32	28.69
		CO	6.26	27.42
		SO ₂	2.90	8.67
		PM	10.17	24.71
		PM ₁₀	8.20	20.38

HST-101	Catalyst Preparation Area Condenser (Backup service only)	VOC	61.0	0.68
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HT-171	Toluene Tank	VOC	0.21	0.17
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HT-601	Solvent Tank	VOC	0.51	0.97
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HT-602	Solvent Tank	VOC	1.19	2.56
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HT-606	Solvent Tank	VOC	0.63	1.14
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HT-608	Seal Oil Tank	VOC	0.20	<0.01
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HT-735	Boiler Liquid Fuel Tank	VOC	0.39	0.78
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HT-793	Diesel Fuel Tank	VOC	0.02	<0.01
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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates (4)</u>	
			lb/hr	TPY
HT-794	Diesel Fuel Tank	VOC	0.02	<0.01
HT-797	Diesel Fuel Tank	VOC	0.03	<0.01
HT-798	Diesel Fuel Tank	VOC	0.06	<0.01
HT-799	Gasoline Tank	VOC	15.05	0.13
HT-801	Slop Oil Tank	VOC	5.41	0.02
HV-124	ATE System Seal Pot	VOC	11.49	4.60
HV-125	DEAC System Seal Pot	VOC	11.39	1.17
HV-305	Alcohol Feed Tank	VOC	0.13	<0.01
HX-411	Extruder CAS	VOC	7.8	1.12
	(Backup service only)	PM ₁₀	1.9	1.90
PP-1	Pilot Plant	VOC	0.69	0.65
		PM ₁₀	0.01	0.01
WWTP-2	Aerated Lagoon	VOC	0.46	2.1
HBL-431	Product Blending System	PM ₁₀	1.74	2.69
		VOC (5)	40.1	83.7
HT-441	Product Storage Silos	PM ₁₀	0.24	0.63
		VOC (5)		
HF-454	Fines Removal Baghouse	PM ₁₀	0.65	2.85
		VOC (5)		
HF-456	Fines Removal Baghouse	PM ₁₀	3.67	16.08

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			lb/hr	TPY
		VOC (5)		
HTB-451	Product Loading System	PM ₁₀ VOC (5)	0.35	0.82
HQ-460	Bagging and Boxing Silos	PM ₁₀ VOC (5)	0.09	0.17
L-735	Process Fuel Oil Loading	VOC	1.61	0.05

- (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
HCl - hydrogen chloride
NO_x - total oxides of nitrogen
PM - particulate matter, suspended in the atmosphere, including PM₁₀
PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
SO₂ - sulfur dioxide
VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) The VOC emissions for all dry pellet handling equipment including Emission Point Nos. HBL-431, HT-441, HTB-451, HF-454, HF-456, and HQ-460 are combined into HBL-431 for purposes of this table.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/year 8,760

Dated _____