EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

Flexible Permit Numbers 95 and PSD-TX-854

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 * lb/hr	TPY**
AT-1210	No. 1 Olefins Cooling Tower	VOC	4.14	18.13
		PM_{10}	2.47	10.81
DAT-3201	No. 2 Olefins Cooling Tower	VOC	5.52	24.18
		PM_{10}	3.29	14.41
FUG-V10F	No. 1 Olefins Unit Fugitives	VOC (4)	21.99	96.30
FUG-V20F	No. 2 Olefins Unit Fugitives	VOC (4)	21.64	94.79
FUG-A10F	No. 1 Olefins Analyzer Vent Fugitives	VOC	0.01	0.01
FUG-A20F	No. 2 Olefins Analyzer Vent Fugitives	VOC	0.01	0.01
FUG-FTF	Tank Farm Fugitives	VOC (4)	1.00	4.38
FUG-VSSH	Second Stage Hydrotreater Fugitives	VOC (4)	1.09	4.77
FUG-VBD	Marine Dock Fugitives	VOC (4)	0.09	0.40
FUG-VCM	Metering Station Fugitives	VOC (4)	0.31	1.38
FUG-RAIL	Rail Loading Fugitives	VOC	0.10	0.43
FUELTRK1	No.1 Olefins Truck Loading	VOC	11.05	1.23
FUELTRK2	No. 2 Olefins Truck Loading	VOC	11.05	1.53
AF-1215	Bleach Tank	NaOCl	0.04	0.01
AF-3215	Bleach Tank	Cl_2	0.03	0.01
AF-3701	Slop Tank	VOC	5.07	0.14
		acetonitrile	0.61	0.01
AF-1103	Acetonitrile Tank	acetonitrile	0.06	0.11
AF-1104	Acetonitrile Tank	acetonitrile	0.06	0.11
AF-1105	Rerun Bottoms Tank	VOC	2.31	4.41
		benzene	0.01	0.01

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		toluene	0.01	0.01
AF-1106	Rerun Bottoms Tank	VOC	2.31	2.77
		benzene	0.01	0.01
		toluene	0.01	0.01
AF-1905	Fuel Oil Tank	VOC	0.54	1.81
AF-3103	Acetonitrile Tank	acetonitrile	0.06	0.10
AF-3905	Fuel Oil Tank	VOC	0.54	2.25
DDF-1001	Fuel Oil Tank	VOC	1.06	0.27
DDF-1301	Methanol Tank	VOC	2.35	0.03
DDF-202	Methanol Tank	VOC	3.90	0.06
DDF-701	Sodium Nitrite Solution Tank	VOC	6.50	0.06
DDF-705	Sodium Nitrite Solution Tank	VOC	6.50	0.05
DF-1001	Fuel Oil Tank	VOC	1.70	4.15
DF-1301	Alcohol Tank	VOC	3.52	0.09
DF-502	Lube Oil Storage	VOC	0.71	0.20
DF-701	Sodium Nitrite Solution Tank	VOC	2.60	0.11
DF-702	Sodium Nitrite Solution Tank	VOC	0.69	0.06
		acetonitrile	0.69	0.06
DF-705	Sodium Nitrite Solution Tank	VOC	0.69	0.02
		acetonitrile	0.69	0.01
DF-916	Lube Oil Storage	VOC	0.60	0.02
DF-101	Decoke Stack	CO	61.00	12.30
		PM_{10}	0.29	0.18
		VOC	0.20	0.97
DF-104	Decoke Stack	CO	73.00	3.18
		PM_{10}	0.74	0.02
		VOC	0.09	0.40
DDF-101	Decoke Stack	CO	36.50	7.20
		PM_{10}	6.20	1.50

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
DDF-104	Decoke Stack	CO	73.00	3.18
		PM_{10}	0.80	0.02
DF-105	Decoke Stack	PM_{10}	8.25	0.83
		CO	38.50	3.85
DDF-105	Decoke Stack	PM_{10}	8.25	0.83
		CO	38.50	3.85
AM-1500	Dock Flare	CO	0.19	0.84
		NO_x	0.07	0.29
		PM_{10}	0.01	0.02
		butadine	0.04	0.16
		propylene	0.03	0.14
DD-606	Hydrotreater Regenerator Stack	CO	10.00	1.40
		SO_2	45.80	3.30
DDD-606	Hydrotreater Regenerator Stack	CO	10.00	1.40
		SO_2	45.80	3.30
DM-1101	No. 1 Olefins Flare	VOC	151.40	89.96
		NO_x	17.42	12.60
		CO	88.74	64.20
		SO_2	0.01	0.02
DDM-3101	No. 2 Olefins Flare	NO_x	14.18	17.35
		CO	72.24	88.39
		SO_2	0.01	0.02
		VOC	115.57	124.46
DM-1101	No. 1 Olefins Flare (9)	VOC		89.96

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		NO_x		12.60
		CO		64.20
		SO_2		0.02
DDM-3101	No. 2 Olefins Flare (9)	NO_x	16.21	17.53
		CO	82.59	89.33
		SO_2	0.01	0.02
		VOC	146.71	127.09
DDZ-902	Lime Silo Filter Vent	PM_{10}	0.01	0.01
DZ-902	Lime Silo Filter Vent	PM_{10}	3.00	0.05
OF1SOVENT	Seal Oil Vents	VOC	0.30	0.10
RAILLOAD	Rail Loading Fugitives	VOC	10.58	1.15
DB-201	Regeneration Furnace	NO_x	5.90	25.60
		CO	2.10	9.20
		PM_{10}	0.30	1.20
		SO_2	0.52	0.11
		VOC	0.20	0.70
DB-601	Regeneration Heater	NO_x	0.81	3.55
		CO	0.29	1.28
		PM_{10}	0.04	0.16
		SO_2	0.07	0.02
		VOC	0.02	0.09
DDB-201	Regeneration Heater	NO_x	5.85	20.50
		CO	2.10	9.30
		PM_{10}	0.30	1.20
		SO_2	0.50	0.10
		VOC	0.15	0.70
DDB-601	Regeneration Heater	NO_x	0.81	2.84
		CO	0.28	1.23
		PM_{10}	0.04	0.15

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		SO_2	0.07	0.02
		VOC	0.02	0.09
J-1	2nd Stage Hydrotreater Feed Heater	NO_x	0.58	2.53
		CO	0.12	0.53
		PM_{10}	0.07	0.30
		SO_2	0.08	0.02
		VOC	0.02	0.10

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
FURNACE EMISSION CAPS				
The Furnace Emission Cap includes the Olefins Furnaces (Emission Point Nos. [EPNs] DB-101A, DB-101B, DB-101C, DB-101D, DB-102A, DB-102B, DB-102C, DB-102D, DB-103, DB-104, DB-105, DB-106, DB-107, DB-108, DB-109, DDB-1, DDB-2, DDB-3, DDB-4, DDB-5, DDB-101A, DDB-101B, DDB-101C, DDB-101D, DDB-102A, DDB-102B, DDB-102C, and DDB-102D) and the Liquid Furnaces (EPNs DDB-104-A and DDB-104-B).				
NO_x CAP	Furnace Emission Cap	NO_x	512.16 (5) 401.91 (6) 284.70 (7)	2186.00 (5) 1703.11 (6) 1246.99 (7) 540.61 (8)
VOC CAP	Furnace Emission Cap	VOC	18.48 (5) 20.66 (6) 23.63 (7)	80.95 (5) 90.49 (6) 103.49 (7)
CO CAP	Furnace Emission Cap	CO	164.80 (5) 184.22 (6) 200.78 (7)	721.82 (5) 806.90 (6) 879.41 (7)
PM_{10} CAP	Furnace Emission Cap	PM_{10}	25.54 (5) 28.55 (6) 32.65 (7)	111.86 (5) 125.04 (6) 143.00 (7)
SO_2 CAP	Furnace Emission Cap	SO_2	48.00 (5) 53.66 (6) 61.37 (7)	10.51 (5) 11.75 (6) 13.44 (7)
NH_3 CAP	Furnace Emission Cap	NH_3	0.00 (5) 11.93 (6) 27.47 (7)	0.00 (5) 52.25 (6) 120.33 (7)

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
TANK EMISSION CAPS				
VOC CAP	EFR TANK CAP	VOC	11.06	45.18
Benzene CAP	EFR TANK CAP	Benzene	0.74	2.29
Toluene CAP	EFR TANK CAP	Toluene	0.15	0.32
Hexane CAP	EFR TANK CAP	Hexane	0.41	1.47
Styrene CAP	EFR TANK CAP	Styrene	0.01	0.02
Xylene CAP	EFR TANK CAP	Xylene	0.08	0.10
Ethylbenzene CAP	EFR TANK CAP	Ethylbenzene	0.02	0.03

The Tank Emission Caps include the following sources:

EPN	Source
AF-1101	Liquid Feed Tank
AF-1102	Liquid Feed Tank
AF-1901	Crude Benzene Tank
AF-1902	Gasoline Product Tank
AF-1903	Gasoline Product Tank
AF-1904	Crude Benzene Tank
AF-3101	Liquid Feed Tank
AF-3102	Liquid Feed Tank
AF-3901	Pyrolysis Gasoline Storage Tank

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**

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EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source names. For fugitive sources, use an 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 - particulate matter, suspended in the atmosphere, including PM_{10}.
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
CO - carbon monoxide
Cl_2 - chlorine
NH_3 - ammonia
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Emission Cap Prior to July, 2005.
(6) Emission Cap From July 31, 2005 through October 31, 2007 after construction at No. 1 Olefins is complete.
(7) Emission Cap After October 31, 2007.
(8) Emission Cap for furnaces DDB-101A, DDB-101B, DDB-101C, DDB-101D, DDB-102A, DDB-102B, DDB-102C, DDB-102D. These emissions are also part of the total furnace NO_x emission cap.
(9) Effective February 1, 2005 through May 31, 2005 or until Olefins No. 1 Flare is operational, except annual limits are effective for the full 2005 calendar year for emission inventory purposes.

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

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760 Hrs/year

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated March 2, 2005