Emission Sources - Maximum Allowable Emission Rates

Permit Number 95

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)
BUTACAP	1,3 Butadiene Routine Emission Cap	1,3 butadiene	921.27	52.05
BENZCAP	Benzene Routine Emissions Cap	Benzene	19.26	15.09
PROPCAP	Propylene Routine Emission Cap	Propylene	553.05	119.74
DM-1101	No. 1 Olefins Flare	VOC	359.13	111.06
		NOx	45.01	14.19
		CO	231.90	73.78
		SO2	0.03	0.02
DDM-3101	No.2 Olefins Flare	VOC	328.01	124.41
		NOx	42.95	17.69
		CO	221.28	91.79
		SO2	0.03	0.02
AM-1500	Dock Flare	VOC	571.71	25.35
		NOx	37.73	1.94
		CO	194.44	10.40
		SO2	0.01	0.01
DF-104	Decoke Stack	CO	64.86	1.56
		PM10	1.06	0.03
		VOC	0.09	0.01
DF-105	Decoke stack	CO	129.72	7.78

Emission Sources - Maximum Allowable Emission Rates

		PM10	2.11	0.13
		VOC	0.09	0.03
DDF-101	Decoke Stack	CO	129.72	12.45
		PM10	2.11	0.20
		VOC	0.09	0.05
DDF-104	Decoke Stack	CO	129.72	3.11
		PM10	2.11	0.05
		VOC	0.09	0.01
J-2	Regeneration Knock-out Drum	CO	9.62	0.96
		SO2	2.90	0.29
		NOx	6.76	0.68
		PM10	1.41	0.14
DD-606	Hydrotreater Regenerator stack	CO	13.93	1.39
		SO2	41.92	4.19
		NOx	9.79	0.98
		PM10	2.05	0.20
DDD-606	Hydrotreater Regenerator Stack	CO	13.93	1.39
		SO2	41.92	4.19
		NOx	9.79	0.98
		PM10	2.05	0.20
AT-1210 DAT-3201	No. 1 and 2 Cooling Towers - VOC cap	VOC	13.86	60.71
AT-1210	No. 1 Olefins Cooling Tower	PM10	2.37	7.25
DAT-3201	No. 2 Olefins Cooling Tower	PM10	2.37	7.25
FRCAP	Fixed Roof Tank	VOC	3.70	7.44

Emission Sources - Maximum Allowable Emission Rates

	Cap (6)			
FUELTRK1	No.1 Olefins Truck loading	VOC	10.42	3.92
FUELTRK1	No. 2 Olefins truck Loading	VOC	10.42	3.93
EFRCAP	External Floating Roof Tank (7)	VOC	15.02	62.80
ACTCAP	Acetonitrile Tank Cap (8)	VOC	0.28	0.38
METCAP	Methanol Tank CAP (9)	VOC	11.24	0.27
AF-3701	Slop	VOC	5.07	0.08
AF-1215	Sodium Hypochlorite	chlorine	0.01	0.01
AF-3215	Sodium Hypochlorite	chlorine	0.01	0.01
OLWWTKCAP	Olefins 1 and 2 Storm/Process Wastewater Tank CAP (10)	VOC	3.59	10.76
OLWWF	Olefins 1 and 2 Wastewater Facilities CAP (11)	VOC	11.92	22.26
FUGOF1WW	Fugitive Emissions	VOC	0.08	0.35
FUG2WWT	Fugitive Emissions	VOC	0.09	0.38
FUG-V10F	No. 1 Olefins Unit Fugitives	VOC	21.41	93.79
FUG-V20F	No. 2 Olefins Unit Fugitives	VOC	21.11	92.48
FUG-FTF	Tank farm Fugitives	VOC	0.77	3.37
FUG-VSSH	Second Stage Hydrotreater Fugitives	VOC	1.09	4.78
FUG-VBD	Marine Dock Fugitives	VOC	0.09	0.41
FUG-VCM	Metering station fugitives	VOC	0.31	1.38
FUG-RAIL	Rail Loading	VOC	0.09	0.39

Emission Sources - Maximum Allowable Emission Rates

	Fugitives			
FUG-SCR	SCR System Fugitives	Ammonia	0.11	0.47
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
CSNOX	Combustion Sources NOx Cap (12)	NOx	307.57	1347.17
CSCOCAP	Combustion Sources CO Cap (13)	CO	155.38	680.56
CSAMCAP	Combustion Sources Ammonia Cap (14)	Ammonia	23.86	52.25
DB-104	Steam Cracking Furnace	CO	9.18	40.19
		VOC	1.03	4.51
		PM10	1.42	6.23
		SO2	2.67	0.59
DDB-101A	Steam Cracking Furnace	CO	9.25	40.52
		VOC	1.04	4.54
		PM10	1.43	6.28
		SO2	2.69	0.59
DDB-101B	Steam Cracking Furnace	CO	9.25	40.52
		VOC	1.04	4.54
		PM10	1.43	6.28
		SO2	2.69	0.59
DDB-101C	Steam Cracking Furnace	CO	9.25	40.52
		VOC	1.04	4.54

Emission Sources - Maximum Allowable Emission Rates

		PM10	1.43	6.28
		SO2	2.69	0.59
DDB-101D	Steam Cracking Furnace	CO	9.25	40.52
		VOC	1.04	4.54
		PM10	1.43	6.28
		SO2	2.69	0.59
DDB-102A	Steam Cracking Furnace	VOC	0.79	3.45
		PM10	1.09	4.77
		SO2	2.05	0.45
DDB-102B	Steam Cracking Furnace	VOC	0.79	3.45
		PM10	1.09	4.77
		SO2	2.05	0.45
DDB-102C	Steam Cracking Furnace	VOC	0.79	3.45
		PM10	1.09	4.77
		SO2	2.05	0.45
DDB-102D	Steam Cracking Furnace	VOC	0.79	3.45
		PM10	1.09	4.77
		SO2	2.05	0.45
DDB-104A	Steam Cracking Furnace	CO	9.18	40.19
		VOC	1.03	4.51
		PM10	1.42	6.23
		SO2	2.67	0.59
DDB-104B	Steam Cracking Furnace	CO	9.18	40.19
		VOC	1.03	4.51

Emission Sources - Maximum Allowable Emission Rates

		PM10	1.42	6.23
		SO2	2.67	0.59
DB-105	Steam Cracking Furnace	VOC	2.05	9.00
		PM10	3.39	12.55
		SO2	5.33	1.17
DB-106	Steam Cracking Furnace	VOC	2.05	9.00
		PM10	3.39	12.55
		SO2	5.33	1.17
DB-107	Steam Cracking Furnace	VOC	2.05	9.00
		PM10	3.39	12.55
		SO2	5.33	1.17
DB-108	Steam Cracking Furnace	VOC	2.05	9.00
		PM10	3.39	12.55
		SO2	5.33	1.17
DB-109	Steam cracking Furnace	VOC	2.05	9.00
		PM10	3.39	12.55
		SO2	5.33	1.17
DB-201	Regeneration Furnace	NOx	3.90	17.08
		VOC	0.32	1.39
		CO	4.85	21.23
		PM10	0.44	1.92
		SO2	0.55	0.12
DB-601	Regeneration Heater	NOx	0.54	2.37
		VOC	0.04	0.19
		CO	0.67	2.94

Emission Sources - Maximum Allowable Emission Rates

		PM10	0.06	0.27
		SO2	0.08	0.02
DDB-201	Regeneration	NOx	3.90	17.08
		VOC	0.32	1.39
		CO	4.85	21.23
		PM10	0.44	1.92
		SO2	0.55	0.12
DDB-601	Regeneration Heater	NOx	0.54	2.37
		VOC	0.04	0.19
		CO	0.67	2.94
		PM10	0.06	0.27
		SO2	0.08	0.02
PP4DRV	PP4 Dryer Vents VOC CAP (15)	VOC	42.00	46.88
J-1	2nd Stage Hydrotreater Feed Heater	NOx	1.00	4.38
		VOC	0.08	0.36
		CO	1.24	5.44
		PM10	0.11	0.49
		SO2	0.14	0.03
A-100	Cogen	VOC	2.04	8.93
		PM10	4.38	19.20
		SO2	1.68	7.35
DM-1101	Olefins 1 flare routine startup, shutdown and maintenance emissions	NOx	1227.40	30.68
		CO	6254.32	156.36
		VOC	3500.00	87.50

Emission Sources - Maximum Allowable Emission Rates

DDM-3101	Olefins 2 flare routine startup, shutdown and maintenance emissions	NOx	1227.40	30.68
		CO	6254.32	156.36
		VOC	3500.00	87.50
DM-1101/DDM-3101	Olefins 1 and 2 flare routine startup, shutdown and maintenance emissions	NOx	1227.40	30.68
		CO	6254.32	156.36
		VOC	3500.00	87.50
		1,3 Butadiene *	1050.00	17.50
		Ethylene *	3500.00	78.75
		Propylene *	3500.00	78.75
FUGOF1WW/FUG2WWT	Olefins 1 and 2 Wastewater Unit Cleaning	VOC	40.0	0.24
		1,3 Butadiene*	0.01	0.01
		Benzene*	4.00	0.02

(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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
IOC-U - inorganic compounds (unspeciated)
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - 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
(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) Fixed Roof Tank Cap includes tank EPN's: AF-1105, AF-1106, AF-1905, AF-3905, DDF-1001, DF-1001, DF-502, DF-916.

Emission Sources - Maximum Allowable Emission Rates

(7) External Floating Roof Tank Cap includes tank EPN's: AF-1101, AF-1102, AF-1901, AF-1902, AF-1903, AF-1904, AF-3101, AF-3102, AF-3901
(8) Acetonitrile Tank Cap includes tank EPN's: AF-1103, AF-1104, AF-3103.

(9) Methanol Tank Cap includes tank EPN's: DDF-1301, DDF202, DF-1301.

(10)Olefins 1 and 2 Storm/Process Wastewater Tank cap includes tank EPN's: AF-4601A and AF-4601B

(11)Olefins 1 and 2 Storm/Process Wastewater Facilities cap includes EPN's: FAM1704 and FAM3706

(12)Combustion Sources NOx Cap includes the following EPN's: DB-104, DDB-101A, DDB-101B, DDB-101C, DDB-101D, DDB-102A, DDB-102B, DDB-102C, DDB-102D, DDB-104A, DDB-104B, DB-105, DB-106, DB-107, DB-108, DB-109, A-100

(13)Combustion Sources CO Cap includes the following EPN's: DDB-102A, DDB-102B, DDB-102C, DDB-102D, DB-105, DB-106, DB-107, DB-108, DB-109, A-100.

(14) Combustion Sources Ammonia Cap includes EPN's: DB-105, DB-106, DB-107, DB-108, DB-109
(15)PP4 Dryer vents include the following VOC emitting EPN's: P4PEDRYER1 and P4PEDDRYER2.

* These contaminants are additional emission limitations to the overall respective VOC caps.

Dated October XX, 2011