

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 95 and PSDTX854M2

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		Monitoring and Testing Requirements	Record keeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)			
DM-1101	No. 1 Olefins Flare	VOC	359.13	24.00	7, 49	7B, 49	7
		1,3 Butadiene	184.12	18.00			
		Ethylene	150.00	20.56			
		Propylene	158.69	24.00			
		NO <sub>x</sub>	44.99	6.00			
		CO	231.9	31.58			
		SO <sub>2</sub>	0.02	0.01			
DDM-3101	No. 2 Olefins Flare	VOC	328.01	124.41	7, 49	7B, 49	7
		1,3 Butadiene	153	19			
		Ethylene	150	29.83			
		Propylene	150	35.8			
		NO <sub>x</sub>	42.95	17.69			
		CO	221.28	91.79			
		SO <sub>2</sub>	0.03	0.02			
AM-1500	Dock Flare	VOC	571.71	25.35	7, 49	7B, 49	7
		1,3 Butadiene	569.08	7.97			
		Benzene	0.98	1.58			
		Propylene	218.24	2.82			
		NO <sub>x</sub>	37.73	1.94			
		CO	194.44	10.4			
		SO <sub>2</sub>	0.01	0.01			
DF-104	Decoke Stack	CO	64.86	1.56	12	12	12
		PM	1.06	0.03			
		PM <sub>10</sub>	1.06	0.03			

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		PM <sub>2.5</sub>	1.06	0.03			
		VOC	0.09	0.01			
		1,3 Butadiene	0.01	0.01			
		Benzene	0.01	0.01			
		Ethylene	0.06	0.01			
		Propylene	0.01	0.01			
DF-105	Decoke stack	CO	129.72	10.38	12	12	12
		PM	2.11	0.17			
		PM <sub>10</sub>	2.11	0.17			
		PM <sub>2.5</sub>	2.11	0.17			
		VOC	0.09	0.04			
		1,3 Butadiene	0.01	0.01			
		Benzene	0.01	0.01			
		Ethylene	0.06	0.03			
		Propylene	0.01	0.01			
DDF-101	Decoke Stack	CO	129.72	10.38	12	12	12
		PM	2.11	0.17			
		PM <sub>10</sub>	2.11	0.17			
		PM <sub>2.5</sub>	2.11	0.17			
		VOC	0.09	0.04			
		1,3 Butadiene	0.01	0.01			
		Benzene	0.01	0.01			
		Ethylene	0.06	0.03			
		Propylene	0.01	0.01			
DDF-104	Decoke Stack	CO	64.86	2.59	12	12	12
		PM	1.06	0.04			
		PM <sub>10</sub>	1.06	0.04			
		PM <sub>2.5</sub>	1.06	0.04			
		VOC	0.09	0.01			
		1,3 Butadiene	0.01	0.01			
		Benzene	0.01	0.01			
		Ethylene	0.06	0.01			

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		Propylene	0.01	0.01			
J-2	Regeneration Knock-out Drum	CO	9.62	0.96	14	14	14
		SO <sub>2</sub>	2.9	0.29			
		NO <sub>x</sub>	6.76	0.68			
		PM	1.41	0.14			
		PM <sub>10</sub>	1.41	0.14			
		PM <sub>2.5</sub>	1.41	0.14			
DD-606	Hydrotreater Regenerator stack	CO	13.93	1.39	14	14	14
		SO <sub>2</sub>	41.92	4.19			
		NO <sub>x</sub>	9.79	0.98			
		PM	2.05	0.2			
		PM <sub>10</sub>	2.05	0.2			
		PM <sub>2.5</sub>	2.05	0.2			
DDD-606	Hydrotreater Regenerator Stack	CO	13.93	1.39	14	14	14
		SO <sub>2</sub>	41.92	4.19			
		NO <sub>x</sub>	9.79	0.98			
		PM	2.05	0.2			
		PM <sub>10</sub>	2.05	0.2			
		PM <sub>2.5</sub>	2.05	0.2			
AT-1210	No. 1 Olefins Cooling Tower	PM	10.8	33	28-29, 31	28-29, 31	28-29, 31
		PM <sub>10</sub>	2.37	7.25			
		PM <sub>2.5</sub>	2.37	7.25			
		VOC	6.93	30.35			
		1,3 Butadiene	6.93	1.05			
		Benzene	5.96	1.08			
		Ethylene	6.93	13.59			
		Propylene	6.93	13.59			
DAT-3201	No. 2 Olefins Cooling Tower	PM	10.8	33	28-29, 31	28-29, 31	28-29, 31
		PM <sub>10</sub>	2.37	7.25			
		PM <sub>2.5</sub>	2.37	7.25			
		VOC	6.93	30.35			
		1,3 Butadiene	6.93	1.05			
		Benzene	5.96	1.08			
		Ethylene	6.93	13.59			
		Propylene	6.93	13.59			

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DAT-3212	Cooling Tower	VOC	2.35	10.3	30	30	30
		PM	0.91	2.82			
		PM <sub>10</sub>	0.85	2.71			
		PM <sub>2.5</sub>	0.12	0.44			
DF-502	Lube Oil Tank	VOC	0.71	0.06	16G-H	16G-H, 46	16G-H
DF-916	Lube Oil Tank	VOC	0.06	0.01	16G-H	16G-H, 46	16G-H
AF-1905	Fuel Oil Tank	VOC	0.58	0.81	16G-H	16G-H, 46	16G-H
AF-3905	Fuel Oil Tank	VOC	0.58	0.81	16G-H	16G-H, 46	16G-H
DF-1001	Fuel Oil Tank	VOC	0.77	0.58	16G-H	16G-H, 46	16G-H
DDF-1001	Fuel Oil Tank	VOC	0.6	0.58	16G-H	16G-H, 46	16G-H
AF-1105	Rerun Bottoms Tank	VOC	1.55	2.91	16G-H	16G-H, 46	16G-H
		Benzene	0.07	0.21			
AF-1106	Rerun Bottoms Tank	VOC	0.99	1.77	16G-H	16G-H, 46	16G-H
		Benzene	0.07	0.21			
FUELTRK1	No. 1 Olefins Truck Loading	VOC	6.19	1.38	26	26	26
FUELTRK2	No. 2 Olefins Truck Loading	VOC	6.19	1.38	26	26	26
FUELTRK3	Rerun Bottoms Truck Loading	VOC	4.23	5.11	26	26	26
		Benzene	0.26	0.32			
EFRBZCAP	External Floating Roof Tank (6) (9)	Benzene	0.77	2.02	16G-H	16G-H	16G-H
AF-1101	External Floating Roof Storage Tank (6)	VOC	3.11	13.64	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.22	0.62			
AF-1102	External Floating Roof Storage Tank (6)	VOC	3.11	13.64	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.22	0.62			

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AF-1901	External Floating Roof Storage Tank	VOC	0.35	1.48	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.2	0.47			
AF-1902	External Floating Roof Storage Tank	VOC	0.14	0.52	16D, G-H	16D, G-H, 47	16D, G-H
AF-1903	External Floating Roof Storage Tank	VOC	0.14	0.52	16D, G-H	16D, G-H, 47	16D, G-H
AF-1904	External Floating Roof Storage Tank	VOC	0.29	1.2	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.17	0.41			
AF-3901	External Floating Roof Storage Tank (6)	VOC	1.34	6.51	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.16	0.68			
AF-3101	External Floating Roof Storage Tank (6)	VOC	3.28	14.02	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.26	0.63			
AF-3102	External Floating Roof Storage Tank (6)	VOC	3.28	14.02	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.26	0.63			
AF-1103	Acetonitrile Storage Tank	VOC	0.09	0.13	16C, G-H	16C, G-H, 47	16C, G-H
AF-1104	Acetonitrile Storage Tank	VOC	0.09	0.13	16C, G-H	16C, G-H, 47	16C, G-H
AF-3103	Acetonitrile Storage Tank	VOC	0.09	0.13	16C, G-H	16C, G-H, 47	16C, G-H
DDF-1301	Methanol Storage Tank	VOC	3.9	0.05	16G-H	16G-H, 46	16G-H

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DDF-202	Methanol Storage Tank	VOC	3.9	0.11	16G-H	16G-H, 46	16G-H
DF-1301	Methanol Storage Tank	VOC	3.44	0.05	16G-H	16G-H, 46	16G-H
AF-3701	Slop	VOC	5.07	0.08	16G-H	16G-H, 46	16G-H
AF-1215	Sodium Hypochlorite	Chlorine	0.01	0.01	16G-H	16G-H, 46	16G-H
AF-3215	Sodium Hypochlorite	Chlorine	0.01	0.01	16G-H	16G-H, 46	16G-H
AF-4601A	Storm/Process Wastewater Tank	VOC	1.8	5.38	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.09	0.15			
AF-4601B	Storm/Process Wastewater Tank	VOC	1.8	5.38	16D, G-H	16D, G-H, 47	16D, G-H
		Benzene	0.09	0.15			
FAM1704	Olefins 1 API Separator	VOC	5.96	11.13	15	15	15
		Benzene	1.01	0.24			
FAM3706	Olefins 2 API Separator	VOC	5.96	11.13	15	15	15
		Benzene	1.01	0.24			
FUGOF1WW	Fugitive Emissions (5)	VOC	0.08	0.35	33, 35	33, 35, 48C	33, 35, 48C
		Benzene	0.03	0.13			
FUG2WWT	Fugitive Emissions (5)	VOC	0.09	0.38	33, 35	33, 35, 48C	33, 35, 48C
		Benzene	0.03	0.14			
FUG-V10F	No. 1 Olefins Unit Fugitives (5)	VOC	21.45	93.95	33, 35	33, 35, 48C	33, 35, 48C
		1,3 Butadiene	0.54	2.34			
		Benzene	0.24	1.05			
		Ethylene	2.31	10.13			
		Propylene	2.78	12.16			
FUG-V20F	No. 2 Olefins Unit Fugitives (5)	VOC	23.16	101.42	33, 35	33, 35, 48C	33, 35, 48C
		1,3 Butadiene	0.57	2.47			
		Benzene	0.26	1.11			
		Ethylene	3.03	13.18			

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		Propylene	3.15	13.73			
FUG-FTF	Tank farm Fugitives (5)	VOC	0.77	3.37	33, 35	33, 35, 48C	33, 35, 48C
		Benzene	0.08	0.34			
FUG-VSSH	Second Stage Hydrotreater Fugitives (5)	VOC	1.09	4.78	33, 35	33, 35, 48C	33, 35, 48C
		Benzene	0.87	3.8			
FUG-VBD	Marine Dock Fugitives (5)	VOC	0.09	0.41	33, 35	33, 35, 48C	33, 35, 48C
		1,3 Butadiene	0.05	0.13			
		Benzene	0.04	0.03			
		Propylene	0.05	0.17			
FUG-VCN	Metering station fugitives (5)	VOC	0.31	1.38	33, 35	33, 35, 48C	33, 35, 48C
		Benzene	0.03	0.14			
FUG-RAIL	Rail Loading Fugitives (5)	VOC	0.09	0.39	33, 35	33, 35, 48C	33, 35, 48C
		1,3 Butadiene	0.09	0.17			
		Propylene	0.09	0.21			
FUG-SCR	SCR System Fugitives (5)	Ammonia	0.13	0.58	36A	36A	36A
FUG-A10F	No. 1 Olefins Analyzer Vent Fugitives	VOC	0.01	0.01	33, 35	33, 35, 48C	33, 35, 48C
FUG-A20F	No. 2 Olefins Analyzer Vent Fugitives	VOC	0.01	0.01	33, 35	33, 35, 48C	33, 35, 48C
CSNOXCAP	Combustion Sources NO <sub>x</sub> Cap (7) (9)	NO <sub>x</sub>	270.07	1,182.92	9	9	9
DB-104	Steam Cracking Furnace	CO	9.18	40.19	9	9, 48A	9
		VOC	1.03	4.51			

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		NO <sub>x</sub>	27.28	119.49			
		PM	1.42	6.23			
		PM <sub>10</sub>	1.42	6.23			
		PM <sub>2.5</sub>	1.42	6.23			
		SO <sub>2</sub>	2.67	0.59			
DDB-101B	Steam Cracking Furnace (7)	CO	9.25	40.52	9	9, 48A	9
		VOC	1.04	4.54			
		NO <sub>x</sub>	35	153.3			
		PM	1.43	6.28			
		PM <sub>10</sub>	1.43	6.28			
		PM <sub>2.5</sub>	1.43	6.28			
		SO <sub>2</sub>	2.69	0.59			
DDB-106	Steam Cracking Furnace (7)	CO	7.71	15.04	9, 42-43	9, 42-43, 48A	9, 42-43
		CO (non-routine)	38.54	---			
		VOC	1.1	4.3			
		NO <sub>x</sub>	7.92	20.61			
		NO <sub>x</sub> (non-routine)	15.84	---			
		PM	0.84	3.3			
		PM <sub>10</sub>	0.84	3.3			
		PM <sub>2.5</sub>	0.84	3.3			
		SO <sub>2</sub>	11.83	11.54			
		NH <sub>3</sub>	2.34	9.13			
DDB-107	Steam Cracking Furnace (7)	CO	7.71	15.04	9, 42-43	9, 42-43, 48A	9, 42-43
		CO (non-routine)	38.54	---			
		VOC	1.1	4.3			
		NO <sub>x</sub>	7.92	20.61			
		NO <sub>x</sub> (non-routine)	15.84	---			
		PM	0.84	3.3			
		PM <sub>10</sub>	0.84	3.3			
		PM <sub>2.5</sub>	0.84	3.3			
		SO <sub>2</sub>	11.83	11.54			
		NH <sub>3</sub>	2.34	9.13			
DDB-108	Steam Cracking Furnace (7)	CO	7.71	15.04	9, 42-43	9, 42-43, 48A	9, 42-43
		CO (non-routine)	38.54	---			
		VOC	1.1	4.3			
		NO <sub>x</sub>	7.92	20.61			



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		NO <sub>x</sub> (non-routine)	15.84	---			
		PM	0.84	3.3			
		PM <sub>10</sub>	0.84	3.3			
		PM <sub>2.5</sub>	0.84	3.3			
		SO <sub>2</sub>	11.83	11.54			
		NH <sub>3</sub>	2.34	9.13			
DDF-1067	Decoke Stack	CO	89.12	32.08	12, 13	12, 13	12, 13
		PM	19.96	0.79			
		PM <sub>10</sub>	19.96	0.79			
		PM <sub>2.5</sub>	15.97	0.63			
		VOC	0.18	0.06			
DDF-1078	Decoke Stack	CO	89.12	32.08	12, 13	12, 13	12, 13
		PM	19.96	0.79			
		PM <sub>10</sub>	19.96	0.79			
		PM <sub>2.5</sub>	15.97	0.63			
		VOC	0.18	0.06			
DDB-102A	Steam Cracking Furnace (7)	VOC	0.79	3.45	9	9, 48A	9
		NO <sub>x</sub>	26.6	116.51			
		CO	7.03	30.79			
		PM	1.09	4.77			
		PM <sub>10</sub>	1.09	4.77			
		PM <sub>2.5</sub>	1.09	4.77			
		SO <sub>2</sub>	2.05	0.45			
DDB-102B	Steam Cracking Furnace (7)	VOC	0.79	3.45	9	9, 48A	9
		NO <sub>x</sub>	26.6	116.51			
		CO	7.03	30.79			
		PM	1.09	4.77			
		PM <sub>10</sub>	1.09	4.77			
		PM <sub>2.5</sub>	1.09	4.77			
		SO <sub>2</sub>	2.05	0.45			
DDB-102C	Steam Cracking Furnace (7)	VOC	0.79	3.45	9	9, 48A	9
		NO <sub>x</sub>	26.6	116.51			
		CO	7.03	30.79			
		PM	1.09	4.77			
		PM <sub>10</sub>	1.09	4.77			
		PM <sub>2.5</sub>	1.09	4.77			
		SO <sub>2</sub>	2.05	0.45			
DDB-102D	Steam Cracking Furnace (7)	VOC	0.79	3.45	9	9, 48A	9
		NO <sub>x</sub>	26.6	116.51			

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		CO	7.03	30.79			
		PM	1.09	4.77			
		PM <sub>10</sub>	1.09	4.77			
		PM <sub>2.5</sub>	1.09	4.77			
		SO <sub>2</sub>	2.05	0.45			
DDB-104A	Steam Cracking Furnace (7)	CO	9.18	40.19	9	9, 48A	9
		VOC	1.03	4.51			
		NO <sub>x</sub>	27.28	119.49			
		PM	1.42	6.23			
		PM <sub>10</sub>	1.42	6.23			
		PM <sub>2.5</sub>	1.42	6.23			
		SO <sub>2</sub>	2.67	0.59			
DDB-104B	Steam Cracking Furnace (7)	CO	9.18	40.19	9	9, 48A	9
		VOC	1.03	4.51			
		NO <sub>x</sub>	27.28	119.49			
		PM	1.42	6.23			
		PM <sub>10</sub>	1.42	6.23			
		PM <sub>2.5</sub>	1.42	6.23			
		SO <sub>2</sub>	2.67	0.59			
DB-105	Steam Cracking Furnace (7) (14)	NO <sub>x</sub>	24.75	108.41	9, 38-41	9, 38-41, 48A	9, 38-41
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9			
		PM	3.39	12.55			
		PM <sub>10</sub>	3.39	12.55			
		PM <sub>2.5</sub>	3.39	12.55			
		SO <sub>2</sub>	5.33	1.17			
DB-106	Steam Cracking Furnace (7) (14)	NO <sub>x</sub>	24.75	108.41	9, 38-41	9, 38-41, 48A	9, 38-41
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9			
		PM	3.39	12.55			
		PM <sub>10</sub>	3.39	12.55			
		PM <sub>2.5</sub>	3.39	12.55			
		SO <sub>2</sub>	5.33	1.17			

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DB-107	Steam Cracking Furnace (7) (14)	NO <sub>x</sub>	24.75	108.41	9, 38-41	9, 38-41, 48A	9, 38-41
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9			
		PM	3.39	12.55			
		PM <sub>10</sub>	3.39	12.55			
		PM <sub>2.5</sub>	3.39	12.55			
		SO <sub>2</sub>	5.33	1.17			
DB-108	Steam Cracking Furnace (7) (14)	NO <sub>x</sub>	24.75	108.41	9, 38-41	9, 38-41, 48A	9, 38-41
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9			
		PM	3.39	12.55			
		PM <sub>10</sub>	3.39	12.55			
		PM <sub>2.5</sub>	3.39	12.55			
		SO <sub>2</sub>	5.33	1.17			
DB-109	Steam Cracking Furnace (7) (14)	NO <sub>x</sub>	24.75	108.41	9, 38-41	9, 38-41, 48A	9, 38-41
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9			
		PM	3.39	12.55			
		PM <sub>10</sub>	3.39	12.55			
		PM <sub>2.5</sub>	3.39	12.55			
		SO <sub>2</sub>	5.33	1.17			
DB-201	Regeneration Furnace	NO <sub>x</sub>	5.85	25.62	9	9	9
		VOC	0.32	1.39			
		CO	4.85	21.23			
		PM	0.44	1.92			
		PM <sub>10</sub>	0.44	1.92			
		PM <sub>2.5</sub>	0.44	1.92			
		SO <sub>2</sub>	0.55	0.12			
DB-601	Regeneration Heater	NO <sub>x</sub>	0.81	3.55	9	9	9
		VOC	0.04	0.19			
		CO	0.67	2.94			
		PM	0.06	0.27			
		PM <sub>10</sub>	0.06	0.27			
		PM <sub>2.5</sub>	0.06	0.27			
		SO <sub>2</sub>	0.08	0.02			
DDB-201	Regeneration Heater	NO <sub>x</sub>	5.85	25.62	9	9	9
		VOC	0.32	1.39			

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		CO	4.85	21.23			
		PM	0.44	1.92			
		PM <sub>10</sub>	0.44	1.92			
		PM <sub>2.5</sub>	0.44	1.92			
		SO <sub>2</sub>	0.55	0.12			
DDB-601	Regeneration Heater	NO <sub>x</sub>	0.81	3.55	9	9	9
		VOC	0.04	0.19			
		CO	0.67	2.94			
		PM	0.06	0.27			
		PM <sub>10</sub>	0.06	0.27			
		PM <sub>2.5</sub>	0.06	0.27			
		SO <sub>2</sub>	0.08	0.02			
PP4DRV	PP4 Dryer Vents VOC CAP (8)	VOC	42	46.88	44	44, 50	44
		Propylene	6.53	1.15			
J-1	2nd Stage Hydrotreater Feed Heater	NO <sub>x</sub>	1.5	6.57	9	9	9
		VOC	0.08	0.36			
		CO	1.24	5.44			
		PM	0.11	0.49			
		PM <sub>10</sub>	0.11	0.49			
		PM <sub>2.5</sub>	0.11	0.49			
		SO <sub>2</sub>	0.14	0.03			
A-100	Cogen (7)	VOC	2.04	8.93	41-43, 54	41-43, 54	41-43, 54
		NO <sub>x</sub>	58.62	256.77			
		CO	35.68	84.46			
		PM	4.38	19.2			
		PM <sub>10</sub>	4.38	19.2			
		PM <sub>2.5</sub>	4.38	19.2			
		SO <sub>2</sub>	1.68	7.35			
DM-1101MSS	Olefins 1 flare routine startup, shutdown and maintenance emissions (10)(11)	NO <sub>x</sub>	1227.4	30.68	58	58	58
		CO	6254.32	156.36			
		VOC	3500	87.5			
		1,3 Butadiene	1050	17.5			
		Ethylene	3500	78.75			
		Propylene	3500	78.75			
DDM-3101MSS	Olefins 2 flare routine	NO <sub>x</sub>	1227.4	30.68	58	58	58
		CO	6254.3	156.36			

Emission Sources - Maximum Allowable Emission Rates

	startup, shutdown and maintenance emissions (10) (11)		2				
		VOC	3500	87.5			
		1,3 Butadiene	1050	17.5			
		Ethylene	3500	78.75			
		Propylene	3500	78.75			
FLAREMSSCAP	Olefins 1 and 2 flare routine startup, shutdown and maintenance emissions (10)(11)	NO <sub>x</sub>	1227.4	30.68	58	58	58
		CO	6254.3 2	156.36			
		VOC	3500	87.5			
		1,3 Butadiene	1050	17.5			
		Ethylene	3500	78.75			
		Propylene	3500	78.75			
MSSFUG1 & MSSCAP2	Portable Fugitive Sources and Activities resulting in MSS emissions & Flexible cap for sitewide MSS emissions not individually listed (12)	VOC	83.74	3.08	59-70	59-70	59-70
		NO <sub>x</sub>	0.17	0.07			
		CO	0.89	0.35			
		SO <sub>2</sub>	0.01	0.01			
FUGOF1WW/FU G2WWT	Olefins 1 and 2 Wastewater Unit Cleaning	VOC	40	0.24	58	58	58
		1,3 Butadiene	0.01	0.01			
		Benzene	4	0.02			
SCCAP	Steam Cracking Furnace Cap (14)	VOC	---	35.97	9,38-41,51	9,38-41,51	9,38-41,51
		NO <sub>x</sub>	---	306.21			

(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 (13) - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
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Emission Sources - Maximum Allowable Emission Rates

HRVOC	- highly reactive volatile organic compounds as defined in 30 TAC § 115.10
IOC-U	- inorganic compounds (unspeciated)
NO <sub>x</sub>	- total oxides of nitrogen
SO <sub>2</sub>	- sulfur dioxide
PM	- total particulate matter, suspended in the atmosphere, including PM <sub>10</sub> and PM <sub>2.5</sub> , as represented
PM <sub>10</sub>	- total particulate matter equal to or less than 10 microns in diameter, including PM <sub>2.5</sub> , as represented
PM <sub>2.5</sub>	- 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) External Floating Roof Tank Cap includes tank EPN's: AF-1101, AF-1102, AF-3101, AF-3102, AF-3901. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in EFRBZCAP. The basis for the cap is that any individual tank may store pyrolysis gasoline, but pyrolysis gasoline may be stored in no more than three tanks at any one time.
- (7) Combustion Sources NO<sub>x</sub> Cap includes the following EPN's: DB-104, DDB-101B, DDB-102A, DDB-102B, DDB-102C, DDB-102D, DDB-104A, DDB-104B, DB-105, DB-106, DB-107, DB-108, DB-109, A-100. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in CSNOXCAP. These sources are related because they all contribute high-pressure steam to the Chocolate Bayou steam system. The basis of this cap is to ensure overall emissions are not increased from the contributions of these sources to the Subchapter G Permit NO<sub>x</sub> Cap (0.05 lb/MMBtu on sources beginning "DB" and "DDB"; plus 25 ppmv at 15% O<sub>2</sub> for A-100 Cogen) from the permit issued June 30, 2009.
- (8) PP4 Dryer vents include the following VOC emitting EPN's: P4PEDRYER1 and P4PEDDRYER2.
- (9) Emissions caps do not remove the obligation to assess federal permitting applicability per the major modification definition in 30 TAC 116.12.
- (10) The hourly emissions limits for EPNs DM-1101 and DDM-3101 for maintenance, startup and shutdown apply instead of the hourly emissions limits listed for normal operation; they do not apply in addition to the limits for normal operation. The annual emissions limits for these flare for maintenance, startup and shutdown apply in addition to the limits for normal operation.
- (11) The flare MSS cap includes EPNs DM-1101 and DDM-3101. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in FLAREMSSCAP. Total MSS emissions from flaring at these two EPNs, is limited to the amount in the permit issued November 9, 2005. These emissions may occur at either flare or any combination of both flares in any given annual period.
- (12) EPNs MSSFUG1 & MSSCAP2 represent sitewide emissions from planned MSS activities not otherwise listed in the MAERT. It represents emissions from uncontrolled venting of miscellaneous process equipment after purging to the flare (as applicable) and represents VOC emissions after control for temporary control devices. Emissions from these EPNs are intended for miscellaneous MSS activities that may occur during normal operation or during shutdown.
- (13) All VOC emission rates incorporated in this table include any benzene, ethylene, propylene, and/or 1,3 butadiene contributions.
- (14) Steam Cracking Furnace Cap includes the following EPN's: DB-104, DB-105, DB-106, DB-107, DB-108, DB-109. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in SCCAP. The VOC and NO<sub>x</sub> emissions caps are equivalent to the sum of the proposed emissions associated with the Steam Cracking Furnaces on Table 3F-VOC and Table 3F-NO<sub>x</sub>, respectively. The Table 3F was included in the application submitted January 11, 2021. The new caps add federally enforceable limits to these furnaces in the MAERT.

Date: March 12, 2021