EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS

Permit Number 77644

This table lists the maximum allowable emission rates related to the sources of air contaminants on the applicant's property that are covered by this permit. The emission rates shown are derived from information submitted as part of the application for this permit and are the maximum rates allowed for these emission points. Any proposed increase in emission rates may require that the permit be amended.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)		Emission Rates* lb/hr	TPY**
A-A-0	OA-5 Cylinder Vent		Catalyst	2.84	0.02
		CO	1.84	0.01	
A-C-0A, B, C	F-4501 Furnace		NO_x	15.42	67.55
			CO	0.03	0.15
			SO_2	0.08	0.33
			PM_{10}	0.97	4.24
			VOC	0.70	3.07
A-C-1	F-4502 Furnace		NO_x	10.31	45.15
			CO	0.33	1.43
			SO_2	0.07	0.30
			PM_{10}	0.86	3.75
			VOC	0.62	2.72
A-C-2	F-4504 Furnace		NO_x	1.09	4.77
			CO	2.37	10.40
			SO_2	0.04	0.18
			PM_{10}	0.52	2.28
			VOC	0.38	1.65
A-D-1	Dry Flare		NO_x	0.05	0.05
			CO	0.39	0.37
			SO_2	<0.01	<0.01
			VOC	0.98	0.25
		Al_2O_3	<0.01	<0.01	
A-E-5	C-4455 Isomerizer		CO	11.33	49.64
			VOC	<0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates* lb/hr	TPY**
A-GZ-1	Area A Fugitive Emissions (4)	VOC	3.69	16.18
A-GZ-4	LAO Alkyl Filter Change-outs	VOC	0.26	0.01
A-GZ-6	Peaking Filter Change-outs	VOC	14.92	4.14
B-C-7	F-902 Furnace	NO_x	0.31	1.37
		CO	0.21	0.94
		SO_2	<0.01	<0.01
		PM_{10}	0.02	0.08
		VOC	0.01	0.06
B-C-9A	F-901A Furnace	NO_x	7.21	31.56
		CO	4.56	19.99
		SO_2	0.03	0.14
		PM_{10}	0.41	1.81
		VOC	0.30	1.31
B-C-9B	F-901B Furnace	NO_x	7.21	31.56
		CO	4.56	19.99
		SO_2	0.03	0.14
		PM_{10}	0.41	1.81
		VOC	0.30	1.31
B-D-0	HB-2 Flare	NO_x	6.72	0.10
		CO	47.88	0.67
		SO_2	<0.01	<0.01
		VOC	387.48	3.10
B-E-7	C-504 Hotwell	VOC	<0.01	<0.01
B-G-0A	D-505A AL OR3 Storage	VOC	<0.01	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates* lb/hr	TPY**
B-G-0B	D-505B AL OR3 Storage	VOC	0.02	<0.01
B-G-0C	D-505C AL OR3 Storage	VOC	0.02	<0.01
B-G-1	D-456 Olefin Storage/Shutdowns	VOC	0.76	0.28
B-G-2	D-510 ALOR 2 Storage	VOC	0.13	0.12
B-G-3A	D-506 ALOR 3 Storage	VOC	0.07	0.02
B-G-3B	D-507 ALOR 3 Storage	VOC	0.16	0.14
B-G-5	D-316 Olefin Storage	VOC	0.15	<0.01
B-G-6	D-903 Waste Oil Storage and Shutdowns	VOC	3.14	0.03
B-G-7	D-457 Olefin Storage	VOC	0.05	<0.01
B-G-8	D-710 C40H Storage	VOC	1.42	3.07
B-G-9	D-463 Olefin Storage	VOC	0.06	<0.01
B-GZ-0	Area B Fugitive Emissions (4)	VOC	5.35	23.45
B-GZ-4	Area B Compressor Maintenance	VOC	<0.01	<0.01
B-H-0	D-464 Olefin Storage and Hot Olefin Wash	VOC	7.97	0.06
B-J-2	D-654 ROH Storage	VOC	0.04	0.11
E-A-0A	Load Spot No. 5	VOC	2.73	0.10
E-A-1A	Load Spot No. 1	VOC	0.79	0.08

EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates* lb/hr	TPY**
E-A-1B	Load Spot No. 2	VOC	0.79	0.08
E-A-1C	Load Spot No. 3	VOC	0.74	0.08
		Sodium Aluminate	0.30	0.01
E-A-1D	Load Spot No. 6	VOC	0.74	0.08
		Sodium Aluminate	0.30	0.01
E-G-0	D-824 Storage Tank	VOC	0.13	0.02
E-G-1A	D-801A Storage Tank	VOC	0.01	<0.01
E-G-1B	D-801B Storage Tank	VOC	0.01	<0.01
E-G-2	D-804 Storage Tank	VOC	0.02	<0.01
E-G-3	D-808 Storage Tank	VOC	0.52	0.01
E-G-4	D-809 Storage Tank	VOC	<0.01	<0.01
E-G-5A	D-802A Heavy Olefins Storage	VOC	0.43	0.02
E-G-5B	D-802B Heavy Olefins Storage	VOC	0.43	0.02
E-G-5C	D-802C Heavy Olefins Storage	VOC	0.43	0.02
E-G-5D	D-802D Heavy Olefins Storage	VOC	0.43	0.02
E-G-6A	D-803A Heavy Olefins Storage	VOC	0.03	<0.01
E-G-6B	D-803B Heavy Olefins Storage	VOC	0.41	0.30
E-G-7	D-803C Heavy Olefins Storage	VOC	0.41	0.80

EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates* lb/hr	TPY**
E-G-8	D-822 C-702	VOC	0.48	0.02
E-G-9	D-810 Storage Tank	VOC	<0.01	<0.01
E-GZ-0	Area E Fugitive Emissions (4)	VOC	0.34	1.49
E-H-0	D-818 Storage Tank	VOC	0.58	0.02
E-H-1	D-607 Heavy Olefins Storage	VOC	0.48	0.07
E-H-2	D-812 C-702 Storage Tank	VOC	0.06	0.02
E-H-4A	D-805A Storage Tank	VOC	0.13	0.02
E-H-4B	D-805B C-702 Storage Tank	VOC	0.13	0.02
E-H-4C	D-805C C-702 Storage Tank	VOC	0.13	0.04
F-C-0	F-202 Furnace	NO_x	1.86	8.14
		CO	1.28	5.59
		SO_2	<0.01	0.04
		PM_{10}	0.12	0.51
		VOC	0.08	0.37
F-E-6	C-202 Hotwell	CO	0.12	0.42
		VOC 0.03	0.09	
F-G-3	T-220 Storage Tank	VOC	0.48	<0.01
F-GZ-0	Area F Fugitive Emissions (4)	VOC	0.89	3.91
F-I-1A	T-201A Storage Tank	VOC	0.48	<0.01
F-I-1B	T-201B Storage Tank	VOC	0.48	<0.01

EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates* lb/hr	TPY**
G-A-1	Load Spot No. 8	VOC	0.64	0.07
G-A-2	Load Spot No. 9	VOC	<0.01	<0.01
G-A-3	Load Spot No. 10	VOC	0.01	<0.01
G-A-4	Load Spot No. 13	VOC	0.02	<0.01
G-D-1	MP-1 Flare (5)	VOC	187.71	12.95
		NO_x	8.12	0.67
		CO	56.80	4.86
		SO_2	0.01	0.01
G-G-0	D-817A Heavy Olefins Storage	VOC	0.58	0.02
G-G-1	D-817B Heavy Olefins Storage	VOC	0.58	0.02
G-G-2	D-817C Heavy Olefins Storage	VOC	0.58	0.58
G-GZ-0	Area G Fugitive Emissions	VOC	0.27	1.17
G-I-0	D-819 Storage	VOC	0.58	<0.01
G-I-1	D-820A Storage	VOC	<0.01	<0.01
G-I-2	D-820B Storage	VOC	<0.01	<0.01
G-I-3	D-821 Storage	VOC	<0.01	<0.01
K-B-0	Process Canal	VOC	<0.01	<0.01
K-B-2	Storm Water Holdup	VOC	<0.01	<0.01
K-B-3	Aerated Lagoon	VOC	<0.01	<0.01

EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates* lb/hr	TPY**
Q-GZ-0	Area Q Fugitive Emissions (4)	VOC	0.06	0.25
T-A-2	Load Spot No. 11	VOC	0.02	<0.01
T-A-3	Load Spot No. 14	VOC	0.02	<0.01
T-GZ-0	Area T Fugitive Emissions (4)	VOC	0.05	0.23
T-H-0	T-4608 Hexene Storage	VOC	2.32	1.18
T-H-1	T-4618 Hexene Storage	VOC	2.04	0.99
W-A-0A	Load Spot No. 4	VOC	0.73	0.08
W-A-0B	Load Spot No. 7	VOC	0.66	0.07
W-G-0A	T-4603A Light Olefins	VOC	1.79	1.11
W-G-0B	T-4603B Light Olefins	VOC	0.66	0.38
W-G-1	T-4341 Rework Olefins	VOC	1.36	0.93
W-G-3	T-4605B Heavy Olefins	VOC	0.82	<0.01
W-G-4	T-4605A Light Olefins	VOC	3.74	0.02
W-G-5	T-4610 NaA Storage 103	Sodium Aluminate	0.80	0.02
W-GZ-0	Area W Fugitive Emissions (4)	VOC	0.31	1.37
W-T-1	T-4615A Heavy Olefins	VOC	0.31	0.72
W-T-2	T-4603C Light Olefins	VOC	0.66	0.38

EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS

(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) NO_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
PM_{10} - particulate matter (PM) 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.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

Al_2O_3 - aluminum oxide
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Listed emissions are exclusively from the alkyl unit. Flare G-D-1 pilot emissions are authorized under Permit Number 3962.

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

_____Hrs/day __Days/week __Weeks/year or _8,760_ Hrs/year

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

Dated July 28, 2006

EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS