EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 3295

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 **
AIRST	Air Stripper (5)	VOC	0.67	2.94
B-1	Boiler	CO	0.58	2.52
		NO_x	0.69	3.00
		PM_{10}	0.05	0.23
		SO_2	0.19	0.81
		VOC	0.04	0.17
DR-1	Drum Filling	VOC	2.20	1.08
		VOC (8)	16.86	2.77
F-1	Aromax Reactor Preheater	CO	0.48	2.10
		NO_x	0.57	2.50
		PM_{10}	0.04	0.19
		SO_2	0.16	0.68
		VOC	0.03	0.14
F-2	Aromax Reactor Preheater	CO	0.48	2.10
		NO_x	0.57	2.50
		PM_{10}	0.04	0.19
		SO_2	0.16	0.68
		VOC	0.03	0.14
F-3	Aromax F-3	CO	0.25	1.08
		CO (8)	0.21	0.90

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name	Air Contaminant Name (2)	Emission Rates lb/hr	TPY **
		NO_x	0.29	1.29
		NO_x (8)	0.25	1.07
		PM_{10}	0.02	0.10
		PM_{10} (8)	0.02	0.08
		SO_2	0.07	0.33
		SO_2 (8)	0.07	0.29
		VOC	0.02	0.07
		VOC (8)	0.01	0.06
F-4	Aromax F-4	CO	0.25	1.08
		CO (8)	0.21	0.90
		NO_x	0.29	1.29
		NO_x (8)	0.25	1.07
		PM_{10}	0.02	0.10
		PM_{10} (8)	0.02	0.08
		SO_2	0.07	0.33
		SO_2 (8)	0.07	0.29
		VOC	0.02	0.07
		VOC (8)	0.01	0.06
F-10	Flare	CO	9.84	7.89
		CO (8)	21.41	12.23
		NO_x	1.36	1.12
		NO_x (8)	2.97	1.69
		SO_2	0.01	0.01
		VOC	27.21	15.19
		VOC (8)	65.32	26.51
MAINFUG	Main Plant Truck Loading Losses	VOC	90.23	22.30
		VOC (8)	149.90	38.50
H-1	HDS Preheater	CO	0.77	3.36
		NO_x	0.91	4.00
		PM_{10}	0.07	0.30
		SO_2	0.25	1.08
		VOC	0.05	0.22
H-2	Hex Treater Preheater	CO	0.14	0.63
		NO_x	0.17	0.74
		PM_{10}	0.01	0.06
		SO_2	0.05	0.02

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name	Air Contaminant Name (2)	Emission Rates lb/hr	TPY **
		VOC	0.01	0.04
H-3	Hot Oil Heater	CO	0.98	4.29
		NO_x	1.17	5.10
		PM_{10}	0.09	0.39
		SO_2	0.32	1.38
		VOC	0.06	0.28
H-101	T-15 Reboiler	CO	1.38	6.05
		NO_x	1.64	7.20
		PM_{10}	0.13	0.55
		SO_2	0.45	1.95
		VOC	0.09	0.40
H-102	T-16 Reboiler	CO	0.86	3.78
		CO (8)	1.15	5.05
		NO_x	1.03	4.50
		NO_x (8)	1.40	6.03
		PM_{10}	0.08	0.34
		PM_{10} (8)	0.10	0.46
		SO_2	0.28	1.22
		SO_2 (8)	0.37	1.62
		VOC	0.06	0.25
		VOC (8)	0.08	0.33
H-103	Hot Oil Heater	CO	0.86	3.78
		NO_x	1.03	4.50
		PM_{10}	0.08	0.34
		SO_2	0.22	1.22
		VOC	0.06	0.25
H-104	T-4 Reboiler	CO	0.38	1.68
		NO_x	0.46	2.00
		PM_{10}	0.03	0.15
		SO_2	0.12	0.54
		VOC	0.03	0.11
H-105	T-17 Reboiler	CO	0.05	0.22

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

Emission Point No. (1)	Source Name	AIR CONTAMINANTS DATA Air Contaminant Name (2)	Emission Rates lb/hr	TPY **
		NO_x	0.06	0.27
		PM_{10}	0.01	0.02
		SO_2	0.02	0.08
		VOC	0.01	0.02
H-106	T-8 Reboiler	CO	0.26	1.13
		NO_x	0.31	1.34
		PM_{10}	0.02	0.10
		SO_2	0.07	0.33
		VOC	0.02	0.07
H-107	T-9 Reboiler	CO	0.19	0.84
		NO_x	0.13	1.00
		PM_{10}	0.02	0.08
		SO_2	0.06	0.27
		VOC	0.01	0.06
H-108	T-3 Reboiler/T-27 Reboiler	CO	0.10	0.45
		CO (8)	0.16	0.72
		NO_x	0.12	0.54
		NO_x (8)	0.20	0.88
		PM_{10}	0.01	0.04
		PM_{10} (8)	0.01	0.07
		SO_2	0.05	0.23
		SO_2 (8)	0.05	0.23
		VOC	0.01	0.05
		VOC (8)	0.01	0.05
H-109	Sieve Regeneration Heater	CO	0.05	0.22
		NO_x	0.06	0.27
		PM_{10}	0.01	0.02
		SO_2	0.02	0.08
		VOC	0.01	0.02
H-110	T-1- Reboiler	CO	0.13	0.56
		NO_x	0.15	0.67
		PM_{10}	0.01	0.05

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name	Air Contaminant Name (2)	Emission Rates lb/hr	TPY **
		SO_2	0.04	0.16
		VOC	0.01	0.04
H-111	T-11 Reboiler	CO	0.13	0.56
		NO_x	0.15	0.67
		PM_{10}	0.01	0.05
		SO_2	0.04	0.16
		VOC	0.01	0.04
H-113	AA HDS Preheater	CO	0.77	3.36
		NO_x	0.91	4.00
		PM_{10}	0.07	0.30
		SO_2	0.25	1.08
		VOC	0.05	0.22
H-116	T-13 Reboiler	CO	0.38	1.68
		NO_x	0.46	2.00
		PM_{10}	0.03	0.15
		SO_2	0.12	0.54
		VOC	0.03	0.11
H-117	AA Hydrogenation Preheater	CO	0.38	1.68
		NO_x	0.46	2.00
		PM_{10}	0.03	0.15
		SO_2	0.12	0.54
		VOC	0.03	0.11
H-118	T-30 Reboiler	CO	1.28	5.52
		NO_x	2.29	9.00
		PM_{10}	0.12	0.51
		SO_2	0.41	1.81
		VOC	0.08	0.37
H-213	T-21 Reboiler	CO	0.77	3.37
		NO_x	0.46	2.00
		PM_{10}	0.07	0.30
		SO_2	0.25	1.09
		VOC	0.05	0.22

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name	Air Contaminant Name (2)	Emission Rates lb/hr	TPY **
H-243	T-24 Reboiler	CO	1.03	4.51
		NO_x	0.61	2.68
		PM_{10}	0.09	0.41
		SO_2	0.34	1.47
		VOC	0.07	0.30
H-253	T-25 Reboiler	CO	0.38	1.68
		NO_x	0.46	2.00
		PM_{10}	0.03	0.15
		SO_2	0.12	0.54
		VOC	0.03	0.11
H-263	T-26 Reboiler	CO	0.77	3.37
		NO_x	0.46	2.00
		PM_{10}	0.07	0.30
		SO_2	0.25	1.09
		VOC	0.05	0.22
H-283	T-28 Reboiler	CO	0.82	3.57
		NO_x	0.49	2.13
		PM_{10}	0.07	0.32
		SO_2	0.26	1.15
		VOC	0.05	0.22
H-293	T-29 Reboiler	CO	0.66	2.89
		NO_x	0.79	3.44
		PM_{10}	0.06	0.26
		SO_2	0.21	0.93
		VOC	0.04	0.19
H-323	T-32 Reboiler	CO (8)	0.74	3.25
		NO_x (8)	0.88	3.86
		PM_{10} (8)	0.07	0.29
		SO_2 (8)	0.24	1.05
		VOC (8)	0.05	0.21
H-343	T-34 Reboiler	CO (8)	0.58	2.52
		NO_x (8)	0.07	3.07

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

Emission Point No. (1)	Source Name	AIR CONTAMINANTS DATA Air Contaminant Name (2)	Emission Rates lb/hr	TPY **
		PM_{10} (8)	0.05	0.23
		SO_2 (8)	0.18	0.81
		VOC (8)	0.04	0.17
H-353	T-35 Reboiler	CO (8)	1.32	5.77
		NO_x (8)	1.60	7.01
		PM_{10} (8)	0.12	0.52
		SO_2 (8)	0.42	1.85
		VOC (8)	0.09	0.38
H-383	T-38 Reboiler	CO (8)	0.82	3.61
		NO_x (8)	1.00	4.38
		PM_{10} (8)	0.07	0.33
		SO_2 (8)	0.26	1.16
		VOC (8)	0.05	0.24
H-403	T-40 Reboiler	CO (8)	2.22	9.74
		NO_x (8)	2.70	11.83
		PM_{10} (8)	0.20	0.88
		SO_2 (8)	0.71	3.12
		VOC (8)	0.15	0.64
H-423	T-42 Reboiler	CO (8)	0.45	1.98
		NO_x (8)	0.55	2.41
		PM_{10} (8)	0.04	0.18
		SO_2 (8)	0.15	0.64
		VOC (8)	0.03	0.13
H-433	T-43 Reboiler	CO (8)	0.91	3.97
		NO_x (8)	1.10	4.82
		PM_{10} (8)	0.08	0.36
		SO_2 (8)	0.29	1.27
		VOC (8)	0.06	0.26
H-700	HDS Heater	CO (8)	1.73	7.57
		NO_x (8)	2.10	9.20
		PM_{10} (8)	0.16	0.69
		SO_2 (8)	0.55	2.43
		VOC (8)	0.11	0.50

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

Emission Point No. (1)	Source Name	AIR CONTAMINANTS DATA Air Contaminant Name (2)	Emission Rates lb/hr	 TPY **
RH-1	Reformer Reactor Preheater	CO	1.24	5.41
		CO (8)	1.65	7.21
		NO_x	0.74	3.22
		NO_x (8)	2.00	8.76
		PM_{10}	0.11	0.49
		PM_{10} (8)	0.15	0.65
		SO_2	0.40	1.75
		SO_2 (8)	0.53	2.31
		VOC	0.08	0.35
		VOC (8)	0.11	0.47
RH-2	Reformer Reactor Preheater	CO	0.82	3.61
		NO_x	0.49	2.15
		NO_x (8)	1.00	4.38
		PM_{10}	0.07	0.33
		SO_2	0.26	1.16
		VOC	0.05	0.24
RH-3	Reformer Reactor Preheater	CO	0.41	1.08
		CO (8)	0.66	2.89
		NO_x	0.25	1.07
		NO_x (8)	0.80	3.50
		PM_{10}	0.04	0.16
		PM_{10} (8)	0.06	0.26
		SO_2	0.13	0.58
		SO_2 (8)	0.21	0.92
		VOC	0.03	0.12
		VOC (8)	0.04	0.19
TK-1	Tank 1	VOC	0.22	0.96
		VOC (8)	0.28	1.22
TK-2	Tank 2	VOC	1.40	1.00
TK-4	Tank 4	VOC	0.66	2.89
TK-8	Tank 8	NaOH	0.11	0.02

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

Emission Point No. (1)	Source Name	AIR CONTAMINANTS DATA Air Contaminant Name (2)	Emission Rates lb/hr	 TPY **
TK-9	Tank 9	NaHS	0.06	0.02
TK-11	Tank 11	VOC	0.69	0.41
TK-12	Tank 12	VOC	0.69	0.41
TK-13	Tank 13	VOC	0.69	0.41
TK-14	Tank 14	VOC	0.69	0.41
TK-40	Tank 40	VOC	0.36	0.19
TK-41	Tank 41	VOC	0.36	0.21
TK-48	Tank 48	VOC	0.42	1.83
TK-52	Tank 52	VOC	5.02	3.00
TK-55	Tank 55	VOC	1.7	2.00
TK-56	Tank 56	VOC	1.2	2.20
TK-57	Tank 57	VOC VOC (8)	1.38 1.13	6.03 4.69
TK-61	Tank 61	VOC VOC (8)	1.38 1.15	6.03 4.76
TK-62	Tank 62	VOC	1.01	1.40
TK-63	Tank 63	VOC	0.65	0.94
TK-64	Tank 64	VOC	1.11	1.00
TK-65	Tank 65	VOC	0.12	1.49
TK-66	Tank 66	VOC	0.91	3.98
TK-67	Tank 67	NaOH	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name	Air Contaminant Name (2)	Emission Rates lb/hr	TPY **
TK-68	Tank 68	NaHS	0.01	0.01
WESTFUG	West Plant Truck Loading Losses	VOC	0.19	0.07
FUG	Process Fugitives (4)	VOC (6)	3.09	13.50
		VOC (7)	4.30	18.83

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source name. For fugitive sources use area name or fugitive source name.
(3) CO - carbon monoxide
NO_x - total oxides of nitrogen
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 in emitted.
SO_2 - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code ' 101.1
NaHS - sodium hydrosulfide
NaOH - sodium hydroxide
(4) Fugitive emissions are an estimate only and should not be considered as maximum allowable emission rates.
(5) This EPN shall be routed to the flare EPN F-10 by April 2, 2008.
(6) Pre emission control
(7) Post emission control by April 2, 2008.
(8) Authorized allowables contingent upon meeting the requirements of Special Condition Number 27

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year

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

Dated: March 4, 2008