

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Attachment A.1

SHORT-TERM

Permit No. 1078

These attachments (A.1 and A.2) list 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**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short- Emission Rates*
ST 1-1	Tank 1-1	VOC	40.04
ST 1-2	Tank 1-2	VOC	40.04
ST 4-1	Tank 4-1	VOC	40.04
ST 8-1	Tank 8-1	VOC	40.04
ST 12-1	Tank 12-1	VOC	100.11
ST 12-2	Tank 12-2	VOC	100.11
ST 12-3	Tank 12-3	VOC	100.11
ST 12-4	Tank 12-4	VOC	100.11
ST 12-5	Tank 12-5	VOC	100.11
ST 12-6	Tank 12-6	VOC	100.11
ST 12-7	Tank 12-7	VOC	100.11
ST 12-8	Tank 12-8	VOC	100.11
ST 12-9	Tank 12-9	VOC	100.11

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
ST 12-10	Tank 12-10	VOC	100.11
ST 12-11	Tank 12-11	VOC	100.11
ST 12-12	Tank 12-12	VOC	100.11
ST 12-13	Tank 12-13	VOC	100.11
ST 12-14	Tank 12-14	VOC	100.11
ST 12-15	Tank 12-15	VOC	100.11
ST 12-16	Tank 12-16	VOC	100.11
ST 12-17	Tank 12-17	VOC	100.11
ST 12-18	Tank 12-18	VOC	100.11
ST 12-19	Tank 12-19	VOC	100.11
ST 12-20	Tank 12-20	VOC	100.11
ST 12-21	Tank 12-21	VOC	100.11
ST 12-22	Tank 12-22	VOC	100.11
ST 12-23	Tank 12-23	VOC	100.11
ST 12-24	Tank 12-24	VOC	100.11
ST 12-25	Tank 12-25	VOC	100.11
ST 12-26	Tank 12-26	VOC	100.11

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
ST 12-27	Tank 12-27	VOC	100.11
ST 12-28	Tank 12-28	VOC	100.11
ST 12-29	Tank 12-29	VOC	100.11
ST 12-30	Tank 12-30	VOC	100.11
ST 12-31	Tank 12-31	VOC	100.11
ST 12-32	Tank 12-32	VOC	100.11
ST 12-33	Tank 12-33	VOC	100.11
ST 12-34	Tank 12-34	VOC	100.11
ST 12-35	Tank 12-35	VOC	100.11
ST 12-36	Tank 12-36	VOC	100.11
ST 12-37	Tank 12-37	VOC	100.11
ST 12-38	Tank 12-38	VOC	100.11
ST 12-39	Tank 12-39	VOC	100.11
ST 12-40	Tank 12-40	VOC	100.11
ST 12-41	Tank 12-41	VOC	100.11
ST 12-42	Tank 12-42	VOC	100.11

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
ST 12-43	Tank 12-43	VOC	100.11
ST 12-44	Tank 12-44	VOC	100.11
ST 12-45	Tank 12-45	VOC	100.11
ST 12-46	Tank 12-46	VOC	100.11
ST 12-47	Tank 12-47	VOC	100.11
ST 12-48	Tank 12-48	VOC	100.11
ST 12-49	Tank 12-49	VOC	100.11
ST 12-50	Tank 12-50	VOC	100.11
ST 12-51	Tank 12-51	VOC	100.11
ST 12-52	Tank 12-52	VOC	100.11
ST 12-53	Tank 12-53	VOC	100.11
ST 25-5	Tank 25-5	Acrylic Acid	22.5
ST 25-6	Tank 25-6	Acrylic Acid	22.5
ST 30-1	Tank 30-1	VOC	100.11
ST 30-2	Tank 30-2	VOC	100.11
ST 30-3	Tank 30-3	VOC	100.11
ST 30-4	Tank 30-4	VOC	100.11

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
ST 30-5	Tank 30-5	VOC	100.11
ST 30-6	Tank 30-6	VOC	100.11
ST 30-7	Tank 30-7	VOC	100.11
ST 30-8	Tank 30-8	VOC	100.11
ST 30-9	Tank 30-9	VOC	100.11
ST 30-10	Tank 30-10	VOC	100.11
ST 30-11	Tank 30-11	VOC	100.11
ST 30-12	Tank 30-12	VOC	100.11
ST 30-13	Tank 30-13	VOC	100.11
ST 30-14	Tank 30-14	VOC	100.11
ST 33-1	Tank 33-1	VOC	100.11
ST 33-2	Tank 33-2	VOC	100.11
ST 35-6	Tank 35-6	VOC	100.11
ST 35-7	Tank 35-7	VOC	100.11
ST 35-8	Tank 35-8	VOC	100.11
ST 35-9	Tank 35-9	VOC	100.11

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
ST 35-10	Tank 35-10	VOC	100.11
ST 35-11	Tank 35-11	VOC	100.11
ST 36-1	Tank 36-1	VOC	100.11
ST 36-2	Tank 36-2	VOC	100.11
ST 36-3	Tank 36-3	VOC	100.11
ST 36-4	Tank 36-4	VOC	100.11
ST 36-5	Tank 36-5	VOC	100.11
ST 50-1	Tank 50-1	VOC	100.11
ST 80-1	Tank 80-1	VOC	280.3
ST 80-2	Tank 80-2	VOC	280.3
ST 80-3	Tank 80-3	VOC	280.3
ST 80-4	Tank 80-4	VOC	280.3
ST 80-5	Tank 80-5	VOC	280.3
ST 80-6	Tank 80-6	VOC	280.3
ST 80-7	Tank 80-7	VOC	280.3
ST 80-8	Tank 80-8	VOC	280.3
ST 80-9	Tank 80-9	VOC	280.3

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
ST 80-10	Tank 80-10	VOC	280.3
ST 80-11	Tank 80-11	VOC	280.3
ST 80-12	Tank 80-12	VOC	280.3
ST 80-13	Tank 80-13	VOC	280.3
ST 80-14	Tank 80-14	VOC	280.3
ST 80-15	Tank 80-15	VOC	280.3
ST 80-16	Tank 80-16	VOC	280.3
ST 80-17	Tank 80-17	VOC	280.3
ST 80-18	Tank 80-18	VOC	280.3
ST 80-19	Tank 80-19	VOC	280.3
ST 80-20	Tank 80-20	VOC	280.3
ST 80-21	Tank 80-21	VOC	280.3
ST 80-22	Tank 80-22	VOC	280.3
ST 80-23	Tank 80-23	VOC	280.3
ST 80-24	Tank 80-24	VOC	280.3
ST 80-25	Tank 80-25	VOC	280.3

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short- Emission Rates*
ST 80-26	Tank 80-26	VOC	280.3
ST 80-27	Tank 80-27	VOC	280.3
ST 80-28	Tank 80-28	VOC	280.3
ST 80-29	Tank 80-29	VOC	280.3
ST 80-30	Tank 80-30	VOC	280.3
ST 80-31	Tank 80-31	VOC	280.3
ST 80-32	Tank 80-32	VOC	280.3
ST 80-33	Tank 80-33	VOC	280.3
ST 80-34	Tank 80-34	VOC	280.3
ST 80-35	Tank 80-35	VOC	280.3
ST 80-36	Tank 80-36	VOC	280.3
ST 80-37	Tank 80-37	VOC	280.3
ST 80-38	Tank 80-38	VOC	280.3
ST 80-39	Tank 80-39	VOC	280.3
ST 80-40	Tank 80-40	VOC	280.3
ST 80-41	Tank 80-41	VOC	280.3
ST 80-42	Tank 80-42	VOC	280.3

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) lb/hr	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
ST 80-43	Tank 80-43	VOC	280.3
ST 80-44	Tank 80-44	VOC	280.3
ST 100-1**	Tank 100-1	VOC	2.3
ST 100-2**	Tank 100-2	VOC	2.3
ST 100-3**	Tank 100-3	VOC	2.3
ST 100-4**	Tank 100-4	VOC	2.3
ST 100-5**	Tank 100-5	VOC	2.3
ST 100-6**	Tank 100-6	VOC	2.3
ST 100-7**	Tank 100-7	VOC	2.05
ST 100-8**	Tank 100-8	VOC	2.05
ST 100-9**	Tank 100-9	VOC	2.05
ST 100-10**	Tank 100-10	VOC	2.05
ST 160-1	Tank 160-1	VOC	280.3
ST 160-2	Tank 160-2	VOC	280.3
ST 160-3	Tank 160-3	VOC	280.3
ST 160-4	Tank 160-4	VOC	280.3

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1)	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
<u>lb/hr</u>			
ST 160-5	Tank 160-5	VOC	280.3
ST 160-6	Tank 160-6	VOC	280.3
TRK-A1	Track A1 (14 Car Spots)	VOC (18.9 lb/hr/car spot)	264.6
TRK-A2	Track A2 (14 Car Spots)	VOC (18.9 lb/hr/car spot)	264.6
TRK-B1	Track B1 (14 Car Spots)	VOC (18.9 lb/hr/car spot)	264.6
TRK-B2	Track B2 (14 Car Spots)	VOC (18.9 lb/hr/car spot)	264.6
TRK-B3	Track B3 (10 Car Spots)	VOC (18.9 lb/hr/car spot)	189.0
TRK-C1	Track C1 (8 Car Spots)	VOC (18.9 lb/hr/car spot)	151.2
TRK-C2	Track C2 (8 Car Spots)	VOC (18.9 lb/hr/car spot)	151.2
TRK-D	Track D (9 Car Spots)	VOC (18.9 lb/hr/car spot)	170.4
TRK-E	Track E (9 Car Spots)	VOC (18.9 lb/hr/car spot)	170.4
TRK-F1	Track F1 (6 Car Spots)	VOC (18.9 lb/hr/car spot)	113.4

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) lb/hr	Source Name (2)	Contaminant Name (3)	Short- Emission Rates*
TRK-F2	Track F2 (6 Car Spots)	VOC (18.9 lb/hr/car spot)	113.4
TRK-F3	Track F3 (6 Car Spots)	VOC (18.9 lb/hr/car spot)	113.4
TRK-G1	Track G1 (10 Car Spots)	VOC (18.9 lb/hr/car spot)	189.0
TRK-G2	Track G2 (10 Car Spots)	VOC (18.9 lb/hr/car spot)	189.0
TRK-H	Track H (8 Car Spots)	VOC (18.9 lb/hr/car spot)	151.2
LUB RACK	Lubrizol R-Rack (3 Truck Spots)	VOC (18.9 lb/hr/truck spot)	56.8
1ST 12s TR RACK	First 12s Truck Rack (12 Truck Spots)	VOC (18.9 lb/hr/truck spot)	227.2
2ND 12s TR RACK	Second 12s Truck Rack (12 Truck Spots)	VOC (18.9 lb/hr/truck spot)	227.2
1ST 80s TR RACK	First 80s Truck Rack (12 Truck Spots)	VOC (18.9 lb/hr/truck spot)	227.2
C-TR RACK	C-Truck Rack (4 Truck Spots)	VOC (18.9 lb/hr/truck spot)	75.6
F-TR RACK	F-Truck Rack (4 Truck Spots)	VOC (18.9 lb/hr/truck spot)	75.6

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) <u>lb/hr</u>	Source Name (2)	Contaminant Name (3)	Short- Emission Rates*
TR RACK G	Truck Rack G (12 Truck Spots)	VOC (18.9 lb/hr/truck spot)	227.2
TR RACK H	Truck Rack H (10 Truck Spots)	VOC (18.9 lb/hr/truck spot)	189.0
BGDK-1	Barge Dock No. 1	VOC	94.7
BGDK-2	Barge Dock No. 2	VOC	94.7
BGDK-3	Barge Dock No. 3	VOC	94.7
BGDK-4	Barge Dock No. 4	VOC	94.7
BGDK-5	Barge Dock No. 5	VOC	94.7
BGDK-6	Barge Dock No. 6	VOC	94.7
BGDK-7	Barge Dock No. 7	VOC	94.7
BGDK-8	Barge Dock No. 8	VOC	94.7
BGDK-9	Barge Dock No. 9	VOC	94.7
BGDK-10	Barge Dock No. 10	VOC	94.7
BGDK-BKR	Bunker Fuel Dock	VOC	94.7
SHPDK-1	Ship Dock No. 1	VOC	113.6
SHPDK-2	Ship Dock No. 2	VOC	113.6
SHPDK-3	Ship Dock No. 3	VOC	113.6

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) lb/hr	Source Name (2)	Contaminant Name (3)	Short- Emission Rates*
SHPDK-7	Ship Dock No. 7	VOC	113.6
SHPDK-8	Ship Dock No. 8	VOC	113.6
FL-12s	12s Truck and Railcar Flare	VOC CO NO _x HCl/HBr	54.1 29.7 3.5 12.72
FL-105-1	Tank 105-1 Flare	VOC CO NO _x	100.0 110.0 12.8
FL-105-2	Tank 105-2 Flare	VOC CO NO _x	100.0 110.0 12.8
FL-105-3	Tank 105-3 Flare	VOC CO NO _x	100.0 110.0 12.8
FL-SPR	Spheres Flare	VOC CO NO _x	200.0 110.0 12.8
FL-50-2	Tank 50-2 Flare	VOC CO NO _x	32.0 16.8 1.96
FL-80s	80s Truck and Railcar Flare	VOC CO NO _x HCl/HBr	23.6 13.0 1.5 12.72

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

			Short-
Term	Source	Contaminant	Emission Rates*
Emission	Name (2)	Name (3)	
Point No. (1)			
<u>lb/hr</u>			
FL-3	Marine Loading Flare No. 3	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5
FL-5A	Marine Loading Flare No. 5A	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5
FL-5B	Marine Loading Flare No. 5B	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5
FL-5C	Marine Loading Flare No. 5C	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5
FL-5D	Marine Loading Flare No. 5D	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

Term Emission Point No. (1) lb/hr	Source Name (2)	Contaminant Name (3)	Short-
			Emission Rates*
FL-5E	Marine Loading Flare No. 5E	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5
FL-5F	Marine Loading Flare No. 5F	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5
FL-5G	Marine Loading Flare No. 5G	VOC	122.00
		CO	63.7
		NO _x	7.43
		HCl	14.77
		HBr	16.5
FUG	Fugitive Emissions (4) 5.3		VOC

Dated_____

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
Attachment A.2
ANNUAL
Permit No. 1078

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	Annual Emission Rates
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>tpy</u>
1-1 through 160-6	203.5	Storage Tanks	VOC
TRK A through H LUB RACK	Truck and Rail Loading All Spots (no controls)	VOC	5.3
BGDK-1 through 10 and BGDK-BKR SHPDK-1, 2, 3, 7, and 8	11.7 All Docks (no controls)	Barge and Ship Loading	VOC
FL-12s, FL-50-2, Flares-Land Loading FL-80s, FL-SPR, 7.62 FL-105-1, 2, and 3 0.89		VOC	5.1
			CO
			NO _x
		HCl	2.33†
		HBr	4.0†

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
FL-3, 5A through 5G	20.9	Flares-Marine Loading	VOC	
		CO	31.5	
		NO _x	4.2	
		HCl	2.33†	
		HBr	4.0†	
FUG	Fugitives (4)	VOC	23.2	

The following applies to Attachments A.1 and A.2:

- (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) VOC - volatile organic compounds as defined in General Rule 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
- (4) Fugitive emissions are estimates only.

* Emission rates are based on continuous operation.

** All short-term tank emission rates are based on fixed-roof tanks except Tanks 100-1 to 100-10 which are based on Internal Floating Roof tanks storing Methyl-tert-butyl ether.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- † Total facility HCl (hydrochloric acid) emissions shall not exceed 2.33 ton per year (tpy) and total facility HBr (hydrobromic acid) emissions shall not exceed 4.0 tpy.

Dated _____