

Attachment A.1

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT TERM
Permit No. 1078

These attachments (A.1, A.2, A.3, A.4) 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**

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Short Term <u>Emission Rates*</u> lb/hr
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
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
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Short Term Emission Rates* lb/hr
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
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 Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Short Term <u>Emission Rates*</u> lb/hr
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 12-54	Tank 12-54	VOC	100.11
ST 12-55	Tank 12-55	VOC	100.11
ST 12-56	Tank 12-56	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
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

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Short Term Emission Rates* lb/hr
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 30-15	Tank 30-15	VOC	100.11
ST 30-16	Tank 30-16	VOC	100.11

ST 30-17	Tank 30-17	VOC	100.11
ST 30-18	Tank 30-18	VOC	100.11
ST 30-19	Tank 30-19	VOC	100.11
ST 30-20	Tank 30-20	VOC	100.11
ST 30-21	Tank 30-21	VOC	100.11
ST 30-22	Tank 30-22	VOC	100.11
ST 30-23	Tank 30-23	VOC	100.11
ST 30-24	Tank 30-24	VOC	100.11
ST 30-25	Tank 30-25	VOC	100.11
ST 30-26	Tank 30-26	VOC	100.11
ST 30-27	Tank 30-27	VOC	100.11
ST 30-28	Tank 30-28	VOC	100.11
ST 30-29	Tank 30-29	VOC	100.11
ST 33-1	Tank 33-1	VOC	100.11
ST 33-2	Tank 33-2	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

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Short Term <u>Emission Rates*</u> lb/hr
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
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

Emission	Source	Air Contaminant	Short Term <u>Emission Rates*</u>
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Point No. (1)	Name (2)	Name (3)	lb/hr
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
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
ST 80-43	Tank 80-43	VOC	280.3
ST 80-44	Tank 80-44	VOC	280.3
ST 80-45	Tank 80-45	VOC	280.3

ST 80-46	Tank 80-46	VOC	280.3
ST 160-1	Tank 160-1	VOC	280.3

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

TRK-D spot)	Track D (9 Car Spots)	VOC	170.4 (18.9 lb/hr/car
TRK-E spot)	Track E (9 Car Spots)	VOC	170.4 (18.9 lb/hr/car
TRK-F1 spot)	Track F1 (6 Car Spots)	VOC	113.4 (18.9 lb/hr/car
TRK-F2 spot)	Track F2 (6 Car Spots)	VOC	113.4 (18.9 lb/hr/car
TRK-F3 spot)	Track F3 (6 Car Spots)	VOC	113.4 (18.9 lb/hr/car
TRK-G1 spot)	Track G1 (10 Car Spots)	VOC	189.0 (18.9 lb/hr/car

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Short Term <u>Emission Rates*</u> lb/hr
TRK-G2 spot)	Track G2 (10 Car Spots)	VOC	189.0 (18.9 lb/hr/car
LUB RACK spot)	Lubrizol R-Rack (3 Truck Spots)	VOC	56.8 (18.9 lb/hr/truck
1ST 12s TR RACK spot)	First 12s Truck Rack (12 Truck Spots)	VOC	227.2 (18.9 lb/hr/truck
2ND 12s TR RACK spot)	Second 12s Truck Rack (12 Truck Spots)	VOC	227.2 (18.9 lb/hr/truck
1st 80s TR RACK	First 80s Truck Rack	VOC	227.2

spot)	(12 Truck Spots)		(18.9 lb/hr/truck
C-TR RACK	C-Truck Rack (4 Truck Spots)	VOC	75.6 (18.9 lb/hr/truck
spot)			
F-TR RACK	F-Truck Rack (4 Truck Spots)	VOC	75.6 (18.9 lb/hr/truck
spot)			
TR RACK G	Truck Rack G (12 Truck Spots)	VOC	227.2 (18.9 lb/hr/truck
spot)			
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-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 Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Short Term Emission Rates* lb/hr
SHPDK-7	Ship Dock No. 7	VOC	113.6

SHPDK-8	Ship Dock No. 8	VOC	113.6
FL-12s	12s Truck and Rail Car Flare	VOC CO NOx	54.1 29.7 3.5
FL-105-1	Tank 105-1 Flare	VOC CO NOx	100.0 110.0 12.8
FL-105-2	Tank 105-2 Flare	VOC CO NOx	100.0 110.0 12.8
FL-105-3	Tank 105-3 Flare	VOC CO NOx	100.0 110.0 12.8
FL-SPR	Spheres Flare	VOC CO NOx	200.0 110.0 12.8
FL-50-2	Tank 50-2 Flare	VOC CO NOx	32.0 16.8 1.96
FL-80s	80s Truck and Rail Car Flare	VOC CO NOx	23.6 13.0 1.5
FL-3	Marine (Benzene) Loading Flare No. 3	VOC CO NOx	41.3 22.7 2.65
FL-4(††) (FUTURE)	Marine Loading Flare No. 4	VOC CO NOx	41.3 22.7 2.65
FL-5(††) (FUTURE)	Marine Loading Flare No. 5	VOC CO NOx	41.3 22.7 2.65
FL-6(††) (FUTURE)	Marine Loading Flare No. 6	VOC CO NOx	41.3 22.7 2.65
FUG	Fugitive Emissions (4)	VOC	5.02

ATTACHMENT A.2

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
ANNUAL
January 1, 1993 Through December 31, 1993
Permit No. 1078

AIR Annual Emission Point No. (1)	CONTAMINANTS		DATA
	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u> tpy
	Land and Marine Operations	VOC	647.1
	Land Flare Products of Combustion	CO	7.62
		NOx	0.89
	Marine Flare Products of Combustion	CO	30.70
		NOx	4.10

ATTACHMENT A.3

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
ANNUAL
After January 1, 1994 and
Prior to Completion of Modifications Permit No. 1078

AIR Annual Emission Point No. (1)	Source Name (2)	CONTAMINANTS Air Contaminant Name (3)	DATA <u>Emission Rates*</u> tpy
	Land and Marine Operations	VOC	531.2
	Land Flare Products of Combustion	CO	7.62
		NOx	0.89
	Marine Flare Products of Combustion	CO	30.70
		NOx	4.10

ATTACHMENT A.4

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
ANNUAL

After Modifications†Permit No. 1078

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Annual Emission Rates* tpy
1-1 thru 160-6	Storage Tanks	VOC	181.5
	Truck Loading, All Spots (no controls)	VOC	3.1
TRK A thru G, LUB RACK	Rail Loading, All Spots (no controls)	VOC	2.2
BGDK-1 thru 9 and BGDK-BKR	Barge Loading, All Docks (no controls)	VOC	8.8
SHPDK-1, 2, 3, 7 and 8	Ship Loading, All Docks (no controls)	VOC	2.9
FL-12s, FL-50-2, FL-80s, FL-SPR, FL-105-1, 2 and 3	Flares-Land Loading	VOC CO NOx	5.1 7.62 0.89
FL-3, 4, 5 and 6	Flares-Marine Loading	VOC CO NOx	19.3 30.7 4.1
FUG	Fugitives (4)	VOC	22.0

The following applies to Attachments A.1, A.2, A.3, and A.4:

- (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 and the facilities are limited by the following maximum operating schedule:

** All short-term tank emission rates are based on fixed-roof tanks.

† These are the annual allowables that must be met within three years of permit issuance.

†† These flares must be constructed and operational within 3 years of issuance of the consolidated permit, in accordance with Special Provision 16.

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