

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Attachment A.1

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**

<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>
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 12-12	Tank 12-12	VOC	100.11
ST 12-13	Tank 12-13	VOC	100.11

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

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

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

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

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
Point No. (1)	Name (2)	Name (3)	lb/hr
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
ST 80-23	Tank 80-23	VOC	280.3

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
Point No. (1)	Name (2)	Name (3)	lb/hr
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
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
ST 200-1	Tank 200-1 (5)	VOC	2.25
ST 200-2	Tank 200-2 (5)	VOC	2.25
ST 200-3	Tank 200-3 (5)	VOC	2.25
ST 200-4	Tank 200-4 (5)	VOC	2.25
ST 200-5	Tank 200-5 (5)	VOC	2.25

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<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
Point No. (1)	Name (2)	Name (3)	lb/hr
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
TRK-F2	Track F2 (6 Car Spots)	VOC (18.9 lb/hr/car spot)	113.4

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<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
Point No. (1)	Name (2)	Name (3)	lb/hr
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
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
TR RACK G	Truck Rack G (12 Truck Spots)	VOC (18.9 lb/hr/truck spot)	227.2
BGDK-1	Barge Dock No. 1	VOC	94.7
BGDK-2	Barge Dock No. 2	VOC	94.7

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<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
Point No. (1)	Name (2)	Name (3)	lb/hr
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
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	54.1
		CO	29.7
		NO _x	3.5
FL-105-1	Tank 105-1 Flare	VOC	100.0
		CO	110.0
		NO _x	12.8

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
Point No. (1)	Name (2)	Name (3)	lb/hr
FL-105-2	Tank 105-2 Flare	VOC	100.0
		CO	110.0
		NO _x	12.8
FL-105-3	Tank 105-3 Flare	VOC	100.0
		CO	110.0
		NO _x	12.8
FL-SPR	Spheres Flare	VOC	200.0
		CO	110.0
		NO _x	12.8
FL-50-2	Tank 50-2 Flare	VOC	32.0
		CO	16.8
		NO _x	1.96
FL-80s	80s Truck and Railcar Flare	VOC	23.6
		CO	13.0
		NO _x	1.5
FL-3	Marine (Benzene) Loading Flare No. 3	VOC	41.3
		CO	22.7
		NO _x	2.65
FL-4	Marine Loading Flare No. 4	VOC	63.7
		CO	33.3
		NO _x	3.9
FL-5A †† (FUTURE)	Marine Loading Flare No. 5A	VOC	122.00
		CO	63.7
		NO _x	7.43
FL-5B †† (FUTURE)	Marine Loading Flare No. 5B	VOC	122.00
		CO	63.7

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA**

<u>Emission Rates*</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Short-Term Emission</u>
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>
		NO _x	7.43
FL-5C †† (FUTURE)	Marine Loading Flare No. 5C	VOC	122.00
		CO	63.7
		NO _x	7.43
FL-5D †† (FUTURE)	Marine Loading Flare No. 5D	VOC	122.00
		CO	63.7
		NO _x	7.43
FL-5E †† (FUTURE)	Marine Loading Flare No. 5E	VOC	122.00
		CO	63.7
		NO _x	7.43
FL-5F †† (FUTURE)	Marine Loading Flare No. 5F	VOC	122.00
		CO	63.7
		NO _x	7.43
FUG	Fugitive Emissions (4)	VOC	5.2

Dated _____

ATTACHMENT A.2
ANNUAL
January 1, 1993 Through December 31, 1993
Permit No. 1078

June 1995

AIR CONTAMINANTS DATA

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

Dated _____

ATTACHMENT A.3

June 1995

ANNUAL
After January 1, 1994 and
Prior to January 1, 1995
Permit No. 1078

AIR CONTAMINANTS DATA

Emission Rates*	Source	Air Contaminant	Annual Emission
Point No. (1)	Name (2)	Name (3)	tpy
	Land and Marine Operations	VOC	687.6
	Land Flare Products of Combustion	CO	7.62
		NO _x	0.89
	Marine Flare Products of Combustion	CO	31.53
		NO _x	4.20

Dated _____

ATTACHMENT A.4

June 1995

ANNUAL
After January 1, 1995 and
Prior to Completion of Modifications
Permit No. 1078

AIR CONTAMINANTS DATA

Emission Rates*	Source	Air Contaminant	Annual Emission
Point No. (1)	Name (2)	Name (3)	tpy
	Land and Marine Operations	VOC	558.1
	Land Flare Products of Combustion	CO	7.62
		NO _x	0.89
	Marine Flare Products of Combustion	CO	31.53
		NO _x	4.20

Dated _____

ATTACHMENT A.5
ANNUAL
After Modifications†
Permit No. 1078

June 1995

AIR CONTAMINANTS DATA

<u>Emission Rates*</u>	Source	Air Contaminant	Annual <u>Emission</u>
Point No. (1)	Name (2)	Name (3)	tpy
1-1 thru 200-5	Storage Tanks	VOC	206.2
TRK A thru G, LUB RACK	Truck and Rail Loading All Spots (no controls)	VOC	5.3
BGDK-1 thru 9 and BGDK-BKR SHPDK-1, 2, 3, 7, and 8	Barge and Ship Loading All Docks (no controls)	VOC	11.7
FL-12s, FL-50-2, FL-80s, FL-SPR, FL-105-1, 2, and 3	Flares-Land Loading	VOC CO NO _x	5.1 7.62 0.89
FL-3, 4, 5A thru 5F	Flares-Marine Loading	VOC CO NO _x	20.9 31.5 4.2
FUG	Fugitives (4)	VOC	22.6

The following applies to Attachments A.1, A.2, A.3, A.4, and A.5:

- (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.
- (5) Short-term emissions are for natural gas condensate in an internal floating roof tank.

* 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 No. 16.
- Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year ____

Dated _____