

Emission Sources - Maximum Allowable Emission Rates

Flexible Permit Numbers 9868A and PSDTX102M7

Emission Cap Table

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, sources, and related activities. 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	
			lbs/hour	TPY (4)
Emission Caps	See Attachment I for Source Name and Emission Point Number Index	NO _x	1225.76	2465.27
		SO ₂	6620.99	2967.21
		VOC	1681.08	3472.84
		CO	800.06	3483.78
		PM	262.70	1119.57
		NH ₃	0.58	2.47
		Cl ₂	1.24	5.41
		Benzene	12.18	20.28
		H ₂ S	17.97	57.01
		HCl	0.04	0.20
		HF	0.44	1.90
Individual Emission Limits				
85B2	Unit 40 Boiler	NO _x	11.96	52.40
		CO	42.85	187.70
		VOC	3.23	14.13
		PM ₁₀	4.46	19.52
		SO ₂	18.68	81.83
29P1	Unit 29 FCCU Stack	NH ₃	9.75	42.71
		HCl	0.45	1.96
40P1	Unit 40 FCCU Stack	NH ₃	9.75	42.71
		HCl	0.22	0.98
34I1	SRU TGI	NO _x	0.19	0.82

Emission Sources - Maximum Allowable Emission Rates

		CO	0.32	1.38
		VOC	0.21	0.82
		PM ₁₀	0.03	0.13
		SO ₂	0.01	0.01
F-1-8	Merox Process Fugitives (5)	VOC	0.01	0.01
HFTEMP	HF Temporary Tank Process Fugitives (5)	HF	0.01	0.01
		VOC	0.01	0.02
F-28-2Ex	Unit 28 (2) Exchanger and Heater Integration Fugitives (5)	VOC	0.02	0.07
F-28-1Ex	Unit 28 (1) Exchanger and Heater Integration Fugitives (5)	VOC	0.06	0.26
F-32-CIP	Unit 32 Exchanger and Heater Integration Fugitives (5)	VOC	0.04	0.18
F-10B-Ex	Unit 10B Train Exchanger and Heater Integration Fugitives (5)	VOC	0.10	0.43
F-9-Ex	Unit 9 Exchanger and Heater Integration Fugitives (5)	VOC	0.06	0.26
F-10A-Ex	Unit 10A Exchanger and Heater Integration Fugitives (5)	VOC	0.06	0.25
F-67	Crude Unit Pump 67 Fugitives (5)	VOC	0.01	0.05
F-56-1-4-A(2&5)	West DAF	VOC	0.99	4.36
		NH ₃	0.24	1.06
		H ₂ S	1.81	7.91
F-56-1-12	Flash Mixing	VOC	0.01	0.03
		NH ₃	0.01	0.01
		H ₂ S	0.01	0.06

Emission Sources - Maximum Allowable Emission Rates

F-56-1-17	Flocculation	VOC	0.03	0.13
		NH ₃	0.01	0.03
		H ₂ S	0.05	0.24
53R4	Sulfur Loading	PM	0.23	0.17
		PM ₁₀	0.23	0.17
		PM _{2.5}	0.23	0.17
		H ₂ S	6.93	5.06
66FL1, 66FL2, 66FL3, & 66FL12	Flares – Routine Emissions	VOC	121.47	53.21
		NO _x	17.22	7.55
		CO	109.86	48.12
		SO ₂	100.14	43.85
		H ₂ S	1.55	0.68
66FL1, 66FL2, 66FL3, & 66FL12	Flares – Fuel Gas Long Scenario	VOC	121.47	141.82
		NO _x	17.22	29.96
		CO	110.11	192.91
		SO ₂	100.14	7.35
		H ₂ S	1.55	0.15
FGR-FUG	FGR Fugitives	VOC	5.20	22.79
		H ₂ S	0.01	0.01
66FL1, 66FL2, 66FL3, & 66FL12	Flares – Flare Gas MSS	VOC	121.47	35.00
		NO _x	17.22	6.13
		CO	109.86	34.30
		SO ₂	100.14	250.90
		H ₂ S	1.55	2.23
F-43WHB	Waste Heat Boiler Fugitives	SO ₂	0.01	0.01
		H ₂ S	0.01	0.01

- (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 Title 30 Texas Administrative Code § 101.1
- NO_x - total oxides of nitrogen
- SO₂ - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented

Emission Sources - Maximum Allowable Emission Rates

PM _{2.5}	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
NH ₃	- ammonia
Cl ₂	- chlorine
H ₂ S	- hydrogen sulfide
HCl	- hydrogen chloride
HF	- hydrogen fluoride

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: September 24, 2014

ATTACHMENT I

CONTAMINANTS, EMISSION POINT NUMBERS, AND SOURCE NAMES

Flexible Permit Numbers 9868A and PSDTX102M7

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.

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
SO₂ SOURCES:		
	2H1	Unit 2-2 HDS Charge Heater
	2H2	Deoiler Furnace
	4H1	Unit 4 Feed Heater
	4H2	Unit 4 Dehydrator Heater
	5H1	Unit 5-A Feed Heater
	5H2	Unit 5-B Feed Heater
	5H3	Unit 5-C Feed Heater
	6H3	BHU Reduction Furnace
	6H1	Unit 6 Hydro Preheater
	7H1-4	Unit 7 Charge Furnace
	7H1-4	Unit 7 No. 1 Reheater
	7H1-4	Unit 7 No. 2 Reheater
	7H1-4	Unit 7 No. 3 Reheater
	9H1	Crude Oil Heater
	10H1	Crude Oil Heater
	12H1	Mol Sieve Regen Gas Heater
	19H3	19.1 Naphtha HDS Chg Heater
	19H5	19.1 No. 1 Reboiler
	19H5	19.1 No. 2 Reboiler
	19H6	19.2 Platformer Reheater No. 1
	19B1/19H1	19.2 Charge Furnace
	19B1/19H2	19.2 No. 2 Reheater
	19B1/19H2	19.2 No. 3 Reheater
	19B2/19H4	19.3 Charge Furnace

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
SO₂ SOURCES:		
	19B2/19H4	19.3 Frac Feed Furnace
	22H1	Alky Reboiler Furnace
	26H1	Unit 26 DeC4 Reboiler
	28H1	Unit 28 Charge Heater
	29H4	Unit 29 DeC4 Reboiler
	36H1	HDS Unit Charge Heater
	40H1	Unit 40 Superheater No. 1
	41H1 (PSD)	Unit 41 Reformer Furnace
	42H1 (PSD)	Unit 42 Reactor Chg Heater
	42H2 (PSD)	Unit 42 Reactor Chg Heater
	42H3 (PSD)	Unit 42 Fract Feed Heater
	50H1	Unit 50 Charge Heater
	51H1	Unit 51 Charge Heater
	98H1	Unit 98 Reformer Furnace
	7E1	Unit 7 Plat Engine No. 1
	7E2	Unit 7 Plat Engine No. 2
	7E3	Unit 7 Plat Engine No. 3
	7E4	Unit 7 Plat Engine No. 4
	7E5	Unit 7 Plat Engine No. 5
	7E6	Unit 7 Plat Engine No. 6
	12E1	Engine
	12E2	Engine
	12E3	Engine
	12E4	Engine
	12E5	Engine
	12E6	Engine
	12E7	Engine
	93E1	Engine No. 37

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
SO₂ SOURCES:		
	93E2	Engine No. 38
	29P1	Unit 29 FCCU Stack
	85B2 (PSD)	Unit 40 Boiler Stack (8/06)
	40P1	Unit 40 FCCU Stack
	34I1	SRU Incinerator
	43I1 (PSD)	SCOT Unit Incinerator
	66FL1	Refinery East HC Flare
	66FL2	Refinery West HC Flare
	66FL3	Refinery Cat Flare
	66FL6	H ₂ S Emergency Flare
	66FL8	100M Sour Brine Flare Pit
	66FL10	100M Swt Brine Flare Pit
	66FL11	30M Swt Brine Flare Pit
	66FL12	GOHDS HC Flare
	66FL13	GOHDS Emergency Sulfur Flare
	50HT1	Coker Heater Tank 1
	50HT2	Coker Heater Tank 2
	50HT3	Coker Heater Tank 3
	FWP1-5	Fire Water Pump Engines
VOC SOURCES:		
	2H1	Unit 2-2 HDS Charge Heater
	2H2	Deoiler Furnace
	4H1	Unit 4 Feed Heater
	4H2	Unit 4 Dehydrator Heater
	5H1	Unit 5-A Feed Heater

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
VOC SOURCES:		
	5H2	Unit 5-B Feed Heater
	5H3	Unit 5-C Feed Heater
	6H3	BHU Reduction Furnace
	6H1	Unit 6 Hydro Preheater
	7H1-4	Unit 7 Charge Furnace
	7H1-4	Unit 7 No. 1 Reheater
	7H1-4	Unit 7 No. 2 Reheater
	7H1-4	Unit 7 No. 3 Reheater
	9H1	Crude Oil Heater
	10H1	Crude Oil Heater
	12H1	Mol Sieve Regen Gas Heater
	19H3	19.1 Naphtha HDS Chg Heater
	19H5	19.1 No. 1 Reboiler
	19H5	19.1 No. 2 Reboiler
	19H6	19.2 Platformer Reheater No. 1
	19B1/19H1	19.2 Charge Furnace
	19B1/19H2	19.2 No. 2 Reheater
	19B1/19H2	19.2 No. 3 Reheater
	19B2/19H4	19.3 Charge Furnace
	19B2/19H4	19.3 Frac Feed Furnace
	22H1	Alky Reboiler Furnace
	26H1	Unit 26 DeC4 Reboiler
	28H1	Unit 28 Charge Heater
	29H4	Unit 29 DeC4 Reboiler
	36H1	HDS Unit Charge Heater
	40H1	Unit 40 Superheater No. 1
	41H1 (PSD)	Unit 41 Reformer Furnace
	42H1 (PSD)	Unit 42 Reactor Chg Heater

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
VOC SOURCES:		
	42H2 (PSD)	Unit 42 Reactor Chg Heater
	42H3 (PSD)	Unit 42 Fract Feed Heater
	50H1	Unit 50 Charge Heater
	51H1	Unit 51 Charge Heater
	50HT1	Coker Heater Tank 1
	50HT2	Coker Heater Tank 2
	50HT3	Coker Heater Tank 3
	98H1	Unit 98 Reformer Furnace
	7E1	Unit 7 Plat Engine No. 1
	7E2	Unit 7 Plat Engine No. 2
	7E3	Unit 7 Plat Engine No. 3
	7E4	Unit 7 Plat Engine No. 4
	7E5	Unit 7 Plat Engine No. 5
	7E6	Unit 7 Plat Engine No. 6
	12E1	Engine
	12E2	Engine
	12E3	Engine
	12E4	Engine
	12E5	Engine
	12E6	Engine
	12E7	Engine
	93E1	Engine No. 37
	93E2	Engine No. 38
	FWP1-5	Fire Water Pump Engines
	53R1	Refinery Tank Car Loading
	53T1	Refy Tank Truck Loading

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AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
VOC SOURCES:		
	53R2	Tank Car Tracks 1 and 2
	53R3	Tank Car Tracks 3 and 4
	53T2	South Tank Truck Loading
	56-4	Truck Loading and Fugitives
	29P1	Unit 29 FCCU Stack
	85B2 (PSD)	Unit 40 Boiler (8/06)
	40P1	Unit 40 FCCU Stack
	34I1	SRU Incinerator
	43I1 (PSD)	SCOT Unit Incinerator
	66FL1	Refinery East HC Flare
	66FL2	Refinery West HC Flare
	66FL3	Refinery Cat Flare
	66FL6	H ₂ S Emergency Flare
	66FL8	100M Sour Brine Flare Pit
	66FL10	100M Swt Brine Flare Pit
	66FL11	30M Swt Brine Flare Pit
	66FL12	GOHDS HC Flare
	66FL13	GOHDS Emergency Sulfur Flare
	53FL1	Thermal Oxidation Unit
	F-1	Unit 1 Fugitives
	F-1-6	Unit 1.6 Fugitives
	F-1-7	Unit 1.7 Fugitives
	F-2	Unit 2 Columns
	F-2-1	Unit 2.2 Fugitives
	F-2-5	Fractionators
	F-4	Butane Isom Fugitives
	F-Tier 3	Fugitives - Tier 3 Project

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<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
VOC SOURCES:		
	F-5	Pentane Isom Fugitives
	F-6	Hexane Isom Fugitives
	F-7	Platformer
	F-9	Unit 9 Fugitives
	F-10	Unit 10 Fugitives
	F-11	Deethanizer Unit Fug
	F-12	Cryogenic Gas Plant Fug
	F-13	Clean-Up Unit Fug
	F-19-1	Naphtha HDS Fugitives
	F-19-2	Reformer Fugitives
	F-19-3	Distillate HDS Fugitives
	F-22	HF Alkylation Fugitives
	F-23	St Run Fract Fugitives
	F-26	HO FCCU Fract Fugitives
	F-28	Unit 28 Fugitives
	F-29	Gas Oil FCCU 29 Fugitives
	F-32	Unit 32 Fugitives
	F-34	Sulfur Recovery Unit Fug
	F-35	Unit 35 Fugitives
	F-36	Unit 36 Fugitives
	F-40	Heavy Oil FCCU Fugitives
	F-41	Fugitives
	F-42	GOHDS Unit 42 Fugitives
	F-43-1	Sulfur Handling/Storage
	F-44	Unit 44 Fugitives
	F-50	Unit 50 Fugitives
	F-51	Unit 51 Fugitives

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<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-53-1	Refinery Loading Fugitives
VOC SOURCES:		
	F-53-2	South Loading Rack
	F-55	Air Compressor Fugitives
	F-56	Unit 56 Fugitives
	F-66-1	Ref. Flare Area Fugitives
	F-66-2	South Flare Fug
	F-66-3	GOHDS/Cat Area Fugitives
	F-68-1a	GOHDS Storage Fugitives
	F-68-1e	E. Refinery Storage Fugitives
	F-68-1n	N. Refinery Storage Fugitives
	F-68-1r	Rocky Station Fugitives
	F-68-1s	S. Refinery Storage Fugitives
	F-68-1t	Taubman Yard Fugitives
	F-68-1w	W. Refinery Storage Fugitives
	F-68-2n	N. Coble Storage Fugitives
	F-68-2s	S. Coble Storage Fugitives
	F-68-3	West Storage Fugitives
	F-68-4t	JTF Fugitives
	F-68-5	Gasoline Blending System
	F-81	Refinery Boilers
	F-82	South Boilers
	F-85-2	Unit 40 Boiler Fugitives
	F-98	SMR Fugitives
	F-68-4a	100M SWT Brine Pond
	F-68-4b	55M SWT Brine Pond
	F-68-4c	100M Sour Brine Pond
	F-68-4d	100M SWT Brine Pond
	F-68-4e	30M SWT Brine Pond

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<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-68-4f	300M Sour Brine Pond
VOC SOURCES:		
	F-68-4g	2MM Brine Pond
	F-68-4h	3MM Brine Pond
	F-54-C10	Cooling Twr (Refy No. 9)
	F-54-C11	Cooling Twr (Refy No. 3)
	F-54-C12	Cooling Twr (Mar No. 12)
	F-54-C13	Cooling Twr (Prt No. 14)
	F-54-C14	Cooling Twr (Mar No. 15)
	F-54-C15	Cooling Twr (Prt No. 16)
	F-54-C16	Cooling Twr (Prt No. 18)
	F-54-C17	Cooling Twr (Refy No. 8)
	F-54-C18	Cooling Twr (Refy No. 13)
	F-54-C19	Cooling Twr (Refy No. 10)
	F-54-C21	Cooling Twr (Vacuum Unit)
	F-54-C2	Cool Twr (Ecodyne No. 9)
	F-54-C20	Cooling Twr (GOHDS No. 17)
	F-54-C3	Cooling Twr (SF No. 11)
	F-54-C4	Cooling Twr (Mar No. 13)
	F-54-C6	Cooling Twr (Mar No. 10)
	F-54-C7	Cooling Twr (Refy No. 2)
	F-54-C8	Cooling Twr (Refy No. 4)
	F-54-C9	Cooling Twr (Refy No. 7)
	F-56-1-1	West Sump
	F-56-1-3	North Sump
	F-56-1-4-A	Refy Oil/H2O Separators
	F-56-1-6	Storm Water System
	F-56-2	Dixon Creek WWTP
	F-56-1-5	Hazardous Waste Impoundment

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<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	0109	Tank Storage
VOC SOURCES:		
	0110	Tank Storage
	0111	Tank Storage
	0202	Tank Storage
	0401	Tank Storage
	0511	Tank Storage
	0514	Tank Storage
	0552	Tank Storage
	0562	Tank Storage
	0572	Tank Storage
	0573	Tank Storage
	1001	Tank Storage
	1002	Tank Storage
	1003	Tank Storage
	1006	Tank Storage
	1007	Tank Storage
	1012	Tank Storage
	1013	Tank Storage
	1064	Tank Storage
	1067	Tank Storage
	1163	Tank Storage
	1164	Tank Storage
	1165	Tank Storage
	1522	Tank Storage
	2072	Tank Storage
	2510	Tank Storage
	2553	Tank Storage
	2571	Tank Storage

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<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	2572	Tank Storage
VOC SOURCES:		
	2575	Tank Storage
	2576	Tank Storage
	2577	Tank Storage
	2578	Tank Storage
	2579	Tank Storage
	2580	Tank Storage
	2670	Tank Storage
	2672	Tank Storage
	2673	Tank Storage
	2674	Tank Storage
	2675	Tank Storage
	2676	Tank Storage
	2677	Tank Storage
	2678	Tank Storage
	3001	Tank Storage
	3002	Tank Storage
	3003	Tank Storage
	4030	Tank Storage
	5001SCRUB	Tank Storage
	5505	Tank Storage
	5508	Tank Storage
	5511	Tank Storage
	5520	Tank Storage
	5521	Tank Storage
	5525	Tank Storage
	5531	Tank Storage
	5532	Tank Storage

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	5536	Tank Storage
VOC SOURCES:		
	5537	Tank Storage
	5539	Tank Storage
	5540	Tank Storage
	5541	Tank Storage
	5542	Tank Storage
	5543	Tank Storage
	5544	Tank Storage
	5545	Tank Storage
	5548	Tank Storage
	5550	Tank Storage
	5551	Tank Storage
	5553	Tank Storage
	5554	Tank Storage
	5555	Tank Storage
	5556	Tank Storage
	5557	Tank Storage
	5558	Tank Storage
	5559	Tank Storage
	5560	Tank Storage
	5578	Tank Storage
	5580	Tank Storage
	5583	Tank Storage
	5584	Tank Storage
	5587	Tank Storage
	5588	Tank Storage
	5589	Tank Storage
	5590	Tank Storage

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	5591	Tank Storage
VOC SOURCES:		
	5592	Tank Storage
	5593	Tank Storage
	5596	Tank Storage
	5597	Tank Storage
	5598	Tank Storage
	5599	Tank Storage
	8001	Tank Storage
	8002	Tank Storage
	8010	Tank Storage
	8011	Tank Storage
	8012	Tank Storage
	8013	Tank Storage
	8014	Tank Storage
	8015	Tank Storage
	8031	Tank Storage
	8032	Tank Storage
	8033	Tank Storage
	8034	Tank Storage
	9200	Tank Storage
	9201	Tank Storage
	9202	Tank Storage
	9500	Tank Storage
	9501	Tank Storage
	9502	Tank Storage
	9503	Tank Storage
	9504	Tank Storage
	9700	Tank Storage

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AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	9701	Tank Storage
	9702	Tank Storage
NO_x SOURCES:		
	2H1	Unit 2-2 HDS Charge Heater
	2H2	Deoiler Furnace
	4H1	Unit 4 Feed Heater
	4H2	Unit 4 Dehydrator Heater
	5H1	Unit 5-A Feed Heater
	5H2	Unit 5-B Feed Heater
	5H3	Unit 5-C Feed Heater
	6H3	BHU Reduction Furnace
	6H1	Unit 6 Hydro Preheater
	7H1-4	Unit 7 Charge Furnace
	7H1-4	Unit 7 No. 1 Reheater
	7H1-4	Unit 7 No. 2 Reheater
	7H1-4	Unit 7 No. 3 Reheater
	9H1	Crude Oil Heater
	10H1	Crude Oil Heater
	12H1	Mol Sieve Regen Gas Heater
	19H3	19.1 Naphtha HDS Chg Htr
	19H5	19.1 No. 1 Reboiler
	19H5	19.1 No. 2 Reboiler
	19B1/19H1	19.2 Charge Furnace
	19H6	19.2 Platformer Reheater No. 1
	19B1/19H2	19.2 No. 2 Reheater
	19B1/19H2	19.2 No. 3 Reheater
	19B2/19H4	19.3 Charge Furnace
	19B2/19H4	19.3 Frac Feed Furnace
	22H1	Alky Reboiler Furnace

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<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	26H1	Unit 26 DeC4 Reboiler
	28H1	Unit 28 Charge Heater
NO_x SOURCES:		
	29H4	Unit 29 DeC4 Reboiler
	36H1	HDS Unit Charge Heater
	40H1	Unit 40 Superheater No. 1
	41H1 (PSD)	Unit 41 Reformer Furnace
	42H1 (PSD)	Unit 42 Reactor Chg Heater
	42H2 (PSD)	Unit 42 Reactor Chg Heater
	42H3 (PSD)	Unit 42 Fract Feed Heater
	50H1	Unit 50 Charge Heater
	51H1	Unit 51 Charge Heater
	50HT1	Coker Heater Tank 1
	50HT2	Coker Heater Tank 2
	50HT3	Coker Heater Tank 3
	98H1	Unit 98 Reformer Furnace
	7E1	Unit 7 Plat Engine No. 1
	7E2	Unit 7 Plat Engine No. 2
	7E3	Unit 7 Plat Engine No. 3
	7E4	Unit 7 Plat Engine No. 4
	7E5	Unit 7 Plat Engine No. 5
	7E6	Unit 7 Plat Engine No. 6
	12E1	Engine
	12E2	Engine
	12E3	Engine
	12E4	Engine
	12E5	Engine
	12E6	Engine
	12E7	Engine
	93E1	Engine No. 37

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
NO_x SOURCES:		
	93E2	Engine No. 38
	FWP1-5	Fire Water Pump Engines
	29P1	Unit 29 FCCU Stack
	85B2 (PSD)	Unit 40 Boiler (8/06)
	40P1	Unit 40 FCCU Stack
	34I1	SRU Incinerator
	43I1 (PSD)	SCOT Unit Incinerator
	66FL1	Refinery East HC Flare
	66FL2	Refinery West HC Flare
	66FL3	Refinery Cat Flare
	66FL6	H ₂ S Emergency Flare
	66FL8	100M Sour Brine Flare Pit
	66FL10	100M Swt Brine Flare Pit
	66FL11	30M Swt Brine Flare Pit
	66FL12	GOHDS HC Flare
	66FL13	GOHDS Emergency Sulfur Flare
CO SOURCES:		
	2H1	Unit 2-2 HDS Charge Htr
	2H2	Deoiler Furnace
	4H1	Unit 4 Feed Heater
	4H2	Unit 4 Dehydrator Heater
	5H1	Unit 5-A Feed Heater
	5H2	Unit 5-B Feed Heater
	5H3	Unit 5-C Feed Heater
	6H3	BHU Reduction Furnace
	6H1	Unit 6 Hydro Preheater
	7H1-4	Unit 7 Charge Furnace

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	7H1-4	Unit 7 No. 1 Reheater
CO SOURCES:		
	7H1-4	Unit 7 No. 2 Reheater
	7H1-4	Unit 7 No. 3 Reheater
	9H1	Crude Oil Heater
	10H1	Crude Oil Heater
	12H1	Mol Sieve Regen Gas Heater
	19H3	19.1 Naphtha HDS Chg Htr
	19H5	19.1 No. 1 Reboiler
	19H5	19.1 No. 2 Reboiler
	19B1/19H1	19.2 Charge Furnace
	19H6	19.2 Platformer Reheater No. 1
	19B1/19H2	19.2 No. 2 Reheater
	19B1/19H2	19.2 No. 3 Reheater
	19B2/19H4	19.3 Charge Furnace
	19B2/19H4	19.3 Frac Feed Furnace
	22H1	Alky Reboiler Furnace
	26H1	Unit 26 DeC4 Reboiler
	28H1	Unit 28 Charge Heater
	29H4	Unit 29 DeC4 Reboiler
	36H1	HDS Unit Charge Heater
	40H1	Unit 40 Superheater No. 1
	41H1 (PSD)	Unit 41 Reformer Furnace
	42H1 (PSD)	Unit 42 Reactor Chg Htr
	42H2 (PSD)	Unit 42 Reactor Chg Htr
	42H3 (PSD)	Unit 42 Fract Feed Heater
	50H1	Unit 50 Charge Heater
	51H1	Unit 51 Charge Heater
	50HT1	Coker Heater Tank 1

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	50HT2	Coker Heater Tank 2
	50HT3	Coker Heater Tank 3
CO SOURCES:		
	98H1	Unit 98 Reformer Furnace
	7E1	Unit 7 Plat Engine No. 1
	7E2	Unit 7 Plat Engine No. 2
	7E3	Unit 7 Plat Engine No. 3
	7E4	Unit 7 Plat Engine No. 4
	7E5	Unit 7 Plat Engine No. 5
	7E6	Unit 7 Plat Engine No. 6
	12E1	Engine
	12E2	Engine
	12E3	Engine
	12E4	Engine
	12E5	Engine
	12E6	Engine
	12E7	Engine
	93E1	Engine No. 37
	93E2	Engine No. 38
	FWP1-5	Fire Water Pump Engines
	29P1	Unit 29 FCCU Stack
	85B2 (PSD)	Unit 40 Boiler (8/06)
	40P1	Unit 40 FCCU Stack
	34I1	SRU Incinerator
	43I1 (PSD)	SCOT Unit Incinerator
	66FL1	Refinery East HC Flare
	66FL2	Refinery West HC Flare
	66FL3	Refinery Cat Flare
	66FL6	H ₂ S Emergency Flare
	66FL8	100M Sour Brine Flare Pit

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	66FL10	100M Swt Brine Flare Pit
CO SOURCES:		
	66FL11	30M Swt Brine Flare Pit
	66FL12	GOHDS HC Flare
	66FL13	GOHDS Emergency Sulfur Flare
PM SOURCES:		
	F-54-C21	Cooling Twr (Vacuum Unit)
	2H1	Unit 2-2 HDS Charge Htr
	2H2	Deoiler Furnace
	4H1	Unit 4 Feed Heater
	4H2	Unit 4 Dehydrator Heater
	5H1	Unit 5-A Feed Heater
	5H2	Unit 5-B Feed Heater
	5H3	Unit 5-C Feed Heater
	6H3	BHU Reduction Furnace
	6H1	Unit 6 Hydro Preheater
	7E1	Unit 7 Plat Engine No. 1
	7E2	Unit 7 Plat Engine No. 2
	7E3	Unit 7 Plat Engine No. 3
	7E4	Unit 7 Plat Engine No. 4
	7E5	Unit 7 Plat Engine No. 5
	7E6	Unit 7 Plat Engine No. 6
	7H1-4	Unit 7 Charge Furnace
	7H1-4	Unit 7 No. 1 Reheater
	7H1-4	Unit 7 No. 2 Reheater
	7H1-4	Unit 7 No. 3 Reheater
	9H1	Crude Oil Heater
	10H1	Crude Oil Heater

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	12E1	Engine No. 41
	12E2	Engine No. 42
PM SOURCES:		
	12E3	Engine No. 43
	12E4	Engine No. 44
	12E5	Engine No. 45
	12E6	Engine No. 46
	12E7	Engine No. 47
	FWP1-5	Fire Water Pump Engines
	12H1	Mol Sieve Regen Gas Heater
	19H3	19.1 Naphtha HDS Chg Heater
	19H5	19.1 No. 1 Reboiler
	19H5	19.1 No. 2 Reboiler
	19B1/19H1	19.2 Charge Furnace
	19H6	19.2 Platformer Reheater No. 1
	19B1/19H2	19.2 No. 2 Reheater
	19B1/19H2	19.2 No. 3 Reheater
	19B2/19H4	19.3 Charge Furnace
	19B2/19H4	19.3 Frac Feed Furnace
	22H1	Alky Reboiler Furnace
	26H1	Unit 26 DeC4 Reboiler
	28H1	Unit 28 Charge Heater
	29H4	Unit 29 DeC4 Reboiler
	36H1	HDS Unit Charge Heater
	40H1	Unit 40 Superheater No. 1
	41H1 (PSD)	Unit 41 Reformer Furnace
	42H1 (PSD)	Unit 42 Reactor Chg Heater
	42H2 (PSD)	Unit 42 Reactor Chg Heater
	42H3 (PSD)	Unit 42 Fract Feed Heater
	50H1	Unit 50 Charge Heater

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	51H1	Unit 51 Charge Heater
	50HT1	Coker Heater Tank 1
PM SOURCES:		
	50HT2	Coker Heater Tank 2
	50HT3	Coker Heater Tank 3
	98H1	Unit 98 Reformer Furnace
	53R4	Tank Car Track 5
	29P1	Unit 29 FCCU Stack
	85B2 (PSD) (4)	Unit 40 Boiler (8/06)
	40P1	Unit 40 FCCU Stack
	93E1	Engine No. 37
	93E2	Engine No. 38
	93E4	Engine No. 40
	34I1	SRU Incinerator
	43I1 (PSD)	SCOT Unit Incinerator
	KG47	Sulfur Tank
	F-50A	Coke Handling Fugitives
	VF-1030	PAC Silo
	VF-2030	PAC Silo
	0309	Tank Storage
BENZENE SOURCES:		
	66FL1	Refinery East HC Flare
	66FL2	Refinery West HC Flare
	66FL3	Refinery Cat Flare
	66FL6	H ₂ S Emergency Flare
	66FL8	100M Sour Brine Flare Pit
	66FL10	100M Swt Brine Flare Pit
	66FL11	30M Swt Brine Flare Pit

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
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BENZENE SOURCES:

66FL12	GOHDS HC Flare
66FL13	GOHDS Emergency Sulfur Flare
53T1	Refy Tank Truck Loading
53R2	Tank Car Tracks 1 and 2
53R3	Tank Car Tracks 3 and 4
53T2	South Tank Truck Loading
F-1	Unit 1 Fugitives
F-2	Unit 2 Columns
F-2-1	Unit 2.2 Fugitives
F-2-5	South Fractionators
F-5	Pentane Isom Fugitives
F-6	Hexane Isom Fugitives
F-7	Platformer
F-9	Unit 9 Fugitives
F-10	Unit 10 Fugitives
F-11	Deethanizer Unit Fug
F-12	Cryogenic Gas Plant Fug
F-13	Clean-Up Unit Fug
F-19-1	Naphtha HDS Fugitives
F-19-2	Reformer Fugitives
F-23	St Run Fract Fugitives
F-26	HO FCCU Fract Fugitives
F-28	Unit 28 Fugitives
F-29	Gas Oil FCCU 29 Fugitives
F-32	Unit 32 Fugitives
F-40	Heavy Oil FCCU Fugitives

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-42	GOHDS Unit 42 Fugitives
	F-44	Unit 44 Fugitives
BENZENE SOURCES:		
	F-53-1	Refinery Loading Fugitives
	F-53-2	South Loading Rack
	F-54-C2	Cool Twr (Ecodyne No. 9)
	F-54-C3	Cooling Tower (Santa Fe No. 11)
	F-54-C4	Cooling Twr (Mar No. 13)
	F-54-C6	Cooling Twr (Mar No. 10)
	F-54-C7	Cooling Twr (Refy No. 2)
	F-54-C8	Cooling Twr (Refy No. 4)
	F-54-C9	Cooling Twr (Refy No. 7)
	F-54-C10	Cooling Twr (Refy No. 9)
	F-54-C11	Cooling Twr (Refy No. 3)
	F-54-C12	Cooling Twr (Mar No. 12)
	F-54-C13	Cooling Twr (Prt No. 14)
	F-54-C14	Cooling Twr (Mar No. 15)
	F-54-C15	Cooling Twr (Prt No. 16)
	F-54-C16	Cooling Twr (Prt No. 18)
	F-54-C17	Cooling Twr (Refy No. 8)
	F-54-C18	Cooling Twr (Refy No. 13)
	F-54-C19	Cooling Twr (Refy No. 10)
	F-54-C21	Cooling Twr (Vacuum Unit)
	F-54-C20	Cooling Twr (GOHDS No. 17)
	F-56-1-1	West Sump
	F-56-1-3	North Sump
	F-56-1-4-A	Refy Oil/H2O Separators
	F-56-1-6	Storm Water System
	F-56-2	Dixon Creek WWTP

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-56-1-5	Hazardous Waste Impoundment
	F-56	Unit 56 Fugitives

BENZENE SOURCES:

F-66-1	Ref. Flare Area Fugitives
F-66-2	South Flare Fug
F-66-3	GOHDS/Cat Area Fugitives
F-68-1a	GOHDS Storage Fugitives
F-68-1e	E. Refinery Storage Fugitives
F-68-1n	N. Refinery Storage Fugitives
F-68-1r	Rocky Station Fugitives
F-68-1s	S. Refinery Storage Fugitives
F-68-1t	Taubman Yard Fugitives
F-68-1w	W. Refinery Storage Fugitives
F-68-2n	N. Coble Storage Fugitives
F-68-2s	S. Coble Storage Fugitives
F-68-3	West Storage Fugitives
F-68-4t	JTF Fugitives
F-68-5	Gasoline Blending System
F-85-2	Unit 40 Boiler Fugitives
0111	Tank Storage
0202	Tank Storage
0401	Tank Storage
0511	Tank Storage
0514	Tank Storage
0562	Tank Storage
0572	Tank Storage
0573	Tank Storage
1001	Tank Storage
1002	Tank Storage

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
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	1003	Tank Storage
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BENZENE SOURCES:

1006	Tank Storage
1007	Tank Storage
1064	Tank Storage
1163	Tank Storage
1164	Tank Storage
1165	Tank Storage
1522	Tank Storage
2072	Tank Storage
2510	Tank Storage
2553	Tank Storage
2575	Tank Storage
2576	Tank Storage
2577	Tank Storage
2579	Tank Storage
2580	Tank Storage
2673	Tank Storage
3001	Tank Storage
3002	Tank Storage
4030	Tank Storage
5505	Tank Storage
5521	Tank Storage
5532	Tank Storage
5550	Tank Storage
5551	Tank Storage
5553	Tank Storage
5554	Tank Storage

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
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	5555	Tank Storage
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BENZENE SOURCES:

5556	Tank Storage
5557	Tank Storage
5558	Tank Storage
5559	Tank Storage
5578	Tank Storage
5580	Tank Storage
5583	Tank Storage
5584	Tank Storage
5591	Tank Storage
5597	Tank Storage
5599	Tank Storage
8001	Tank Storage
8002	Tank Storage
8013	Tank Storage
8031	Tank Storage
8032	Tank Storage
8034	Tank Storage
9201	Tank Storage
9500	Tank Storage
9501	Tank Storage
9502	Tank Storage
9503	Tank Storage

H₂S SOURCES:

53R4	Tank Car Track 5
34I1	SRU Incinerator

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	43I1	SCOT Unit Incinerator
	66FL1	Refinery East HC Flare
H₂S SOURCES:		
	66FL2	Refinery West HC Flare
	66FL3	Refinery Cat Flare
	66FL6	H ₂ S Emergency Flare
	66FL8	100M Sour Brine Flare Pit
	66FL10	100M Swt Brine Flare Pit
	66FL11	30M Swt Brine Flare Pit
	66FL12	GOHDS HC Flare
	66FL13	GOHDS Emergency Sulfur Flare
	F-1-6	Unit 1.6 Fugitives
	F-2-1	Unit 2 Fugitives
	F-5	Pentane Isom Fugitives
	F-7	Platformer
	F-9	Unit 9 Fugitives
	F-10	Unit 10 Fugitives
	F-11	Deethanizer Unit Fug
	F-12	Cryogenic Gas Plant Fug
	F-19-1	Naphtha HDS Fugitives
	F-19-3	Distillate HDS Fugitives
	F-23	St Run Fract Fugitives
	F-26	HO FCCU Fract Fugitives
	F-28	Unit 28 Fugitives
	F-29	Gas Oil FCCU 29 Fugitives
	F-32	Unit 32 Fugitives
	F-34	Sulfur Recovery Unit Fug
	F-35	Unit 35 Fugitives
	F-36	Unit 36 Fugitives

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-40	Heavy Oil FCCU Fugitives
	F-41	Fugitives
	F-Tier 3	Fugitives - Tier 3 Project
H₂S SOURCES:		
	F-42	GOHDS Unit 42 Fugitives
	F-43-1	Sulfur Handling/Storage
	F-44	Fugitives
	F-56-1-4-A	Refy Oil/H2O Separators
	F-56-2	Dixon Creek WWTP
	0309	Tank Storage
	KG47	Tank Storage
	2530	Tank Storage
	3003	Tank Storage
	F-53-1	Refinery Loading Fugitives
	F-53-2	South Loading Rack
	F-66-1	Ref. Flare Area Fugitives
	F-66-2	South Flare Fug
	F-66-3	GOHDS/Cat Area Fugitives
	F-68-1a	GOHDS Storage Fugitives
	F-68-1e	E. Refinery Storage Fugitives
	F-68-1n	N. Refinery Storage Fugitives
	F-68-1r	Rocky Station Fugitives
	F-68-1s	S. Refinery Storage Fugitives
	F-68-1t	Taubman Yard Fugitives
	F-68-1w	W. Refinery Storage Fugitives
	F-68-2n	N. Coble Storage Fugitives
	F-68-2s	S. Coble Storage Fugitives
	F-68-3	West Storage Fugitives
	F-68-4t	JTF Fugitives
	F-68-5	Gasoline Blending System

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-81	Refinery Boilers
	F-82	South Boilers
	F-85-2	Unit 40 Boiler Fugitives

NH₃ SOURCES:

F-56-1-4-A	Refy Oil/H2O Separators
F-56-2	Dixon Creek WWTP
3003	Tank Storage
F-29	Gas Oil FCCU 29 Fugitives
F-32	Unit 32 Fugitives
F-40	Heavy Oil FCCU Fugitives
F-42	GOHDS Unit 42 Fugitives
F-43-1	Sulfur Handling/Storage
F-44	Fugitives
F-53-1	Refinery Loading Fugitives
F-53-2	South Loading Rack
F-66-1	Ref. Flare Area Fugitives
F-66-2	South Flare Fug
F-66-3	GOHDS/Cat Area Fugitives
F-68-1a	GOHDS Storage Fugitives
F-68-1e	E. Refinery Storage Fugitives
F-68-1n	N. Refinery Storage Fugitives
F-68-1r	Rocky Station Fugitives
F-68-1s	S. Refinery Storage Fugitives
F-68-1t	Taubman Yard Fugitives
F-68-1w	W. Refinery Storage Fugitives
F-68-2n	N. Coble Storage Fugitives
F-68-2s	S. Coble Storage Fugitives
F-68-3	West Storage Fugitives
F-68-4t	JTF Fugitives

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-68-5	Gasoline Blending System
	F-85-2	Unit 40 Boiler Fugitives
	F-98	SMR Fugitives
NH₃ SOURCES		
	29P1	Unit 29 FCCU Stack
	40P1	Unit 40 FCCU Stack
HCl SOURCES:		
	66FL1	Refinery East HC Flare
	66FL2	Refinery West HC Flare
	66FL3	Refinery Cat Flare
	66FL8	100M Sour Brine Flare Pit
	66FL11	30M Swt Brine Flare Pit
	66FL12	GOHDS HC Flare
	66FL13	GOHDS Emergency Sulfur Flare
	F-54-C2	Cooling Tower (Ecodyne No. 9)
	F-54-C3	Cooling Tower (Santa Fe No. 11)
	F-54-C4	Cooling Tower (Marley No. 13)
	F-54-C6	Cooling Tower (Marley No. 10)
	F-54-C7	Cooling Tower (No. 2 Refinery)
	F-54-C8	Cooling Tower (No. 4 Refinery)
	F-54-C9	Cooling Tower (No. 7 Refinery)
	F-54-C10	Cooling Tower (No. 9 Refinery)
	F-54-C11	Cooling Tower (No. 3 Refinery)
	F-54-C12	Cooling Tower (Marley No. 12)
	F-54-C13	Cooling Tower (Pritchard No. 14)
	F-54-C14	Cooling Tower (Marley No. 15)
	F-54-C15	Cooling Tower (Pritchard No. 16)
	F-54-C16	Cooling Tower (Pritchard No. 18)
	F-54-C17	Cooling Tower (No. 8 Refinery)

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-54-C18	Cooling Tower (No. 9 Refinery)
	F-54-C19	Cooling Tower (No. 10 Refinery)

HCI SOURCES:

F-54-C20	Cooling Tower (GOHDS No. 17)
F-54-C21	Cooling Tower (Vacuum Unit)
F-53-1	Refinery Loading Fugitives
F-53-2	South Loading Rack
F-66-1	Ref. Flare Area Fugitives
F-66-2	South Flare Fug
F-66-3	GOHDS/Cat Area Fugitives
F-68-1a	GOHDS Storage Fugitives
F-68-1e	E. Refinery Storage Fugitives
F-68-1n	N. Refinery Storage Fugitives
F-68-1r	Rocky Station Fugitives
F-68-1s	S. Refinery Storage Fugitives
F-68-1t	Taubman Yard Fugitives
F-68-1w	W. Refinery Storage Fugitives
F-68-2n	N. Coble Storage Fugitives
F-68-2s	S. Coble Storage Fugitives
F-68-3	West Storage Fugitives
F-68-4t	JTF Fugitives
F-68-5	Gasoline Blending System
F-81	Refinery Boilers
F-82	South Boilers
F-85-2	Unit 40 Boiler Fugitives
F-4	Butane Isom Fugitives
F-6	Hexane Isom Fugitives

Cl₂ SOURCES:

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
	F-54-C2	Cooling Tower (Ecodyne No. 9)
	F-54-C3	Cooling Tower (Santa Fe No. 11)
	F-54-C4	Cooling Tower (Marley No. 13)

Cl₂ SOURCES:

F-54-C6	Cooling Tower (Marley No. 10)
F-54-C7	Cooling Tower (No. 2 Refinery)
F-54-C8	Cooling Tower (No. 4 Refinery)
F-54-C9	Cooling Tower (No. 7 Refinery)
F-54-C10	Cooling Tower (No. 9 Refinery)
F-54-C11	Cooling Tower (No. 3 Refinery)
F-54-C12	Cooling Tower (Marley No. 12)
F-54-C13	Cooling Tower (Pritchard No. 14)
F-54-C14	Cooling Tower (Marley No. 15)
F-54-C15	Cooling Tower (Pritchard No. 16)
F-54-C16	Cooling Tower (Pritchard No. 18)
F-54-C17	Cooling Tower (No. 8 Refinery)
F-54-C18	Cooling Tower (No. 9 Refinery)
F-54-C19	Cooling Tower (No. 10 Refinery)
F-54-C20	Cooling Tower (GOHDS No. 17)
F-54-C21	Cooling Tower (Vacuum Unit)

HF SOURCES:

F-53-1	Refinery Loading Fugitives
F-53-2	South Loading Rack
F-66-1	Ref. Flare Area Fugitives
F-66-2	South Flare Fug
F-66-3	GOHDS/Cat Area Fugitives
F-68-1a	GOHDS Storage Fugitives
F-68-1e	E. Refinery Storage Fugitives
F-68-1n	N. Refinery Storage Fugitives

CONTAMINANTS, EMISSION POINT NUMBERS,
AND SOURCE NAMES

<u>Contaminant (3)</u>	<u>Emission Point No. (1)</u>	<u>Source Name (2)</u>
HF SOURCES:	F-68-1r	Rocky Station Fugitives
	F-68-1s	S. Refinery Storage Fugitives
	F-68-1t	Taubman Yard Fugitives
	F-68-1w	W. Refinery Storage Fugitives
	F-68-2n	N. Coble Storage Fugitives
	F-68-2s	S. Coble Storage Fugitives
	F-68-3	West Storage Fugitives
	F-68-4t	JTF Fugitives
	F-68-5	Gasoline Blending System
	F-81	Refinery Boilers
	F-82	South Boilers
	F-85-2	Unit 40 Boiler Fugitives
	F-22	HF Alkylation Fugitives

- (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)
 - Cl₂ - chlorine
 - CO - carbon monoxide
 - HCl - hydrogen chloride
 - HF - hydrogen fluoride
 - H₂S - hydrogen sulfide
 - NH₃ - ammonia
 - NO_x - total oxides of nitrogen
 - PM - total particulate matter, suspended in the atmosphere, including PM10 and PM2.5, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM2.5, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - SO₂ - sulfur dioxide
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

Dated: September 24, 2014