OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation #26:

Permit #: 868-AOP-R0

IS ISSUED TO:

Lion Oil Company
1000 McHenry Drive
El Dorado, AR 71730
Union County
CSN: 70-0016

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

and

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Keith A. Michaels Date

SECTION I: FACILITY INFORMATION

Permittee:	Lion Oil Company
CSN:	70-0016
Permit Number:	868-AOP-R0
Facility Address:	1000 McHenry Drive PO Box 7005 71731-7005
County:	Union
Contact Position:	Environmental Engineer
Telephone Number:	(501) 864-1453
Reviewing Engineer:	Nancy Spencer Rogers
UTM North-South (X):	3655.1
UTM East-West (Y):	531.0

SECTION II: INTRODUCTION

Lion Oil Company of 1000 McHenry, El Dorado, Union County, Arkansas operates an oil refinery. Permit #868-AOP-R0 has been issued as the first operating permit for this facility as per the requirements of Regulation #26 and 40 CFR 70. In this permit, all of the tanks at the facility have been bubbled under a PAL such that the facility has to comply with one VOC limit for the tank farm instead of a limit for each tank. Under this permit, the facility has permitted several sources that were previously unpermitted, and increased throughputs. The following minor modification and Deminimis changes that were previously allowed were also included.

Minor modification submitted in September 1998: Permitted the Polymer Asphalt Let-Down Facility. The project consisted of installing a new gas fired hot oil system (SN-850), installation of two new tanks (SN's T-553 and T-554), modification of tanks (SN's T-24, T-384 through T-387)

Deminimis change submitted May 1999: Allowed the facility to replace the existing Sour Water Stripper with a new 400 gal/min Sour Water Stripper to minimize odors at the refinery. A new 20,000 barrel storage tank for the storage of sour water was also installed as part of the project.

Deminimis change submitted October 1999: Allowed the facility to upgrade the #4 Crude Unit with new and refurbished equipment. The improvements will included the installation of 7 pumps and ~236 hydrocarbon valves with associated flanging and the removal of 2 pumps, 198 hydrocarbon valves and associated flanging. The improvements to the #4 Crude Unit also allowed the facility to produce intermediates that were previously purchased from outside sources. Associated equipment that will be affected by the changes at the facility are the #4 Pre-flash Column Reboiler (SN-03), #4 Atmospheric Furnace (SN-04), the #4 Vacuum Furnace (SN-05), the #11 Deasphalting Furnace (SN-14), the Asphalt Loading Racks (SN's 205-208), Asphalt Storage Tanks #39, #40, #41, #55, #84, #219, and #368, and Diesel Storage Tanks #121 and #122.

Deminimis change submitted February 1999: Allowed the facility to construct a new 5,000 barrel asphalt storage tank (SN T-78) to replace the existing 2,500 barrel storage tank.

PSD Review Summary

This facility has never been required to obtain a (Prevention of Significant Deterioration) PSD permit. Most of the facility was in existence previous to the promulgation of the PSD regulations. Emission increases from new equipment installed after PSD promulgation have been less than the significant increase levels.

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All permitted emission sources were inventoried for PSD applicability in Permit #868-AR-5 which was issued on August 12, 1996. Sources not reviewed in 1996 were reviewed in this permitting action. The installation dates of the equipment are included for reference. Unless a comment is specified for the source, any associated emission increase is due to an increase in throughput at existing sources and not a modification at the source. As such, any emission increases would not be subject to PSD.

PSD Review Source in Existence Prior to PSD Promulgation		
Old Source Numbers*	New Source Numbers	Year Installed
*Sources without old source numbers were previously unpermitted.		
37	T-3	1950
38	T-4	1953
40	T-11	1959
41	T-12	1955
42	T-14	1942
43	T-15	1942
44	T-16	1950
45	T-17	1940
46	T-18	1949
47	T-20	1945
48	T-21	1945
49	T-22	1953
50	T-23	1953
52	T-25	1940
54	T-27	1950
55	T-36	1953
56	T-39	1958
57	T-40	1940
58	T-41	1940
59	T-46	1933
60	T-48	1923
61	T-49	1923
62	T-50	1937
63	T-51	1940
65	T-54	1922
66	T-55	1923
67	T-56	1923
68	T-57	1949

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PSD Review Source in Existence Prior to PSD Promulgation		
Old Source Numbers*	New Source Numbers	Year Installed
*Sources without old source numbers were previously unpermitted.		
69	T-58	1952
70	T-60	1923
71	T-61	1949
72	T-62	1949
73	T-63	1957
74	T-64	1957
75	T-65	1954
76	T-70	1935
77	T-71	1935
78	T-72	1950
79	T-73	1950
80	T-74	1950
81	T-76	1938
82	T-77	1945
84	T-81	1936
86	T-83	1938
87	T-84	1953
88	T-85	1954
90	T-89	1948
91	T-96	1940
92	T-97	1940
93	T-98	1940
94	T-99	1940
95	T-101	1922
96	T-102	1922
98	T-104	1923
99	T-105	1923
100	T-107	1923
103	T-110	1928
104	T-111	1936
105	T-112	1923
107	T-114	1923
108	T-115	1923
109	T-116	1923
110	T-117	1923

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PSD Review Source in Existence Prior to PSD Promulgation		
Old Source Numbers*	New Source Numbers	Year Installed
*Sources without old source numbers were previously unpermitted.		
111	T-118	1944
112	T-119	1940
	T-120	1949
113	T-121	1949
114	T-122	1953
	T-123	1949
115	T-124	1959
116	T-125	1953
117	T-126	1953
118	T-128	1959
119	T-129	1937
120	T-145	1950
121	T-162	1951
122	T-165	1923
123	T-166	1923
124	T-167	1940
125	T-168	1940
126	T-170	1950
127	T-171	1950
128	T-173	1945
129	T-175	1940
130	T-176	1940
	T-180	1959
131	T-190	1940
	T-199	1957
132	T-200	1936
133	T-217	1964
134	T-219	1967
135	T-226	1936
136	T-228	1936
137	T-240	1953
138	T-241	1953
139	T-242	1953
140	T-243	1953
141	T-244	1953

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PSD Review Source in Existence Prior to PSD Promulgation		
Old Source Numbers*	New Source Numbers	Year Installed
*Sources without old source numbers were previously unpermitted.		
142	T-245	1953
143	T-246	1953
144	T-247	1959
145	T-262	1938
146	T-263	1938
147	T-264	1938
148	T-265	1938
149	T-270	1941
150	T-271	1941
154	T-306	1952
155	T-310	1950
	T-311	1950
	T-312	1950
	T-313	1950
	T-314	1950
	T-315	1950
156	T-319	1950
157	T-320	1950
158	T-321	1950
159	T-322	1950
160	T-323	1950
162	T-325	1950
163	T-326	1950
164	T-327	1950
165	T-328	1950
166	T-329	1950
167	T-330	1950
168	T-331	1950
169	T-332	1950
170	T-333	1950
171	T-335	1950
	T-336	1950
172	T-337	1950
173	T-338	1950
174	T-339	1950

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PSD Review Source in Existence Prior to PSD Promulgation		
Old Source Numbers*	New Source Numbers	Year Installed
*Sources without old source numbers were previously unpermitted.		
175	T-340	1961
176	T-348	1968
177	T-349	1968
178	T-350	1954
179	T-351	1954
180	T-352	1954
181	T-353	1954
182	T-354	1954
183	T-355	1959
184	T-356	1961
185	T-360	1957
186	T-361	1957
187	T-368	1966
188	T-371	1959
189	T-372	1959
191	T-410	1945
192	T-411	1945
193	T-412	1945
194	T-413	1945
	T-414	1945
195	T-429 removed	1945 1999
	T-520	1950
	T-521	1950
196	T-524	1951
	T-525	1951
197	T-530	1951
	T-570	1959
01	801 shut down	1930 1986
02	802 shut down	1960 1986
07	807	1977
09	809	1973
13	813	1958
16	816**	1945

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PSD Review Source in Existence Prior to PSD Promulgation		
Old Source Numbers*	New Source Numbers	Year Installed
*Sources without old source numbers were previously unpermitted.		
17	817**	1945
18	818**	1952
19	819**	1952
20	820**	1958
23	823	1974
24	824	1977
25	825	1945/1946
	833	1959
	834	1942
	835	1942
	837	1958
	838	1958
	839	1959
	840	1959
	847	Pre-1950[1] Pre-1950[2] 1975[3] Pre-1950[4] Pre-1950[5]
	848	1973

**The previously permitted emissions for the #10, #11, #12, #13, and #14 Boilers, (SN's 816-820) were based upon the emission factors reported in the 1975 Second Edition of AP-42. An average emission factor of 175 lbs/10^6 ft^3 was used from the reported range of emission factors given for NO_X. The emission factor used to permit NO_X in this permit was based upon emission factors reported in the 1995 Fifth Edition of AP-42. The emission factor used for permitting NO_X is 280 lbs/10^6 ft^3.

[1] AC-30 Asphalt Truck Rack
[2] Asphalt Plant Truck Rack
[3] PMA Plant Truck Rack (formerly known as the Emulsion Plant Truck Rack)
[4] Pumphouse Truck Rack
[5] E & W Rail Car Rack

The following sources were installed or modified after the promulgation of the PSD regulations; however, the emission increases did not exceed the significance levels and PSD review would have not been required.

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PSD Review Sources Installed After the Promulgation of PSD			
Old Source Numbers	New Source Numbers	Year Installed	Associated Emission Increase
*Sources without old source numbers were previously unpermitted. **Emission increase was determined by multiplying the lb/hr by 4.38. ***These were the emissions permitted in Permit #868-AR-5.			
83	T-78	installed 1950 reconstructed 1999	5.0 tpy VOC
89	T-88	1987	1.21 tpy VOC
97	T-103	1995	22.78 tpy VOC**
101	T-108 modified	1934 1982	4.38 tpy VOC**
102	T-109 modified	1934 1982	4.38 tpy VOC**
106	T-113 modified	1923 1995	4.38 tpy VOC**
	T-142	1982	4.38 tpy VOC**
	T-143	1982	4.38 tpy VOC**
151	T-272	1986	0.25 tpy VOC
152	T-273	1986	0.25 tpy VOC
153	T-274	1986	5.29 tpy VOC
161	T-324	1992	0.97 tpy VOC
190	T-384 modified	1974 1999	36.80 tpy VOC**
	T-432	1978	28.03 tpy VOC**
198	T-532	1981	35.98 tpy VOC
199	T-538	1989	0.25 tpy VOC
200	T-539	1989	0.25 tpy VOC
201	T-540	1987	0.25 tpy VOC
202	T-544	1991	1.11 tpy VOC
203	T-548	1993	19.01 tpy VOC
	T-549	1994	4.38 tpy VOC**
	T-550	1985	4.38 tpy VOC**
	T-551	1994	4.38 tpy VOC**
	T-552	1996	16.0 tpy VOC
	T-600	1994	4.38 tpy VOC**
	T-601	1994	4.38 tpy VOC**
	T-602	1994	4.38 tpy VOC**
	T-603	1995	4.38 tpy VOC**
	T-604	1994	4.38 tpy VOC**
	T-605	1996	4.38 tpy VOC**
	T-606	1996	4.38 tpy VOC**

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Old Source Numbers	New Source Numbers	Year Installed	Associated Emission Increase
*Sources without old source numbers were previously unpermitted. **Emission increase was determined by multiplying the lb/hr by 4.38. ***These were the emissions permitted in Permit #868-AR-5.			
	T-607	1990	4.38 tpy VOC**
	T-608	1987	4.38 tpy VOC**
	T-609	1995	4.38 tpy VOC**
	T-610	1980	4.38 tpy VOC**
	T-611	1995	4.38 tpy VOC**
	T-612	1995	4.38 tpy VOC**
03	803	1979	2.2 tpy PM*** 4.4 tpy SO_2 30.7 tpy NO_X 0.5 tpy VOC 3.1 tpy CO
04	804	1991	9.2 tpy PM 24.5 tpy SO_2 39.42 tpy NO_X 2.63 tpy VOC 15.77 tpy CO
05	805	1996	2.2 tpy PM 39.5 SO_2 1.3 tpy VOC 29.5 tpy CO 39.5 tpy NO_X
06	806 modified	1988 1958	25.4 tpy SO_2 7.88 tpy PM 17.52 tpy NO_X 1.75 tpy CO
08	808	1979	2.2 tpy PM/PM_{10}*** 5.7 tpy SO_2 25.0 tpy NO_X 0.9 tpy VOC 4.0 tpy CO
11	811	1980	6.1 tpy PM/PM_{10}*** 0.5 tpy SO_2 1.8 tpy VOC 10.1 tpy CO 59.6 tpy NO_X[1]

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Old Source Numbers	New Source Numbers	Year Installed	Associated Emission Increase
*Sources without old source numbers were previously unpermitted. **Emission increase was determined by multiplying the lb/hr by 4.38. ***These were the emissions permitted in Permit #868-AR-5.			
22	822	1979	0.5 tpy PM/PM_{10}*** 117.8 tpy SO_2[2] 3.5 tpy VOC 18.8 tpy CO 83.7 tpy NO_X[2]
26	826	1982	0.5 tpy SO_2***
27	827	1982	0.5 tpy SO_2***
28	828	1987	0.5 tpy PM/PM_{10}*** 0.5 tpy SO_2 0.5 tpy VOC 0.9 tpy CO 7.9 tpy NO_X
29	829	1987	0.5 tpy PM/PM_{10}*** 0.9 tpy SO_2 0.5 tpy VOC 0.9 tpy CO 7.5 tpy NO_X
30	830	1987	0.5 tpy PM/PM_{10}*** 0.5 tpy SO_2 0.5 tpy VOC 0.5 tpy CO 1.8 tpy NO_X
31	831	1991	1.75 tpy SO_2 1.75 tpy NO_X 4.82 tpy CO 48.2 tpy HCl
34	842	1993	2.2 tpy PM/PM_{10} 5.3 tpy SO_2 0.5 tpy VOC 3.5 tpy CO 17.5 tpy NO_X
35	843	1993	1.3 tpy PM 3.5 tpy SO_2 11.8 tpy NO_X 0.5 tpy VOC 2.2 tpy CO

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Old Source Numbers	New Source Numbers	Year Installed	Associated Emission Increase
*Sources without old source numbers were previously unpermitted. **Emission increase was determined by multiplying the lb/hr by 4.38. ***These were the emissions permitted in Permit #868-AR-5.			
36	844	1994	13.2 tpy PM/PM_{10}[3] 39.4 tpy SO_2 250 ppm SO_2 26.3 tpy NO_X 6.6 tpy VOC 35.5 tpy CO 2.2 tpy H_2S
32	832 Asphalt Heaters		15.8 tpy VOC
	Heats Tank SN	---	
	T-24	1975	
	T-39	pre-1981	
	T-40	1988	
	T-41	1991	
	T-56	1989	
	T-78	1991	
	T-99	1991	
	T-107	1987	
	T-111	pre-1981	
	T-118	1987	
	T-219	1968	
	T-348	1968	
Continued	T-354	1956	
	T-384	1975	
	T-524	1986	
	T-530	1986	
	T-544	1991	
	T-548	1993	
33	836	1986	1.0 tpy PM/PM_{10} 1.0 tpy SO_2 1.0 tpy VOC 34.2 tpy CO 39.6 tpy NO_X *Note: These are based on current permitted numbers.*

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Old Source Numbers	New Source Numbers	Year Installed	Associated Emission Increase
*Sources without old source numbers were previously unpermitted. **Emission increase was determined by multiplying the lb/hr by 4.38. ***These were the emissions permitted in Permit #868-AR-5.			
33	841	1981	1.0 tpy PM/PM_{10} 1.0 tpy SO_2 1.0 tpy VOC 58.3 tpy CO 79.7 tpy NO_X[4] *Note: These are based on current permitted numbers.*
	845	1994	1.0 tpy PM/PM_{10}
204	846	1980	Increase 727 tpy VOC Decrease 947 tpy VOC Net Change -177 tpy VOC The increase in emissions from the installation of the loading rack was offset by the removal of another loading rack. The modification took place while EPA Region VI was responsible for PSD review in the State of Arkansas.
	847	1987 1989 1986	1.8 tpy VOC[5, 10] 1.0 tpy VOC[6] 1.0 tpy VOC[7]
	849	1998	1.4 tpy PM_{10} 1.2 tpy SO_2 1.6 tpy VOC 11.6 tpy CO 19.2 tpy NO_X
Polymer Asphalt Let-Down Facility		All Sources Modified 1999	1.8 tpy PM_{10}[8] 3.2 tpy SO_2 15.8 tpy VOC 4.6 tpy CO 18.4 tpy NO_X
	T-24 T-384 T-385 T-386 T-387 T-553 T-554 847 850		1.8 tpy VOC 1.8 tpy VOC 1.8 tpy VOC 1.8 tpy VOC 1.8 tpy VOC 1.5 tpy VOC Inorganics 4.3 tpy VOC 1.0 tpy VOC

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PSD Review Sources Installed After the Promulgation of PSD			
Old Source Numbers	New Source Numbers	Year Installed	Associated Emission Increase
*Sources without old source numbers were previously unpermitted. **Emission increase was determined by multiplying the lb/hr by 4.38. ***These were the emissions permitted in Permit #868-AR-5.			
Sour Water Stripper Project		2000	1.1 tpy PM_{10}[9] 1.1 tpy SO_2 1.4 tpy VOC 12 tpy CO 27.2 tpy NO_X
	T-8 816 817 818 819 820 844		
#4 Crude Unit Turnaround Improvements		2000	0.4 tpy PM_{10} 1.9 tpy SO_2 17.1 tpy VOC 6.5 tpy CO 3.9 tpy NO_X
	T-39 T-40 T-41 T-55		
Continued	T-84 T-121 T-122 T-219 T-368 803 804 805 814 847		

[1]Construction commenced before the promulgation of PSD. Additionally, subsequent increases in emissions were below PSD trigger limits.
[2]Construction commenced before the promulgation of PSD. This flare replaced two other high pressure flares.
[3] The mass emission limits for the Sulfur Recovery Plant (SN-844) are enforceable limitations established in part to prevent this unit from being subject to the PSD regulations. Future relaxation of these limitations may trigger PSD review for the entire unit pursuant to 40 CFR 52.21 (r)(4).
[4]This compressor engine replaced three existing gas air compressors.
[5] AC-20 Asphalt Truck Rack
[6] Single Adhesive Truck Rack
[7] Lube Oil Truck Rack
[8]The facility added a Polymer Asphalt Let-Down facility in 1999. Equipment affected by this project included the modification of tanks T-24, and T-384 through T-387, the installation of tanks T-553 and T-554, the increased use of the PMA Asphalt Truck Rack (SN-847) and the installation of the natural gas fired hot oil heater (SN-850). Tanks T-385 through T-386 were removed from service and permanently classified as out-of service during the early 1980's, but were put back into service for this project. The total permitted emissions for these sources is 1.8

tpy PM/PM_{10}, 3.2 tpy SO_2, 15.8 tpy VOC, 4.6 tpy CO, and18.4 tpy NO_X (no netting performed). These emissions are limited by a throughput of 400,000 bbl/yr of performance graded polymer modified asphalt (PGPMA) through the PMA Asphalt Truck Rack. Because of the overall increases in the asphalt loading rack area (all eight loading racks of SN-847), the emissions from these sources have been differentiated for PSD purposes.

[9]The Sour Water Stripper Project was reviewed to ensure that it did not trigger PSD at the Sulfur Recovery Plant. The actual increase in emissions that would affect the sulfur Recovery Plant was less than 1.0 tpy SO_2. The Sulfur Recovery Plant is monitored by a CEMS unit which is used to demonstrate compliance with the NSPS standards and to demonstrate that the facility does not exceed the SO_2 emissions for SN-844.

[10]There is a 99.1 tpy increase in permitted VOC emissions at the Asphalt Plant Truck Rack (SN-847) from Permit #868-AR-7 to the Title V. This increase is not subject to PSD review. During the comment period for Permit #868-AR-5, was issued in 1996, the facility had attempted to update the emissions from this source based on updated information. No revisions or physical changes had occurred. A decision was made by the Department at that time to wait until the issuance of the Title V permit to make any updates to the emissions. The throughput limit for this loading rack has increased by 900 mgal/yr from the previous permits. The only other change has been the method of calculation.

Process Description

#1 Crude Unit:

This unit was removed from service.

#4 Crude Unit:

This unit is designed to separate approximately 65,000 BPD of light straight run gasoline and crude oil into various components of naphtha, gasoline, kerosene, diesel, gas oils and asphalt. Crude entering the unit is preheated using heat exchangers and hot rundown streams from the unit and flashed in the Pre-flash Column to produce gasoline and naphtha. The Pre-flash Column Reboiler (SN-803) is a natural gas fired or desulfurized refinery gas fired furnace used to maintain the temperature in the column. Bottoms from the column are heated in the fuel gas fired Topping Furnace (SN-804) prior to distillation at atmospheric pressure. The Atmospheric Column further separates the crude into naphtha, kerosene, diesel, and gas oil. Bottoms from the column are heated in the fuel gas fired Vacuum Furnace (SN-805) prior to vacuum distillation. The Vacuum Column separates the bottoms into gas oil and asphalt products.

#7 Fluid Catalytic Cracking Unit:

This unit is designed to convert approximately 20,000 BPD of gas oil from the refinery crude units and other sources into more useful products. Gas oil entering the unit is first heated to 675EF in the #7 Charge Heater (SN-808) which is fired with refinery fuel gas and equipped with low NO_X burners. The hot oil is then contacted with a hot (approximately 1350EF) fluidized catalyst which causes the gas oil to crack into lighter products. The catalyst is then separated from the products in the Reactor and returned to the Regenerator. In the Regenerator, coke which has deposited on the catalyst is burned off and the catalyst is recycled. The hot flue gas leaving the Regenerator passes through two (2) sets of cyclones to remove any catalyst fines and

is then used to produce steam in the Waste Heat Boiler (SN-809). The hot gases are then cooled to less that 500EF before exiting the stack. The light products produced in the reactor are separated in the Fractionator Tower and used for various purposes.

#9 Unit:

This unit is designed to process approximately 16,000 BPD of naphtha from the crude unit and upgrade it into higher octane products. The process is divided into the Unifiner and Platformer sections.

In the Unifiner section, naphtha is heated in the Unifiner Furnace (SN-810) and reacted with hydrogen over a cobalt/molybdenum catalyst to convert the sulfur in the naphtha stream to hydrogen sulfide. The Reactor effluent is passed through the Separator and Stripper to remove the hydrogen and hydrogen sulfide. The Stripper bottoms are sent to the Platformer section for further processing.

In the Platformer section, the Stripper bottoms are heated in the Reformer Heater (SN-811) and passed over a platinum/iridium catalyst in the Reactor where the naphtha molecules are restructured to form high octane compounds. The Reactor effluent is sent to two (2) Separators where hydrogen is separated from the platformate and recycled. The platformate is then sent to the Stabilizer, heated by the stabilizer reboiler (SN-812), where the low molecular weight gases are removed and sent to the Reformer fuel gas system. The bottoms from the Stabilizer are sent to gasoline storage

The Continuous Catalyst Regeneration (CCR) section of the Platformer allows the unit to increase its yield of high octane product due to increased activity from the catalyst. During a normal operating cycle, platforming catalyst deactivates due to coke laydown. The CCR is a continuous regeneration process that allows the coked catalyst to be continuously regenerated, therefore decreasing downtime required to maintain efficient operation. The Regenerator (SN-831) continuously burns off the coke deposit and restores catalyst activity, selectivity, and stability to essentially fresh catalyst levels.

#10 Diesel Desulfurization Unit:

The #10 unit is designed to process approximately 8,500 BPD of diesel, kerosene, gas oil or light cycle oil. This unit makes diesel quality fuel from light cycle oil by reducing the sulfur content from 2.0 percent to less than 0.5 percent. Light cycle oil, diesel, kerosene, or gas oil is heated in the Unifiner Furnace (SN-813) and then reacted with hydrogen in the Reactor. Bottoms from the Reactor flow to the Product Separator where the unreacted hydrogen is separated from the product and recycled to the Reactor. The product is then flowed to a Flash Drum where most of the hydrogen sulfide that was formed in the Reactor is flashed off and sent to the #17 and #18

Units for treatment. The liquid from the Flash Drum is passed through a Stripper to remove any residual hydrogen sulfide before the desulfurized product is sent to storage.

#11 Deasphaltizing Unit:
Asphalt produced directly from the #4 Crude Unit is processed through this unit to separate light hydrocarbons from the asphalt to yield a product suitable for catalytic cracking and at the same time, produce an asphalt with desirable properties. The #11 Unit is designed to process approximately 7,000 BPD of asphalt. Flux from the Crude Units is pumped into the top of the Extraction Tower and a propane/butane solvent is pumped into the bottom of the Extraction Tower. The two materials flow countercurrent to each other in the Extraction Tower. The solvent and deasphalted oil are then sent through a series of Evaporators and a Stripper where the solvent is distilled and condensed for recycle to the Extraction Tower. The deasphalted oil is used as feed to the Catalytic Cracker. Asphalt from the bottom of the Extraction Tower is heated in the #11 Asphalt Furnace (SN-814) and is passed through the Flash Tower and Asphalt Stripper to remove any residual solvent. The asphalt product is then sent to the asphalt plant where it is blended with other products.

Asphalt Plant Blowing Stills:
The Asphalt plant stores, blends, and loads various grades of asphalt, primarily for roofing and paving uses. In addition, the plant has three (3) "blowing stills" where air is blown through asphalt to give it properties which are beneficial for producing specialty asphalts and roofing asphalts. Associated with these stills are three (3) natural gas fired Asphalt Plant Furnaces (SN-825) which are used to maintain required temperatures during the blowing operation. The flue gas from the blowing stills is mostly air, contaminated with some hydrocarbons. The flue gas is passed through a water scrubber to remove any globules of asphalt. Flue gas from the Scrubber enters the Fume Incinerator (SN-824) and any remaining hydrocarbons are destroyed. The hot flue gases from the Fume Incinerator are used to generate steam before being discharged to atmosphere.

#12 Distillate Hydrotreater:
This unit is a diesel and gas oil desulfurization unit with a design capacity to process 24,000 BPD. Its purpose is to produce on-road diesel quality fuel to meet the Clean Air Act standards. The light cycle oil from the #7 Unit and the kerosene and diesel from the #4 Unit is processed to reduce the sulfur content from approximately 2.0 weight percent to less than 0.05 weight percent. The unit is also used to hydrotreat gas oils to remove sulfur from the feed to the #7 Catalytic Cracking Unit.

The mixed feed flows through the heat exchange train and the Charge Furnace (SN-842) before being reacted with hydrogen in the Reactor. The Reactor effluent flows through the heat exchange train with final cooling by an air fin cooler before flowing into the High Pressure

Separator where the unreacted hydrogen is separated from the product and recycled to the Reactor. A small portion of the unreacted hydrogen stream is vented to the sour fuel gas system for treatment in the #17 and #18 Units.

The liquid product is then flowed to the Low Pressure Separator where some of the hydrogen sulfide which was formed in the Reactor is flashed off and sent to the #17 and #18 Units for treatment. The liquid from the Low Pressure Separator then flows through heat exchangers to the Stripper to remove any residual hydrogen sulfide. The liquid from the bottom of the Stripper is then cooled in the heat exchangers and the product air fin cooler before being sent to storage. The Stripper off gas is cooled in an air fin cooler and compressed before being mixed with the High Pressure Separator vent stream and the off gas from the Low Pressure Separator. This combined off gas stream is sent to the #17 and #18 Units for treatment. The makeup hydrogen to the unit is supplied from two (2) compressors which also compress the recycled hydrogen and the Stripper off gas. These compressors are driven by electric motors. All emergency releases are routed to the existing refinery flare system.

Boilers:

Lion Oil has six (6) fuel gas fired boilers which produce steam for the refinery. Boilers #9 (currently out of service), #10, and #11 (SN-816, SN-817) are low pressure boilers each of which produce 60,000 pounds per hour of 150 psig steam. Boilers #12, #13, and #14 (SN-818, SN-819, and SN-820) are high pressure boilers each of which produce 100,000 pounds per hour of 275 psig steam. All of the boilers are normally fired with refinery fuel gas. However, in the event that fuel gas is unavailable, the boilers can be fired with fuel oil.

Sour Water Stripper:

The refinery generates numerous water streams from storage tanks and accumulators that contain high concentrations of hydrogen sulfide and ammonia. The Sour Water Stripper is a trayed column which is used to steam strip the hydrogen sulfide and ammonia from the sour water streams before the water is discharged into the refinery waste water treatment system. The sour gases that are stripped from the water are sent to the sodium hydrosulfide unit where they are reacted with caustic to form a product which can be sold or the sour gases are sent to the sulfur plant to produce elemental sulfur for sale.

#18 Sodium Hydrosulfide Unit:

Several processes in the refinery produce gases which cannot be reprocessed and sold as LPG or gasoline. These gases are generally methane, ethane, and hydrogen produced from catalytic cracking and the reforming of petroleum fractions. As these light fractions are separated from other heavier gases, hydrogen sulfide is separated with the light gases, making the gas sour. In order to use this gas as fuel for refinery furnaces and boilers, the hydrogen sulfide must be removed to prevent excess SO_2 emissions as the fuel is burned.

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A Sodium Hydrosulfide Unit is used to remove the hydrogen sulfide from the fuel gas. The unit removes hydrogen sulfide by contacting the gas with caustic soda to form sodium hydrosulfide which is sold to paper mills to be used as a delignifying agent. The fuel gas leaving the unit then flows to the #17 Unit (MDEA) section where it is contacted with amine. This unit removes hydrogen sulfide to below the levels of 40 CFR 60, Subpart J. The fuel gas is used as fuel in refinery furnaces and boilers. Any SO_2 emissions to the atmosphere are accounted for in the individual emissions for the boilers and furnaces and the Sodium Hydrosulfide Unit is not itself an emission source.

#17 Sulfur Recovery Plant:

The purpose of the Sulfur Plant is to recover sulfur, up to 100 LTD (long tons per day), as hydrogen sulfide from fuel gas and off-site natural gases from Great Lakes Chemical to meet refinery New Source Performance Standards (NSPS - Subpart J) for process fuel gases (less that 0.1 grains H_2S). In addition, Sour Water Stripper (SWS) off gas can be treated in this Sulfur Plant. The hydrogen sulfide is converted to a salable elemental sulfur product. The Sulfur Plant is also used to convert ammonia from SWS off gas to diatomic nitrogen and water. The Sulfur Plant can be divided into three (3) process units:

- Amine Unit consisting of two (2) amine contactors
- Sulfur Recovery Unit (SRU) (Claus)
- Tail Gas Treating Unit (TGTU)

Sour refinery fuel gas enters the primary amine unit where it is contacted with amine. The amine removes hydrogen sulfide and some carbon dioxide from the sour fuel gas stream. The sweetened gas exits the primary amine unit for distribution throughout the refinery. Hydrogen sulfide and carbon dioxide are stripped from the amine which creates a hydrogen sulfide rich gas (acid gas) stream. The acid gas is then sent to the SRU.

Acid gas from the primary amine unit and recirculated gas from the TGTU, along with SWS off gas, enter the SRU and go directly to the Claus Combustor/Thermal reactor. This is where approximately 1/3 of the hydrogen sulfide is converted to sulfur dioxide. Ammonia in the SWS off gas is converted to diatomic nitrogen and water at the Claus reactor. The hot vapor products leaving the thermal reactor make several passes through the sulfur condenser and the catalytic reactors. The sulfur condenser separates the condensed sulfur from the vapor and removes it to storage. The catalytic reactors further promote the reaction of hydrogen sulfide and sulfur dioxide to sulfur and water vapor. The remaining gas exits the SRU to the TGTU. The purpose of the TGTU is to recover sulfur from the SRU tail gas. The sulfur compounds are hydrogenated to hydrogen sulfide in the TGTU reactor. The vapor products from the reactor are then cooled and directed to the TGTU amine unit which operates much like the primary amine unit. The

amine stripper off gas is recirculated to the SRU feed and the amine absorber off gas is directed to the incinerator (SN-844). The remaining low concentrations of hydrogen sulfide, carbon monoxide, and hydrogen are combusted in the incinerator.

Flares:
The refinery operates a High Pressure Flare (SN-822) and a Low Pressure Flare (SN-823) for disposing of excess combustible gases. These gases result from undetected leaks in operating equipment, upset conditions in the normal operation of a refinery where gases must be vented to avoid dangerously high pressure in operating equipment, plant start-ups, and emergency shutdowns. The flares are identical John Zink "smokeless" flares which use steam aspiration to control visible emissions. In addition to excess refinery gases, each flare burns approximately 1,406 scf/hr of natural gas for the pilot burners.

Cellulose Fiber Baghouse:
The refinery operates an asphalt protective coatings unit. Cellulose fibers are received in bags and added to the system via a negative pressure hood and conveyor system. Any exhaust from the system is filtered through a baghouse (SN-807).

Truck Loading Racks:
The refinery operates several truck and rail loading racks . Products loaded range from asphalt to propane. The main truck loading rack is an automated bottom loading rack (SN-846) for loading transport trucks with all grades of gasoline and diesel. Emissions from all other loading racks are accounted for in SN-847. Vapors generated at the gasoline/diesel loading rack during the loading operations are routed through a knock-out pot where any free liquids are recovered and the vapors are vented to a vapor recovery unit.

Gas Engine Compressors:
The refinery operates nine (9) internal combustion gas compressor engines (SN-833 through SN-841). The compressors operate on natural gas and are utilized in moving gases within refinery applications.

Hydrocarbon Storage Tanks:
The refinery operates numerous hydrocarbon storage tanks which store products ranging from asphalt to propane.

Steam Superheater Furnace:
The refinery operates two (2) steam turbine driven gas compressors which consume 25,000 pounds per hour of superheated steam. The Steam Superheater Furnace (SN-29) heats steam from the boilers to approximately 695EF prior to the compressor turbine inlet. The furnace operates on refinery fuel gas and has a design heat input of 9.4 MMBTU/hr.

#5 Alkylation Unit:
There are two (2) 1,500 barrel (BBL) steel tanks which are used for storing 99% sulfuric acid which is used as a catalyst in this unit. The charge to this unit is approximately 6,000 BPD. The acid is diluted to 90% and then pumped to two (2) 2,000 barrel (BBL) spent acid tanks. Two (2) scrubbers (SN-826 and SN-827) packed with polypropylene saddles are used to scrub any vapors which may be generated from the tanks during loading and transfer operations.

Asphalt Loading Heater:
Various grades of asphalt which are used for paving are produced at the refinery. A natural gas fired package boiler rated at 10 MMBTU/hr is used to heat asphalt products during the truck loading operation. (SN-828)

#6 Hydrotreater/Isomerization Unit:
This unit has been installed due to EPA's lead phase down regulation. The unit upgrades light straight run naphtha from the crude unit into a higher octane gasoline. It consists of a hydrotreater section and a penex isomerization section. In the hydrotreater, light straight run naphtha from the crude units is heated in the Furnace (SN-806) and reacted with hydrogen over a nickel/molybdenum catalyst to convert the sulfur in the light straight run naphtha stream to hydrogen sulfide.

The reactor effluent is passed through the separator and stripper to remove hydrogen and hydrogen sulfide. The stripper bottoms are sent to the penex isomerization section for further processing. Here, the stripper bottoms are heated in the isomerization heater and passed over a platinum catalyst in the reactor where the light straight run naphtha molecules are restructured to form higher octane compounds. The reactor effluent is sent to a separator where hydrogen is separated from the isomerate and recycled. The isomerate is then sent to the stabilizer where the low molecular weight gases are removed through a caustic scrubber and sent to the refinery fuel gas system. The bottoms from the stabilizer are sent to gasoline storage.

Asphalt Tank Heaters:
The refinery operates forty-eight (48) asphalt tank heaters (SN-832) which are fired by fuel gas.

Wastewater Treatment Plant:
This unit uses a combination of chemical, biochemical, and physical processes to remove pollutants from refinery wastewater before discharging into DeLoutre Creek. The main components of the unit are dual API separators, two (2) equalization tanks and pond, a dissolved air flotation (DAF) unit, a cooling tower, two (2) activated sludge bio-reactors, two (2) clarification tanks, sludge recycle equipment, an aerobic digester, and a sludge thickener. Final effluent filters assure a minimum level of suspended matter in the effluent discharged to DeLoutre Creek.

Final effluent cooling towers cool the effluent prior to discharge. Sludges generated at the Waste Water Treatment Plant are dewatered at the Sludge Management Facilities (SMF) prior to effluent disposal.

Lime used in the SMF is stored in a lime silo. This silo is equipped with a baghouse (SN-845) which controls emissions during periods of filling.

Fugitive Emissions from Equipment Leaks:

Fugitive emission sources include leaks of hydrocarbon vapors from process equipment and evaporation of hydrocarbons from open areas, rather than a stack or vent. Fugitive emission sources include valves of all types, flanges, pump and compressor seals, wastewater collection, cooling towers, and oil/water separators.

Miscellaneous Operations:

Catalyst used in the FCCU is stored in two hoppers (SN-850) at the refinery. The hoppers are filled by "sucking" the catalyst into the hoppers. Each of the hoppers are equipped with eductors which reduce the pressure in the hoppers during the filling operation.

Regulations

Permit #868-AOP-R0 is the first operating air permit for this facility as per the requirements of Regulation #26 (Title V) and the Clean Air Act. This facility is also subject to the following regulations.

Regulations
Regulations of the Arkansas Plan of Implementation for Air Pollution Control (SIP)
40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries*
40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984*
40 CFR 60, Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*
40 CFR 60, Subpart VV-*Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*
40 CFR 60, Subpart GGG-*Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries*
40 CFR 60, Subpart FF-*National Emission Standard for Benzene Waste Operations*
40 CFR 63, Subpart CC-*National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries**

*The requirements of the permit are not intended to alter the requirements of Subpart CC.

The facility is also classified as a major source for 40 CFR 52.21 (PSD) regulations.

Emissions Summary

The following table is a summary of emissions from the facility. Specific conditions and emissions for each source can be found starting on the page cross referenced in the table. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY					
SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
Total Allowable Emissions		**PM**	**144.1**	**435.5**	**---**
		PM_{10}	**144.1**	**435.5**	
		SO_2	**747.0**	**3,181.1**	
		VOC	**15,423.9**	**15,317.6**	
		CO	**2,625.5**	**11,291.0**	
		NO_x	**505.5**	**1,933.1**	
		H_2SO_4	**2.0**	**2.0**	
		H_2S	**0.5**	**2.3**	
		2,2,4 Trimethylpentane	**91.3**	**91.3**	
		n-hexane	**59.7**	**103.8**	
		Benzene	**39.2**	**56.3**	
		Ethyl Benzene	**22.5**	**37.0**	
		Toluene	**119.1**	**157.8**	
		Xylenes	**103.9**	**148.8**	
		Naphthalene	**14.1**	**13.6**	
		Cumene	**3.1**	**0.1**	
		Perchloroethylene	**22.6**	**25.2**	
		Vinyl Acetate	**0.1**	**0.1**	
		Carbonyl Sulfide	**0.01**	**0.01**	
		Carbon Disulfide	**0.01**	**0.03**	
		1,3 Butadiene	**0.09**	**0.40**	
		Cresols	**1.50**	**6.50**	
		Phenol	**0.90**	**3.90**	
		Diethyl Amine	**5.40**	**23.60**	
		Carbon Tetrachloride	**0.80**	**3.40**	
		1,1,1 Trichloroethylene	**0.80**	**3.40**	
		Chlorine	**1.0**	**1.8**	
		Hydrogen Chloride	**11.0**	**48.2**	

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
---	Total Tank Limit (SN's T-3 through T-612) ***The HAPs were calculated on a tank by tank basis and then summed to obtain a total. Because several of these emissions are insignificant on tank by tank basis; they have not been assigned to specific tanks in the permit. The HAP emissions are significant in the aggregate.	VOC 2,2,4 Trimethylpentane n-hexane Benzene Ethyl Benzene Toluene Xylenes Naphthalene Cumene Methylene Chloride Perchloroethylene Vinyl Acetate	13,006.7 91.1 46.4 34.4 17.1 102.1 88.4 0.6 0.1 60.8 21.8 0.1	7305.0 55.7 38.6 37.8 9.0 55.5 44.2 2.3 0.4 6.7 5.0 0.1	56
T-3	Diesel Oil Blend	VOC	12.4	---	56
T-4	Alkylate Tank	VOC	354.5	---	
T-11	Diesel Oil Blend	VOC	12.4	---	
T-12	Diesel Oil Blend	VOC	12.4	---	
T-14	Solvent/Chemical	VOC	16.0	---	
T-15	Diesel Oil Blend	VOC	19.9	---	
T-16	Asphalt/Cutback	VOC	150.6	---	
T-17	Asphalt/Cutback	VOC	319.9	---	
T-18	Solvent/Chemical	VOC	16.1	---	
T-20	Slurry Oil/Gas Oil	VOC	1.0	---	
T-21	Gas Oil	VOC	1.0	---	
T-22	Asphalt/Cutback	VOC	773.7	---	
T-23	Asphalt	VOC	1.0	---	
T-24	Asphalt	VOC	8.4	---	
T-25	Slop Oil	VOC	18.0	---	
T-27	Solvent/Chemical	VOC	16.0	---	
T-36	Alkylate	VOC	1.5	---	56
T-39	Asphalt	VOC	1.0	---	

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			lb/hr	**tpy**	
T-40	Asphalt	VOC	1.0	---	
T-41	Asphalt	VOC	1.0	---	
T-46	Gas Oil/Flux	VOC	1.9	---	
T-48	Gas Oil	VOC	1.0	---	
T-49	Gas Oil	VOC	1.0	---	
T-50	Diesel Oil Blend	VOC	12.4	---	
T-51	Diesel Oil Blend	VOC	12.3	---	
T-54	Diesel Oil Blend	VOC	31.9	---	
T-55	Asphalt	VOC	1.0	---	
T-56	Asphalt	VOC	5.4	---	
T-57	Gasoline	VOC	952.4	---	
T-58	Gasoline	VOC	952.5	---	
T-60	Slurry Oil	VOC	1.0	---	
T-61	Gasoline	VOC	4.8	---	
T-62	Platformate	VOC	2.6	---	
T-63	Crude Oil	VOC	248.4	---	
T-64	Platformate	VOC	1.0	---	
T-65	Gasoline	VOC	14.0	---	
T-70	Solvent/Chemical	VOC	3.1	---	
T-71	Solvent/Chemical	VOC	3.1	---	
T-72	Solvent/Chemical	VOC	13.7	---	
T-73	Asphalt/Cutback	VOC	319.0	---	56
T-74	Asphalt/Cutback	VOC	319.0	---	
T-76	Asphalt	VOC	1.0	---	
T-77	Solvent/Chemical	VOC	1.0	---	

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
T-78	Asphalt	VOC	4.7	---	
T-81	Gas Oil	VOC	1.0	---	
T-83	Slurry Oil	VOC	1.0	---	
T-84	Gas Oil	VOC	1.0	---	
T-85	Alkylate	VOC	1.5	---	
T-88	Gasoline	VOC	6.6	---	
T-89	Gasoline	VOC	6.6	---	
T-96	Gas Oil/Flux	VOC	7.1	---	
T-97	Slurry Oil	VOC	3.0	---	
T-98	Gas Oil/Flux	VOC	7.8	---	
T-99	Asphalt	VOC	10.2	---	
T-101	Asphalt	VOC	1.4	---	
T-102	Asphalt	VOC	1.1	---	
T-103	Gasoline	VOC	5.2	---	
T-104	Asphalt	VOC	1.0	---	
T-105	Asphalt	VOC	1.0	---	
T-107	Asphalt	VOC	1.2	---	
T-108	Diesel Oil Blend	VOC	1.0	---	
T-109	Diesel Oil Blend	VOC	1.0	---	
T-110	Asphalt	VOC	1.0	---	56
T-111	Asphalt	VOC	1.0	---	
T-112	Slop Oil	VOC	28.0	---	
T-113	Diesel Oil Blend	VOC	25.6	---	
T-114	Gas Oil	VOC	1.0	---	
T-115	Gas Oil	VOC	1.0	---	

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			lb/hr	**tpy**	
T-116	Gas Oil	VOC	1.0	---	
T-117	Gas Oil	VOC	1.0	---	
T-118	Asphalt	VOC	1.0	---	
T-119	Diesel Oil Blend	VOC	31.0	---	
T-120	Crude Oil	VOC	1.5	---	
T-121	Diesel Oil Blend	VOC	36.1	---	
T-122	Diesel Oil Blend	VOC	36.1	---	
T-123	Crude Oil	VOC	1.5	---	
T-124	Gasoline	VOC	5.1	---	
T-125	Gasoline	VOC	9.2	---	
T-126	Gasoline	VOC	9.2	---	
T-128	Gasoline	VOC	9.7	---	
T-129	Slurry Oil	VOC	1.0	---	
T-142	Spent Acid	VOC	1.0	---	
T-143	Spent Acid	VOC	1.0	---	
T-145	Asphalt/Cutback	VOC	162.3	---	
T-162	Asphalt/Cutback	VOC	322.2	---	
T-165	Asphalt/Cutback	VOC	1312.1	---	56
T-166	Asphalt/Cutback	VOC	1312.1	---	
T-167	Asphalt/Cutback	VOC	18.3	---	
T-168	Asphalt/Cutback	VOC	20.1	---	
T-170	Solvent/Chemical	VOC	3.5	---	
T-171	Asphalt/Chemical	VOC	222.4	---	
T-173	Asphalt/Cutback	VOC	280.2	---	
T-175	Asphalt	VOC	1.0	---	

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			lb/hr	**tpy**	
T-176	Asphalt	VOC	1.0	---	
T-180	Solvent/Chemical	VOC	1.0	---	
T-190	Tall Oil Tank	VOC	1.0	---	
T-199	Solvent/Chemical	VOC	15.4	---	
T-200	Diesel Oil Blend	VOC	6.2	---	
T-217	Lube Oil	VOC	1.0	---	
T-219	Asphalt	VOC	1.1	---	
T-226	Solvent/Chemical	VOC	1.0	---	
T-228	Lube Oil	VOC	1.0	---	
T-240	Platformate/Naphtha	VOC	164.4	---	
T-241	Diesel Oil Blend	VOC	5.0	---	
T-242	Diesel Oil Blend	VOC	5.0	---	
T-243	Diesel Oil Blend	VOC	25.5	---	
T-244	Diesel Oil Blend	VOC	17.8	---	
T-245	Naphtha	VOC	1.0	---	
T-246	Naphtha	VOC	1.0	---	56
T-247	Diesel Oil Blend	VOC	7.1	---	
T-262	Diesel Oil Blend	VOC	27.9	---	
T-263	Diesel Oil Blend	VOC	27.9	---	
T-264	Diesel Oil Blend	VOC	27.9	---	
T-265	Diesel Oil Blend	VOC	27.9	---	
T-270	Diesel Oil Blend	VOC	27.9	---	
T-271	Diesel Oil Blend	VOC	27.9	---	
T-272	Lube Oil	VOC	1.2	---	
T-273	Lube Oil	VOC	1.2	---	

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
T-274	Lube Oil	VOC	1.2	---	
T-306	Solvent/Chemical	VOC	3.9	---	
T-310	Asphalt/Cutback	VOC	21.8	---	
T-311	Asphalt/Cutback	VOC	7.3	---	
T-312	Asphalt/Cutback	VOC	7.3	---	
T-313	Asphalt/Cutback	VOC	7.3	---	
T-314	Asphalt/Cutback	VOC	7.8	---	
T-315	Asphalt/Cutback	VOC	7.8	---	
T-319	Asphalt/Cutback	VOC	17.2	---	
T-320	Asphalt/Cutback	VOC	17.2	---	
T-321	Asphalt/Cutback	VOC	17.2	---	
T-322	Asphalt/Cutback	VOC	17.1	---	
T-323	Asphalt/Cutback	VOC	17.1	---	
T-324	Perchloroethylene	VOC	21.8	---	56
T-325	Asphalt/Cutback	VOC	17.2	---	
T-326	Asphalt/Cutback	VOC	28.8	---	
T-327	Asphalt/Cutback	VOC	28.8	---	
T-328	Asphalt/Cutback	VOC	17.2	---	
T-329	Asphalt/Cutback	VOC	17.2	---	
T-330	Methylene Chloride	Source Removed From Service			
T-331	Asphalt/Cutback	VOC	17.2	---	
T-332	Asphalt/Cutback	VOC	17.2	---	
T-333	Asphalt/Cutback	VOC	17.2	---	
T-335	Solvent/Chemical	VOC	1.0	---	
T-336	Tricresyl Phosphate	VOC	1.0	---	

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			lb/hr	**tpy**	
T-337	Asphalt/Cutback	VOC	17.2	---	
T-338	Asphalt/Cutback	VOC	17.2	---	
T-339	Asphalt/Cutback	VOC	6.5	---	
T-340	Asphalt/Cutback	VOC	26.8	---	
T-348	Asphalt	VOC	7.9	---	
T-349	Asphalt/Cutback	VOC	467.3	---	
T-350	Asphalt/Cutback	VOC	697.4	---	
T-351	Asphalt/Cutback	VOC	697.4	---	
T-352	Asphalt/Cutback	VOC	623.6	---	
T-353	Asphalt/Cutback	VOC	343.8	---	
T-354	Asphalt	VOC	1.0	---	
T-355	Asphalt/Cutback	VOC	255.3	---	56
T-356	Solvent/Chemical	VOC	1.0	---	
T-360	Naphtha	VOC	1.0	---	
T-361	Naphtha	VOC	1.0	---	
T-368	Gas Oil	VOC	1.0	---	
T-371	Naphtha	VOC	1.0	---	
T-372	Diesel Oil Blend	VOC	6.7	---	
T-384	Asphalt	VOC	8.4	---	
T-385	Asphalt	VOC	8.4	---	
T-386	Asphalt	VOC	8.4	---	
T-387	Asphalt	VOC	8.4	---	
T-410	Diesel Oil Blend	VOC	16.2	---	
T-411	Diesel Oil Blend	VOC	16.4	---	
T-412	Diesel Oil Blend	VOC	16.2	---	

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EMISSION SUMMARY					
SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
T-413	Diesel Oil Blend	VOC	16.2	---	
T-414	Diesel Oil Blend	VOC	16.2	---	
T-429	Diesel Oil Blend	VOC	39.5	---	
T-432	Spent Caustic	VOC	6.4	---	
T-520	Gas Oil	VOC	1.0	---	
T-521	Crude Oil	VOC	7.3	---	
T-524	Gas Oil	VOC	3.1	---	
T-525	Crude Oil	VOC	3.1	---	
T-530	Gas Oil	VOC	3.1	---	
T-532	Gasoline	VOC	2.7	---	56
T-538	Lube Oil	VOC	1.0	---	
T-539	Lube Oil	VOC	1.0	---	
T-540	Diesel Oil Blend	VOC	6.4	---	
T-544	Asphalt	VOC	1.6	---	
T-548	Asphalt	VOC	1.0	---	
T-549	Solvent/Chemical	VOC	1.0	---	
T-550	Solvent/Chemical	VOC	1.0	---	
T-551	Solvent/Chemical	VOC	1.0	---	
T-552	Gasoline	VOC	332.1	---	
T-553	Asphalt	VOC	2.5	---	
T-570	Crude Oil	VOC	9.3	---	
T-600	Solvent/Chemical	VOC	1.0	---	
T-601	Solvent/Chemical	VOC	1.0	---	
T-602	Solvent/Chemical	VOC	1.0	---	
T-603	Solvent/Chemical	VOC	1.0	---	

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
T-604	Solvent/Chemical	VOC	1.0	---	
T-605	Solvent/Chemical	VOC	1.0	---	
T-606	Solvent/Chemical	VOC	1.0	---	
T-607	Solvent/Chemical	VOC	1.0	---	
T-608	Solvent/Chemical	VOC	1.0	---	
T-609	Solvent/Chemical	VOC	1.0	---	
T-610	Solvent/Chemical	VOC	1.0	---	
T-611	Methyldiethanolamine	VOC	1.0	---	56
T-612	Methyldiethanolamine	VOC	1.0	---	
801	#1 Crude Topping Furnace	Removed from Service			
802	#1 Crude Vacuum Furnace	Removed from Service			
803	Pre-flash Column Reboiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.4 5.6	2.4 2.4 4.4 1.0 6.3 24.7	74
804	#4 Atmospheric Furnace (Topping)	PM PM_{10} SO_2 VOC CO NO_x	1.1 1.1 5.4 1.0 8.9 9.1	5.0 5.0 23.8 1.4 38.9 39.8	74
805	#4 Vacuum Furnace	PM PM_{10} SO_2 VOC CO NO_x	1.5 1.5 9.0 1.0 6.7 9.0	6.8 6.8 39.6 1.0 29.6 39.6	74

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
806	#6 Hydrotreater Furnace/Reboiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 5.8 1.0 1.0 3.5	1.5 1.5 25.3 1.0 4.0 15.5	86
807	Asphalt Protective Coatings Baghouse	PM PM_{10}	1.0 1.0	1.0 1.0	88
808	#7 FCCU Furnace	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.4 1.0 3.5 6.2	3.4 3.4 6.1 1.0 15.1 27.1	74
809	#7 Catalyst Regenerator Stack	PM PM_{10} SO_2 VOC CO NO_x	75.0 75.0 442.9 183.3 2405.5 59.2	329.4 329.4 1945.3 805.1 10,565.0 260.1	90
810	#9 Hydrotreater Furnace/Reboiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.7 1.0 2.5 9.8	4.3 4.3 7.6 1.0 10.9 43.2	92
811	#9 Reformer Furnace	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 5.9 1.0 5.4 13.6	3.0 3.0 25.9 1.0 24.0 59.8	74
812	#9 Stabilizer Reboiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.0 2.8	1.2 1.2 3.9 1.0 3.1 12.4	94

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
813	#10 Hydrotreater Furnace/Reboiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.4 5.6	2.4 2.4 4.4 1.0 6.3 24.7	96
814	#11 Deasphalting Furnace	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.2 4.5	2.0 2.0 3.5 1.0 5.0 19.8	98
816	#10 Boiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 26.3 1.0 9.4 31.3	3.8 3.8 115.4 2.7 41.3 137.5	100
817	#11 Boiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 26.3 1.0 9.4 31.3	3.8 3.8 115.4 2.7 41.3 137.5	100
818	#12 Boiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 30.0 1.0 10.7 35.7	4.3 4.3 131.5 3.2 47.1 156.8	100
819	#13 Boiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 30.0 1.0 10.7 35.7	4.3 4.3 131.5 3.1 47.1 156.8	100

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
820	#14 Boiler	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 30.0 1.0 10.7 35.7	4.3 4.3 131.5 3.2 47.1 156.8	100
Combined Emissions of 823 and 823		PM PM_{10} SO_2 VOC CO NO_x	---	1.0 1.0 271.8 9.1 44.4 191.5	104
822	High Pressure Flare	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 31.4 1.5 5.5 22.2	---	104
823	Low Pressure Flare	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 31.4 1.5 5.5 22.2	---	104
824	#16 Asphalt Blowing Incinerator Stack	PM PM_{10} SO_2 VOC CO NO_x	1.7 1.7 25.3 1.0 1.0 2.1	7.5 7.5 111.1 1.0 2.3 9.3	108
825	#16 Asphalt Blowing Furnaces	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.0 1.6	1.0 1.0 1.3 1.0 1.7 6.9	110
826	Acid Fume Scrubber	H_2SO_4	1.0	1.0	112
827	Acid fume Scrubber	H_2SO_4	1.0	1.0	112

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
828	Asphalt Rack Steam Heater	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.0 1.4	1.0 1.0 1.2 1.0 1.6 6.3	113
829	Steam Superheater Furnace	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.0 1.4	1.0 1.0 1.1 1.0 1.6 6.3	74
830	Regenerant Furnace	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 1.0 1.0	1.0 1.0 1.0 1.0 1.0 1.2	74
831	#9 Continuous Catalyst Regenerator (CCR)	PM PM_{10} SO_2 CO NO_x Chlorine Hydrogen Chloride	1.0 1.0 1.0 1.1 1.0 1.0 1.0	1.0 1.0 1.8 5.0 1.8 1.8 48.2	115
832	48 Asphalt Tank Heaters	PM PM_{10} SO_2 VOC CO NO_x	1.3 1.3 2.7 1.0 2.2 10.2	5.5 5.5 11.6 2.4 9.5 44.9	117
833	South XVG Compressor	Source Removed from Service.			
Combined Emissions of 834 and 835		PM PM_{10} SO_2 VOC CO NO_x	---	1.0 1.0 1.0 1.0 10.4 12.0	119

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
834	North KVG Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 11.4 13.2	---	119
835	South KVG Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 11.4 13.2	---	119
836	8GTL Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 18.3 21.1	1.0 1.0 1.0 1.0 34.3 39.7	119
Combined Emissions of 837 and 838		PM PM_{10} SO_2 VOC CO NO_x	---	1.0 1.0 1.0 1.0 46.8 54.3	119
837	North 8SVG Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 10.5 12.1	---	119
838	South 10SVG Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 10.5 12.1	---	119

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
839	East JVG Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 4.6 5.3	1.0 1.0 1.0 1.0 20.1 23.2	119
840	West JVG Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 4.6 5.3	1.0 1.0 1.0 1.0 20.1 23.2	119
841	G398TA Air Compressor	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 13.3 18.2	1.0 1.0 1.0 1.0 58.5 80.0	119
842	#12 Unit Distillate Hydrotreater Furnace (Low NO_X Burners)	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.3 1.0 3.1 4.1	3.0 3.0 5.5 1.0 13.5 17.9	74
843	#12 Unit Stripper Reboiler Furnace (Low NO_X Burners)	PM PM_{10} SO_2 VOC CO NO_x	1.0 1.0 1.0 1.0 2.1 2.8	2.0 2.0 3.8 1.0 9.2 12.2	74
844	Sulfur Recovery Plant Catalytic Incinerator	PM PM_{10} SO_2 *SO_2 VOC CO NO_x H_2S	3.0 3.0 18.0 *250 ppm 1.5 8.1 6.0 0.5	13.1 13.1 39.4 --- 6.6 35.3 26.3 2.3	74

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
845	Sludge Management Facility (Lime Silo Baghouse)	PM PM_{10}	1.0 1.0	1.0 1.0	126
846	Gasoline/Diesel Rack	VOC 2,2,4 Trimethylpentane n-Hexane Benzene Ethyl Benzene Toluene Xylene	20.2 0.2 0.1 0.2 0.1 0.2 0.2	17.1 0.2 0.1 0.2 0.1 0.2 0.2	128
847	Asphalt Racks	VOC n-Hexane Benzene Ethyl Benzene Toluene Xylenes	605.5 0.10 0.40 0.90 4.70 3.20	257.8 0.10 0.20 0.40 2.10 1.40	130
848	#7 FCCU Catalyst Hopper Vents	PM PM_{10}	25.0 25.0	1.8 1.8	133
849	Standby Diesel Crude Pump	PM PM_{10} SO_2 VOC CO NO_x	1.5 1.5 1.3 1.7 12.2 20.2	1.4 1.4 1.2 1.6 11.7 19.3	134
850	Asphalt Hot Oil Heater	PM PM_{10} SO_2 VOC CO NO_X	1.0 1.0 1.0 1.0 1.1 4.2	1.8 1.8 1.0 1.0 4.7 18.5	74
851	Wastewater Collection, Treatment, and Storage	VOC	900.0	3942.0	136
852	Vacuum Distillation Unit	VOC	55.3	242.1	137
853	Cooling Towers	VOC	24.4	106.8	138

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SN	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
854	Fugitive Equipment Leaks	VOC	591.0	2588.3	139
		Carbonyl Sulfide	0.01	0.01	
		Carbon Disulfide	0.01	0.03	
		1,3 Butadiene	0.09	0.40	
		Cresols	1.50	6.50	
		Benzene	4.30	18.90	
		Ethylbenzene	4.40	19.40	
		n-Hexane	13.10	57.20	
		Naphthalene	3.00	13.00	
		Phenol	0.90	3.90	
		Toluene	12.20	53.60	
		Xylenes	13.50	58.90	
		Diethyl Amine	5.40	23.60	
		Perchloroethylene	0.80	3.40	
		Carbon Tetrachloride	0.80	3.40	
		1,1,1 Trichloroethylene	0.80	3.40	
		Methylene Chloride	0.80	3.50	
855	#8 Hydrotreater Furnace	PM	1.0	2.5	74
		PM_{10}	1.0	2.5	
		SO_2	1.9	8.2	
		VOC	1.0	1.8	
		CO	6.2	27.2	
		NO_X	6.0	26.2	

SECTION III: PERMIT HISTORY

Permit #82-A was issued on November 19, 1971. This permit was for the construction of a sodium hydrosulfide plant to replace the existing sulfur recovery plant.

Permit #167-A was issued September 28, 1973. This permit approved a catalytic cracking facility by combining two catalytic cracking units into one.

Permit #252-A was issued in July 1974. This permit allowed the replacement of three uncontrolled flares with one John Zink STF-SA-24S smokeless flare.

Permit #167-A (modification) was issued on September 27, 1974. This permit allowed the continued operation of the #3 fluid catalytic cracking unit beyond the period designated in the original permit in order to allow time to increase the capacity of the #7 unit.

Permit #337-A was issued on May 28, 1976. This permit allowed the installation of a stripper to remove H_2S from the refinery wastewater stream with the off gas being treated by the existing sodium hydrosulfide unit.

Permit #338-A was issued on May 28, 1976. This permit allowed the installation of a scrubber-incinerator-waste heat boiler to control emissions from the Asphalt plant.

Permit #423-A was issued on August 18, 1977. In this permit, the facility proposed to install a baghouse to control asbestos emissions from the protective coatings plant.

Permit #438-A was issued on November 18, 1977. This permit allowed the installation of a pre-flash column reboiler heater in order for the facility to meet the EPA's requirement to reduce lead in gasoline.

Permit #454-A was issued on March 24, 1978. This permit allowed the facility to replace the existing truck loading dock with a new truck transport terminal for gasolines, distillates, and LPGs.

Permit #337-A (modification) was issued in March 1978. There had been a delay in the modification of the hydrosulfide unit. This permit allowed the facility to operate the stripper prior to the upgrade.

Permit #520-A was issued on September 29, 1978. This permit allowed the installation of new and revamped platforming and unifining furnaces in order for the facility to meet the second part of the lead phasedown as required by the EPA.

Permit #252-A (modification) was issued in June, 1979. This permit allowed the replacement of two 16 inch flares with one 24 inch high pressure flare.

Permit #252-A (modification) was issued on November 20, 1981. This permit allowed the facility to replace a gasoline blending storage tank that had been condemned by increasing the use of the remaining tanks and reactivating out of service tanks. In order to comply with NSPS requirements Tank #124 was fitted with a secondary seal to the external floating roof. Tanks #108 and #109 were fitted with internal floating roofs.

Permit #868-A was issued on January 4, 1988. This permit served to consolidate all of the active permits held by this facility into one permit. It also permitted an Asphalt loading heater and Isomerization Project as part of the lead phasedown required by the EPA.

Permit #868-AR-1 was issued on December 26, 1990. This modification allowed the installation of a topping furnace on the #4 crude unit.

Permit #868-AR-2 was issued on June 7, 1991. This modification allowed the installation of a continuous catalyst regeneration unit of a platforming unit.

Permit #868-AR-3 was issued on January 5, 1993. This modification permitted the installation of a 100,000 barrel Asphalt storage tank.

Permit #868-AR-4 was issued on May 27, 1993. This modification permitted with the installation of a distillate hydrotreater with a capacity of 20,000 barrels per day. The purpose of this modification was to make on-road diesel quality fuel to meet the Clean Air Act Standards.

Permit #1596-A was issued on January 31, 1995. This permit allowed the installation of a Sulfur Recovery Plant to produce elemental sulfur.

Permit #868-AR-5 was issued on August 12, 1996. This modification dealt with the installation of a new 50,000 barrel storage tank to replace an existing tank, installation of a 25,000 BPD vacuum furnace to replace an existing furnace, installation of a Sulfur Recovery Plant to replace the existing Sodium Hydrosulfide Unit, and to document the emissions from on site storage tanks, product loading racks, and process fugitive emissions. Permits #868-AR-4 and #1596-A were consolidated.

Permit #868-AR-6 was issued on February 6, 1998. This minor modification was to install a standby diesel fueled crude pump in order for Tank #63 (SN-T-63 for this permit, SN-73 of the old permit) to meet the standards of 40 CFR 63, Subpart CC- *National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries*. The installation of the new pumping

system allowed the tank to be taken out of crude oil storage service, and to be classified as a Group II storage vessel. This minor modification also allowed the facility to reduce VOC emissions from the tank, reduce crude oil inventories, and provide full emergency standby crude capacity in the event of a power failure.

Permit #868-AR-7 was issued on June 3, 1998. The purpose of this minor modification was to install an above ground storage tank (SN T-552) to replace an underground storage tank used to store gasoline for the company's motor fuel demands. The underground tank was owned by a company which provided fuel to Lion Oil.

In previous permitting actions, the tank numbers did not coincide with the source numbers. In order to eliminate confusion and correct the problem, the source numbers for the facility were changed in this permitting action. Source numbers 01-700 are reserved for tank purposes. Source numbers for the other sources start at 801. See Appendix L.

SECTION IV: EMISSION UNIT INFORMATION

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Plantwide Applicability Limit (PAL)
All Facility Tanks

Source Description

The following is a summary of all tanks and applicable regulations.

For simplicity, all of the tanks are described in the following table.

*Key FCR = Fixed Cone Roof
FDR = Fixed Dome Roof
FFR = Fixed Flat Roof
EFR = External Floating Roof
IFR = Internal Floating Roof
OR = Open Roof Tank
HOR = Horizontal Tank

Tank Descriptions						
SN	Product Stored	Tank Design	Year	Storage Capacity (barrels)	NSPS Regulation	40 CFR 63, Subpart CC Group*
T-3	Diesel Oil Blend	FCR	1950	3,320	---	2
T-4	Alkylate	FCR	1953	4,890	---	2
T-8	Sour Water Stripper Feed	EFR	1999	20,000	Kb	
T-11	Diesel Oil Blend	FCR	1959	4,930	---	2
T-12	Diesel Oil Blend	FCR	1955	4,930	---	2
T-14	Solvent/Chemical	FCR	1942	2,997	---	2
T-15	Diesel Oil Blend	FCR	1942	2,997	---	2
T-16	Asphalt/Cutback	FCR	1950	4,412	---	2
T-17	Asphalt/Cutback	FCR	1940	3,672	---	2
T-18	Solvent/Chemical	FCR	1949	3,160	---	2
T-20	Slurry Oil/Gas Oil	FCR	1945	3,410	---	2
T-21	Gas Oil	FCR	1945	3,410	---	2
T-22	Asphalt/Cutback	FCR	1953	1,930	---	2
T-23	Asphalt	FCR	1953	1,930	---	2
T-24	Asphalt	FCR	1999	3,059	see notes[iii]	2
T-25	Slop Oil	FCR	1940	14,940	---	2
T-27	Solvent/Chemical	FCR	1950	3,553	---	2
T-36	Alkylate	IFR	1953	4,890	---	1
T-39	Asphalt	FCR	1958	4,890	---	2
T-40	Asphalt	FCR	1940	3,672	---	2
T-41	Asphalt	FCR	1940	3,672	---	2
T-46	Gas Oil/Flux	HOR	1933	752	---	2
T-48	Gas Oil	FCR	1923	1,120	---	2

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Tank Descriptions						
SN	Product Stored	Tank Design	Year	Storage Capacity (barrels)	NSPS Regulation	40 CFR 63, Subpart CC Group*
T-49	Gas Oil	FCR	1923	1,120	---	2
T-50	Diesel Oil Blend	FCR	1937	9,984	---	2
T-51	Diesel Oil Blend	FCR	1940	11,748	---	2
T-54	Diesel Oil Blend	FDR	1922	15,090	---	2
T-55	Asphalt	FFR	1923	15,090	---	2
T-56	Asphalt	FCR	1923	15,090	---	2
T-57	Gasoline	FCR	1949	10,330	---	2
T-58	Gasoline	FFR	1952	10,120	---	2
T-60	Slurry Oil	FCR	1923	15,090	---	2
T-61	Gasoline	EFR	1949	20,160	---	1
T-62	Platformate	EFR	1949	20,140	---	1
T-63	Crude Oil	FCR	1957	8,602	---	2
T-64	Platformate	IFR	1957	10,120	---	1
T-65	Gasoline	EFR	1954	10,120	---	1
T-70	Solvent/Chemical	FCR	1935	976	---	2
T-71	Solvent/Chemical	FCR	1935	976	---	2
T-72	Solvent/Chemical	FCR	1950	900	---	2
T-73	Asphalt/Cutback	FCR	1950	900	---	2
T-74	Asphalt/Cutback	FCR	1950	900	---	2
T-76	Asphalt	FCR	1938	36,293	---	2
T-77	Solvent/Chemical	FCR	1945	100	---	2
T-78	Asphalt	FCR	1999	5,000	---	2
T-81	Gas Oil	FFR	1936	5,079	---	2
T-83	Slurry Oil	FCR	1938	20,039	---	2
T-84	Gas Oil	FCR	1953	10,120	---	2
T-85	Alkylate	IFR	1954	10,120	---	1
T-88	Gasoline	EFR	1987	20,120	Kb	1
T-89	Gasoline	EFR	1948	20,120	---	1
T-96	Gas Oil/Flux	FCR	1940	990	---	2
T-97	Slurry Oil	FCR	1940	990	---	2
T-98	Gas Oil/Flux	FCR	1940	990	---	2
T-99	Asphalt	FCR	1940	1,008	---	2
T-101	Asphalt	FCR	1922	54,990	---	2
T-102	Asphalt	FCR	1922	55,236	---	2
T-103	Gasoline	EFR	1995	50,000	Kb	1
T-104	Asphalt	FCR	1923	55,500	---	2
T-105	Asphalt	FCR	1923	64,310	---	2

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SN	Product Stored	Tank Design	Year	Storage Capacity (barrels)	NSPS Regulation	40 CFR 63, Subpart CC Group*
T-107	Asphalt	FCR	1923	55,140	---	2
T-108	Diesel Oil Blend	IFR	1982	55,447	Ka -see notes[i]	2
T-109	Diesel Oil Blend	IFR	1982	55,367	Ka -see notes[i]	2
T-110	Asphalt	FCR	1928	55,628	---	2
T-111	Asphalt	FCR	1936	55,755	---	2
T-112	Slop Oil	FCR	1923	55,294	---	2
T-113	Diesel Oil Blend	FCR	1995	50,000	see notes[iii]	2
T-114	Gas Oil	FCR	1923	54,720	---	2
T-115	Gas Oil	FCR	1923	54,601	---	2
T-116	Gas Oil	FCR	1923	55,050	---	2
T-117	Gas Oil	FCR	1923	55,000	---	2
T-118	Asphalt	FCR	1944	54,813	---	2
T-119	Diesel Oil Blend	FCR	1940	55,140	---	2
T-120	Crude Oil	IFR	1949	80,419	---	1
T-121	Diesel Oil Blend	FCR	1949	80,440	---	2
T-122	Diesel Oil Blend	FCR	1953	80,440	---	2
T-123	Crude Oil	EFR	1949	80,377	---	1
T-124	Gasoline	EFR	1959	54,432	---	1
T-125	Gasoline	EFR	1953	55,960	---	1
T-126	Gasoline/Naphtha	EFR	1953	55,960	---	1
T-128	Gasoline	EFR	1959	81,216	---	1
T-129	Slurry Oil	FCR	1937	2,546	---	2
T-142	Spent Acid	FCR	1982	2,000	see notes[iv]	2
T-143	Spent Acid	FCR	1982	2,000	see notes[iv]	2
T-145	Asphalt/Cutback	FCR	1950	241	---	2
T-162	Asphalt/Cutback	FCR	1951	2,050	---	2
T-165	Asphalt/Cutback	HOR	1923	1,120	---	2
T-166	Asphalt/Cutback	HOR	1923	1,120	---	2
T-167	Asphalt/Cutback	FCR	1940	1,120	---	2
T-168	Asphalt/Cutback	FCR	1940	1,331	---	2
T-170	Solvent/Chemical	FCR	1950	644	---	2
T-171	Asphalt/Cutback	FCR	1950	644	---	2
T-173	Asphalt/Cutback	HOR	1945	420	---	2
T-175	Asphalt	FCR	1940	5,128	---	2
T-176	Asphalt	FCR	1940	5,128	---	2
T-180	Solvent/Chemical	FCR	1959	300	---	2
T-190	Solvent/Chemical	HOR	1940	158	---	2

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SN	Product Stored	Tank Design	Year	Storage Capacity (barrels)	NSPS Regulation	40 CFR 63, Subpart CC Group*
T-199	Solvent/Chemical	FCR	1957	1,893	---	2
T-200	Diesel Oil Blend	FCR	1936	2,180	---	2
T-217	Lube Oil	HOR	1964	52	---	2
T-219	Asphalt	FCR	1967	56,000	---	2
T-226	Solvent/Chemical	FCR	1936	273	---	2
T-228	Lube Oil	FCR	1936	273	---	2
T-240	Platformate/Naphtha	FCR	1953	3,036	---	2
T-241	Diesel Oil Blend	FCR	1953	2,775	---	2
T-242	Diesel Oil Blend	FCR	1953	2,688	---	2
T-243	Diesel Oil Blend	FCR	1953	3,279	---	2
T-244	Diesel Oil Blend	FCR	1953	2,088	---	2
T-245	Naphtha	IFR	1953	3,132	---	1
T-246	Naphtha	IFR	1953	3,107	---	1
T-247	Diesel Oil Blend	FCR	1959	5,130	---	2
T-262	Diesel Oil Blend	FCR	1938	5,061	---	2
T-263	Diesel Oil Blend	FCR	1938	5,061	---	2
T-264	Diesel Oil Blend	FCR	1938	5,061	---	2
T-265	Diesel Oil Blend	FCR	1938	5,061	---	2
T-270	Diesel Oil Blend	FCR	1941	9,384	---	2
T-271	Diesel Oil Blend	FCR	1941	9,240	---	2
T-272	Lube Oil	FCR	1986	1,000	see notes[iii]	2
T-273	Lube Oil	FCR	1986	1,000	see notes[iii]	2
T-274	Lube Oil	FCR	1986	1,000	see notes[iii]	2
T-306	Solvent/Chemical	FCR	1952	133	---	2
T-310	Asphalt/Cutback	FCR	1950	992	---	2
T-311	Asphalt/Cutback	FCR	1950	54	---	2
T-312	Asphalt/Cutback	FCR	1950	54	---	2
T-313	Asphalt/Cutback	FCR	1950	54	---	2
T-314	Asphalt/Cutback	FCR	1950	52	---	2
T-315	Asphalt/Cutback	FCR	1950	52	---	2
T-319	Asphalt/Cutback	FCR	1950	286	---	2
T-320	Asphalt/Cutback	FCR	1950	286	---	2
T-321	Asphalt/Cutback	FCR	1950	286	---	2
T-322	Asphalt/Cutback	FCR	1950	286	---	2
T-323	Asphalt/Cutback	FCR	1950	286	---	2
T-324	Perchloroethylene	FCR	1992	286	see notes[v]	2
T-325	Asphalt/Cutback	FCR	1950	286	---	2

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SN	Product Stored	Tank Design	Year	Storage Capacity (barrels)	NSPS Regulation	40 CFR 63, Subpart CC Group*
T-326	Asphalt/Cutback	FCR	1950	286	---	2
T-327	Asphalt/Cutback	FCR	1950	286	---	2
T-328	Asphalt/Cutback	FCR	1950	286	---	2
T-329	Asphalt/Cutback	FCR	1950	286	---	2
T-330	Methylene Chloride	FCR	1950	286	---	2
T-331	Asphalt/Cutback	FCR	1950	286	---	2
T-332	Asphalt/Cutback	FCR	1950	286	---	2
T-333	Asphalt/Cutback	FCR	1950	286	---	2
T-335	Solvent/Chemical	FCR	1950	95	---	2
T-336	Tricresyl Phosphate	FCR	1950	95	---	2
T-337	Asphalt/Cutback	FCR	1950	95	---	2
T-338	Asphalt/Cutback	FCR	1950	95	---	2
T-339	Asphalt/Cutback	FCR	1950	95	---	2
T-340	Asphalt/Cutback	FCR	1961	504	---	2
T-348	Asphalt	FCR	1968	5,275	---	2
T-349	Asphalt/Cutback	FCR	1968	5,279	---	2
T-350	Asphalt/Cutback	FCR	1954	1,382	---	2
T-351	Asphalt/Cutback	FCR	1954	1,382	---	2
T-352	Asphalt/Cutback	FCR	1954	1,382	---	2
T-353	Asphalt/Cutback	FCR	1954	1,382	---	2
T-354	Asphalt	FCR	1954	1,386	---	2
T-355	Asphalt/Cutback	FCR	1959	1,006	---	2
T-356	Solvent/Chemical	FCR	1961	285	---	2
T-360	Naphtha	IFR	1957	15,120	---	1
T-361	Naphtha	IFR	1957	15,120	---	1
T-368	Gas Oil	FCR	1966	10,120	---	2
T-371	Naphtha	IFR	1959	10,120	---	1
T-372	Diesel Oil Blend	FCR	1959	10,120	---	2
T-384	Asphalt	FCR	1999	3,060	see notes[iii]	2
T-385	Asphalt	FCR	1999	3,060	see notes[iii]	2
T-386	Asphalt	FCR	1999	3,060	see notes[iii]	2
T-387	Asphalt	FCR	1999	3,060	see notes[iii]	2
T-410	Diesel Oil Blend	FCR	circa-1945	80,760	---	2
T-411	Diesel Oil Blend	FCR	circa-1945	80,760	---	2
T-412	Diesel Oil Blend	FCR	circa-1945	80,760	---	2
T-413	Diesel Oil Blend	FCR	circa-1945	80,760	---	2
T-414	Diesel Oil Blend	FCR	circa-1945	80,760	---	2

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SN	Product Stored	Tank Design	Year	Storage Capacity (barrels)	NSPS Regulation	40 CFR 63, Subpart CC Group*
T-429	Source Removed.					
T-432	Spent Caustic	FCR	1978	2,025	see notes[vii]	2
T-520	Gas Oil	FCR	1950	55,000	---	2
T-521	Crude Oil	EFR	1950	55,000	---	2
T-524	Gas Oil	FCR	1951	55,000	---	2
T-525	Crude Oil	EFR	1951	55,000	---	2
T-530	Gas Oil	FCR	1951	55,000	---	2
T-532	Gasoline	IFR	1981	32,784	Ka	1
T-538	Lube Oil	FCR	1989	24	see notes[vi]	2
T-539	Lube Oil	FCR	1989	24	see notes[vi]	2
T-540	Diesel Oil Blend	HOR	1987	242	---	2
T-544	Asphalt	FCR	1991	5,250	see notes[iii]	2
T-548	Asphalt	FCR	1993	100,000	see notes[iii]	2
T-549	Solvent/Chemical	FCR	1994	143	see notes[vi]	2
T-550	Solvent/Chemical	HOR	1985	48	see notes[vi]	2
T-551	Solvent/Chemical	HOR	1994	24	see notes[vi]	2
T-552	Gasoline	HOR	1996	242	see notes[vi]	2
T-553	Asphalt	FCR	1999	1,500	see notes[iii]	
T-570	Crude Oil	EFR	1959	125,000	---	2
T-600	Solvent/Chemical	HOR	1994	48	see notes[vi]	2
T-601	Solvent/Chemical	HOR	1994	24	see notes[vi]	2
T-602	Solvent/Chemical	HOR	1994	24	see notes[vi]	2
T-603	Solvent/Chemical	HOR	1995	24	see notes[vi]	2
T-604	Solvent/Chemical	HOR	1994	13	see notes[vi]	2
T-605	Solvent/Chemical	HOR	1996	13	see notes[vi]	2
T-606	Solvent/Chemical	HOR	1996	13	see notes[vi]	2
T-607	Solvent/Chemical	HOR	1990	36	see notes[vi]	2
T-608	Solvent/Chemical	HOR	1987	190	see notes[vi]	2
T-609	Solvent/Chemical	HOR	1995	143	see notes[vi]	2
T-610	Solvent/Chemical	FCR	1980	8	see notes[ii]	2
T-611	Methyldiethanolaminee	FCR	1995	190	see notes[vi]	2
T-612	Methyldiethanolaminee	FCR	1995	71	see notes[vi]	2

*Group 1 and Group 2 determinations are based on the average annual HAP concentration.

NSPS Regulation Notes

i. Pursuant to 40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984*, Tanks #108 and #109 are affected sources as described in §60.110a. However, they are exempt from the requirements of the subpart by §60.115a(d). (See Appendix A.)

ii. Pursuant to 40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984*, Tank T-610 is not an affected source because it is smaller than 40,000 gallons.

iii. Pursuant to 40 CFR 60, Subpart Kb- *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, Tanks T-24, T-113, T-272 through T-274, T-384 through T-387, T-544, T-548, and T-553 are exempted the General Provisions of 40 CFR 60 and the provisions of Subpart Kb by §60.110b(c), except for §60.116b(a) and (b), because they store a liquid with a maximum true vapor pressure less than 3.5 kPa (0.5 psia). (See Appendix B.)

iv. Pursuant to 40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984*, tanks T-142 and T-143 are not affected facilities because they do not contain a petroleum liquid.

v. Pursuant to 40 CFR 60, Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, tank T-324 is not an affected source under §60.110(a) because it does not contain a VOL. (See Appendix B.)

vi. Pursuant to 40 CFR 60, Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, Tank's T-538, T-539, T-549 to T-552, T-600 to T-608, T-611, and T-612 are not affected sources because they are smaller than 40 m^3.

vii. Pursuant to 40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984*, tank T-432 is not an affected facility because it does not contain a petroleum liquid.

All other tanks, except tanks T-88, T-103, and T-532, were constructed prior to June 11, 1973 and are, therefore, not subject to 40 CFR 60, Subpart K, Ka, or Kb. The NSPS for tanks T-88, T-103, and T-532 are outlined in the Specific Conditions.

All tanks have been classified as a Group I or Group II storage vessel in accordance with the provisions of 40 CFR 63, Subpart CC-*National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries*. Subpart CC is outlined in the Plantwide Conditions of this permit.

Plantwide Applicability Limit

In order to demonstrate compliance with the emission limits for the tanks, the facility has decided to operate under a Plantwide Applicability Limit (PAL) for tanks. This PAL is meant to allow the facility flexibility in operation and production while at the same time limiting the amount of pollutants emitted from the tanks.

Specific Conditions

1. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the facility shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the conditions of the PAL, monthly and annual VOC inventories, and 40 CFR60, Subparts Ka and Kb and Plantwide Condition #8.

SN	Tank Description	Pollutant	lb/hr	tpy
PAL	----	VOC	13,107.8	7353.6
T-3	Diesel Oil Blend	VOC	12.4	---
T-4	Alkylate Tank	VOC	354.5	---
T-11	Diesel Oil Blend	VOC	12.4	---
T-12	Diesel Oil Blend	VOC	12.4	---
T-14	Solvent/Chemical	VOC	16.0	---
T-15	Diesel Oil Blend	VOC	19.9	---
T-16	Asphalt/Cutback	VOC	150.6	---
T-17	Asphalt/Cutback	VOC	319.9	---
T-18	Solvent/Chemical	VOC	16.1	---
T-20	Slurry Oil/Gas Oil	VOC	1.0	---
T-21	Gas Oil	VOC	1.0	---
T-22	Asphalt/Cutback	VOC	773.7	---

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SN	Tank Description	Pollutant	lb/hr	tpy
T-23	Asphalt	VOC	1.0	---
T-24	Asphalt	VOC	8.4	---
T-25	Slop Oil	VOC	18.0	---
T-27	Solvent/Chemical	VOC	16.0	---
T-36	Alkylate	VOC	1.5	---
T-39	Asphalt	VOC	1.0	---
T-40	Asphalt	VOC	1.0	---
T-41	Asphalt	VOC	1.0	---
T-46	Gas Oil/Flux	VOC	1.9	---
T-48	Gas Oil	VOC	1.0	---
T-49	Gas Oil	VOC	1.0	---
T-50	Diesel Oil Blend	VOC	12.4	---
T-51	Diesel Oil Blend	VOC	12.3	---
T-54	Diesel Oil Blend	VOC	31.9	---
T-55	Asphalt	VOC	1.0	---
T-56	Asphalt	VOC	5.4	---
T-57	Gasoline	VOC	952.4	---
T-58	Gasoline	VOC	952.5	---
T-60	Slurry Oil	VOC	1.0	---
T-61	Gasoline	VOC	4.8	---
T-62	Platformate	VOC	2.6	---
T-63	Crude Oil	VOC	248.4	---
T-64	Platformate	VOC	1.0	---
T-65	Gasoline	VOC	14.0	---
T-70	Solvent/Chemical	VOC	3.1	---
T-71	Solvent/Chemical	VOC	3.1	---
T-72	Solvent/Chemical	VOC	13.7	---
T-73	Asphalt/Cutback	VOC	319.0	---
T-74	Asphalt/Cutback	VOC	319.0	---
T-76	Asphalt	VOC	1.0	---
T-77	Solvent/Chemical	VOC	1.0	---
T-78	Asphalt	VOC	4.7	---
T-81	Gas Oil	VOC	1.0	---

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SN	Tank Description	Pollutant	lb/hr	tpy
T-83	Slurry Oil	VOC	1.0	---
T-84	Gas Oil	VOC	1.0	---
T-85	Alkylate	VOC	1.5	---
T-88	Gasoline	VOC	6.6	---
T-89	Gasoline	VOC	6.6	---
T-96	Gas Oil/Flux	VOC	7.1	---
T-97	Slurry Oil	VOC	3.0	---
T-98	Gas Oil/Flux	VOC	7.8	---
T-99	Asphalt	VOC	10.2	---
T-101	Asphalt	VOC	1.4	---
T-102	Asphalt	VOC	1.1	---
T-103	Gasoline	VOC	5.2	---
T-104	Asphalt	VOC	1.0	---
T-105	Asphalt	VOC	1.0	---
T-107	Asphalt	VOC	1.2	---
T-108	Diesel Oil Blend	VOC	1.0	---
T-109	Diesel Oil Blend	VOC	1.0	---
T-110	Asphalt	VOC	1.0	---
T-111	Asphalt	VOC	1.0	---
T-112	Slop Oil	VOC	28.0	---
T-113	Diesel Oil Blend	VOC	25.6	---
T-114	Gas Oil	VOC	1.0	---
T-115	Gas Oil	VOC	1.0	---
T-116	Gas Oil	VOC	1.0	---
T-117	Gas Oil	VOC	1.0	---
T-118	Asphalt	VOC	1.0	---
T-119	Diesel Oil Blend	VOC	31.0	---
T-120	Crude Oil	VOC	1.5	---
T-121	Diesel Oil Blend	VOC	36.1	---
T-122	Diesel Oil Blend	VOC	36.1	---
T-123	Crude Oil	VOC	1.5	---
T-124	Gasoline	VOC	5.1	---
T-125	Gasoline	VOC	9.2	---

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SN	Tank Description	Pollutant	lb/hr	tpy
T-126	Gasoline	VOC	9.2	---
T-128	Gasoline	VOC	9.7	---
T-129	Slurry Oil	VOC	1.0	---
T-142	Spent Acid	VOC	1.0	---
T-143	Spent Acid	VOC	1.0	---
T-145	Asphalt/Cutback	VOC	162.3	---
T-162	Asphalt/Cutback	VOC	322.2	---
T-165	Asphalt/Cutback	VOC	1312.1	---
T-166	Asphalt/Cutback	VOC	1312.1	---
T-167	Asphalt/Cutback	VOC	18.3	---
T-168	Asphalt/Cutback	VOC	20.1	---
T-170	Solvent/Chemical	VOC	3.5	---
T-171	Asphalt/Chemical	VOC	222.4	---
T-173	Asphalt/Cutback	VOC	280.2	---
T-175	Asphalt	VOC	1.0	---
T-176	Asphalt	VOC	1.0	---
T-180	Solvent/Chemical	VOC	1.0	---
T-190	Tall Oil Tank	VOC	1.0	---
T-199	Solvent/Chemical	VOC	15.4	---
T-200	Diesel Oil Blend	VOC	6.2	---
T-217	Lube Oil	VOC	1.0	---
T-219	Asphalt	VOC	1.1	---
T-226	Solvent/Chemical	VOC	1.0	---
T-228	Lube Oil	VOC	1.0	---
T-240	Platformate/Naphtha	VOC	164.4	---
T-241	Diesel Oil Blend	VOC	5.0	---
T-242	Diesel Oil Blend	VOC	5.0	---
T-243	Diesel Oil Blend	VOC	25.5	---
T-244	Diesel Oil Blend	VOC	17.8	---
T-245	Naphtha	VOC	1.0	---
T-246	Naphtha	VOC	1.0	---
T-247	Diesel Oil Blend	VOC	7.1	---
T-262	Diesel Oil Blend	VOC	27.9	---

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SN	Tank Description	Pollutant	lb/hr	tpy
T-263	Diesel Oil Blend	VOC	27.9	---
T-264	Diesel Oil Blend	VOC	27.9	---
T-265	Diesel Oil Blend	VOC	27.9	---
T-270	Diesel Oil Blend	VOC	27.9	---
T-271	Diesel Oil Blend	VOC	27.9	---
T-272	Lube Oil	VOC	1.2	---
T-273	Lube Oil	VOC	1.2	---
T-274	Lube Oil	VOC	1.2	---
T-306	Solvent/Chemical	VOC	3.9	---
T-310	Asphalt/Cutback	VOC	21.8	---
T-311	Asphalt/Cutback	VOC	7.3	---
T-312	Asphalt/Cutback	VOC	7.3	---
T-313	Asphalt/Cutback	VOC	7.3	---
T-314	Asphalt/Cutback	VOC	7.8	---
T-315	Asphalt/Cutback	VOC	7.8	---
T-319	Asphalt/Cutback	VOC	17.2	---
T-320	Asphalt/Cutback	VOC	17.2	---
T-321	Asphalt/Cutback	VOC	17.2	---
T-322	Asphalt/Cutback	VOC	17.1	---
T-323	Asphalt/Cutback	VOC	17.1	---
T-324	Perchloroethylene	VOC	21.8	---
T-325	Asphalt/Cutback	VOC	17.2	---
T-326	Asphalt/Cutback	VOC	28.8	---
T-327	Asphalt/Cutback	VOC	28.8	---
T-328	Asphalt/Cutback	VOC	17.2	---
T-329	Asphalt/Cutback	VOC	17.2	---
T-330	Methylene Chloride	Removed From Service		
T-331	Asphalt/Cutback	VOC	17.2	---
T-332	Asphalt/Cutback	VOC	17.2	---
T-333	Asphalt/Cutback	VOC	17.2	---
T-335	Solvent/Chemical	VOC	1.0	---
T-336	Tricresyl Phosphate	VOC	1.0	---
T-337	Asphalt/Cutback	VOC	17.2	---

SN	Tank Description	Pollutant	lb/hr	tpy
T-338	Asphalt/Cutback	VOC	17.2	---
T-339	Asphalt/Cutback	VOC	6.5	---
T-340	Asphalt/Cutback	VOC	26.8	---
T-348	Asphalt	VOC	7.9	---
T-349	Asphalt/Cutback	VOC	467.3	---
T-350	Asphalt/Cutback	VOC	697.4	---
T-351	Asphalt/Cutback	VOC	697.4	---
T-352	Asphalt/Cutback	VOC	623.6	---
T-353	Asphalt/Cutback	VOC	343.8	---
T-354	Asphalt	VOC	1.0	---
T-355	Asphalt/Cutback	VOC	255.3	---
T-356	Solvent/Chemical	VOC	1.0	---
T-360	Naphtha	VOC	1.0	---
T-361	Naphtha	VOC	1.0	---
T-368	Gas Oil	VOC	1.0	---
T-371	Naphtha	VOC	1.0	---
T-372	Diesel Oil Blend	VOC	6.7	---
T-384	Asphalt	VOC	8.4	---
T-385	Asphalt	VOC	8.4	---
T-386	Asphalt	VOC	8.4	---
T-387	Asphalt	VOC	8.4	---
T-410	Diesel Oil Blend	VOC	16.2	---
T-411	Diesel Oil Blend	VOC	16.4	---
T-412	Diesel Oil Blend	VOC	16.2	---
T-413	Diesel Oil Blend	VOC	16.2	---
T-414	Diesel Oil Blend	VOC	16.2	---
T-429	Source Removed.			
T-432	Spent Caustic	VOC	6.4	---
T-520	Gas Oil	VOC	1.0	---
T-521	Crude Oil	VOC	7.3	---
T-524	Gas Oil	VOC	3.1	---
T-525	Crude Oil	VOC	3.1	---
T-530	Gas Oil	VOC	3.1	---

SN	Tank Description	Pollutant	lb/hr	tpy
T-532	Gasoline	VOC	2.7	---
T-538	Lube Oil	VOC	1.0	---
T-539	Lube Oil	VOC	1.0	---
T-540	Diesel Oil Blend	VOC	6.4	---
T-544	Asphalt	VOC	1.6	---
T-548	Asphalt	VOC	1.0	---
T-549	Solvent/Chemical	VOC	1.0	---
T-550	Solvent/Chemical	VOC	1.0	---
T-551	Solvent/Chemical	VOC	1.0	---
T-552	Gasoline	VOC	332.1	---
T-553	Asphalt	VOC	2.5	---
T-570	Crude Oil	VOC	9.3	---
T-600	Solvent/Chemical	VOC	1.0	---
T-601	Solvent/Chemical	VOC	1.0	---
T-602	Solvent/Chemical	VOC	1.0	---
T-603	Solvent/Chemical	VOC	1.0	---
T-604	Solvent/Chemical	VOC	1.0	---
T-605	Solvent/Chemical	VOC	1.0	---
T-606	Solvent/Chemical	VOC	1.0	---
T-607	Solvent/Chemical	VOC	1.0	---
T-608	Solvent/Chemical	VOC	1.0	---
T-609	Solvent/Chemical	VOC	1.0	---
T-610	Solvent/Chemical	VOC	1.0	---
T-611	Methyldiethanolamine	VOC	1.0	---
T-612	Methyldiethanolamine	VOC	1.0	---

2. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this source shall not exceed the emission rates set forth in the following table. *(The HAPs were calculated on a tank by tank basis and then summed to obtain a total. Because several of these emissions are insignificant on tank by tank basis, emission limits have not been assigned to individual tanks in the permit.)* Compliance with these limits shall be demonstrated by compliance with the conditions of the PAL, monthly and annual HAP inventories, and 40 CFR 60, Subparts Ka and Kb and Plantwide Condition #8.

SN	Pollutant	lb/hr	tpy
SN's T-3 through T-612	2,2,4 Trimethylpentane	91.1	55.7
	n-hexane	46.4	38.6
	Benzene	34.4	37.8
	Ethyl Benzene	17.1	9.0
	Toluene	102.1	55.5
	Xylenes	88.4	44.2
	Naphthalene	0.6	2.3
	Cumene	0.1	0.4
	Perchloroethylene	21.8	5.0
	Vinyl Acetate	0.1	0.1

3. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall emit no HAPs other than those permitted in this section.

4. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the tanks permitted in this section (SN's T-3 through T-612) shall be used only for the storage of the products named in the table or lower vapor pressure products.

5. Pursuant to, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the PAL limits the total emissions from the tanks at this facility to 7,353.6 tons of VOC per consecutive twelve month period as demonstrated by Specific Condition #6.

6. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility shall maintain a monthly inventory of the VOC emissions from each tank. This inventory shall be calculated by the methods and equations used in AP-42, 5th Edition, Chapter 7.1, "Organic Liquid Storage Tanks." Records for the monthly inventory of emissions from each tank shall include the source number, product stored, monthly throughput, and the monthly emissions in pounds and tons. The emissions from this inventory shall be summed to determine the total amount of emissions from the tanks.

7. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, Records for the VOC emission rate and individual tank inventory shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on-site and submitted in accordance with General Condition #7.

8. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall maintain a monthly inventory of the HAP emissions from each tank. This inventory shall be calculated based up upon the weight percent of HAP in the product being stored and/or the weight percent of the HAP in the vapor space. Records for the monthly inventory of emissions from each tank shall include the source

number, product stored, monthly throughput, and the monthly emissions in pounds and tons. The emissions from this inventory shall be summed to determine the total amount of emissions from the tanks.

9. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, records for the HAP emission rate and individual tank inventory shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on-site and submitted in accordance with General Condition #7.

10. Pursuant to 40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984*, Tanks #108 and #109 follow the requirements of §60.115a(d), store petroleum liquid with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia), in order to remain exempt from the subpart. (See Appendix A.)

11. Pursuant to 40 CFR 60, Subpart Kb- *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, tanks T-24, T-113, T-272 through T-274, T-384 through T-387, T-544, T-548, and T-553 shall maintain their exemptions of §60.110b(c) by storing only liquids with a maximum true vapor pressure less than 3.5 kPa (0.5 psia). (See Appendix B.)

12. Pursuant to 40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984*, tanks T-142 and T-143 shall not contain petroleum liquids. (See Appendix A.)

13. Pursuant to 40 CFR 60, Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, tank T-324 shall store only liquids with a maximum true vapor pressure less than 15.0 kPa. (See Appendix B.)

14. Pursuant to 40 CFR 60, Subpart Ka-*Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984*, tank T-432 is not an affected facility because it does not contain a petroleum liquid. (See Appendix A.)

15. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall maintain records of the vapor pressure and contents of tanks T-108, T-109, T-113, T-142, T-143, T-324, T-432, T-544, and T-548.

16. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the vapor pressure and tank contents shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on-site and submitted in accordance with General Condition #7.

17. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, Subpart Ka- *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984*, Tank T-532 is an affected facility. However, in accordance with 40 CFR 63, Subpart CC- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries, §63.640(n), the facility is only required to comply with the provisions of Subpart CC. (See Appendix A.)

18. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, Tanks T-8, T-88 and T-103 are affected facilities. The tanks are subject to, but not limited to the requirements outlined in the paragraphs below. (See Appendix B.)

    A Pursuant to §60.112b(a), Tanks T-8, T-88 and T-103 have been equipped with external floating roofs as described in §60.112b(a)(2).

    B Pursuant to §60.112b(a)(2)(i)(A), tanks T-8, T-88, and T-103 have a mechanical shoe seal. Except as provided in §60.113b(b)(4), the seals shall completely cover the annular space between the edge of the floating roof and the tank wall.

    C Pursuant to §60.112b(a)(2)(i)(B), the secondary seals shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).

    D. Pursuant to §60.112b(a)(2)(ii), except for automatic bleeder vents and rim space vents, each opening in the floating roofs provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap)

except when the device is in actual use. Automatic bleeder vents are closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are gasketed. Each emergency roof drain is provided with a slotted membrane fabric cover that covers at least 90 percent of the opening of the area.

E. Pursuant to §60.112b(a)(2)(ii), the roof shall be floating on the liquid at all times (i.e., off the roof leg supports)except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

F. Pursuant to §60.113b(a), Tanks T-8, T-88 and T-103 shall meet the requirements of §60.113b(b).

G. Pursuant to §60.113b(b)(1), the facility has determined and will continue to determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the frequency of §60.113b(b)(1)(i).

H. Pursuant to §60.113b(b)(1)(i), measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed at least once every 5 years.

I. Pursuant to §60.113b(b)(1)(ii), measurements of gaps between the tank wall and the secondary seal shall be performed at least once per year.

J. Pursuant to §60.113b(b)(1)(iii), if these sources cease to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessels shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

K. Pursuant to §60.113b(b)(2), the facility shall determine gap widths and areas in the primary and secondary seals individually by the procedures outlined in (i), (ii), and (iii).

1. Pursuant to §60.113b(b)(2)(i), the facility shall measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

2. Pursuant to §60.113b(b)(2)(ii), the facility shall measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

3. Pursuant to §60.113b(b)(2)(iii), the total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

L. Pursuant to §60.113b(b)(3), the facility shall add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4).

M. Pursuant to §60.113b(b)(4), the facility shall make necessary repairs or empty the storage vessels within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4)(i) and (ii).

N. Pursuant to §60.113b(b)(4)(i), the accumulated area of gaps between the tank wall and the mechanical shoe or liquid mounted primary seal shall not exceed 212 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

O. Pursuant to §60.113b(b)(4)(i)(A), one end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

P. Pursuant to §60.113b(b)(4)(ii), there are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

Q. Pursuant to §60.113b(b)(4)(ii), the secondary seal is to meet the requirements of (A) and (B).

1. Pursuant to §60.113b(b)(4)(ii)(A), the secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in (b)(2)(iii).

2. Pursuant to §60.113b(b)(4)(ii)(B), the accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

3. Pursuant to §60.113b(b)(4)(ii)(C), there are to be no holes, tears, or other openings in the seal or seal fabric.

R. Pursuant to §60.113b(b)(4)(iii), if a failure that is detected during inspections required in paragraph (b)(1), of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

S. Pursuant to §60.113b(b)(5), the facility shall notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

T. Pursuant to §60.113b(b)(6), the facility shall visibly inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

U. Pursuant to §60.113b(b)(6)(i), if an external floating roof has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the facility shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

V. Pursuant to §60.113b(b)(6)(ii), for all inspections required by (b)(6) , the facility shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the facility could not have known about the inspection 30 days in advance of refilling the tank, the facility should notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively ,

this notification including the written documentation may be made in writing and sent by express mail so that it is received at least 7 days prior to the refilling.

W. Pursuant to §60.115b(a)(1), the facility shall keep records of Tanks T-88 and T-103 as specified in §60.115b(a)(1)(b). The facility shall keep copies of all reports and records required by this section for at least 2 years.

X. Pursuant to §60.115b(1), the facility has or shall furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(a)(2), (b)(3), and (b)(4).

Y. Pursuant to §60.115b(b)(2), within 60 days of performing the seal gap measurements required by §60.113b(b)(1), the facility shall furnish the Administrator with a report that contains:

(i.) The date of measurement.
(ii.) The raw data obtained in the measurement.
(iii.) The calculations described in §60.113b(b)(2) and (b)(3).

Z. Pursuant to §60.115b(b)(3), the facility shall keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:
(i.) The date of measurement.
(ii.) The raw data obtained in the measurement.
(iii.) The calculations described in §60.113b(b)(2) and (b)(3).

AA. Pursuant to §60.115b(b)(4), after each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(a)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in (b)(2) and the date the vessel was emptied or the repairs made and date of repair.

BB. Pursuant to §60.116b(a), the facility shall keep copies of all records of Tanks T-88 and T-103 as required by §60.116b for at least 2 years. As an exception, the record required by §60.116b(b) shall be kept for the life of the sources.

CC. Pursuant to §60.116b(b), the facility shall keep readily accessible records showing the dimensions of each vessel and an analysis showing the capacity of each vessel.

DD. Pursuant to §60.116b(c), the facility shall maintain for each tank a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage.

EE. Pursuant to §60.116b(e), the facility may determine the maximum true vapor pressure as described in §60.116b(e)(2) and (e)(3).

19. Pursuant to 40 CFR 60, Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, tanks T-24, T-113, T-272 through T-274, T-384 through T-387, T-544, T-548, and T-553 are exempted from being affected sources by §60.110b(c) because they store a liquid with a maximum true vapor pressure less than 3.5 kPa (0.5 psia). (See Appendix B.)

A. In accordance with this exemption, the facility shall as specified in §60.116b(a) keep the records of §60.116b(b) for the life of the facility.

B. In accordance with §60.116b(b), the facility shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

20. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, tank T-324 is exempted from being an affected source because it stores a product which is not a volatile organic liquid (VOL). In accordance with this exemption, the facility may not store VOLs in this tank.

21. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records shall be kept onsite of any activity related to construction, reconstruction, or modification to any of the tanks listed in this section.

Lion Oil Company
Permit #: 868-AOP-R0
CSN: 70-0016

SN: 801
#1 Crude Topping Furnace

Source Description

SN-801 is a 50 MMBTU/hr furnace used to heat crude oil to distillation level. The furnace is fueled with pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1930. It was removed from service in 1986.

Lion Oil Company
Permit #: 868-AOP-R0
CSN: 70-0016

SN-802
#1 Crude Vacuum Furnace

Source Description

SN-802 is a 12.0 MMBTU/hr boiler used to heat the heavy fraction of crude oil in order to separate it into Asphalt and gas oil components. The boiler is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1960. It was removed from service in 1986.

Lion Oil Company
Permit #: 868-AOP-R0
CSN: 70-0016

SN's: 803, 804, 805, 808, 811, 829, 830, 842, 843, 844, 850, 855
#4 Pre-flash Column Reboiler, #4 Topping Furnace, #4 Vacuum Heater, #7 FCCU Furnace, #9 Reformer Furnace, Steam Superheater, Regenerant Furnace, #12 Distillate Hydrotreater Furnace, #12 Stripper Reboiler, Sulfur Recovery Plant Incinerator, Asphalt Hot Oil Heater, #8 Hydrotreater Furnace

Source Description

All sources in this grouping are subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries*.

SN-803 is a 40 MMBTU/hr reboiler used to maintain the temperature in the pre-flash column in order to separate crude oil into gasoline and naphtha. The reboiler is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1979.

SN-804 is a 221.2 MMBTU/hr furnace used to heat the bottoms from the pre-flash column in order to separate them into naphtha, kerosene, diesel, and gas oil. The furnace is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1991.

SN-805 is a 58.9 MMBTU/hr furnace used to heat the bottoms from the Atmospheric Column in order to separate them into gas oil and asphalt products in the Vacuum Column. The furnace is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1996.

SN-808 is a 56 MMBTU/hr heater used to heat gas oil. It is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1979.

SN-811 is a 136 MMBTU/hr furnace used to heat the #9 Unit Stripper bottoms. It is fueled by pipeline quality natural gas, desulfurized refinery fuel gas and reformer off gas. It was installed in 1980.

SN-829 is a 10 MMBTU/hr furnace used to heat steam from the boilers to approximately 695EF. It is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1987. SN-829 is not an affected unit under Subpart Dc-*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, because the unit was installed before 1989.

SN-830 is a 1.8 MMBTU/hr furnace. It is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1987. Because this source is subject to 40 CFR 60, Subpart J, it cannot be classified as an insignificant emission source.

SN-842 is a 50.0 MMBTU/hr furnace. It is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1993.

SN-843 is a 34.0 MMBTU furnace. It is fueled by pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1993.

SN-844 is a 20.0 MMBTU/hr incinerator used to incinerate gases from the sulfur recovery plant. It is fueled by pipeline quality natural gas. It was installed in 1994. The incinerator is used to control emissions from the 3 stage sulfur recovery unit (SRU) which is also subject to Subpart J. The SRU is rated at 100 long tons per day (LTD).

The mass emission limits for the Sulfur Recovery Plant (SN-844) are enforceable limitations established in part to prevent this unit from being subject to the PSD regulations. Future relaxation of these limitations may trigger PSD review for the entire unit pursuant to 40 CFR 52.21 (r)(4).

SN-850 is a 20.0 MMBTU heater used to supply heat to the hot oil system which maintains the elevated temperatures of stored asphalt products so that the material will flow without solidifying. This source was installed in 1998. This source is subject to 40 CFR 60, Subpart Dc.

SN-855 is a hydrotreater fired by a 50 MMBTU/hr furnace used to raise the temperature of gas oil to reaction level for hydrotreating purposes. It was constructed in 2000. The installation of this equipment is a part of the hydrotreater revamp to increase diesel and gas oil capacity and improve gas oil operating conditions and to help the facility meet requirements that will become effective in 2004. Fugitive emissions associated with this source are regulated under 40 CFR 60, Subparts GGG and VV as referenced by Subpart GGG under SN-854.

Specific Conditions

22. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with the limits for SN's 803-805, 808, 811, 829, 830, 842, 843, 850, and 855 shall be demonstrated by compliance with Subpart J, fuel and BTU limits of this section.

Lion Oil Company
Permit #: 868-AOP-R0
CSN: 70-0016

SN	Pollutant	lb/hr	tpy
803	#4 Pre-flash Column Reboiler		
	PM_{10}	1.0	2.4
	SO_2	1.0	4.4
	VOC	1.0	1.0
	CO	1.4	6.3
	NO_X	5.6	24.7
804	#4 Topping Furnace		
	PM_{10}	1.1	5.0
	SO_2	5.4	23.8
	VOC	1.0	1.4
	CO	8.9	38.9
	NO_X	9.1	39.8
805	#4 Vacuum Heater		
	PM_{10}	1.5	6.8
	SO_2	9.0	39.6
	VOC	1.0	1.0
	CO	6.7	29.6
	NO_X	9.0	39.6
808	#7 FCCU Furnace		
	PM_{10}	1.0	3.4
	SO_2	1.4	6.1
	VOC	1.0	1.0
	CO	3.5	15.1
	NO_X	6.2	27.1
811	#9 Reformer Furnace		
	PM_{10}	1.0	3.0
	SO_2	5.9	25.9
	VOC	1.0	1.0
	CO	5.4	24.0
	NO_X	13.6	59.8
829	Steam Superheater		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.1

SN	Pollutant	lb/hr	tpy
	VOC	1.0	1.0
	CO	1.0	1.6
	NO_X	1.4	6.3
830	Regenerant Furnace		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.0
	VOC	1.0	1.0
	CO	1.0	1.0
	NO_X	1.0	1.2
842	#12 Distillate Hydrotreater Furnace		
	PM_{10}	1.0	3.0
	SO_2	1.3	5.5
	VOC	1.0	1.0
	CO	3.1	13.5
	NO_X	4.1	17.9
843	#12 Stripper Reboiler		
	PM_{10}	1.0	2.0
	SO_2	1.0	3.8
	VOC	1.0	1.0
	CO	2.1	9.2
	NO_X	2.8	12.2
844	Sulfur Recovery Plant-Catalytic Incinerator		
	PM_{10}	3.0	13.1
	SO_2	18.0	39.4
	VOC	1.5	6.6
	CO	8.1	35.3
	NO_X	6.0	26.3

SN	Pollutant	lb/hr	tpy
850	Asphalt Hot Oil Heater		
	PM_{10}	1.0	1.8
	SO_2	1.0	1.0
	VOC	1.0	1.0
	CO	1.1	4.7

SN	Pollutant	lb/hr	tpy
	NO_X	4.2	18.5
855	#8 Hydrotreater Furnace		
	PM_{10}	1.0	2.5
	SO_2	1.9	8.2
	VOC	1.0	1.8
	CO	6.2	27.2
	NO_X	6.0	26.2

23. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this source shall not exceed the emission rates set forth in the following table. Compliance with the limits for SN's 803-805, 808, 811, 829, 830, 842, 843, 850, and 855 shall be demonstrated by compliance with Subpart J, fuel and btu limits of this section.

SN	Pollutant	lb/hr	tpy
803	#4 Pre-flash Column Reboiler		
	PM	1.0	2.4
804	#4 Topping Furnace		
	PM	1.1	5.0
805	#4 Vacuum Heater		
	PM	1.5	6.8
808	#7 FCCU Furnace		
	PM	1.0	3.4
811	#9 Reformer Furnace		
	PM	1.0	3.0
829	Steam Superheater		
	PM	1.0	1.0
830	Regenerant Furnace		
	PM	1.0	1.0
842	#12 Distillate Hydrotreater Furnace		
	PM	1.0	3.0
843	#12 Stripper Reboiler		
	PM	1.0	2.0

SN	Pollutant	lb/hr	tpy
844	Sulfur Recovery Plant - Catalytic Incinerator		
	PM	3.0	13.1
	H_2S	0.5	2.3
850	Asphalt Hot Oil Heater		
	PM	1.0	1.8
855	#8 Hydrotreater Furnace		
	PM	1.0	2.5

24. Pursuant to §19.304 of Regulation 19 and 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* §60.104(a)(1), any emissions to the atmosphere from any fuel combustion device shall not exceed the emission concentration set forth in the following table. Compliance with this condition shall be demonstrated by compliance with Subpart J. (See Appendix C.)

SN	Pollutant	mg/dscm	gr/dscf
803, 804, 805, 808, 811, 829, 830, 842, 843, 850, and 855	Fuel Gas Combustion Devices		
	H_2S	230	0.10

The combustion in a flare (SN's 822, 823) of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

25. Pursuant to §19.304 of Regulation 19 and 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* §60.104(a)(2)(i), any emissions to the atmosphere from any Claus sulfur recovery plant using an oxidation control system or a reduction control system followed by incineration shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by compliance with Subpart J. (See Appendix C.)

SN	Pollutant	ppm by volume
844	Sulfur Recovery Plant - Catalytic Incinerator	
	$SO_{2\ dry\ basis}$	250

26. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall not exceed the annual BTU for the sources set forth in the following table.

SN	Annual Limit (MMBTU/12 months)
803	350,759
804	1,943,021
805	517,424
808	491,904
811	1,194,564
829	86,697
830	16,545
842	439,000
843	298,696
850	184,534
855	439,200

27. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the BTU shall be maintained on a daily basis, updated weekly, records of the BTU shall also be maintained on a monthly and annual basis, updated monthly. These records shall include the fuel combusted, heating value, and heat duty (BTU). Such records shall be maintained on site and submitted in accordance with General Condition #7.

28. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, a flow meter shall be installed on the inlet fuel gas to the #8 Unit Furnace to demonstrate that the heat input does not exceed 50 mmbtu/hr on an hourly basis.

29. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records of the heat input for the #8 Hydrotreater Furnace shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

30. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from sources burning pipeline quality natural gas or desulfurized refinery fuel gas. Compliance with this limit shall be

demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

31. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas as fuel for SN-844.

32. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for SN's 803-805, 808, 811, 829, 830, 842, 843, and 855.

33. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, Subpart Dc-*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, SN-850 is an affected facility. (See Appendices D and E.)

    In lieu of §60.48c(g), in which the owner or operator of each facility shall record and maintain records of the amounts of each fuel combusted during each day, the facility through a letter of approval from John R. Hepola, Chief, Air/Toxics and Inspection Coordination Branch, EPA to Thomas Rheaume of the Department dated February 9, 1999, may record and maintain records of the amounts of each fuel combusted during each month.

34. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries*, SN's 803, 804, 805, 808, 811, 829, 830, 842, 843, 850, and 855 are affected facilities. They are defined in the subpart as fuel gas combustion devices. SN-844 is also an affected facility. (For the full regulation, see Appendix C.) These sources are all subject to, but not limited to the following requirements.

    A. Pursuant to §60.104(a)(1), the sources shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

    B. Pursuant to §60.104(a)(2)(i), SN-844 shall not discharge or cause the discharge into the atmosphere, from any Claus sulfur recovery plant using an oxidation control system or a reduction control system followed by incineration, any gases

containing in excess of 250 ppm by volume (dry basis) of sulfur dioxide (SO_2) at zero percent excess air.

1. Pursuant to §60.105(a), the facility shall install, calibrate, maintain and operate continuous monitoring systems in accordance with the provisions of §60.105 outlined below.

2. Pursuant to §60.105(a)(3), for SN's 803, 804, 805, 808, 811, 829, 830, 842, 843, and 855 the facility shall install, calibrate, maintain, and operate an instrument for continuously monitoring and recording the concentration by volume (dry basis, zero percent excess air) of SO_2 emissions into the atmosphere (except where an H_2S monitor is installed under paragraph (a)(4) of this section). The monitor shall include an oxygen monitor for correcting the data for excess air.

   (i.) The span values for this monitor are 50 ppm SO_2 and 10 percent oxygen (O_2).
   (ii.) The SO_2 monitoring level equivalent to the H_2S standard under §60.104(a)(1) shall be 20 ppm (dry basis, zero percent excess air).
   (iii.) The performance evaluations for this monitor under §60.13(c) shall use Performance Specification 2. Methods 6 and 3 shall be used for conducting the relative accuracy evaluations. Method 6 samples shall be taken at a flow rate of approximately 2 liters/min for at least 30 minutes. The relative accuracy limit shall be 20 percent or 4 ppm, whichever is greater, and the calibration drift limit shall be 5 percent of the established span value.
   (iv.) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location (i.e., after one of the combustion devices), if monitoring at this location accurately represents the S_2 emissions into the atmosphere from each of the combustion devices.

3. Pursuant to §60.105(a)(4), the facility may, in place of the SO_2 monitor in paragraph (a)(3), install, calibrate, maintain, and operate an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.
   (i.) The span value for this instrument is 425 mg/dscm H_2S.
   (ii.) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

(iii.) The performance evaluations for this H_2S monitor under §60.13(c) shall use Performance Specification 7. Method 11 (or approved method) shall be used for conducting the relative accuracy evaluations.

4. Pursuant to §60.105(a)(5), for Claus sulfur recovery plants with oxidation control systems or reduction control systems followed by incineration subject to §60.104(a)(2)(i) (SN-844), an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of SO_2 emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air.

(i.) The span values for this monitor are 500 ppm SO_2 and 10 percent O_2.
(ii.) The performance evaluations for this SO_2 monitor under §60.13(c) shall use Performance Specification 2. Methods 6 and 3 shall be used for conducting the relative accuracy evaluations.

5. Pursuant to §60.105(e), for purposes of reports under §60.7(c), periods of excess emissions for sulfur dioxide from fuel gas combustion shall be determined and reported as required by §60.105(e)(3).

6. Pursuant to §60.105(e), for purposes of reports under §60.7(c), periods of excess emissions for sulfur dioxide from the Claus sulfur recovery plant shall be determined and reported as required by §60.105(e)(4).

7. Pursuant to §60.106(a), in conducting the performance tests required in §60.8, the facility shall use as reference methods and procedures the test methods in Appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

8. Pursuant to §60.106(e), the owner or operator shall determine compliance with the H_2S standard in §60.104(a)(1) as follows: Method 11 (or approved method) shall be used to determine the H_2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line. The sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel

gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H_2S may necessitate sampling for longer periods of time.

9. Pursuant to §60.106(f), the facility shall determine compliance with the SO_2 and the H_2S and reduced sulfur standards in §60.104(a)(2) by §60.106(f)(1), (2), and (3).

10. Pursuant to §60.106(f)(1), Method 6 (or approved method) shall be used to determine the SO_2 concentration. The concentration in mg/dscm (lb/dscf) obtained by Method 6 (or approved method) is multiplied by 0.3754 to obtain the concentration in ppm. The sampling point in the duct shall be the centroid of the cross section if the cross-sectional area is less than 5.00 m^2 (54 ft^2) or at a point no closer to the walls than 1.00 m (39 in.) if the cross-sectional area is 5.00 m^2 or more and the centroid is more than 1 m from the wall. The sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf) for each sample. Eight samples of equal sampling times shall be taken at about 30-minute intervals. The arithmetic average of these eight samples shall constitute a run. Method 4 shall be used to determine the moisture content of the gases. The sampling point for Method 4 shall be adjacent to the sampling point for Method 6 (or approved method). The sampling time for each sample shall be equal to the time it takes for two Method 6 (or approved method) samples. The moisture content from this sample shall be used to correct the corresponding Method 6 (or approved method) samples for moisture. For documenting the oxidation efficiency of the control device for reduced sulfur compounds, Method 15 shall be used following the procedures of paragraph (f)(2) of this section.

11. Pursuant to §60.106(f)(2), Method 15 shall be used to determine the reduced sulfur and H_2S concentrations. Each run shall consist of 16 samples taken over a minimum of 3 hours. The sampling point shall be the same as that described for Method 6 in paragraph (f)(1) of this section. To ensure minimum residence time for the sample inside the sample lines, the sampling rate shall be at least 3.0 lpm (0.10 cfm). The SO_2 equivalent for each run shall be calculated after being corrected for moisture and oxygen as the arithmetic average of the SO_2 equivalent for each sample during the run. Method 4 shall be used to determine the moisture content of the gases as the paragraph (f)(1) of this section. The sampling time for each sample shall be equal to the time it takes for four Method 15 samples.

12. Pursuant to §60.106(f)(3), the oxygen concentration used to correct the emission rate for excess air shall be obtained by the integrated sampling and analysis

procedure of Method 3 (or approved method). The samples shall be taken simultaneously with the SO_2, reduced sulfur and H_2S, or moisture samples. The SO_2, reduced sulfur, and H2S samples shall be corrected to zero percent excess air using the equation in paragraph (h)(3) of this section.

35. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, all CEMs shall be operated in accordance with the Department CEM Standards. The facility shall submit CEM data in accordance with the Department's standards. CEM data shall be submitted in both ppm and lb/hr. (See Appendix K.)

36. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall conduct tests for NO_X for SN's 804 and 805 in accordance with Plantwide Condition #3. EPA Reference Method 7E shall be used to determine NO_X. The permittee shall test each unit within 90% of its rated capacity. If the test is not performed within this range, the permittee shall be limited to operating within 10% above the tested rate.

Test results shall be furnished in lbs/hr and converted to tpy. All written reports shall be submitted to the following address:

Arkansas Department of Environmental Quality
Air Division
Attn.: Air Enforcement Section
PO Box 8913
Little Rock, Arkansas 72219

SN: 806
#6 Hydrotreater Furnace

Source Description

SN-806 is a 25 MMBTU/hr furnace used to raise the temperature of light straight run (LSR) to reaction. It is fueled with pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1958.

Regulations

This source is not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because it was constructed prior to the promulgation of Subpart J.

Specific Conditions

37. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the fuel and BTU limits of this section.

SN	Pollutant	lb/hr	tpy
806	#6 Hydrotreater Furnace/Reboiler		
	PM_{10}	1.0	1.5
	SO_2	5.8	25.3
	VOC	1.0	1.0
	CO	1.0	4.0
	NO_X	3.5	15.5

38. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the fuel and BTU limits of this section.

SN	Pollutant	lb/hr	tpy
806	#6 Hydrotreater Furnace/Reboiler		
	PM	1.0	1.5

39. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this source shall not exceed the annual limit of 219,500 MMBTU.

40. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the BTU shall be maintained on a daily basis, updated weekly. These records shall include the fuel combusted, heating value, and heat duty (BTU). Such records shall be maintained on-site and submitted in accordance with General Condition #7.

41. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

42. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for this source.

SN: 807
Asphalt Protective Coatings Baghouse

Source Description

SN-807 is a baghouse used to control the cellulose fiber emissions. The refinery began a program in 1986 to phase out asphalt protective coatings containing asbestos. Cellulose fiber is a substitute for the asbestos. The baghouse was installed in 1977.

Specific Conditions

43. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
807	Asphalt Protective Coatings Baghouse		
	PM_{10}	1.0	1.0

44. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
807	Asphalt Protective Coatings Baghouse		
	PM	1.0	1.0

45. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from this source.

46. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, weekly observations of the opacity from this source shall be conducted by personnel familiar with the facility's visible emissions. The facility shall maintain personnel trained, but not necessarily certified, in EPA Reference Method 9. If visible emissions would appear to be in excess of the permitted opacity are detected, the facility shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The facility shall maintain records

which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.

a. The date and time of the observation.
b. If visible emissions which appeared to be above the permitted level were detected.
c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
d. The name of the person conducting the opacity observations.

47. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total throughput of cellulose fiber at this source shall be limited to 26,300 tons per consecutive twelve month period.

48. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the annual throughput of cellulose fiber shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on-site and submitted in accordance with General Condition #7.

SN: 809
#7 FCCU Catalyst Regenerator Stack

Source Description

SN-809 is the exhaust from the catalyst regenerator. Hot flue gas leaving the regenerator passes through three sets of cyclones to remove catalyst fines and then is used to produce steam in the waste heat boiler before exiting the stack. This source was installed in 1973.

Regulations

The Fluid Catalytic Cracking Unit (FCCU) is not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because it was constructed prior to the promulgation of Subpart J.

Specific Conditions

49. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
809	#7 Catalyst Regenerator Stack		
	PM_{10}	75.0	329.4
	SO_2	442.9	1945.3
	VOC	183.3	805.1
	CO	2405.0	10,565.0
	NO_X	59.2	260.1

50. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
809	#7 Catalyst Regenerator Stack		

SN	Pollutant	lb/hr	tpy
	PM	75.0	329.4

51. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 20% opacity from this source.

52. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, daily observations of the opacity from this source shall be conducted by personnel familiar with the facility's visible emissions. The facility shall maintain personnel trained, but not necessarily certified, in EPA Reference Method 9. If visible emissions would appear to be in excess of the permitted opacity are detected, the facility shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The facility shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

    a. The date and time of the observation.
    b. If visible emissions which appeared to be above the permitted level were detected.
    c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
    d. The name of the person conducting the opacity observations.

53. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total fresh feed rate of charging stock to this source shall be limited to 7.3 million bbls per consecutive twelve month period.

54. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for this annual feed rate shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on-site and submitted in accordance with General Condition #7.

SN: 810
#9 Hydrotreater Furnace/Reboiler

Source Description

SN-810 is 70 MMBTU/hr furnace used to heat naphtha. It is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1958.

Regulations

This source is not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because it was constructed prior to the promulgation of Subpart J.

Specific Conditions

55. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the BTU and fuel limits of this section.

SN	Pollutant	lb/hr	tpy
810	#9 Hydrotreater Furnace/Reboiler		
	PM_{10}	1.0	4.3
	SO_2	1.7	7.6
	VOC	1.0	1.0
	CO	2.5	10.9
	NO_X	9.8	43.2

56. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the BTU and fuel limits of this section.

SN	Pollutant	lb/hr	tpy
810	#9 Hydrotreater Furnace/Reboiler		
	PM	1.0	4.3

57. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this source shall not exceed the annual BTU limit of 614,880 MMBTU.

58. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the BTU shall be maintained on a daily basis updated weekly and a monthly basis, updated monthly. These records shall include the fuel combusted, heating value, and heat duty (BTU). Such records shall be maintained on-site and submitted in accordance with General Condition #7.

59. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

60. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for this source.

SN: 812
#9 Stabilizer Reboiler

Source Description

SN-812 is a 20 MMBTU/hr furnace/reboiler used to heat platformate in order to remove low molecular weight gases. It is fueled by pipeline quality natural gas, desulfurized refinery fuel gas, and reformer off gas. It was installed in 1958.

Regulations

This source is not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because it was constructed prior to the promulgation of Subpart J.

Specific Conditions

61. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this section.

SN	Pollutant	lb/hr	tpy
812	#9 Stabilizer Reboiler		
	PM_{10}	1.0	1.2
	SO_2	1.0	3.9
	VOC	1.0	1.0
	CO	1.0	3.1
	NO_X	2.8	12.4

62. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this section.

SN	Pollutant	lb/hr	tpy
812	#9 Stabilizer Reboiler		
	PM	1.0	1.2

63. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this source shall not exceed the annual BTU limit of 228,443 MMBTU.

64. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the BTU shall be maintained on a daily basis, updated weekly and a monthly basis, updated monthly. These records shall include the fuel combusted, heating value, and heat duty (BTU). Such records shall be maintained on-site and submitted in accordance with General Condition #7.

65. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

66. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for this source.

SN: 813
#10 Hydrotreater Furnace/Reboiler

Source Description

SN-813 is a 40 MMBTU/hr furnace used to heat light cycle oil, diesel, kerosene, and gas oil. It is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1958.

Regulations

This source is not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because it was constructed prior to the promulgation of Subpart J.

Specific Conditions

67. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this source.

SN	Pollutant	lb/hr	tpy
813	#10 Hydrotreater Furnace/Reboiler		
	PM_{10}	1.0	2.4
	SO_2	1.0	4.4
	VOC	1.0	1.0
	CO	1.4	6.3
	NO_X	5.6	24.7

68. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this source.

SN	Pollutant	lb/hr	tpy
813	#10 Hydrotreater Furnace/Reboiler		
	PM	1.0	2.4

69. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this source shall not exceed the annual BTU limit of 351,360 MMBTU.

70. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the BTU shall be maintained on a daily basis, updated weekly and a monthly basis, updated monthly. These records shall include the fuel combusted, heating value, and heat duty (BTU). Such records shall be maintained on-site and submitted in accordance with General Condition #7.

71. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

72. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for this source.

SN: 814
#11 Deasphalting Furnace

Source Description

SN-814 is a 32 MMBTU/hr furnace used to heat asphalt from the bottom of the extraction tower. It is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1958.

Regulations

This source is not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because it was constructed prior to the promulgation of Subpart J.

Specific Conditions

73. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this source.

SN	Pollutant	lb/hr	tpy
814	#11 Deasphalting Furnace		
	PM_{10}	1.0	2.0
	SO_2	1.0	3.5
	VOC	1.0	1.0
	CO	1.2	5.0
	NO_X	4.5	19.8

74. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this source.

SN	Pollutant	lb/hr	tpy
814	#11 Deasphalting Furnace		
	PM	1.0	2.0

75. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this source shall not exceed the annual BTU limit of 281,048 MMBTU.

76. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the BTU shall be maintained on a daily basis, updated weekly and a monthly basis, updated monthly. These records shall include the fuel combusted, heating value, and heat duty (BTU). Such records shall be maintained on site and submitted in accordance with General Condition #7.

77. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

78. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for this source.

SN's: 816-820
#10 Boiler, #11 Boiler, #12 Boiler, #13 Boiler, #14 Boiler

Source Description

SN-816 is a 114 MMBTU/hr low pressure boiler. The boiler is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1945.

SN-817 is a 114 MMBTU/hr low pressure boiler. The boiler is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1945.

SN-818 is a 130 MMBTU/hr high pressure boiler. The boiler is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1952.

SN-819 is a 130 MMBTU/hr high pressure boiler. The boiler is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1952.

SN-820 is a 130 MMBTU/hr high pressure boiler. The boiler is fueled by pipeline quality natural gas or desulfurized refinery fuel gas. It was installed in 1958.

Regulations

SN's 816-820 are not subject to 40 CFR 60, Subpart Db-*Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* or Subpart Dc-*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* because they were installed prior to the promulgation of the subparts.

SN's 816-820 are not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because they were constructed prior to the promulgation of Subpart J.

Specific Conditions

79. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this source.

SN	Pollutant	lb/hr	tpy
816	#10 Boiler		

SN	Pollutant	lb/hr	tpy
	PM_{10}	1.0	3.8
	SO_2	26.3	115.4
	VOC	1.0	2.7
	CO	9.4	41.3
	NO_X	31.3	137.5
817	#11 Boiler		
	PM_{10}	1.0	3.8
	SO_2	26.3	115.4
	VOC	1.0	2.7
	CO	9.4	41.3
	NO_X	31.3	137.5
818	#12 Boiler		
	PM_{10}	1.0	4.3
	SO_2	30.0	131.5
	VOC	1.0	3.2
	CO	10.7	47.1
	NO_X	35.7	156.8
819	#13 Boiler		
	PM_{10}	1.0	4.3
	SO_2	30.0	131.5
	VOC	1.0	3.1
	CO	10.7	47.1
	NO_X	35.7	156.8
820	#14 Boiler		
	PM_{10}	1.0	4.3
	SO_2	30.0	131.5
	VOC	1.0	3.2
	CO	10.7	47.1
	NO_X	35.7	156.8

80. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following

table. Compliance with these limits shall be demonstrated by compliance with the BTU and fuel limits of this source.

SN	Pollutant	lb/hr	tpy
816	#10 Boiler		
	PM	1.0	3.8
817	#11 Boiler		
	PM	1.0	3.8
818	#12 Boiler		
	PM	1.0	4.3
819	#13 Boiler		
	PM	1.0	4.3
820	#14 Boiler		
	PM	1.0	4.3

81. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this source shall not exceed the annual BTU limits in the following table.

SN	Annual Limit (MMBTU/12 months)
816	1,001,426
817	1,001,426
818	1,141,950
819	1,142,723
820	1,141,950

82. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the BTU shall be maintained on a daily basis, updated weekly and a monthly basis, updated monthly. These records shall include the fuel combusted, heating value, and heat duty (BTU). Such records shall be maintained on site and submitted in accordance with General Condition #7.

83. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

84. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or refinery fuel gas as fuel for these sources. In the event of pipeline quality natural gas curtailment, emergency, or upset conditions as set forth in §19.6, the boiler may be fired with fuel oil if fuel gas is unavailable.

85. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, in the event that fuel oil has been used at this source, the facility shall maintain records of fuel oil usage including the amount of fuel oil used and the sulfur content of the fuel oil. Records shall be maintained on site and submitted in accordance with Regulation #19, §19.6.

86. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the fuel gas fired at this source shall contain less than 0.15 mole percent H_2S.

87. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, the fuel gas shall be sampled no less than twice per month. Records shall be maintained on site and submitted to the Department in accordance with General Provision #7.

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CSN: 70-0016

SN's: 822-823
High and Low Pressure Flares

Source Description

SN-822 and SN-823 are steam assisted flares used to provide for the safe disposal of hydrocarbon vapors discharged from refinery process units.

SN-822 is a 1.5 MMBTU/hr high pressure flare. It was installed in 1979.

SN-823 is a 1.5 MMBTU/hr low pressure flare. It was installed in 1974.

Regulations

The flares are both subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries*.

Specific Conditions

88. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput and fuel limits of this permit.

SN	Pollutant	lb/hr	tpy
822, 823	Both Flares		
	PM_{10}	---	1.0
	SO_2		271.8
	VOC		9.1
	CO		44.4
	NO_X		191.5
822	High Pressure Flare		
	PM_{10}	1.0	---
	SO_2	31.4	
	VOC	1.5	
	CO	5.5	
	NO_X	22.2	
823	Low Pressure Flare		

SN	Pollutant	lb/hr	tpy
	PM_{10}	1.0	---
	SO_2	31.4	
	VOC	1.5	
	CO	5.5	
	NO_X	22.2	

89. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput and fuel limits of this permit.

SN	Pollutant	lb/hr	tpy
822, 823	Both Flares		
	PM	---	1.0
822	High Pressure Flare		
	PM	1.0	---
823	Low Pressure Flare		
	PM	1.0	---

90. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 10% opacity from these sources.

91. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, weekly observations of the opacity from this source shall be conducted by personnel familiar with the facility's visible emissions. The facility shall maintain personnel trained, but not necessarily certified, in EPA Reference Method 9. If visible emissions would appear to be in excess of the permitted opacity are detected, the facility shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The facility shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request.
    a. The date and time of the observation.
    b. If visible emissions which appeared to be above the permitted level were detected.
    c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the

visible emissions appeared to be below the permitted limit after the corrective action was taken.

d. The name of the person conducting the opacity observations.

92. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total raw crude feed to the atmospheric distillation column shall be limited to 55,000 bpd for a total annual limit of 20.1 million bbls per consecutive twelve month period.

93. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for this annual feed rate shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

94. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for this source.

95. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall maintain records of operation of SN's 822 and 823. The records shall include the date, time, duration, and the reason for the flaring.

96. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the operation of the flares shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

97. Pursuant to §19.601 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility shall maintain records and report all upset conditions at the high and low pressure flares that result in the exceedance of the applicable emission limits and that last 30 or more minutes in the aggregate during a 24 hour period as required by the "Upset and Emergency Conditions" of §19.6. For the purposes of only the flares, upset conditions shall be defined as those emissions that are directed to the flare as a result of upset conditions or malfunctioning equipment elsewhere at the facility. Also, any malfunction of the flare or release of unflared emissions from the flare is included in the definition of upset condition. All upset condition reports to the Department shall be made within 24 hours of the upset using the Upset Condition Reporting form contained in Appendix F.

SN: 824
#16 Asphalt Blowing Incinerator

Source Description

SN-824 is a 15 MMBTU/hr incinerator used to incinerate hydrocarbon vapors emitted from the asphalt blowing process subsequent to vapor scrubbing. It is fueled by purchased pipeline quality natural gas and desulfurized refinery fuel gas. It was installed in 1977.

Specific Conditions

98. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with the SO_2 limit shall be demonstrated by the testing condition of this section. The other limits are demonstrated by permitting the source at full capacity and burning only the fuels allowed in this section.

SN	Pollutant	lb/hr	tpy
824	#16 Asphalt Blowing Incinerator Stack		
	PM_{10}	1.7	7.5
	SO_2	25.3	111.1
	VOC	1.0	1.0
	CO	1.0	2.3
	NO_X	2.1	9.3

99. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by permitting the source at full capacity and burning only the fuels allowed in this section.

SN	Pollutant	lb/hr	tpy
824	#16 Asphalt Blowing Incinerator Stack		
	PM	1.7	7.5

100. Pursuant to §19.702 of Regulation 19, and 40 CFR Part 52, Subpart E, within 180 days of the issuance of this permit the incinerator shall be tested for sulfur dioxide (SO_2) emissions using EPA Reference Method 6C. The combustion temperature of the incinerator shall also be recorded. A written report of the completed tests and

combustion temperature shall be furnished to the Department within 30 days of test completion. Test results shall be furnished in lbs/hr. All written reports shall be submitted to the following address:

Arkansas Department of Environmental Quality
Air Division
Attn: Air Compliance Section
PO Box 8913
Little Rock, Arkansas 72219

101. Pursuant to §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8- 4-203 as referenced by §8-4-304 and §8-4-311, the combustion temperature of the incinerator shall be maintained at or above the combustion temperature obtained from testing. The facility shall install, calibrate, maintain, and operate a temperature monitoring device to demonstrate that the combustion temperature of the incinerator has been maintained while it is operating. During periods of maintenance on or failure of the monitoring equipment, the facility shall manually measure and record the combustion temperature in the incinerator at least once per hour. Any measurement falling below the prescribed temperature shall be reported in accordance with §19.601 of Regulation 19.

102. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the operating combustion temperature of the incinerator shall be maintained on a continuous basis. Such records shall be maintained on site and submitted in accordance with General Provision #7.

103. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

104. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas or desulfurized refinery fuel gas as fuel for this source.

SN: 825
#16 Asphalt Blowing Furnaces

Source Description

SN-825 is the combined emissions of three furnaces used to maintain the required temperature during the blowing operation. They have a combined heat input of 11 MMBTU/hr and are fueled by pipeline quality natural gas. Two of the furnaces were installed in 1945. The other was installed in 1946.

Specific Conditions

105. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by firing only pipeline quality natural gas.

SN	Pollutant	lb/hr	tpy
825	#16 Asphalt Blowing Furnaces		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.3
	VOC	1.0	1.0
	CO	1.0	1.7
	NO_X	1.6	6.9

106. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by firing only pipeline quality natural gas.

SN	Pollutant	lb/hr	tpy
825	#16 Asphalt Blowing Furnaces		
	PM	1.0	1.0

107. Pursuant to §18.1104 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from this source. Compliance shall be demonstrated by firing only pipeline quality natural gas.

108. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas as fuel for this source.

SN: 826, 827
Acid Fume Scrubbers

Source Description

SN-826 is a scrubber packed with polypropylene saddles. It is used to scrub any vapors that may be generated from tanks storing sulfuric acid during loading and transfer operations. It was installed in 1982.

SN-827 is a scrubber packed with polypropylene saddles. It is used to scrub any vapors that may be generated from tanks storing sulfuric acid during loading and transfer operations. It was installed in 1982.

Specific Conditions

109. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
826	Acid Fume Scrubber		
	H_2SO_4	1.0	1.0
827	Acid Fume Scrubber		
	H_2SO_4	1.0	1.0

110. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total throughput of spent acid for SN's 826 and 827 shall be limited to 106,700 bbls per consecutive twelve month period.

111. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for this spent acid shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN: 828
Asphalt Rack Steam Heater

Source Description

SN-28 is a 10 MMBTU/hr boiler used to heat asphalt products during truck loading. It is fueled by pipeline quality natural gas. It was installed in 1987.

NSPS Regulations

Pursuant to 40 CFR 60 Subpart Dc-*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, this boiler is not an affected facility because it was constructed before 1989.

Specific Conditions

112. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by using only pipeline quality natural gas and permitting this source at full capacity.

SN	Pollutant	lb/hr	tpy
828	Asphalt Rack Steam Heater		
	PM/PM_{10}	1.0	1.0
	SO_2	1.0	1.2
	VOC	1.0	1.0
	CO	1.0	1.6
	NO_X	1.4	6.3

113. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by using only pipeline quality natural gas and permitting this source at full capacity.

SN	Pollutant	lb/hr	tpy
828	Asphalt Rack Steam Heater		
	PM	1.0	1.0

114. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from this source. Compliance shall be demonstrated by burning only pipeline quality natural gas.

115. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas as fuel for this source.

SN: 831
#9 Continuous Catalyst Regenerator (CCR)

Source Description

SN-831 is a regenerator used to continuously burn off the coke deposit from the catalyst, and restore catalyst activity, selectivity, and stability. This source was installed in 1991.

Specific Conditions

116. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
831	#9 Continuous Catalyst Regenerator		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.8
	CO	1.1	5.0
	NO_X	1.0	1.8

117. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this source shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
831	#9 Continuous Catalyst Regenerator		
	PM	1.0	1.0
	Chlorine	1.0	1.8
	Hydrogen Chloride	11.0	48.2

118. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

119. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total amount of catalyst recirculated at this source shall be limited to 13.2 million lbs per consecutive twelve month period.

120. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the recirculation rate shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

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SN: 832
48 Asphalt Tank Heaters

Source Description

SN-832 is comprised of 48 pipeline quality natural gas fired tank heaters with a total heat input capacity of 101.9 MMBTU/hr. The heaters are used to maintain elevated temperatures of stored asphalt products so that the material will flow and not solidify. The heaters included in this source grouping are described in the following table.

Tank SN	Year Installed	# of Heaters	MMBTU/hr per heater	total MMBTU per tank
T-24	1975	1	2.30	2.3
T-39	pre-1981	2	3.00	6.0
T-40	1988	1	2.30	2.3
T-41	1991	1	2.30	2.3
T-56	1989	2	1.50	3.0
T-78	1991	2	0.25	0.5
T-99	1991	2	0.15	0.3
T-107	1987	4	2.75	11.0
T-111	pre-1981	4	1.80	7.2
T-118	1987	4	2.75	11.0
T-219	1968	4	1.80	7.2
T-348	1968	2	2.30	4.6
T-354	1956	2	1.50	3.0
T-384	1975	1	2.30	2.3
T-524	1986	4	2.30	9.2
T-530	1986	4	2.30	9.2
T-544	1991	2	0.25	0.5
T-548	1993	6	3.33	20.0

Because the combined emissions from these sources emit more than 10 tpy of a single criteria pollutant, they cannot be classified as insignificant emission sources. These sources have been permitted at full capacity and fire only pipeline quality natural gas; therefore, no emissions compliance demonstration will be required in this permitting action.

Specific Conditions

121. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by permitting these sources at full capacity.

SN	Pollutant	lb/hr	tpy
832	48 Asphalt Tank Heaters		
	PM_{10}	1.3	5.5
	SO_2	2.7	11.6
	VOC	1.0	2.4
	CO	2.2	9.5
	NO_X	10.2	44.9

122. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by permitting these sources at full capacity.

SN	Pollutant	lb/hr	tpy
832	48 Asphalt Tank Heaters		
	PM	1.3	5.5

123. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from this source. Compliance with this limit shall be demonstrated by burning only pipeline quality natural gas.

124. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas as fuel for this source.

SN's: 833-841
South XVG Compressor, North KVG Compressor, South KVG Compressor, 8GTL Compressor, North 8SVG Compressor, South 10 SVG Compressor, East JVG Compressor, West JVG Compressor, G398TA Air Compressor

Source Description

All of the following described sources are pipeline quality natural gas compressor engines used to move gases within refinery plant operations. They are all fueled by pipeline quality natural gas.

Compressor SN	Year Installed	hp rating
833*	1959	300
834	1942	600
835	1942	600
836	1986	959
837	1958	440
838	1958	550
839	1959	240
840	1959	240
841	1981	700

*Source removed from Service. See Specific Condition #137.

In order to comply with the NAAQS, the facility has chosen to limit emissions from several of the sources in this section. These limits are specified in the following specific conditions.

Specific Conditions

125. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the operation and testing limits of this section.

SN	Pollutant	lb/hr	tpy
833	South XVG Compressor		
	Source Removed		
Combined emissions of 834 and 835			

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SN	Pollutant	lb/hr	tpy
834 and 835	PM_{10}	---	1.0
	SO_2	---	1.0
	VOC	---	1.0
	CO	---	10.4
	NO_X	---	12.0
834	North KVG Compressor		
	PM_{10}	1.0	---
	SO_2	1.0	---
	VOC	1.0	---
	CO	11.4	---
	NO_X	13.2	---
835	South KVG Compressor		
	PM_{10}	1.0	---
	SO_2	1.0	---
	VOC	1.0	---
	CO	11.4	---
	NO_X	13.2	---
836	8GTL Compressor		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.0
	VOC	1.0	1.0
	CO	18.3	34.3
	NO_X	21.1	39.7
Combined emissions of 837 and 838			
837 and 838	PM_{10}	---	1.0
	SO_2	---	1.0
	VOC	---	1.0
	CO	---	46.8
	NO_X	---	54.3
837	North 8SVG Compressor		
	PM_{10}	1.0	---
	SO_2	1.0	---
	VOC	1.0	---

SN	Pollutant	lb/hr	tpy
	CO	10.5	---
	NO_X	12.1	---
838	South 10 SVG Compressor		
	PM_{10}	1.0	---
	SO_2	1.0	---
	VOC	1.0	---
	CO	10.5	---
	NO_X	12.1	---
839	East JVG Compressor		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.0
	VOC	1.0	1.0
	CO	4.6	20.1
	NO_X	5.3	23.2
840	West JVG Compressor		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.0
	VOC	1.0	1.0
	CO	4.6	20.1
	NO_X	5.3	23.2
841	G398TA Air Compressor		
	PM_{10}	1.0	1.0
	SO_2	1.0	1.0
	VOC	1.0	1.0
	CO	13.3	58.5
	NO_X	18.2	80.0

126. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the operation and testing limits of this section.

SN	Pollutant	lb/hr	tpy
833	South XVG Compressor		

SN	Pollutant	lb/hr	tpy
	Source Removed.		
Combined emissions of 834 and 835			
834 and 835	PM	---	1.0
834	North KVG Compressor		
	PM	1.0	---
835	South KVG Compressor		
	PM	1.0	---
836	8GTL Compressor		
	PM	1.0	1.0
Combined emissions of 837 and 838			
837 and 838	PM	---	1.0
837	North 8SVG Compressor		
	PM	1.0	---
838	South 10 SVG Compressor		
	PM	1.0	---
839	East JVG Compressor		
	PM	1.0	1.0
840	West JVG Compressor		
	PM	1.0	1.0
841	G398TA Air Compressor		
	PM	1.0	1.0

127. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from SN's 833-841. Compliance with this limit shall be demonstrated by burning only pipeline quality natural gas.

128. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the combined operation of SN's 834 and 835 shall be limited to a total of 1,800 hours of operation per consecutive twelve month period.

129. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, within 180 days of issuance of Permit #868-AOP-R0, meters shall be installed to record the hours of operation of SN-834 and SN-835. Records of hours of operation shall be kept on a monthly basis. Such records shall be maintained on site and submitted in accordance with General Condition #7.

130. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the 8GTL Compressor (SN-836) shall be limited to 3.6 mmhp-hr per consecutive twelve month period.

131. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the annual rate of SN-836 shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

132. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, SN's 837 and 838 shall be limited to 8,935 hours of operation per consecutive twelve month period.

133. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, within 180 days of issuance of Permit #868-AOP-R0, meters shall be installed to record the hours of operation of SN-837 and SN-838. Records of hours of operation shall be kept on a monthly basis. Such records shall be maintained on site and submitted in accordance with General Condition #7.

134. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall use only pipeline quality natural gas as fuel for SN's 834-841.

135. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall simultaneously conduct tests for CO and NO_X for SN-836 in accordance with Plantwide Condition #3 and every five years thereafter. EPA Reference Method 7E shall be used to test NO_X for the reciprocating engines and EPA reference Method 10 shall be used to determine CO. The permittee shall test the engine within 90% of its rated capacity. If the tests are not performed within this range, the permittee shall be limited to operating within 10% above the tested rate.

Test results shall be furnished in lbs/hr and converted to tpy. All written reports shall be submitted to the following address:

Arkansas Department of Environmental Quality
Air Division
Attn.: Air Enforcement Section
PO Box 8913
Little Rock, Arkansas 72219

136. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall simultaneously conduct tests for CO and NO_x on one-half of each type of compressor engine (except SN-836) in accordance with Plantwide Condition #3 and every five years thereafter. EPA Reference Method 7E shall be used to test NO_x for the reciprocating engines and EPA reference Method 10 shall be used to determine CO. The permittee shall test the engines within 90% of their rated capacity. If the tests are not performed within this range, the permittee shall be limited to operating within 10% above the tested rate. The Department reserves the right to select the engine(s) to be tested. The engine(s) tested shall be rotated so that no engine(s) is tested twice before an engine of equal HP is tested once. If the tested emission rate for any pollutant is in excess of the permitted emission rate, all similar engines shall be tested for both pollutants.

Test results shall be furnished in lbs/hr. All written reports shall be submitted to the following address:

Arkansas Department of Environmental Quality
Air Division
Attn.: Air Enforcement Section
PO Box 8913
Little Rock, Arkansas 72219

NAAQS

137. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, in order to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) for NO_X and PM_{10}, the South XVG Compressor (SN-833) has been removed from service. SN-833 may not be placed back into service unless the permit is modified.

138. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, in order to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) for NO_X and PM_{10}, the facility has bubbled the emissions of the North KVG Compressor (SN-834) and South KVG Compressor (SN-835) and has taken the emission limits listed in the tables in this section. The emission limits for SN-834 and SN-835 may not be increased unless the permit is modified.

139. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, in order to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) for NO_X and PM_{10}, the facility has bubbled the

emissions of the North 8SVG Compressor (SN-837) and South 8SVG Compressor (SN-838) and has taken the emission limits listed in the tables in this section. The emission limits for SN-837 and SN-838 may not be increased unless the permit is modified.

SN: 845
Sludge Management Facility
(Lime Silo Baghouse)

Source Description

SN-845 is a baghouse used to control emissions from the lime storage silo during loading and unloading operations. It was installed in 1994.

Specific Conditions

140. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
845	Sludge Management Facility (Lime Silo Baghouse)		
	PM_{10}	1.0	1.0

141. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
845	Sludge Management Facility (Lime Silo Baghouse)		
	PM	1.0	1.0

142. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 5% opacity from these sources. Compliance with this condition shall be demonstrated by burning only pipeline quality natural gas or desulfurized refinery fuel gas.

143. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, weekly observations of the opacity from this source shall be conducted by personnel familiar with the facility's visible emissions. The facility shall maintain

personnel trained, but not necessarily certified, in EPA Reference Method 9. If visible emissions would appear to be in excess of the permitted opacity are detected, the facility shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The facility shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

a. The date and time of the observation.
b. If visible emissions which appeared to be above the permitted level were detected.
c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
d. The name of the person conducting the opacity observations.

144. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total throughput of lime at this source shall be limited to 1 million lbs per consecutive twelve month period.

145. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for this annual rate shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN: 846
Gasoline/Diesel Loading Rack

Source Description

SN-846 is gasoline and diesel loading rack. It was installed in 1980. A John Zink Carbon Adsorption Vapor Recovery Unit (VRU) was placed into operation on June 18, 1998, in order to comply with the requirements of 40 CFR 63, Subpart CC-*National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries*. Subpart CC is outlined in the Plantwide Conditions of this permit.

Regulations

This source is not subject to 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* because it was constructed prior to the promulgation of Subpart J.

This source is not subject to 40 CFR 60, Subpart XX-*Standards of Performance for Bulk Gasoline Terminals* because construction began prior to December 17, 1980.

Specific Conditions

146. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with 40 CFR 63, Subpart CC and the throughput and loading requirements of this section.

SN	Pollutant	lb/hr	tpy
846	Gasoline/Diesel Rack		
	VOC	20.2	17.1

147. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this source shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with 40 CFR 63, Subpart CC and the throughput and loading requirements of this section.

SN	Pollutant	lb/hr	tpy
846	Gasoline/Diesel Rack		
	2,2,4 Trimethylpentane	0.2	0.2
	n-Hexane	0.1	0.1

SN	Pollutant	lb/hr	tpy
	Benzene	0.2	0.2
	Ethyl Benzene	0.1	0.1
	Toluene	0.2	0.2
	Xylene	0.2	0.2

148. Pursuant to, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total annual throughput of gasoline/diesel products is limited to 9,761,905 bbl per consecutive twelve month period.

149. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the annual throughput shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on-site and submitted in accordance with General Condition #7.

150. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall only load gasoline and diesel products at this loading rack.

151. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, all CEMS shall be operated in accordance with the Department CEM Standards. The facility shall submit CEM data in accordance with the Department's standards. CEM data shall be submitted in both ppm and lb/hr. (See Attachment K.) ***Note: This source is subject to the CEM requirements of §63.427(a) and (b) as referenced by 40 CFR 63, Subpart CC.*

SN: 847
Asphalt Plant Loading Racks

Source Description

SN-847 is the aggregate emissions of eleven asphalt plant loading racks. The loading racks are described in the following table.

Year Installed	Product Loaded
1987	AC-20 Asphalt Truck Rack
Pre-1950	AC-30 Asphalt Truck Rack
Pre-1950	Asphalt Plant Truck Rack
1975	PMA Truck Rack*
1989	Shingle Adhesive Truck Rack
Pre-1950	Pumphouse Truck Rack
1986	Lube Oil Truck Rack
Pre-1950	E & W Rail Car Rack
1968	56 Rack
Pre-1950	Protective Coatings Dock
Pre-1950	Asphalt Dock

*The PMA Truck Rack was previously known as the Emulsion Plant Truck Rack.

Specific Conditions

152. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the Plantwide Applicability Limit (PAL) of this section.

SN	Pollutant	lb/hr	tpy
847	Asphalt Racks		
	VOC	605.5	257.8

153. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this source shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the Plantwide Applicability Limit (PAL) of this section.

SN	Pollutant	lb/hr	tpy
847	Asphalt Racks		
	n-Hexane	0.1	0.1
	Benzene	0.3	0.1
	Ethyl Benzene	0.9	0.4
	Toluene	4.6	1.9
	Xylenes	3.1	1.3

154. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall load only asphalt products at this loading rack.

155. Pursuant to, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the PAL limits the total emissions from the loading racks in this section to 257.8 tons of VOC per consecutive twelve month period.

156. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility has elected to demonstrate compliance for the asphalt racks through a PAL. For this PAL the facility shall maintain a monthly inventory of the emissions from each loading rack in this section. This inventory shall be calculated by the methods and equations used in AP-42, 5th Edition, Chapter 5.2, "Transportation and Marketing of Petroleum Liquids." Records for the monthly inventory of emissions from each loading shall include the source name, products loaded, monthly throughput, and the monthly emissions in pounds and tons. The emissions from this inventory shall be summed to determine the total amount of emissions from the loading racks.

157. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, Records for the annual VOC emission rate and individual loading rack inventory shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on-site and submitted in accordance with General Condition #7.

158. Pursuant to §19.901 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, in order to maintain that the increase in emissions from the PMA project are below PSD trigger limits and do not cause a significant increase in emissions at the asphalt loading racks, the performance graded polymer modified asphalt (PGPMA) through the PMA Asphalt Truck Rack shall be limited to an annual throughput of 400,000 bbl.

159. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the PGPMA throughput shall be maintained on a daily basis, updated weekly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN: 848
#7 FCCU Catalyst Hopper Vents

Source Description

SN-848 is the vent system for two storage bins used to store catalyst in the catalytic cracking process. It was installed in 1973.

Specific Conditions

160. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
848	#7 FCCU Catalyst Hopper Vents		
	PM_{10}	25.0	1.8

161. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
848	#7 FCCU Catalyst Hopper Vents		
	PM	25.0	1.8

162. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total throughput of catalyst at this source shall be limited to 3,650 tons per consecutive twelve month period.

163. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records for the amount of catalyst shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN: 849
Standby Diesel Crude Pump

Source Description

SN-849 is a Standby Diesel Crude Pump to be used as a backup to the primary charge pump (electrical) in the event of power failure or other related operational emergencies. This unit is rated at 325 hp and is fueled by diesel oil. It was installed in 1997.

Specific Conditions

164. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the facility shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput and fuel usage limits of this section.

SN	Pollutant	lb/hr	tpy
849	Standby Diesel Crude Pump		
	PM_{10}	1.5	1.4
	SO_2	1.3	1.2
	VOC	1.7	1.6
	CO	12.2	11.7
	NO_X	20.2	19.3

165. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by the throughput and fuel usage limits of this section.

SN	Pollutant	lb/hr	tpy
849	Standby Diesel Crude Pump		
	PM	1.5	1.4

166. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the facility shall not exceed 20% opacity from this source. As this source operates for only a short period of time each year, a regular compliance demonstration is not necessary.

167. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total hours of operation of this source shall be limited to 1900 hours per consecutive twelve month period.

168. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, within 180 days of issuance of Permit #868-AOP-R0, a meter shall be installed to record the hours of operation of SN-849. Records of the hours of operation shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

169. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this source shall be fired on fuel which contains less than 0.5 percent sulfur.

170. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility shall keep records demonstrating the sulfur content of the fuel. These records shall be maintained on a weekly basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN: 851
Wastewater Collection, Storage, and Treatment

Source Description

SN-851, the waste water treatment facility, is used to remove pollutants from refinery waste water. It was installed in the 1970's.

Specific Conditions

171. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
851	Wastewater Treatment		
	VOC	900.0	3942.0

172. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total throughput of wastewater at this source shall be limited to 1,314 million gallons per consecutive twelve month period.

173. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records of the wastewater throughput shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN: 852
Vacuum Distillation Unit

Source Description

SN-852 is a vacuum distillation unit used to separate reduced crude produced from the atmospheric column into gas oil and asphalt.

Specific Conditions

174. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
852	Vacuum Distillation Unit		
	VOC	55.3	242.1

175. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total amount of vacuum feed at this source shall be limited to 8.1 million barrels per consecutive twelve month period.

176. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records of the vacuum feed shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN: 853
Cooling Towers

Source Description

The #3, 5, 6, 7, and Sulfur Plant cooling towers are used to transfer waste heat from the cooling water to the atmosphere. They were installed in the 1970's.

Specific Conditions

177. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with the throughput limits of this section.

SN	Pollutant	lb/hr	tpy
853	Cooling Towers		
	VOC	24.4	106.8

178. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the total amount of water circulated at this source shall be limited to 29.6 billion gallons per consecutive twelve month period.

179. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, records of the water circulated shall be maintained on a twelve month rolling basis, updated monthly. Such records shall be maintained on site and submitted in accordance with General Condition #7.

SN-854
Fugitive Equipment Leaks

Process Description

The fugitive emissions not quantified with the other sources are included in this grouping.

Specific Conditions

180. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the facility shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with 40 CFR 60, Subpart GGG and Subpart VV as referenced by GGG and 40 CFR 63, Subpart CC.

SN	Pollutant	lb/hr	tpy
854	Fugitive Equipment Leaks		
	VOC	591.0	2588.3

181. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this source shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with 40 CFR 60, Subpart GGG and Subpart VV as referenced by GGG and 40 CFR 63, Subpart CC.

SN	Pollutant	lb/hr	tpy
854	Fugitive Emissions		
	Carbonyl Sulfide	0.01	0.01
	Carbon Disulfide	0.01	0.03
	1,3 Butadiene	0.09	0.40
	Cresols	1.50	6.50
	Benzene	4.30	18.90
	Ethylbenzene	4.40	19.40
	n-Hexane	13.10	57.20
	Naphthalene	3.00	13.00
	Phenol	0.90	3.90
	Toluene	12.20	53.60
	Xylenes	13.50	58.90
	Diethyl Amine	5.40	23.60

SN	Pollutant	lb/hr	tpy
	Perchloroethylene	0.80	3.40
	Carbon Tetrachloride	0.80	3.40
	1,1,1, Trichloroethane	0.80	3.40
	Methylene Chloride	0.80	3.50

182. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, Subpart GGG-*Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries*, §60.590(a)(1) and (3), the equipment, including each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service in the #6 Isomerization Unit, #8 Hydrotreater Furnace, #12 Unit Distillate Hydrotreater, and the #17 Sulfur Plant is an affected facility. For the purposes of recordkeeping and reporting only, compressors are also considered equipment. (See Appendix F.) The facility is subject to, but not limited to the following requirements.

A. Pursuant to §60.592(a), the facility shall comply with the standards for specific equipment found in §§60.482-1 to 60.482-10 of 40 CFR 60, Subpart VV.

B. Pursuant to §60.592(b), an owner or operator may elect to comply with the alternative standards for valves in §§60.483-1 and 60.483-2.

C. Pursuant to §60.592(c), an owner or operator may apply to the Administrator for a permit modification for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of §60.484.

D. Pursuant to §60.592(d), each owner or operator subject to the provisions of this subpart shall comply with the testing provisions of §60.485 except as provided in §60.593.

E. Pursuant to §60.592(e), each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping and reporting provisions of §§60.486 and 60.487.

F. Pursuant to §60.593(a), each owner or operator subject to the provisions of this subpart may comply with the allowable exceptions to the provisions of subpart VV.

183. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, this facility is subject to Subpart VV-*Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* as referenced by Subpart GGG. (See Appendix G.) The facility is subject to, but not limited to the following requirements.

A. Pursuant to §60.482-1(a), the facility shall demonstrate compliance with the requirements of §§60.482-1 to 60.482-10 for all equipment within 180 days of initial startup.

B. Pursuant to §60.482-1(b), compliance with §§60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485.

C. Pursuant to §60.482-1(c)(1), the facility may request a determination of equivalence of a means of emission limitation to the requirements of §§ 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in §60.484. *(Note: This will require a permit modification.)*

D. Pursuant to §60.482-1(c)(2), if the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, the facility shall comply with the requirements of that determination. *(Note: This will require a permit modification.)*

E. Pursuant to §60.482-3(a), the compressors are not subject to this subpart as per the exemption of §60.593(b)(1).

F. Pursuant to §60.482-4, the facility has no pressure relief devices in gas/vapor service and is not subject to this section.

G. Pursuant to §60.482-6(a)(1), each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c).

H. Pursuant to §60.482-6(a)(2), the cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

I. Pursuant to §60.482-6(b), each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

J. Pursuant to §60.482-6(c), when a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

K. Pursuant to §60.482-7, the facility shall comply with the requirements for valves in gas/vapor service or in light liquid service.

L. Pursuant to §60.482-10, the facility shall comply with the requirements for closed vent systems and control devices.

M. Pursuant to §60.483-2, the facility has elected to comply with the alternative work practice specified in paragraphs (b)(3) of this section.

N. Pursuant to §60.483-2(2), the facility has notified the Administrator before implementing these alternative work practices, as specified in §60.487(b).

O. Pursuant to §60.483-2(b)(1), the facility has initially complied with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482-7.

P. Pursuant to §60.483-2(b)(3), after 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

Q. Pursuant to §60.483-2(4), if the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482-7 but can again elect to use this section.

R. Pursuant to §60.485(a), in conducting the performance tests required in §60.8, the facility shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

S. Pursuant to §60.485(b), the facility shall determine compliance with the standards in §§60.482 and 60.483 as follows:

   A. Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the

procedures specified in Method 21. The following calibration gases shall be used:

(i.) Zero air (less than 10 ppm of hydrocarbon in air); and
(ii.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

T. Pursuant to §60.485(c), the facility shall determine compliance with the no detectable emission standards in §§60.482-2(e), and 60.482-3(i) as follows:

A. The requirements of paragraph (b) shall apply.
B. Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicates by the instrument and the background level is compared with 500 ppm for determining compliance.

U. Pursuant to §60.485(f), samples used in conjunction with paragraphs (d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

V. Pursuant to §60.486(a)(1), the facility shall comply with the recordkeeping requirements of this section.

W. Pursuant to §60.486(a)(2), an owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

X. Pursuant to §60.486(b), when each leak is detected as specified in §§60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
2. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482-7(c) and no leak has been detected during those 2 months.
3. The identification on equipment except on a valve, may be removed after it has been repaired.

Y. Pursuant to §60.486(k), the provisions of §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

Z. Pursuant to §60.487(a), the facility shall submit semiannual reports to the Administrator beginning six months after the initial start up date.

AA. Pursuant to §60.487(b), the initial semiannual report to the Administrator shall include the following information:

1. Process unit identification.
    m. Number of valves subject to the requirements of §60.482-7, excluding those valves designated for no detectable emissions under the provisions of §60.482-7(f).
    n. Number of pumps subject to the requirements of §60.482-2, excluding those pumps designated for no detectable emissions under the provisions of §60.482-2(e) and those pumps complying with §60.482-2(f).
    o. Number of compressors subject to the requirements of §60.482-3, excluding those compressors designated for no detectable emissions under the provisions of §60.482-3(i) and those compressors complying with §60.482-3(h).

BB. Pursuant to §60.487(c), all semiannual reports to the Administrator shall include the following information, summarized from the information in §60.486:

1. Process unit identification.
2. For each month during the semiannual reporting period,
    (i.) Number of valves for which leaks were detected as described in §60.482(7)(b) or §60.483-2,
    (ii.) Number of valves for which leaks were not repaired as required in §60.482-7(d)(1),
    (iii.) Number of pumps for which leaks were detected as described in §60.482-2(b) and (d)(6)(i),
    (iv.) Number of pumps for which leaks were not repaired as required in §60.482-2(c)(1) and (d)(6)(ii),
    (v.) Number of compressors for which leaks were detected as described in §60.482-3(f),
    (vi.) Number of compressors for which leaks were not repaired as required in §60.482-3(g)(1), and

(vii.) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

3. Dates of process unit shutdowns which occurred within the semiannual reporting period.
4. Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

CC. Pursuant to §60.487(d), the facility has elected to comply with the provisions of §60.483-2 and has notified the Administrator of the alternative standard selected 90 days before implementing the provision. If the facility decides to comply with the provisions of §60.483-1, the facility shall notify the Administrator 90 days in advance before implementing the provisions.

DD. Pursuant to §60.487(e), the facility shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that the facility must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

184. Pursuant to §19.304 of Regulation 19, and 40 CFR 60, Subparts GGG and VV, in order to demonstrate compliance with Subparts GGG and VV the facility shall maintain a log of the following.

1. Compliance with testing provisions as required by § 60.592(d).
2. Any exemptions for compressors considered to be in hydrogen service.
3. Any exemptions for equipment that is in vacuum service as provided by § 60.482-1(d).
4. Monthly monitoring results of § 60.482-2(a)(1).
5. Weekly visual inspection checks of liquids dripping of § 60.482-2(a)(2).
6. Record of instrument reading of § 60.482-2(b)(1).
7. Record of leaks from pump seal in § 60.482-2(b)(2).
8. Attempts to repair leak within 15 days as provided by § 60.482-2(c)(1).
9. Attempts to repair leak within 5 days as provided by § 60.482-2(c)(2).
10. Records of exemption for each pump equipped with a dual mechanical seal system as provided by § 60.482-2(d).
11. Records of exemption for any pump designated for no detectable emission as provided by § 60.482-2(e).
12. Records of exemption for any pump equipped with a closed vent system as provided by § 60.482-2(f).

13. Records that each sampling connection system is equipped with a closed purge system or closed vent system in §60.482-5(a) and (b) or qualifies for the exemptions.
14. All in-situ sampling systems that are exempt in § 60.482-5(c).
15. Record of monitoring of potential leaks within 5 days as required by § 60.482-8(a).
16. Record of leaks detected in § 60.482-8(b).
17. Attempts to repair leak within 15 days as provided by § 60.482-8(c)(1).
18. Attempts to repair leak within 5 days as provided by § 60.482-8(c)(2).
19. Record of delay of repair of equipment as allowed in § 60.482-9(a) or (b).
20. Record of delay of repair of equipment as allowed in § 60.482-9(c).
21. Record of delay of repair of equipment as allowed in § 60.482-9(d).
22. Delays of repair beyond a unit shutdown as allowed in § 60.482-9(e).
23. Record of the percent of valves leaking as required in § 60.483-2(5) and (6).
24. Records of the tests and results of § 60.485(d).
25. Results of § 60.485.
26. Records of § 60.485(g).
27. Information required by § 60.486(c) for leaks.
28. Information required by § 60.486(d) for the design requirements.
29. Information required by § 60.486(e) for the equipment.
30. Information required by § 60.486(f) for the valves.
31. Information required by § 60.486(g) for the valves.
32. Information required by § 60.486(h).
33. Requirements to show that equipment is not in VOC service as provided by § 60.486(j).

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Lion Oil Company cannot demonstrate compliance with the flare emission rates of SN's 822 and 823. The facility has submitted an application for a modification to install a flare gas recovery system. It is anticipated that Lion Oil Company and ADEQ will be entering into an agreement which will include a compliance schedule in the near future.

SECTION VI: PLANTWIDE CONDITIONS

1. Pursuant to Section 19.704 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Director shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.

2. Pursuant to Section 19.410(B) of Regulation 19, 40 CFR Part 52, Subpart E, the Director may cancel all or part of this permit if the construction or modification authorized herein is not begun within 18 months from the date of the permit issuance if the work involved in the construction or modification is suspended for a total of 18 months or more.

3. Pursuant to Section 19.702(E), 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, each emission point for which an emission test method is specified in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Two copies of the compliance test results shall be submitted to the Department within thirty (30) days after the completed testing. The permittee shall provide:

    (1) Sampling ports adequate for applicable test methods
    (2) Safe sampling platforms
    (3) Safe access to sampling platforms
    (4) Utilities for sampling and testing equipment

4. Pursuant to Section 19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.

5. Pursuant to Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit subsumes and incorporates all previously issued air permits for this facility.

6. Pursuant to §19.304 of Regulation 19, and 40 CFR 61, Subpart FF- National Emission Standard for Benzene Waste Operations, the facility is subject to this subpart because it is a petroleum refinery. (See Appendix F.)

A. The facility has identified itself as having total annual benzene emissions of less than 10 Mg/yr. The facility shall follow any applicable requirements of § 61.342(a).

B. The facility shall keep the records required by § 61.356(a) and (b).

C. The facility shall follow the reporting requirements of § 61.357(c).

7. Pursuant to §19.304 of Regulation 19, and 40 CFR 63, Subpart CC-*National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries*, the facility is subject to, but not limited to the following provisions of 40 CFR 60, Subpart CC. (See Appendix I.)

A. For the purpose of this subpart, the affected source shall comprise all emission points, in combination, listed in § 63.640(c)(1) through (c)(7) that are located at a single refinery plant site. *Note: (c)(6) does not apply.*

(c)(1) All miscellaneous process vents from petroleum refining process units meeting the criteria in § 63.640 (a);

(c)(2) All storage vessels associated with petroleum refining process units meeting the criteria in § 63.640(a);

(c)(3) All wastewater streams and treatment operations associated with petroleum refining process units meeting the criteria in § 63.640(a);

(c)(4) All equipment leaks from petroleum refining process units meeting the criteria in § 63.640(a);

(c)(5) All gasoline loading racks classified under Standard Industrial Classification code 2911 meeting the criteria in § 63.640(a);

(c)(7) All storage vessels and equipment leaks associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery meeting the criteria in § 63.640(a).

B. Pursuant to § 63.640(d), the affected source does not include the emission points listed in paragraphs (d)(1) through (d)(5).

(d)(1) Stormwater from segregated stormwater sewers;

(d)(2) Spills;

(d)(3) Any pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve or instrumentation system that is intended to operate in organic hazardous air pollutant service, as defined in § 63.641 of this subpart, for less than 300 hours during the calendar year.

(d)(4) Catalytic cracking unit and catalytic reformer catalyst regeneration vents, and sulfur plant vents.

(d)(5) Emission points routed to a fuel gas system, as defined in § 63.641 of this subpart. No testing, monitoring recordkeeping, or reporting is required for refinery fuel gas systems or emission points routed to refinery fuel gas systems.

C. The owner or operator shall keep a log of the storage vessels in § 63.640(e)(1) and (e)(2) that are subject to Subpart CC.

D. The owner or operator shall keep a log of the miscellaneous process vents in § 63.640(f)(1) through (f)(5) that are subject to Subpart CC.

E. The facility shall keep a log of the processes specified in paragraphs § 63.646(g)(1) through (g)(7) that are exempt from Subpart CC.

F. Sources subject to Subpart CC shall achieve compliance with the subpart by the dates specified in § 63.640(h).

G. Sources that are added, reconstructed, have additions, or are otherwise modified shall achieve compliance in accordance with § 63.640(i), (j), and (k).

H. If an additional petroleum refining process unit is added to a plant site or if a miscellaneous process vent, storage vessel, or gasoline loading rack that meets the criteria in § 63.640 (c)(1) through (c)(7) is added to an existing petroleum refinery or if another deliberate operational process change creating an additional Group 1 emission point(s) (as defined in § 63.641) is made to an existing petroleum refining process unit, and if the addition or process change is not subject to the new source requirements as determined according to § 63.640 (i) or (j), the requirements in § 63.640 (l)(1) through (l)(3) shall apply. The facility shall keep a log to show that it has complied with the provisions of this section.

I. If a change that does not meet the criteria in § 63.640(l) is made to a petroleum refining process unit subject to this subpart, and the change causes a Group 2 emission point to become a Group 1 emission point (as defined in § 63.641), then the owner or operator shall comply with the requirements of this subpart for existing sources for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1. A compliance schedule for the change shall be submitted to the Administrator in accordance with § 63.640(l)(1) through (3).

J. The following shall apply to the facility for the overlap of subpart CC with other regulations for storage vessels in § 63.640(n)(1) through (7).

Overlap with Existing Federal Regulations - Storage Vessels				
Existing Regulation	**Source**	**Group**	**Comply with**	**Comments**
40 CFR 60, Subpart Kb	Existing	Group 1 Group 2	40 CFR 60, Subpart Kb	
40 CFR 60, Subpart Kb	New	Group 1	40 CFR 63, Subpart CC	
40 CFR 60, Subpart Kb (see comment)	New	Group 2	40 CFR 60, Subpart Kb	If source is subject to control requirements in Subpart Kb, comply with Kb instead of CC.
40 CFR 60, Subpart Kb (see comment)	New	Group 2	40 CFR 63, Subpart CC	If source is not required to apply controls by Subpart Kb, comply with CC instead of Kb.
40 CFR 60, Subpart K or Ka	New and Existing	Group 1	40 CFR 63, Subpart CC	
40 CFR 60, Subpart K or Ka	New and Existing	Group 2	40 CFR 60, Subpart K or Ka	If source is subject to control requirements in Subparts K or Ka, comply with K or Ka instead of CC.
40 CFR 60, Subpart K or Ka	New and Existing	Group 2	40 CFR 63, Subpart CC	If source is not required to apply controls by Subparts K or Ka, comply with CC instead of K or Ka.

K. The following shall apply to the facility for the overlap of subpart CC with other regulations for wastewater in § 63.640(o)(1) and (2).

Overlap with Existing Federal Regulations - Wastewater				
Existing Regulation	**Source**	**Group**	**Comply with**	**Comments**
40 CFR 60, Subpart QQQ	New and Existing	Group 1	40 CFR 63, Subpart CC	
40 CFR 61, Subpart FF	New and Existing	Group 1	40 CFR 61, Subpart FF	
40 CFR 63, Subpart G	New and Existing	Group 1 Group 2	40 CFR 63, Subpart G, §§ 63.133-63.137, 63.140	Applies to equipment used in storage and conveyance of wastewater streams.
			40 CFR 61, Subpart FF, and 40 CFR 63, Subpart G, §§ 63.138, 63.139	Applies to treatment and control of wastewater streams.
			40 CFR 63, Subpart G, §§ 63.143-63.148	Applies to monitoring and inspections of equipment and recordkeeping and reporting requirements.

L. After the compliance dates specified in § 63.640(h) equipment leaks that are also subject to the provisions of 40 CFR 60 and 61 are required to comply only with the provisions of this subpart.

M. The facility shall refer to Table 6 of Subpart CC in accordance with § 63.642(c) for in order to reference specific provisions of Subpart A of Part 63 that apply and those that do not apply.

N. Pursuant to § 63.642(d), initial performance tests and initial compliance determinations shall be required only as specified in this subpart. A log showing compliance with §§ 63.642(d)(1) through (4) shall be kept.

O. Pursuant to §63.642(e), each owner or operator of a source subject to this subpart shall keep copies of all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this subpart. All applicable records shall be maintained in such a manner that they can be readily accessed. Records for the most recent 2 years shall be retained onsite at the source or shall be accessible from a central location by computer. The remaining 3 years of records may be retained offsite. Records may be maintained in hard copy or computer- readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

P. Pursuant to §63.642(f), all reports required under this subpart shall be sent to the Administrator at the addresses listed in § 63.13 of subpart A of this part. If acceptable to both the Administrator and the owner or operator of a source, reports may be submitted on electronic media.

Q. Pursuant to §63.642(h), the owner or operator of a new source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the equation in paragraph (g) of this section.

R. Pursuant to §63.642(i), the owner or operator of an existing source shall demonstrate compliance with the emission standard in §63.642(g) by following the procedures specified in §63.642(k) for all emission points, or by following the emissions averaging compliance approach specified in §63.642(l) for specified emission points and the procedures specified in §63.642(k) for all other emission points within the source. The facility shall keep a log to demonstrate compliance with this provision.

S. Pursuant to §63.642(j), the owner or operator of a new source shall demonstrate compliance with the emission standard in §63.642(h) only by following the procedures in §63.642(k). The owner or operator of a new source may not use the emissions averaging compliance approach. The facility shall keep a log to demonstrate compliance with this provision.

T. The owner or operator of a Group 1 miscellaneous process vent as defined in § 63.641 shall comply with the requirements of either § 63.643(a)(1) or (a)(2). A log shall be kept to demonstrate compliance with these provisions.

U. The facility shall keep a log to demonstrate compliance with the provisions of § 63.644(a) for Group 1 miscellaneous process vent that uses a combustion device to comply with the requirements in § 63.643(a).

V. The facility shall keep a log to demonstrate how it has complied with § 63.644(c) which requires the owner or operator of a Group 1 miscellaneous process vent using a vent system that contains bypass lines that could divert a vent stream away from the control device used to comply with § 63.644(a) to follow additional constraints outlined in § 63.644(c).

W. Pursuant to § 63.644(d), the owner or operator shall establish a range that ensures compliance with the emissions standard for each parameter monitored under paragraphs (a) and (b) of this section. In order to establish the range, the

information required in §63.654(f)(1)(ii) shall be submitted in the Notification of Compliance Status report.

X. Pursuant to § 63.644(e) Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum and/or maximum operating parameter value or procedure required to be monitored under paragraphs (a) and (b) of this section. Operation of the control device in a manner that constitutes a period of excess emissions, as defined in §63.654(g)(6), or failure to perform procedures required by this section shall constitute a violation of the applicable emission standard of this subpart.

Y. The facility shall comply with the test measures and procedures for miscellaneous process vents in § 63.645.

Z. Pursuant to § 63.645(h), the owner or operator of a Group 2 process vent shall recalculate the TOC emission rate for each process vent, as necessary, whenever process changes are made to determine whether the vent is in Group 1 or Group 2. A log of these calculations and supporting assumptions shall be kept to demonstrate compliance with § 63.645.

AA. The facility shall keep a log to demonstrate that the compliance determination for § 63.645(i) has been meet.

BB. The facility shall comply with the storage vessel provisions of § 63.646. Notices of Compliance Status Report shall be submitted to the Administrator as required by this section.

CC. Pursuant to§ 63.646(e), when complying with the inspection requirements of § 63.120 of subpart G of this part, owners and operators of storage vessels at existing sources subject to this subpart are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.

DD. Pursuant to§ 63.646(f), the paragraphs (f)(1), (f)(2), and (f)(3) of this section apply to Group 1 storage vessels at existing sources:

(f)(1) If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.

(f)(2) Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(f)(3) Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

EE. Pursuant to§ 63.646(g), failure to perform inspections and monitoring required by this section shall constitute a violation of the applicable standard of this subpart.

FF. The facility shall comply with the wastewater provisions of § 63.647. The facility shall maintain a log to demonstrate that it has complied with the requirements of this section.

GG. The facility shall comply with the equipment leak standards of § 63.648. Portions of this section overlap with the requirements already listed for Subpart VV in the Fugitive Emissions (SN- 855) section of this permit. The facility may combine the requirements of that section with this section and keep all necessary reports in one log. In any case, the facility shall keep a log to demonstrate compliance with this section.

HH. Pursuant to § 63.648(h), each owner or operator of a source subject to the provisions of this subpart must maintain all records for a minimum of 5 years.

II. The facility shall comply with the gasoline loading rack provisions of § 63.650(a). The facility shall keep a log to demonstrate that all requirements of this section have been met.

JJ. The facility shall keep in a log, methods used and affected equipment for any of the emissions averaging provisions that are used in § 63.652. The facility shall also follow the requirements for § 65.653. Records for monitoring, recordkeeping, and implementation plans shall also be kept in the same log.

KK. The facility shall comply with the provisions of § 63.654(a) and keep a log of how it has complied with those provisions.

LL. The facility shall comply with the provisions of § 63.654(b) and keep a log of how it has complied with those provisions.

MM. The facility shall comply with the provisions of § 63.654(d)(1) through (6) and keep a log of how it has complied with those provisions.

NN. Pursuant to § 63.654(e), the facility shall submit the reports listed in paragraphs (e)(1) through (e)(3) except as provided in paragraph (h)(5) of this section, and shall keep records as described in paragraph (i) of this section.
(e)(1) A Notification of Compliance Status report as described in paragraph (f) of this section;
(e)(2) Periodic Reports as described in paragraph (g) of this section; and
(e)(3) Other reports as described in paragraph (h) of this section.

OO. The facility shall keep a log to show that it has complied with § 63.654(f)(1) through (5).

PP. The facility shall keep a log to show that it has complied with the requirements of § 63.654(g)(1) through (g)(8).

QQ. The facility shall keep a log demonstrating that it has complied with the submittal requirements of § 63.654(h).

RR. The facility shall keep a log of the records required by § 63.654(i).

SS. All other information required to be reported under paragraphs § 63.654(a) through (h) shall be retained for 5 years.

8. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility has used the limits of 40 CFR 60, Subpart J-*Standards of Performance for Petroleum Refineries* to calculate the SO_2 emissions from the combustion of refinery fuel gas at the facility; therefore all refinery fuel gas burned in any fuel combustion device at this facility shall meet the requirements of Subpart J except for SN's 816-820 which have a limit of 0.15 mole% H_2S in the refinery fuel gas.
9. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, pipeline quality natural gas is that which meets the tariff requirements of any major transmission company.

10. Pursuant to §18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the benzene emissions to the atmosphere from the facility shall be tested in accordance with the facility's proposal dated February 22, 1999. (See Appendix J.) The testing shall be performed once a week for a period of twelve months using desorbable tubes at each of the three sites on the North, South, and East perimeter property lines.

Within 30 days after each quarter of the twelve month period ends, the facility shall submit the testing results to the Department at the following address.

Arkansas Department of Environmental Quality
Air Division
Attn.: Air Enforcement
Post Office Box 8913
Little Rock, AR 72219

Compliance will this condition and the Non-Criteria Pollutant Control Strategy shall be demonstrated by having less than a 250 Fg/m^3 fenceline concentration of benzene.

PERMIT SHIELD

11. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in item A of this condition:
    A. The following have been specifically identified as applicable requirements based upon information submitted by the permittee in an application dated August 10, 1996.

SN	Regulation	Description
Facility	Arkansas Regulation 19	Compilation of Regulations of the Arkansas State Implementation Plan for Air Pollution Control
Facility	Arkansas Regulation 26	Regulations of the Arkansas Operating Air Permit Program
SN-850	40 CFR 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
SN-803 to SN-805, SN-808, SN-811, SN-829, SN-830, SN-842 to SN-844	40 CFR 60, Subpart J	Standards of Performance for Petroleum Refineries
T-108, T-109, T-532	40 CFR 60, Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
T-88, T-103	40 CFR 60, Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.
Equipment Leaks*	40 CFR 60, Subpart VV	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

SN	Regulation	Description
#6 Isomerization Unit, #12 Unit Distillate Hydrotreater, and #17 Sulfur Plant*	40 CFR 60, Subpart GGG	Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
Facility	40 CFR 61, Subpart FF	National Emission Standard for Benzene Waste Operations
Facility*	40 CFR 63, Subpart CC	National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries

*Equipment leak provisions apply only to those components that are subject to Subpart GGG (incorporating the provisions of Subpart VV) and 40 CFR 63, Subpart CC.

B. The following requirements have been specifically identified as not applicable, based upon information submitted by the permittee in an application dated August 10, 1996.

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	40 CFR 60 Subpart Db	SN-816 to SN-820	Unit was installed before 1984.
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	40 CFR 60 Subpart Dc	SN-816 to SN-820, SN-829	Unit was installed before 1989.
Standards of Performance for Petroleum Refineries	40 CFR 60, Subpart J	Fluid Catalytic Cracking Unit	Constructed prior to the promulgation of Subpart J.
Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	40 CFR 60, Subpart K	T-384	Exemption of §60.110(c)(2).
Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	40 CFR 60, Subpart Ka	T-610	Smaller than 40,000 gallons.

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.	40 CFR 60, Subpart Kb	T-113, T-544, and T-548 T-142, T-143 and T-432 T-324 T-538, T-539, T-549 to T-552, T-600 to T-608, T-611, and T-612	Exempt because they store a liquid with a maximum true vapor pressure less than 3.5 kPa (0.5 psia). Tanks in dedicated inorganic liquid service. Exempt because capacity greater than or equal to 75 m^3, but less than 151m^3 storing a liquid with a maximum tvp less than 15.0 kPa. Smaller than 40 m^3.
---	40 CFR 60, Subpart K, Ka, and Kb	All tanks not previously identified	Constructed prior to June 11, 1973.
Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems	40 CFR 60, Subpart QQQ	Wastewater systems	No construction, modification, or reconstruction of affected facilities after May 4, 1987.
National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	40 CFR 61, Subpart J	Pumps, compressors, pressure relief devices, sampling connections, systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems	There are no affected facilities in benzene service (greater than 10% benzene by weight.)
National Emission Standard for Benzene Emissions From Benzene Storage Vessels	40 CFR 61, Subpart Y	Storage Vessels	None of the storage vessels contain benzene products.
National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers	40 CFR 63, Subpart Q	Cooling Tower	Cooling towers have not operated with chromium-based water treatment chemicals on or after September 8, 1994.

C. Nothing shall alter or affect the following:

Provisions of Section 303 of the Clean Air Act;

The liability of an owner or operator for any violation of applicable requirements prior to or at the time of permit issuance;

The applicable requirements of the acid rain program, consistent with section 408(a) of the Clean Air Act; or

The ability of the EPA to obtain information under Section 114 of the Clean Air Act.

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SECTION VII: INSIGNIFICANT ACTIVITIES

Pursuant to §26.3(d) of Regulation 26, the following sources are insignificant activities. Insignificant and trivial activities will be allowable after approval and federal register notice publication of a final list as part of the operating air permit program. Any activity for which a state or federal applicable requirement applies is not insignificant even if this activity meets the criteria of §3(d) of Regulation 26 or is listed below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated August 12, 1996, and an application amendment received February 24, 1998.

*Key: FCR = Fixed Cone Roof
FDR = Fixed Dome Roof
OR = Open Roof
PBT = Pressure Bullet Tank
PST = Pressure Spherical Tank
CVS = Closed Vent System
UST = Underground Storage Tank

Insignificant Tank				
Tank #	Product	*Tank Type	Capacity (bbls)	Reason Tank is Insignificant
541	Boiler Feed Water	FCR	5,040	Group B, 22
542	Boiler Feed Water	FCR	5,040	Group B, 22
543	Boiler Feed Water	FCR	5,040	Group B, 22
106	Fire Water	FCR	55,473	Group B, 22
6	Fresh Caustic (NaOH)	FCR	3,680	Group A, 4
9	Fresh Caustic (NaOH)	FCR	1,008	Group A, 4
53	Fresh Caustic (NaOH)	FCR	7,889	Group A, 4
144	Fresh Caustic (NaOH)	FCR	80	Group A, 4
373	Fresh Caustic (NaOH)	FCR	1,008	Group A, 4
393	Fresh Caustic (NaOH)	FCR	140	Group A, 4
130	Fresh H_2SO_4 Acid (78%)	FCR	457	Group B, 22
131	Fresh H_2SO_4 Acid (78%)	FCR	443	Group B, 22
140	Fresh H_2SO_4 Acid (78%)	FCR	1,000	Group B, 22
141	Fresh H_2SO_4 Acid (78%)	FCR	1,000	Group B, 22
394	Fresh H_2SO_4 Acid (78%)	FCR	154	Group B, 22
403	Fresh H_2SO_4 Acid (78%)	FCR	52	Group B, 22

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Insignificant Tank				
Tank #	Product	*Tank Type	Capacity (bbls)	Reason Tank is Insignificant
357	Fresh Phosphoric Acid	FCR	107	Group B, 22
87	Sodium Hydrosulfide	FDR	45,000	Group B, 22
188	Sodium Hydrosulfide/ Spent Caustic	FCR	5,060	Group B, 22
449	Water	OR	1,893	Group B, 22
66	Purchased Light Straight Run	CVS	14,552	No emissions to the atmosphere
67	Isomate	CVS	14,552	No emissions to the atmosphere
133	Crude Slop Oil	PBT	444	No emissions to the atmosphere
134	Crude Slop Oil	PBT	444	No emissions to the atmosphere
146	Propane	PBT	712	No emissions to the atmosphere
147	Propane	PBT	712	No emissions to the atmosphere
148	Propane	PBT	714	No emissions to the atmosphere
149	Iso-Butane	PBT	2,571	No emissions to the atmosphere
155	Butane	PBT	525	No emissions to the atmosphere
184	Butane	PBT	956	No emissions to the atmosphere
185	Butane	PBT	1,785	No emissions to the atmosphere
186	Butane	PBT	705	No emissions to the atmosphere
187	Propane	PBT	826	No emissions to the atmosphere
194	Iso-Butane	PBT	604	No emissions to the atmosphere
195	Iso-Butane	PBT	604	No emissions to the atmosphere
196	Iso-Butane	PBT	604	No emissions to the atmosphere

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Insignificant Tank				
Tank #	Product	*Tank Type	Capacity (bbls)	Reason Tank is Insignificant
197	Propane/Propylene	PBT	525	No emissions to the atmosphere
198	Propane/Propylene	PBT	525	No emissions to the atmosphere
268	Light Straight Run	PBT	464	No emissions to the atmosphere
269	Light Straight Run	PBT	464	No emissions to the atmosphere
362	Propylene	PBT	598	No emissions to the atmosphere
363	Mixed Butane	PBT	595	No emissions to the atmosphere
364	Iso-Butane	PBT	1007	No emissions to the atmosphere
365	Iso-Butane	PBT	1007	No emissions to the atmosphere
366	Solvent Mix	PBT	697	No emissions to the atmosphere
367	B. B. Charge #5	PST	5,017	No emissions to the atmosphere
417	Sulfur	UST	1,510	
536	Light Straight Run/HT Stock #6	PST	15,130	No emissions to the atmosphere

Non-Tank Activities:

Description	Category
Natural Gas Odoring Activities	Group A, Item 13

Pursuant to §26.3(d) of Regulation 26, the following emission units, operations, or activities have been determined by the Department to be insignificant activities. Activities included in this list are allowable under this permit and need not be specifically identified.

1. Combustion emissions from propulsion of mobile sources and emissions from refueling these sources unless regulated by Title II and required to obtain a permit under Title V of the federal Clean Air Act, as amended. This does not include emissions from any transportable units, such as temporary compressors or boilers. This does not include

emissions from loading racks or fueling operations covered under any applicable federal requirements.

2. Air conditioning and heating units used for comfort that do not have applicable requirements under Title VI of the Act.

3. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process.

4. Non-commercial food preparation or food preparation at restaurants, cafeterias, or caterers, etc.

5. Consumer use of office equipment and products, not including commercial printers or business primarily involved in photographic reproduction.

6. Janitorial services and consumer use of janitorial products.

7. Internal combustion engines used for landscaping purposes.

8. Laundry activities, except for dry-cleaning and steam boilers.

9. Bathroom/toilet emissions.

10. Emergency (backup) electrical generators at residential locations.

11. Tobacco smoking rooms and areas.

12. Blacksmith forges.

13. Maintenance of grounds or buildings, including: lawn care, weed control, pest control, and water washing activities.

14. Repair, up-keep, maintenance, or construction activities not related to the sources' primary business activity, and not otherwise triggering a permit modification. This may include, but is not limited to such activities as general repairs, cleaning, painting, welding, woodworking, plumbing, re-tarring roofs, installing insulation, paved/paving

parking lots, miscellaneous solvent use, application of refractory, or insulation, brazing, soldering, the use of adhesives, grinding, and cutting.[1]

15. Surface-coating equipment during miscellaneous maintenance and construction activities. This activity specifically does not include any facility whose primary business activity is surface-coating or includes surface-coating or products.

16. Portable electrical generators that can be "moved by hand" from one location to another.[2]

17. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning, or machining wood, metal, or plastic.

18. Brazing or soldering equipment related to manufacturing activities that do not result in emission of HAPs.[3]

19. Air compressors and pneumatically operated equipment, including hand tools.

20. Batteries and battery charging stations, except at battery manufacturing plants.

21. Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOCs or HAPs.[4]

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[1] Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must get a permit.

[2] "Moved by hand" means that it can be moved by one person without assistance of any motorized or non-motorized vehicle, conveyance, or device.

[3] Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production thresholds. Brazing, soldering, and welding equipment, and cutting torches related directly to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

[4] Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids are based on size and limits including storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.

22. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and no volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.

23. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and non-volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.

24. Drop hammers or presses for forging or metalworking.

25. Equipment used exclusively to slaughter animals, but not including other equipment at slaughter-houses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.

26. Vents from continuous emissions monitors and other analyzers.

27. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

28. Hand-held applicator equipment for hot melt adhesives with no VOCs in the adhesive.

29. Lasers used only on metals and other materials which do not emit HAPs in the process.

30. Consumer use of paper trimmers/binders.

31. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.

32. Salt baths using non-volatile salts that do not result in emissions of any air pollutant covered by this regulation.

33. Laser trimmers using dust collection to prevent fugitive emissions.

34. Bench-scale laboratory equipment used for physical or chemical analysis not including lab fume hoods or vents.

35. Routine calibration and maintenance of laboratory equipment or other analytical instruments.

36. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.

37. Hydraulic and hydrostatic testing equipment.

38. Environmental chambers not using hazardous air pollutant gases.

39. Shock chambers, humidity chambers, and solar simulators.

40. Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.

41. Process water filtration systems and demineralizers.

42. Demineralized water tanks and demineralizer vents.

43. Boiler water treatment operations, not including cooling towers.

44. Emissions from storage or use of water treatment chemicals, except for hazardous air pollutants or pollutants listed under regulations promulgated pursuant to Section 112(r) of the Act, for use in cooling towers, drinking water systems, and boiler water/feed systems.

45. Oxygen scavenging (de-aeration) of water.

46. Ozone generators.

47. Fire suppression systems.

48. Emergency road flares.

49. Steam vents and safety relief valves.

50. Steam leaks.

51. Steam cleaning operations.

52. Steam and microwave sterilizers.

53. Site assessment work to characterize waste disposal or remediation sites.

54. Miscellaneous additions or upgrades of instrumentation.

55. Emissions from combustion controllers or combustion shutoff devices but not combustion units itself.

56. Use of products for the purpose of maintaining motor vehicles operated by the facility, not including air cleaning units of such vehicles (i.e. antifreeze, fuel additives).

57. Stacks or vents to prevent escape of sanitary sewer gases through the plumbing traps.

58. Emissions from equipment lubricating systems (i.e. oil mist), not including storage tanks, unless otherwise exempt.

59. Residential wood heaters, cookstoves, or fireplaces.

60. Barbecue equipment or outdoor fireplaces used in connection with any residence or recreation.

61. Log wetting areas and log flumes.

62. Periodic use of pressurized air for cleanup.

63. Solid waste dumpsters.

64. Emissions of wet lime from lime mud tanks, lime mud washers, lime mud piles, lime mud filter and filtrate tanks, and lime mud slurry tanks.

65. Natural gas odoring activities unless the Department determines that emissions constitute air pollution.

66. Emissions from engine crankcase vents.

67. Storage tanks used for the temporary containment of materials resulting from an emergency reporting to an unanticipated release.

68. Equipment used exclusively to mill or grind coatings in roll grinding rebuilding, and molding compounds where all materials charged are in paste form.

69. Mixers, blenders, roll mills, or calendars for rubber or plastic for which no materials in powder form are added and in which no organic solvents, diluents, or thinners are used.

70. The storage , handling, and handling equipment for bark and wood residues not subject to fugitive dispersion offsite (this applies to the equipment only).

71. Maintenance dredging of pulp and paper mill surface impoundments and ditches containing cellulosic and cellulosic derived biosolids and inorganic materials such as lime, ash, or sand.

72. Tall oil soap storage, skimming, and loading.

73. Water heaters used strictly for domestic (non-process) purposes.

74. Facility roads and parking areas, unless necessary to control offsite fugitive emissions.

75. Agricultural operations, including onsite grain storage, not including IC engines or grain elevators.

76. The following natural gas and oil exploration production site equipment: separators, dehydration units, natural gas fired compressors, and pumping units. This does not include compressors located on natural gas transmission pipelines.

SECTION VIII: GENERAL PROVISIONS

1. Pursuant to 40 CFR 70.6(b)(2), any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.

2. Pursuant to 40 CFR 70.6(a)(2) and §26.7 of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), this permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later.

3. Pursuant to §26.4 of Regulation #26, it is the duty of the permittee to submit a complete application for permit renewal at least six (6) months prior to the date of permit expiration. Permit expiration terminates the permittee's right to operate unless a complete renewal application was submitted at least six (6) months prior to permit expiration, in which case the existing permit shall remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due.

4. Pursuant to 40 CFR 70.6(a)(1)(ii) and §26.7 of Regulation #26, where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated into the permit and shall be enforceable by the Director or Administrator.

5. Pursuant to 40 CFR 70.6(a)(3)(ii)(A) and §26.7 of Regulation #26, records of monitoring information required by this permit shall include the following:

    a. The date, place as defined in this permit, and time of sampling or measurements;
    b. The date(s) analyses were performed;
    c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;
e. The results of such analyses; and
f. The operating conditions existing at the time of sampling or measurement.

6. Pursuant to 40 CFR 70.6(a)(3)(ii)(B) and §26.7 of Regulation #26, records of all required monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

7. Pursuant to 40 CFR 70.6(a)(3)(iii)(A) and §26.7 of Regulation #26, the permittee shall submit reports of all required monitoring every 6 months. If no other reporting period has been established, the reporting period shall end on the last day of the anniversary month of this permit. The report shall be due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of data. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as defined in §26.2 of Regulation #26 and must be sent to the address below.

Arkansas Department of Environmental Quality
Air Division
ATTN: Air Enforcement
Post Office Box 8913
Little Rock, AR 72219

8. Pursuant to 40 CFR 70.6(a)(3)(iii)(B), §26.7 of Regulation #26, and Section 19.601 and 19.602 of Regulation #19, all deviations from permit requirements, including those attributable to upset conditions as defined in the permit shall be reported to the Department. An initial report shall be made to the Department within 24 hours of discovery of the occurrence. The initial report may be made by telephone and shall include:

a. The facility name and location,
b. The process unit or emission source which is deviating from the permit limit,
c. The permit limit, including the identification of pollutants, from which deviation occurs,
d. The date and time the deviation started,

e. The duration of the deviation,
f. The average emissions during the deviation,
g. The probable cause of such deviations,
h. Any corrective actions or preventive measures taken or being take to prevent such deviations in the future, and
i. The name of the person submitting the report.

A full report shall be made in writing to the Department within five (5) business days of discovery of the occurrence and shall include in addition to the information required by initial report a schedule of actions to be taken to eliminate future occurrences and/or to minimize the amount by which the permits limits are exceeded and to reduce the length of time for which said limits are exceeded. If the permittee wishes, they may submit a full report in writing (by facsimile, overnight courier, or other means) within 24 hours of discovery of the occurrence and such report will serve as both the initial report and full report.

9. Pursuant to 40 CFR 70.6(a)(5) and §26.7 of Regulation #26, and A.C.A.§8-4-203, as referenced by §8-4-304 and §8-4-311, if any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable.

10. Pursuant to 40 CFR 70.6(a)(6)(i) and §26.7 of Regulation #26, the permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation #26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Any permit noncompliance with a state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

11. Pursuant to 40 CFR 70.6(a)(6)(ii) and §26.7 of Regulation #26, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

12. Pursuant to 40 CFR 70.6(a)(6)(iii) and §26.7 of Regulation #26, this permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

13. Pursuant to 40 CFR 70.6(a)(6)(iv) and §26.7 of Regulation #26, this permit does not convey any property rights of any sort, or any exclusive privilege.

14. Pursuant to 40 CFR 70.6(a)(6)(v) and §26.7 of Regulation #26, the permittee shall furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may be required to furnish such records directly to the Administrator along with a claim of confidentiality.

15. Pursuant to 40 CFR 70.6(a)(7) and §26.7 of Regulation #26, the permittee shall pay all permit fees in accordance with the procedures established in Regulation #9.

16. Pursuant to 40 CFR 70.6(a)(8) and §26.7 of Regulation #26, no permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for elsewhere in this permit.

17. Pursuant to 40 CFR 70.6(a)(9)(i) and §26.7 of Regulation #26, if the permittee is allowed to operate under different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the scenario under which the facility or source is operating.

18. Pursuant to 40 CFR 70.6(b) and §26.7 of Regulation #26, all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act unless the Department has specifically designated as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements.

19. Pursuant to 40 CFR 70.6(c)(1) and §26.7 of Regulation #26, any document (including reports) required by this permit shall contain a certification by a responsible official as defined in §26.2 of Regulation #26.

20. Pursuant to 40 CFR 70.6(c)(2) and §26.7 of Regulation #26, the permittee shall allow an authorized representative of the Department, upon presentation of credentials, to perform the following:

    a. Enter upon the permittee's premises where the permitted source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
    d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements.

21. Pursuant to 40 CFR 70.6(c)(5) and §26.7 of Regulation #26, the permittee shall submit a compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. This compliance certification shall be submitted annually and shall be submitted to the Administrator as well as to the Department. All compliance certifications required by this permit shall include the following:

    a. The identification of each term or condition of the permit that is the basis of the certification;
    b. The compliance status;
    c. Whether compliance was continuous or intermittent;
    d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
    e. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and 504(b) of the Act.

22. Pursuant to §26.7 of Regulation #26, nothing in this permit shall alter or affect the following:

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.

23. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit authorizes only those pollutant emitting activities addressed herein.

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX L

Route To: **FELICIA INMAN**
Administration

AIR DIVISION

INVOICE REQUEST FORM

(9-96)

Facility Name & Address:
Lion Oil Company
PO Box 7005
El Dorado, Arkansas 71731-7005

CSN: 70-0016 **Permit #**: 868-AOP-R0

Permit Description: A, S, H, N, TV

(e.g. A = AIR CODE, S=SIP, H=NESHAP, P=PSD, N=NSPS, T5= Title V)

Initial Fee Calculations:

Title V = **3**(18.47)(TPY each pollutant, except CO) - amount of last annual air permit fee

NOTE: Do Not double count HAPs and VOCs!!!
No greater than 4000 tpy per pollutant or less than $1000

F = 18.47 x (432.1 + 3,171.3 + 4,000.0 + 1,926.2 +2.0 + 2.3 + 25.2) - 72,320
F = 104,236.6

Mod Fee Calculations:

Title V = **3** (18.47)(TPY increase of each pollutant, except CO)

NOTE: Do Not double count HAPs and VOCs!!!
No greater than 4000 tpy for each contaminant but not less than $1000

Not Applicable

Fee Amount: $ 104,237.00

Engineer: Nancy Spencer Rogers
Date: October 11, 2001

Public Notice

Pursuant to the Arkansas Operating Air Permit Program (Regulation #26) Section 6(b), the Air Division of the Arkansas Department of Pollution Control and Ecology gives the following notice:

Lion Oil Company of 1000 McHenry, El Dorado, Union County, Arkansas operates an oil refinery. Permit #868-AOP-R0 has been issued as the first operating permit for this facility as per the requirements of Regulation #26 and the Clean Air Act. In this permit, all of the tanks at the facility have been bubbled such that the facility has to comply with one VOC limit for the tank farm instead of a limit for each tank. Under this permit, the facility has permitted several sources that were previously unpermitted, increased throughputs, and also permitted new sources including new storage tanks, the standby diesel fueled crude pump, the asphalt hot oil heater, a sour water stripper, and hydrotreater.

The application has been reviewed by the staff of the Department and has received the Department's tentative approval subject to the terms of this notice.

Citizens wishing to examine the permit application and staff findings and recommendations may do so by contacting Suzanne Carswell, Information Officer. Citizens desiring technical information concerning the application or permit should contact Nancy Spencer Rogers, Engineer. Both Suzanne Carswell and Nancy Spencer Rogers can be reached at the Department's central office, 8001 National Drive, Little Rock, Arkansas 72209, telephone: (501) 682-0744.

The draft permit and permit application are available for copying at the above address. A copy of the draft permit has also been placed at the Barton Library, E. Fifth & N. Jefferson, El Dorado, Arkansas 71730. This information may be reviewed during normal business hours.

Interested or affected persons may also submit written comments or request a hearing on the proposal, or the proposed modification, to the Department at the above address - Attention: Suzanne Carswell. In order to be considered, the comments must be submitted within thirty (30) days of publication of this notice. Although the Department is not proposing to conduct a public hearing, one will be scheduled if significant comments on the permit provisions are received. If a hearing is scheduled, adequate public notice will be given in the newspaper of largest circulation in the county in which the facility in question is, or will be, located.

The Director shall make a final decision to issue or deny this application or to impose special conditions in accordance with Section 2.1 of the Arkansas Pollution Control and Ecology Commission’s Administrative Procedures (Regulation #8) and Regulation #26.

Dated this

Randall Mathis
Director

Old Source Numbers	New Source Numbers	Tank #	Product Stored
37	T-3	3	Diesel Oil Blend
38	T-4	4	Alkylate
40	T-11	11	Diesel Oil Blend
41	T-12	12	Diesel Oil Blend
42	T-14	14	Solvent/Chemical
43	T-15	15	Diesel Oil Blend
44	T-16	16	Asphalt/Cutback
45	T-17	17	Asphalt/Cutback
46	T-18	18	Solvent/Chemical
47	T-20	20	Slurry Oil/Gas Oil
48	T-21	21	Gas Oil
49	T-22	22	Asphalt/Cutback
50	T-23	23	Asphalt
51	T-24	24	Asphalt
52	T-25	25	Slop Oil
54	T-27	27	Solvent/Chemical
55	T-36	36	Alkylate
56	T-39	39	Asphalt
57	T-40	40	Asphalt
58	T-41	41	Asphalt
59	T-46	46	Gas Oil/Flux
60	T-48	48	Gas Oil
61	T-49	49	Gas Oil
62	T-50	50	Diesel Oil Blend
63	T-51	51	Diesel Oil Blend
65	T-54	54	Diesel Oil Blend
66	T-55	55	Asphalt
67	T-56	56	Asphalt
68	T-57	57	Gasoline
69	T-58	58	Gasoline
70	T-60	60	Slurry Oil
71	T-61	61	Gasoline
72	T-62	62	Platformate
73	T-63	63	Crude Oil
74	T-64	64	Platformate
75	T-65	65	Gasoline
76	T-70	70	Solvent/Chemical
77	T-71	71	Solvent/Chemical
78	T-72	72	Solvent/Chemical
79	T-73	73	Asphalt/Cutback
80	T-74	74	Asphalt/Cutback
81	T-76	76	Asphalt
82	T-77	77	Solvent/Chemical
83	T-78	78	Asphalt
84	T-81	81	Gas Oil
86	T-83	83	Slurry Oil
87	T-84	84	Gas Oil
88	T-85	85	Alkylate
89	T-88	88	Gasoline
90	T-89	89	Gasoline

Old Source Numbers	New Source Numbers	Tank #	Product Stored
91	T-96	96	Gas Oil/Flux
92	T-97	97	Slurry Oil
93	T-98	98	Gas Oil/Flux
94	T-99	99	Asphalt
95	T-101	101	Asphalt
96	T-102	102	Asphalt
97	T-103	103	Gasoline
98	T-104	104	Asphalt
99	T-105	105	Asphalt
100	T-107	107	Asphalt
101	T-108	108	Diesel Oil Blend
102	T-109	109	Diesel Oil Blend
103	T-110	110	Asphalt
104	T-111	111	Asphalt
105	T-112	112	Slop Oil
106	T-113	113	Diesel Oil Blend
107	T-114	114	Gas Oil
108	T-115	115	Gas Oil
109	T-116	116	Gas Oil
110	T-117	117	Gas Oil
111	T-118	118	Asphalt
112	T-119	119	Diesel Oil Blend
	T-120	120	Crude Oil
113	T-121	121	Diesel Oil Blend
114	T-122	122	Diesel Oil Blend
	T-123	123	Crude Oil
115	T-124	124	Gasoline
116	T-125	125	Gasoline
117	T-126	126	Gasoline/Naphtha
118	T-128	128	Gasoline
119	T-129	129	Slurry Oil
	T-142	142	Spent Acid
	T-143	143	Spent Acid
120	T-145	145	Asphalt/Cutback
121	T-162	162	Asphalt/Cutback
122	T-165	165	Asphalt/Cutback
123	T-166	166	Asphalt/Cutback
124	T-167	167	Asphalt/Cutback
125	T-168	168	Asphalt/Cutback
126	T-170	170	Solvent/Chemical
127	T-171	171	Asphalt/Cutback
128	T-173	173	Asphalt/Cutback
129	T-175	175	Asphalt
130	T-176	176	Asphalt
	T-180	180	Solvent/Chemical
131	T-190	190	Solvent/Chemical
	T-199	199	Solvent/Chemical
132	T-200	200	Diesel Oil Blend
133	T-217	217	Lube Oil
134	T-219	219	Asphalt

Old Source Numbers	New Source Numbers	Tank #	Product Stored
135	T-226	226	Solvent/Chemical
136	T-228	228	Lube Oil
137	T-240	240	Platformate/Naphtha
138	T-241	241	Diesel Oil Blend
139	T-242	242	Diesel Oil Blend
140	T-243	243	Diesel Oil Blend
141	T-244	244	Diesel Oil Blend
142	T-245	245	Naphtha
143	T-246	246	Naphtha
144	T-247	247	Diesel Oil Blend
145	T-262	262	Diesel Oil Blend
146	T-263	263	Diesel Oil Blend
147	T-264	264	Diesel Oil Blend
148	T-265	265	Diesel Oil Blend
149	T-270	270	Diesel Oil Blend
150	T-271	271	Diesel Oil Blend
151	T-272	272	Lube Oil
152	T-273	273	Lube Oil
153	T-274	274	Lube Oil
154	T-306	306	Solvent/Chemical
155	T-310	310	Asphalt/Cutback
	T-311	311	Asphalt/Cutback
	T-312	312	Asphalt/Cutback
	T-313	313	Asphalt/Cutback
	T-314	314	Asphalt/Cutback
	T-315	315	Asphalt/Cutback
156	T-319	319	Asphalt/Cutback
157	T-320	320	Asphalt/Cutback
158	T-321	321	Asphalt/Cutback
159	T-322	322	Asphalt/Cutback
160	T-323	323	Asphalt/Cutback
161	T-324	324	Perchloroethylene
162	T-325	325	Asphalt/Cutback
163	T-326	326	Asphalt/Cutback
164	T-327	327	Asphalt/Cutback
165	T-328	328	Asphalt/Cutback
166	T-329	329	Asphalt/Cutback
167	T-330	330	Methylene Chloride
168	T-331	331	Asphalt/Cutback
169	T-332	332	Asphalt/Cutback
170	T-333	333	Asphalt/Cutback
171	T-335	335	Solvent/Chemical
	T-336	336	Tricresyl Phosphate
172	T-337	337	Asphalt/Cutback
173	T-338	338	Asphalt/Cutback
174	T-339	339	Asphalt/Cutback
175	T-340	340	Asphalt/Cutback
176	T-348	348	Asphalt
177	T-349	349	Asphalt/Cutback
178	T-350	350	Asphalt/Cutback

Old Source Numbers	New Source Numbers	Tank #	Product Stored
179	T-351	351	Asphalt/Cutback
180	T-352	352	Asphalt/Cutback
181	T-353	353	Asphalt/Cutback
182	T-354	354	Asphalt
183	T-355	355	Asphalt/Cutback
184	T-356	356	Solvent/Chemical
185	T-360	360	Naphtha
186	T-361	361	Naphtha
187	T-368	368	Gas Oil
188	T-371	371	Naphtha
189	T-372	372	Diesel Oil Blend
190	T-384	384	Asphalt
	T-385	385	Asphalt
	T-386	386	Asphalt
	T-387	387	Asphalt
191	T-410	410	Diesel Oil Blend
192	T-411	411	Diesel Oil Blend
193	T-412	412	Diesel Oil Blend
194	T-413	413	Diesel Oil Blend
	T-414	414	Diesel Oil Blend
195	T-429	429	Source Removed.
	T-432	432	Spent Caustic
	T-520	520	Gas Oil
	T-521	521	Crude Oil
196	T-524	524	Gas Oil
	T-525	525	Crude Oil
197	T-530	530	Gas Oil
198	T-532	532	Gasoline
199	T-538	538	Lube Oil
200	T-539	539	Lube Oil
201	T-540	540	Diesel Oil Blend
202	T-544	544	Asphalt
203	T-548	548	Asphalt
	T-549	549	Solvent/Chemical
	T-550	550	Solvent/Chemical
	T-551	551	Solvent/Chemical
	T-552	552	Gasoline
	T-553	553	Asphalt
	T-570	570	Crude Oil
	T-600	600	Solvent/Chemical
	T-601	601	Solvent/Chemical
	T-602	602	Solvent/Chemical
	T-603	603	Solvent/Chemical
	T-604	604	Solvent/Chemical
	T-605	605	Solvent/Chemical
	T-606	606	Solvent/Chemical
	T-607	607	Solvent/Chemical
	T-608	608	Solvent/Chemical
	T-609	609	Solvent/Chemical
	T-610	610	Solvent/Chemical

Old Source Numbers	New Source Numbers	Tank #	Product Stored
	T-611	611	Methyldiethanolamine