**DEPARTMENT OF ENVIRONMENTAL QUALITY**

KATHLEEN BABINEAUX BLANCO
**GOVERNOR**

MIKE D. McDANIEL, Ph.D.
**SECRETARY**

Certified Mail No.:

Activity No.: PER20060004
Agency Interest No. 1214

Mr. Jeff Lang
Plant Manager
Calumet Shreveport Lubricants and Waxes, LLC
Post Office Box 3099
Shreveport, LA 71129-7530

RE: Part 70 Operating Permit Modification, Calumet Shreveport Refinery, Calumet Shreveport Lubricants and Waxes, LLC, Shreveport, Caddo Parish, Louisiana

Dear Mr. Lang:

This is to inform you that the permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the 16th of December, 2010, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2006.

Permit No.: 0500-00005-V1

Sincerely,

***DO NOT SIGN, DRAFT***

Chuck Carr Brown Ph.D.
Assistant Secretary

CCB:FJH

ENVIRONMENTAL **SERVICES**
: PO BOX 4313, BATON ROUGE, LA 70821-4313
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# AIR PERMIT BRIEFING SHEET
# AIR PERMITS DIVISION
# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

## I. Background

Calumet Shreveport Lubricants and Waxes, LLC operates a petroleum refinery in Shreveport, Caddo Parish, Louisiana. The site is currently operating under Permit No. 0500-00005-V0 granted on December 16, 2005.

This is the Part 70 operating permit for the facility.

## II. Origin

A permit application and Emission Inventory Questionnaire was submitted by Calumet Lubricants Company on July 31, 2006, requesting a Part 70 operating permit modification.

## III. Description

Calumet Shreveport Refinery, L.L.C. purchased the Shreveport Refinery from Pennzoil-Quaker State in May 2001 planning to operate it primarily to produce lubes and waxes.

Calumet refines crude oil by the use of distillation, hydrofinishing, dewaxing/desulfurization, hydrogenation, solvent extraction, hydrotreating, propane deasphalting, and MEK dewaxing. Calumet also operates necessary equipment for required utilities such as cooling towers and boilers. Feedstocks and finished products are stored in pressure tanks, floating roof tanks, cone roof tanks, and gas blanketed tanks. Pipelines, tanker trucks, and rail cars are used to receive raw materials, and pipelines, trucks and rail cars are used to deliver finished products to customers.

The proposed modifications of the facility are as follows:

1. Increase total refinery production from 38,000 to 65,000 barrels per day;
2. Replace No. 4 Crude Unit Prefract Charge Heater (Emission Point III-g);
3. Add a diesel HT 92-H-100 Reactor Charge Heater (33 MM BTU/hr), a diesel 92-H-101 Stripper Reboiler Heater (32 MM BTU/hr), a Sour Crude Heater 93-H-200 (56 MM BTU/hr), a No. 1 Platformer Heater-2006 (3 MM BTU/hr), a No. 2 Platformer Heater-2006 (3 MM BTU/hr), a DDD Heater-2006 (9.69 MM BTU/hr), a Hydrogen Plant Heater-2006 (66 MM BTU/hr), and a Sour Crude Vac Heater 37-N-1 (37 MM BTU/hr);
4. Replace the No. 7 Steam Boiler (EQT31) with the No. 9 Steam Boiler (47.1 MM BTU/hr);
5. Fugitive emissions will change to address additional components associated with the new equipment;

6. Tank throughputs and associated emissions will change as a result of the increase of refinery capacity to 65,000 barrels per day;
7. Remove tank caps crude cap, distillates cap, fuel oil cap, gasoline cap, and intermediate gasoline cap;
8. Delete Emission Points Crude Unit Distillation Heater No. 1 Vacuum Tower (EQT026), Raffinate Furnace – NMP Unit (EQT030), Hydrogen Reformer Auxiliary Burner (EQT200), Sulfur Recovery Plant Incinerator (EQT201), and DDD Light Diesel Heater (EQT205);
9. Add emission points that were previously omitted from the permit (Additive Tanks Nos. T-202 and T-2009, Wax Tank No. T-3001, Wastewater Tanks T-79, T-201, and T-2001);
10. Add a Belco Thermal Oxidizer which replaces the Sulfur Recovery Plant Incinerator (EQT201); and
11. Correct the service of several tanks.

| Tank No. | Previously Designated Service | Corrected Service |
|---|---|---|
| T-56 | Gasoline | Diesel |
| T-53 | Gasoline | Diesel |
| T-54 | Gasoline | Diesel |
| T-107 | Wax | Heavy Oil |
| T-108 | Wax | Heavy Oil |
| T-109 | Wax | Heavy Oil |
| T-177 | Additive | Heavy Oil |
| T-178 | Additive | Heavy Oil |
| T-179 | Additive | Heavy Oil |
| T-29 | Crude Oil | Diesel |
| T-32 | Distillate | Intermediate Gasoline |
| T-57 | Crude Oil | Intermediate Gasoline |
| T-58 | Crude Oil | Intermediate Gasoline |
| T-182 | Crude Oil | Intermediate Gasoline |

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**Shreveport, Caddo Parish, Louisiana**

Estimated emissions in tons per year are as follows:

| Pollutant | Before | After | Change |
|---|---|---|---|
| $PM_{10}$ | 67.61 | 73.76 | + 6.15 |
| $SO_2$ | 107.63 | 146.86 | + 39.23 |
| $NO_X$ | 410.49 | 433.52 | + 23.03 |
| CO | 403.27 | 470.67 | + 67.40 |
| VOC * | 935.21 | 747.88** | - 187.33 |

** Permitted VOC emissions decreased mainly as a result of two changes: (1) Fugitive emission source FU-VOC was reduced as a result of a decrease in permitted components. The previous permit (before) was based on a facility-wide component count that included units no longer in service and a 10% expansion buffer. The current permit (after) includes only active units and only a 5% expansion buffer. (2) Tank caps were removed from the crude tanks, distillate tanks, fuel oil tanks, gasoline tanks, and intermediate gasoline tanks. The tank caps were removed because they resulted in an overestimation of emissions for each group of tanks.

*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

| Pollutant | Before | After | Change |
|---|---|---|---|
| 1,3-Butadiene | 0.01 | 0.01 | - |
| 1,2,4-Trimethylbenzene | 0.39 | 0.16 | - 0.23 |
| 2,2,4-Trimethylpentane | 1.87 | 1.50 | - 0.37 |
| Acetaldehyde | 0.001 | 0.001 | - |
| Acrolein | 0.0003 | 0.001 | + 0.0007 |
| Aniline | 0.02 | 0.02 | - |
| Benzene | 2.20 | 2.01 | - 0.19 |
| Biphenyl | 0.01 | 0.004 | - 0.006 |
| Carbon Disulfide | 0.17 | 0.17 | - |
| Cresols | 0.02 | - | - 0.02 |
| Cumene | 0.09 | 0.04 | - 0.05 |
| Dichlorobenzene | 0.01 | - | - 0.01 |
| Ethylbenzene | 4.09 | 3.67 | - 0.42 |
| Formaldehyde | 0.40 | 0.44 | + 0.04 |
| Methanol | 0.14 | 0.11 | - 0.03 |
| Methyl Ethyl Ketone | 18.75 | 15.11 | - 3.64 |

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**Shreveport, Caddo Parish, Louisiana**

*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

| Pollutant | Before | After | Change |
|---|---|---|---|
| Naphthalene | 0.95 | 0.76 | - 0.19 |
| n-Hexane | 22.32 | 22.70 | + 0.38 |
| Phenol | 0.05 | 0.02 | - 0.03 |
| PolyAromatic Hydrocarbons | 0.0003 | 0.0003 | - |
| Styrene | 0.01 | 0.004 | - 0.006 |
| Toluene | 28.29 | 23.84 | - 4.45 |
| Xylene | 3.12 | 2.46 | - 0.66 |
| Total | 82.91 | 73.03 | -9.88 |

| Other TAPS (TPY) | Before | After | Change |
|---|---|---|---|
| Barium | 0.03 | 0.03 | - |
| Cadmium | 0.01 | 0.01 | - |
| Chromium | 0.01 | 0.01 | - |
| Hydrogen chloride | 0.02 | 0.02 | - |
| Hydrogen Sulfide | 1.58 | 0.53 | - 1.05 |
| Nickel | 0.01 | 0.01 | - |
| Sulfuric Acid | 0.35 | 0.35 | - |
| Zinc | 0.15 | 0.18 | + 0.03 |
| Total | 2.16 | 1.14 | - 1.02 |

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## IV. Type of Review

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply.

This facility is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. The air toxic compliance plan for this site was approved on July 5, 1995.

It was determined that $SO_2$, $NO_x$, CO, and VOC for 2006 Expansion Project resulted in a significant increase, which required netting analysis. Netting of contemporaneous emissions was conducted for $SO_2$, $NO_x$, CO, and VOC. The netting analysis resulted in the determination that the net emissions increase for $SO_2$, $NO_x$, CO, and VOC is not significant and no further PSD analysis or review is required.

| | **Sulfur Dioxides** | **Nitrogen Oxides** | **Carbon Monoxide** | **Volatile Organic Compounds** |
|---|---|---|---|---|
| Project Increase (TPY)* | 32.95 | 43.53 | 103.34 | -3.87 |
| Net Change for Contemporaneous Period (tpy) | 31.8 | 23.6 | 61.1 | 19.6 |
| PSD Significant Emission Rates (tpy) | 40 | 40 | 100 | 40 |

* The project increase was based on the difference between actual (average of 1988 and 1999) to potential and the effect of modification on associated 2006 expansion project.
This proposed permit will be public notice because the change meets the Title I Modification. The addition of the Belco Thermal Oxidizer triggers the applicability of a new stationary source, NSPS Standards of Performance for Petroleum Refineries – Subpart J.

## V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

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## VI. Public Notice

A notice requesting public comment on the permit was published in The Advocate, Baton Rouge, on September xx, 2006; and in the Times of Shreveport, Shreveport, on September xx, 2006. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on XX, 2006. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on September xx. The draft permit was also submitted to US EPA Region VI on September xx, 2006. All comments will be considered prior to the final permit decision.

## VII. Effects on Ambient Air

Dispersion Models Used: ISC2 (Screen) and ISCST2

| Pollutant | Time Period | Calculated Maximum Ground Level Concentration | Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS}) |
|---|---|---|---|
| $PM_{10}$(Screen) | Annual | 5.15 $\mu g/m^3$ | 50 $\mu g/m^3$ |
| $PM_{10}$(Screen) | 24-Hour | 0.52 $\mu g/m^3$ | 50 $\mu g/m^3$ |
| $SO_2$(Screen) | Annual | 5.00 $\mu g/m^3$ | 80 $\mu g/m^3$ |
| $SO_2$(Screen) | 24-Hour | 49.3 $\mu g/m^3$ | 365 $\mu g/m^3$ |
| $SO_2$(Screen) | 3-Hour | 235.3 $\mu g/m^3$ | 1300 $\mu g/m^3$ |
| $NO_x$(Screen) | Annual | 83.0 $\mu g/m^3$ | 100 $\mu g/m^3$ |
| CO | 8-Hour | 160.5 $\mu g/m^3$ | 10,000 $\mu g/m^3$ |
| CO | 1-Hour | 266.5 $\mu g/m^3$ | 40,000 $\mu g/m^3$ |

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## VIII. General Condition XVII Activities

| Work Activity | Schedule | Emission Rates - tons $PM_{10}$ | $SO_2$ | $NO_X$ | CO | VOC |
|---|---|---|---|---|---|---|
| Gas & liquid sampling | 14,600 times/yr | - | - | - | - | Ammonia (0.06)<br>Benzene (0.08)<br>n-Hexane (0.06)<br>Hydrogen Sulfide (0.01)<br>MEK (0.27)<br>Toluene (0.13)<br>Other VOC's (1.06) |
| Valve maintenance | 730 times/yr | - | - | - | - | MEK (<0.01)<br>Toluene (<0.01)<br>Other VOC's (<0.01) |
| Safety inspections | 300 times/yr | - | - | - | - | <0.01 |
| Checks on rupture discs | 365 times/yr | - | - | - | - | <0.01 |
| Instrument Maintenance | 1,095 times/yr | - | - | - | - | VOC (<0.01) |
| Vessel & equip. prep. | 20 times/yr | - | - | - | - | MEK (<0.01)<br>Toluene (<0.01) |
| Tank gauging | 3,840 times/yr | - | - | - | - | <0.04 |
| Equipment startup | 100 times/yr | - | - | - | - | <0.01 |
| Equipment turnarounds | 50 times/yr | - | - | - | - | <0.01 |
| Changing filters | 28 times/wk | - | - | - | - | 0.55 |
| Clearing of pipelines | 1 time/yr | - | - | - | - | 0.50 |
| Compressor maintenance | 48 times/yr | | | | | MEK (<0.01)<br>Propylene (<0.01)<br>Toluene (<0.01)<br>Other VOC's (<0.01) |

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**Shreveport, Caddo Parish, Louisiana**

| Work Activity | Schedule | Emission Rates - tons $PM_{10}$ | $SO_2$ | $NO_X$ | CO | VOC |
|---|---|---|---|---|---|---|
| Draining compressor bottles | 11,680 times/yr | - | - | - | - | 0.70 |
| Pump maintenance | 730 times/yr | - | - | - | - | Ammonia (<0.01)<br>Benzene (0.11)<br>n-Hexane (0.58)<br>MEK (0.22)<br>Toluene (0.10)<br>Other VOC's (5.94) |
| Tank, pond, & basin sludge removal | 2 times/yr | - | - | - | - | 2.94 |
| Sum solids removal | 2 times/yr | - | - | - | - | <0.01 |
| Miscellaneous equip. maintenance & prep. | | - | - | - | - | <0.01 |
| Taking fixed roof tanks out of service | 2 times/yr | - | - | - | - | 0.50 |

## IX. Insignificant Activities

| ID No.: | Description | Citation |
|---|---|---|
| - | Small Totes, <250 gal | LAC 33:III.501.B.5.A.2 |
| T-202 | Organic Liquids | LAC 33:III.501.B.5.A.3 |
| T-212 | Organic Liquids, 1900 gal | LAC 33:III.501.B.5.A.3 |
| T-213 | Organic Liquids, 1900 gal | LAC 33:III.501.B.5.A.3 |
| T-214 | Organic Liquids, 1900 gal | LAC 33:III.501.B.5.A.3 |
| T-2009 | Organic Liquids | LAC 33:III.501.B.5.A.3 |
| T-3001 | Organic Liquids | LAC 33:III.501.B.5.A.3 |

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## X. Specific Conditions

Permittee shall comply with a streamlined equipment leak monitoring program. Compliance with the streamlined program in accordance with this specific condition shall serve to comply with each of the fugitive emission monitoring programs being streamlined, as indicated in the following table. Non-compliance with the streamlined program in accordance with this specific condition may subject the permittee to enforcement action for one or more of the applicable fugitive emissions programs.

i) Permittee shall apply the streamlined program to the combined universe of components subject to any of the programs being streamlined. Any component type which does not require periodic monitoring under the overall most stringent program (LAC 33:III.Chapter 51) shall be monitored as required by the most stringent requirements of any other program being streamlined and will not be exempted. The streamline program will include any exemptions based on size of component available in any of the programs being streamlined.

ii) Permittee shall use leak definitions and monitoring frequency based on the overall most stringent program. Percent leaker performance shall be calculated using the provisions of the overall most stringent program. Annual monitoring shall be defined as once every four quarters. Some allowance may be made in the first year of the streamlined program in order to allow for transition from existing monitoring schedules.

iii) Permittee shall comply with recordkeeping and reporting requirements of the overall most stringent program. Semiannual reports shall be submitted on January 31 and July 31, to cover the periods July 1 through December 31 and January 1 through June 30, respectively. The semiannual reports shall include any monitoring performed within the reporting periods.

iv) The facility shall comply with the requirements of the Louisiana MACT Determination for Refinery Equipment Leaks (LDREL) dated July 26, 1994, except as noted below:

A. A connector is in VOTAP service if a piece of equipment that either contains or contacts a volatile fluid (liquid or gas) that is at least 5% of the sum of all Class I and II organic toxic air pollutants.

B. Connectors that are determined to be leaking by visual, audible, olfactory, or any other detection method shall be monitored, repaired, recorded, and reported according to the provisions in the Louisiana Refinery Equipment Leaks Determination and any applicable equipment leak programs.

C. Connectors associated with valves shall be monitored according to the valve requirements of the applicable program. However, each associated connector shall be monitored as part of the valve and not as separate component. A connector that is associated with a valve and is determined to be leaking shall result in the valve being recorded as a leaking valve and included in the calculation of percent valves leaking.

D. Permittee shall submit to the Office of Environmental Assessment, Environmental Technology Division reports containing information concerning valves. Calumet Lubricants shall include on these reports the number of connectors associated with the valves that were monitored and the number of connectors found leaking, but shall not report a percent connectors leaking.

| Unit or Plant Site | Program Being Streamlined | Stream Applicability | Overall Most Stringent Program |
|---|---|---|---|
| Calumet Shreveport Refinery | Louisiana MACT Determination for Refineries* | ≥ 5% VOTAP | Louisiana MACT Determination for Refineries* |
| | 40 CFR 63 Subpart CC-Refinery MACT Modified HON Option | ≥ 5% VOHAP | |
| | 40 CFR 61 Subparts J and V (LAC 33:III.5133 and 5171)-NESHAP for Equipment Leaks of Benzene | ≥ 10% VHAP (Benzene) | |
| | 40 CFR 60 Subparts VV and GGG (LAC 33:III.3730-3749 and 4780-4783)-NSPS for Equipment Leaks of VOC in SOCMI or Refineries | ≥ 10% VOC | |
| | LAC 33:III.2121-Louisiana Fugitive Emission Control for Specified Parishes | ≥ 10% VOC | |
| | LAC 33:III.5109 – Louisiana MACT Determination for Non-HON Sources | ≥ 5% VOTAP | |

* With exceptions as listed in this specific condition (iv).

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**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

## XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| Plant Wide | | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | 3 | 1 | 1 | |
| EQT009 | | | | 1 | | | | | 2 | | | | | | | | | |
| EQT010 | | | | 1 | | | | | 2 | | | | | | | | | |
| EQT011 | | | | 1 | | | | | 2 | | | | | | | | | |
| EQT012 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT013 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT015 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT008 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT016 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT202 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| FUG002 | | | | | | | 1 | | 1 | | | | | | | | | |
| ARE005 | | | | 1 | | | | | | | | | | | | | | |
| EQT017 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT018 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT019 | | | 1 | 1 | 1 | | | | | | | | | | | | | |

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**Shreveport, Caddo Parish, Louisiana**

### XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| EQT020 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT021 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT022 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT023 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT024 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT025 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT027 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT028 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT029 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT033 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT034 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT035 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT036 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT037 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT038 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT039 | | | 1 | 1 | 1 | | | | | | | | | | | | | |

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| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| EQT040 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT043 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT195 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT196 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT197 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT198 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT199 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT204 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT206 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT207 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT209 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT210 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT211 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT212 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT042 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT208 | | | | | | | 2 | | 2 | | | | | | | | | |

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

## XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| EQT213 | | | | 1 | | | | | | | | | | | | | | |
| TRT002 | | | 1 | 1 | 1 | | 1 | | 1 | | | | | | | | | |
| EQT214 | | | | | | | 2 | | | | | | | | | | | |
| EQT222 | | | | | | | 2 | | | | | | | | | | | |
| EQT223 | | | | | | | 2 | | | | | | | | | | | |
| EQT224 | | | | | | | 2 | | | | | | | | | | | |
| EQT215 | | | | | | | 2 | | | | | | | | | | | |
| EQT216 | | | | | | | 2 | | | | | | | | | | | |
| EQT226 | | | | | | | 2 | | | | | | | | | | | |
| EQT227 | | | | | | | 2 | | | | | | | | | | | |
| EQT217 | | | | | | | 1 | | | | | | | | | | | |
| EQT218 | | | | | | | 2 | | | | | | | | | | | |
| EQT219 | | | | | | | 1 | | | | | | | | | | | |
| EQT220 | | | | | | | 1 | | | | | | | | | | | |
| EQT221 | | | | | | | 2 | | | | | | | | | | | |
| EQT225 | | | | | | | 2 | | | | | | | | | | | |

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

## XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| EQT228 | | | | | | | 2 | | | | | | | | | | | |
| EQT229 | | | | | | | 2 | | | | | | | | | | | |
| EQT230 | | | | | | | 2 | | | | | | | | | | | |
| EQT122 | | | | | | | 2 | | | | | | | | | | | |
| EQT194 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT191 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT192 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT047, EQT057, EQT066, EQT067, EQT082, EQT093, EQT050, EQT051, EQT052, EQT053, EQT054, EQT055 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT071, EQT069 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT129, EQT130, EQT150, EQT152, EQT153, EQT154, EQT171, EQT172 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT131, EQT138, EQT139, EQT144, EQT151 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT134 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT169 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT132, EQT141, EQT145 | | | | | | | 2 | | 2 | | | | | | | | | |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

### XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| EQT136, EQT140, EQT142, EQT143, EQT149, EQT166, EQT168, EQT176, EQT177, EQT178, EQT090, EQT091 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT155, EQT157, EQT163, EQT164 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT156 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT158, EQT109 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT116 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT159, EQT160, EQT161, EQT180, EQT181, EQT184, EQT185, EQT186, EQT187, EQT188, EQT189, EQT190, EQT048, EQT056, EQT058, EQT061, EQT062, EQT063, EQT064, EQT065, EQT072, EQT073, EQT074, EQT075, EQT076, EQT080, EQT083, EQT084, EQT085, EQT086 EQT087, EQT088, EQT089 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT162 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT170 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT165 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT167, EQT059, EQT060, EQT092, EQT094, EQT095, EQT096, EQT097, EQT098, EQT099, EQT100, EQT101, EQT102, EQT103, EQT104, EQT105, EQT106, EQT107, EQT108, EQT110, EQT111, EQT112, EQT113, EQT114, EQT115, EQT117, EQT118, EQT119, EQT120, EQT121, EQT123, EQT133, EQT146, EQT147 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT182, EQT183 | | | | | | | 2 | | 2 | | | | | | | | | |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

### XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| EQT175 | | | | | | | 2 | | 2 | | | | | | | | | |
| EQT077, EQT078 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT045 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT079 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT081 | | | | | | | 1 | | 1 | | | | | | | | | |
| EQT232 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT233 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT234 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT235 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT236 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT237 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT238 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT239 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT240 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT241 | | | 1 | 1 | 1 | | | | | | | | | | | | | |
| EQT242 | | | | | | | 2 | | | | | | 3 | | | | | |

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## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements**

| Description | LAC 33:III.Chapter | | | | | | | | | | | 40 CFR 61 | | | 40 CFR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5▲ | 9 | 11 | 13 | 15 | 17 | 21 | 22 | 51* | 56 | 59 | A | FF | | 64 | 68 | 82 | |
| EQT243 | | | | | | | 2 | | | | | | 3 | | | | | |
| EQT244 | | | | | | | 2 | | | | | | 3 | | | | | |
| EQT245 | | | | | | | 2 | | | | | | 3 | | | | | |
| EQT246 | | | | | | | 2 | | | | | | 3 | | | | | |
| EQT247 | | | | | | | 2 | | | | | | 3 | | | | | |
| TRT003 | | | 1 | | | | | | 1 | | | | | | 1 | | | |

* The regulations indicated above are State Only regulations.

▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

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## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**KEY TO MATRIX**

1 -The regulations have applicable requirements that apply to this particular emission source.
-The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

### X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | 40 CFR 60 NSPS | | | | | | | | | | | 40 CFR 63 NESHAP | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | D | Da | Db | Dc | J | K | Ka | Kb | GGG | QQQ | A | Q | CC | UUU | EEEE | ZZZZ | DDDDD |
| Plant Wide | 1 | | | | | 1 | | | | | 1 | 1 | | 1 | 1 | 2 | | |
| EQT009 | | | | | | | | | | | | | 2 | | | | | |
| EQT010 | | | | | | | | | | | | | 2 | | | | | |
| EQT011 | | | | | | | | | | | | | 2 | | | | | |
| EQT012 | | | | | | | | | | | | | | | | | 2 | |
| EQT013 | | | | | | | | | | | | | | | | | 2 | |
| EQT015 | | | | | | | | | | | | | | | | | 2 | |
| EQT008 | | 2 | 2 | 1 | 2 | 2 | | | | | | | | | | | | 1 |
| EQT016 | | | | | | 1 | | | | | | | | | | | | |
| EQT202 | | | | | | 1 | | | | | | | | | | | | |
| FUG002 | | | | | | | | | | 2 | | | | 1 | | | | |
| ARE005 | | | | | | | | | | | | | | | | | | |
| EQT017 | | 2 | 2 | 1 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT018 | | 2 | 2 | 1 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT019 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT020 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT021 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |

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## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

### X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | 40 CFR 60 NSPS | | | | | | | | | | | 40 CFR 63 NESHAP | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | D | Da | Db | Dc | J | K | Ka | Kb | GGG | QQQ | A | Q | CC | UUU | EEEE | ZZZZ | DDDDD |
| EQT022 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT023 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT024 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 2 |
| EQT025 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 2 |
| EQT027 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 2 |
| EQT028 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 2 |
| EQT029 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT033 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT034 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 2 |
| EQT035 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 2 |
| EQT036 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT037 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT038 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 1 |
| EQT039 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 1 |
| EQT040 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 2 |
| EQT043 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 2 |
| EQT195 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 1 |
| EQT196 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 1 |

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

## X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | 40 CFR 60 NSPS | | | | | | | | | | | 40 CFR 63 NESHAP | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | D | Da | Db | Dc | J | K | Ka | Kb | GGG | QQQ | A | Q | CC | UUU | EEEE | ZZZZ | DDDDD |
| EQT197 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 2 |
| EQT198 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 1 |
| EQT199 | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | 1 |
| EQT204 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT206 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT207 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 3 |
| EQT209 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 3 |
| EQT210 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT211 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 3 |
| EQT212 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 3 |
| EQT041 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT042 | | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | 1 |
| EQT208 | | | | | | | | | | | | | | | | | | |
| EQT213 | | | | | | | | | | | | | | | | | | |
| TRT002 | | | | | | 1 | | | | | | | | 1 | | | | |
| EQT214 | | | | | | | | | | | | | | 2 | | | | |
| EQT222 | | | | | | | | | | | | | | 2 | | | | |
| EQT223 | | | | | | | | | | | | | | 2 | | | | |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

### X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | 40 CFR 60 NSPS | | | | | | | | | | | 40 CFR 63 NESHAP | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | D | Da | Db | Dc | J | K | Ka | Kb | GGG | QQQ | A | Q | CC | UUU | EEEE | ZZZZ | DDDDD |
| EQT224 | | | | | | | | | | | | | | 2 | | | | |
| EQT215 | | | | | | | | | | | | | | 2 | | | | |
| EQT216 | | | | | | | | | | | | | | 2 | | | | |
| EQT226 | | | | | | | | | | | | | | 2 | | | | |
| EQT227 | | | | | | | | | | | | | | 2 | | | | |
| EQT217 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT218 | | | | | | | | | | | | | | 2 | | | | |
| EQT219 | | | | | | | 2 | 2 | 2 | | | | | | | | | |
| EQT220 | | | | | | | 2 | 2 | 2 | | | | | | | | | |
| EQT221 | | | | | | | | | | | | | | 2 | | | | |
| EQT225 | | | | | | | | | | | | | | 2 | | | | |
| EQT228 | | | | | | | | | | | | | | 2 | | | | |
| EQT229 | | | | | | | | | | | | | | | | | | |
| EQT230 | | | | | | | | | | | | | | 2 | | | | |
| EQT122 | | | | | | | | | | | | | | 2 | | | | |
| EQT194 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT191 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT192 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

## X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | 40 CFR 60 NSPS | | | | | | | | | | | 40 CFR 63 NESHAP | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | D | Da | Db | Dc | J | K | Ka | Kb | GGG | QQQ | A | Q | CC | UUU | EEEE | ZZZZ | DDDDD |
| EQT047, EQT057, EQT066, EQT067, EQT082, EQT093, EQT050, EQT051, EQT052, EQT053, EQT054, EQT055 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT071, EQT069 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT129, EQT130, EQT150, EQT152, EQT153, EQT154, EQT171, EQT172 | | | | | | | 2 | 2 | 2 | | | | | 1 | | | | |
| EQT131, EQT138, EQT139, EQT144, EQT151 | | | | | | | 2 | 2 | 2 | | | | | 1 | | | | |
| EQT134 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT169 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT132, EQT141, EQT145 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT136, EQT140, EQT142, EQT143, EQT149, EQT166, EQT168, EQT176, EQT177, EQT178, EQT090, EQT091 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT155, EQT157, EQT163, EQT164 | | | | | | | 1 | 2 | 2 | | | | | 1 | | | | |
| EQT156 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT158, EQT109 | | | | | | | 2 | 1 | 2 | | | | | 1 | | | | |
| EQT116 | | | | | | | 2 | 1 | 2 | | | | | 1 | | | | |
| EQT159, EQT160, EQT161, EQT180, EQT181, EQT184, EQT185, EQT186, EQT187, EQT188, EQT189, EQT190, EQT048, EQT056, EQT058, EQT061, EQT062, EQT063, EQT064, EQT065, EQT072, EQT073, EQT074, EQT075, EQT076, EQT080, EQT083, EQT084, EQT085, EQT086 EQT087, EQT088, EQT089 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |

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## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

### X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | 40 CFR 60 NSPS | | | | | | | | | | | 40 CFR 63 NESHAP | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | D | Da | Db | Dc | J | K | Ka | Kb | GGG | QQQ | A | Q | CC | UUU | EEEE | ZZZZ | DDDDD |
| EQT162 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT170 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT165 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT167, EQT059, EQT060, EQT092, EQT094, EQT095, EQT096, EQT097, EQT098, EQT099, EQT100, EQT101, EQT102, EQT103, EQT104, EQT105, EQT106, EQT107, EQT108, EQT110, EQT111, EQT112, EQT113, EQT114, EQT115, EQT117, EQT118, EQT119, EQT120, EQT121, EQT123, EQT133, EQT146, EQT147 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT182, EQT183 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT175 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT077, EQT078 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT045 | | | | | | | 2 | 2 | 2 | | | | | 2 | | | | |
| EQT079 | | | | | | | 2 | 2 | 2 | | | | | 1 | | | | |
| EQT081 | | | | | | | 2 | 2 | 2 | | | | | 1 | | | | |
| EQT232 | | | | | | 1 | | | | | | | | | | | | 1 |
| EQT233 | | | | | | 1 | | | | | | | | | | | | 1 |
| EQT234 | | | | | | 1 | | | | | | | | | | | | 1 |
| EQT235 | | | | | 3 | 1 | | | | | | | | | | | | 3 |
| EQT236 | | | | | 3 | 1 | | | | | | | | | | | | 3 |

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

## X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | 40 CFR 60 NSPS | | | | | | | | | | | 40 CFR 63 NESHAP | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | D | Da | Db | Dc | J | K | Ka | Kb | GGG | QQQ | A | Q | CC | UUU | EEEE | ZZZZ | DDDDD |
| EQT237 | | | | | 3 | 1 | | | | | | | | | | | | 3 |
| EQT238 | | | | | | 1 | | | | | | | | | | | | 1 |
| EQT239 | | | | | | 1 | | | | | | | | | | | | 1 |
| EQT240 | | | | | | 1 | | | | | | | | | | | | 1 |
| EQT241 | | | | | 1 | 1 | | | | | | | | | | | | 1 |
| EQT242 | | | | | | | | | 2 | | | | | 3 | | | | |
| EQT243 | | | | | | | | | 2 | | | | | 3 | | | | |
| EQT244 | | | | | | | | | 2 | | | | | 3 | | | | |
| EQT245 | | | | | | | | | 2 | | | | | 3 | | | | |
| EQT246 | | | | | | | | | | | | | | 3 | | | | |
| EQT247 | | | | | | | | | | | | | | 3 | | | | |
| TRT003 | | | | | | 1 | | | | | | | | | 1 | | | |

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## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**KEY TO MATRIX**

1 -The regulations have applicable requirements that apply to this particular emission source.
-The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. *Explanation for Exemption Status or Non-Applicability of a Source*** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| Facility Wide | National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)<br>[40 CFR 63 Subpart EEEE] | NOT APPLICABLE. All potentially affected sources under this standard are affected sources under another 40 CFR Part 63 NESHAP. Therefore, per 40 CFR 63.2338(c)(1), they are not affected sources under this standard. |
| | Compliance Assurance Plan<br>[40 CFR 64] | NOT APPLICABLE. |
| EQT009, EQT010, EQT011 | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. Louisiana Refinery MACT requires cooling towers to comply with 40 CFR 63 Subpart Q. 40 CFR 63 Subpart Q is not applicable to these cooling towers. |
| | NESHAP Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers<br>[40 CFR 63 Subpart Q] | NOT APPLICABLE. These cooling towers have not been operated with chromium based water treatment chemicals on or after September 8, 1994. Therefore, they are not affected sources as defined in 40 CFR 63.400(a). |
| | Emission Standards for Particulate Matter – Emission Limits<br>[LAC 33:III.1311.C] | EXEMPT. Due to the presence of uncombined water. |

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**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT012, EQT013, EQT015 | NESHAP Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines [40 CFR 63 Subpart ZZZZ] | NOT APPLICABLE. These engines are existing spark ignition 2 stroke lean burn, 4 stroke lean burn, or compression ignition stationary RICE. Therefore, per 40 CFR 63.6590(b)(3), none of the requirements of NESHAP Subpart ZZZZ apply. |
| EQT008 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971 [40 CFR 60 Subpart D] | NOT APPLICABLE. The heat input rate of the source is less than 250 MMBtu/hr. Therefore, it is not an affected facility as defined in 40 CFR 60.40(a)(1). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 [40 CFR 60 Subpart Da] | NOT APPLICABLE. The source is not an electric utility steam generating unit as defined in 40 CFR 60.41a. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam GeneratingUnits [40 CFR 60 Subpart Dc] | NOT APPLICABLE. The maximum design heat input capacity of the source is greater than 100 MMBtu/hr. Therefore, the CO boiler is not an affected facility as defined in 40 CFR 60.40c(a). |
| | NSPS Subpart J - Standards of Performance for Petroleum Refineries [40 CFR 60 Subpart J] | NOT APPLICABLE. The RCCU is out of service, and is being removed from the permit. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| *FUG002* | NSPS Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries [*40 CFR 60 Subpart GGG*] | NOT APPLICABLE. Per 40 CFR 60.590(d), facilities subject to 40 CFR 60 Subpart VV are exempt from this subpart. |
| EQT017, EQT018 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971 [40 CFR 60 Subpart D] | NOT APPLICABLE. The heat input rate of these sources is less than 250 MMBtu/hr. Therefore, they are not affected facilities as defined in 40 CFR 60.40(a)(1). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 [40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units [40 CFR 60.42b] | NOT APPLICABLE. NSPS Subpart Db does not specify standards for particulate matter for affected facilities that combust only gaseous fuels. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units [40 CFR 60 Subpart Dc] | NOT APPLICABLE. The maximum design heat input capacity of these sources is greater than 100 MMBtu/hr. Therefore, they are not affected sources as defined in 40 CFR 60.40c(a). |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT025, EQT034, EQT035, EQT043 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971 [40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 [40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units [40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units [40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |
| | NESHAP Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63 Subpart DDDDD] | NOT APPLICABLE. Small gaseous fuel process heaters are not subject to any of the requirements of this subpart or Subpart A of this part, per 40 CFR 63.7506(c). |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT198, EQT199 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

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**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT040, EQT197 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |
| | NESHAP Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63 Subpart DDDDD] | NOT APPLICABLE. Small gaseous fuel process heaters are not subject to any of the requirements of this subpart or Subpart A of this part, per 40 CFR 63.7506(c). |

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**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT038, EQT039, EQT195, EQT196 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT019, EQT020, EQT021, EQT022, EQT023 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT024, EQT027, EQT028 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |
| | NESHAP Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63 Subpart DDDDD] | NOT APPLICABLE. Small gaseous fuel process heaters are not subject to any of the requirements of this subpart or Subpart A of this part, per 40 CFR 63.7506(c). |

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**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT029, EQT033 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |

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**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT036, EQT037 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
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**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT207 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |
| | NESHAP Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63 Subpart DDDDD] | NOT APPLICABLE. Small gaseous fuel process heaters are not subject to any of the requirements of this subpart or Subpart A of this part, per 40 CFR 63.7506(c). |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT204, EQT206 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

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**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT209, EQT211, EQT212 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |
| | NESHAP Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63 Subpart DDDDD] | NOT APPLICABLE. Small gaseous fuel process heaters are not subject to any of the requirements of this subpart or Subpart A of this part, per 40 CFR 63.7506(c). |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
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**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT210 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41b. |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41c. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| EQT041, EQT042 | NSPS Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. The heat input rate of these sources is less than 250 MMBtu/hr. Therefore, they are not affected facilities as defined in 40 CFR 60.40(a)(1). |
| | NSPS Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41a. |
| | NSPS Subpart Db - Standards of Performance for Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. The heat input rate of these sources is less than 100 MMBtu/hr. Therefore, they are not affected facilities as defined in 40 CFR 60.40(a)(1). |
| | NSPS Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources combust refinery fuel gas. There is no standard of NSPS Subpart Dc that is applicable to sources combusting gas. |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
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**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT208 | Control of Emissions of Organic Compounds - Volatile Organic Compounds - Loading<br>[LAC 33:III.2107] | NOT APPLICABLE. The tanks, trucks, or trailers serviced by this station have capacities less than 200 gallons. |
| | Control of Emissions of Organic Compounds - Gasoline Handling - Filling of Gasoline Storage Vessels<br>[LAC 33:III.2131] | NOT APPLICABLE. Operation does not involve the transfer of gasoline from any delivery vessel into any stationary storage container. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. Louisiana Refinery MACT requires loading/unloading facilities to comply with LAC 33:III.2107, 2108, 2131, 2135, or 2137, as applicable. None of these requirements are applicable to this emission point. |

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**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT214, EQT222, EQT223, EQT224, EQT215, EQT216, EQT226, EQ227 | Control of Emissions of Organic Compounds - Oil/Water - Separation<br>[LAC 33:III.2109] | NOT APPLICABLE. This oil water separator emits less than 100 tpy of regulated hydrocarbons (uncontrolled). Therefore, it is exempt from the requirements of LAC 33:III.2109 per LAC 33:III.2109.B.4. |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63.647] | NOT APPLICABLE. The wastewater provisions of NESHAP CC only apply to Group 1 wastewater streams. The total annual benzene loading at the refinery is less than 10 megagrams per year. Therefore, no wastewater at the facility meets the definition of Group 1 wastewater as defined in 40 CFR 63.641. |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT217 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. The capacity of this storage vessel is less than 75 $m^3$. Therefore, it is not an affected facility as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63.647] | NOT APPLICABLE. The wastewater provisions of NESHAP CC only apply to Group 1 wastewater streams. The total annual benzene loading at the refinery is less than 10 megagrams per year. Therefore, no wastewater at the facility meets the definition of Group 1 wastewater as defined in 40 CFR 63.641. |
| EQT218 | Control of Emissions of Organic Compounds - Oil/Water - Separation<br>[LAC 33:III.2109] | NOT APPLICABLE. This oil water separator emits less than 100 tpy of regulated hydrocarbons (uncontrolled). Therefore, it is exempt from the requirements of LAC 33:III.2109 per LAC 33:III.2109.B.4. |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63.647] | NOT APPLICABLE. The wastewater provisions of NESHAP CC only apply to Group 1 wastewater streams. The total annual benzene loading at the refinery is less than 10 megagrams per year. Therefore, no wastewater at the facility meets the definition of Group 1 wastewater as defined in 40 CFR 63.641. |

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**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
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**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT219, EQT220 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. The capacity of this storage vessel is less than 75 $m^3$. Therefore, it is not an affected facility as defined in 40 CFR 60.110b(a). |
| EQT221, EQT225, EQT228 | Control of Emissions of Organic Compounds - Oil/Water - Separation<br>[LAC 33:III.2109] | NOT APPLICABLE. This oil water separator emits less than 100 tpy of regulated hydrocarbons (uncontrolled). Therefore, it is exempt from the requirements of LAC 33:III.2109 per LAC 33:III.2109.B.4. |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63.647] | NOT APPLICABLE. The wastewater provisions of NESHAP CC only apply to Group 1 wastewater streams. The total annual benzene loading at the refinery is less than 10 megagrams per year. Therefore, no wastewater at the facility meets the definition of Group 1 wastewater as defined in 40 CFR 63.641. |
| EQT229 | Control of Emissions of Organic Compounds - Oil/Water - Separation<br>[LAC 33:III.2109] | NOT APPLICABLE. This sump does not store volatile organic compounds. |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT230 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of this tank is less than 1.5 psia. |
| EQT122 | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63.647] | NOT APPLICABLE. The wastewater provisions of NESHAP CC only apply to Group 1 wastewater streams. The total annual benzene loading at the refinery is less than 10 megagrams per year. Therefore, no wastewater at the facility meets the definition of Group 1 wastewater as defined in 40 CFR 63.641. |

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**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| EQT194, EQT191, EQT192 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. The capacity of this storage vessel is less than 75 $m^3$. Therefore, it is not an affected facility as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The capacity of these tanks is less than 40 $m^3$. Therefore, they are not storage vessels as defined in 40 CFR 63.641. |

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**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Fixed Roof Storage Tanks<br>EQT047, EQT057, EQT066, EQT067, EQT082, EQT093, EQT050, EQT051, EQT052, EQT053, EQT054, EQT055 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. The capacity of these storage vessels is greater than 75 $m^3$ and the true vapor pressure of the liquid stored in these tanks is less than 3.5 kPa. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(b). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The capacity of these tanks is less than 40 $m^3$. Therefore, they are not storage vessels as defined in 40 CFR 63.641. |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Fixed Roof Storage Tanks<br>EQT071, EQT069 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. The capacity of this storage vessel is less than 75 $m^3$. Therefore, it is not an affected facility as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The capacity of these tanks is less than 40 $m^3$. Therefore, they are not storage vessels as defined in 40 CFR 63.641. |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| External Floating Roof Storage Tanks<br>EQT129, EQT130, EQT150, EQT152, EQT153, EQT154, EQT171, EQT172 | NSPS Subpart K - 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<br>[40 CFR 60 Subpart K] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after June 11, 1973. Therefore, they are not affected facilities as described in 40 CFR 60.110. |
| Internal Floating Roof Storage Tanks<br>EQT131, EQT138, EQT139, EQT144, EQT151 | NSPS 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<br>[40 CFR 60 Subpart Ka] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after May 18, 1978. Therefore, they are not affected facilities as defined in 40 CFR 60.110a(a). |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Internal Floating Roof Storage Tank<br>EQT134 | NSPS Subpart K - 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<br>[40 CFR 60 Subpart K] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after June 11, 1973. Therefore, they are not affected facilities as described in 40 CFR 60.110. |
| | NSPS 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<br>[40 CFR 60 Subpart Ka] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after May 18, 1978. Therefore, they are not affected facilities as defined in 40 CFR 60.110a(a). |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. This tank is not a Group 1 storage vessel as defined in 63.641. |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| External Floating Roof Storage Tank<br>EQT169 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| Internal Floating Roof Storage Tanks<br>EQT132, EQT141, EQT145 | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| Fixed Roof Storage Tanks<br>EQT136, EQT140, EQT142, EQT143, EQT149, EQT166, EQT168, EQT176, EQT177, EQT178, EQT090, EQT091 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. These tanks are not Group 1 storage vessels as defined in 40 CFR 63.641. |

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| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| External Floating Roof Storage Tanks<br>EQT155, EQT157, EQT163, EQT164 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |
| Fixed Roof Storage Tank<br>EQT156 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Fixed Roof Storage Tank EQT156 (continued) | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries [40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. These tanks are not Group 1 storage vessels as defined in 40 CFR 63.641. |
| External Floating Roof Storage Tanks EQT158, EQT109<br><br>Internal Floating Roof Storage Tank EQT116 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Fixed Roof Storage Tanks EQT159, EQT160, EQT161, EQT180, EQT181, EQT184, EQT185, EQT186, EQT187, EQT188, EQT189, EQT190, EQT048, EQT056, EQT058, EQT061, EQT062, EQT063, EQT064, EQT065, EQT072, EQT073, EQT074, EQT075, EQT076, EQT080, EQT083, EQT084, EQT085, EQT086, EQT087, EQT088, EQT089<br><br>Internal Floating Roof Storage Tank EQT162 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. These tanks are not Group 1 storage vessels as defined in 40 CFR 63.641. |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | *Requirement* | Notes |
|---|---|---|
| External Floating Roof Storage Tank EQT170<br><br>Internal Floating Roof Storage Tank EQT165<br><br>Fixed Roof Storage Tanks EQT167, EQT059, EQT060, EQT092, EQT094, EQT095, EQT096, EQT097, EQT098, EQT099, EQT100, EQT101, EQT102, EQT103, EQT104, EQT105, EQT106, EQT107, EQT108, EQT110, EQT111, EQT112, EQT113, EQT114, EQT115, EQT117, EQT118, EQT119, EQT120, EQT121, EQT123, EQT133, EQT146, EQT147 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. These tanks are not Group 1 storage vessels as defined in 40 CFR 63.641. |

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| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| Internal Floating Roof Storage Tank<br>EQT175 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of this tank is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. This storage vessel is not an affected source under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. This tank has not been constructed, reconstructed, or modified after July 23, 1984. Therefore, this is not an affected facilitiy as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. This tank is not a Group 1 storage vessel as defined in 40 CFR 63.641. |

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**Agency Interest No.: 1214**
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**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| Fixed Roof Storage Tanks<br>EQT182, EQT183 | Control of Emissions of Organic Compounds - Storage of Volatile Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. The requirements of LAC 33:III.2103 are only applicable to storage vessels containing volatile organic compounds with a maximum true vapor pressure of 1.5 psia or greater at storage conditions. The maximum true vapor pressure of the contents of these tanks is less than 1.5 psia. |
| | Comprehensive Toxic Air Pollutant Emission Control Program - Louisiana Refinery MACT<br>[LAC 33:III.Chapter 51] | NOT APPLICABLE. These storage vessels are not affected sources under Louisiana Refinery MACT. |
| | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. These tanks are not Group 1 storage vessels as defined in 40 CFR 63.641. |

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**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Fixed Roof Storage Tanks<br>EQT077, EQT078 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks have not been constructed, reconstructed, or modified after July 23, 1984. Therefore, they are not affected facilities as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The storage vessel requirements of NESHAP Subpart CC apply only to Group 1 storage vessels. These tanks are not Group 1 storage vessels as defined in 40 CFR 63.641. |
| Lab Hexane Tank<br>EQT045 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. The capacity of this storage vessel is less than 75 $m^3$. Therefore, it is not an affected facility as defined in 40 CFR 60.110b(a). |
| | NESHAP Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries<br>[40 CFR 63.646] | NOT APPLICABLE. The capacity of this tank is less than 40 $m^3$. Therefore, they are not storage vessels as defined in 40 CFR 63.641. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Internal Floating Roof Storage Tank<br>EQT079 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. This tank has not been constructed, reconstructed, or modified after July 23, 1984. Therefore, it is not an affected facility as defined in 40 CFR 60.110b(a). |
| Internal Floating Roof Storage Tank<br>EQT081 | NSPS Subpart Kb - Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. This tank has not been constructed, reconstructed, or modified after July 23, 1984. Therefore, it is not an affected facility as defined in 40 CFR 60.110b(a). |
| Heaters<br>EQT232, EQT233, EQT234<br>EQT238, EQT239, EQT240 | Emission Standards for Sulfur Dioxide<br>[LAC 33:III.Chapter 15] | EXEMPT. Unit emits < 100 tpy. |
| | NSPS Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41(a). |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Heaters<br>EQT232, EQT233, EQT234<br>EQT238, EQT239, EQT240 | NSPS Standards of Performance for Industrial-Commercial-Institutional Steam-Generating Units [40 CFR 60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41(b). |
| | NSPS Standards of Performance for Small Industrial-Commercial-Institutional Steam-Generating Units [40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41(c). |
| Heaters<br>EQT235, EQT236, EQT237 | Emission Standards for Sulfur Dioxide<br>[LAC 33:III.Chapter 15] | EXEMPT. Unit emits < 100 tpy. |
| | NSPS Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971 [40 CFR 60 Subpart D] | NOT APPLICABLE. These sources are not fossil-fuel fired steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 [40 CFR 60 Subpart Da] | NOT APPLICABLE. These sources are not electric utility steam generating units as defined in 40 CFR 60.41(a). |
| | NSPS Standards of Performance for Industrial-Commercial-Institutional Steam-Generating Units [40 CFR60 Subpart Db] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41(b). |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | *Notes* |
| Heaters<br>EQT235, EQT236, EQT237 | NSPS Standards of Performance for Small Industrial-Commercial-Institutional Steam-Generating Units<br>[40 CFR 60 Subpart Dc] | NOT APPLICABLE. These sources are not steam generating units as defined in 40 CFR 60.41(c). |
| | National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters<br>[40 CFR 63 Subpart DDDDD] | NOT APPLICABLE. Small gaseous fuel process heaters are not subject to any of the requirements of this subpart or Subpart A of this part, per 40 CFR 63.7506(c). |
| No. 9 Steam Boiler<br>EQT241 | NSPS Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971<br>[40 CFR 60 Subpart D] | NOT APPLICABLE. This source is not rated at greater than 250 MMBtu/hr. |
| | NSPS Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978<br>[40 CFR 60 Subpart Da] | NOT APPLICABLE. This source is not an electric utility steam generating unit as defined in 40 CFR 60.41(a). |
| | NSPS Standards of Performance for Industrial-Commercial-Institutional Steam-Generating Units<br>[40 CFR 60 Subpart Db] | NOT APPLICABLE. This source is not rated at greater than 100 MMBtu/hr. |
| | Emission Standards for Sulfur Dioxide<br>[LAC 33:III.Chapter 15] | *EXEMPT. Unit emits < 250 tpy.* |

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Requirement | Notes |
|---|---|---|
| Tanks<br>EQT246, EQT247 | NSPS Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. Capacity not greater than 19,800 gallons |
| | NESHAP National Emission Standard for Benzene Waste Operations<br>[40 CFR 61 Subpart FF] | NOT APPLICABLE. Not in waste water service. |
| | NSPS National Emissions Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63 Subpart CC] | Does not apply. Not Group 1 storage vessels. Records maintained onsite indicating material stored and vapor pressure of material. |
| | Control of Emission of Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. These tanks are not used to store a material with a vapor pressure greater than 1.5 psia. |
| Storage Tank<br>EQT245 | Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. Tank is not used to store a material with a vapor pressure greater than 2.2 psia. |
| | NESHAP National Emission Standard for Benzene Waste Operations<br>[40 CFR 61 Subpart FF] | NOT APPLICABLE. Not in waste water service. |
| | NSPS National Emissions Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63 Subpart CC] | Does not apply. Not Group 1 storage vessels. Records maintained onsite indicating material stored and vapor pressure of material. |
| | Control of Emission of Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. These tanks are not used to store a material with a vapor pressure greater than 1.5 psia. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

| **XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source** | | |
|---|---|---|
| ID No: | Requirement | Notes |
| Waste Water Tanks<br>EQT242, EQT243, EQT244 | NSPS 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.<br>[40 CFR 60 Subpart K]] | NOT APPLICABLE. These tanks are not used to store materials with vapor pressures greater than 1.0 psia. |
| | NSPS 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.<br>[40 CFR 60 Subpart Ka] | NOT APPLICABLE. These tanks are not used to store materials with vapor pressures greater than 1.0 psia. |
| | Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquids Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984.<br>[40 CFR 60 Subpart Kb] | NOT APPLICABLE. These tanks are not used to store materials with vapor pressures greater than 0.5 psia. |
| | NESHAP National Emission Standard for Benzene Waste Operations<br>[40 CFR 61 Subpart FF] | NOT APPLICABLE. Not in waste water service. |
| | NSPS National Emissions Standards for Hazardous Air Pollutants from Petroleum Refineries<br>[40 CFR 63 Subpart CC] | NOT APPLICABLE. Not Group 1 storage vessels. Records maintained onsite indicating material stored and vapor pressure of material. |
| | Control of Emission of Organic Compounds<br>[LAC 33:III.2103] | NOT APPLICABLE. These tanks are not used to store a material with a vapor pressure greater than 1.5 psia. |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Calumet Shreveport Refinery**
**Agency Interest No.: 1214**
**Calumet Shreveport Lubricants & Waxes, LLC**
**Shreveport, Caddo Parish, Louisiana**

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

## 40 CFR PART 70 GENERAL CONDITIONS

A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]

B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]

C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 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. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]

D. 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. [Reference 40 CFR 70.6(a)(6)(ii)]

E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]

F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority 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 permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]

G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]

## 40 CFR PART 70 GENERAL CONDITIONS

H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:

1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];

2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];

3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and

4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]

I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.
[Reference 40 CFR 70.6(a)(3)(ii)(B)]

J. Records of required monitoring shall include the following:

1. the date, place as defined in the permit, and time of sampling or measurements;
2. the date(s) analyses were performed;
3. the company or entity that performed the analyses;
4. the analytical techniques or methods used;
5. the results of such analyses; and
6. the operating conditions as existing at the time of sampling or measurement.

[Reference 40 CFR 70.6(a)(3)(ii)(A)]

K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Surveillance Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]

L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]

## 40 CFR PART 70 GENERAL CONDITIONS

M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Surveillance Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]

N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]

O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]

P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]

Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:

1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;

2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;

3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;

4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;

5. changes in emissions would not qualify as a significant modification; and

6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]

## 40 CFR PART 70 GENERAL CONDITIONS

R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Surveillance Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).

1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.

2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.

3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:

   a. Report by June 30 to cover January through March
   b. Report by September 30 to cover April through June
   c. Report by December 31 to cover July through September
   d. Report by March 31 to cover October through December

4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]

S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]

## 40 CFR PART 70 GENERAL CONDITIONS

T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;

2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;

3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;

4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);

5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and

6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]

U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]

V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

# LOUISIANA AIR EMISSION PERMIT
# GENERAL CONDITIONS

I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.

II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.

III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated July 31, 2006.

IV. This permit shall become invalid, for the sources not constructed, if:

A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;

B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.

V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.

VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.

## LOUISIANA AIR EMISSION PERMIT
## GENERAL CONDITIONS

VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.

IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Surveillance Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.

X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.

XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Surveillance Division with a written report as specified below.

A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.

B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.

C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:

1. Report by June 30 to cover January through March
2. Report by September 30 to cover April through June
3. Report by December 31 to cover July through September
4. Report by March 31 to cover October through December

D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
2. Cause of noncompliance;
3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.

E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.

XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:

A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;

B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;

C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and

D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.

XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.

XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.

XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.

## LOUISIANA AIR EMISSION PERMIT
## GENERAL CONDITIONS

XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:

1. Generally be less than 5 TPY
2. Be less than the minimum emission rate (MER)
3. Be scheduled daily, weekly, monthly, etc., or
4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

# General Information

## AI ID: 1214 Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Also Known As:**

| ID | Name | User Group | Start Date |
|---|---|---|---|
| 0500-00005 | Calumet Lubricants Co LP - Shreveport Refinery | CDS Number | 05-27-1993 |
| 0500-0005 | Calumet Lubricants Co LP - Shreveport Refinery | Emission Inventory | 02-23-2004 |
| LAD008052334 | Calumet Shreveport Refinery | Hazardous Waste Notification | 08-18-1980 |
| 01832 | Inactive & Abandoned Site | Inactive & Abandoned Sites | 04-28-1999 |
| LAD008052334 | HW File # | Inactive & Abandoned Sites | 06-09-1981 |
| LA0032417 | LPDES # | LPDES Permit # | 05-22-2003 |
| WP0924 | LWDPS # | LWDPS Permit # | 06-25-2003 |
| | Calumet Shreveport LLC | Multimedia | 05-01-2004 |
| | Priority 1 Emergency Site | Priority 1 Emergency Site | 07-18-2006 |
| LA-4017-L01A | Radioactive Material License | Radiation License Number | 07-26-2002 |
| 10791 | X-Ray Registration Number | Radiation X-ray Registration Number | 04-28-2003 |
| G-017-1858 | Site ID # | Solid Waste Facility No. | 11-21-1999 |
| GD-017-1649 | SW ID # | Solid Waste Facility No. | 12-29-2004 |
| 113991 | Atlas Processing Co | TEMPO Merge | 03-09-2006 |
| 38876 | Pennzoil Products Co - Shreveport Refinery | TEMPO Merge | 08-26-2001 |
| 44015 | Standard Oil Refinery | TEMPO Merge | 12-30-2001 |
| 0500-0005 | Toxic Emissions Data Inventory # | Toxic Emissions Data Inventory # | 01-01-1991 |
| 71109TLSPR3333M | TRI # | Toxic Release Inventory | 07-09-2004 |
| 09-007204 | UST Facility ID (from UST legacy data) | Underground Storage Tanks | 10-11-2002 |

**Physical Location:** 3333 Midway St
Shreveport, LA 71109

**Main FAX:** 3186324225
**Main Phone:** 3186324102

**Mailing Address:** PO Box 3099
Shreveport, LA 710333099

**Location of Front Gate:** 32° 28' 15" 46 hundredths latitude, 93° 47' 31" 54 hundredths longitude, Coordinate Method: Interpolation - Map, Coordinate Datum: NAD83

**Related People:**

| Name | Mailing Address | Phone (Type) | Relationship |
|---|---|---|---|
| Lyndon Johnson | PO Box 3099 Shreveport, LA 711333099 | 3186324269 (WP) | Accident Prevention Contact for |
| Lyndon Johnson | PO Box 3099 Shreveport, LA 711333099 | 3186324269 (WP) | Accident Prevention Billing Party for |
| Jeff Lang | PO Box 3099 Shreveport, LA 711333099 | 3186324325 (WP) | Responsible Official for |
| Jeff Lang | PO Box 3099 Shreveport, LA 711333099 | 3186324325 (WP) | Solid Waste Billing Party for |
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | 3186324006 (WP) | Radiation Safety Officer for |
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | 3186324113 (WF) | Radiation Safety Officer for |
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | Bobt@CalumetLubri | Radiation Safety Officer for |





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# General Information

## AI ID: 1214 Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Related People:**

| Name | Mailing Address | Phone (Type) | Relationship |
|---|---|---|---|
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | 3184701676 (CP) | Radiation Safety Officer for |
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | 3186324006 (WP) | Radiation Contact For |
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | 3186324113 (WF) | Radiation Contact For |
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | Bobt@CalumetLubri | Radiation Contact For |
| Robert Thomas | PO Box 3099 Shreveport, LA 711333099 | 3184701676 (CP) | Radiation Contact For |
| Rick Williams | PO Box 3099 Shreveport, LA 711333099 | 3186324102 (WP) | Underground Storage Tank Contact for |
| Rick Williams | PO Box 3099 Shreveport, LA 711333099 | 3186324102 (WP) | Haz. Waste Billing Party for |
| Rick Williams | PO Box 3099 Shreveport, LA 711333099 | 3186324102 (WP) | Water Billing Party for |

**Related Organizations:**

| Name | Address | Phone (Type) | Relationship |
|---|---|---|---|
| Calumet Lubricants Co LP | 2780 Waterfront Pkwy Ste 200 Indianapolis, IN 46214 | | UST Employer |
| Calumet Shreveport Lubricants & Waxes LLC | PO Box 3099 Shreveport, LA 711333099 | 3186362711 (WP) | Operates |
| J Graves Insulation Co Inc | PO Box 8830 Shreveport, LA 711068830 | 3188613526 (WP) | Provides environmental services for |
| J Graves Insulation Co Inc | PO Box 8830 Shreveport, LA 711068830 | 3188652167 (WF) | Provides environmental services for |

**SIC Codes:** 2911, Petroleum refining

**Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.**





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Inventory:**

| ID | Description | Tank Volume | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time |
|---|---|---|---|---|---|---|
| ARE005 | FUG-Roads - Road Emissions | | | | | 8760 hr/yr (All Year) |
| EQT008 | B2001 - CO Boiler/WGS Stack | | 150 MM BTU/hr | | | 8760 hr/yr (All Year) |
| EQT009 | CTLUB - Lubes Cooling Tower | | 25000 gallons/min | 25000 gallons/min | | 8760 hr/yr (All Year) |
| EQT010 | CTMAR - Marly Cooling Tower | | 18000 gallons/min | 18000 gallons/min | | 8760 hr/yr (All Year) |
| EQT011 | CTUDX - Udex Cooling Tower | | 8287 gallons/min | 8287 gallons/min | | 8760 hr/yr (All Year) |
| EQT012 | DECR - Diesel Engine Used During Catalyst Regeneration | | 1.6 MM BTU/hr | 1.6 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT013 | DEFWT - Diesel Engine at 10,000 Bbl. Firewater Tank | | 3.4 MM BTU/hr | 3.4 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT015 | DESAC - Diesel Engine for Spare Air Compressors | | .75 MM BTU/hr | .75 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT016 | FL2001 - Flare No. 3 | | .6 MM BTU/hr | .6 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT017 | I-a - No. 5 Steam Boiler | | 184.7 MM BTU/hr | | | 8760 hr/yr (All Year) |
| EQT018 | I-b - No. 6 Steam Boiler | | 184.7 MM BTU/hr | | | 8760 hr/yr (All Year) |
| EQT019 | II-e - Naphtha Unifiner Charge Heater | | 27.35 MM BTU/hr | 27.35 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT020 | II-f - Naphtha Unifiner Reboiler Heater | | 16.8 MM BTU/hr | 16.8 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT021 | II-k - No. 1 Platformer Intermediate Heater | | 14.46 MM BTU/hr | 14.46 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT022 | II-l - No. 2 Platformer Unit Charge Heater | | 47.6 MM BTU/hr | 47.6 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT023 | II-s - No. 1 Platformer Unit Charge Heater | | 34.2 MM BTU/hr | 34.2 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT024 | II-v - No. 3 Crude Unit Heater | | 7.22 MM BTU/hr | 7.22 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT025 | II-w - PDA Heater | | 6 MM BTU/hr | 6 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT027 | III-b-a - Asphalt Solution Furnace No. 1 | | 4.7 MM BTU/hr | 4.7 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT028 | III-b-b - Asphalt Solution Furnace No. 2 | | 1 MM BTU/hr | 1 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT029 | III-c - Extract Furnace - NMP Unit | | 17.86 MM BTU/hr | 17.86 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT031 | III-f - No. 4 Crude Unit Charge Heater | | 90.44 MM BTU/hr | 90.44 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT033 | III-h - No. 4 Crude Unit Naphtha Reboiler Heater DT-240 | | 11.18 MM BTU/hr | 11.18 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT034 | III-l - Lube Oil Hydrofinisher Charge Heater | | 8.81 MM BTU/hr | 8.81 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT035 | III-m - Lube Oil Hydrofinisher Stripper Feed Heater | | 8.92 MM BTU/hr | 8.92 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT036 | IV-a - No. 4 Crude Unit Vacuum Heater | | 28.95 MM BTU/hr | 28.95 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT037 | IV-b - NMP Extraction Unit Solution Heater | | 17.86 MM BTU/hr | 17.86 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT038 | IV-c - MEK Dewaxing Unit (Wax free) | | 23.36 MM BTU/hr | 23.36 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT039 | IV-d - MEK Dewaxing Unit (Soft wax) | | 18.91 MM BTU/hr | 18.91 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT040 | IV-e - Wax Hydrofinisher Unit Wax Furnace | | 3.13 MM BTU/hr | 3.13 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT042 | IV-g - No. 8 Steam Boiler | | 47.1 MM BTU/hr | | | 8760 hr/yr (All Year) |
| EQT043 | IV-j - Hydrotreater Hot Oil Heater | | 8.8 MM BTU/hr | 8.8 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT044 | LAB - Laboratory Equipment and Vents | | | | | 8760 hr/yr (All Year) |
| EQT045 | LAB-HEX - Hexane Tank by the Lab | 1097 gallons | | | Hexane | 8760 hr/yr (All Year) |
| EQT047 | T-10 - Fixed Roof Storage Tank T-10 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT048 | T-100 - Fixed Roof Storage Tank T-100 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT050 | T-103 - Fixed Roof Storage Tank T-103 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Inventory:**

| ID | Description | Tank Volume | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time |
|---|---|---|---|---|---|---|
| EQT051 | T-104 - Fixed Roof Storage Tank T-104 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT052 | T-105 - Fixed Roof Storage Tank T-105 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT053 | T-106 - Fixed Roof Storage Tank T-106 | 210000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT054 | T-107 - Fixed Roof Storage Tank T-107 | 210000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT055 | T-108 - Fixed Roof Storage Tank T-108 | 210000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT056 | T-109 - Fixed Roof Storage Tank T-109 | 210000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT057 | T-11 - Fixed Roof Storage Tank T-11 | 840000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT058 | T-110 - Fixed Roof Storage Tank T-110 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT059 | T-111 - Fixed Roof Storage Tank T-111 | 630000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT060 | T-112 - Fixed Roof Storage Tank T-112 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT061 | T-113 - Fixed Roof Storage Tank T-113 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT062 | T-114 - Fixed Roof Storage Tank T-114 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT063 | T-115 - Fixed Roof Storage Tank T-115 | 42000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT064 | T-116 - Fixed Roof Storage Tank T-116 | 42000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT065 | T-117 - Fixed Roof Storage Tank T-117 | 42000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT066 | T-12 - Fixed Roof Storage Tank T-12 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT067 | T-13 - Fixed Roof Storage Tank T-13 | 840000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT069 | T-1308 - Fixed Roof Storage Tank T-1308 | 10500 gallons | | | Additive | 8760 hr/yr (All Year) |
| EQT071 | T-14 - Fixed Roof Storage Tank T-14 | 11800 gallons | | | Additive | 8760 hr/yr (All Year) |
| EQT072 | T-140 - Fixed Roof Storage Tank T-140 | 210000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT073 | T-141 - Fixed Roof Storage Tank T-141 | 1.26 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT074 | T-142 - Fixed Roof Storage Tank T-142 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT075 | T-143 - Fixed Roof Storage Tank T-143 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT076 | T-144 - Fixed Roof Storage Tank T-144 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT077 | T-145 - Fixed Roof Storage Tank T-145 | 8400 gallons | | | Solvent | 8760 hr/yr (All Year) |
| EQT078 | T-146 - Fixed Roof Storage Tank T-146 | 8400 gallons | | | Solvent | 8760 hr/yr (All Year) |
| EQT079 | T-147 - Internal Floating Roof Storage Tank T-147 | 63000 gallons | | | Solvent | 8760 hr/yr (All Year) |
| EQT080 | T-148 - Fixed Roof Storage Tank T-148 | 210000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT081 | T-149 - Internal Floating Roof Storage Tank T-149 | 90800 gallons | | | Solvent | 8760 hr/yr (All Year) |
| EQT082 | T-15 - Fixed Roof Storage Tank T-15 | 58000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT083 | T-150 - Fixed Roof Storage Tank T-150 | 630000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT084 | T-151 - Fixed Roof Storage Tank T-151 | 630000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT085 | T-152 - Fixed Roof Storage Tank T-152 | 1.05 million gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT086 | T-153 - Fixed Roof Storage Tank T-153 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT087 | T-154 - Fixed Roof Storage Tank T-154 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT088 | T-155 - Fixed Roof Storage Tank T-155 | 1.05 million gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT089 | T-156 - Fixed Roof Storage Tank T-156 | 1.05 million gallons | | | Wax | 8760 hr/yr (All Year) |



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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Inventory:**

| ID | Description | Tank Volume | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time |
|---|---|---|---|---|---|---|
| EQT090 | T-157 - Fixed Roof Storage Tank T-157 | 1.05 million gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT091 | T-158 - Fixed Roof Storage Tank T-158 | 210000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT092 | T-159 - Fixed Roof Storage Tank T-159 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT093 | T-16 - Fixed Roof Storage Tank T-16 | 58000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT094 | T-160 - Fixed Roof Storage Tank T-160 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT095 | T-161 - Fixed Roof Storage Tank T-161 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT096 | T-162 - Fixed Roof Storage Tank T-162 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT097 | T-163 - Fixed Roof Storage Tank T-163 | 2.1 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT098 | T-164 - Fixed Roof Storage Tank T-164 | 2.1 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT099 | T-165 - Fixed Roof Storage Tank T-165 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT100 | T-166 - Fixed Roof Storage Tank T-166 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT101 | T-167 - Fixed Roof Storage Tank T-167 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT102 | T-168 - Fixed Roof Storage Tank T-168 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT103 | T-169 - Fixed Roof Storage Tank T-169 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT104 | T-170 - Fixed Roof Storage Tank T-170 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT105 | T-171 - Fixed Roof Storage Tank T-171 | 1.05 million gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT106 | T-172 - Fixed Roof Storage Tank T-172 | 210000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT107 | T-173 - Fixed Roof Storage Tank T-173 | 210000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT108 | T-174 - Fixed Roof Storage Tank T-174 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT109 | T-175 - External Floating Roof Storage Tank T-175 | 3.78 million gallons | | | Crude Oil | 8760 hr/yr (All Year) |
| EQT110 | T-176 - Fixed Roof Storage Tank T-176 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT111 | T-177 - Fixed Roof Storage Tank T-177 | 63000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT112 | T-178 - Fixed Roof Storage Tank T-178 | 63000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT113 | T-179 - Fixed Roof Storage Tank T-179 | 63000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT114 | T-180 - Fixed Roof Storage Tank T-180 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT115 | T-181 - Fixed Roof Storage Tank T-181 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT116 | T-182 - Internal Floating Roof Storage Tank T-182 | 1.05 million gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT117 | T-183 - Fixed Roof Storage Tank T-183 | 1.05 million gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT118 | T-184 - Fixed Roof Storage Tank T-184 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT119 | T-185 - Fixed Roof Storage Tank T-185 | 2.1 million gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT120 | T-186 - Fixed Roof Storage Tank T-186 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT121 | T-187 - Fixed Roof Storage Tank T-187 | 1.05 million gallons | | | Jet A | 8760 hr/yr (All Year) |
| EQT122 | T-188 - Bypass Aeration Tank | 228000 gallons | | | | 8760 hr/yr (All Year) |
| EQT123 | T-199 - Fixed Roof Storage Tank T-199 | 3.97 million gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT129 | T-26 - External Floating Roof Storage Tank T-26 | 210000 gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT130 | T-27 - External Floating Roof Storage Tank T-27 | 210000 gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT131 | T-29 - Internal Floating Roof Storage Tank T-29 | 210000 gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Inventory:**

| ID | Description | Tank Volume | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time |
|---|---|---|---|---|---|---|
| EQT132 | T-30 - Internal Floating Roof Tank T-30 | 210000 gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT133 | T-301 - Fixed Roof Storage Tank T-301 | 48000 gallons | | | Kersone | 8760 hr/yr (All Year) |
| EQT134 | T-32 - Internal Floating Roof Storage Tank T-32 | 210000 gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT136 | T-39 - Fixed Roof Storage Tank T-39 | 420000 gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT138 | T-43 - Internal Floating Roof Storage Tank T-43 | 3.36 million gallons | | | Crude Oil | 8760 hr/yr (All Year) |
| EQT139 | T-44 - Internal Floating Roof Storage Tank T-44 | 3.36 million gallons | | | Gasoline | 8760 hr/yr (All Year) |
| EQT140 | T-45 - Fixed Roof Storage Tank T-45 | 840000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT141 | T-46 - Internal Floating Roof Storage Tank T-46 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT142 | T-47 - Fixed Roof Storage Tank T-47 | 210000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT143 | T-48 - Fixed Roof Storage Tank T-48 | 210000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT144 | T-49 - Internal Floating Roof Storage Tank T-49 | 2.31 million gallons | | | Crude Oil | 8760 hr/yr (All Year) |
| EQT145 | T-50 - Internal Floating Roof Storage Tank T-50 | 2.31 million gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT146 | T-503 - Fixed Roof Storage Tank T-503 | 38000 gallons | | | Kerosene | 8760 hr/yr (All Year) |
| EQT147 | T-504 - Fixed Roof Storage Tank T-504 | 17000 gallons | | | Kersone | 8760 hr/yr (All Year) |
| EQT149 | T-52 - Fixed Roof Storage Tank T-52 | 2.31 million gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT150 | T-53 - External Floating Roof Storage Tank T-53 | 1.05 million gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT151 | T-54 - Internal Floating Roof Storage Tank T-54 | 1.05 million gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT152 | T-55 - External Floating Roof Storage Tank T-55 | 1.05 million gallons | | | Gasoline | 8760 hr/yr (All Year) |
| EQT153 | T-56 - External Floating Roof Storage Tank T-56 | 1.05 million gallons | | | Distillate | 8760 hr/yr (All Year) |
| EQT154 | T-57 - External Floating Roof Storage Tank T-57 | 1.05 million gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT155 | T-58 - External Floating Roof Storage Tank T-58 | 1.05 million gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT156 | T-59 - Fixed Roof Storage Tank T-59 | 25200 gallons | | | Refinery | 8760 hr/yr (All Year) |
| EQT157 | T-60 - External Floating Roof Storage Tank T-60 | 1.05 million gallons | | | Crude Oil | 8760 hr/yr (All Year) |
| EQT158 | T-61 - External Floating Roof Storage Tank T-61 | 3.36 million gallons | | | Gasoline | 8760 hr/yr (All Year) |
| EQT159 | T-62 - Fixed Roof Storage Tank T-62 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT160 | T-63 - Fixed Roof Storage Tank T-63 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT161 | T-64 - Fixed Roof Storage Tank T-64 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT162 | T-65 - Internal Floating Roof Storage Tank T-65 | 420000 gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT163 | T-67 - External Floating Roof Storage Tank T-67 | 1.05 million gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT164 | T-68 - External Floating Roof Storage Tank T-68 | 1.05 million gallons | | | Intermediate Gas | 8760 hr/yr (All Year) |
| EQT165 | T-69 - Internal Floating Roof Storage Tank T-69 | 210000 gallons | | | Refinery | 8760 hr/yr (All Year) |
| EQT166 | T-71 - Fixed Roof Storage Tank T-71 | 420000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT167 | T-72 - Fixed Roof Storage Tank T-72 | 420000 gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT168 | T-73 - Fixed Roof Storage Tank T-73 | 420000 gallons | | | Diesel | 8760 hr/yr (All Year) |
| EQT169 | T-74 - External Floating Roof Storage Tank T-74 | 2.27 million gallons | | | Jet A | 8760 hr/yr (All Year) |
| EQT170 | T-75 - External Floating Roof Storage Tank T-75 | 2.27 million gallons | | | Jet A | 8760 hr/yr (All Year) |
| EQT171 | T-76 - External Floating Roof Storage Tank T-76 | 3.36 million gallons | | | Gasoline | 8760 hr/yr (All Year) |



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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Inventory:**

| ID | Description | Tank Volume | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time |
|---|---|---|---|---|---|---|
| EQT172 | T-77 - External Floating Roof Storage Tank T-77 | 3.36 million gallons | | | Crude Oil | 8760 hr/yr (All Year) |
| EQT175 | T-81 - Internal Floating Roof Storage Tank T-81 | 63000 gallons | | | Additive | 8760 hr/yr (All Year) |
| EQT176 | T-82 - Fixed Roof Storage Tank T-82 | 2.24 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT177 | T-83 - Fixed Roof Storage Tank T-83 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT178 | T-84 - Fixed Roof Storage Tank T-84 | 1.05 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT180 | T-86 - Fixed Roof Storage Tank T-86 | 1.05 million gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT181 | T-87 - Fixed Roof Storage Tank T-87 | 630000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT182 | T-89 - Fixed Roof Storage Tank T-89 | 420000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT183 | T-92 - Fixed Roof Storage Tank T-92 | 2.1 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT184 | T-93 - Fixed Roof Storage Tank T-93 | 2.1 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT185 | T-94 - Fixed Roof Storage Tank T-94 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT186 | T-95 - Fixed Roof Storage Tank T-95 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT187 | T-96 - Fixed Roof Storage Tank T-96 | 630000 gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT188 | T-97 - Fixed Roof Storage Tank T-97 | 2.31 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT189 | T-98 - Fixed Roof Storage Tank T-98 | 2.31 million gallons | | | Heavy Oil | 8760 hr/yr (All Year) |
| EQT190 | T-99 - Fixed Roof Storage Tank T-99 | 630000 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT191 | TC4001 - Refrigeration Compressor Lube/Seal Oil Tank | 2015 gallons | | | | 8760 hr/yr (All Year) |
| EQT192 | TC5001 - Wet Gas Compressor Lube/Seal Oil Tank | 2015 gallons | | | | 8760 hr/yr (All Year) |
| EQT194 | TZ1001 - Air Blower/Seal Oil Tank | 2015 gallons | | | | 8760 hr/yr (All Year) |
| EQT195 | V-b - Hydrotreater Charge Heater | | 11.61 MM BTU/hr | 11.61 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT196 | V-c - Hydrotreater Atmospheric Distillation Heater | | 17.73 MM BTU/hr | 17.73 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT197 | V-d - Hydrotreater Vacuum Distillation Heater | | 7.12 MM BTU/hr | 7.12 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT198 | V-e-a - Hydrogen Reformer A Heater | | 40 MM BTU/hr | 40 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT199 | V-e-b - Hydrogen Reformer B Heater | | 40 MM BTU/hr | 40 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT202 | V-g - Main Refinery Flare (No. 2 Flare) | | .6 MM BTU/hr | .6 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT204 | V-i-b - DDD Reactor Charge Heater (H-1) | | 42.3 MM BTU/hr | 42.3 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT206 | V-i-d - DDD Fractionator Reboiler (H-3) | | 20.5 MM BTU/hr | 20.5 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT207 | V-i-e - DDD Vacuum Charge Heater (H-4) | | 7.12 MM BTU/hr | 7.12 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT208 | VI-f - Company Refueling Station | | 16000 gallons/yr | 16000 gallons/yr | | 8760 hr/yr (All Year) |
| EQT209 | VII-a - Tank 85 Heaters (3) | | 8.25 MM BTU/hr | 8.25 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT210 | VII-c - Tank 92 Heater (5) | | 13.75 MM BTU/hr | 13.75 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT211 | VII-d - Tank 93 Heaters (3) | | 8.25 MM BTU/hr | 8.25 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT212 | VII-e - Tank 109 Heater | | 1.6 MM BTU/hr | 1.6 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT213 | VS3001 - Sulfite Oxidation Tower | | 16.6 gallons/min | 14.4 gallons/min | | 8760 hr/yr (All Year) |
| EQT214 | WWCC0001 - Process Sewer Drum | 10257 gallons | | | | 8760 hr/yr (All Year) |
| EQT215 | WWCC2002 - API Oil Water Separator | 90000 gallons | | | | 8760 hr/yr (All Year) |
| EQT216 | WWCC2006 - RCCU Flow Splitter and Stormwater Sumps | 12000 gallons | | | | 8760 hr/yr (All Year) |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Inventory:**

| ID | Description | Tank Volume | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time |
|---|---|---|---|---|---|---|
| EQT217 | WWCC2010 - Oily Sludge Dewatering System/Slop Oil Tank | 2100 gallons | | | | 8760 hr/yr (All Year) |
| EQT218 | WWCC208 - East Sump Separator | 18200 gallons | | | | 8760 hr/yr (All Year) |
| EQT219 | WWCC3001A - Acid Tank Vapor Scrubber-A / Canister | | 600 scf/hr | | | 8760 hr/yr (All Year) |
| EQT220 | WWCC3001B - Acid Tank Vapor Scrubber-B / Canister | | 600 scf/hr | | | 8760 hr/yr (All Year) |
| EQT221 | WWCCA003 - Amine Mixing Sump | 600 gallons | | | | 8760 hr/yr (All Year) |
| EQT222 | WWCCESEP - East Separator | 9600 gallons | | | | 8760 hr/yr (All Year) |
| EQT223 | WWCCNSEP - North Separator | 9600 gallons | | | | 8760 hr/yr (All Year) |
| EQT224 | WWCCWSEP - West Separator | 9600 gallons | | | | 8760 hr/yr (All Year) |
| EQT225 | WWS2005 - RCCU Effluent Sump | 5400 gallons | | | | 8760 hr/yr (All Year) |
| EQT226 | WWS2008 - SRU Effluent Sump | 5400 gallons | | | | 8760 hr/yr (All Year) |
| EQT227 | WWS2009 - SRU Flow Splitter and Stormwater Sumps | 12000 gallons | | | | 8760 hr/yr (All Year) |
| EQT228 | WWS2011 - WWTP Area Drain Sump | 2700 gallons | | | | 8760 hr/yr (All Year) |
| EQT229 | WWS3001 - Neutralization Sump | | | | | 8760 hr/yr (All Year) |
| EQT230 | WWTAT - Third Wastewater Aeration Tank | 220000 gallons | | | | 8760 hr/yr (All Year) |
| EQT231 | Belco Wet Gas Scrubber (SO2) | | | | | 8760 hr/yr (All Year) |
| EQT232 | VII-f - Diesel Hydrotreater 92-H-100 Recharge Heater | | 33 MM BTU/hr | 33 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT233 | VII-g - Diesel Hydrotreater 92-H-101 Recharge Heater | | 32 MM BTU/hr | 32 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT234 | VII-h - Sour Crude Heater 93-H-200 | | 56 MM BTU/hr | 56 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT235 | VII-i - No. 1 Platform Heater - 2006 | | 3 MM BTU/hr | 3 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT236 | VII-j - No. 2 Platform Heater - 2006 | | 3 MM BTU/hr | 3 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT237 | VII-k - No. 2 Platform Heater - 2006 | | 9.69 MM BTU/hr | 9.69 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT238 | VII-l - Hydrogen Plant Heater -2006 | | 66 MM BTU/hr | 66 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT239 | VII-m - Sour Crude Vacuum Heater 37-N-1 | | 37.5 MM BTU/hr | 37.5 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT240 | VII-n - Crude Unit Prefract. Charge Heater - 2006 | | 30 MM BTU/hr | 30 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT241 | IV-n: No. 9 Steam Boiler | | 47.1 MM BTU/hr | 47.1 MM BTU/hr | | 8760 hr/yr (All Year) |
| EQT242 | T-2001: Diversion Tank - Wastewater | 1.05 million gallons | | | Wastewater | 8760 hr/yr (All Year) |
| EQT243 | T-201: Sour Water Tank | 334446 gallons | | | Wastewater | 8760 hr/yr (All Year) |
| EQT244 | T-79: Water Equalization Tank | 3.23 million gallons | | | Wastewater | 8760 hr/yr (All Year) |
| EQT245 | T-3001: Fixed Roof Tank | 20720 gallons | | | Wax | 8760 hr/yr (All Year) |
| EQT246 | T-2009: Fixed Roof Tank | 4300 gallons | | | Additive | 8760 hr/yr (All Year) |
| EQT247 | T-202: Fixed Roof Tank | 11600 gallons | | | Additive | 8760 hr/yr (All Year) |
| EQT248 | SRU: Sulfur Recovery Unit | | | | | 8760 hr/yr (All Year) |
| FUG002 | FU-VOC - Fugitive Emissions from components | | | | | 8760 hr/yr (All Year) |
| TRT002 | VI-ia - West Truck Dock Thermal Oxidizer (John Zink G-ZTOF-7200-2) | | .11 MM BTU/hr | .11 MM BTU/hr | | 8760 hr/yr (All Year) |
| TRT003 | TO2006: Belco Thermal Oxidizer | | 9.3 MM BTU/hr | 9.3 MM BTU/hr | | 8760 hr/yr (All Year) |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Groups:**

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP002 | ADDITIVE CAP - Additives Cap | EQT69 T-1308 - Fixed Roof Storage Tank T-1308 |
| GRP002 | ADDITIVE CAP - Additives Cap | EQT71 T-14 - Fixed Roof Storage Tank T-14 |
| GRP002 | ADDITIVE CAP - Additives Cap | EQT175 T-81 - Internal Floating Roof Storage Tank T-81 |
| GRP002 | ADDITIVE CAP - Additives Cap | EQT246 T-2009: Fixed Roof Tank |
| GRP002 | ADDITIVE CAP - Additives Cap | EQT247 T-202: Fixed Roof Tank |
| GRP003 | BOILER CAP - Boiler CAP | EQT8 B2001 - CO Boiler/WGS Stack |
| GRP003 | BOILER CAP - Boiler CAP | EQT18 I-b - No. 6 Steam Boiler |
| GRP003 | BOILER CAP - Boiler CAP | EQT42 IV-g - No. 8 Steam Boiler |
| GRP003 | BOILER CAP - Boiler CAP | EQT241 IV-n: No. 9 Steam Boiler |
| GRP003 | BOILER CAP - Boiler CAP | EQT17 I-a - No. 5 Steam Boiler |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT161 T-64 - Fixed Roof Storage Tank T-64 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT176 T-82 - Fixed Roof Storage Tank T-82 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT177 T-83 - Fixed Roof Storage Tank T-83 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT178 T-84 - Fixed Roof Storage Tank T-84 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT182 T-89 - Fixed Roof Storage Tank T-89 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT183 T-92 - Fixed Roof Storage Tank T-92 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT184 T-93 - Fixed Roof Storage Tank T-93 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT185 T-94 - Fixed Roof Storage Tank T-94 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT186 T-95 - Fixed Roof Storage Tank T-95 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT65 T-117 - Fixed Roof Storage Tank T-117 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT64 T-116 - Fixed Roof Storage Tank T-116 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT63 T-115 - Fixed Roof Storage Tank T-115 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT62 T-114 - Fixed Roof Storage Tank T-114 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT61 T-113 - Fixed Roof Storage Tank T-113 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT60 T-112 - Fixed Roof Storage Tank T-112 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT58 T-110 - Fixed Roof Storage Tank T-110 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT57 T-11 - Fixed Roof Storage Tank T-11 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT56 T-109 - Fixed Roof Storage Tank T-109 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT55 T-108 - Fixed Roof Storage Tank T-108 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT54 T-107 - Fixed Roof Storage Tank T-107 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT53 T-106 - Fixed Roof Storage Tank T-106 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT52 T-105 - Fixed Roof Storage Tank T-105 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT51 T-104 - Fixed Roof Storage Tank T-104 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT50 T-103 - Fixed Roof Storage Tank T-103 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT48 T-100 - Fixed Roof Storage Tank T-100 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT47 T-10 - Fixed Roof Storage Tank T-10 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT111 T-177 - Fixed Roof Storage Tank T-177 |



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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Groups:**

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT110 T-176 - Fixed Roof Storage Tank T-176 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT108 T-174 - Fixed Roof Storage Tank T-174 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT104 T-170 - Fixed Roof Storage Tank T-170 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT103 T-169 - Fixed Roof Storage Tank T-169 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT102 T-168 - Fixed Roof Storage Tank T-168 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT101 T-167 - Fixed Roof Storage Tank T-167 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT100 T-166 - Fixed Roof Storage Tank T-166 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT99 T-165 - Fixed Roof Storage Tank T-165 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT160 T-63 - Fixed Roof Storage Tank T-63 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT159 T-62 - Fixed Roof Storage Tank T-62 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT143 T-48 - Fixed Roof Storage Tank T-48 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT142 T-47 - Fixed Roof Storage Tank T-47 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT141 T-46 - Internal Floating Roof Storage Tank T-46 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT140 T-45 - Fixed Roof Storage Tank T-45 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT120 T-186 - Fixed Roof Storage Tank T-186 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT118 T-184 - Fixed Roof Storage Tank T-184 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT115 T-181 - Fixed Roof Storage Tank T-181 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT114 T-180 - Fixed Roof Storage Tank T-180 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT113 T-179 - Fixed Roof Storage Tank T-179 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT112 T-178 - Fixed Roof Storage Tank T-178 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT98 T-164 - Fixed Roof Storage Tank T-164 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT97 T-163 - Fixed Roof Storage Tank T-163 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT96 T-162 - Fixed Roof Storage Tank T-162 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT95 T-161 - Fixed Roof Storage Tank T-161 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT94 T-160 - Fixed Roof Storage Tank T-160 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT93 T-16 - Fixed Roof Storage Tank T-16 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT92 T-159 - Fixed Roof Storage Tank T-159 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT87 T-154 - Fixed Roof Storage Tank T-154 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT86 T-153 - Fixed Roof Storage Tank T-153 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT82 T-15 - Fixed Roof Storage Tank T-15 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT76 T-144 - Fixed Roof Storage Tank T-144 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT75 T-143 - Fixed Roof Storage Tank T-143 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT74 T-142 - Fixed Roof Storage Tank T-142 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT73 T-141 - Fixed Roof Storage Tank T-141 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT67 T-13 - Fixed Roof Storage Tank T-13 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT66 T-12 - Fixed Roof Storage Tank T-12 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT187 T-96 - Fixed Roof Storage Tank T-96 |

# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Groups:**

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT188 T-97 - Fixed Roof Storage Tank T-97 |
| GRP008 | HEAVY OIL CAP - Heavy Oil Cap | EQT189 T-98 - Fixed Roof Storage Tank T-98 |
| GRP010 | RECYCLE CAP - Refinery Recycle Cap | EQT156 T-59 - Fixed Roof Storage Tank T-59 |
| GRP010 | RECYCLE CAP - Refinery Recycle Cap | EQT165 T-69 - Internal Floating Roof Storage Tank T-69 |
| GRP011 | SOLVENT CAP - Solvent Cap | EQT77 T-145 - Fixed Roof Storage Tank T-145 |
| GRP011 | SOLVENT CAP - Solvent Cap | EQT78 T-146 - Fixed Roof Storage Tank T-146 |
| GRP011 | SOLVENT CAP - Solvent Cap | EQT79 T-147 - Internal Floating Roof Storage Tank T-147 |
| GRP011 | SOLVENT CAP - Solvent Cap | EQT81 T-149 - Internal Floating Roof Storage Tank T-149 |
| GRP012 | WAX CAP - Wax Cap | EQT59 T-111 - Fixed Roof Storage Tank T-111 |
| GRP012 | WAX CAP - Wax Cap | EQT72 T-140 - Fixed Roof Storage Tank T-140 |
| GRP012 | WAX CAP - Wax Cap | EQT80 T-148 - Fixed Roof Storage Tank T-148 |
| GRP012 | WAX CAP - Wax Cap | EQT83 T-150 - Fixed Roof Storage Tank T-150 |
| GRP012 | WAX CAP - Wax Cap | EQT84 T-151 - Fixed Roof Storage Tank T-151 |
| GRP012 | WAX CAP - Wax Cap | EQT85 T-152 - Fixed Roof Storage Tank T-152 |
| GRP012 | WAX CAP - Wax Cap | EQT88 T-155 - Fixed Roof Storage Tank T-155 |
| GRP012 | WAX CAP - Wax Cap | EQT89 T-156 - Fixed Roof Storage Tank T-156 |
| GRP012 | WAX CAP - Wax Cap | EQT90 T-157 - Fixed Roof Storage Tank T-157 |
| GRP012 | WAX CAP - Wax Cap | EQT91 T-158 - Fixed Roof Storage Tank T-158 |
| GRP012 | WAX CAP - Wax Cap | EQT105 T-171 - Fixed Roof Storage Tank T-171 |
| GRP012 | WAX CAP - Wax Cap | EQT106 T-172 - Fixed Roof Storage Tank T-172 |
| GRP012 | WAX CAP - Wax Cap | EQT107 T-173 - Fixed Roof Storage Tank T-173 |
| GRP012 | WAX CAP - Wax Cap | EQT117 T-183 - Fixed Roof Storage Tank T-183 |
| GRP012 | WAX CAP - Wax Cap | EQT166 T-71 - Fixed Roof Storage Tank T-71 |
| GRP012 | WAX CAP - Wax Cap | EQT180 T-86 - Fixed Roof Storage Tank T-86 |
| GRP012 | WAX CAP - Wax Cap | EQT181 T-87 - Fixed Roof Storage Tank T-87 |
| GRP012 | WAX CAP - Wax Cap | EQT190 T-99 - Fixed Roof Storage Tank T-99 |
| GRP012 | WAX CAP - Wax Cap | EQT245 T-3001: Fixed Roof Tank |
| GRP013 | Entire Facility | ARE5 FUG-Roads - Road Emissions |
| GRP013 | Entire Facility | EQT8 B2001 - CO Boiler/WGS Stack |
| GRP013 | Entire Facility | EQT9 CTLUB - Lubes Cooling Tower |
| GRP013 | Entire Facility | EQT10 CTMAR - Marly Cooling Tower |
| GRP013 | Entire Facility | EQT11 CTUDX - Udex Cooling Tower |
| GRP013 | Entire Facility | EQT12 DECR - Diesel Engine Used During Catalyst Regeneration |
| GRP013 | Entire Facility | EQT13 DEFWT - Diesel Engine at 10,000 Bbl. Firewater Tank |
| GRP013 | Entire Facility | EQT15 DESAC - Diesel Engine for Spare Air Compressors |
| GRP013 | Entire Facility | EQT16 FL2001 - Flare No. 3 |
| GRP013 | Entire Facility | EQT17 I-a - No. 5 Steam Boiler |



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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Groups:**

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP013 | Entire Facility | EQT18 I-b - No. 6 Steam Boiler |
| GRP013 | Entire Facility | EQT19 II-e - Naphtha Unifiner Charge Heater |
| GRP013 | Entire Facility | EQT20 II-f - Naphtha Unifiner Reboiler Heater |
| GRP013 | Entire Facility | EQT21 II-k - No. 1 Platformer Intermediate Heater |
| GRP013 | Entire Facility | EQT22 II-l - No. 2 Platformer Unit Charge Heater |
| GRP013 | Entire Facility | EQT23 II-s - No. 1 Platformer Unit Charge Heater |
| GRP013 | Entire Facility | EQT24 II-v - No. 3 Crude Unit Heater |
| GRP013 | Entire Facility | EQT25 II-w - PDA Heater |
| GRP013 | Entire Facility | EQT27 III-b-a - Asphalt Solution Furnace No. 1 |
| GRP013 | Entire Facility | EQT28 III-b-b - Asphalt Solution Furnace No. 2 |
| GRP013 | Entire Facility | EQT29 III-c - Extract Furnace - NMP Unit |
| GRP013 | Entire Facility | EQT31 III-f - No. 4 Crude Unit Charge Heater |
| GRP013 | Entire Facility | EQT33 III-h - No. 4 Crude Unit Naphtha Reboiler Heater DT-240 |
| GRP013 | Entire Facility | EQT34 III-l - Lube Oil Hydrofinisher Charge Heater |
| GRP013 | Entire Facility | EQT35 III-m - Lube Oil Hydrofinisher Stripper Feed Heater |
| GRP013 | Entire Facility | EQT36 IV-a - No. 4 Crude Unit Vacuum Heater |
| GRP013 | Entire Facility | EQT37 IV-b - NMP Extraction Unit Solution Heater |
| GRP013 | Entire Facility | EQT38 IV-c - MEK Dewaxing Unit (Wax free) |
| GRP013 | Entire Facility | EQT39 IV-d - MEK Dewaxing Unit (Soft wax) |
| GRP013 | Entire Facility | EQT40 IV-e - Wax Hydrofinisher Unit Wax Furnace |
| GRP013 | Entire Facility | EQT42 IV-g - No. 8 Steam Boiler |
| GRP013 | Entire Facility | EQT43 IV-j - Hydrotreater Hot Oil Heater |
| GRP013 | Entire Facility | EQT44 LAB - Laboratory Equipment and Vents |
| GRP013 | Entire Facility | EQT45 LAB-HEX - Hexane Tank by the Lab |
| GRP013 | Entire Facility | EQT47 T-10 - Fixed Roof Storage Tank T-10 |
| GRP013 | Entire Facility | EQT48 T-100 - Fixed Roof Storage Tank T-100 |
| GRP013 | Entire Facility | EQT50 T-103 - Fixed Roof Storage Tank T-103 |
| GRP013 | Entire Facility | EQT51 T-104 - Fixed Roof Storage Tank T-104 |
| GRP013 | Entire Facility | EQT52 T-105 - Fixed Roof Storage Tank T-105 |
| GRP013 | Entire Facility | EQT53 T-106 - Fixed Roof Storage Tank T-106 |
| GRP013 | Entire Facility | EQT54 T-107 - Fixed Roof Storage Tank T-107 |
| GRP013 | Entire Facility | EQT55 T-108 - Fixed Roof Storage Tank T-108 |
| GRP013 | Entire Facility | EQT56 T-109 - Fixed Roof Storage Tank T-109 |
| GRP013 | Entire Facility | EQT57 T-11 - Fixed Roof Storage Tank T-11 |
| GRP013 | Entire Facility | EQT58 T-110 - Fixed Roof Storage Tank T-110 |
| GRP013 | Entire Facility | EQT59 T-111 - Fixed Roof Storage Tank T-111 |
| GRP013 | Entire Facility | EQT60 T-112 - Fixed Roof Storage Tank T-112 |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

Subject Item Groups:

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP013 | Entire Facility | EQT61 T-113 - Fixed Roof Storage Tank T-113 |
| GRP013 | Entire Facility | EQT62 T-114 - Fixed Roof Storage Tank T-114 |
| GRP013 | Entire Facility | EQT63 T-115 - Fixed Roof Storage Tank T-115 |
| GRP013 | Entire Facility | EQT64 T-116 - Fixed Roof Storage Tank T-116 |
| GRP013 | Entire Facility | EQT65 T-117 - Fixed Roof Storage Tank T-117 |
| GRP013 | Entire Facility | EQT66 T-12 - Fixed Roof Storage Tank T-12 |
| GRP013 | Entire Facility | EQT195 V-b - Hydrotreater Charge Heater |
| GRP013 | Entire Facility | EQT196 V-c - Hydrotreater Atmospheric Distillation Heater |
| GRP013 | Entire Facility | EQT197 V-d - Hydrotreater Vacuum Distillation Heater |
| GRP013 | Entire Facility | EQT198 V-e-a - Hydrogen Reformer A Heater |
| GRP013 | Entire Facility | EQT199 V-e-b - Hydrogen Reformer B Heater |
| GRP013 | Entire Facility | EQT202 V-g - Main Refinery Flare (No. 2 Flare) |
| GRP013 | Entire Facility | EQT204 V-i-b - DDD Reactor Charge Heater (H-1) |
| GRP013 | Entire Facility | EQT67 T-13 - Fixed Roof Storage Tank T-13 |
| GRP013 | Entire Facility | EQT206 V-i-d - DDD Fractionator Reboiler (H-3) |
| GRP013 | Entire Facility | EQT207 V-i-e - DDD Vacuum Charge Heater (H-4) |
| GRP013 | Entire Facility | EQT208 VI-f - Company Refueling Station |
| GRP013 | Entire Facility | EQT209 VII-a - Tank 85 Heaters (3) |
| GRP013 | Entire Facility | EQT210 VII-c - Tank 92 Heater (5) |
| GRP013 | Entire Facility | EQT211 VII-d - Tank 93 Heaters (3) |
| GRP013 | Entire Facility | EQT212 VII-e - Tank 109 Heater |
| GRP013 | Entire Facility | EQT213 VS3001 - Sulfite Oxidation Tower |
| GRP013 | Entire Facility | EQT86 T-153 - Fixed Roof Storage Tank T-153 |
| GRP013 | Entire Facility | EQT85 T-152 - Fixed Roof Storage Tank T-152 |
| GRP013 | Entire Facility | EQT84 T-151 - Fixed Roof Storage Tank T-151 |
| GRP013 | Entire Facility | EQT83 T-150 - Fixed Roof Storage Tank T-150 |
| GRP013 | Entire Facility | EQT82 T-15 - Fixed Roof Storage Tank T-15 |
| GRP013 | Entire Facility | EQT81 T-149 - Internal Floating Roof Storage Tank T-149 |
| GRP013 | Entire Facility | EQT80 T-148 - Fixed Roof Storage Tank T-148 |
| GRP013 | Entire Facility | EQT79 T-147 - Internal Floating Roof Storage Tank T-147 |
| GRP013 | Entire Facility | EQT78 T-146 - Fixed Roof Storage Tank T-146 |
| GRP013 | Entire Facility | EQT103 T-169 - Fixed Roof Storage Tank T-169 |
| GRP013 | Entire Facility | EQT102 T-168 - Fixed Roof Storage Tank T-168 |
| GRP013 | Entire Facility | EQT101 T-167 - Fixed Roof Storage Tank T-167 |
| GRP013 | Entire Facility | EQT100 T-166 - Fixed Roof Storage Tank T-166 |
| GRP013 | Entire Facility | EQT99 T-165 - Fixed Roof Storage Tank T-165 |
| GRP013 | Entire Facility | EQT98 T-164 - Fixed Roof Storage Tank T-164 |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Groups:**

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP013 | Entire Facility | EQT97 T-163 - Fixed Roof Storage Tank T-163 |
| GRP013 | Entire Facility | EQT96 T-162 - Fixed Roof Storage Tank T-162 |
| GRP013 | Entire Facility | EQT95 T-161 - Fixed Roof Storage Tank T-161 |
| GRP013 | Entire Facility | EQT120 T-186 - Fixed Roof Storage Tank T-186 |
| GRP013 | Entire Facility | EQT119 T-185 - Fixed Roof Storage Tank T-185 |
| GRP013 | Entire Facility | EQT118 T-184 - Fixed Roof Storage Tank T-184 |
| GRP013 | Entire Facility | EQT117 T-183 - Fixed Roof Storage Tank T-183 |
| GRP013 | Entire Facility | EQT116 T-182 - Internal Floating Roof Storage Tank T-182 |
| GRP013 | Entire Facility | EQT115 T-181 - Fixed Roof Storage Tank T-181 |
| GRP013 | Entire Facility | EQT114 T-180 - Fixed Roof Storage Tank T-180 |
| GRP013 | Entire Facility | EQT113 T-179 - Fixed Roof Storage Tank T-179 |
| GRP013 | Entire Facility | EQT112 T-178 - Fixed Roof Storage Tank T-178 |
| GRP013 | Entire Facility | EQT194 TZ1001 - Air Blower/Seal Oil Tank |
| GRP013 | Entire Facility | EQT192 TC5001 - Wet Gas Compressor Lube/Seal Oil Tank |
| GRP013 | Entire Facility | EQT191 TC4001 - Refrigeration Compressor Lube/Seal Oil Tank |
| GRP013 | Entire Facility | EQT190 T-99 - Fixed Roof Storage Tank T-99 |
| GRP013 | Entire Facility | EQT189 T-98 - Fixed Roof Storage Tank T-98 |
| GRP013 | Entire Facility | EQT188 T-97 - Fixed Roof Storage Tank T-97 |
| GRP013 | Entire Facility | EQT187 T-96 - Fixed Roof Storage Tank T-96 |
| GRP013 | Entire Facility | EQT186 T-95 - Fixed Roof Storage Tank T-95 |
| GRP013 | Entire Facility | EQT185 T-94 - Fixed Roof Storage Tank T-94 |
| GRP013 | Entire Facility | EQT184 T-93 - Fixed Roof Storage Tank T-93 |
| GRP013 | Entire Facility | EQT183 T-92 - Fixed Roof Storage Tank T-92 |
| GRP013 | Entire Facility | EQT182 T-89 - Fixed Roof Storage Tank T-89 |
| GRP013 | Entire Facility | EQT181 T-87 - Fixed Roof Storage Tank T-87 |
| GRP013 | Entire Facility | EQT180 T-86 - Fixed Roof Storage Tank T-86 |
| GRP013 | Entire Facility | EQT178 T-84 - Fixed Roof Storage Tank T-84 |
| GRP013 | Entire Facility | EQT177 T-83 - Fixed Roof Storage Tank T-83 |
| GRP013 | Entire Facility | EQT176 T-82 - Fixed Roof Storage Tank T-82 |
| GRP013 | Entire Facility | EQT175 T-81 - Internal Floating Roof Storage Tank T-81 |
| GRP013 | Entire Facility | EQT172 T-77 - External Floating Roof Storage Tank T-77 |
| GRP013 | Entire Facility | EQT171 T-76 - External Floating Roof Storage Tank T-76 |
| GRP013 | Entire Facility | EQT170 T-75 - External Floating Roof Storage Tank T-75 |
| GRP013 | Entire Facility | EQT169 T-74 - External Floating Roof Storage Tank T-74 |
| GRP013 | Entire Facility | EQT168 T-73 - Fixed Roof Storage Tank T-73 |
| GRP013 | Entire Facility | EQT167 T-72 - Fixed Roof Storage Tank T-72 |
| GRP013 | Entire Facility | EQT166 T-71 - Fixed Roof Storage Tank T-71 |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

Subject Item Groups:

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP013 | Entire Facility | EQT165 T-69 - Internal Floating Roof Storage Tank T-69 |
| GRP013 | Entire Facility | EQT164 T-68 - External Floating Roof Storage Tank T-68 |
| GRP013 | Entire Facility | EQT163 T-67 - External Floating Roof Storage Tank T-67 |
| GRP013 | Entire Facility | EQT162 T-65 - Internal Floating Roof Storage Tank T-65 |
| GRP013 | Entire Facility | EQT161 T-64 - Fixed Roof Storage Tank T-64 |
| GRP013 | Entire Facility | EQT160 T-63 - Fixed Roof Storage Tank T-63 |
| GRP013 | Entire Facility | EQT159 T-62 - Fixed Roof Storage Tank T-62 |
| GRP013 | Entire Facility | EQT158 T-61 - External Floating Roof Storage Tank T-61 |
| GRP013 | Entire Facility | EQT157 T-60 - External Floating Roof Storage Tank T-60 |
| GRP013 | Entire Facility | EQT156 T-59 - Fixed Roof Storage Tank T-59 |
| GRP013 | Entire Facility | EQT155 T-58 - External Floating Roof Storage Tank T-58 |
| GRP013 | Entire Facility | EQT154 T-57 - External Floating Roof Storage Tank T-57 |
| GRP013 | Entire Facility | EQT153 T-56 - External Floating Roof Storage Tank T-56 |
| GRP013 | Entire Facility | EQT152 T-55 - External Floating Roof Storage Tank T-55 |
| GRP013 | Entire Facility | EQT151 T-54 - Internal Floating Roof Storage Tank T-54 |
| GRP013 | Entire Facility | EQT150 T-53 - External Floating Roof Storage Tank T-53 |
| GRP013 | Entire Facility | EQT149 T-52 - Fixed Roof Storage Tank T-52 |
| GRP013 | Entire Facility | EQT147 T-504 - Fixed Roof Storage Tank T-504 |
| GRP013 | Entire Facility | EQT146 T-503 - Fixed Roof Storage Tank T-503 |
| GRP013 | Entire Facility | EQT145 T-50 - Internal Floating Roof Storage Tank T-50 |
| GRP013 | Entire Facility | EQT144 T-49 - Internal Floating Roof Storage Tank T-49 |
| GRP013 | Entire Facility | EQT143 T-48 - Fixed Roof Storage Tank T-48 |
| GRP013 | Entire Facility | EQT142 T-47 - Fixed Roof Storage Tank T-47 |
| GRP013 | Entire Facility | EQT141 T-46 - Internal Floating Roof Storage Tank T-46 |
| GRP013 | Entire Facility | EQT140 T-45 - Fixed Roof Storage Tank T-45 |
| GRP013 | Entire Facility | EQT139 T-44 - Internal Floating Roof Storage Tank T-44 |
| GRP013 | Entire Facility | EQT138 T-43 - Internal Floating Roof Storage Tank T-43 |
| GRP013 | Entire Facility | EQT136 T-39 - Fixed Roof Storage Tank T-39 |
| GRP013 | Entire Facility | EQT134 T-32 - Internal Floating Roof Storage Tank T-32 |
| GRP013 | Entire Facility | EQT133 T-301 - Fixed Roof Storage Tank T-301 |
| GRP013 | Entire Facility | EQT132 T-30 - Internal Floating Roof Tank T-30 |
| GRP013 | Entire Facility | EQT131 T-29 - Internal Floating Roof Storage Tank T-29 |
| GRP013 | Entire Facility | EQT130 T-27 - External Floating Roof Storage Tank T-27 |
| GRP013 | Entire Facility | EQT129 T-26 - External Floating Roof Storage Tank T-26 |
| GRP013 | Entire Facility | EQT123 T-199 - Fixed Roof Storage Tank T-199 |
| GRP013 | Entire Facility | EQT122 T-188 - Bypass Aeration Tank |
| GRP013 | Entire Facility | EQT121 T-187 - Fixed Roof Storage Tank T-187 |



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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Groups:**

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP013 | Entire Facility | EQT111 T-177 - Fixed Roof Storage Tank T-177 |
| GRP013 | Entire Facility | EQT110 T-176 - Fixed Roof Storage Tank T-176 |
| GRP013 | Entire Facility | EQT109 T-175 - External Floating Roof Storage Tank T-175 |
| GRP013 | Entire Facility | EQT108 T-174 - Fixed Roof Storage Tank T-174 |
| GRP013 | Entire Facility | EQT107 T-173 - Fixed Roof Storage Tank T-173 |
| GRP013 | Entire Facility | EQT106 T-172 - Fixed Roof Storage Tank T-172 |
| GRP013 | Entire Facility | EQT105 T-171 - Fixed Roof Storage Tank T-171 |
| GRP013 | Entire Facility | EQT104 T-170 - Fixed Roof Storage Tank T-170 |
| GRP013 | Entire Facility | EQT94 T-160 - Fixed Roof Storage Tank T-160 |
| GRP013 | Entire Facility | EQT93 T-16 - Fixed Roof Storage Tank T-16 |
| GRP013 | Entire Facility | EQT92 T-159 - Fixed Roof Storage Tank T-159 |
| GRP013 | Entire Facility | EQT91 T-158 - Fixed Roof Storage Tank T-158 |
| GRP013 | Entire Facility | EQT90 T-157 - Fixed Roof Storage Tank T-157 |
| GRP013 | Entire Facility | EQT89 T-156 - Fixed Roof Storage Tank T-156 |
| GRP013 | Entire Facility | EQT88 T-155 - Fixed Roof Storage Tank T-155 |
| GRP013 | Entire Facility | EQT87 T-154 - Fixed Roof Storage Tank T-154 |
| GRP013 | Entire Facility | EQT77 T-145 - Fixed Roof Storage Tank T-145 |
| GRP013 | Entire Facility | EQT76 T-144 - Fixed Roof Storage Tank T-144 |
| GRP013 | Entire Facility | EQT75 T-143 - Fixed Roof Storage Tank T-143 |
| GRP013 | Entire Facility | EQT74 T-142 - Fixed Roof Storage Tank T-142 |
| GRP013 | Entire Facility | EQT73 T-141 - Fixed Roof Storage Tank T-141 |
| GRP013 | Entire Facility | EQT72 T-140 - Fixed Roof Storage Tank T-140 |
| GRP013 | Entire Facility | EQT71 T-14 - Fixed Roof Storage Tank T-14 |
| GRP013 | Entire Facility | EQT69 T-1308 - Fixed Roof Storage Tank T-1308 |
| GRP013 | Entire Facility | EQT214 WWCC0001 - Process Sewer Drum |
| GRP013 | Entire Facility | EQT215 WWCC2002 - API Oil Water Separator |
| GRP013 | Entire Facility | EQT216 WWCC2006 - RCCU Flow Splitter and Stormwater Sumps |
| GRP013 | Entire Facility | EQT217 WWCC2010 - Oily Sludge Dewatering System/Slop Oil Tank |
| GRP013 | Entire Facility | EQT218 WWCC208 - East Sump Separator |
| GRP013 | Entire Facility | EQT219 WWCC3001A - Acid Tank Vapor Scrubber-A / Canister |
| GRP013 | Entire Facility | EQT220 WWCC3001B - Acid Tank Vapor Scrubber-B / Canister |
| GRP013 | Entire Facility | EQT221 WWCCA003 - Amine Mixing Sump |
| GRP013 | Entire Facility | EQT222 WWCCESEP - East Separator |
| GRP013 | Entire Facility | EQT223 WWCCNSEP - North Separator |
| GRP013 | Entire Facility | EQT224 WWCCWSEP - West Separator |
| GRP013 | Entire Facility | EQT225 WWS2005 - RCCU Effluent Sump |
| GRP013 | Entire Facility | EQT226 WWS2008 - SRU Effluent Sump |





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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Subject Item Groups:**

| ID | Description | Included Components (from Above) |
|---|---|---|
| GRP013 | Entire Facility | EQT227 WWS2009 - SRU Flow Splitter and Stormwater Sumps |
| GRP013 | Entire Facility | EQT228 WWS2011 - WWTP Area Drain Sump |
| GRP013 | Entire Facility | EQT229 WWS3001 - Neutralization Sump |
| GRP013 | Entire Facility | EQT230 WWTAT - Third Wastewater Aeration Tank |
| GRP013 | Entire Facility | EQT231 Belco Wet Gas Scrubber (SO2) |
| GRP013 | Entire Facility | EQT232 VII-f - Diesel Hydrotreater 92-H-100 Recharge Heater |
| GRP013 | Entire Facility | EQT233 VII-g - Diesel Hydrotreater 92-H-101 Recharge Heater |
| GRP013 | Entire Facility | EQT234 VII-h - Sour Crude Heater 93-H-200 |
| GRP013 | Entire Facility | EQT235 VII-i - No. 1 Platform Heater - 2006 |
| GRP013 | Entire Facility | EQT236 VII-j - No. 2 Platform Heater - 2006 |
| GRP013 | Entire Facility | EQT237 VII-k - No. 2 Platform Heater - 2006 |
| GRP013 | Entire Facility | EQT238 VII-l - Hydrogen Plant Heater -2006 |
| GRP013 | Entire Facility | EQT239 VII-m - Sour Crude Vacuum Heater 37-N-1 |
| GRP013 | Entire Facility | EQT240 VII-n - Crude Unit Prefract. Charge Heater - 2006 |
| GRP013 | Entire Facility | EQT241 IV-n: No. 9 Steam Boiler |
| GRP013 | Entire Facility | EQT242 T-2001: Diversion Tank - Wastewater |
| GRP013 | Entire Facility | EQT243 T-201: Sour Water Tank |
| GRP013 | Entire Facility | EQT244 T-79: Water Equalization Tank |
| GRP013 | Entire Facility | EQT245 T-3001: Fixed Roof Tank |
| GRP013 | Entire Facility | EQT246 T-2009: Fixed Roof Tank |
| GRP013 | Entire Facility | EQT247 T-202: Fixed Roof Tank |
| GRP013 | Entire Facility | FUG2 FU-VOC - Fugitive Emissions from components |
| GRP013 | Entire Facility | GRP2 ADDITIVE CAP - Additives Cap |
| GRP013 | Entire Facility | GRP3 BOILER CAP - Boiler CAP |
| GRP013 | Entire Facility | GRP8 HEAVY OIL CAP - Heavy Oil Cap |
| GRP013 | Entire Facility | GRP10 RECYCLE CAP - Refinery Recycle Cap |
| GRP013 | Entire Facility | GRP11 SOLVENT CAP - Solvent Cap |
| GRP013 | Entire Facility | GRP12 WAX CAP - Wax Cap |
| GRP013 | Entire Facility | TRT2 VI-ia - West Truck Dock Thermal Oxidizer (John Zink G-ZTOF-7200-2) |
| GRP013 | Entire Facility | TRT3 TO2006: Belco Thermal Oxidizer |

**Relationships:**

| Subject Item | Relationship | Subject Item |
|---|---|---|
| EQT248 SRU: Sulfur Recovery Unit | Vents to | TRT3 TO2006: Belco Thermal Oxidizer |
| TRT3 TO2006: Belco Thermal Oxidizer | Vents to | EQT231 Belco Wet Gas Scrubber (SO2) |



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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Stack Information:**

| ID | | Velocity (ft/sec) | Flow Rate (cubic ft/min-actual) | Diameter (feet) | Discharge Area (square feet) | Height (feet) | Temperature (oF) |
|---|---|---|---|---|---|---|---|
| EQT008 | B2001 - CO Boiler/WGS Stack | 130 | 80079 | 3.5 | | 200 | 280 |
| EQT012 | DECR - Diesel Engine Used During Catalyst Regeneration | 50 | 10000 | .5 | | 10 | 550 |
| EQT013 | DEFWT - Diesel Engine at 10,000 Bbl. Firewater Tank | 50 | 10000 | .5 | | 10 | 550 |
| EQT015 | DESAC - Diesel Engine for Spare Air Compressors | 50 | 10000 | .5 | | 10 | 550 |
| EQT016 | FL2001 - Flare No. 3 | | | 4 | | 200 | 100 |
| EQT017 | I-a - No. 5 Steam Boiler | 59.8 | 70450 | 5 | | 40 | 570 |
| EQT018 | I-b - No. 6 Steam Boiler | 59.8 | 70450 | 5 | | 40 | 570 |
| EQT019 | II-e - Naphtha Unifiner Charge Heater | 28.9 | 10000 | 2.71 | | 88 | 630 |
| EQT020 | II-f - Naphtha Unifiner Reboiler Heater | 13.4 | 4637 | 2.71 | | 85.6 | 495 |
| EQT021 | II-k - No. 1 Platformer Intermediate Heater | 18.1 | 13657 | 4 | | 97 | 510 |
| EQT022 | II-l - No. 2 Platformer Unit Charge Heater | 22.6 | 21534 | 4.5 | | 50.5 | 700 |
| EQT023 | II-s - No. 1 Platformer Unit Charge Heater | 16.7 | 17473 | 4.71 | | 80 | 850 |
| EQT024 | II-v - No. 3 Crude Unit Heater | 15.9 | 3003 | 2 | | 52 | 505 |
| EQT027 | III-b-a - Asphalt Solution Furnace No. 1 | 6.72 | 1980 | 2.5 | | 45 | 1000 |
| EQT028 | III-b-b - Asphalt Solution Furnace No. 2 | | 490 | .3 | | 24 | 1000 |
| EQT029 | III-c - Extract Furnace - NMP Unit | 34.3 | 12208 | 2.75 | | 81 | 1000 |
| EQT031 | III-f - No. 4 Crude Unit Charge Heater | 28.5 | 48294 | 6 | | 117 | 760 |
| EQT033 | III-h - No. 4 Crude Unit Naphtha Reboiler Heater DT-240 | 10.1 | 3613 | 2.75 | | 33 | 575 |
| EQT034 | III-I - Lube Oil Hydrofinisher Charge Heater | 6.1 | 3673 | 3.58 | | 45 | 630 |
| EQT035 | III-m - Lube Oil Hydrofinisher Stripper Feed Heater | 10 | 2956 | 2.5 | | 80 | 485 |
| EQT036 | IV-a - No. 4 Crude Unit Vacuum Heater | 17.2 | 16403 | 4.5 | | 75 | 540 |
| EQT037 | IV-b - NMP Extraction Unit Solution Heater | 14.2 | 7060 | 3.25 | | 75 | 590 |
| EQT038 | IV-c - MEK Dewaxing Unit (Wax free) | 11.8 | 11270 | 4.5 | | 75 | 530 |
| EQT039 | IV-d - MEK Dewaxing Unit (Soft wax) | 9.7 | 8223 | 4.25 | | 75 | 535 |
| EQT040 | IV-e - Wax Hydrofinisher Unit Wax Furnace | 63.4 | 747 | .5 | | 55 | 635 |
| EQT042 | IV-g - No. 8 Steam Boiler | 26.6 | 15359 | 3.5 | | 75 | 430 |
| EQT123 | T-199 - Fixed Roof Storage Tank T-199 | | | .5 | | 40 | |
| EQT131 | T-29 - Internal Floating Roof Storage Tank T-29 | | | .35 | | 30 | |
| EQT153 | T-56 - External Floating Roof Storage Tank T-56 | | | .67 | | 40 | |
| EQT195 | V-b - Hydrotreater Charge Heater | 23.7 | 5252 | 2.17 | | 115 | 700 |
| EQT196 | V-c - Hydrotreater Atmospheric Distillation Heater | 24.3 | 9157 | 2.83 | | 115 | 700 |
| EQT197 | V-d - Hydrotreater Vacuum Distillation Heater | 21 | 3642 | 1.92 | | 115 | 700 |
| EQT198 | V-e-a - Hydrogen Reformer A Heater | 86.9 | 36192 | 4.42 | | 115 | 700 |
| EQT199 | V-e-b - Hydrogen Reformer B Heater | 86.9 | 36192 | 4.42 | | 115 | 700 |
| EQT202 | V-g - Main Refinery Flare (No. 2 Flare) | 94 | 17720 | 2 | | 198 | 1000 |
| EQT204 | V-i-b - DDD Reactor Charge Heater (H-1) | 11.3 | 11107 | 4.58 | | 45 | 500 |
| EQT206 | V-i-d - DDD Fractionator Reboiler (H-3) | 11.3 | 3337 | 2.5 | | 38 | 820 |
| EQT207 | V-i-e - DDD Vacuum Charge Heater (H-4) | 32.4 | 12645 | 2.88 | | 84.3 | 550 |
| EQT209 | VII-a - Tank 85 Heaters (3) | 31.8 | 1034 | .83 | | 54 | 600 |
| EQT210 | VII-c - Tank 92 Heater (5) | 31.9 | 1034 | .83 | | 48 | 600 |
| EQT211 | VII-d - Tank 93 Heaters (3) | 31.9 | 1034 | .83 | | 46 | 600 |
| EQT213 | VS3001 - Sulfite Oxidation Tower | 52 | 1191 | 7 | | 40 | 130 |



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# INVENTORIES

## AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
## Activity Number: PER20060004
## Permit Number: 0500-00005-V1
## Air - Title V Regular Permit Minor Mod

**Stack Information:**

| ID | | Velocity (ft/sec) | Flow Rate (cubic ft/min-actual) | Diameter (feet) | Discharge Area (square feet) | Height (feet) | Temperature (oF) |
|---|---|---|---|---|---|---|---|
| EQT232 | VII-f - Diesel Hydrotreater 92-H-100 Recharge Heater | 20.13 | 15180 | 4 | | 120 | 770 |
| EQT233 | VII-g - Diesel Hydrotreater 92-H-101 Recharge Heater | 18.47 | 13923 | 4 | | 182 | 720 |
| EQT234 | VII-h - Sour Crude Heater 93-H-200 | 29.24 | 22043 | 4 | | 182 | 520 |
| EQT235 | VII-i - No. 1 Platform Heater - 2006 | | 2954 | 2 | | 40 | 1310 |
| EQT236 | VII-j - No. 2 Platform Heater - 2006 | 15.67 | 2954 | 2 | | 40 | 1310 |
| EQT237 | VII-k - No. 2 Platform Heater - 2006 | 20.8 | 3913 | 2 | | 74 | 669 |
| EQT238 | VII-l - Hydrogen Plant Heater -2006 | 29.23 | 22043 | 4 | | 182 | 520 |
| EQT239 | VII-m - Sour Crude Vacuum Heater 37-N-1 | 30.9 | 14619 | 3.2 | | 125 | 560 |
| EQT240 | VII-n - Crude Unit Prefract. Charge Heater - 2006 | 12.7 | 12096 | 4.5 | | 64 | 580 |
| EQT241 | IV-n: No. 9 Steam Boiler | 26.6 | 15359 | 3.5 | | 75 | 430 |
| EQT242 | T-2001: Diversion Tank - Wastewater | | | 1 | | 20 | |
| EQT243 | T-201: Sour Water Tank | | | 1 | | 25 | |
| EQT244 | T-79: Water Equalizalion Tank | | | 1 | | 35 | |
| EQT245 | T-3001: Fixed Roof Tank | | | .35 | | 25 | |
| EQT246 | T-2009: Fixed Roof Tank | | | .3 | | 15 | |
| EQT247 | T-202: Fixed Roof Tank | | | .3 | | 20 | |
| TRT002 | VI-ia - West Truck Dock Thermal Oxidizer (John Zink G-ZTOF-7200-2) | 35.4 | 106827 | 8 | | 45 | 1800 |
| TRT003 | TO2006: Belco Thermal Oxidizer | | | | | | 1000 |

**Fee Information:**

| Subj Item Id | Multiplier | Units Of Measure | Fee Desc |
|---|---|---|---|
| GRP013 | 65 | 1,000 BBL/Day | 0720 - Petroleum Refining (Rated Capacity) |



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# SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## ARE005 FUG-Roads - Road Emissions

1 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

## EQT008 B2001 - CO Boiler/WGS Stack

2 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

3 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

4 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

5 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

6 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

7 pH recordkeeping by electronic or hard copy once every four hours. [LAC 33:III.501.C.6]

8 Submit report: Due annually, by the 31st of March for the preceding calendar year. List the hours that the scrubber operated out of the ranges specified. Submit report to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

9 Flow rate >= 5700 gallons/min. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

10 Flow rate monitored by flow rate monitoring device continuously. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

11 pH monitored by pH instrument continuously. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

12 Flow rate recordkeeping by electronic or hard copy continuously. [LAC 33:III.501.C.6]

13 The Wet Gas Scrubber shall maintain a PM10 Removal Efficiency of 82%. [LAC 33:III.501.C.6]

14 Maintain pH Range 6 - 9 s.u. [LAC 33:III.501.C.6]

15 Nitrogen oxides <= 0.1 lb/MMBTU (43 ng/J) heat input (expressed as NO2). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db. [40 CFR 60.44b]
Which Months: All Year Statistical Basis: Thirty-day rolling average

16 Nitrogen oxides monitored by CMS continuously. Calculate nitrogen oxides emission rates as specified in 40 CFR 60.48b(d). Subpart Db. [40 CFR 60.48b(b)(1)]
Which Months: All Year Statistical Basis: One-hour average

17 NOx CEMS performance evaluation data reported to meet the requirements of 40 CFR 60.49b shall not include data substituted using the missing data procedures in 40 CFR 75 Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR 75. Subpart Db. [40 CFR 60.48b(b)(2)]

18 Follow the procedures under 40 CFR 60.13 and 40 CFR 60.48b(e)(1) through (e)(3) for installation, evaluation, and operation of the NOx and opacity continuous monitoring systems. Subpart Db. [40 CFR 60.48b(e)]

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT008 B2001 - CO Boiler/WGS Stack

19 When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, obtain emission data by using standby monitoring systems, 40 CFR 60, Appendix A, Method 7, Method 7a, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. Subpart Db. [40 CFR 60.48b(f)]

20 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]

21 Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]

22 Submit reports containing the nitrogen dioxide emission rate information recorded under 40 CFR 60.49b(g). Subpart Db. [40 CFR 60.49b(i)]

23 Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]

24 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT009 CTLUB - Lubes Cooling Tower

25 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

### EQT010 CTMAR - Marly Cooling Tower

26 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

### EQT011 CTUDX - Udex Cooling Tower

27 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

### EQT012 DECR - Diesel Engine Used During Catalyst Regeneration

28 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

29 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

30 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

31 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

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## EQT012 DECR - Diesel Engine Used During Catalyst Regeneration

32 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT013 DEFWT - Diesel Engine at 10,000 Bbl. Firewater Tank

33 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

34 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

35 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

36 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

37 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT015 DESAC - Diesel Engine for Spare Air Compressors

38 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

39 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

40 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

41 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

42 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT016 FL2001 - Flare No. 3

43 Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. [LAC 33:III.1105]
Which Months: All Year Statistical Basis: None specified

**EQT016** FL2001 - Flare No. 3

44 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

45 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

46 Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

47 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

48 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

49 Submit report: Due annually, by the 31st of March, in accordance with LAC 33:III.918. Report data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. [LAC 33:III.1513]

50 Flare gas: Heat content > 300 BTU/scf, to ensure destruction of emissions to the flare stack. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

51 Flare gas: Heat content monitored by gas analysis annually, to insure the heat content is above 300 BTU/scf. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

52 Flare gas: Heat content recordkeeping by electronic or hard copy annually. [LAC 33:III.501.C.6]

53 Presence of a flame monitored by heat sensing device continuously. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

54 Presence of a flame recordkeeping by electronic or hard copy continuously. [LAC 33:III.501.C.6]

55 Presence of a flame recordkeeping by electronic or hard copy daily. [LAC 33:III.501.C.6]

56 Develop a corrective action plan for re-lighting the flare. Plan must be kept readily available for immediate implementation in the event the flare needs to be re-lit. [LAC 33:III.501.C.6]

57 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

58 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

59 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

60 Reduce emissions of organic HAPs using a flare that meets the requirements of 40 CFR 63.11(b). Subpart CC. [40 CFR 63.643(a)(1)]

61 Conduct a compliance determination for visible emissions within 150 days of the compliance date using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions. Subpart CC. [40 CFR 63.645(i)]

**EQT017** I-a - No. 5 Steam Boiler

62 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT017 I-a - No. 5 Steam Boiler

63 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

64 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

65 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

66 Complies with more stringent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

67 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

68 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

69 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

70 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

71 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

72 Nitrogen oxides <= 0.1 lb/MMBTU (43 ng/J) heat input (expressed as NO2). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db. [40 CFR 60.44b]
Which Months: All Year Statistical Basis: Thirty-day rolling average

73 Nitrogen oxides monitored by CMS continuously. Calculate nitrogen oxides emission rates as specified in 40 CFR 60.48b(d). Subpart Db. [40 CFR 60.48b(b)(1)]
Which Months: All Year Statistical Basis: One-hour average

74 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]

75 Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]

76 Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]

77 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT018 I-b - No. 6 Steam Boiler

78 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

79 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT018 I-b - No. 6 Steam Boiler

80 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

81 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

82 Complies with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

83 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

84 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

85 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

86 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

87 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

88 Nitrogen oxides <= 0.1 lb/MMBTU (43 ng/J) heat input (expressed as NO2). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db. [40 CFR 60.44b]
Which Months: All Year Statistical Basis: Thirty-day rolling average

89 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]

90 Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]

91 Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]

92 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT019 II-e - Naphtha Unifiner Charge Heater

93 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

94 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

95 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

96 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
***Air - Title V Regular Permit Minor Mod***

### EQT019 II-e - Naphtha Unifiner Charge Heater

97 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

98 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

99 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

100 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

101 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

102 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

103 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT020 II-f - Naphtha Unifiner Reboiler Heater

104 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

105 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

106 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

107 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

108 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

109 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

110 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

111 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

112 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

113 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

114 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

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## EQT021 II-k - No. 1 Platformer Intermediate Heater

115 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

116 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

117 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

118 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

119 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

120 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

121 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

122 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

123 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

124 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

125 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT022 II-l - No. 2 Platformer Unit Charge Heater

126 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

127 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

128 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

129 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

130 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

131 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

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## EQT022 II-l - No. 2 Platformer Unit Charge Heater

132 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

133 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

134 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

135 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

136 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT023 II-s - No. 1 Platformer Unit Charge Heater

137 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

138 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

139 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

140 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

141 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

142 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

143 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

144 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

145 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

146 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

147 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT024 II-v - No. 3 Crude Unit Heater

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**EQT024 II-v - No. 3 Crude Unit Heater**

148 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

149 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

150 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

151 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

152 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

153 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

154 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

155 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

156 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

157 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

**EQT025 II-w - PDA Heater**

158 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

159 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

160 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

161 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

162 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

**EQT027 III-b-a - Asphalt Solution Furnace No. 1**

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT027 III-b-a - Asphalt Solution Furnace No. 1

163 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

164 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

165 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

166 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

167 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

168 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

169 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

170 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

171 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

172 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

### EQT028 III-b-b - Asphalt Solution Furnace No. 2

173 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

174 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

175 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

176 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

177 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

178 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

# SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## EQT028 III-b-b - Asphalt Solution Furnace No. 2

179 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

180 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

181 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

182 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

## EQT029 III-c - Extract Furnace - NMP Unit

183 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

184 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

185 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

186 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

187 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

188 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

189 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

190 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

191 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

192 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

193 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT031 III-f - No. 4 Crude Unit Charge Heater

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## EQT031 III-f - No. 4 Crude Unit Charge Heater

194 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

195 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

196 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

197 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

198 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

199 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

200 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

201 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

202 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

203 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

204 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT033 III-h - No. 4 Crude Unit Naphtha Reboiler Heater DT-240

205 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

206 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

207 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

208 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

209 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

210 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

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## EQT033 III-h - No. 4 Crude Unit Naphtha Reboiler Heater DT-240

211 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

212 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

213 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

214 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

215 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT034 III-l - Lube Oil Hydrofinisher Charge Heater

216 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

217 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

218 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

219 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

220 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT035 III-m - Lube Oil Hydrofinisher Stripper Feed Heater

221 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

222 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

223 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

224 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

## EQT035 III-m - Lube Oil Hydrofinisher Stripper Feed Heater

225 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT036 IV-a - No. 4 Crude Unit Vacuum Heater

226 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

227 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

228 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

229 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

230 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

231 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

232 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

233 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

234 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

235 *Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]*

236 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT037 IV-b - NMP Extraction Unit Solution Heater

237 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

238 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

239 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT037 IV-b - NMP Extraction Unit Solution Heater

240 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

241 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

242 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

243 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

244 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

245 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

246 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

247 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT038 IV-c - MEK Dewaxing Unit (Wax free)

248 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

249 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

250 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

251 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

252 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

253 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT039 IV-d - MEK Dewaxing Unit (Soft wax)

254 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

255 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

## EQT039 IV-d - MEK Dewaxing Unit (Soft wax)

256 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

257 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

258 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

259 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT040 IV-e - Wax Hydrofinisher Unit Wax Furnace

260 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

261 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

262 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

263 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

264 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT042 IV-g - No. 8 Steam Boiler

265 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

266 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

267 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

268 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

269 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average



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## EQT042 IV-g - No. 8 Steam Boiler

270 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

271 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

272 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

273 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

274 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

275 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT043 IV-j - Hydrotreater Hot Oil Heater

276 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

277 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

278 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

279 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

280 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT045 LAB-HEX - Hexane Tank by the Lab

281 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

282 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

283 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

284 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

## EQT047 T-10 - Fixed Roof Storage Tank T-10

285 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT048 T-100 - Fixed Roof Storage Tank T-100**

286 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

287 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT050 T-103 - Fixed Roof Storage Tank T-103**

288 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT051 T-104 - Fixed Roof Storage Tank T-104**

289 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT052 T-105 - Fixed Roof Storage Tank T-105**

290 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT053 T-106 - Fixed Roof Storage Tank T-106**

291 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT054 T-107 - Fixed Roof Storage Tank T-107**

292 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT055 T-108 - Fixed Roof Storage Tank T-108**

293 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT056 T-109 - Fixed Roof Storage Tank T-109**

294 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

295 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT057 T-11 - Fixed Roof Storage Tank T-11**

296 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT058 T-110 - Fixed Roof Storage Tank T-110**

297 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

298 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]



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**EQT059 T-111 - Fixed Roof Storage Tank T-111**

299 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT060 T-112 - Fixed Roof Storage Tank T-112**

300 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT061 T-113 - Fixed Roof Storage Tank T-113**

301 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

302 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT062 T-114 - Fixed Roof Storage Tank T-114**

303 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

304 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT063 T-115 - Fixed Roof Storage Tank T-115**

305 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

306 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT064 T-116 - Fixed Roof Storage Tank T-116**

307 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

308 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT065 T-117 - Fixed Roof Storage Tank T-117**

309 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

310 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT066 T-12 - Fixed Roof Storage Tank T-12**

311 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT067 T-13 - Fixed Roof Storage Tank T-13**

312 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT069 T-1308 - Fixed Roof Storage Tank T-1308**

313 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT071 T-14 - Fixed Roof Storage Tank T-14**

314 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT072 T-140 - Fixed Roof Storage Tank T-140**

315 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

316 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT073 T-141 - Fixed Roof Storage Tank T-141**

317 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

318 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT074 T-142 - Fixed Roof Storage Tank T-142**

319 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

320 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT075 T-143 - Fixed Roof Storage Tank T-143**

321 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

322 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT076 T-144 - Fixed Roof Storage Tank T-144**

323 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

324 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT077 T-145 - Fixed Roof Storage Tank T-145**

325 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

326 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

327 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]



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## EQT077 T-145 - Fixed Roof Storage Tank T-145

328 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

## EQT078 T-146 - Fixed Roof Storage Tank T-146

329 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

330 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

331 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

332 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

## EQT079 T-147 - Internal Floating Roof Storage Tank T-147

333 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

334 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

335 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

336 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

337 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

338 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

339 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

340 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

341 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

342 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

343 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT080 T-148 - Fixed Roof Storage Tank T-148

344 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

345 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

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## EQT081 T-149 - Internal Floating Roof Storage Tank T-149

346 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

347 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

348 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

349 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

350 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

351 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

352 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

353 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

354 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

355 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

356 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT082 T-15 - Fixed Roof Storage Tank T-15

357 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT083 T-150 - Fixed Roof Storage Tank T-150

358 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

359 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

## EQT084 T-151 - Fixed Roof Storage Tank T-151

360 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

361 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

## EQT085 T-152 - Fixed Roof Storage Tank T-152

362 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT085 T-152 - Fixed Roof Storage Tank T-152**

363 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT086 T-153 - Fixed Roof Storage Tank T-153**

364 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

365 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT087 T-154 - Fixed Roof Storage Tank T-154**

366 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

367 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT088 T-155 - Fixed Roof Storage Tank T-155**

368 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

369 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT089 T-156 - Fixed Roof Storage Tank T-156**

370 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

371 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT090 T-157 - Fixed Roof Storage Tank T-157**

372 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT091 T-158 - Fixed Roof Storage Tank T-158**

373 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT092 T-159 - Fixed Roof Storage Tank T-159**

374 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT093 T-16 - Fixed Roof Storage Tank T-16**

375 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]



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**EQT094 T-160 - Fixed Roof Storage Tank T-160**

376 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT095 T-161 - Fixed Roof Storage Tank T-161**

377 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT096 T-162 - Fixed Roof Storage Tank T-162**

378 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT097 T-163 - Fixed Roof Storage Tank T-163**

379 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT098 T-164 - Fixed Roof Storage Tank T-164**

380 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT099 T-165 - Fixed Roof Storage Tank T-165**

381 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT100 T-166 - Fixed Roof Storage Tank T-166**

382 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT101 T-167 - Fixed Roof Storage Tank T-167**

383 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT102 T-168 - Fixed Roof Storage Tank T-168**

384 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT103 T-169 - Fixed Roof Storage Tank T-169**

385 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT104 T-170 - Fixed Roof Storage Tank T-170**

386 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT105 T-171 - Fixed Roof Storage Tank T-171**

387 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT106 T-172 - Fixed Roof Storage Tank T-172

388 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

### EQT107 T-173 - Fixed Roof Storage Tank T-173

389 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

### EQT108 T-174 - Fixed Roof Storage Tank T-174

390 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

### EQT109 T-175 - External Floating Roof Storage Tank T-175

391 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

392 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

393 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

394 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

395 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

396 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

397 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

398 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

399 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

400 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

401 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

402 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

403 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

## EQT109 T-175 - External Floating Roof Storage Tank T-175

404 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

405 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

406 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

407 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the primary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every 5 years thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Accomplish all primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal as rapidly as possible and replace the secondary seal as soon as possible. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(A)]
Which Months: All Year Statistical Basis: None specified

408 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the secondary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every year thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Subpart Ka. [40 CFR 60.113a(a)(1)(i)(B)]
Which Months: All Year Statistical Basis: None specified

409 Gap measurement(s) recordkeeping by electronic or hard copy upon each occurrence of gap measurement performance. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by 40 CFR 60.113a(a)(1)(ii) and the calculation required by 40 CFR 60.113a(a)(1)(iii). Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(D)]

410 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

411 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

412 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

413 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

414 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

415 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

416 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

417 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT110 T-176 - Fixed Roof Storage Tank T-176

418 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT111 T-177 - Fixed Roof Storage Tank T-177



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**EQT111 T-177 - Fixed Roof Storage Tank T-177**

419 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT112 T-178 - Fixed Roof Storage Tank T-178**

420 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT113 T-179 - Fixed Roof Storage Tank T-179**

421 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT114 T-180 - Fixed Roof Storage Tank T-180**

422 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT115 T-181 - Fixed Roof Storage Tank T-181**

423 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT116 T-182 - Internal Floating Roof Storage Tank T-182**

424 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

425 Equip internal floating roof with a liquid mounted seal consisting of a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. [LAC 33:III.2103.C.1.a]

426 Equip internal floating roof with a mechanical shoe seal (metallic-type shoe seal) consisting of a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. [LAC 33:III.2103.C.1.b]

427 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

428 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

429 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

430 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

431 Equip with a fixed roof and an internal floating type cover having a continuous closure device between the tank wall and the cover edge. The cover is to be floating at all times, (i.e., off the leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the cover is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Each opening in the cover except for automatic bleeder vents and the rim space vents is to provide a projection below the liquid surface. Equip each opening in the cover except for automatic bleeder vents, rim space vents, stub drains and leg sleeves with a cover, seal, or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Close automatic bleeder vents at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Set rim vents to open only when the cover is being floated off the leg supports or at the manufacturer's recommended setting. Subpart Ka. [40 CFR 60.112a(a)(2)]

## EQT116 T-182 - Internal Floating Roof Storage Tank T-182

432 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

433 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

434 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

435 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

436 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

437 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

438 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

439 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT117 T-183 - Fixed Roof Storage Tank T-183

440 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT118 T-184 - Fixed Roof Storage Tank T-184

441 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT119 T-185 - Fixed Roof Storage Tank T-185

442 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT120 T-186 - Fixed Roof Storage Tank T-186

443 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT121 T-187 - Fixed Roof Storage Tank T-187

444 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT122 T-188 - Bypass Aeration Tank

445 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT123 T-199 - Fixed Roof Storage Tank T-199

446 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]



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## EQT129 T-26 - External Floating Roof Storage Tank T-26

447 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

448 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

449 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

450 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

451 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

452 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

453 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

454 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

455 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

456 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

457 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

458 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

459 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

460 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

461 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

462 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

463 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

464 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

465 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

466 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

## EQT129 T-26 - External Floating Roof Storage Tank T-26

467 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

468 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

469 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

470 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT130 T-27 - External Floating Roof Storage Tank T-27

471 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

472 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

473 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

474 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

475 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

476 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

477 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

478 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

479 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

480 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

481 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

482 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

483 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]



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## EQT130 T-27 - External Floating Roof Storage Tank T-27

484 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

485 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

486 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

487 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

488 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

489 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

490 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

491 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

492 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

493 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

494 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT131 T-29 - Internal Floating Roof Storage Tank T-29

495 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

496 Equip internal floating roof with a liquid mounted seal consisting of a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. [LAC 33:III.2103.C.1.a]

497 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]

498 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

499 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

500 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

501 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

502 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

503 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

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## EQT131 T-29 - Internal Floating Roof Storage Tank T-29

504 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

505 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

506 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

507 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT132 T-30 - Internal Floating Roof Tank T-30

508 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT133 T-301 - Fixed Roof Storage Tank T-301

509 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT134 T-32 - Internal Floating Roof Storage Tank T-32

510 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

511 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

512 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

513 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

## EQT136 T-39 - Fixed Roof Storage Tank T-39

514 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT138 T-43 - Internal Floating Roof Storage Tank T-43

515 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

516 Equip internal floating roof with a liquid mounted seal consisting of a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. [LAC 33:III.2103.C.1.a]

517 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]

518 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

## EQT138 T-43 - Internal Floating Roof Storage Tank T-43

519 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

520 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

521 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

522 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

523 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

524 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

525 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

526 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

527 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT139 T-44 - Internal Floating Roof Storage Tank T-44

528 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

529 Equip internal floating roof with a liquid mounted seal consisting of a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. [LAC 33:III.2103.C.1.a]

530 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]

531 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

532 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

533 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

534 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

535 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

536 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

537 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

538 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]



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## EQT139 T-44 - Internal Floating Roof Storage Tank T-44

539 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

540 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT140 T-45 - Fixed Roof Storage Tank T-45

541 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT141 T-46 - Internal Floating Roof Storage Tank T-46

542 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT142 T-47 - Fixed Roof Storage Tank T-47

543 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT143 T-48 - Fixed Roof Storage Tank T-48

544 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT144 T-49 - Internal Floating Roof Storage Tank T-49

545 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

546 Equip internal floating roof with a liquid mounted seal consisting of a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. [LAC 33:III.2103.C.1.a]

547 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]

548 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

549 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

550 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

551 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

552 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

553 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

554 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]



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**EQT144 T-49 - Internal Floating Roof Storage Tank T-49**

555 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

556 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

557 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

**EQT145 T-50 - Internal Floating Roof Storage Tank T-50**

558 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT146 T-503 - Fixed Roof Storage Tank T-503**

559 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT147 T-504 - Fixed Roof Storage Tank T-504**

560 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT149 T-52 - Fixed Roof Storage Tank T-52**

561 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT150 T-53 - External Floating Roof Storage Tank T-53**

562 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

563 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

564 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

565 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

566 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

567 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

568 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

569 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

570 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

## EQT150 T-53 - External Floating Roof Storage Tank T-53

571 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

572 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

573 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

574 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

575 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

576 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

577 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

578 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

579 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

580 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

581 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

582 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

583 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

584 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

585 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in *40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]*

## EQT151 T-54 - Internal Floating Roof Storage Tank T-54

586 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

587 Equip internal floating roof with a liquid mounted seal consisting of a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. [LAC 33:III.2103.C.1.a]

588 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]



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## EQT151 T-54 - Internal Floating Roof Storage Tank T-54

589 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

590 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

591 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

592 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

593 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

594 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

595 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

596 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

597 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

598 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT152 T-55 - External Floating Roof Storage Tank T-55

599 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

600 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

601 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

602 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

603 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

604 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

605 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

606 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

607 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]



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## EQT152 T-55 - External Floating Roof Storage Tank T-55

608 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

609 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

610 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

611 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

612 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

613 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

614 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

615 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

616 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

617 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

618 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

619 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

620 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

621 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

622 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT153 T-56 - External Floating Roof Storage Tank T-56

623 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

624 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

625 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

626 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified



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## EQT153 T-56 - External Floating Roof Storage Tank T-56

627 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

628 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year · Statistical Basis: None specified

629 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

630 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

631 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

632 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

633 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

634 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

635 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

636 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

637 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

638 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

639 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

640 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

641 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

642 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

643 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

644 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT154 T-57 - External Floating Roof Storage Tank T-57



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**EQT154 T-57 - External Floating Roof Storage Tank T-57**

645 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

646 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

647 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

648 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

649 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

650 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

651 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

652 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

653 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

654 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

655 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

656 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

657 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

658 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

659 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

660 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

661 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

662 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

663 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

664 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]



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## EQT154 T-57 - External Floating Roof Storage Tank T-57

665 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

666 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

667 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

668 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT155 T-58 - External Floating Roof Storage Tank T-58

669 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

670 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

671 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

672 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

673 Equip with a floating roof, a vapor recovery system, or their equivalents. Subpart K. [40 CFR 60.112(a)(1)]

674 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

675 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

676 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

677 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

678 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

679 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

680 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

681 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT156 T-59 - Fixed Roof Storage Tank T-59

682 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT157 T-60 - External Floating Roof Storage Tank T-60

683 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

## EQT157 T-60 - External Floating Roof Storage Tank T-60

684 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

685 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

686 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

687 Equip with a floating roof, a vapor recovery system, or their equivalents. Subpart K. [40 CFR 60.112(a)(1)]

688 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

689 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

690 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

691 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

692 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

693 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

694 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

695 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT158 T-61 - External Floating Roof Storage Tank T-61

696 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

697 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

698 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

699 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

700 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

701 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

702 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

703 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified



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## EQT158 T-61 - External Floating Roof Storage Tank T-61

704 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

705 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

706 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

707 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

708 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]

709 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

710 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

711 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

712 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the primary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every 5 years thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Accomplish all primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal as rapidly as possible and replace the secondary seal as soon as possible. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(A)]
Which Months: All Year Statistical Basis: None specified

713 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the secondary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every year thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Subpart Ka. [40 CFR 60.113a(a)(1)(i)(B)]
Which Months: All Year Statistical Basis: None specified

714 Gap measurement(s) recordkeeping by electronic or hard copy upon each occurrence of gap measurement performance. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by 40 CFR 60.113a(a)(1)(ii) and the calculation required by 40 CFR 60.113a(a)(1)(iii). Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(D)]

715 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

716 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

717 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

718 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]



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## EQT158 T-61 - External Floating Roof Storage Tank T-61

719 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

720 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

721 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

722 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT159 T-62 - Fixed Roof Storage Tank T-62

723 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

724 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

## EQT160 T-63 - Fixed Roof Storage Tank T-63

725 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

726 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

## EQT161 T-64 - Fixed Roof Storage Tank T-64

727 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

728 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

## EQT162 T-65 - Internal Floating Roof Storage Tank T-65

729 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

730 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

## EQT163 T-67 - External Floating Roof Storage Tank T-67

731 Equip with a submerged fill pipe and an external floating roof. [LAC 33:III.2103.B]

732 Shall comply with all applicable requirements of 2103.D, External Floating Roof. [LAC 33:III.2103.D]

733 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

734 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

735 Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.51]



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## EQT163 T-67 - External Floating Roof Storage Tank T-67

736 Equip with a floating roof, a vapor recovery system, or their equivalents. Subpart K. [40 CFR 60.112(a)(1)]

737 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

738 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

739 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

740 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

741 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

742 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

743 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

744 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT164 T-68 - External Floating Roof Storage Tank T-68

745 Equip with a submerged fill pipe and an external floating roof. [LAC 33:III.2103.B]

746 Shall comply with all applicable requirements of 2103.D, External Floating Roof. [LAC 33:III.2103.D]

747 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

748 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

749 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

750 Equip with a floating roof, a vapor recovery system, or their equivalents. Subpart K. [40 CFR 60.112(a)(1)]

751 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

752 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

753 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

754 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

755 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

756 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

757 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]



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**EQT164 T-68 - External Floating Roof Storage Tank T-68**

758 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

**EQT165 T-69 - Internal Floating Roof Storage Tank T-69**

759 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT166 T-71 - Fixed Roof Storage Tank T-71**

760 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT167 T-72 - Fixed Roof Storage Tank T-72**

761 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT168 T-73 - Fixed Roof Storage Tank T-73**

762 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT169 T-74 - External Floating Roof Storage Tank T-74**

763 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT170 T-75 - External Floating Roof Storage Tank T-75**

764 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT171 T-76 - External Floating Roof Storage Tank T-76**

765 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

766 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

767 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

768 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

769 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

770 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

771 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

772 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

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## EQT171 T-76 - External Floating Roof Storage Tank T-76

773 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

774 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

775 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

776 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

777 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

778 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.E]

779 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

780 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

781 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

782 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

783 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

784 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]

785 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

786 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

787 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

788 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

## EQT172 T-77 - External Floating Roof Storage Tank T-77

789 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

790 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]

## EQT172 T-77 - External Floating Roof Storage Tank T-77

791 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

792 Seal gap area <= 1 in^2/ft of tank diameter (6.5 cm2/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified

793 Seal gap area <= 10 in^2/ft of tank diameter (65 cm2/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified

794 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

795 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

796 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

797 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]

798 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]

799 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]

800 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]

801 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]

802 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.E]

803 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

804 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

805 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with all applicable requirements of Louisiana Refinery MACT is determined as MACT. [LAC 33:III.5109.A]

806 Comply with the requirements of 40 CFR 63.119 through 63.121, except as provided in 40 CFR 63.646(b) through (l). Subpart CC. [40 CFR 63.646(a)]

807 If a cover or lid is installed on an opening on a floating roof, keep the cover or lid closed except when it must be open for access. Subpart CC. [40 CFR 63.646(f)(1)]

808 Set rim space vents to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. Subpart CC. [40 CFR 63.646(f)(2)]



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**EQT172 T-77 - External Floating Roof Storage Tank T-77**

809 Keep automatic bleeder vents 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. Subpart CC. [40 CFR 63.646(f)(3)]

810 Notify DEQ of the refilling of each Group 1 storage vessel that has been emptied and degassed, in order to afford DEQ the opportunity to have an observer present. Submit notification in writing according to the schedules specified in 40 CFR 63.654(h)(2)(i)(A) through (h)(2)(i)(C). Subpart CC. [40 CFR 63.654(h)(2)(i)]

811 Notify DEQ in writing of any seal gap measurements at least 30 calendar days in advance of any gap measurements required by 40 CFR 63.120(b)(1) or (b)(2) of 40 CFR 63 Subpart G. Subpart CC. [40 CFR 63.654(h)(2)(ii)]

812 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 63.123 of 40 CFR 63 Subpart G, except as specified in 40 CFR 63.654(i)(1)(i) through (i)(1)(iv). Subpart CC. [40 CFR 63.654(i)(1)]

**EQT175 T-81 - Internal Floating Roof Storage Tank T-81**

813 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT176 T-82 - Fixed Roof Storage Tank T-82**

814 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT177 T-83 - Fixed Roof Storage Tank T-83**

815 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT178 T-84 - Fixed Roof Storage Tank T-84**

816 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT180 T-86 - Fixed Roof Storage Tank T-86**

817 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

818 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT181 T-87 - Fixed Roof Storage Tank T-87**

819 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

820 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT182 T-89 - Fixed Roof Storage Tank T-89**

821 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT183 T-92 - Fixed Roof Storage Tank T-92**

**EQT183 T-92 - Fixed Roof Storage Tank T-92**

822 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

**EQT184 T-93 - Fixed Roof Storage Tank T-93**

823 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

824 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT185 T-94 - Fixed Roof Storage Tank T-94**

825 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

826 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT186 T-95 - Fixed Roof Storage Tank T-95**

827 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

828 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT187 T-96 - Fixed Roof Storage Tank T-96**

829 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

830 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT188 T-97 - Fixed Roof Storage Tank T-97**

831 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

832 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT189 T-98 - Fixed Roof Storage Tank T-98**

833 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

834 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

**EQT190 T-99 - Fixed Roof Storage Tank T-99**

835 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]



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## EQT190 T-99 - Fixed Roof Storage Tank T-99

836 Petroleum liquid storage data recordkeeping by electronic or hard copy continuously. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

## EQT191 TC4001 - Refrigeration Compressor Lube/Seal Oil Tank

837 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT192 TC5001 - Wet Gas Compressor Lube/Seal Oil Tank

838 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT194 TZ1001 - Air Blower/Seal Oil Tank

839 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

## EQT195 V-b - Hydrotreater Charge Heater

840 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

841 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

842 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

843 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

844 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

845 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT196 V-c - Hydrotreater Atmospheric Distillation Heater

846 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

847 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

848 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average



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## EQT196 V-c - Hydrotreater Atmospheric Distillation Heater

849 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

850 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

851 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT197 V-d - Hydrotreater Vacuum Distillation Heater

852 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

853 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

854 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

855 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

856 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

## EQT198 V-e-a - Hydrogen Reformer A Heater

857 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

858 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

859 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

860 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

861 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

862 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]



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## EQT199 V-e-b - Hydrogen Reformer B Heater

863 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

864 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

865 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

866 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

867 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

868 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

## EQT202 V-g - Main Refinery Flare (No. 2 Flare)

869 Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. [LAC 33:III.1105]
Which Months: All Year Statistical Basis: None specified

870 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

871 Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

872 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

873 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

874 Submit report: Due annually, by the 31st of March, in accordance with LAC 33:III.918. Report data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. [LAC 33:III.1513]

875 Flare gas: Heat content > 300 BTU/scf, to ensure destruction of emissions to the flare stack. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

876 Flare gas: Heat content monitored by gas analysis annually, to insure the heat content is above 300 BTU/scf. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

877 Flare gas: Heat content recordkeeping by electronic or hard copy annually. [LAC 33:III.501.C.6]

878 Presence of a flame monitored by heat sensing device continuously. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

879 Presence of a flame recordkeeping by electronic or hard copy continuously. [LAC 33:III.501.C.6]

880 Presence of a flame recordkeeping by electronic or hard copy daily. [LAC 33:III.501.C.6]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT202 V-g - Main Refinery Flare (No. 2 Flare)

881 Develop a corrective action plan for re-lighting the flare. Plan must be kept readily available for immediate implementation in the event the flare needs to be re-lit. [LAC 33:III.501.C.6]

882 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

883 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

884 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

885 Reduce emissions of organic HAPs using a flare that meets the requirements of 40 CFR 63.11(b). Subpart CC. [40 CFR 63.643(a)(1)]

886 Conduct a compliance determination for visible emissions within 150 days of the compliance date using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions. Subpart CC. [40 CFR 63.645(i)]

### EQT204 V-i-b - DDD Reactor Charge Heater (H-1)

887 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

888 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

889 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

890 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

891 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

892 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

893 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

894 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

895 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

896 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

897 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT206 V-i-d - DDD Fractionator Reboiler (H-3)

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT206 V-i-d - DDD Fractionator Reboiler (H-3)

898 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

899 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

900 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

901 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

902 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

903 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

904 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

905 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

906 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

907 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

908 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT207 V-i-e - DDD Vacuum Charge Heater (H-4)

909 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

910 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

911 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

912 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

913 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

914 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

## EQT207 V-i-e - DDD Vacuum Charge Heater (H-4)

915 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

916 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

917 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

918 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

## EQT208 VI-f - Company Refueling Station

919 Achieve compliance with LAC 33:III.2132 prior to November 20, 1993. [LAC 33:III.2132.B.4.b]

920 Do not cause or allow the dispensing of motor vehicle fuel at any time unless all fuel dispensing operations are equipped with and utilize a Stage II vapor recovery system certified by CARB on or before March 31, 2001, that is properly installed and operated in accordance with the corresponding CARB executive order. The vapor recovery equipment must also be installed and operated within the guidelines of the National Fire Protection Association (NFPA) 30. The vapor recovery equipment utilized shall be certified by CARB or equivalent certification authority approved by DEQ to attain a minimum of 95 percent gasoline vapor control efficiency. This certified equipment shall have coaxial hoses and shall not contain remote check valves. In addition, only CARB or equivalent approved aftermarket parts and CARB or equivalent approved rebuilt parts shall be used for installation or replacement use. [LAC 33:III.2132.B.5]

921 Submit plan: Due prior to installation of the Stage II Vapor Recovery System. Submit plans for installation of the Stage II Vapor Recovery System, including approved equipment (per LAC 33:III.2132.B.5) and piping, together with the proposed construction schedule. [LAC 33:III.2132.B.6.a]

922 Submit plan: Due prior to installation of the Stage II Vapor Recovery System. Submit plans to test for proper operation of the Stage II equipment in accordance with LAC 33:III.2132.D.1.a or upon major system modification. [LAC 33:III.2132.B.6.b]

923 Submit information: Due prior to installation of the Stage II Vapor Recovery System. Submit the facility name and address, signature of the owner or operator, the CARB or equivalent executive order number of the vapor recovery system to be utilized, and any other pertinent information, in the application for approval form. [LAC 33:III.2132.B.6.c]

924 Ensure that at least one owner/operator/employee from each facility receives training in the following categories: purposes and effects of the Stage II vapor control program; equipment operation and function specific to the facility's system; maintenance schedules and requirements for the facility's equipment; equipment warranties; and equipment manufacturer contacts (names, addresses and telephone numbers) for parts and service. A certificate or other proof of training is required for each person who successfully completes training. Ensure that the required training is completed prior to the initiation of operation of a facility's Stage II Vapor Recovery equipment. [LAC 33:III.2132.C.1]

925 Have the installed vapor recovery equipment tested prior to the start-up of the facility. Testing must be performed by a contractor that is certified with DEQ. [LAC 33:III.2132.D.1]

926 Submit Notification: Due to the Office of Environmental Compliance, Surveillance Division at least five calendar days in advance of the scheduled date of vapor recovery equipment testing. [LAC 33:III.2132.D.1]

927 Demonstrate compliance with the emission specification for Stage II equipment by passing the tests specified in LAC 33:III.2132.D.1.a and b, or equivalent, for vapor balance systems and vacuum assist systems. [LAC 33:III.2132.D.1]

928 Submit test results: Due within 30 days after installation or major system modification of a vapor recovery system. Submit to the Office of Environmental Compliance, Surveillance Division the date of completion of the installation or major system modification of a vapor recovery system and the results of all functional testing requirements. [LAC 33:III.2132.D.3]



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## EQT208 VI-f - Company Refueling Station

929 Post operating instructions conspicuously on the front of each gasoline dispensing pump using a Stage II vapor recovery system. Include a clear description of how to correctly dispense gasoline with the vapor recovery nozzles utilized at the site, a warning that continued attempts at dispensing gasoline after the system indicates that the vehicle tank is full ("topping off") may result in spillage or recirculation of gasoline, and a telephone number established by the department for use by the public to report comments, questions, or problems experienced with the system. [LAC 33:III.2132.E]

930 Maintain the Stage II vapor recovery system in proper operating condition as specified by the manufacturer and free of defects that could impair the effectiveness of the system. [LAC 33:III.2132.F.1]

931 Equipment/operational data monitored by visual inspection/determination daily. Perform daily inspections. [LAC 33:III.2132.F.2]
Which Months: All Year Statistical Basis: None specified

932 Equipment/operational data recordkeeping by electronic or hard copy daily. Record the results of the daily inspections. [LAC 33:III.2132.F.2]

933 Tag any equipment having a defect, as determined through daily visual inspections or other means, as "out of order" and do not use until it has been repaired or replaced. [LAC 33:III.2132.F.3]

934 Do not use any equipment that has been tagged "out of order" by DEQ until it has been repaired or replaced. [LAC 33:III.2132.F.4]

935 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain the records specified in LAC 33:III.2132.G.1 through 7 on the facility premises for at least two years and present them to an authorized representative of DEQ upon request. [LAC 33:III.2132.G]

936 Toluene < 0.001 lb/hr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Hourly average

937 Toluene < 0.001 lb/hr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Hourly maximum

938 Toluene < 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum

## EQT209 VII-a - Tank 85 Heaters (3)

939 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

940 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

941 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

942 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

943 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

944 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

945 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT209 VII-a - Tank 85 Heaters (3)

946 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

947 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

948 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

### EQT210 VII-c - Tank 92 Heater (5)

949 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

950 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

951 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

952 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

953 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

954 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

955 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

956 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

957 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

958 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

959 Subject to only initial notification requirements in 40CFR 63.9(b) per 40 CFR 63.750(b). Subpart DDDDD. [40 CFR 63]

### EQT211 VII-d - Tank 93 Heaters (3)

960 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

961 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

## EQT211 VII-d - Tank 93 Heaters (3)

962 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

963 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

964 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

965 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

966 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

967 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

968 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

969 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

## EQT212 VII-e - Tank 109 Heater

970 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

971 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

972 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

973 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

974 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

975 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

976 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

977 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified



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## EQT212 VII-e - Tank 109 Heater

978 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

979 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

## EQT213 VS3001 - Sulfite Oxidation Tower

980 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

981 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

## EQT214 WWCC0001 - Process Sewer Drum

982 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

## EQT215 WWCC2002 - API Oil Water Separator

983 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

## EQT216 WWCC2006 - RCCU Flow Splitter and Stormwater Sumps

984 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

## EQT217 WWCC2010 - Oily Sludge Dewatering System/Slop Oil Tank

985 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

986 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

## EQT218 WWCC208 - East Sump Separator

987 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

## EQT219 WWCC3001A - Acid Tank Vapor Scrubber-A / Canister

988 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

989 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

990 VOC, Total monitored by the regulation's specified method(s) daily. Monitor VOC breakthrough using a portable VOC detector until the reliable life expectancy of the canister is established. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT219 WWCC3001A - Acid Tank Vapor Scrubber-A / Canister

991 Replace canisters as necessary to maintain a control efficiency of 95% minimum. [LAC 33:III.501.C.6]

992 Equipment/operational data recordkeeping by electronic or hard copy daily. Keep records of the tests to determine carbon canister life, as well as the dates of canister replacement, on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. [LAC 33:III.501.C.6]

### EQT220 WWCC3001B - Acid Tank Vapor Scrubber-B / Canister

993 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

994 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

995 VOC, Total monitored by the regulation's specified method(s) daily. Monitor VOC breakthrough using a portable VOC detector until the reliable life expectancy of the canister is established. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

996 Replace canisters as necessary to maintain a control efficiency of 95% minimum. [LAC 33:III.501.C.6]

997 Equipment/operational data recordkeeping by electronic or hard copy daily. Keep records of the tests to determine carbon canister life, as well as the dates of canister replacement, on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. [LAC 33:III.501.C.6]

### EQT221 WWCCA003 - Amine Mixing Sump

998 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

### EQT222 WWCCESEP - East Separator

999 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

### EQT223 WWCCNSEP - North Separator

1000 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

### EQT224 WWCCWSEP - West Separator

1001 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

### EQT226 WWS2008 - SRU Effluent Sump

1002 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

### EQT227 WWS2009 - SRU Flow Splitter and Stormwater Sumps

1003 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

### EQT229 WWS3001 - Neutralization Sump

1004 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2109.D.2. [LAC 33:III.2109.D.2]

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT230 WWTAT - Third Wastewater Aeration Tank

1005 VOL storage data recordkeeping by electronic or hard copy continuously. Keep records of the type(s) of VOC stored and the length of time stored. [LAC 33:III.2103.I.6]

### EQT231 Belco Wet Gas Scrubber (SO2)

1006 pH monitored by pH instrument once every four hours. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1007 pH recordkeeping by electronic or hard copy once every four hours. [LAC 33:III.501.C.6]

1008 Flow rate monitored by flow rate monitoring device once every four hours. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1009 Flow rate recordkeeping by electronic or hard copy once every four hours. [LAC 33:III.501.C.6]

1010 Submit report: Due annually, by the 31st of March for the preceding calendar year. List the hours that the scrubber operated out of the ranges specified. Submit report to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

1011 Flow rate >= 5800 gallons/min. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1012 Minimum pH is 6.0 and the normal operating range is 7.0-7.5. [LAC 33:III.501.C.6]

### EQT232 VII-f - Diesel Hydrotreater 92-H-100 Recharge Heater

1013 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1014 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1015 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1016 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1017 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

1018 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1019 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1020 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1021 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1022 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

## EQT232 VII-f - Diesel Hydrotreater 92-H-100 Recharge Heater

1023 Comply with 40 CFR 63 Subpart DDDDD by November 12, 2004 or upon startup, whichever is later. Subpart DDDDD. [40 CFR 63.7495(a)]

1024 Carbon monoxide <= 400 ppmv (dry basis) corrected to 3% oxygen. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
Which Months: All Year Statistical Basis: None specified

1025 Be in compliance with the emission limits (including operating limits) and work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7505(a)]

1026 Operate and maintain according to the provisions in 40 CFR 63.6(e)(1)(i) at all times. Subpart DDDDD. [40 CFR 63.7505(b)]

1027 Demonstrate compliance with any applicable emission limit using performance testing. Fuel analysis may be used if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Subpart DDDDD. [40 CFR 63.7505(c)]

1028 Develop a site-specific monitoring plan according to the requirements in 40 CFR 63.7505(d)(1) through (d)(4). Subpart DDDDD. [40 CFR 63.7505(d)]

1029 Develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). Subpart DDDDD. [40 CFR 63.7505(e)]

1030 For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to ¿63.7525(a).

. [40 CFR 63.7510(c)]

1031 Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup. Subpart DDDDD. [40 CFR 63.7510(g)]

1032 Conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis, unless complying with 40 CFR 63.7515(b) through (d). Subpart DDDDD. [40 CFR 63.7515(a)]

1033 Conduct annual performance tests for carbon monoxide according to 40 CFR 63.7520. Subpart DDDDD. [40 CFR 63.7515(e)]

1034 Submit performance test and fuel analysis results: Due within 60 days after the completion of the performance tests or fuel analyses. Verify that the operating limits have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and 40 CFR 63 Subpart DDDDD Table 7, as applicable. Ensure that reports for all subsequent performance tests and fuel analyses include all applicable information required in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7515(g)]

1035 Conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). Subpart DDDDD. [40 CFR 63.7520(a)]

1036 Develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). Subpart DDDDD. [40 CFR 63.7520(a)]

1037 Conduct each performance test according to the requirements in 40 CFR 63 Subpart DDDDD Table 5. Subpart DDDDD. [40 CFR 63.7520(b)]

1038 Conduct each performance test under the specific conditions listed in 40 CFR 63 Subpart DDDDD Tables 5 and 7. Conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals. Demonstrate initial compliance and establish operating limits based on these tests. Conduct more than one performance test if necessary. Subpart DDDDD. [40 CFR 63.7520(d)]

1039 Do not conduct performance tests during periods of startup, shutdown or malfunction. Subpart DDDDD. [40 CFR 63.7520(e)]

1040 Demonstrate initial compliance with each applicable emission limit and work practice standard by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5 and 7; or conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8. Subpart DDDDD. [40 CFR 63.7530(a)]

1041 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart DDDDD Tables 2 through 4 according to the requirements in 40 CFR 63.7520, Table 7, and 40 CFR 63.7530(c)(4), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]



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## EQT232 VII-f - Diesel Hydrotreater 92-H-100 Recharge Heater

1042 Conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to 40 CFR 63.7530(c)(1) through (c)(3), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1043 Monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d). Subpart DDDDD. [40 CFR 63.7535(a)]

1044 Demonstrate continuous compliance with each applicable emission limit, operating limit, and work practice standard in 40 CFR 63 Subpart DDDDD Tables 1 through 4 according to the methods specified in 40 CFR 63 Subpart DDDDD Table 8 and 40 CFR 63.7540(a)(1) through (a)(10). Subpart DDDDD. [40 CFR 63.7540(a)]

1045 Report each instance in which emission limits, operating limits, and work practice standards in 40 CFR 63 Subpart DDDDD Tables 1 through 4 are not met; and each instance during a startup, shutdown or malfunction when emission limits, operating limits, and work practice standards are not met. Report according to the requirements in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7540(b)]

1046 Operate in accordance with the SSMP as required by 40 CFR 63.7505(e) during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7540(c)]

1047 Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (h) by the dates specified, as specified in 40 CFR 63.7545(b) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7545(a)]

1048 Submit notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin, if required to conduct a performance test. Subpart DDDDD. [40 CFR 63.7545(d)]

1049 Submit Report: Due if there is a startup, shutdown or malfunction during the reporting period that is not consistent with the startup, shutdown and malfunction plan, and any applicable emission limitation in the relevant emission standard is exceeded. Submit startup, shutdown and malfunction report within 2 working days by fax or telephone after starting actions inconsistent with the startup, shutdown or malfunction plan; and within 7 working days by letter after the end of the event unless alternate arrangements have been made with DEQ. Include actions taken for the event, and the information specified in 40 CFR 63.10(d)(5)(ii). Subpart DDDDD. [40 CFR 63.7550(a)]

1050 Submit compliance status report: Due semiannually, by the 31st of January and July. Submit the compliance report according to 40 CFR 63.7550(b)(1) through (b)(5). Include the information specified in 40 CFR 63.7550(c) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7550]

1051 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7555]

1052 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]

1053 Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and keep on site for at least 2 years, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560]

## EQT233 VII-g - Diesel Hydrotreater 92-H-101 Recharge Heater

1054 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1055 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1056 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1057 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1058 Control process gas streams by flaring or combustion. [LAC 33:III.1509]



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## EQT233 VII-g - Diesel Hydrotreater 92-H-101 Recharge Heater

1059 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1060 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1061 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1062 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

1063 Comply with 40 CFR 63 Subpart DDDDD by November 12, 2004 or upon startup, whichever is later. Subpart DDDDD. [40 CFR 63.7495(a)]

1064 Carbon monoxide <= 400 ppmv (dry basis) corrected to 3% oxygen. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
Which Months: All Year Statistical Basis: None specified

1065 Be in compliance with the emission limits (including operating limits) and work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7505(a)]

1066 Operate and maintain according to the provisions in 40 CFR 63.6(e)(1)(i) at all times. Subpart DDDDD. [40 CFR 63.7505(b)]

1067 Demonstrate compliance with any applicable emission limit using performance testing. Fuel analysis may be used if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Subpart DDDDD. [40 CFR 63.7505(c)]

1068 Develop a site-specific monitoring plan according to the requirements in 40 CFR 63.7505(d)(1) through (d)(4). Subpart DDDDD. [40 CFR 63.7505(d)]

1069 Develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). Subpart DDDDD. [40 CFR 63.7505(e)]

1070 For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to ¿63.7525(a).

. [40 CFR 63.7510(c)]

1071 Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup. Subpart DDDDD. [40 CFR 63.7510(g)]

1072 Conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis, unless complying with 40 CFR 63.7515(b) through (d). Subpart DDDDD. [40 CFR 63.7515(a)]

1073 Conduct annual performance tests for carbon monoxide according to 40 CFR 63.7520. Subpart DDDDD. [40 CFR 63.7515(e)]

1074 Submit performance test and fuel analysis results: Due within 60 days after the completion of the performance tests or fuel analyses. Verify that the operating limits have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and 40 CFR 63 Subpart DDDDD Table 7, as applicable. Ensure that reports for all subsequent performance tests and fuel analyses include all applicable information required in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7515(g)]

1075 Conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). Subpart DDDDD. [40 CFR 63.7520(a)]

1076 Develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). Subpart DDDDD. [40 CFR 63.7520(a)]

1077 Conduct each performance test according to the requirements in 40 CFR 63 Subpart DDDDD Table 5. Subpart DDDDD. [40 CFR 63.7520(b)]

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## EQT233 VII-g - Diesel Hydrotreater 92-H-101 Recharge Heater

1078 Conduct each performance test under the specific conditions listed in 40 CFR 63 Subpart DDDDD Tables 5 and 7. Conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals. Demonstrate initial compliance and establish operating limits based on these tests. Conduct more than one performance test if necessary. Subpart DDDDD. [40 CFR 63.7520(d)]

1079 Do not conduct performance tests during periods of startup, shutdown or malfunction. Subpart DDDDD. [40 CFR 63.7520(e)]

1080 Demonstrate initial compliance with each applicable emission limit and work practice standard by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5 and 7; or conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8. Subpart DDDDD. [40 CFR 63.7530(a)]

1081 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart DDDDD Tables 2 through 4 according to the requirements in 40 CFR 63.7520, Table 7, and 40 CFR 63.7530(c)(4), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1082 Conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to 40 CFR 63.7530(c)(1) through (c)(3), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1083 Monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d). Subpart DDDDD. [40 CFR 63.7535(a)]

1084 Demonstrate continuous compliance with each applicable emission limit, operating limit, and work practice standard in 40 CFR 63 Subpart DDDDD Tables 1 through 4 according to the methods specified in 40 CFR 63 Subpart DDDDD Table 8 and 40 CFR 63.7540(a)(1) through (a)(10). Subpart DDDDD. [40 CFR 63.7540(a)]

1085 Report each instance in which emission limits, operating limits, and work practice standards in 40 CFR 63 Subpart DDDDD Tables 1 through 4 are not met; and each instance during a startup, shutdown or malfunction when emission limits, operating limits, and work practice standards are not met. Report according to the requirements in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7540(b)]

1086 Operate in accordance with the SSMP as required by 40 CFR 63.7505(e) during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7540(c)]

1087 Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (h) by the dates specified, as specified in 40 CFR 63.7545(b) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7545(a)]

1088 Submit notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin, if required to conduct a performance test. Subpart DDDDD. [40 CFR 63.7545(d)]

1089 Submit Report: Due if there is a startup, shutdown or malfunction during the reporting period that is not consistent with the startup, shutdown and malfunction plan, and any applicable emission limitation in the relevant emission standard is exceeded. Submit startup, shutdown and malfunction report within 2 working days by fax or telephone after starting actions inconsistent with the startup, shutdown or malfunction plan; and within 7 working days by letter after the end of the event unless alternate arrangements have been made with DEQ. Include actions taken for the event, and the information specified in 40 CFR 63.10(d)(5)(ii). Subpart DDDDD. [40 CFR 63.7550(a)]

1090 Submit compliance status report: Due semiannually, by the 31st of January and July. Submit the compliance report according to 40 CFR 63.7550(b)(1) through (b)(5). Include the information specified in 40 CFR 63.7550(c) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7550]

1091 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7555]

1092 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]

1093 Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and keep on site for at least 2 years, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560]

## EQT234 VII-h - Sour Crude Heater 93-H-200

1094 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

## EQT234 VII-h - Sour Crude Heater 93-H-200

1095 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1096 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC. 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1097 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1098 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1099 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1100 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1101 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1102 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

1103 Comply with 40 CFR 63 Subpart DDDDD by November 12, 2004 or upon startup, whichever is later. Subpart DDDDD. [40 CFR 63.7495(a)]

1104 Carbon monoxide <= 400 ppmv (dry basis) corrected to 3% oxygen. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
Which Months: All Year Statistical Basis: None specified

1105 Be in compliance with the emission limits (including operating limits) and work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7505(a)]

1106 Operate and maintain according to the provisions in 40 CFR 63.6(e)(1)(i) at all times. Subpart DDDDD. [40 CFR 63.7505(b)]

1107 Demonstrate compliance with any applicable emission limit using performance testing. Fuel analysis may be used if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Subpart DDDDD. [40 CFR 63.7505(c)]

1108 Develop a site-specific monitoring plan according to the requirements in 40 CFR 63.7505(d)(1) through (d)(4). Subpart DDDDD. [40 CFR 63.7505(d)]

1109 Develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). Subpart DDDDD. [40 CFR 63.7505(e)]

1110 For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to ¿63.7525(a).

. [40 CFR 63.7510(c)]

1111 Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup. Subpart DDDDD. [40 CFR 63.7510(g)]

1112 Conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis, unless complying with 40 CFR 63.7515(b) through (d). Subpart DDDDD. [40 CFR 63.7515(a)]

1113 Conduct annual performance tests for carbon monoxide according to 40 CFR 63.7520. Subpart DDDDD. [40 CFR 63.7515(e)]



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**EQT234** VII-h - Sour Crude Heater 93-H-200

1114 Submit performance test and fuel analysis results: Due within 60 days after the completion of the performance tests or fuel analyses. Verify that the operating limits have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and 40 CFR 63 Subpart DDDDD Table 7, as applicable. Ensure that reports for all subsequent performance tests and fuel analyses include all applicable information required in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7515(g)]

1115 Conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). Subpart DDDDD. [40 CFR 63.7520(a)]

1116 Develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). Subpart DDDDD. [40 CFR 63.7520(a)]

1117 Conduct each performance test according to the requirements in 40 CFR 63 Subpart DDDDD Table 5. Subpart DDDDD. [40 CFR 63.7520(b)]

1118 Conduct each performance test under the specific conditions listed in 40 CFR 63 Subpart DDDDD Tables 5 and 7. Conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals. Demonstrate initial compliance and establish operating limits based on these tests. Conduct more than one performance test if necessary. Subpart DDDDD. [40 CFR 63.7520(d)]

1119 Do not conduct performance tests during periods of startup, shutdown or malfunction. Subpart DDDDD. [40 CFR 63.7520(e)]

1120 Demonstrate initial compliance with each applicable emission limit and work practice standard by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5 and 7; or conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8. Subpart DDDDD. [40 CFR 63.7530(a)]

1121 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart DDDDD Tables 2 through 4 according to the requirements in 40 CFR 63.7520, Table 7, and 40 CFR 63.7530(c)(4), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1122 Conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to 40 CFR 63.7530(c)(1) through (c)(3), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1123 Monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d). Subpart DDDDD. [40 CFR 63.7535(a)]

1124 Demonstrate continuous compliance with each applicable emission limit, operating limit, and work practice standard in 40 CFR 63 Subpart DDDDD Tables 1 through 4 according to the methods specified in 40 CFR 63 Subpart DDDDD Table 8 and 40 CFR 63.7540(a)(1) through (a)(10). Subpart DDDDD. [40 CFR 63.7540(a)]

1125 Report each instance in which emission limits, operating limits, and work practice standards in 40 CFR 63 Subpart DDDDD Tables 1 through 4 are not met; and each instance during a startup, shutdown or malfunction when emission limits, operating limits, and work practice standards are not met. Report according to the requirements in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7540(b)]

1126 Operate in accordance with the SSMP as required by 40 CFR 63.7505(e) during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7540(c)]

1127 Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (h) by the dates specified, as specified in 40 CFR 63.7545(b) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7545(a)]

1128 Submit notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin, if required to conduct a performance test. Subpart DDDDD. [40 CFR 63.7545(d)]

1129 Submit Report: Due if there is a startup, shutdown or malfunction during the reporting period that is not consistent with the startup, shutdown and malfunction plan, and any applicable emission limitation in the relevant emission standard is exceeded. Submit startup, shutdown and malfunction report within 2 working days by fax or telephone after starting actions inconsistent with the startup, shutdown or malfunction plan; and within 7 working days by letter after the end of the event unless alternate arrangements have been made with DEQ. Include actions taken for the event, and the information specified in 40 CFR 63.10(d)(5)(ii). Subpart DDDDD. [40 CFR 63.7550(a)]

1130 Submit compliance status report: Due semiannually, by the 31st of January and July. Submit the compliance report according to 40 CFR 63.7550(b)(1) through (b)(5). Include the information specified in 40 CFR 63.7550(c) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7550]

1131 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7555]

1132 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]



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## EQT234 VII-h - Sour Crude Heater 93-H-200

1133 Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and keep on site for at least 2 years, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560]

## EQT235 VII-i - No. 1 Platform Heater - 2006

1134 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1135 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1136 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1137 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1138 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1139 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1140 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1141 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1142 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

## EQT236 VII-j - No. 2 Platform Heater - 2006

1143 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1144 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1145 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1146 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1147 Control process gas streams by flaring or combustion. [LAC 33:III.1509]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT236 VII-j - No. 2 Platform Heater - 2006

1148 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1149 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1150 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1151 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

### EQT237 VII-k - No. 2 Platform Heater - 2006

1152 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1153 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1154 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1155 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1156 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1157 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1158 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1159 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1160 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

### EQT238 VII-l - Hydrogen Plant Heater -2006

1161 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1162 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
***Air - Title V Regular Permit Minor Mod***

**EQT238 VII-I - Hydrogen Plant Heater -2006**

1163 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1164 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1165 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1166 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1167 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1168 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1169 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

1170 Comply with 40 CFR 63 Subpart DDDDD by November 12, 2004 or upon startup, whichever is later. Subpart DDDDD. [40 CFR 63.7495(a)]

1171 Carbon monoxide <= 400 ppmv (dry basis) corrected to 3% oxygen. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
Which Months: All Year Statistical Basis: None specified

1172 Be in compliance with the emission limits (including operating limits) and work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7505(a)]

1173 Operate and maintain according to the provisions in 40 CFR 63.6(e)(1)(i) at all times. Subpart DDDDD. [40 CFR 63.7505(b)]

1174 Demonstrate compliance with any applicable emission limit using performance testing. Fuel analysis may be used if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Subpart DDDDD. [40 CFR 63.7505(c)]

1175 Develop a site-specific monitoring plan according to the requirements in 40 CFR 63.7505(d)(1) through (d)(4). Subpart DDDDD. [40 CFR 63.7505(d)]

1176 Develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). Subpart DDDDD. [40 CFR 63.7505(e)]

1177 For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to ¿63.7525(a).

. [40 CFR 63.7510(c)]

1178 Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup. Subpart DDDDD. [40 CFR 63.7510(g)]

1179 Conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis, unless complying with 40 CFR 63.7515(b) through (d). Subpart DDDDD. [40 CFR 63.7515(a)]

1180 Conduct annual performance tests for carbon monoxide according to 40 CFR 63.7520. Subpart DDDDD. [40 CFR 63.7515(e)]

## EQT238 VII-I - Hydrogen Plant Heater -2006

1181 Submit performance test and fuel analysis results: Due within 60 days after the completion of the performance tests or fuel analyses. Verify that the operating limits have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and 40 CFR 63 Subpart DDDDD Table 7, as applicable. Ensure that reports for all subsequent performance tests and fuel analyses include all applicable information required in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7515(g)]

1182 Conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). Subpart DDDDD. [40 CFR 63.7520(a)]

1183 Develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). Subpart DDDDD. [40 CFR 63.7520(a)]

1184 Conduct each performance test according to the requirements in 40 CFR 63 Subpart DDDDD Table 5. Subpart DDDDD. [40 CFR 63.7520(b)]

1185 Conduct each performance test under the specific conditions listed in 40 CFR 63 Subpart DDDDD Tables 5 and 7. Conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals. Demonstrate initial compliance and establish operating limits based on these tests. Conduct more than one performance test if necessary. Subpart DDDDD. [40 CFR 63.7520(d)]

1186 Do not conduct performance tests during periods of startup, shutdown or malfunction. Subpart DDDDD. [40 CFR 63.7520(e)]

1187 Demonstrate initial compliance with each applicable emission limit and work practice standard by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5 and 7; or conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8. Subpart DDDDD. [40 CFR 63.7530(a)]

1188 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart DDDDD Tables 2 through 4 according to the requirements in 40 CFR 63.7520, Table 7, and 40 CFR 63.7530(c)(4), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1189 Conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to 40 CFR 63.7530(c)(1) through (c)(3), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1190 Monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d). Subpart DDDDD. [40 CFR 63.7535(a)]

1191 Demonstrate continuous compliance with each applicable emission limit, operating limit, and work practice standard in 40 CFR 63 Subpart DDDDD Tables 1 through 4 according to the methods specified in 40 CFR 63 Subpart DDDDD Table 8 and 40 CFR 63.7540(a)(1) through (a)(10). Subpart DDDDD. [40 CFR 63.7540(a)]

1192 Report each instance in which emission limits, operating limits, and work practice standards in 40 CFR 63 Subpart DDDDD Tables 1 through 4 are not met; and each instance during a startup, shutdown or malfunction when emission limits, operating limits, and work practice standards are not met. Report according to the requirements in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7540(b)]

1193 Operate in accordance with the SSMP as required by 40 CFR 63.7505(e) during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7540(c)]

1194 Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (h) by the dates specified, as specified in 40 CFR 63.7545(b) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7545(a)]

1195 Submit notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin, if required to conduct a performance test. Subpart DDDDD. [40 CFR 63.7545(d)]

1196 Submit Report: Due if there is a startup, shutdown or malfunction during the reporting period that is not consistent with the startup, shutdown and malfunction plan, and any applicable emission limitation in the relevant emission standard is exceeded. Submit startup, shutdown and malfunction report within 2 working days by fax or telephone after starting actions inconsistent with the startup, shutdown or malfunction plan; and within 7 working days by letter after the end of the event unless alternate arrangements have been made with DEQ. Include actions taken for the event, and the information specified in 40 CFR 63.10(d)(5)(ii). Subpart DDDDD. [40 CFR 63.7550(a)]

1197 Submit compliance status report: Due semiannually, by the 31st of January and July. Submit the compliance report according to 40 CFR 63.7550(b)(1) through (b)(5). Include the information specified in 40 CFR 63.7550(c) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7550]

1198 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7555]

1199 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT238 VII-I - Hydrogen Plant Heater -2006

1200 Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and keep on site for at least 2 years, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560]

### EQT239 VII-m - Sour Crude Vacuum Heater 37-N-1

1201 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1202 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1203 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1204 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1205 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1206 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1207 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1208 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1209 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

1210 Comply with 40 CFR 63 Subpart DDDDD by November 12, 2004 or upon startup, whichever is later. Subpart DDDDD. [40 CFR 63.7495(a)]

1211 Carbon monoxide <= 400 ppmv (dry basis) corrected to 3% oxygen. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
Which Months: All Year Statistical Basis: None specified

1212 Be in compliance with the emission limits (including operating limits) and work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7505(a)]

1213 Operate and maintain according to the provisions in 40 CFR 63.6(e)(1)(i) at all times. Subpart DDDDD. [40 CFR 63.7505(b)]

1214 Demonstrate compliance with any applicable emission limit using performance testing. Fuel analysis may be used if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Subpart DDDDD. [40 CFR 63.7505(c)]

1215 Develop a site-specific monitoring plan according to the requirements in 40 CFR 63.7505(d)(1) through (d)(4). Subpart DDDDD. [40 CFR 63.7505(d)]

1216 Develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). Subpart DDDDD. [40 CFR 63.7505(e)]

**EQT239** **VII-m - Sour Crude Vacuum Heater 37-N-1**

1217 For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to ¿63.7525(a).

. [40 CFR 63.7510(c)]

1218 Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup. Subpart DDDDD. [40 CFR 63.7510(g)]

1219 Conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis, unless complying with 40 CFR 63.7515(b) through (d). Subpart DDDDD. [40 CFR 63.7515(a)]

1220 Conduct annual performance tests for carbon monoxide according to 40 CFR 63.7520. Subpart DDDDD. [40 CFR 63.7515(e)]

1221 Submit performance test and fuel analysis results: Due within 60 days after the completion of the performance tests or fuel analyses. Verify that the operating limits have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and 40 CFR 63 Subpart DDDDD Table 7, as applicable. Ensure that reports for all subsequent performance tests and fuel analyses include all applicable information required in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7515(g)]

1222 Conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). Subpart DDDDD. [40 CFR 63.7520(a)]

1223 Develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). Subpart DDDDD. [40 CFR 63.7520(a)]

1224 Conduct each performance test according to the requirements in 40 CFR 63 Subpart DDDDD Table 5. Subpart DDDDD. [40 CFR 63.7520(b)]

1225 Conduct each performance test under the specific conditions listed in 40 CFR 63 Subpart DDDDD Tables 5 and 7. Conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals. Demonstrate initial compliance and establish operating limits based on these tests. Conduct more than one performance test if necessary. Subpart DDDDD. [40 CFR 63.7520(d)]

1226 Do not conduct performance tests during periods of startup, shutdown or malfunction. Subpart DDDDD. [40 CFR 63.7520(e)]

1227 Demonstrate initial compliance with each applicable emission limit and work practice standard by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5 and 7; or conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8. Subpart DDDDD. [40 CFR 63.7530(a)]

1228 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart DDDDD Tables 2 through 4 according to the requirements in 40 CFR 63.7520, Table 7, and 40 CFR 63.7530(c)(4), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1229 Conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to 40 CFR 63.7530(c)(1) through (c)(3), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1230 Monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d). Subpart DDDDD. [40 CFR 63.7535(a)]

1231 Demonstrate continuous compliance with each applicable emission limit, operating limit, and work practice standard in 40 CFR 63 Subpart DDDDD Tables 1 through 4 according to the methods specified in 40 CFR 63 Subpart DDDDD Table 8 and 40 CFR 63.7540(a)(1) through (a)(10). Subpart DDDDD. [40 CFR 63.7540(a)]

1232 Report each instance in which emission limits, operating limits, and work practice standards in 40 CFR 63 Subpart DDDDD Tables 1 through 4 are not met; and each instance during a startup, shutdown or malfunction when emission limits, operating limits, and work practice standards are not met. Report according to the requirements in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7540(b)]

1233 Operate in accordance with the SSMP as required by 40 CFR 63.7505(e) during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7540(c)]

1234 Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (h) by the dates specified, as specified in 40 CFR 63.7545(b) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7545(a)]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT239 VII-m - Sour Crude Vacuum Heater 37-N-1

1235 Submit notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin, if required to conduct a performance test. Subpart DDDDD. [40 CFR 63.7545(d)]

1236 Submit Report: Due if there is a startup, shutdown or malfunction during the reporting period that is not consistent with the startup, shutdown and malfunction plan, and any applicable emission limitation in the relevant emission standard is exceeded. Submit startup, shutdown and malfunction report within 2 working days by fax or telephone after starting actions inconsistent with the startup, shutdown or malfunction plan; and within 7 working days by letter after the end of the event unless alternate arrangements have been made with DEQ. Include actions taken for the event, and the information specified in 40 CFR 63.10(d)(5)(ii). Subpart DDDDD. [40 CFR 63.7550(a)]

1237 Submit compliance status report: Due semiannually, by the 31st of January and July. Submit the compliance report according to 40 CFR 63.7550(b)(1) through (b)(5). Include the information specified in 40 CFR 63.7550(c) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7550]

1238 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7555]

1239 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]

1240 Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and keep on site for at least 2 years, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560]

### EQT240 VII-n - Crude Unit Prefract. Charge Heater - 2006

1241 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1242 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1243 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1244 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1245 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1246 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1247 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1248 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1249 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

1250 Comply with 40 CFR 63 Subpart DDDDD by November 12, 2004 or upon startup, whichever is later. Subpart DDDDD. [40 CFR 63.7495(a)]

1251 Carbon monoxide <= 400 ppmv (dry basis) corrected to 3% oxygen. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
Which Months: All Year Statistical Basis: None specified

**EQT240** **VII-n - Crude Unit Prefract. Charge Heater - 2006**

1252 Be in compliance with the emission limits (including operating limits) and work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7505(a)]

1253 Operate and maintain according to the provisions in 40 CFR 63.6(e)(1)(i) at all times. Subpart DDDDD. [40 CFR 63.7505(b)]

1254 Demonstrate compliance with any applicable emission limit using performance testing. Fuel analysis may be used if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Subpart DDDDD. [40 CFR 63.7505(c)]

1255 Develop a site-specific monitoring plan according to the requirements in 40 CFR 63.7505(d)(1) through (d)(4). Subpart DDDDD. [40 CFR 63.7505(d)]

1256 Develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). Subpart DDDDD. [40 CFR 63.7505(e)]

1257 For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to ¿63.7525(a).

. [40 CFR 63.7510(c)]

1258 Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup. Subpart DDDDD. [40 CFR 63.7510(g)]

1259 Conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis, unless complying with 40 CFR 63.7515(b) through (d). Subpart DDDDD. [40 CFR 63.7515(a)]

1260 Conduct annual performance tests for carbon monoxide according to 40 CFR 63.7520. Subpart DDDDD. [40 CFR 63.7515(e)]

1261 Submit performance test and fuel analysis results: Due within 60 days after the completion of the performance tests or fuel analyses. Verify that the operating limits have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and 40 CFR 63 Subpart DDDDD Table 7, as applicable. Ensure that reports for all subsequent performance tests and fuel analyses include all applicable information required in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7515(g)]

1262 Conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). Subpart DDDDD. [40 CFR 63.7520(a)]

1263 Develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). Subpart DDDDD. [40 CFR 63.7520(a)]

1264 Conduct each performance test according to the requirements in 40 CFR 63 Subpart DDDDD Table 5. Subpart DDDDD. [40 CFR 63.7520(b)]

1265 Conduct each performance test under the specific conditions listed in 40 CFR 63 Subpart DDDDD Tables 5 and 7. Conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals. Demonstrate initial compliance and establish operating limits based on these tests. Conduct more than one performance test if necessary. Subpart DDDDD. [40 CFR 63.7520(d)]

1266 Do not conduct performance tests during periods of startup, shutdown or malfunction. Subpart DDDDD. [40 CFR 63.7520(e)]

1267 Demonstrate initial compliance with each applicable emission limit and work practice standard by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5 and 7; or conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8. Subpart DDDDD. [40 CFR 63.7530(a)]

1268 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart DDDDD Tables 2 through 4 according to the requirements in 40 CFR 63.7520, Table 7, and 40 CFR 63.7530(c)(4), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1269 Conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to 40 CFR 63.7530(c)(1) through (c)(3), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1270 Monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d). Subpart DDDDD. [40 CFR 63.7535(a)]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT240 VII-n - Crude Unit Prefract. Charge Heater - 2006

1271 Demonstrate continuous compliance with each applicable emission limit, operating limit, and work practice standard in 40 CFR 63 Subpart DDDDD Tables 1 through 4 according to the methods specified in 40 CFR 63 Subpart DDDDD Table 8 and 40 CFR 63.7540(a)(1) through (a)(10). Subpart DDDDD. [40 CFR 63.7540(a)]

1272 Report each instance in which emission limits, operating limits, and work practice standards in 40 CFR 63 Subpart DDDDD Tables 1 through 4 are not met; and each instance during a startup, shutdown or malfunction when emission limits, operating limits, and work practice standards are not met. Report according to the requirements in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7540(b)]

1273 Operate in accordance with the SSMP as required by 40 CFR 63.7505(e) during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7540(c)]

1274 Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (h) by the dates specified, as specified in 40 CFR 63.7545(b) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7545(a)]

1275 Submit notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin, if required to conduct a performance test. Subpart DDDDD. [40 CFR 63.7545(d)]

1276 Submit Report: Due if there is a startup, shutdown or malfunction during the reporting period that is not consistent with the startup, shutdown and malfunction plan, and any applicable emission limitation in the relevant emission standard is exceeded. Submit startup, shutdown and malfunction report within 2 working days by fax or telephone after starting actions inconsistent with the startup, shutdown or malfunction plan; and within 7 working days by letter after the end of the event unless alternate arrangements have been made with DEQ. Include actions taken for the event, and the information specified in 40 CFR 63.10(d)(5)(ii). Subpart DDDDD. [40 CFR 63.7550(a)]

1277 Submit compliance status report: Due semiannually, by the 31st of January and July. Submit the compliance report according to 40 CFR 63.7550(b)(1) through (b)(5). Include the information specified in 40 CFR 63.7550(c) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7550]

1278 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7555]

1279 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]

1280 Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and keep on site for at least 2 years, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560]

### EQT241 IV-n: No. 9 Steam Boiler

1281 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1282 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1283 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1284 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1285 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1286 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

**EQT241 IV-n: No. 9 Steam Boiler**

1287 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1288 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

1289 Calumet shall record and maintain records of the amounts of each fuel combusted during each day. [40 CFR 60.48(c)(g)]

1290 Comply with 40 CFR 63 Subpart DDDDD by November 12, 2004 or upon startup, whichever is later. Subpart DDDDD. [40 CFR 63.7495(a)]

1291 Carbon monoxide <= 400 ppmv (dry basis) corrected to 3% oxygen. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
Which Months: All Year Statistical Basis: None specified

1292 Be in compliance with the emission limits (including operating limits) and work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7505(a)]

1293 Operate and maintain according to the provisions in 40 CFR 63.6(e)(1)(i) at all times. Subpart DDDDD. [40 CFR 63.7505(b)]

1294 Demonstrate compliance with any applicable emission limit using performance testing. Fuel analysis may be used if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Subpart DDDDD. [40 CFR 63.7505(c)]

1295 Develop a site-specific monitoring plan according to the requirements in 40 CFR 63.7505(d)(1) through (d)(4). Subpart DDDDD. [40 CFR 63.7505(d)]

1296 Develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). Subpart DDDDD. [40 CFR 63.7505(e)]

1297 Demonstrate initial compliance with the emission limitations and work practice standards in 40 CFR 63 Subpart DDDDD Table 1 by including a signed statement in the Notification of Compliance Status report required in 40 CFR 63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. Subpart DDDDD. [40 CFR 63.7506(a)(1)]

1298 Demonstrate continuous compliance with the applicable emission limits in 40 CFR 63 Subpart DDDDD Table 1 by keeping records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. Include a signed statement in each semiannual compliance report required in 40 CFR 63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period. Subpart DDDDD. [40 CFR 63.7506(a)(2)]

1299 Demonstrate initial compliance with any applicable emission limit no later than 180 days after the compliance date specified in 40 CFR 63.7495 and according to the applicable provisions in 40 CFR 63.7(a)(2) as cited in 40 CFR 63 Subpart DDDDD Table 10. Subpart DDDDD. [40 CFR 63.7510(d)]

1300 Demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup, whichever is later, according to 40 CFR 63.7(a)(2)(ix). Subpart DDDDD. [40 CFR 63.7510(e)]

1301 Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup. Subpart DDDDD. [40 CFR 63.7510(g)]

1302 Conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis, unless complying with 40 CFR 63.7515(b) through (d). Subpart DDDDD. [40 CFR 63.7515(a)]

1303 Conduct annual performance tests for carbon monoxide according to 40 CFR 63.7520. Subpart DDDDD. [40 CFR 63.7515(e)]

1304 Conduct a fuel analysis according to 40 CFR 63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If burning a new type of fuel, conduct a fuel analysis before burning the new type of fuel. Meet all applicable continuous compliance requirements in 40 CFR 63.7540. Subpart DDDDD. [40 CFR 63.7515(f)]

1305 Submit performance test and fuel analysis results: Due within 60 days after the completion of the performance tests or fuel analyses. Verify that the operating limits have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and 40 CFR 63 Subpart DDDDD Table 7, as applicable. Ensure that reports for all subsequent performance tests and fuel analyses include all applicable information required in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7515(g)]

1306 Conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). Subpart DDDDD. [40 CFR 63.7520(a)]

**EQT241** **IV-n: No. 9 Steam Boiler**

1307 Develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). Subpart DDDDD. [40 CFR 63.7520(a)]

1308 Conduct each performance test according to the requirements in 40 CFR 63 Subpart DDDDD Table 5. Subpart DDDDD. [40 CFR 63.7520(b)]

1309 Demonstrate compliance according to 40 CFR 63.7506(a). Subpart DDDDD. [40 CFR 63.7520(c)]

1310 Conduct each performance test under the specific conditions listed in 40 CFR 63 Subpart DDDDD Tables 5 and 7. Conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals. Demonstrate initial compliance and establish operating limits based on these tests. Conduct more than one performance test if necessary. Subpart DDDDD. [40 CFR 63.7520(d)]

1311 Do not conduct performance tests during periods of startup, shutdown or malfunction. Subpart DDDDD. [40 CFR 63.7520(e)]

1312 Equipment/operational data monitored by continuous parameter monitoring system (CPMS) continuously, according to the procedures in 40 CFR 63.7525(c)(1) through (c)(5) by the compliance date specified in 40 CFR 63.7495. Subpart DDDDD. [40 CFR 63.7525(c)]
Which Months: All Year Statistical Basis: None specified

1313 Demonstrate initial compliance with each applicable emission limit and work practice standard by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5 and 7; or conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8. Subpart DDDDD. [40 CFR 63.7530(a)]

1314 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart DDDDD Tables 2 through 4 according to the requirements in 40 CFR 63.7520, Table 7, and 40 CFR 63.7530(c)(4), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1315 Conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to 40 CFR 63.7530(c)(1) through (c)(3), as applicable. Subpart DDDDD. [40 CFR 63.7530(c)]

1316 Monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d). Subpart DDDDD. [40 CFR 63.7535(a)]

1317 Do not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in 40 CFR 63 Subpart DDDDD Tables 2 through 4 at all times except during periods of startup, shutdown, malfunction, or during performance tests following the date on which the initial performance test is completed or is required to be completed under 40 CFR 63.7 and 63.7510, whichever date comes first. Subpart DDDDD. [40 CFR 63.7540(a)(1)]

1318 Fuel recordkeeping by electronic or hard copy continuously. Keep records of the type and amount of all fuels burned during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if demonstrating compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if demonstrating compliance through performance testing). Subpart DDDDD. [40 CFR 63.7540(a)(2)]

1319 Demonstrate continuous compliance with each applicable emission limit, operating limit, and work practice standard in 40 CFR 63 Subpart DDDDD Tables 1 through 4 according to the methods specified in 40 CFR 63 Subpart DDDDD Table 8 and 40 CFR 63.7540(a)(1) through (a)(10). Subpart DDDDD. [40 CFR 63.7540(a)]

1320 Report each instance in which emission limits, operating limits, and work practice standards in 40 CFR 63 Subpart DDDDD Tables 1 through 4 are not met; and each instance during a startup, shutdown or malfunction when emission limits, operating limits, and work practice standards are not met. Report according to the requirements in 40 CFR 63.7550. Subpart DDDDD. [40 CFR 63.7540(b)]

1321 Operate in accordance with the SSMP as required by 40 CFR 63.7505(e) during periods of startup, shutdown, and malfunction. Subpart DDDDD. [40 CFR 63.7540(c)]

1322 Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (h) by the dates specified, as specified in 40 CFR 63.7545(b) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7545(a)]

1323 Submit notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin, if required to conduct a performance test. Subpart DDDDD. [40 CFR 63.7545(d)]



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## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### EQT241 IV-n: No. 9 Steam Boiler

1324 Submit Report: Due if there is a startup, shutdown or malfunction during the reporting period that is not consistent with the startup, shutdown and malfunction plan, and any applicable emission limitation in the relevant emission standard is exceeded. Submit startup, shutdown and malfunction report within 2 working days by fax or telephone after starting actions inconsistent with the startup, shutdown or malfunction plan; and within 7 working days by letter after the end of the event unless alternate arrangements have been made with DEQ. Include actions taken for the event, and the information specified in 40 CFR 63.10(d)(5)(ii). Subpart DDDDD. [40 CFR 63.7550(a)]

1325 Submit compliance status report: Due semiannually, by the 31st of January and July. Submit the compliance report according to 40 CFR 63.7550(b)(1) through (b)(5). Include the information specified in 40 CFR 63.7550(c) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7550]

1326 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (e), as applicable. Subpart DDDDD. [40 CFR 63.7555]

1327 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]

1328 Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and keep on site for at least 2 years, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560]

### FUG002 FU-VOC - Fugitive Emissions from components

1329 Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment. [LAC 33:III.2111]

1330 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Comply with consolidated fugitive program by implementing the Louisiana Consolidated Fugitive Emission Prodgram Guidelines. Compliance is achieved through compliance with Louisiana Refinery MACT. See Appendix A. [LAC 33:III.5109.A]

### GRP002 ADDITIVE CAP - Additives Cap

1331 Additives Throughput <= 530000 gallons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if Emission Point GRP002, Additive Cap, exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1332 Additives Throughput monitored by technically sound method upon occurrence of event. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1333 Additives Throughput recordkeeping by electronic or hard copy monthly. Keep records of the total Additives throughput each month, as well as the total throughput for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]

1334 Submit report: Due annually, by the 31st of March. Report the Additives throughput for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

### GRP003 BOILER CAP - Boiler CAP

1335 Boiler Production rate <= 300000 lb/hr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if Emission Point GRP003, Boiler Cap, exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1336 Boiler Production rate monitored by technically sound method upon occurrence of event. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

## GRP003 BOILER CAP - Boiler CAP

1337 Boiler Production rate recordkeeping by electronic or hard copy monthly. Keep records of the total Boiler production rate each month, as well as the total production rate for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]

1338 Production rate Submit report: Due annually, by the 31st of March. Report the Boiler production rate for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

## GRP008 HEAVY OIL CAP - Heavy Oil Cap

1339 Heavy Oil Throughput monitored by technically sound method upon occurrence of event. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1340 Heavy Oil Throughput recordkeeping by electronic or hard copy monthly. Keep records of the total Heavy Oil throughput each month, as well as the total throughput for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]

1341 Submit report: Due annually, by the 31st of March. Report the Heavy Oil throughput for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

1342 Heavy Oil Throughput <= 1263.67 MM gallons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if Emission Point GRP008, Heavy Oil Cap, exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

## GRP010 RECYCLE CAP - Refinery Recycle Cap

1343 Refinery Recycle Throughput <= 1.763 MM gallons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if Emission Point GRP010, Refinery Recycle Cap, exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1344 Refinery Recycle Throughput monitored by technically sound method upon occurrence of event. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1345 Refinery Recycle Throughput recordkeeping by electronic or hard copy monthly. Keep records of the total Refinery Recycle throughput each month, as well as the total throughput for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]

1346 Submit report: Due annually, by the 31st of March. Report the Refinery Recycle throughput for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

## GRP011 SOLVENT CAP - Solvent Cap

1347 Solvent Throughput <= 1.535 MM gallons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if Emission Point GRP011, Solvent Cap, exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1348 Solvent Throughput monitored by technically sound method upon occurrence of event. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1349 Solvent Throughput recordkeeping by electronic or hard copy monthly. Keep records of the total Solvent throughput each month, as well as the total throughput for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]



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# SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## GRP011 SOLVENT CAP - Solvent Cap

1350 Submit report: Due annually, by the 31st of March. Report the Solvent throughput for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

## GRP012 WAX CAP - Wax Cap

1351 Wax Throughput monitored by technically sound method upon occurrence of event. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

1352 Wax Throughput recordkeeping by electronic or hard copy monthly. Keep records of the total Wax throughput each month, as well as the total throughput for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]

1353 Submit report: Due annually, by the 31st of March. Report the Wax throughput for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

1354 Wax Throughput <= 31.166 MM gallons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if Emission Point GRP012, Wax Cap, exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: None specified

## GRP013 Entire Facility

1355 Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1103]

1356 Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1303.B]

1357 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1358 Shall comply with applicable provisions of LAC:III.1705 - Petroleum Refinery Emissions. [LAC 33:III.1705]

1359 Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment. [LAC 33:III.2111]

1360 Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5. [LAC 33:III.2113.A]

1361 Emissions of VOC from petroleum refinery process unit turnarounds shall be controlled by pumping the liquid contents to storage and depressurizing the processing units to 5 psig or below before venting to the atmosphere. Control vapors during depressurization in accordance with the requirements of LAC 33:III.2115 A, B, of F. [LAC 33:III.2141]

1362 Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance. [LAC 33:III.219]

1363 Submit permit application: Due prior to construction, reconstruction or modification unless otherwise provided in LAC 33:III.Chapter 5. Submit a timely and complete permit application to the Office of Environmental Services, Permits Division as required in accordance with the procedures in LAC 33:III.Chapter 5. [LAC 33:III.501.C.1]

1364 1,3-Butadiene <= 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum

1365 Acetaldehyde <= 0.001 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum

**GRP013** **Entire Facility**

1366 Aniline <= 0.02 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1367 Barium <= 0.03 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1368 Cadmium <= 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1369 Carbon disulfide <= 0.17 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1370 Hydrochloric acid <= 0.02 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1371 Nickel <= 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1372 Polynuclear Aromatic Hydrocarbons <= 0.0003 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1373 Chromium VI (and compounds) <= 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1374 Nitrogen oxides <= 433.52 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1375 Particulate matter (10 microns or less) <= 73.76 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1376 Sulfur dioxide <= 146.86 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1377 VOC, Total <= 747.86 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1378 Carbon monoxide <= 470.67 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1379 2,2,4-Trimethylpentane <= 1.50 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1380 Acrolein <= 0.001 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1381 Benzene <= 2.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1382 Biphenyl <= 0.004 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1383 Cumene <= 0.04 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1384 Ethyl benzene <= 3.67 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
1385 Formaldehyde <= 0.44 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum



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**GRP013 Entire Facility**

1386 Hydrogen sulfide <= 0.53 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1387 Methanol <= 0.11 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1388 Methyl ethyl ketone <= 15.11 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1389 Naphthalene <= 0.76 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1390 n-Hexane <= 22.70 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1391 Phenol <= 0.02 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1392 Styrene <= 0.004 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1393 Sulfuric acid <= 0.35 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1394 Toluene <= 23.84 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1395 Xylene (mixed isomers) <= 2.46 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1396 Zinc <= 0.18 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
1397 Comply with all applicable provisions of LAC 33:III.Chapter 51, Subchapter M.Abestos. [LAC 33:III.51]
1398 Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III.Chapter 51.Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33:III.Chapter 51.Subchapter A, after the effective date of the standard. [LAC 33:III.5105.A.1]
1399 Do not cause a violation of any ambient air standard listed in LAC 33:III.Table 51.2, unless operating in accordance with LAC 33:III.5109. [LAC 33:III.5105.A.2]
1400 Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard. [LAC 33:III.5105.A.3]
1401 Do not fail to keep records, notify, report or revise reports as required under LAC 33:III.Chapter 51.Subchapter A. [LAC 33:III.5105.A.4]
1402 Submit initial annual emissions report (TEDI) to DEQ within 180 days of December 20, 1991. Identify the quantity of emissions of toxic air pollutants listed in Table 51.1 for the calendar year 1991. [LAC 33:III.5107.A.1]
1403 Submit Annual Emissions Report (TEDI): Due annually, by the 1st of July, to the Office of Environmental Assessment, Environmental Evaluation Division in a form specified by the department. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3. [LAC 33:III.5107.A.2]
1404 Include a certification statement with initial and subsequent annual emission reports and revisions to any emission report to attest that the information contained in the emission report is true, accurate, and complete, and signed by a responsible official, as defined in LAC 33:III.502. Include the full name of the responsible official, title, signature, date of signature and phone number of the responsible official. The certification statement shall read: "I certify, under penalty of perjury, that the emissions data provided is accurate to the best of my knowledge, information, and belief, and I understand that submitting false or misleading information will expose me to prosecution under state regulations" [LAC 33:III.5107.A.3]



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1405 Submit notification: Due to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline at (225) 925-6595 immediately, but no later than 1 hour, after any discharge of a toxic air pollutant into the atmosphere which results or threatens to result in an emergency condition (a condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property). [LAC 33:III.5107.B.1]

1406 Submit notification: Due to the Office of Environmental Compliance, except as provided in LAC 33:III.5107.B.6, no later than 24 hours after the beginning of any unauthorized discharge into the atmosphere of a toxic air pollutant as a result of bypassing an emission control device, when the emission control bypass was not the result of an upset, and the quantity of the unauthorized bypass is greater than or equal to the lower of the Minimum Emission Rate (MER) in LAC 33:III.Chapter 51.Table 51.1 or a reportable quantity (RQ) in LAC 33:I.3931, or the quantity of the unauthorized bypass is greater than one pound and there is no MER or RQ for the substance in question. Submit notification in the manner provided in LAC 33:I.3923. [LAC 33:III.5107.B.2]

1407 Submit notification: Due to the Office of Environmental Compliance immediately, but in no case later than 24 hours after any unauthorized discharge of a toxic air pollutant into the atmosphere that does not cause an emergency condition, the rate or quantity of which is in excess of that allowed by permit, compliance schedule, or variance, or for upset events that exceed the reportable quantity in LAC 33:I.3931, except as provided in LAC 33:III.5107.B.6. Submit notification in the manner provided in LAC 33:I.3923. [LAC 33:III.5107.B.3]

1408 Submit written report: Due within seven calendar days of learning of any such discharge or equipment bypass as referred to in LAC 33:III.5107.B.1 through 3. Submit report to the Office of Environmental Compliance by certified mail. Include the information specified in LAC 33:III.5107.B.4.a.i through viii. [LAC 33:III.5107.B.4]

1409 Report all discharges to the atmosphere of a toxic air pollutant from a safety relief device, a line or vessel rupture, a sudden equipment failure, or a bypass of an emission control device, regardless of quantity, in the annual emissions report and where otherwise specified. Include the identity of the source, the date and time of the discharge, and the approximate total loss during the discharge. [LAC 33:III.5107.B.5]

1410 Submit to DEQ a compliance plan for achieving compliance with MACT requirements in accordance with LAC 33:III.5109.D. Include the elements listed under LAC 33:III.5109.E. [LAC 33:III.5109.A.1]

1411 Submit to DEQ a certification of compliance with all MACT requirements, in accordance with LAC 33:III.5109.D. Include the elements listed in LAC 33:III.5109.E. [LAC 33:III.5109.A.2]

1412 Submit to DEQ a compliance plan for achieving compliance with the ambient air standard(s), in accordance with LAC 33:III.5109.D. Include the elements listed under LAC 33:III.5109.E. [LAC 33:III.5109.B.1]

1413 Submit to DEQ a certification of compliance with all ambient air standards, in accordance with LAC 33:III.5109.D. Include the elements listed under LAC 33:III.5109.E. [LAC 33:III.5109.B.2]

1414 Achieve compliance with ambient air standards unless it can be demonstrated to the satisfaction of DEQ that compliance with an ambient air standard would be economically infeasible; that emissions could not reasonably be expected to pose a threat to public health or the environment; and that emissions would be controlled to a level that is Maximum Achievable Control Technology. [LAC 33:III.5109.B.3]

1415 Determine the status of compliance, beyond the property line, with applicable ambient air standards listed in LAC 33:III.5112.Table 51.2. [LAC 33:III.5109.B]

1416 Develop a standard operating procedure (SOP) within 120 days after achieving or demonstrating compliance with the standards specified in LAC 33:III.Chapter 51. Detail in the SOP all operating procedures or parameters established to ensure that compliance with the applicable standards is maintained and address operating procedures for any monitoring system in place, specifying procedures to ensure compliance with LAC 33:III.5113.C.5. Make a written copy of the SOP available on site or at an alternate approved location for inspection by DEQ. Provide a copy of the SOP within 30 days upon request by the department. [LAC 33:III.5109.C]

1417 Obtain a Louisiana Air Permit in accordance with LAC 33:III.5111.B and C and in accordance with LAC 33:I.1701, before commencement of the construction of any new source. [LAC 33:III.5111.A.1]

1418 Obtain a permit modification in accordance with LAC 33:III.5111.B and C before commencement of any modification not specified in a compliance plan submitted under LAC 33:III.5109.D, if the modification will result in an increase in emissions of any toxic air pollutant or will create a new point source. [LAC 33:III.5111.A.2.a]

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1419 Obtain written authorization from DEQ before commencement of any modification specified in a compliance plan submitted pursuant to LAC 33:III.5109. [LAC 33:III.5111.A.3]

1420 Submit letter: Due to the Office of Environmental Services, Permits Division concurrently with the submittal of the compliance plan. Indicate that the necessary permit modification (or new permit if no existing permit is in place) will be applied for by a date specified in the compliance schedule and request written authorization to construct; or, Submit permit application: Due to the Office of Environmental Services, Permits Division in accordance with LAC 33:III.5111.B, concurrently with the submittal of the compliance plan. [LAC 33:III.5111.A.3]

1421 Apply for a permit in accordance with LAC 33:III.5111.B, for any existing major source which is operating without a Louisiana Air Permit, or which is not fully permitted, or for any minor source that was once a major source. [LAC 33:III.5111.A.4]

1422 Do not commence construction or modification of any major source without first obtaining written authorization from DEQ, as specified. [LAC 33:III.5111.A]

1423 Submit notification in writing: Due to the Office of Environmental Compliance, Surveillance Division not more than 60 days nor less than 30 days prior to initial start-up. Submit the anticipated date of the initial start-up. [LAC 33:III.5113.A.1]

1424 Submit notification in writing: Due to the Office of Environmental Compliance, Surveillance Division within 10 working days after the actual date of initial start-up of the source. Submit the actual date of initial start-up of the source. [LAC 33:III.5113.A.2]

1425 Ensure that all testing done to determine the emission of toxic air pollutants, upon request by the department, is conducted by qualified personnel. [LAC 33:III.5113.B.1]

1426 Provide necessary sampling and testing facilities, exclusive of instruments and sensing devices, as needed to properly determine the emission of toxic air pollutants, upon request of the department. [LAC 33:III.5113.B.3]

1427 Provide emission testing facilities as specified in LAC 33:III.5113.B.4.a through e. [LAC 33:III.5113.B.4]

1428 Analyze samples and determine emissions within 30 days after each emission test has been completed. [LAC 33:III.5113.B.5]

1429 Submit certified letter: Due to the Office of Environmental Assessment, Environmental Technology Division before the close of business on the 45th day following the completion of the emission test. Report the determinations of the emission test. [LAC 33:III.5113.B.5]

1430 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ. [LAC 33:III.5113.B.6]

1431 Submit notification: Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before the emission test. Submit notification of emission test to allow DEQ the opportunity to have an observer present during the test. [LAC 33:III.5113.B.7]

1432 Maintain and operate each monitoring system in a manner consistent with good air pollution control practices for minimizing emissions. Repair or adjust any breakdown or malfunction of the monitoring system as soon as practicable after its occurrence. [LAC 33:III.5113.C.1]

1433 Conduct performance evaluation of the monitoring system when required at any other time requested by DEQ. [LAC 33:III.5113.C.2]

1434 Submit performance evaluation report: Due to the Office of Environmental Assessment, Environmental Technology Division within 60 days of the monitoring system performance evaluation. [LAC 33:III.5113.C.2]

1435 Submit notification in writing: Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before a performance evaluation of the monitoring system is to begin. [LAC 33:III.5113.C.2]

1436 Install a monitoring system on each effluent or on the combined effluent, when monitoring is required and the effluents from a single source, or from two or more sources subject to the same emission standards, are combined before being released to the atmosphere. If two or more sources are not subject to the same emission standards, install a separate monitoring system on each effluent, unless otherwise specified. If the applicable standard is a mass emission standard and the effluent from one source is released to the atmosphere through more than one point, install a monitoring system at each emission point unless DEQ approves the installation of fewer systems. [LAC 33:III.5113.C.3]

1437 Evaluate the performance of continuous monitoring systems, upon request by DEQ, in accordance with the requirements and procedures contained in the applicable performance specification of 40 CFR Part 60, appendix B. [LAC 33:III.5113.C.5.a]



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# SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## GRP013 Entire Facility

1438 Submit report: Due to DEQ within 60 days of the performance evaluation of the CMS, if requested. Furnish DEQ with two or more copies of a written report of the test results within 60 days. [LAC 33:III.5113.C.5.a]

1439 Install all continuous monitoring systems or monitoring devices to make representative measurements under variable process or operating parameters, if required to install a CMS. [LAC 33:III.5113.C.5.d]

1440 Collect and reduce all data as specified in LAC 33:III.5113.C.5.e.i and ii, if required to install a CMS. [LAC 33:III.5113.C.5.e]

1441 Submit plan: Due to the Office of Environmental Assessment, Environmental Technology Division within 90 days after DEQ requests either the initial plan or an updated plan, if required by DEQ to install a continuous monitoring system. Submit for approval a plan describing the affected sources and the methods for ensuring compliance with the continuous monitoring system. [LAC 33:III.5113.C.5]

1442 Maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. Maintain these records at the source, or at an alternative location approved by DEQ, for a minimum of three years and make available, upon request, for inspection by DEQ. [LAC 33:III.5113.C.7]

1443 Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Environmental Evaluation Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D. [LAC 33:III.919.D]

1444 Permittee shall comply with all applicable provisions of 40 CFR 60 Subpart J - Standards of Performance for Petroleum Refineries. [40 CFR 60.Subpart(J)]

1445 Permittee shall comply with all applicable provisions of 40 CFR 60 Subpart QQQ - Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems. [40 CFR 60.Subpart(QQQ)]

1446 All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A. [40 CFR 60]

1447 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]

1448 *Equipment/operational data recordkeeping* by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]

1449 Submit report: Due within 90 days after January 7, 1993. Submit a report that summarizes the regulatory status of each waste stream subject to 40 CFR 61.342 and is determined by the procedures specified in 40 CFR 61.355(c) to contain benzene. Include the information specified in 40 CFR 61.357(a)(1) through (a)(4). If there is no benzene onsite in wastes, products, by-products, or intermediates, submit an initial report that is a statement to this effect. Subpart FF. [40 CFR 61.357(a)]

1450 Submit report: Due annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. Submit updates to the information specified in 40 CFR 61.357(a)(1) through (a)(3) or, if the information in 40 CFR 61.357(a)(1) through (3) is not changed in the following year, a statement to that effect. Subpart FF. [40 CFR 61.357(c)]

1451 Comply with all applicable provisions of 40 CFR 61 Subpart M - National Emission Standard for Asbestos. [40 CFR 61.Subpart(M)]

1452 All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A. [40 CFR 61]

1453 Permittee shall comply with all applicable provisions of 40 CFR 63 Subpart UUU - Natioal Emissions Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units. Compliance date was extended to April 11, 2006 and performance test within 150 days after the new deadline. [40 CFR 63.Subpart(UUU)]

1454 Submit Title V permit application for renewal: Due 180 calendar days before permit expiration date. [40 CFR 70.5(a)(1)(iii)]

1455 Submit *Title V monitoring results report: Due semiannually, by March 31st and September 30th* for the preceding periods encompassing July through December and January through June, respectively. Submit reports to the Office of Environmental Compliance, Surveillance Division. Certify reports by a responsible company official. Clearly identify all instances of deviations from permitted monitoring requirements. For previously reported deviations, in lieu of attaching the individual deviation reports, clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)]

# SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## GRP013 Entire Facility

1456 Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by a responsible official in accordance with 40 CFR 70.5(d). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(A) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [40 CFR 70.6(a)(3)(iii)(B)]

1457 Submit Title V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, Surveillance Division. [40 CFR 70.6(c)(5)(iv)]

1458 Permittee shall comply with all applicable provisions of 40 CFR 82 - Protection of Stratospheric Ozone. [40 CFR 82]

## TRT002 VI-ia - West Truck Dock Thermal Oxidizer (John Zink G-ZTOF-7200-2)

1459 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1460 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7. [LAC 33:III.1305]

1461 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1462 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1463 Will comply with more strigent requirements of NSPS Subpart J. Sulfur dioxide <= 2000 ppmv at standard conditions. [LAC 33:III.1503.C]
Which Months: All Year Statistical Basis: Three-hour average

1464 Control process gas streams by flaring or combustion. [LAC 33:III.1509]

1465 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1466 Do not load gasoline into any tank trucks or trailers from any bulk gasoline terminal unless the conditions in LAC 33:III.2135.B.1.a through B.1.d are met. [LAC 33:III.2135.B.1]

1467 VOC, Total <= 80 mg/l (4.7 grains/gallon or 0.67 lb/1000 gallons) of gasoline loaded. [LAC 33:III.2135.B.2]
Which Months: All Year Statistical Basis: None specified

1468 Do not allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation. [LAC 33:III.2135.B.3]

1469 Do not allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings. [LAC 33:III.2135.B.4]

1470 Service only those delivery trucks/transport vessels complying with LAC 33:III.2137. [LAC 33:III.2135.B.5]

1471 Presence of a leak monitored by visual, audible, and/or olfactory during loading. Inspect for visible liquid leaks, visible fumes, or odors resulting from gasoline dispensing operations. [LAC 33:III.2135.D.7]
Which Months: All Year Statistical Basis: None specified

1472 Discontinue loading or unloading through affected transfer lines immediately when a leak is observed. Do not resume loading or unloading until the observed leak is repaired. [LAC 33:III.2135.D.7]

1473 Determine compliance with LAC 33:III.2135 using the test methods and procedures specified in LAC 33:III.2135.D.1 through D.6. [LAC 33:III.2135.D]

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
***Air - Title V Regular Permit Minor Mod***

**TRT002 VI-ia - West Truck Dock Thermal Oxidizer (John Zink G-ZTOF-7200-2)**

1474 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2135.E.1 through E.5, as applicable. [LAC 33:III.2135.E]

1475 Tank Trucks: Ensure that gasoline tank trucks and their vapor collection systems do not sustain a pressure change of more than 3 inches of water (0.75 kPa) in five minutes when pressurized to 18 inches of water (4.5 kPa) or evacuated to 6 inches of water (1.5 KPa) using Test Method 27 (40 CFR Part 60, Appendix A) for determination of vapor tightness of gasoline delivery tanks using pressure-vacuum test. [LAC 33:III.2137.A.1]

1476 Tank Trucks: Ensure that each tank truck has a sticker displayed on each tank indicating the identification number of the tank and the date each tank last passed the pressure and vacuum test described in LAC 33:III.2137.A.1. Certify each tank annually and display the sticker near the Department of Transportation certification plate. Make any repairs necessary to pass the specified requirements within 15 days of failure. [LAC 33:III.2137.A.2]

1477 Vapor Collection Systems: Ensure that loading and unloading operations at gasoline terminals do not produce a reading equal to or greater than 100% of the lower explosive limit (LEL, measured as propane) at 2.5 centimeters around the perimeter of a potential leak source as detected by a combustible gas detector using Test Method 21 (40 CFR Part 60, Appendix A) for determination of volatile organic compound leaks. [LAC 33:III.2137.B.1]

1478 Vapor Collection Systems: Ensure that the vapor collection and processing equipment is designed and operated to prevent tank truck gauge pressure from exceeding 18 inches of water (4.5 kPa) and prevent vacuum from exceeding 6 inches of water (1.5 kPa). [LAC 33:III.2137.B.2]

1479 Vapor Collection Systems: Equipment/operational data monitored by technically sound method annually. Make any repairs necessary to pass the specified requirements within 15 days of failure, if an inspection is failed. [LAC 33:III.2137.B.3]
Which Months: All Year Statistical Basis: None specified

1480 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records at the facility for at least two years indicating the last time the vapor collection facility passed the requirements specified in LAC 33:III.2137.B.1. Also, during the annual test procedure, record items which required repair in order to pass the specified requirements. [LAC 33:III.2137.D]

1481 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. MACT is determined by LAC 33:III.2107, 2108, 2131, and 2137. [LAC 33:III.5109.A]

1482 Ensure that all testing done to determine the emission of toxic air pollutants, upon request by the department, is conducted by qualified personnel. [LAC 33:III.5113.B.1]

1483 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ. [LAC 33:III.5113.B.6]

1484 Maintain and operate each monitoring system in a manner consistent with good air pollution control practices for minimizing emissions. Repair or adjust any breakdown or malfunction of the monitoring system as soon as practicable after its occurrence. [LAC 33:III.5113.C.1]

1485 Conduct performance evaluation of the monitoring system when required at any other time requested by DEQ. [LAC 33:III.5113.C.2]

1486 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: None specified

1487 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1488 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

1489 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

## SPECIFIC REQUIREMENTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

### TRT002 VI-ia - West Truck Dock Thermal Oxidizer (John Zink G-ZTOF-7200-2)

1490 Vent system (bypass lines): Flow monitored by flow indicator hourly. Install the flow indicator at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere. Subpart CC. [40 CFR 63.644(c)(1)]
Which Months: All Year Statistical Basis: None specified

1491 Vent system (bypass lines): Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. Subpart CC. [40 CFR 63.644(c)(2)]

1492 Vent system (bypass lines): Seal or closure mechanism monitored by visual inspection/determination monthly to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Subpart CC. [40 CFR 63.644(c)(2)]
Which Months: All Year Statistical Basis: None specified

1493 Install a continous temperature monitor in the firebox or in the duct work immediately downstream of the firebox (NESHAP Subpart CC). [40 CFR 63.650((a))]

1494 Comply with 40 CFR 63.421, 63.422 (a) through (c), 63.425 (a) through (c), 63.425 (e) through (h), 63.427 (a) and (b), and 63.428 (b), (c), (g)(1), and (h)(1) through (h)(3) of 40 CFR 63 Subpart R, except as specified in 40 CFR 63.650(b) and (c). Subpart CC. [40 CFR 63.650(a)]

1495 Comply with the recordkeeping and reporting provisions in 40 CFR 63.428 (b) and (c), (g)(1), and (h)(1) through (h)(3) of 40 CFR 63 Subpart R. Subpart CC. [40 CFR 63.654(b)]

1496 Equipment/operational data recordkeeping by recorder hourly. Keep the records specified in 40 CFR 63.654(i)(3)(i) through (i)(3)(v). Subpart CC. [40 CFR 63.654(i)(3)]

### TRT003 TO2006: Belco Thermal Oxidizer

1497 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

1498 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.A.1-7. [LAC 33:III.1305]

1499 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

1500 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified

1501 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

1502 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Calumet will comly with all applicable requirements of NESHAP subpart UUU. [LAC 33:III.5109.A]

1503 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ. [LAC 33:III.5113.B.6]

1504 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: Three-hour rolling average

1505 Fuel gas: Sulfur dioxide <= 20 ppm dry basis, 0% excess air. Subpart J. [40 CFR 60.105(a)(3)(ii)]
Which Months: All Year Statistical Basis: Three-hour rolling average

TRT003 TO2006: Belco Thermal Oxidizer

1506 Sulfur dioxide monitored by continuous emission monitor (CEM) continuously. Include an oxygen monitor for correcting the data for excess air. Subpart J. [40 CFR 60.105(a)(3)]
Which Months: All Year Statistical Basis: None specified

1507 Hydrogen sulfide monitored by continuous emission monitor (CEM) continuously. Monitor the H2S in fuel gases before being burned in any fuel gas combustion device. Subpart J. [40 CFR 60.105(a)(4)]
Which Months: All Year Statistical Basis: None specified

1508 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

1509 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

1510 Temperature > 1000 F, for the combustion zone temperature. Subpart UUU. [40 CFR 63.1568(a)(2)]
Which Months: All Year Statistical Basis: Daily average

1511 Establish each applicable site-specific operating limit in 40 CFR 63 Subpart UUU Table 30 that applies to you according to the procedures in 40 CFR 63 Subpart UUU Table 32. Subpart UUU. [40 CFR 63.1568(b)(3)]

1512 Demonstrate continuous compliance with each applicable emission limitation in 40 CFR 63 Subpart UUU Tables 29 and 30 according to the methods specified in 40 CFR 63 Subpart UUU Tables 34 and 35. Subpart UUU. [40 CFR 63.1568(c)(1)]

1513 Bypass lines: Flow monitored by the regulation's specified method(s) continuously or at least every hour. Use a device (including a flow indicator, level recorder, or electronic valve position monitor) to demonstrate whether flow is present in the bypass line. Install the device at or as near as practical to the entrance to any bypass line. Subpart UUU. [40 CFR 63.1569(a)(1)(i)]
Which Months: All Year Statistical Basis: None specified

1514 Bypass lines: Install a car-seal or lock-and-key device placed on the mechanism by which the bypass device flow position is controlled when the bypass device is in the closed position such the that bypass line valve cannot be opened without breaking the seal or removing the device. Subpart UUU. [40 CFR 63.1569(a)(1)(ii)]

1515 Bypass lines: Seal the bypass line by installing a solid blind between piping flanges. Subpart UUU. [40 CFR 63.1569(a)(1)(iii)]

1516 Bypass lines: Vent the bypass line to a control device that meets the appropriate requirements in 40 CFR 63 Subpart UUU. Subpart UUU. [40 CFR 63.1569(a)(1)(iv)]

1517 Bypass lines: Conduct each performance test according to the requirements in 40 CFR 63.1571 and under the conditions specified in 40 CFR 63 Subpart UUU Table 37. Subpart UUU. [40 CFR 63.1569(b)(1)]

1518 Bypass lines: Demonstrate initial compliance with each applicable work practice standard in 40 CFR 63 Subpart UUU Table 36 according to 40 CFR 63 Subpart UUU Table 38. Subpart UUU. [40 CFR 63.1569(b)(2)]

1519 Bypass lines: Demonstrate continuous compliance with each applicable work practice standard in 40 CFR 63 Subpart UUU Table 36 according to the requirements in 40 CFR 63 Subpart UUU Table 39. Subpart UUU. [40 CFR 63.1569(c)(1)]



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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| ARE 005<br>FUG-Roads | 0.08 | 0.1 | 0.35 | | | | | | | | | | | | |
| EQT 008<br>B2001 | | 1.0 | | | 0.1 | | | 15.0 | | | 11.5 | | | 0.8 | |
| EQT 009<br>CTLUB | 3.6 | 4.3 | 15.6 | | | | | | | | | | 9.00 | 10.8 | 39.4 |
| EQT 010<br>CTMAR | 2.6 | 3.1 | 11.3 | | | | | | | | | | 6.5 | 7.8 | 28.4 |
| EQT 011<br>CTUDX | 1.00 | 1.2 | 4.4 | | | | | | | | | | 3.00 | 3.6 | 13.1 |
| EQT 012<br>DECR | 0.5 | 0.6 | 0.17 | 0.47 | 0.56 | 0.16 | 7.1 | 8.5 | 2.4 | 1.5 | 1.8 | 0.51 | 0.57 | 0.69 | 0.19 |
| EQT 013<br>DEFWT | 1.1 | 1.3 | 0.11 | 1.00 | 1.2 | 0.1 | 15.1 | 18.2 | 1.6 | 3.3 | 3.9 | 0.34 | 1.2 | 1.5 | 0.13 |
| EQT 015<br>DESAC | 0.24 | 0.28 | 0.08 | 0.22 | 0.26 | 0.08 | 3.3 | 4.0 | 1.2 | 0.72 | 0.86 | 0.26 | 0.27 | 0.32 | 0.1 |
| EQT 016<br>FL2001 | 0.005 | 0.01 | 0.02 | 0.004 | 0.005 | 0.02 | 0.04 | 0.05 | 0.19 | 0.23 | 0.28 | 1.01 | 0.09 | | 0.38 |
| EQT 017<br>I-a | | 1.4 | | | 5.00 | | | 18.5 | | | 15.5 | | | 1.00 | |
| EQT 018<br>I-b | | 1.4 | | | 5.00 | | | 18.5 | | | 15.5 | | | 1.00 | |
| EQT 019<br>II-e | 0.21 | 0.25 | 0.91 | 0.74 | 0.88 | 3.22 | 2.7 | 3.3 | 12.0 | 2.3 | 2.8 | 10.1 | 0.15 | 0.18 | 0.66 |
| EQT 020<br>II-f | 0.13 | 0.15 | 0.56 | 0.45 | 0.54 | 1.98 | 1.7 | 2.0 | 7.4 | 1.4 | 1.7 | 6.2 | 0.09 | 0.11 | 0.4 |
| EQT 021<br>II-k | 0.11 | 0.13 | 0.48 | 0.39 | 0.47 | 1.7 | 0.72 | 0.87 | 3.2 | 1.2 | 1.5 | 5.3 | 0.08 | 0.1 | 0.35 |
| EQT 022<br>II-l | 0.36 | 0.43 | 1.6 | 1.28 | 1.54 | 5.61 | 4.8 | 5.7 | 20.8 | 4.00 | 4.8 | 17.5 | 0.26 | 0.31 | 1.1 |
| EQT 023<br>II-s | 0.26 | 0.31 | 1.1 | 0.92 | 1.10 | 4.03 | 3.4 | 4.1 | 15.0 | 2.9 | 3.4 | 12.6 | 0.19 | 0.23 | 0.82 |
| EQT 024<br>II-v | 0.05 | 0.07 | 0.24 | 0.19 | 0.23 | 0.85 | 0.72 | 0.87 | 3.2 | 0.61 | 0.73 | 2.7 | 0.04 | 0.05 | 0.17 |
| EQT 025<br>II-w | 0.04 | 0.05 | 0.18 | 0.003 | 0.004 | 0.01 | 0.55 | 0.65 | 2.4 | 0.46 | 0.55 | 2.00 | 0.03 | 0.04 | 0.13 |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 027 III-b-a | 0.04 | 0.04 | 0.16 | 0.13 | 0.15 | 0.55 | 0.47 | 0.56 | 2.1 | 0.39 | 0.47 | 1.7 | 0.03 | 0.03 | 0.11 |
| EQT 028 III-b-b | 0.01 | 0.01 | 0.03 | 0.03 | 0.03 | 0.12 | 0.1 | 0.12 | 0.4 | 0.08 | 0.1 | 0.37 | 0.01 | 0.01 | 0.02 |
| EQT 029 III-c | 0.14 | 0.16 | 0.59 | 0.48 | 0.58 | 2.1 | 1.8 | 2.1 | 7.8 | 1.5 | 1.8 | 6.6 | 0.1 | 0.12 | 0.43 |
| EQT 031 III-f | 0.69 | 0.82 | 3.00 | 2.43 | 2.92 | 10.65 | 9.00 | 10.9 | 39.6 | 7.6 | 9.1 | 33.3 | 0.5 | 0.6 | 2.2 |
| EQT 033 III-h | 0.08 | 0.1 | 0.37 | 0.3 | 0.36 | 1.32 | 1.1 | 1.3 | 4.9 | 0.94 | 1.1 | 4.1 | 0.06 | 0.07 | 0.27 |
| EQT 034 III-I | 0.06 | 0.07 | 0.27 | 0.005 | 0.01 | 0.02 | 0.8 | 1.00 | 3.5 | 0.67 | 0.81 | 2.9 | 0.04 | 0.05 | 0.19 |
| EQT 035 III-m | 0.06 | 0.07 | 0.27 | 0.005 | 0.01 | 0.02 | 0.81 | 1.00 | 3.6 | 0.68 | 0.82 | 3.0 | 0.04 | 0.05 | 0.2 |
| EQT 036 IV-a | 0.22 | 0.26 | 1.00 | 0.78 | 0.93 | 3.41 | 1.4 | 1.7 | 6.3 | 2.4 | 2.9 | 10.7 | 0.16 | 0.19 | 0.7 |
| EQT 037 IV-b | 0.14 | 0.16 | 0.59 | 0.48 | 0.58 | 2.1 | 0.89 | 1.1 | 3.9 | 1.5 | 1.8 | 6.6 | 0.1 | 0.12 | 0.43 |
| EQT 038 IV-c | 0.16 | 0.19 | 0.71 | 0.01 | 0.02 | 0.06 | 1.1 | 1.3 | 4.7 | 1.8 | 2.1 | 7.8 | 0.12 | 0.14 | 0.51 |
| EQT 039 IV-d | 0.13 | 0.16 | 0.57 | 0.01 | 0.01 | 0.05 | 0.86 | 1.0 | 3.8 | 1.4 | 1.7 | 6.3 | 0.09 | 0.11 | 0.41 |
| EQT 040 IV-e | 0.02 | 0.03 | 0.09 | 0.002 | 0.002 | 0.01 | 0.14 | 0.17 | 0.62 | 0.24 | 0.29 | 1.0 | 0.02 | 0.02 | 0.07 |
| EQT 042 IV-g | | 0.36 | | | 1.3 | | | 2.4 | | | 4.0 | | | 0.26 | |
| EQT 043 IV-j | 0.06 | 0.07 | 0.27 | 0.005 | 0.01 | 0.02 | 0.8 | 1.0 | 3.5 | 0.67 | 0.81 | 2.9 | 0.04 | 0.05 | 0.19 |
| EQT 044 LAB | | | | | | | | | | | | | 2.73 | 2.73 | 11.95 |
| EQT 045 LAB-HEX | | | | | | | | | | | | | 0.02 | 0.89 | 0.08 |
| EQT 047 T-10 | | | | | | | | | | | | | | 0.09 | |
| EQT 048 T-100 | | | | | | | | | | | | | | 0.09 | |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 050 T-103 | | | | | | | | | | | | | | 0.09 | |
| EQT 051 T-104 | | | | | | | | | | | | | | 0.09 | |
| EQT 052 T-105 | | | | | | | | | | | | | | 0.09 | |
| EQT 053 T-106 | | | | | | | | | | | | | | 0.09 | |
| EQT 054 T-107 | | | | | | | | | | | | | | 0.12 | |
| EQT 055 T-108 | | | | | | | | | | | | | | 0.12 | |
| EQT 056 T-109 | | | | | | | | | | | | | | 0.12 | |
| EQT 057 T-11 | | | | | | | | | | | | | | 0.09 | |
| EQT 058 T-110 | | | | | | | | | | | | | | 0.09 | |
| EQT 059 T-111 | | | | | | | | | | | | | | 0.02 | |
| EQT 060 T-112 | | | | | | | | | | | | | | 0.09 | |
| EQT 061 T-113 | | | | | | | | | | | | | | 0.09 | |
| EQT 062 T-114 | | | | | | | | | | | | | | 0.09 | |
| EQT 063 T-115 | | | | | | | | | | | | | | 0.06 | |
| EQT 064 T-116 | | | | | | | | | | | | | | 0.06 | |
| EQT 065 T-117 | | | | | | | | | | | | | | 0.06 | |
| EQT 066 T-12 | | | | | | | | | | | | | | 0.09 | |
| EQT 067 T-13 | | | | | | | | | | | | | | 0.09 | |



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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 069 T-1308 | | | | | | | | | | | | | | 15.78 | |
| EQT 071 T-14 | | | | | | | | | | | | | | 17.67 | |
| EQT 072 T-140 | | | | | | | | | | | | | | 0.02 | |
| EQT 073 T-141 | | | | | | | | | | | | | | 0.09 | |
| EQT 074 T-142 | | | | | | | | | | | | | | 0.09 | |
| EQT 075 T-143 | | | | | | | | | | | | | | 0.09 | |
| EQT 076 T-144 | | | | | | | | | | | | | | 0.09 | |
| EQT 077 T-145 | | | | | | | | | | | | | | 62.68 | |
| EQT 078 T-146 | | | | | | | | | | | | | | 62.68 | |
| EQT 079 T-147 | | | | | | | | | | | | | | 0.2 | |
| EQT 080 T-148 | | | | | | | | | | | | | | 0.02 | |
| EQT 081 T-149 | | | | | | | | | | | | | | 0.04 | |
| EQT 082 T-15 | | | | | | | | | | | | | | 0.09 | |
| EQT 083 T-150 | | | | | | | | | | | | | | 0.02 | |
| EQT 084 T-151 | | | | | | | | | | | | | | 0.02 | |
| EQT 085 T-152 | | | | | | | | | | | | | | 0.02 | |
| EQT 086 T-153 | | | | | | | | | | | | | | 0.09 | |
| EQT 087 T-154 | | | | | | | | | | | | | | 0.09 | |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 088<br>T-155 | | | | | | | | | | | | | | 0.02 | |
| EQT 089<br>T-156 | | | | | | | | | | | | | | 0.02 | |
| EQT 090<br>T-157 | | | | | | | | | | | | | | 0.02 | |
| EQT 091<br>T-158 | | | | | | | | | | | | | | 0.02 | |
| EQT 092<br>T-159 | | | | | | | | | | | | | | 0.09 | |
| EQT 093<br>T-16 | | | | | | | | | | | | | | 0.09 | |
| EQT 094<br>T-160 | | | | | | | | | | | | | | 0.09 | |
| EQT 095<br>T-161 | | | | | | | | | | | | | | 0.09 | |
| EQT 096<br>T-162 | | | | | | | | | | | | | | 0.09 | |
| EQT 097<br>T-163 | | | | | | | | | | | | | | 0.09 | |
| EQT 098<br>T-164 | | | | | | | | | | | | | | 0.09 | |
| EQT 099<br>T-165 | | | | | | | | | | | | | | 0.09 | |
| EQT 100<br>T-166 | | | | | | | | | | | | | | 0.09 | |
| EQT 101<br>T-167 | | | | | | | | | | | | | | 0.09 | |
| EQT 102<br>T-168 | | | | | | | | | | | | | | 0.09 | |
| EQT 103<br>T-169 | | | | | | | | | | | | | | 0.09 | |
| EQT 104<br>T-170 | | | | | | | | | | | | | | 0.09 | |
| EQT 105<br>T-171 | | | | | | | | | | | | | | 0.02 | |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 106<br>T-172 | | | | | | | | | | | | | | 0.02 | |
| EQT 107<br>T-173 | | | | | | | | | | | | | | 0.02 | |
| EQT 108<br>T-174 | | | | | | | | | | | | | | 0.09 | |
| EQT 109<br>T-175 | | | | | | | | | | | | | 0.69 | 0.69 | 3.01 |
| EQT 110<br>T-176 | | | | | | | | | | | | | | 0.09 | |
| EQT 111<br>T-177 | | | | | | | | | | | | | | 0.12 | |
| EQT 112<br>T-178 | | | | | | | | | | | | | | 0.12 | |
| EQT 113<br>T-179 | | | | | | | | | | | | | | 0.12 | |
| EQT 114<br>T-180 | | | | | | | | | | | | | | 0.09 | |
| EQT 115<br>T-181 | | | | | | | | | | | | | | 0.09 | |
| EQT 116<br>T-182 | | | | | | | | | | | | | 0.46 | 0.46 | 2.03 |
| EQT 117<br>T-183 | | | | | | | | | | | | | | 0.02 | |
| EQT 118<br>T-184 | | | | | | | | | | | | | | 0.09 | |
| EQT 119<br>T-185 | | | | | | | | | | | | | 0.29 | 0.29 | 1.25 |
| EQT 120<br>T-186 | | | | | | | | | | | | | | 0.09 | |
| EQT 121<br>T-187 | | | | | | | | | | | | | 1.24 | 1.24 | 5.45 |
| EQT 122<br>T-188 | | | | | | | | | | | | | 0.06 | 0.07 | 0.24 |
| EQT 123<br>T-199 | | | | | | | | | | | | | 0.43 | 0.43 | 1.89 |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 129<br>T-26 | | | | | | | | | | | | | 6.73 | 6.73 | 29.49 |
| EQT 130<br>T-27 | | | | | | | | | | | | | 0.59 | 0.59 | 2.61 |
| EQT 131<br>T-29 | | | | | | | | | | | | | 0.01 | 0.01 | 0.03 |
| EQT 132<br>T-30 | | | | | | | | | | | | | 0.001 | 0.001 | 0.01 |
| EQT 133<br>T-301 | | | | | | | | | | | | | 0.59 | 1.7 | 2.59 |
| EQT 134<br>T-32 | | | | | | | | | | | | | 0.38 | 0.38 | 1.68 |
| EQT 136<br>T-39 | | | | | | | | | | | | | 0.004 | 0.004 | 0.02 |
| EQT 138<br>T-43 | | | | | | | | | | | | | 0.53 | 0.53 | 2.31 |
| EQT 139<br>T-44 | | | | | | | | | | | | | 1.17 | 1.17 | 5.11 |
| EQT 140<br>T-45 | | | | | | | | | | | | | | 0.09 | |
| EQT 141<br>T-46 | | | | | | | | | | | | | | 2.39 | |
| EQT 142<br>T-47 | | | | | | | | | | | | | | 0.09 | |
| EQT 143<br>T-48 | | | | | | | | | | | | | | 0.09 | |
| EQT 144<br>T-49 | | | | | | | | | | | | | 0.60 | 0.60 | 2.61 |
| EQT 145<br>T-50 | | | | | | | | | | | | | 0.03 | 0.03 | 0.12 |
| EQT 146<br>T-503 | | | | | | | | | | | | | 0.58 | 1.35 | 2.55 |
| EQT 147<br>T-504 | | | | | | | | | | | | | 0.56 | 0.6 | 2.46 |
| EQT 149<br>T-52 | | | | | | | | | | | | | 0.29 | 0.29 | 1.27 |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 150 T-53 | | | | | | | | | | | | | 0.01 | 0.01 | 0.03 |
| EQT 151 T-54 | | | | | | | | | | | | | 0.01 | 0.01 | 0.02 |
| EQT 152 T-55 | | | | | | | | | | | | | 3.09 | 3.09 | 13.52 |
| EQT 153 T-56 | | | | | | | | | | | | | 0.02 | 0.02 | 0.09 |
| EQT 154 T-57 | | | | | | | | | | | | | 0.73 | 0.73 | 3.18 |
| EQT 155 T-58 | | | | | | | | | | | | | 0.47 | 0.47 | 2.04 |
| EQT 156 T-59 | | | | | | | | | | | | | | 0.32 | |
| EQT 157 T-60 | | | | | | | | | | | | | 0.48 | 0.48 | 2.11 |
| EQT 158 T-61 | | | | | | | | | | | | | 3.59 | 3.59 | 15.71 |
| EQT 159 T-62 | | | | | | | | | | | | | | 0.09 | |
| EQT 160 T-63 | | | | | | | | | | | | | | 0.09 | |
| EQT 161 T-64 | | | | | | | | | | | | | | 0.09 | |
| EQT 162 T-65 | | | | | | | | | | | | | 0.002 | 0.002 | 0.01 |
| EQT 163 T-67 | | | | | | | | | | | | | 1.52 | 1.52 | 6.64 |
| EQT 164 T-68 | | | | | | | | | | | | | 1.15 | 1.15 | 5.06 |
| EQT 165 T-69 | | | | | | | | | | | | | | 0.002 | |
| EQT 166 T-71 | | | | | | | | | | | | | | 0.02 | |
| EQT 167 T-72 | | | | | | | | | | | | | 0.06 | 0.06 | 0.26 |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 168 T-73 | | | | | | | | | | | | | 0.01 | 0.01 | 0.05 |
| EQT 169 T-74 | | | | | | | | | | | | | 0.17 | 0.17 | 0.75 |
| EQT 170 T-75 | | | | | | | | | | | | | 0.28 | 0.28 | 1.23 |
| EQT 171 T-76 | | | | | | | | | | | | | 4.78 | 4.78 | 20.93 |
| EQT 172 T-77 | | | | | | | | | | | | | 0.52 | 0.52 | 2.27 |
| EQT 175 T-81 | | | | | | | | | | | | | | 0.05 | |
| EQT 176 T-82 | | | | | | | | | | | | | | 0.09 | |
| EQT 177 T-83 | | | | | | | | | | | | | | 0.09 | |
| EQT 178 T-84 | | | | | | | | | | | | | | 0.09 | |
| EQT 180 T-86 | | | | | | | | | | | | | | 0.02 | |
| EQT 181 T-87 | | | | | | | | | | | | | | 0.02 | |
| EQT 182 T-89 | | | | | | | | | | | | | | 0.09 | |
| EQT 183 T-92 | | | | | | | | | | | | | | 0.09 | |
| EQT 184 T-93 | | | | | | | | | | | | | | 0.09 | |
| EQT 185 T-94 | | | | | | | | | | | | | | 0.09 | |
| EQT 186 T-95 | | | | | | | | | | | | | | 0.09 | |
| EQT 187 T-96 | | | | | | | | | | | | | | 0.09 | |
| EQT 188 T-97 | | | | | | | | | | | | | | 0.09 | |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
***Permit Number: 0500-00005-V1***
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 189 T-98 | | | | | | | | | | | | | | 0.09 | |
| EQT 190 T-99 | | | | | | | | | | | | | | 0.02 | |
| EQT 191 TC4001 | | | | | | | | | | | | | 0.01 | 0.01 | 0.04 |
| EQT 192 TC5001 | | | | | | | | | | | | | 0.01 | 0.01 | 0.04 |
| EQT 194 TZ1001 | | | | | | | | | | | | | 0.01 | 0.01 | 0.04 |
| EQT 195 V-b | 0.08 | 0.1 | 0.35 | 0.01 | 0.01 | 0.03 | 0.53 | 0.63 | 2.3 | 0.9 | 1.1 | 3.9 | 0.06 | 0.07 | 0.25 |
| EQT 196 V-c | 0.12 | 0.15 | 0.54 | 0.01 | 0.01 | 0.04 | 0.81 | 1 | 3.5 | 1.4 | 1.6 | 5.9 | 0.09 | 0.11 | 0.39 |
| EQT 197 V-d | 0.05 | 0.06 | 0.22 | 0.004 | 0.005 | 0.02 | 0.32 | 0.4 | 1.4 | 0.54 | 0.65 | 2.4 | 0.04 | 0.04 | 0.16 |
| EQT 198 V-e-a | 0.28 | 0.33 | 1.2 | 0.02 | 0.03 | 0.1 | 1.8 | 2.2 | 8.0 | 3.1 | 3.7 | 13.4 | 0.2 | 0.24 | 0.88 |
| EQT 199 V-e-b | 0.28 | 0.33 | 1.2 | 0.02 | 0.03 | 0.1 | 1.8 | 2.2 | 8.0 | 3.1 | 3.7 | 13.4 | 0.2 | 0.24 | 0.88 |
| EQT 202 V-g | 0.005 | 0.01 | 0.02 | 0.004 | 0.005 | 0.02 | 0.04 | 0.05 | 0.18 | 0.22 | 0.3 | 0.99 | 0.09 | 0.11 | 0.37 |
| EQT 204 V-i-b | 0.32 | 0.39 | 1.4 | 1.14 | 1.36 | 4.98 | 2.1 | 2.5 | 9.3 | 3.6 | 4.3 | 15.6 | 0.23 | 0.28 | 1.0 |
| EQT 206 V-i-d | 0.16 | 0.19 | 0.68 | 0.55 | 0.66 | 2.41 | 1 | 1.2 | 4.5 | 1.7 | 2.1 | 7.5 | 0.11 | 0.14 | 0.49 |
| EQT 207 V-i-e | 0.05 | 0.06 | 0.24 | 0.19 | 0.23 | 0.84 | 0.36 | 0.43 | 1.6 | 0.6 | 0.72 | 2.6 | 0.04 | 0.05 | 0.17 |
| EQT 208 VI-f | | | | | | | | | | | | | 0.02 | 0.02 | 0.10 |
| EQT 209 VII-a | 0.06 | 0.08 | 0.27 | 0.22 | 0.27 | 0.97 | 0.63 | 1.0 | 3.6 | 0.69 | 0.83 | 3.0 | 0.05 | 0.05 | 0.2 |
| EQT 210 VII-c | 0.1 | 0.13 | 0.46 | 0.37 | 0.44 | 1.62 | 1.4 | 1.7 | 6.0 | 1.2 | 1.4 | 5.1 | 0.08 | 0.09 | 0.33 |
| EQT 211 VII-d | 0.06 | 0.08 | 0.27 | 0.22 | 0.27 | 0.97 | 0.83 | 1.0 | 3.6 | 0.69 | 0.83 | 3.0 | 0.05 | 0.05 | 0.2 |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 212<br>VII-e | 0.01 | 0.01 | 0.05 | 0.04 | 0.05 | 0.19 | 0.16 | 0.19 | 0.7 | 0.13 | 0.16 | 0.59 | 0.01 | 0.01 | 0.04 |
| EQT 213<br>VS3001 | 0.01 | 0.01 | 0.02 | | | | | | | | | | | | |
| EQT 214<br>WWCC0001 | | | | | | | | | | | | | 0.06 | 25.8 | 0.26 |
| EQT 215<br>WWCC2002 | | | | | | | | | | | | | 0.14 | 0.16 | 0.6 |
| EQT 216<br>WWCC2006 | | | | | | | | | | | | | 0.001 | 0.001 | < 0.01 |
| EQT 217<br>WWCC2010 | | | | | | | | | | | | | 0.41 | 31.22 | 1.78 |
| EQT 218<br>WWCC208 | | | | | | | | | | | | | 0.1 | 0.11 | 0.42 |
| EQT 219<br>WWCC3001A | | | | | | | | | | | | | 0.03 | 0.04 | 0.13 |
| EQT 220<br>WWCC3001B | | | | | | | | | | | | | 0.03 | 0.04 | 0.13 |
| EQT 221<br>WWCCA003 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 222<br>WWCCESEP | | | | | | | | | | | | | 0.13 | 0.16 | 0.57 |
| EQT 223<br>WWCCNSEP | | | | | | | | | | | | | 0.12 | 0.15 | 0.55 |
| EQT 224<br>WWCCWSEP | | | | | | | | | | | | | 0.12 | 0.15 | 0.54 |
| EQT 225<br>WWS2005 | | | | | | | | | | | | | 0.001 | 0.001 | < 0.01 |
| EQT 226<br>WWS2008 | | | | | | | | | | | | | 0.001 | 0.001 | 0.003 |
| EQT 227<br>WWS2009 | | | | | | | | | | | | | 0.004 | 0.005 | 0.02 |
| EQT 228<br>WWS2011 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 230<br>WWTAT | | | | | | | | | | | | | 2.07 | 3.25 | 9.07 |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 232<br>VII-f | 0.25 | 0.30 | 1.10 | 0.89 | 1.07 | 3.89 | 1.65 | 1.98 | 7.23 | 2.77 | 3.33 | 12.14 | 0.18 | 0.22 | 0.80 |
| EQT 233<br>VII-g | 0.24 | 0.29 | 1.07 | 0.86 | 1.03 | 3.77 | 1.60 | 1.92 | 7.01 | 2.69 | 3.23 | 11.77 | 0.18 | 0.21 | 0.77 |
| EQT 234<br>VII-h | 0.43 | 0.51 | 1.86 | 1.51 | 1.81 | 6.60 | 2.80 | 3.36 | 12.26 | 4.70 | 5.64 | 20.60 | 0.31 | 0.37 | 1.35 |
| EQT 235<br>VII-i | 0.02 | 0.03 | 0.10 | 0.08 | 0.10 | 0.35 | 0.15 | 0.18 | 0.66 | 0.25 | 0.30 | 1.10 | 0.02 | 0.02 | 0.07 |
| EQT 236<br>VII-j | 0.02 | 0.03 | 0.10 | 0.08 | 0.10 | 0.35 | 0.15 | 0.18 | 0.66 | 0.25 | 0.30 | 1.10 | 0.02 | 0.02 | 0.07 |
| EQT 237<br>VII-k | 0.07 | 0.09 | 0.32 | 0.26 | 0.31 | 1.14 | 0.48 | 0.58 | 2.12 | 0.81 | 0.98 | 3.57 | 0.05 | 0.06 | 0.23 |
| EQT 238<br>VII-l | 0.50 | 0.60 | 2.20 | 0.10 | 0.12 | 0.43 | 3.30 | 3.96 | 14.45 | 5.54 | 6.65 | 24.28 | 0.36 | 0.44 | 1.59 |
| EQT 239<br>VII-m | 0.28 | 0.34 | 1.23 | 1.00 | 1.19 | 4.36 | 1.85 | 2.22 | 8.10 | 3.11 | 3.73 | 13.61 | 0.20 | 0.24 | 0.89 |
| EQT 240<br>VII-n | 0.28 | 0.34 | 1.23 | 1.00 | 1.19 | 4.36 | 1.50 | 1.80 | 6.57 | 3.10 | 3.73 | 13.61 | 0.20 | 0.24 | 0.89 |
| EQT 241<br>IV-n | | 0.40 | | | 1.30 | | | 2.40 | | | 4.00 | | | 0.30 | |
| EQT 242<br>T-2001 | | | | | | | | | | | | | 0.02 | 0.02 | 0.09 |
| EQT 243<br>T-201 | | | | | | | | | | | | | 0.06 | 0.06 | 0.26 |
| EQT 244<br>T-79 | | | | | | | | | | | | | 0.24 | 0.24 | 1.06 |
| EQT 245<br>T-3001 | | | | | | | | | | | | | | 0.01 | |
| EQT 246<br>T-2009 | | | | | | | | | | | | | | 10.97 | |
| EQT 247<br>T-202 | | | | | | | | | | | | | | 18.96 | |
| FUG 002<br>FU-VOC | | | | | | | | | | | | | 101.87 | 101.87 | 446.20 |
| GRP 002<br>ADDITIVE CAP | | | | | | | | | | | | | 0.17 | | 0.75 |





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# EMISSION RATES FOR CRITERIA POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | $PM_{10}$ | | | $SO_2$ | | | NOx | | | CO | | | VOC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| GRP 003 BOILER CAP | 2.8 | | 12.3 | 9.9 | | 43.5 | 36.90 | | 161.80 | 31.00 | | 135.90 | 2.00 | | 8.9 |
| GRP 008 HEAVY OIL CAP | | | | | | | | | | | | | 2.48 | | 10.86 |
| GRP 010 RECYCLE CAP | | | | | | | | | | | | | 0.002 | | 0.01 |
| GRP 011 SOLVENT CAP | | | | | | | | | | | | | 0.72 | | 3.14 |
| GRP 012 WAX CAP | | | | | | | | | | | | | 0.01 | | 0.02 |
| TRT 002 VI-ia | 0.001 | 0.001 | < 0.01 | 0.14 | 0.17 | 0.62 | 0.58 | 0.69 | 2.5 | 1.5 | 1.8 | 6.4 | 1.4 | 1.7 | 6.3 |
| TRT 003 TO2006 | 0.07 | 0.09 | 0.31 | 6.17 | 7.40 | 27.01 | 0.93 | 1.12 | 4.07 | 0.78 | 0.94 | 3.42 | 0.05 | 0.06 | 0.22 |

**Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals**

**Permit Phase Totals:**

PM10: 73.76 tons/yr
SO2: 146.86 tons/yr
NOx: 433.52 tons/yr
CO: 470.67 tons/yr
VOC: 747.86 tons/yr

**Emission rates Notes:**





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 008<br>B2001 | | | | | | | | | | | | | | | |
| EQT 012<br>DECR | 0.0001 | 0.0001 | 0.001 | | | | 0.001 | 0.001 | < 0.01 | 0.0001 | 0.0002 | 0.001 | | | |
| EQT 013<br>DEFWT | 0.0001 | 0.0002 | 0.001 | | | | 0.003 | 0.003 | 0.0003 | 0.0003 | 0.0004 | 0.001 | | | |
| EQT 015<br>DESAC | 0.0001 | 0.0001 | 0.001 | | | | 0.001 | 0.001 | 0.0002 | 0.0001 | 0.0001 | 0.001 | | | |
| EQT 016<br>FL2001 | | | | | | | | | | | | | | | |
| EQT 017<br>I-a | | | | | | | | | | | | | | | |
| EQT 018<br>I-b | | | | | | | | | | | | | | | |
| EQT 019<br>II-e | | | | | | | | | | | | | | | |
| EQT 020<br>II-f | | | | | | | | | | | | | | | |
| EQT 021<br>II-k | | | | | | | | | | | | | | | |
| EQT 022<br>II-l | | | | | | | | | | | | | | | |
| EQT 023<br>II-s | | | | | | | | | | | | | | | |
| EQT 024<br>II-v | | | | | | | | | | | | | | | |
| EQT 025<br>II-w | | | | | | | | | | | | | | | |
| EQT 027<br>III-b-a | | | | | | | | | | | | | | | |
| EQT 028<br>III-b-b | | | | | | | | | | | | | | | |
| EQT 029<br>III-c | | | | | | | | | | | | | | | |
| EQT 031<br>III-f | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 008<br>B2001 | | 0.001 | | | < 0.001 | | | | | | < 0.001 | | | | |
| EQT 012<br>DECR | | | | 0.001 | 0.002 | 0.001 | | | | | | | | | |
| EQT 013<br>DEFWT | | | | 0.003 | 0.004 | 0.0003 | | | | | | | | | |
| EQT 015<br>DESAC | | | | 0.001 | 0.001 | 0.0003 | | | | | | | | | |
| EQT 016<br>FL2001 | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 017<br>I-a | | 0.001 | | | < 0.001 | | | | | | < 0.001 | | | | |
| EQT 018<br>I-b | | 0.001 | | | < 0.001 | | | | | | < 0.001 | | | | |
| EQT 019<br>II-e | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 020<br>II-f | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 021<br>II-k | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 022<br>II-l | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 023<br>II-s | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 024<br>II-v | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 025<br>II-w | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | | | | 0.0001 | 0.0001 | 0.0001 | | | |
| EQT 027<br>III-b-a | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 028<br>III-b-b | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 029<br>III-c | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 031<br>III-f | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 008<br>B2001 | | < 0.001 | | | | | | | | | < 0.001 | | | | |
| EQT 012<br>DECR | | | | | | | | | | | | | | | |
| EQT 013<br>DEFWT | | | | | | | | | | | | | | | |
| EQT 015<br>DESAC | | | | | | | | | | | | | | | |
| EQT 016<br>FL2001 | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 017<br>I-a | | < 0.001 | | | | | | | | | < 0.001 | | | | |
| EQT 018<br>I-b | | < 0.001 | | | | | | | | | < 0.001 | | | | |
| EQT 019<br>II-e | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 020<br>II-f | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 021<br>II-k | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 022<br>II-l | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 023<br>II-s | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 024<br>II-v | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 025<br>II-w | 0.0001 | 0.0001 | 0.0001 | | | | | | | 0.0001 | 0.0001 | 0.0001 | | | |
| EQT 027<br>III-b-a | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 028<br>III-b-b | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 029<br>III-c | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 031<br>III-f | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 008<br>B2001 | | 0.01 | | | | | | | | | | | | | |
| EQT 012<br>DECR | 0.002 | 0.002 | 0.001 | | | | | | | | | | | | |
| EQT 013<br>DEFWT | 0.004 | 0.005 | 0.0004 | | | | | | | | | | | | |
| EQT 015<br>DESAC | 0.001 | 0.001 | 0.0003 | | | | | | | | | | | | |
| EQT 016<br>FL2001 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 017<br>I-a | | 0.01 | | | | | | | | | | | | | |
| EQT 018<br>I-b | | 0.01 | | | | | | | | | | | | | |
| EQT 019<br>II-e | 0.002 | 0.002 | 0.01 | | | | | | | | | | | | |
| EQT 020<br>II-f | 0.001 | 0.002 | < 0.01 | | | | | | | | | | | | |
| EQT 021<br>II-k | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 022<br>II-l | 0.004 | 0.004 | 0.02 | | | | | | | | | | | | |
| EQT 023<br>II-s | 0.003 | 0.003 | 0.01 | | | | | | | | | | | | |
| EQT 024<br>II-v | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 025<br>II-w | 0.0004 | 0.0005 | 0.002 | | | | | | | | | | | | |
| EQT 027<br>III-b-a | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 028<br>III-b-b | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 029<br>III-c | 0.001 | 0.002 | 0.01 | | | | | | | | | | | | |
| EQT 031<br>III-f | 0.01 | 0.01 | 0.03 | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 008<br>B2001 | | | | | < 0.001 | | | | | | | | | | |
| EQT 012<br>DECR | 0.0001 | 0.0002 | 0.0001 | | | | | | | 0.0003 | 0.0003 | 0.001 | | | |
| EQT 013<br>DEFWT | 0.0003 | 0.0003 | 0.0001 | | | | | | | 0.001 | 0.001 | 0.001 | | | |
| EQT 015<br>DESAC | 0.0001 | 0.0001 | 0.0001 | | | | | | | 0.0001 | 0.0002 | 0.001 | | | |
| EQT 016<br>FL2001 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 017<br>I-a | | | | | < 0.001 | | | | | | | | | | |
| EQT 018<br>I-b | | | | | < 0.001 | | | | | | | | | | |
| EQT 019<br>II-e | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 020<br>II-f | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 021<br>II-k | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 022<br>II-l | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 023<br>II-s | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 024<br>II-v | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 025<br>II-w | | | | 0.0001 | 0.0001 | 0.0001 | | | | | | | | | |
| EQT 027<br>III-b-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 028<br>III-b-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 029<br>III-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 031<br>III-f | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 008 B2001 | | | | | < 0.001 | | | | | | 0.004 | | | 0.25 | |
| EQT 012 DECR | | | | 0.001 | 0.001 | 0.0002 | 0.0005 | 0.001 | 0.0002 | | | | | | |
| EQT 013 DEFWT | | | | 0.001 | 0.002 | 0.0001 | 0.001 | 0.001 | 0.0001 | | | | | | |
| EQT 015 DESAC | | | | 0.0003 | 0.0004 | 0.0001 | 0.0002 | 0.0003 | 0.0001 | | | | | | |
| EQT 016 FL2001 | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.001 | 0.001 | < 0.01 |
| EQT 017 I-a | | | | | 0.001 | | | | | | 0.01 | | | 0.33 | |
| EQT 018 I-b | | | | | 0.001 | | | | | | 0.01 | | | 0.33 | |
| EQT 019 II-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.05 | 0.06 | 0.22 |
| EQT 020 II-f | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | 0.001 | < 0.01 | 0.03 | 0.04 | 0.13 |
| EQT 021 II-k | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | 0.001 | < 0.01 | 0.03 | 0.03 | 0.11 |
| EQT 022 II-l | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.002 | 0.01 | 0.09 | 0.1 | 0.38 |
| EQT 023 II-s | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.06 | 0.07 | 0.27 |
| EQT 024 II-v | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.02 | 0.06 |
| EQT 025 II-w | | | | 0.0001 | 0.0001 | 0.0001 | | | | 0.0002 | 0.0002 | 0.001 | 0.01 | 0.01 | 0.04 |
| EQT 027 III-b-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.01 | 0.04 |
| EQT 028 III-b-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.002 | 0.002 | 0.01 |
| EQT 029 III-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.03 | 0.04 | 0.14 |
| EQT 031 III-f | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.003 | 0.003 | 0.01 | 0.16 | 0.2 | 0.71 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 033 III-h | | | | | | | | | | | | | | | |
| EQT 034 III-I | | | | | | | | | | | | | | | |
| EQT 035 III-m | | | | | | | | | | | | | | | |
| EQT 036 IV-a | | | | | | | | | | | | | | | |
| EQT 037 IV-b | | | | | | | | | | | | | | | |
| EQT 038 IV-c | | | | | | | | | | | | | | | |
| EQT 039 IV-d | | | | | | | | | | | | | | | |
| EQT 040 IV-e | | | | | | | | | | | | | | | |
| EQT 042 IV-g | | | | | | | | | | | | | | | |
| EQT 043 IV-j | | | | | | | | | | | | | | | |
| EQT 044 LAB | | | | 0.18 | 0.18 | 0.81 | | | | | | | 0.004 | 0.004 | 0.02 |
| EQT 045 LAB-HEX | | | | | | | | | | | | | | | |
| EQT 047 T-10 | | | | | | | | | | | | | | | |
| EQT 048 T-100 | | | | | | | | | | | | | | | |
| EQT 050 T-103 | | | | | | | | | | | | | | | |
| EQT 051 T-104 | | | | | | | | | | | | | | | |
| EQT 052 T-105 | | | | | | | | | | | | | | | |
| EQT 053 T-106 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 033<br>III-h | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 034<br>III-I | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 035<br>III-m | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 036<br>IV-a | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 037<br>IV-b | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 038<br>IV-c | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 039<br>IV-d | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 040<br>IV-e | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 042<br>IV-g | | < 0.001 | | | < 0.001 | | | | | | < 0.001 | | | | |
| EQT 043<br>IV-j | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 044<br>LAB | | | | | | | | | | | | | 0.04 | 0.04 | 0.17 |
| EQT 045<br>LAB-HEX | | | | | | | | | | | | | | | |
| EQT 047<br>T-10 | | | | | | | | < 0.001 | | | | | | | |
| EQT 048<br>T-100 | | | | | | | | < 0.001 | | | | | | | |
| EQT 050<br>T-103 | | | | | | | | < 0.001 | | | | | | | |
| EQT 051<br>T-104 | | | | | | | | < 0.001 | | | | | | | |
| EQT 052<br>T-105 | | | | | | | | < 0.001 | | | | | | | |
| EQT 053<br>T-106 | | | | | | | | < 0.001 | | | | | | | |



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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 033 III-h | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 034 III-I | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 035 III-m | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 036 IV-a | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 037 IV-b | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 038 IV-c | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 039 IV-d | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 040 IV-e | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 042 IV-g | | < 0.001 | | | | | | | | | < 0.001 | | | | |
| EQT 043 IV-j | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 044 LAB | | | | | | | | | | | | | | | |
| EQT 045 LAB-HEX | | | | | | | | | | | | | | | |
| EQT 047 T-10 | | | | | | | | | | | | | | < 0.001 | |
| EQT 048 T-100 | | | | | | | | | | | | | | < 0.001 | |
| EQT 050 T-103 | | | | | | | | | | | | | | < 0.001 | |
| EQT 051 T-104 | | | | | | | | | | | | | | < 0.001 | |
| EQT 052 T-105 | | | | | | | | | | | | | | < 0.001 | |
| EQT 053 T-106 | | | | | | | | | | | | | | < 0.001 | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 033 III-h | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 034 III-I | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 035 III-m | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 036 IV-a | 0.002 | 0.003 | 0.01 | | | | | | | | | | | | |
| EQT 037 IV-b | 0.001 | 0.002 | 0.01 | | | | | | | | | | | | |
| EQT 038 IV-c | 0.002 | 0.002 | 0.01 | | | | | | | | | | | | |
| EQT 039 IV-d | 0.001 | 0.002 | 0.01 | | | | | | | | | | | | |
| EQT 040 IV-e | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 042 IV-g | | 0.004 | | | | | | | | | | | | | |
| EQT 043 IV-j | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 044 LAB | | | | 0.005 | 0.005 | 0.02 | | | | | | | 0.03 | 0.03 | 0.14 |
| EQT 045 LAB-HEX | | | | | | | | | | | | | | | |
| EQT 047 T-10 | | | | | | | | | | | | | | | |
| EQT 048 T-100 | | | | | | | | | | | | | | | |
| EQT 050 T-103 | | | | | | | | | | | | | | | |
| EQT 051 T-104 | | | | | | | | | | | | | | | |
| EQT 052 T-105 | | | | | | | | | | | | | | | |
| EQT 053 T-106 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 033 III-h | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 034 III-i | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 035 III-m | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 036 IV-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 037 IV-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 038 IV-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 039 IV-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 040 IV-e | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 042 IV-g | | | | | < 0.001 | | | | | | | | | | |
| EQT 043 IV-j | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 044 LAB | | | | | | | | | | | | | | | |
| EQT 045 LAB-HEX | | | | | | | | | | | | | | | |
| EQT 047 T-10 | | < 0.001 | | | | | | | | | | | | | |
| EQT 048 T-100 | | < 0.001 | | | | | | | | | | | | | |
| EQT 050 T-103 | | < 0.001 | | | | | | | | | | | | | |
| EQT 051 T-104 | | < 0.001 | | | | | | | | | | | | | |
| EQT 052 T-105 | | < 0.001 | | | | | | | | | | | | | |
| EQT 053 T-106 | | < 0.001 | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 033<br>III-h | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.02 | 0.02 | 0.09 |
| EQT 034<br>III-I | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.02 | 0.06 |
| EQT 035<br>III-m | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.02 | 0.06 |
| EQT 036<br>IV-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.05 | 0.06 | 0.23 |
| EQT 037<br>IV-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.03 | 0.04 | 0.14 |
| EQT 038<br>IV-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.04 | 0.05 | 0.17 |
| EQT 039<br>IV-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | 0.001 | < 0.01 | 0.03 | 0.04 | 0.14 |
| EQT 040<br>IV-e | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.01 | 0.02 |
| EQT 042<br>IV-g | | | | | < 0.001 | | | | | | 0.001 | | | 0.08 | |
| EQT 043<br>IV-j | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.02 | 0.06 |
| EQT 044<br>LAB | | | | 0.11 | 0.11 | 0.48 | | | | | | | 2.33 | 2.33 | 10.2 |
| EQT 045<br>LAB-HEX | | | | | | | | | | | | | 0.02 | 0.89 | 0.08 |
| EQT 047<br>T-10 | | | | | | | | < 0.001 | | | | | | | |
| EQT 048<br>T-100 | | | | | | | | < 0.001 | | | | | | | |
| EQT 050<br>T-103 | | | | | | | | < 0.001 | | | | | | | |
| EQT 051<br>T-104 | | | | | | | | < 0.001 | | | | | | | |
| EQT 052<br>T-105 | | | | | | | | < 0.001 | | | | | | | |
| EQT 053<br>T-106 | | | | | | | | < 0.001 | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 054<br>T-107 | | | | | | | | | | | | | | | |
| EQT 055<br>T-108 | | | | | | | | | | | | | | | |
| EQT 056<br>T-109 | | | | | | | | | | | | | | | |
| EQT 057<br>T-11 | | | | | | | | | | | | | | | |
| EQT 058<br>T-110 | | | | | | | | | | | | | | | |
| EQT 060<br>T-112 | | | | | | | | | | | | | | | |
| EQT 061<br>T-113 | | | | | | | | | | | | | | | |
| EQT 062<br>T-114 | | | | | | | | | | | | | | | |
| EQT 063<br>T-115 | | | | | | | | | | | | | | | |
| EQT 064<br>T-116 | | | | | | | | | | | | | | | |
| EQT 065<br>T-117 | | | | | | | | | | | | | | | |
| EQT 066<br>T-12 | | | | | | | | | | | | | | | |
| EQT 067<br>T-13 | | | | | | | | | | | | | | | |
| EQT 073<br>T-141 | | | | | | | | | | | | | | | |
| EQT 074<br>T-142 | | | | | | | | | | | | | | | |
| EQT 075<br>T-143 | | | | | | | | | | | | | | | |
| EQT 076<br>T-144 | | | | | | | | | | | | | | | |
| EQT 077<br>T-145 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 054<br>T-107 | | | | | | | | | | | | | | | |
| EQT 055<br>T-108 | | | | | | | | | | | | | | | |
| EQT 056<br>T-109 | | | | | | | | | | | | | | | |
| EQT 057<br>T-11 | | | | | | | | < 0.001 | | | | | | | |
| EQT 058<br>T-110 | | | | | | | | < 0.001 | | | | | | | |
| EQT 060<br>T-112 | | | | | | | | < 0.001 | | | | | | | |
| EQT 061<br>T-113 | | | | | | | | < 0.001 | | | | | | | |
| EQT 062<br>T-114 | | | | | | | | < 0.001 | | | | | | | |
| EQT 063<br>T-115 | | | | | | | | < 0.001 | | | | | | | |
| EQT 064<br>T-116 | | | | | | | | < 0.001 | | | | | | | |
| EQT 065<br>T-117 | | | | | | | | < 0.001 | | | | | | | |
| EQT 066<br>T-12 | | | | | | | | < 0.001 | | | | | | | |
| EQT 067<br>T-13 | | | | | | | | < 0.001 | | | | | | | |
| EQT 073<br>T-141 | | | | | | | | < 0.001 | | | | | | | |
| EQT 074<br>T-142 | | | | | | | | < 0.001 | | | | | | | |
| EQT 075<br>T-143 | | | | | | | | < 0.001 | | | | | | | |
| EQT 076<br>T-144 | | | | | | | | < 0.001 | | | | | | | |
| EQT 077<br>T-145 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 054<br>T-107 | | | | | | | | | | | | | | < 0.001 | |
| EQT 055<br>T-108 | | | | | | | | | | | | | | < 0.001 | |
| EQT 056<br>T-109 | | | | | | | | | | | | | | < 0.001 | |
| EQT 057<br>T-11 | | | | | | | | | | | | | | < 0.001 | |
| EQT 058<br>T-110 | | | | | | | | | | | | | | < 0.001 | |
| EQT 060<br>T-112 | | | | | | | | | | | | | | < 0.001 | |
| EQT 061<br>T-113 | | | | | | | | | | | | | | < 0.001 | |
| EQT 062<br>T-114 | | | | | | | | | | | | | | < 0.001 | |
| EQT 063<br>T-115 | | | | | | | | | | | | | | < 0.001 | |
| EQT 064<br>T-116 | | | | | | | | | | | | | | < 0.001 | |
| EQT 065<br>T-117 | | | | | | | | | | | | | | < 0.001 | |
| EQT 066<br>T-12 | | | | | | | | | | | | | | < 0.001 | |
| EQT 067<br>T-13 | | | | | | | | | | | | | | < 0.001 | |
| EQT 073<br>T-141 | | | | | | | | | | | | | | < 0.001 | |
| EQT 074<br>T-142 | | | | | | | | | | | | | | < 0.001 | |
| EQT 075<br>T-143 | | | | | | | | | | | | | | < 0.001 | |
| EQT 076<br>T-144 | | | | | | | | | | | | | | < 0.001 | |
| EQT 077<br>T-145 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery
Activity Number: PER20060004
Permit Number: 0500-00005-V1
Air - Title V Regular Permit Minor Mod

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 054<br>T-107 | | | | | | | | | | | | | | | |
| EQT 055<br>T-108 | | | | | | | | | | | | | | | |
| EQT 056<br>T-109 | | | | | | | | | | | | | | | |
| EQT 057<br>T-11 | | | | | | | | | | | | | | | |
| EQT 058<br>T-110 | | | | | | | | | | | | | | | |
| EQT 060<br>T-112 | | | | | | | | | | | | | | | |
| EQT 061<br>T-113 | | | | | | | | | | | | | | | |
| EQT 062<br>T-114 | | | | | | | | | | | | | | | |
| EQT 063<br>T-115 | | | | | | | | | | | | | | | |
| EQT 064<br>T-116 | | | | | | | | | | | | | | | |
| EQT 065<br>T-117 | | | | | | | | | | | | | | | |
| EQT 066<br>T-12 | | | | | | | | | | | | | | | |
| EQT 067<br>T-13 | | | | | | | | | | | | | | | |
| EQT 073<br>T-141 | | | | | | | | | | | | | | | |
| EQT 074<br>T-142 | | | | | | | | | | | | | | | |
| EQT 075<br>T-143 | | | | | | | | | | | | | | | |
| EQT 076<br>T-144 | | | | | | | | | | | | | | | |
| EQT 077<br>T-145 | | | | | | | | | | | | | | 31.34 | |



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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 054 T-107 | | < 0.001 | | | | | | | | | | | | | |
| EQT 055 T-108 | | < 0.001 | | | | | | | | | | | | | |
| EQT 056 T-109 | | < 0.001 | | | | | | | | | | | | | |
| EQT 057 T-11 | | < 0.001 | | | | | | | | | | | | | |
| EQT 058 T-110 | | < 0.001 | | | | | | | | | | | | | |
| EQT 060 T-112 | | < 0.001 | | | | | | | | | | | | | |
| EQT 061 T-113 | | < 0.001 | | | | | | | | | | | | | |
| EQT 062 T-114 | | < 0.001 | | | | | | | | | | | | | |
| EQT 063 T-115 | | < 0.001 | | | | | | | | | | | | | |
| EQT 064 T-116 | | < 0.001 | | | | | | | | | | | | | |
| EQT 065 T-117 | | < 0.001 | | | | | | | | | | | | | |
| EQT 066 T-12 | | < 0.001 | | | | | | | | | | | | | |
| EQT 067 T-13 | | < 0.001 | | | | | | | | | | | | | |
| EQT 073 T-141 | | < 0.001 | | | | | | | | | | | | | |
| EQT 074 T-142 | | < 0.001 | | | | | | | | | | | | | |
| EQT 075 T-143 | | < 0.001 | | | | | | | | | | | | | |
| EQT 076 T-144 | | < 0.001 | | | | | | | | | | | | | |
| EQT 077 T-145 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 054<br>T-107 | | | | | | | | < 0.001 | | | | | | | |
| EQT 055<br>T-108 | | | | | | | | < 0.001 | | | | | | | |
| EQT 056<br>T-109 | | | | | | | | < 0.001 | | | | | | | |
| EQT 057<br>T-11 | | | | | | | | < 0.001 | | | | | | | |
| EQT 058<br>T-110 | | | | | | | | < 0.001 | | | | | | | |
| EQT 060<br>T-112 | | | | | | | | < 0.001 | | | | | | | |
| EQT 061<br>T-113 | | | | | | | | < 0.001 | | | | | | | |
| EQT 062<br>T-114 | | | | | | | | < 0.001 | | | | | | | |
| EQT 063<br>T-115 | | | | | | | | < 0.001 | | | | | | | |
| EQT 064<br>T-116 | | | | | | | | < 0.001 | | | | | | | |
| EQT 065<br>T-117 | | | | | | | | < 0.001 | | | | | | | |
| EQT 066<br>T-12 | | | | | | | | < 0.001 | | | | | | | |
| EQT 067<br>T-13 | | | | | | | | < 0.001 | | | | | | | |
| EQT 073<br>T-141 | | | | | | | | < 0.001 | | | | | | | |
| EQT 074<br>T-142 | | | | | | | | < 0.001 | | | | | | | |
| EQT 075<br>T-143 | | | | | | | | < 0.001 | | | | | | | |
| EQT 076<br>T-144 | | | | | | | | < 0.001 | | | | | | | |
| EQT 077<br>T-145 | | | | | 31.34 | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 078<br>T-146 | | | | | | | | | | | | | | | |
| EQT 079<br>T-147 | | | | | | | | | | | | | | | |
| EQT 081<br>T-149 | | | | | | | | | | | | | | | |
| EQT 082<br>T-15 | | | | | | | | | | | | | | | |
| EQT 086<br>T-153 | | | | | | | | | | | | | | | |
| EQT 087<br>T-154 | | | | | | | | | | | | | | | |
| EQT 092<br>T-159 | | | | | | | | | | | | | | | |
| EQT 093<br>T-16 | | | | | | | | | | | | | | | |
| EQT 094<br>T-160 | | | | | | | | | | | | | | | |
| EQT 095<br>T-161 | | | | | | | | | | | | | | | |
| EQT 096<br>T-162 | | | | | | | | | | | | | | | |
| EQT 097<br>T-163 | | | | | | | | | | | | | | | |
| EQT 098<br>T-164 | | | | | | | | | | | | | | | |
| EQT 099<br>T-165 | | | | | | | | | | | | | | | |
| EQT 100<br>T-166 | | | | | | | | | | | | | | | |
| EQT 101<br>T-167 | | | | | | | | | | | | | | | |
| EQT 102<br>T-168 | | | | | | | | | | | | | | | |
| EQT 103<br>T-169 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 078 T-146 | | | | | | | | | | | | | | | |
| EQT 079 T-147 | | | | | | | | | | | | | | | |
| EQT 081 T-149 | | | | | | | | | | | | | | | |
| EQT 082 T-15 | | | | | | | | < 0.001 | | | | | | | |
| EQT 086 T-153 | | | | | | | | < 0.001 | | | | | | | |
| EQT 087 T-154 | | | | | | | | < 0.001 | | | | | | | |
| EQT 092 T-159 | | | | | | | | < 0.001 | | | | | | | |
| EQT 093 T-16 | | | | | | | | < 0.001 | | | | | | | |
| EQT 094 T-160 | | | | | | | | < 0.001 | | | | | | | |
| EQT 095 T-161 | | | | | | | | < 0.001 | | | | | | | |
| EQT 096 T-162 | | | | | | | | < 0.001 | | | | | | | |
| EQT 097 T-163 | | | | | | | | < 0.001 | | | | | | | |
| EQT 098 T-164 | | | | | | | | < 0.001 | | | | | | | |
| EQT 099 T-165 | | | | | | | | < 0.001 | | | | | | | |
| EQT 100 T-166 | | | | | | | | < 0.001 | | | | | | | |
| EQT 101 T-167 | | | | | | | | < 0.001 | | | | | | | |
| EQT 102 T-168 | | | | | | | | < 0.001 | | | | | | | |
| EQT 103 T-169 | | | | | | | | < 0.001 | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 078<br>T-146 | | | | | | | | | | | | | | | |
| EQT 079<br>T-147 | | | | | | | | | | | | | | | |
| EQT 081<br>T-149 | | | | | | | | | | | | | | | |
| EQT 082<br>T-15 | | | | | | | | | | | | | | < 0.001 | |
| EQT 086<br>T-153 | | | | | | | | | | | | | | < 0.001 | |
| EQT 087<br>T-154 | | | | | | | | | | | | | | < 0.001 | |
| EQT 092<br>T-159 | | | | | | | | | | | | | | < 0.001 | |
| EQT 093<br>T-16 | | | | | | | | | | | | | | < 0.001 | |
| EQT 094<br>T-160 | | | | | | | | | | | | | | < 0.001 | |
| EQT 095<br>T-161 | | | | | | | | | | | | | | < 0.001 | |
| EQT 096<br>T-162 | | | | | | | | | | | | | | < 0.001 | |
| EQT 097<br>T-163 | | | | | | | | | | | | | | < 0.001 | |
| EQT 098<br>T-164 | | | | | | | | | | | | | | < 0.001 | |
| EQT 099<br>T-165 | | | | | | | | | | | | | | < 0.001 | |
| EQT 100<br>T-166 | | | | | | | | | | | | | | < 0.001 | |
| EQT 101<br>T-167 | | | | | | | | | | | | | | < 0.001 | |
| EQT 102<br>T-168 | | | | | | | | | | | | | | < 0.001 | |
| EQT 103<br>T-169 | | | | | | | | | | | | | | < 0.001 | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 078<br>T-146 | | | | | | | | | | | | | | 31.34 | |
| EQT 079<br>T-147 | | | | | | | | | | | | | | 0.1 | |
| EQT 081<br>T-149 | | | | | | | | | | | | | | 0.02 | |
| EQT 082<br>T-15 | | | | | | | | | | | | | | | |
| EQT 086<br>T-153 | | | | | | | | | | | | | | | |
| EQT 087<br>T-154 | | | | | | | | | | | | | | | |
| EQT 092<br>T-159 | | | | | | | | | | | | | | | |
| EQT 093<br>T-16 | | | | | | | | | | | | | | | |
| EQT 094<br>T-160 | | | | | | | | | | | | | | | |
| EQT 095<br>T-161 | | | | | | | | | | | | | | | |
| EQT 096<br>T-162 | | | | | | | | | | | | | | | |
| EQT 097<br>T-163 | | | | | | | | | | | | | | | |
| EQT 098<br>T-164 | | | | | | | | | | | | | | | |
| EQT 099<br>T-165 | | | | | | | | | | | | | | | |
| EQT 100<br>T-166 | | | | | | | | | | | | | | | |
| EQT 101<br>T-167 | | | | | | | | | | | | | | | |
| EQT 102<br>T-168 | | | | | | | | | | | | | | | |
| EQT 103<br>T-169 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 078 T-146 | | | | | | | | | | | | | | | |
| EQT 079 T-147 | | | | | | | | | | | | | | | |
| EQT 081 T-149 | | | | | | | | | | | | | | | |
| EQT 082 T-15 | | < 0.001 | | | | | | | | | | | | | |
| EQT 086 T-153 | | < 0.001 | | | | | | | | | | | | | |
| EQT 087 T-154 | | < 0.001 | | | | | | | | | | | | | |
| EQT 092 T-159 | | < 0.001 | | | | | | | | | | | | | |
| EQT 093 T-16 | | < 0.001 | | | | | | | | | | | | | |
| EQT 094 T-160 | | < 0.001 | | | | | | | | | | | | | |
| EQT 095 T-161 | | < 0.001 | | | | | | | | | | | | | |
| EQT 096 T-162 | | < 0.001 | | | | | | | | | | | | | |
| EQT 097 T-163 | | < 0.001 | | | | | | | | | | | | | |
| EQT 098 T-164 | | < 0.001 | | | | | | | | | | | | | |
| EQT 099 T-165 | | < 0.001 | | | | | | | | | | | | | |
| EQT 100 T-166 | | < 0.001 | | | | | | | | | | | | | |
| EQT 101 T-167 | | < 0.001 | | | | | | | | | | | | | |
| EQT 102 T-168 | | < 0.001 | | | | | | | | | | | | | |
| EQT 103 T-169 | | < 0.001 | | | | | | | | | | | | | |



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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 078<br>T-146 | | | | | 31.34 | | | | | | | | | | |
| EQT 079<br>T-147 | | | | | 0.1 | | | | | | | | | | |
| EQT 081<br>T-149 | | | | | 0.02 | | | | | | | | | | |
| EQT 082<br>T-15 | | | | | | | | < 0.001 | | | | | | | |
| EQT 086<br>T-153 | | | | | | | | < 0.001 | | | | | | | |
| EQT 087<br>T-154 | | | | | | | | < 0.001 | | | | | | | |
| EQT 092<br>T-159 | | | | | | | | < 0.001 | | | | | | | |
| EQT 093<br>T-16 | | | | | | | | < 0.001 | | | | | | | |
| EQT 094<br>T-160 | | | | | | | | < 0.001 | | | | | | | |
| EQT 095<br>T-161 | | | | | | | | < 0.001 | | | | | | | |
| EQT 096<br>T-162 | | | | | | | | < 0.001 | | | | | | | |
| EQT 097<br>T-163 | | | | | | | | < 0.001 | | | | | | | |
| EQT 098<br>T-164 | | | | | | | | < 0.001 | | | | | | | |
| EQT 099<br>T-165 | | | | | | | | < 0.001 | | | | | | | |
| EQT 100<br>T-166 | | | | | | | | < 0.001 | | | | | | | |
| EQT 101<br>T-167 | | | | | | | | < 0.001 | | | | | | | |
| EQT 102<br>T-168 | | | | | | | | < 0.001 | | | | | | | |
| EQT 103<br>T-169 | | | | | | | | < 0.001 | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 104 T-170 | | | | | | | | | | | | | | | |
| EQT 108 T-174 | | | | | | | | | | | | | | | |
| EQT 109 T-175 | | | | < 0.001 | 0.001 | < 0.01 | | | | | | | | | |
| EQT 110 T-176 | | | | | | | | | | | | | | | |
| EQT 111 T-177 | | | | | | | | | | | | | | | |
| EQT 112 T-178 | | | | | | | | | | | | | | | |
| EQT 113 T-179 | | | | | | | | | | | | | | | |
| EQT 114 T-180 | | | | | | | | | | | | | | | |
| EQT 115 T-181 | | | | | | | | | | | | | | | |
| EQT 116 T-182 | | | | 0.002 | 0.002 | 0.01 | | | | | | | | | |
| EQT 118 T-184 | | | | | | | | | | | | | | | |
| EQT 119 T-185 | | | | 0.001 | 0.001 | < 0.01 | | | | | | | | | |
| EQT 120 T-186 | | | | | | | | | | | | | | | |
| EQT 121 T-187 | | | | 0.004 | 0.004 | 0.02 | | | | | | | | | |
| EQT 122 T-188 | | | | | | | | | | | | | | | |
| EQT 123 T-199 | | | | 0.001 | 0.001 | 0.01 | | | | | | | | | |
| EQT 129 T-26 | | | | 0.03 | 0.03 | 0.13 | | | | | | | | | |
| EQT 130 T-27 | | | | 0.003 | 0.003 | 0.01 | | | | | | | | | |



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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 104 T-170 | | | | | | | | < 0.001 | | | | | | | |
| EQT 108 T-174 | | | | | | | | < 0.001 | | | | | | | |
| EQT 109 T-175 | | | | < 0.001 | 0.001 | 0.005 | < 0.0002 | < 0.001 | < 0.001 | | | | | | |
| EQT 110 T-176 | | | | | | | | < 0.001 | | | | | | | |
| EQT 111 T-177 | | | | | | | | | | | | | | | |
| EQT 112 T-178 | | | | | | | | | | | | | | | |
| EQT 113 T-179 | | | | | | | | | | | | | | | |
| EQT 114 T-180 | | | | | | | | < 0.001 | | | | | | | |
| EQT 115 T-181 | | | | | | | | < 0.001 | | | | | | | |
| EQT 116 T-182 | | | | 0.003 | 0.003 | 0.01 | | | | | | | | | |
| EQT 118 T-184 | | | | | | | | < 0.001 | | | | | | | |
| EQT 119 T-185 | | | | | | | | | | | | | | | |
| EQT 120 T-186 | | | | | | | | < 0.001 | | | | | | | |
| EQT 121 T-187 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 122 T-188 | | | | 0.004 | 0.005 | 0.02 | | | | | | | | | |
| EQT 123 T-199 | | | | | | | | | | | | | | | |
| EQT 129 T-26 | | | | 0.04 | 0.04 | 0.16 | | | | | | | | | |
| EQT 130 T-27 | | | | 0.003 | 0.003 | 0.01 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 104 T-170 | | | | | | | | | | | | | | < 0.001 | |
| EQT 108 T-174 | | | | | | | | | | | | | | < 0.001 | |
| EQT 109 T-175 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 |
| EQT 110 T-176 | | | | | | | | | | | | | | < 0.001 | |
| EQT 111 T-177 | | | | | | | | | | | | | | < 0.001 | |
| EQT 112 T-178 | | | | | | | | | | | | | | < 0.001 | |
| EQT 113 T-179 | | | | | | | | | | | | | | < 0.001 | |
| EQT 114 T-180 | | | | | | | | | | | | | | < 0.001 | |
| EQT 115 T-181 | | | | | | | | | | | | | | < 0.001 | |
| EQT 116 T-182 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 118 T-184 | | | | | | | | | | | | | | < 0.001 | |
| EQT 119 T-185 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 120 T-186 | | | | | | | | | | | | | | < 0.001 | |
| EQT 121 T-187 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | 0.002 | 0.002 | 0.01 |
| EQT 122 T-188 | | | | | | | | | | | | | 0.01 | 0.01 | 0.05 |
| EQT 123 T-199 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 129 T-26 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.003 | 0.003 | 0.01 |
| EQT 130 T-27 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 104<br>T-170 | | | | | | | | | | | | | | | |
| EQT 108<br>T-174 | | | | | | | | | | | | | | | |
| EQT 109<br>T-175 | | | | | | | 0.002 | 0.002 | 0.01 | | | | | | |
| EQT 110<br>T-176 | | | | | | | | | | | | | | | |
| EQT 111<br>T-177 | | | | | | | | | | | | | | | |
| EQT 112<br>T-178 | | | | | | | | | | | | | | | |
| EQT 113<br>T-179 | | | | | | | | | | | | | | | |
| EQT 114<br>T-180 | | | | | | | | | | | | | | | |
| EQT 115<br>T-181 | | | | | | | | | | | | | | | |
| EQT 116<br>T-182 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 118<br>T-184 | | | | | | | | | | | | | | | |
| EQT 119<br>T-185 | | | | | | | | | | | | | | | |
| EQT 120<br>T-186 | | | | | | | | | | | | | | | |
| EQT 121<br>T-187 | | | | | | | | | | | | | | | |
| EQT 122<br>T-188 | | | | | | | | | | | | | | | |
| EQT 123<br>T-199 | | | | | | | | | | | | | | | |
| EQT 129<br>T-26 | | | | | | | | | | 0.006 | 0.006 | 0.02 | | | |
| EQT 130<br>T-27 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 104 T-170 | | < 0.001 | | | | | | | | | | | | | |
| EQT 108 T-174 | | < 0.001 | | | | | | | | | | | | | |
| EQT 109 T-175 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 110 T-176 | | < 0.001 | | | | | | | | | | | | | |
| EQT 111 T-177 | | < 0.001 | | | | | | | | | | | | | |
| EQT 112 T-178 | | < 0.001 | | | | | | | | | | | | | |
| EQT 113 T-179 | | < 0.001 | | | | | | | | | | | | | |
| EQT 114 T-180 | | < 0.001 | | | | | | | | | | | | | |
| EQT 115 T-181 | | < 0.001 | | | | | | | | | | | | | |
| EQT 116 T-182 | | | | | | | | | | | | | | | |
| EQT 118 T-184 | | < 0.001 | | | | | | | | | | | | | |
| EQT 119 T-185 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 120 T-186 | | < 0.001 | | | | | | | | | | | | | |
| EQT 121 T-187 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 122 T-188 | 0.001 | 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 123 T-199 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 129 T-26 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 130 T-27 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 104<br>T-170 | | | | | | | | < 0.001 | | | | | | | |
| EQT 108<br>T-174 | | | | | | | | < 0.001 | | | | | | | |
| EQT 109<br>T-175 | | | | 0.003 | 0.003 | 0.01 | 0.004 | 0.004 | 0.02 | | | | 0.008 | 0.008 | 0.04 |
| EQT 110<br>T-176 | | | | | | | | < 0.001 | | | | | | | |
| EQT 111<br>T-177 | | | | | | | | < 0.001 | | | | | | | |
| EQT 112<br>T-178 | | | | | | | | < 0.001 | | | | | | | |
| EQT 113<br>T-179 | | | | | | | | < 0.001 | | | | | | | |
| EQT 114<br>T-180 | | | | | | | | < 0.001 | | | | | | | |
| EQT 115<br>T-181 | | | | | | | | < 0.001 | | | | | | | |
| EQT 116<br>T-182 | | | | 0.003 | 0.003 | 0.01 | 0.001 | 0.001 | < 0.01 | | | | 0.004 | 0.004 | 0.02 |
| EQT 118<br>T-184 | | | | | | | | < 0.001 | | | | | | | |
| EQT 119<br>T-185 | | | | 0.002 | 0.002 | 0.01 | 0.002 | 0.002 | 0.01 | | | | 0.003 | 0.003 | 0.02 |
| EQT 120<br>T-186 | | | | | | | | < 0.001 | | | | | | | |
| EQT 121<br>T-187 | | | | 0.009 | 0.009 | 0.04 | 0.007 | 0.007 | 0.03 | | | | 0.015 | 0.015 | 0.07 |
| EQT 122<br>T-188 | | | | 0.03 | 0.04 | 0.13 | 0.01 | 0.01 | 0.04 | | | | | | |
| EQT 123<br>T-199 | | | | 0.003 | 0.003 | 0.01 | 0.002 | 0.002 | 0.01 | | | | 0.005 | 0.005 | 0.02 |
| EQT 129<br>T-26 | | | | 0.04 | 0.04 | 0.19 | 0.01 | 0.01 | 0.06 | | | | 0.06 | 0.06 | 0.26 |
| EQT 130<br>T-27 | | | | 0.004 | 0.004 | 0.02 | 0.001 | 0.001 | 0.005 | | | | 0.005 | 0.005 | 0.02 |



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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 131<br>T-29 | | | | | | | | | | | | | | | |
| EQT 132<br>T-30 | | | | | | | | | | | | | | | |
| EQT 133<br>T-301 | | | | | | | | | | | | | | | |
| EQT 134<br>T-32 | | | | 0.002 | 0.002 | 0.01 | | | | | | | | | |
| EQT 136<br>T-39 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 138<br>T-43 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 139<br>T-44 | | | | 0.005 | 0.005 | 0.02 | | | | | | | | | |
| EQT 140<br>T-45 | | | | | | | | | | | | | | | |
| EQT 141<br>T-46 | | | | | | | | | | | | | | | |
| EQT 142<br>T-47 | | | | | | | | | | | | | | | |
| EQT 143<br>T-48 | | | | | | | | | | | | | | | |
| EQT 144<br>T-49 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 145<br>T-50 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 146<br>T-503 | | | | | | | | | | | | | | | |
| EQT 147<br>T-504 | | | | | | | | | | | | | | | |
| EQT 149<br>T-52 | | | | 0.001 | 0.001 | < 0.01 | | | | | | | | | |
| EQT 150<br>T-53 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 151<br>T-54 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 131 T-29 | | | | | | | | | | | | | | | |
| EQT 132 T-30 | | | | | | | | | | | | | | | |
| EQT 133 T-301 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 134 T-32 | | | | 0.002 | 0.002 | 0.01 | | | | | | | | | |
| EQT 136 T-39 | | | | | | | | | | | | | | | |
| EQT 138 T-43 | | | | 0.001 | 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 139 T-44 | | | | 0.006 | 0.006 | 0.03 | | | | | | | | | |
| EQT 140 T-45 | | | | | | | | < 0.001 | | | | | | | |
| EQT 141 T-46 | | | | | | | | | | | | | | | |
| EQT 142 T-47 | | | | | | | | < 0.001 | | | | | | | |
| EQT 143 T-48 | | | | | | | | < 0.001 | | | | | | | |
| EQT 144 T-49 | | | | 0.001 | 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 145 T-50 | | | | | | | | | | | | | | | |
| EQT 146 T-503 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 147 T-504 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 149 T-52 | | | | | | | | | | | | | | | |
| EQT 150 T-53 | | | | | | | | | | | | | | | |
| EQT 151 T-54 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 131<br>T-29 | | | | | | | | | | | | | | | |
| EQT 132<br>T-30 | | | | | | | | | | | | | | | |
| EQT 133<br>T-301 | | | | | | | < 0.001 | 0.001 | < 0.01 | | | | 0.002 | 0.01 | 0.01 |
| EQT 134<br>T-32 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 136<br>T-39 | | | | | | | | | | | | | | | |
| EQT 138<br>T-43 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 |
| EQT 139<br>T-44 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 140<br>T-45 | | | | | | | | | | | | | | < 0.001 | |
| EQT 141<br>T-46 | | | | | | | | | | | | | | 0.007 | |
| EQT 142<br>T-47 | | | | | | | | | | | | | | < 0.001 | |
| EQT 143<br>T-48 | | | | | | | | | | | | | | < 0.001 | |
| EQT 144<br>T-49 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 |
| EQT 145<br>T-50 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 146<br>T-503 | | | | | | | < 0.001 | 0.001 | < 0.01 | | | | 0.002 | 0.01 | 0.01 |
| EQT 147<br>T-504 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.002 | 0.002 | 0.01 |
| EQT 149<br>T-52 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 150<br>T-53 | | | | | | | | | | | | | | | |
| EQT 151<br>T-54 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 131 T-29 | | | | | | | | | | | | | | | |
| EQT 132 T-30 | | | | | | | | | | | | | | | |
| EQT 133 T-301 | | | | | | | | | | | | | | | |
| EQT 134 T-32 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 136 T-39 | | | | | | | | | | | | | | | |
| EQT 138 T-43 | | | | | | | 0.002 | 0.002 | 0.01 | | | | | | |
| EQT 139 T-44 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 140 T-45 | | | | | | | | | | | | | | | |
| EQT 141 T-46 | | | | | | | | | | | | | | | |
| EQT 142 T-47 | | | | | | | | | | | | | | | |
| EQT 143 T-48 | | | | | | | | | | | | | | | |
| EQT 144 T-49 | | | | | | | 0.002 | 0.002 | 0.01 | | | | | | |
| EQT 145 T-50 | | | | | | | | | | | | | | | |
| EQT 146 T-503 | | | | | | | | | | | | | | | |
| EQT 147 T-504 | | | | | | | | | | | | | | | |
| EQT 149 T-52 | | | | | | | | | | | | | | | |
| EQT 150 T-53 | | | | | | | | | | | | | | | |
| EQT 151 T-54 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 131 T-29 | | | | | | | | | | | | | | | |
| EQT 132 T-30 | | | | | | | | | | | | | | | |
| EQT 133 T-301 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 134 T-32 | | | | | | | | | | | | | | | |
| EQT 136 T-39 | | | | | | | | | | | | | | | |
| EQT 138 T-43 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 139 T-44 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 140 T-45 | | < 0.001 | | | | | | | | | | | | | |
| EQT 141 T-46 | | 0.005 | | | | | | | | | | | | | |
| EQT 142 T-47 | | < 0.001 | | | | | | | | | | | | | |
| EQT 143 T-48 | | < 0.001 | | | | | | | | | | | | | |
| EQT 144 T-49 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 145 T-50 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 146 T-503 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 147 T-504 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 149 T-52 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 150 T-53 | | | | | | | | | | | | | | | |
| EQT 151 T-54 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | *n*-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 131<br>T-29 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.001 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 132<br>T-30 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 133<br>T-301 | | | | 0.01 | 0.02 | 0.03 | 0.01 | 0.02 | 0.03 | | | | 0.01 | 0.03 | 0.05 |
| EQT 134<br>T-32 | | | | 0.003 | 0.003 | 0.01 | 0.001 | 0.001 | < 0.01 | | | | 0.003 | 0.003 | 0.02 |
| EQT 136<br>T-39 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 138<br>T-43 | | | | 0.002 | 0.002 | 0.01 | 0.003 | 0.003 | 0.01 | | | | 0.006 | 0.006 | 0.03 |
| EQT 139<br>T-44 | | | | 0.008 | 0.008 | 0.03 | 0.002 | 0.002 | 0.01 | | | | 0.01 | 0.01 | 0.04 |
| EQT 140<br>T-45 | | | | | | | | < 0.001 | | | | | | | |
| EQT 141<br>T-46 | | | | | | | | 0.004 | | | | | | | |
| EQT 142<br>T-47 | | | | | | | | < 0.001 | | | | | | | |
| EQT 143<br>T-48 | | | | | | | | < 0.001 | | | | | | | |
| EQT 144<br>T-49 | | | | 0.002 | < 0.002 | 0.01 | 0.003 | 0.003 | 0.02 | | | | 0.007 | 0.007 | < 0.01 |
| EQT 145<br>T-50 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 146<br>T-503 | | | | 0.01 | 0.01 | 0.03 | 0.01 | 0.01 | 0.03 | | | | 0.01 | 0.03 | 0.05 |
| EQT 147<br>T-504 | | | | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | | | | 0.01 | 0.01 | 0.05 |
| EQT 149<br>T-52 | | | | 0.002 | 0.002 | 0.01 | 0.002 | 0.002 | 0.01 | | | | 0.004 | 0.004 | 0.02 |
| EQT 150<br>T-53 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001<br>0.01 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 151<br>T-54 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 152<br>T-55 | | | | 0.01 | 0.01 | 0.06 | | | | | | | | | |
| EQT 153<br>T-56 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 154<br>T-57 | | | | 0.003 | 0.003 | 0.01 | | | | | | | | | |
| EQT 155<br>T-58 | | | | 0.002 | 0.002 | 0.01 | | | | | | | | | |
| EQT 156<br>T-59 | | | | | 0.001 | | | | | | | | | | |
| EQT 157<br>T-60 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 158<br>T-61 | | | | 0.02 | 0.02 | 0.07 | | | | | | | | | |
| EQT 159<br>T-62 | | | | | | | | | | | | | | | |
| EQT 160<br>T-63 | | | | | | | | | | | | | | | |
| EQT 161<br>T-64 | | | | | | | | | | | | | | | |
| EQT 162<br>T-65 | | | | | | | | | | | | | | | |
| EQT 163<br>T-67 | | | | 0.007 | 0.007 | 0.03 | | | | | | | | | |
| EQT 164<br>T-68 | | | | 0.005 | 0.005 | 0.02 | | | | | | | | | |
| EQT 165<br>T-69 | | | | | < 0.001 | | | | | | | | | | |
| EQT 167<br>T-72 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 168<br>T-73 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 169<br>T-74 | | | | 0.001 | 0.001 | < 0.01 | | | | | | | | | |
| EQT 170<br>T-75 | | | | 0.001 | 0.001 | < 0.01 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 152 T-55 | | | | 0.02 | 0.02 | 0.07 | | | | | | | | | |
| EQT 153 T-56 | | | | | | | | | | | | | | | |
| EQT 154 T-57 | | | | 0.004 | 0.004 | 0.02 | | | | | | | | | |
| EQT 155 T-58 | | | | 0.003 | 0.003 | 0.01 | | | | | | | | | |
| EQT 156 T-59 | | | | | 0.004 | | | < 0.001 | | | | | | | |
| EQT 157 T-60 | | | | 0.001 | 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 158 T-61 | | | | 0.02 | 0.02 | 0.08 | | | | | | | | | |
| EQT 159 T-62 | | | | | | | | < 0.001 | | | | | | | |
| EQT 160 T-63 | | | | | | | | < 0.001 | | | | | | | |
| EQT 161 T-64 | | | | | | | | < 0.001 | | | | | | | |
| EQT 162 T-65 | | | | | | | | | | | | | | | |
| EQT 163 T-67 | | | | 0.008 | 0.008 | 0.04 | | | | | | | | | |
| EQT 164 T-68 | | | | 0.006 | 0.006 | 0.03 | | | | | | | | | |
| EQT 165 T-69 | | | | | < 0.001 | | | < 0.001 | | | | | | | |
| EQT 167 T-72 | | | | | | | | | | | | | | | |
| EQT 168 T-73 | | | | | | | | | | | | | | | |
| EQT 169 T-74 | | | | | | | | | | | | | | | |
| EQT 170 T-75 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 152 T-55 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | 0.01 |
| EQT 153 T-56 | | | | | | | | | | | | | | | |
| EQT 154 T-57 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 155 T-58 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 156 T-59 | | | | | | | | < 0.001 | | | | | | < 0.001 | |
| EQT 157 T-60 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 158 T-61 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.002 | 0.002 | 0.01 |
| EQT 159 T-62 | | | | | | | | | | | | | | < 0.001 | |
| EQT 160 T-63 | | | | | | | | | | | | | | < 0.001 | |
| EQT 161 T-64 | | | | | | | | | | | | | | < 0.001 | |
| EQT 162 T-65 | | | | | | | | | | | | | | | |
| EQT 163 T-67 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 164 T-68 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | 0.01 |
| EQT 165 T-69 | | | | | | | | < 0.001 | | | | | | < 0.001 | |
| EQT 167 T-72 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 168 T-73 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 169 T-74 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 170 T-75 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 152 T-55 | | | | | | | | | | 0.003 | 0.003 | 0.01 | | | |
| EQT 153 T-56 | | | | | | | | | | | | | | | |
| EQT 154 T-57 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 155 T-58 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 156 T-59 | | | | | | | | | | | | | | | |
| EQT 157 T-60 | | | | | | | 0.002 | 0.002 | 0.01 | | | | | | |
| EQT 158 T-61 | | | | | | | | | | 0.003 | 0.003 | 0.01 | | | |
| EQT 159 T-62 | | | | | | | | | | | | | | | |
| EQT 160 T-63 | | | | | | | | | | | | | | | |
| EQT 161 T-64 | | | | | | | | | | | | | | | |
| EQT 162 T-65 | | | | | | | | | | | | | | | |
| EQT 163 T-67 | | | | | | | | | | 0.001 | 0.001 | 0.01 | | | |
| EQT 164 T-68 | | | | | | | | | | 0.001 | 0.001 | 0.01 | | | |
| EQT 165 T-69 | | | | | | | | | | | | | | | |
| EQT 167 T-72 | | | | | | | | | | | | | | | |
| EQT 168 T-73 | | | | | | | | | | | | | | | |
| EQT 169 T-74 | | | | | | | | | | | | | | | |
| EQT 170 T-75 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 152 T-55 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 153 T-56 | | | | | | | | | | | | | | | |
| EQT 154 T-57 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 155 T-58 | | | | | | | | | | | | | | | |
| EQT 156 T-59 | | < 0.001 | | | | | | < 0.001 | | | | | | < 0.001 | |
| EQT 157 T-60 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 158 T-61 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 159 T-62 | | < 0.001 | | | | | | | | | | | | | |
| EQT 160 T-63 | | < 0.001 | | | | | | | | | | | | | |
| EQT 161 T-64 | | < 0.001 | | | | | | | | | | | | | |
| EQT 162 T-65 | | | | | | | | | | | | | | | |
| EQT 163 T-67 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 164 T-68 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 165 T-69 | | < 0.001 | | | | | | < 0.001 | | | | | | < 0.001 | |
| EQT 167 T-72 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 168 T-73 | | | | | | | | | | | | | | | |
| EQT 169 T-74 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 170 T-75 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 152 T-55 | | | | 0.02 | 0.02 | 0.09 | 0.006 | 0.006 | 0.03 | | | | 0.03 | 0.03 | 0.12 |
| EQT 153 T-56 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | 0.01 |
| EQT 154 T-57 | | | | 0.005 | 0.005 | 0.02 | 0.001 | 0.001 | 0.01 | | | | 0.006 | 0.006 | 0.03 |
| EQT 155 T-58 | | | | 0.003 | 0.003 | 0.01 | 0.001 | 0.001 | < 0.01 | | | | 0.004 | 0.004 | 0.02 |
| EQT 156 T-59 | | | | | 0.01 | | | 0.002 | | | | | | 0.02 | |
| EQT 157 T-60 | | | | 0.001 | 0.001 | 0.01 | 0.003 | 0.003 | 0.01 | | | | 0.006 | 0.006 | 0.03 |
| EQT 158 T-61 | | | | 0.02 | 0.02 | 0.10 | 0.007 | 0.007 | 0.03 | | | | 0.03 | 0.03 | 0.14 |
| EQT 159 T-62 | | | | | | | | < 0.001 | | | | | | | |
| EQT 160 T-63 | | | | | | | | < 0.001 | | | | | | | |
| EQT 161 T-64 | | | | | | | | < 0.001 | | | | | | | |
| EQT 162 T-65 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 163 T-67 | | | | 0.01 | 0.01 | 0.04 | 0.003 | 0.003 | 0.01 | | | | 0.01 | 0.01 | 0.06 |
| EQT 164 T-68 | | | | 0.007 | 0.007 | 0.03 | 0.002 | 0.002 | 0.01 | | | | 0.01 | 0.01 | 0.04 |
| EQT 165 T-69 | | | | | < 0.001 | | | < 0.001 | | | | | | < 0.001 | |
| EQT 167 T-72 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 |
| EQT 168 T-73 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 169 T-74 | | | | 0.001 | 0.001 | 0.01 | 0.001 | 0.001 | < 0.01 | | | | 0.002 | 0.002 | 0.01 |
| EQT 170 T-75 | | | | 0.002 | 0.002 | 0.01 | 0.002 | 0.002 | 0.01 | | | | 0.003 | 0.003 | 0.02 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 171<br>T-76 | | | | 0.02 | 0.02 | 0.10 | | | | | | | | | |
| EQT 172<br>T-77 | | | | < 0.001 | < 0.001 | 0.01 | | | | | | | | | |
| EQT 176<br>T-82 | | | | | | | | | | | | | | | |
| EQT 177<br>T-83 | | | | | | | | | | | | | | | |
| EQT 178<br>T-84 | | | | | | | | | | | | | | | |
| EQT 182<br>T-89 | | | | | | | | | | | | | | | |
| EQT 183<br>T-92 | | | | | | | | | | | | | | | |
| EQT 184<br>T-93 | | | | | | | | | | | | | | | |
| EQT 185<br>T-94 | | | | | | | | | | | | | | | |
| EQT 186<br>T-95 | | | | | | | | | | | | | | | |
| EQT 187<br>T-96 | | | | | | | | | | | | | | | |
| EQT 188<br>T-97 | | | | | | | | | | | | | | | |
| EQT 189<br>T-98 | | | | | | | | | | | | | | | |
| EQT 191<br>TC4001 | | | | | | | | | | | | | | | |
| EQT 192<br>TC5001 | | | | | | | | | | | | | | | |
| EQT 194<br>TZ1001 | | | | | | | | | | | | | | | |
| EQT 195<br>V-b | | | | | | | | | | | | | | | |
| EQT 196<br>V-c | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 171<br>T-76 | | | | 0.03 | 0.03 | 0.11 | | | | | | | | | |
| EQT 172<br>T-77 | | | | < 0.001 | < 0.001 | 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 176<br>T-82 | | | | | | | | < 0.001 | | | | | | | |
| EQT 177<br>T-83 | | | | | | | | < 0.001 | | | | | | | |
| EQT 178<br>T-84 | | | | | | | | < 0.001 | | | | | | | |
| EQT 182<br>T-89 | | | | | | | | < 0.001 | | | | | | | |
| EQT 183<br>T-92 | | | | | | | | < 0.001 | | | | | | | |
| EQT 184<br>T-93 | | | | | | | | < 0.001 | | | | | | | |
| EQT 185<br>T-94 | | | | | | | | < 0.001 | | | | | | | |
| EQT 186<br>T-95 | | | | | | | | < 0.001 | | | | | | | |
| EQT 187<br>T-96 | | | | | | | | < 0.001 | | | | | | | |
| EQT 188<br>T-97 | | | | | | | | < 0.001 | | | | | | | |
| EQT 189<br>T-98 | | | | | | | | < 0.001 | | | | | | | |
| EQT 191<br>TC4001 | | | | | | | | | | | | | | | |
| EQT 192<br>TC5001 | | | | | | | | | | | | | | | |
| EQT 194<br>TZ1001 | | | | | | | | | | | | | | | |
| EQT 195<br>V-b | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 196<br>V-c | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 171<br>T-76 | | | | | | | < 0.001 | < 0.001 | 0.01 | | | | 0.002 | 0.002 | 0.01 |
| EQT 172<br>T-77 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 176<br>T-82 | | | | | | | | | | | | | | < 0.001 | |
| EQT 177<br>T-83 | | | | | | | | | | | | | | < 0.001 | |
| EQT 178<br>T-84 | | | | | | | | | | | | | | < 0.001 | |
| EQT 182<br>T-89 | | | | | | | | | | | | | | < 0.001 | |
| EQT 183<br>T-92 | | | | | | | | | | | | | | < 0.001 | |
| EQT 184<br>T-93 | | | | | | | | | | | | | | < 0.001 | |
| EQT 185<br>T-94 | | | | | | | | | | | | | | < 0.001 | |
| EQT 186<br>T-95 | | | | | | | | | | | | | | < 0.001 | |
| EQT 187<br>T-96 | | | | | | | | | | | | | | < 0.001 | |
| EQT 188<br>T-97 | | | | | | | | | | | | | | < 0.001 | |
| EQT 189<br>T-98 | | | | | | | | | | | | | | < 0.001 | |
| EQT 191<br>TC4001 | | | | | | | 0.001 | 0.001 | < 0.01 | | | | 0.002 | 0.003 | 0.01 |
| EQT 192<br>TC5001 | | | | | | | 0.001 | 0.001 | < 0.01 | | | | 0.002 | 0.003 | 0.01 |
| EQT 194<br>TZ1001 | | | | | | | 0.001 | 0.001 | < 0.01 | | | | 0.002 | 0.003 | 0.01 |
| EQT 195<br>V-b | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 196<br>V-c | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 171<br>T-76 | | | | | | | | | | 0.004 | 0.004 | 0.02 | | | |
| EQT 172<br>T-77 | | | | | | | 0.002 | 0.002 | 0.008 | | | | | | |
| EQT 176<br>T-82 | | | | | | | | | | | | | | | |
| EQT 177<br>T-83 | | | | | | | | | | | | | | | |
| EQT 178<br>T-84 | | | | | | | | | | | | | | | |
| EQT 182<br>T-89 | | | | | | | | | | | | | | | |
| EQT 183<br>T-92 | | | | | | | | | | | | | | | |
| EQT 184<br>T-93 | | | | | | | | | | | | | | | |
| EQT 185<br>T-94 | | | | | | | | | | | | | | | |
| EQT 186<br>T-95 | | | | | | | | | | | | | | | |
| EQT 187<br>T-96 | | | | | | | | | | | | | | | |
| EQT 188<br>T-97 | | | | | | | | | | | | | | | |
| EQT 189<br>T-98 | | | | | | | | | | | | | | | |
| EQT 191<br>TC4001 | | | | | | | | | | | | | | | |
| EQT 192<br>TC5001 | | | | | | | | | | | | | | | |
| EQT 194<br>TZ1001 | | | | | | | | | | | | | | | |
| EQT 195<br>V-b | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 196<br>V-c | 0.001 | 0.001 | 0.01 | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 171 T-76 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 172 T-77 | < 0.001 | < 0.001 | 0.01 | | | | | | | | | | | | |
| EQT 176 T-82 | | < 0.001 | | | | | | | | | | | | | |
| EQT 177 T-83 | | < 0.001 | | | | | | | | | | | | | |
| EQT 178 T-84 | | < 0.001 | | | | | | | | | | | | | |
| EQT 182 T-89 | | < 0.001 | | | | | | | | | | | | | |
| EQT 183 T-92 | | < 0.001 | | | | | | | | | | | | | |
| EQT 184 T-93 | | < 0.001 | | | | | | | | | | | | | |
| EQT 185 T-94 | | < 0.001 | | | | | | | | | | | | | |
| EQT 186 T-95 | | < 0.001 | | | | | | | | | | | | | |
| EQT 187 T-96 | | < 0.001 | | | | | | | | | | | | | |
| EQT 188 T-97 | | < 0.001 | | | | | | | | | | | | | |
| EQT 189 T-98 | | < 0.001 | | | | | | | | | | | | | |
| EQT 191 TC4001 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 192 TC5001 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 194 TZ1001 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 195 V-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 196 V-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 171 T-76 | | | | 0.03 | 0.03 | 0.14 | 0.009 | 0.009 | 0.04 | | | | 0.04 | 0.04 | 0.18 |
| EQT 172 T-77 | | | | 0.002 | 0.002 | 0.008 | 0.003 | 0.003 | 0.01 | | | | 0.006 | 0.006 | 0.03 |
| EQT 176 T-82 | | | | | | | | < 0.001 | | | | | | | |
| EQT 177 T-83 | | | | | | | | < 0.001 | | | | | | | |
| EQT 178 T-84 | | | | | | | | < 0.001 | | | | | | | |
| EQT 182 T-89 | | | | | | | | < 0.001 | | | | | | | |
| EQT 183 T-92 | | | | | | | | < 0.001 | | | | | | | |
| EQT 184 T-93 | | | | | | | | < 0.001 | | | | | | | |
| EQT 185 T-94 | | | | | | | | < 0.001 | | | | | | | |
| EQT 186 T-95 | | | | | | | | < 0.001 | | | | | | | |
| EQT 187 T-96 | | | | | | | | < 0.001 | | | | | | | |
| EQT 188 T-97 | | | | | | | | < 0.001 | | | | | | | |
| EQT 189 T-98 | | | | | | | | < 0.001 | | | | | | | |
| EQT 191 TC4001 | | | | 0.01 | 0.01 | 0.02 | 0.002 | 0.002 | 0.01 | | | | | | |
| EQT 192 TC5001 | | | | 0.01 | 0.01 | 0.02 | 0.002 | 0.002 | 0.01 | | | | | | |
| EQT 194 TZ1001 | | | | 0.01 | 0.01 | 0.02 | 0.002 | 0.002 | 0.01 | | | | | | |
| EQT 195 V-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.02 | 0.02 | 0.08 |
| EQT 196 V-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | 0.001 | < 0.01 | 0.03 | 0.03 | 0.13 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 197<br>V-d | | | | | | | | | | | | | | | |
| EQT 198<br>V-e-a | | | | | | | | | | | | | | | |
| EQT 199<br>V-e-b | | | | | | | | | | | | | | | |
| EQT 202<br>V-g | | | | | | | | | | | | | | | |
| EQT 204<br>V-i-b | | | | | | | | | | | | | | | |
| EQT 206<br>V-i-d | | | | | | | | | | | | | | | |
| EQT 207<br>V-i-e | | | | | | | | | | | | | | | |
| EQT 208<br>VI-f | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 209<br>VII-a | | | | | | | | | | | | | | | |
| EQT 210<br>VII-c | | | | | | | | | | | | | | | |
| EQT 211<br>VII-d | | | | | | | | | | | | | | | |
| EQT 212<br>VII-e | | | | | | | | | | | | | | | |
| EQT 214<br>WWCC0001 | | | | < 0.001 | 0.11 | < 0.01 | | | | | | | | | |
| EQT 215<br>WWCC2002 | | | | | | | | | | | | | | | |
| EQT 216<br>WWCC2006 | | | | | | | | | | | | | | | |
| EQT 217<br>WWCC2010 | | | | 0.002 | 0.14 | 0.01 | | | | | | | | | |
| EQT 218<br>WWCC208 | | | | | | | | | | | | | | | |
| EQT 221<br>WWCCA003 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 197<br>V-d | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 198<br>V-e-a | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 199<br>V-e-b | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 202<br>V-g | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 204<br>V-i-b | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 206<br>V-i-d | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 207<br>V-i-e | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 208<br>VI-f | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 209<br>VII-a | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 210<br>VII-c | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 211<br>VII-d | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 212<br>VII-e | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 214<br>WWCC0001 | | | | < 0.001 | 0.14 | < 0.01 | | | | | | | | | |
| EQT 215<br>WWCC2002 | | | | 0.03 | 0.04 | 0.13 | | | | | | | | | |
| EQT 216<br>WWCC2006 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 217<br>WWCC2010 | | | | 0.002 | 0.17 | 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 218<br>WWCC208 | | | | 0.02 | 0.02 | 0.07 | | | | | | | | | |
| EQT 221<br>WWCCA003 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 197<br>V-d | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 198<br>V-e-a | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 199<br>V-e-b | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 202<br>V-g | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 204<br>V-i-b | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 206<br>V-i-d | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 207<br>V-i-e | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 208<br>VI-f | | | | | | | | | | | | | | | |
| EQT 209<br>VII-a | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 210<br>VII-c | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 211<br>VII-d | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 212<br>VII-e | < 0.001 | < 0.001 | < 0.01 | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 214<br>WWCC0001 | | | | | | | < 0.001 | 0.001 | < 0.01 | | | | < 0.001 | 0.01 | < 0.01 |
| EQT 215<br>WWCC2002 | | | | | | | | | | | | | 0.01 | 0.02 | 0.06 |
| EQT 216<br>WWCC2006 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 217<br>WWCC2010 | | | | | | | < 0.001 | 0.001 | < 0.01 | | | | < 0.001 | 0.01 | < 0.01 |
| EQT 218<br>WWCC208 | | | | | | | | | | | | | 0.01 | 0.01 | 0.05 |
| EQT 221<br>WWCCA003 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
***Air - Title V Regular Permit Minor Mod***

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 197<br>V-d | < 0.001 | 0.001 | 0.01 | | | | | | | | | | | | |
| EQT 198<br>V-e-a | 0.003 | 0.003 | 0.01 | | | | | | | | | | | | |
| EQT 199<br>V-e-b | 0.003 | 0.003 | 0.01 | | | | | | | | | | | | |
| EQT 202<br>V-g | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 204<br>V-i-b | 0.003 | 0.004 | 0.01 | | | | | | | | | | | | |
| EQT 206<br>V-i-d | 0.002 | 0.002 | 0.01 | | | | | | | | | | | | |
| EQT 207<br>V-i-e | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 208<br>VI-f | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 209<br>VII-a | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 210<br>VII-c | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 211<br>VII-d | 0.001 | 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 212<br>VII-e | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 214<br>WWCC0001 | | | | | | | | | | < 0.001 | 0.02 | < 0.01 | | | |
| EQT 215<br>WWCC2002 | | | | | | | | | | | | | | | |
| EQT 216<br>WWCC2006 | | | | | | | | | | | | | | | |
| EQT 217<br>WWCC2010 | | | | | | | | | | < 0.001 | 0.03 | < 0.01 | | | |
| EQT 218<br>WWCC208 | | | | | | | | | | | | | | | |
| EQT 221<br>WWCCA003 | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 197<br>V-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 198<br>V-e-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 199<br>V-e-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 202<br>V-g | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 204<br>V-i-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 206<br>V-i-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 207<br>V-i-e | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 208<br>VI-f | | | | | | | | | | | | | | | |
| EQT 209<br>VII-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 210<br>VII-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 211<br>VII-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 212<br>VII-e | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 214<br>WWCC0001 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | < 0.001 | 0.001 | < 0.01 |
| EQT 215<br>WWCC2002 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 216<br>WWCC2006 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 217<br>WWCC2010 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | < 0.001 | 0.001 | < 0.01 |
| EQT 218<br>WWCC208 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 221<br>WWCCA003 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 197<br>V-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.01 | 0.05 |
| EQT 198<br>V-e-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.07 | 0.08 | 0.29 |
| EQT 199<br>V-e-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.07 | 0.08 | 0.29 |
| EQT 202<br>V-g | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.001 | 0.001 | < 0.01 |
| EQT 204<br>V-i-b | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | 0.01 | 0.08 | 0.09 | 0.33 |
| EQT 206<br>V-i-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | 0.04 | 0.04 | 0.16 |
| EQT 207<br>V-i-e | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.02 | 0.06 |
| EQT 208<br>VI-f | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 209<br>VII-a | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.02 | 0.07 |
| EQT 210<br>VII-c | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.02 | 0.03 | 0.11 |
| EQT 211<br>VII-d | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.02 | 0.07 |
| EQT 212<br>VII-e | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.003 | 0.003 | 0.01 |
| EQT 214<br>WWCC0001 | | | | < 0.001 | 0.17 | < 0.01 | < 0.001 | 0.05 | < 0.01 | | | | 0.001 | 0.22 | < 0.01 |
| EQT 215<br>WWCC2002 | | | | 0.09 | 0.11 | 0.4 | 0.001 | 0.002 | 0.01 | | | | | | |
| EQT 216<br>WWCC2006 | | | | < 0.001 | 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 217<br>WWCC2010 | | | | 0.003 | 0.2 | 0.01 | 0.001 | 0.06 | < 0.01 | | | | 0.004 | 0.27 | 0.02 |
| EQT 218<br>WWCC208 | | | | 0.07 | 0.08 | 0.29 | 0.001 | 0.001 | 0.01 | | | | | | |
| EQT 221<br>WWCCA003 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 222 WWCCESEP | | | | | | | | | | | | | | | |
| EQT 223 WWCCNSEP | | | | | | | | | | | | | | | |
| EQT 224 WWCCWSEP | | | | | | | | | | | | | | | |
| EQT 225 WWS2005 | | | | | | | | | | | | | | | |
| EQT 226 WWS2008 | | | | | | | | | | | | | | | |
| EQT 227 WWS2009 | | | | | | | | | | | | | | | |
| EQT 228 WWS2011 | | | | | | | | | | | | | | | |
| EQT 229 WWS3001 | | | | | | | | | | | | | | | |
| EQT 230 WWTAT | | | | | | | | | | | | | | | |
| EQT 232 VII-f | | | | | | | | | | | | | | | |
| EQT 233 VII-g | | | | | | | | | | | | | | | |
| EQT 234 VII-h | | | | | | | | | | | | | | | |
| EQT 235 VII-i | | | | | | | | | | | | | | | |
| EQT 236 VII-j | | | | | | | | | | | | | | | |
| EQT 237 VII-k | | | | | | | | | | | | | | | |
| EQT 238 VII-l | | | | | | | | | | | | | | | |
| EQT 239 VII-m | | | | | | | | | | | | | | | |
| EQT 240 VII-n | | | | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 222 WWCCESEP | | | | 0.03 | 0.03 | 0.12 | | | | | | | | | |
| EQT 223 WWCCNSEP | | | | 0.03 | 0.03 | 0.11 | | | | | | | | | |
| EQT 224 WWCCWSEP | | | | 0.03 | 0.03 | 0.11 | | | | | | | | | |
| EQT 225 WWS2005 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 226 WWS2008 | | | | 0.0001 | 0.0001 | 0.0002 | | | | | | | | | |
| EQT 227 WWS2009 | | | | 0.0003 | 0.0004 | 0.001 | | | | | | | | | |
| EQT 228 WWS2011 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 229 WWS3001 | | | | | | | | | | | | | | | |
| EQT 230 WWTAT | | | | 0.15 | 0.23 | 0.64 | | | | | | | | | |
| EQT 232 VII-l | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 233 VII-g | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 234 VII-h | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 235 VII-i | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 236 VII-j | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 237 VII-k | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 238 VII-l | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 239 VII-m | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |
| EQT 240 VII-n | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 222 WWCCESEP | | | | | | | | | | | | | 0.01 | 0.02 | 0.06 |
| EQT 223 WWCCNSEP | | | | | | | | | | | | | 0.01 | 0.02 | 0.06 |
| EQT 224 WWCCWSEP | | | | | | | | | | | | | 0.01 | 0.02 | 0.05 |
| EQT 225 WWS2005 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 226 WWS2008 | | | | | | | | | | | | | 0.0001 | 0.0002 | 0.001 |
| EQT 227 WWS2009 | | | | | | | | | | | | | 0.001 | 0.001 | 0.004 |
| EQT 228 WWS2011 | | | | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 |
| EQT 229 WWS3001 | | | | | | | | | | | | | | | |
| EQT 230 WWTAT | | | | | | | | | | | | | 0.48 | 0.78 | 2.12 |
| EQT 232 VII-f | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 233 VII-g | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 234 VII-h | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 235 VII-i | | | | | | | | | | | | | | | |
| EQT 236 VII-j | | | | | | | | | | | | | | | |
| EQT 237 VII-k | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 238 VII-l | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 239 VII-m | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |
| EQT 240 VII-n | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 222 WWCCESEP | | | | | | | | | | | | | | | |
| EQT 223 WWCCNSEP | | | | | | | | | | | | | | | |
| EQT 224 WWCCWSEP | | | | | | | | | | | | | | | |
| EQT 225 WWS2005 | | | | | | | | | | | | | | | |
| EQT 226 WWS2008 | | | | | | | | | | | | | | | |
| EQT 227 WWS2009 | | | | | | | | | | | | | | | |
| EQT 228 WWS2011 | | | | | | | | | | | | | | | |
| EQT 229 WWS3001 | | | | | | | | | | | | | | | |
| EQT 230 WWTAT | | | | | | | | | | | | | | | |
| EQT 232 VII-f | 0.003 | 0.003 | 0.01 | | | | | | | | | | | | |
| EQT 233 VII-g | 0.002 | 0.003 | 0.01 | | | | | | | | | | | | |
| EQT 234 VII-h | 0.004 | 0.005 | 0.02 | | | | | | | | | | | | |
| EQT 235 VII-i | < 0.001 | < 0.001 | 0.01 | | | | | | | | | | | | |
| EQT 236 VII-j | < 0.001 | < 0.001 | 0.01 | | | | | | | | | | | | |
| EQT 237 VII-k | < 0.001 | < 0.001 | 0.01 | | | | | | | | | | | | |
| EQT 238 VII-l | 0.005 | 0.006 | 0.02 | | | | | | | | | | | | |
| EQT 239 VII-m | 0.003 | 0.003 | 0.01 | | | | | | | | | | | | |
| EQT 240 VII-n | 0.003 | 0.003 | 0.01 | | | | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 222 WWCCESEP | 0.0001 | 0.0001 | 0.0005 | | | | 0.0001 | 0.0002 | 0.001 | | | | | | |
| EQT 223 WWCCNSEP | 0.0001 | 0.0001 | 0.0004 | | | | 0.0001 | 0.0002 | 0.001 | | | | | | |
| EQT 224 WWCCWSEP | 0.0001 | 0.0001 | 0.0004 | | | | 0.0001 | 0.0002 | 0.001 | | | | | | |
| EQT 225 WWS2005 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 226 WWS2008 | 0.0001 | 0.0001 | 0.0001 | | | | 0.0001 | 0.0001 | 0.0001 | | | | | | |
| EQT 227 WWS2009 | 0.0001 | 0.0001 | 0.0001 | | | | 0.0001 | 0.0001 | 0.0001 | | | | | | |
| EQT 228 WWS2011 | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 229 WWS3001 | | | | | | | | | | | | | | | |
| EQT 230 WWTAT | 0.02 | 0.02 | 0.07 | | | | 0.001 | 0.001 | < 0.01 | | | | | | |
| EQT 232 VII-f | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 233 VII-g | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 234 VII-h | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 235 VII-i | | | | | | | | | | | | | | | |
| EQT 236 VII-j | | | | | | | | | | | | | | | |
| EQT 237 VII-k | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 238 VII-l | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 239 VII-m | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |
| EQT 240 VII-n | | | | < 0.001 | < 0.001 | < 0.01 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 222 WWCCESEP | | | | 0.09 | 0.1 | 0.38 | 0.001 | 0.002 | 0.01 | | | | | | |
| EQT 223 WWCCNSEP | | | | 0.08 | 0.1 | 0.37 | 0.001 | 0.001 | 0.01 | | | | | | |
| EQT 224 WWCCWSEP | | | | 0.08 | 0.1 | 0.37 | 0.001 | 0.001 | 0.01 | | | | | | |
| EQT 225 WWS2005 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 226 WWS2008 | | | | 0.0003 | 0.0004 | 0.001 | 0.0001 | 0.0001 | 0.0002 | | | | | | |
| EQT 227 WWS2009 | | | | 0.002 | 0.003 | 0.01 | 0.0002 | 0.0002 | 0.001 | | | | | | |
| EQT 228 WWS2011 | | | | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | | | | |
| EQT 229 WWS3001 | 0.08 | 0.1 | 0.35 | | | | | | | | | | | | |
| EQT 230 WWTAT | | | | 1.15 | 1.83 | 5.04 | 0.27 | 0.38 | 1.19 | | | | | | |
| EQT 232 VII-I | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | 0.01 | 0.06 | 0.07 | 0.26 |
| EQT 233 VII-g | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | 0.01 | 0.06 | 0.07 | 0.25 |
| EQT 234 VII-h | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.002 | 0.002 | 0.01 | 0.10 | 0.12 | 0.44 |
| EQT 235 VII-i | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | 0.005 | 0.007 | 0.02 |
| EQT 236 VII-j | | | | | | | | | | < 0.001 | < 0.001 | < 0.01 | 0.005 | 0.007 | 0.02 |
| EQT 237 VII-k | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 | 0.02 | 0.02 | 0.08 |
| EQT 238 VII-l | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.002 | 0.002 | 0.01 | 0.12 | 0.14 | 0.52 |
| EQT 239 VII-m | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | 0.01 | 0.07 | 0.08 | 0.29 |
| EQT 240 VII-n | | | | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | 0.01 | 0.07 | 0.08 | 0.29 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | 1,3-Butadiene | | | 2,2,4-Trimethylpentane | | | Acetaldehyde | | | Acrolein | | | Aniline | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 241<br>IV-n | | | | | | | | | | | | | | | |
| FUG 002<br>FU-VOC | 0.002 | 0.002 | 0.01 | 0.03 | 0.03 | 0.13 | | | | | | | | | |
| GRP 003<br>BOILER CAP | | | | | | | | | | | | | | | |
| GRP 008<br>HEAVY OIL CAP | | | | | | | | | | | | | | | |
| GRP 010<br>RECYCLE CAP | | | | 0.0001 | | 0.0001 | | | | | | | | | |
| GRP 011<br>SOLVENT CAP | | | | | | | | | | | | | | | |
| TRT 002<br>VI-ia | | | | 0.01 | 0.01 | 0.03 | | | | | | | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Barium (and compounds) | | | Benzene | | | Biphenyl | | | Cadmium (and compounds) | | | Carbon disulfide | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 241<br>IV-n | | < 0.001 | | | < 0.001 | | | | | | < 0.001 | | | | |
| FUG 002<br>FU-VOC | | | | 0.03 | 0.03 | 0.14 | 0.0001 | 0.0001 | < 0.0003 | | | | | | |
| GRP 003<br>BOILER CAP | 0.002 | | 0.01 | 0.001 | | < 0.01 | | | | < 0.001 | | < 0.01 | | | |
| GRP 008<br>HEAVY OIL CAP | | | | | | | | | | | | | | | |
| GRP 010<br>RECYCLE CAP | | | | 0.0001 | | 0.0001 | 0.0001 | | 0.0001 | | | | | | |
| GRP 011<br>SOLVENT CAP | | | | | | | | | | | | | | | |
| TRT 002<br>VI-a | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.01 | 0.03 | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Chromium VI (and compounds) | | | Cresol | | | Cumene | | | Dichlorobenzene | | | Ethyl benzene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 241<br>IV-n | | < 0.001 | | | | | | | | | | | | | |
| FUG 002<br>FU-VOC | | | | < 0.001 | < 0.001 | < 0.0003 | 0.001 | 0.001 | < 0.004 | | | | 0.23 | 0.23 | 1.02 |
| GRP 003<br>BOILER CAP | 0.001 | | < 0.01 | | | | | | | | | | | | |
| GRP 008<br>HEAVY OIL CAP | | | | | | | | | | | | | 0.008 | | 0.03 |
| GRP 010<br>RECYCLE CAP | | | | | | | 0.0001 | | 0.0001 | | | | 0.0001 | | 0.0001 |
| GRP 011<br>SOLVENT CAP | | | | | | | | | | | | | | | |
| TRT 002<br>VI-ia | < 0.001 | < 0.001 | < 0.01 | | | | 0.001 | 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | 0.01 | 0.01 | 0.02 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
***Permit Number: 0500-00005-V1***
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Formaldehyde | | | Hydrochloric acid | | | Hydrogen sulfide | | | Methanol | | | Methyl ethyl ketone | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 241<br>IV-n | | 0.004 | | | | | | | | | | | | | |
| FUG 002<br>FU-VOC | | | | | | | 0.11 | 0.11 | 0.49 | 0.003 | | 0.01 | 3.06 | 3.06 | 13.40 |
| GRP 003<br>BOILER CAP | 0.03 | | 0.12 | | | | | | | | | | | | |
| GRP 008<br>HEAVY OIL CAP | | | | | | | | | | | | | | | |
| GRP 010<br>RECYCLE CAP | | | | | | | | | | | | | | | |
| GRP 011<br>SOLVENT CAP | | | | | | | | | | | | | 0.36 | | 1.57 |
| TRT 002<br>VI-a | < 0.001 | < 0.001 | < 0.01 | | | | | | | 0.001 | 0.001 | 0.01 | | | |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Naphthalene | | | Nickel (and compounds) | | | Phenol | | | Polynuclear Aromatic Hydrocarbons | | | Styrene | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject Item | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 241<br>IV-n | | | | | < 0.001 | | | | | | | | | | |
| FUG 002<br>FU-VOC | 0.15 | 0.15 | 0.65 | | | | < 0.001 | < 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | 0.001 |
| GRP 003<br>BOILER CAP | | | | | | | | | | | | | | | |
| GRP 008<br>HEAVY OIL CAP | 0.005 | | 0.02 | | | | | | | | | | | | |
| GRP 010<br>RECYCLE CAP | 0.0001 | | 0.0001 | | | | 0.0001 | | 0.0001 | | | | 0.0001 | | 0.0001 |
| GRP 011<br>SOLVENT CAP | | | | | | | | | | | | | | | |
| TRT 002<br>VI-ia | < 0.001 | < 0.001 | < 0.01 | < 0.001 | < 0.001 | < 0.01 | 0.001 | 0.001 | < 0.01 | | | | < 0.001 | < 0.001 | < 0.01 |





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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

| | Sulfuric acid | | | Toluene | | | Xylene (mixed isomers) | | | Zinc (and compounds) | | | n-Hexane | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subject Item** | **Avg lb/hr** | **Max lb/hr** | **Tons/Year** | **Avg lb/hr** | **Max lb/hr** | **Tons/Year** | **Avg lb/hr** | **Max lb/hr** | **Tons/Year** | **Avg lb/hr** | **Max lb/hr** | **Tons/Year** | **Avg lb/hr** | **Max lb/hr** | **Tons/Year** |
| EQT 241<br>IV-n | | | | | < 0.001 | | | | | | 0.001 | | | 0.09 | |
| FUG 002<br>FU-VOC | | | | 3.13 | 3.13 | < 13.72 | 0.15 | 0.15 | 0.64 | | | | 0.15 | 0.15 | 0.65 |
| GRP 003<br>BOILER CAP | | | | 0.001 | | 0.01 | | | | 0.01 | | 0.05 | 0.66 | | 2.9 |
| GRP 008<br>HEAVY OIL CAP | | | | | | | 0.004 | | 0.02 | | | | | | |
| GRP 010<br>RECYCLE CAP | | | | 0.0001 | | 0.0002 | 0.0001 | | 0.0001 | | | | 0.0001 | | 0.001 |
| GRP 011<br>SOLVENT CAP | | | | 0.36 | | 1.57 | | | | | | | | | |
| TRT 002<br>VI-ia | | | | 0.01 | 0.02 | 0.06 | 0.01 | 0.02 | 0.06 | < 0.001 | < 0.001 | < 0.01 | 0.03 | 0.03 | 0.12 |

**Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals**

### Permit Parameter Totals:

1,3-Butadiene: 0.01 tons/yr
2,2,4-Trimethylpentane: 1.50 tons/yr
Acetaldehyde: 0.001 tons/yr
Acrolein: 0.001 tons/yr
Aniline: 0.02 tons/yr
Benzene: 2.01 tons/yr
Biphenyl: 0.004 tons/yr
Carbon disulfide: 0.17 tons/yr
Chromium VI (and compounds): 0.01 tons/yr
Cumene: 0.04 tons/yr
Ethyl benzene: 3.67 tons/yr
Formaldehyde: 0.44 tons/yr
Hydrochloric acid: 0.02 tons/yr
Hydrogen sulfide: 0.53 tons/yr
Methanol: 0.11 tons/yr
Methyl ethyl ketone: 15.11 tons/yr



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# EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

**AI ID: 1214 - Calumet Shreveport Lubricants & Waxes LLC - Shreveport Refinery**
**Activity Number: PER20060004**
**Permit Number: 0500-00005-V1**
**Air - Title V Regular Permit Minor Mod**

## All phases

*n-Hexane: 22.70 tons/yr*
Naphthalene: 0.76 tons/yr
*Phenol: 0.02 tons/yr*
Polynuclear Aromatic Hydrocarbons: 0.0003 tons/yr
Styrene: 0.004 tons/yr
Sulfuric acid: 0.35 tons/yr
Toluene: 23.84 tons/yr
Xylene (mixed isomers): 2.46 tons/yr

### Emission Rates Notes:





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