

Louisville Metro Air Pollution Control District
850 Barret Ave., Louisville, Kentucky 40204
5 February 2014

Title V Statement of Basis

Company: Carbide Industries, LLC

Plant Location: 4400 Bells Lane Louisville, KY 40211

Date Application Received: 26 March 2013 **Application Number:** 54958

Date of Draft Permit: 20 December 2013

District Engineer: Rick Williams **Permit No:** 140-97-TV (R2)

Plant ID: 0001 **SIC Code:** 2869 **NAICS:** 325188 **AFS:** 00001

Introduction:

This permit will be issued pursuant to: (1) APCD Regulations 2.05 and 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and is a non-attainment area for particulate matter less than 2.5 microns (PM_{2.5}). Part of the county is non-attainment for sulfur dioxide (SO₂). This facility is in part of the county designated attainment for SO₂.

Application Type/Permit Activity:

- Initial Issuance
- Permit Revision
 - Administrative
 - Minor
 - Significant
- Permit Renewal
- Construction

Compliance Summary:

- Compliance certification signed
- Compliance schedule included
- Source is out of compliance
- Source is operating in compliance

I. Source Information

- 1. Product/Process Description:** The company manufactures calcium carbide in a semi-closed electric submerged-arc furnace.
- 2. Project Description:** The company receives coke and lime by both rail-car and truck. These raw materials are processed and reacted in a 50 MW electric-arc furnace to produce calcium carbide. The calcium carbide is then processed and packaged for sale. Waste material is reacted on-site to produce acetylene gas which is burned in a flare. The calcium hydroxide residue from acetylene production is stored in large open pits on the site.
- 3. Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
- 4. Emission Unit Summary:**

Emission Unit	Equipment Description
U1- Lime Handling System	Receives lime shipments and conveys to storage.
U2 – Coke Handling System	Receives coke shipments and conveys to storage
U3 – Charge Mix and Furnace	Transfers lime and coke from storage, mixes these components in desired proportions, and transfers the mix to the furnace. Removes product from furnace.
U4 – Primary Crushing	Receives product from furnace operation. Begins crushing of raw calcium carbide, sorts crushed product, and routes it for further processing.
U5 – Pack and Screen	Provides additional crushing and sorting of carbide and routes to appropriate packaging stations.
U6 – Back End	Provides final processing for certain products and handles waste materials collected from baghouses.
U7 – Desulphurization Operations	Blends calcium carbide with other materials to produce the desulphurization product and packages this product.
U8 – Wet Generator	Completes processing of waste material collected in U6 by reacting this waste with water to produce acetylene gas.
U9 – Dry Generator	Historic equipment retained by the plant but no longer in service.
U10 – Acetylene Compression and Purification	Historic equipment retained by the plant but no longer in service.
U11 – Fuel Storage	Gasoline storage for in-plant vehicles.
U12 – Gas-Fired Boiler	Natural gas-fired boiler for building heat.
U13 – Storm Water Neutralization	Facility for reducing the pH of storm-water runoff before release to storm water sewers.
U14 – Tote Reconditioning	Facility for repainting of steel containers used to transport product.

5. Permit Revisions

Revision	Issue Date	Public Notice Date	Type	Page #	Description	
Initial	09/28/2001	12/24/2000	Initial	Entire Permit	Entire Permit	
Rev. 1		02/09/2003	Admin.	Cover page	Changed name of company, owner, and responsible official	
Rev. 2	2/5/2014	12/20/2013	Renewal	Entire permit	Title V Renewal application (54958), incorporating:	3/30/2006
					Construction permit: Pneumatic transfer system (993) Permit #101-05-C	3/31/2005
					Construction permit: Five new bin vent filters (994) Permit #102-05-C	3/31/2005
					Construction permit: Coke storage bins, screen, and weigh belt (995) Permit #103-05-C	3/31/2005
					Construction permit: Pneumatic transfer system (996) Permit #104-05-C	3/31/2005
					Construction permit: Fines storage bin and truck loading station (997) Permit #105-05-C	3/31/2005
					Construction permit: Acetylene flare (1004) Permit #101-07-C	5/31/2007
					RO change (53)	7/20/2007
					RO change (52)	12/3/2008
					Construction permit: Electric Arc Furnace replacement (29233) Permit #32752-11-C	7/6/2011
Revised Title V renewal application (54958)	3/26/2013					

6. Fugitive Sources:

Fugitive emissions of VOCs and HAPs from Emission Points subject to 40 CFR Part 60 Subpart VV- Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemical Manufacturing.

Additional fugitive sources of PM subject to APCD regulation 1.14.

7. Plantwide Emission Summary:

Pollutant	Actual Emissions (tpy) 2012 Data	Pollutant that triggered Major Source Status(based on PTE)
VOC	325.0	Yes
CO	395.4	Yes
NO _x	5.4	No
SO ₂	9.26	No
PM	150.9	Yes
PM ₁₀	78.4	No
PM _{2.5}	25.3	No
GHG	N/A	No
Single HAP > 1 tpy	All individual HAPs < 1 tpy	No
Total HAPs	0.44	No

8. Applicable Requirements:

PSD NSPS SIP MACT
 NSR NESHAPS District-Origin Other

9. MACT Requirements:

- a. Exiting a control device, PM emissions shall be less than 0.51 lb/MW-hr and opacity shall be less than 15%.
- b. Carbon monoxide shall not be discharged into the atmosphere in excess of 20% by dry volume.

10. Referenced Federal Regulations in Permit:

40 CFR 60, Subpart Z - *Standards of Performance for Ferroalloy Production Facilities;*

40 CFR 63, Subpart YYYYYY – *National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloy Production Facilities.*

II. Regulatory Analysis**1. Acid Rain Requirements:**

The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements:

This source does not manufacture, sell, or distribute any of the chemicals listed in title VI of the CAAA. Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r):

The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount. If the source becomes subject to 40 CFR 68 and Regulation 5.15, the source shall comply with the Risk Management Program and Regulation 5.15 and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA 22116-3346

4. Basis of Regulation Applicability

Regulation	Title	Type
1.14	Control of Fugitive Particulate Emissions	SIP
2.03	Permit Requirements – Non-Title V Construction and Operating Permits and Demolition/Renovation Permits	SIP
2.05	Prevention of Significant Deterioration of Air Quality	SIP
2.16	Title V Operating Permits	SIP
5.02	General Provisions (STAR)	Local
5.21	Environmental Acceptability for Toxic Air Contaminants	Local
5.23	Categories of Toxic Air Contaminants	Local
6.09	Standards of Performance for Existing Process Operations	SIP
6.13	Standards of Performance for Existing Storage Vessels for Volatile Organic Compounds	SIP

6.15	Standards of Performance for Gasoline Transfer to Existing Service Station Storage Tanks (Stage 1 Vapor Recovery)	SIP
6.40	Standards of Performance for Gasoline Transfer to Motor Vehicles (Stage II Vapor Recovery and Control Systems)	SIP
6.43	Volatile Organic Compound Emission Reduction Requirements	SIP
7.06	Standards of Performance for New Indirect Heat Exchangers	SIP
7.08	Standards of Performance for New Process Operations	SIP
7.09	Standards of Performance for New Process Gas Streams	SIP
7.59	Standards of Performance for New Miscellaneous Metal Parts and Products Surface Coating Operations	SIP
40 CFR 60, Subpart Z	Standards of Performance for Ferroalloy Production Facilities	Federal
40 CFR 60, subpart VV	Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemical Manufacturing ...	Federal
40 CRF 63, Subpart YYYYYY	National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloy Production Facilities	Federal

a. PSD Avoidance – NSR Pollutants

A new electric-arc furnace was installed, and became operational in March 2013. At that time certain production limits were established to avoid PSD regulations.

i. Carbon Monoxide

The uncontrolled potential-to-emit for carbon monoxide for the new furnace exceeds the significance level of 100 tons increase over the maximum emission level of the last ten years. Carbide Industries has elected to accept a limit on production to insure that net emission of carbon monoxide does not increase above the significance level. Emission of carbon monoxide is directly related to calcium carbide production and CO destruction efficiency at the flare and coke dryer burner.

Based on the chemical reaction by which calcium carbide is produced, CO production is 875 pounds per ton of carbide. However, some of this CO is destroyed before it leaves the oven and some additional CO is produced through reactions involving impurities in the raw materials. The company has demonstrated that the production rate is 848 lb_{CO}/ton_{carbide}. This yields a maximum production rate of 126,887 tons of carbide per year to avoid PSD regulations. Should the company provide adequate documentation to demonstrate a different destruction efficiency or other CO emission factor, this production limit will be adjusted.

ii. **Sulfur Dioxide**

Two issues come into play with sulfur dioxide. First, the emission factor for SO₂ is a function of the sulfur content of the coke which is a raw material for calcium carbide production. This is limited in the previous permit to less than 3%, but in practice the company limits sulfur to about 1% (as borne out by historical records) to maintain the quality of their product. The second consideration is the efficiency of the scrubber in removing SO₂ from the exhaust stream. This scrubber is in place principally for control of particulates. However, much of the particulate in the gas stream is CaO, which remains suspended in the process water and reacts with the SO₂ to remove it from the exhaust stream. This removal efficiency was measured as part of the startup testing of the furnace and control equipment, in December 2012, and found to be 76.5%. Calculations show that with this measured control efficiency, with sulfur content of the coke limited to 2.0%, and production limited to the same carbide mass as the CO limit (126,887 tons of carbide per year), the SO₂ significant impact level for PSD action cannot be exceeded. This limit is incorporated in the permit.

iii. **Particulate Matter**

The uncontrolled potential-to-emit for PM, PM₁₀, and PM_{2.5} for the new furnace all exceed the significance level over the maximum emission level of the last ten years. However, using the production limit established based on CO emissions insures that the significance level for all classes of particulates will not be exceeded.

b. PSD Avoidance – GHG Pollutants

The furnace unit at emits no regulated greenhouse gasses directly. The carbon monoxide that is emitted is combusted at the flare, which is a control device for the furnace, and the coke dryer, which is an associated process in the same emission unit. The combustion of carbon monoxide produced carbon dioxide, which is regulated as a greenhouse gas. Potential annual CO₂ emissions of 110,191 tons classify this source as major for greenhouse gas emissions. The GHG emission increase is 35,229 tons over the baseline, which is less than the threshold of 75,000 tons therefore this project is not subject to regulation for PSD.

c. STAR

The District has reviewed potential TAC emissions from the furnace process, acetylene generation, and painting and determined that all such emissions are *de minimus*.

d. Plantwide Limits

- i. Standards
Regulation 6.43 establishes VOC emission limits for specific plants to effect a 15% county-wide VOC emission reduction from a 1990 baseline, as required by section 182(b)(1) of the Clean Air Act. Section 9 of the regulation sets a limit on VOC emissions of 6400 pounds per day from the facility
- ii. Monitoring and Recordkeeping
Section 4 of regulation 6.43 requires daily record-keeping of all VOC emissions to demonstrate compliance with the regulatory limits.
- iii. Reporting
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

e. Emission Unit U1 – Lime Handling System

- i. Standards
 - (1) Particulate Matter
 - (a) Fugitive emission standards are set forth in regulation 1.14
 - (b) Regulation 7.08 sets forth PM emission limits based on equipment throughput. This regulation is applicable to all equipment constructed after 1 September 1976. The applicant identified all equipment in this emission unit was installed after this date.
 - (2) Opacity
Regulation 7.08 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed after 1 September 1976. The applicant identified all equipment in this emission unit was installed after this date.
- ii. Monitoring and Recordkeeping
Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards.
- iii. Reporting
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

f. Emission Unit U2 – Coke Handling System**i. Standards**

- (1) **Particulate Matter**
 - (a) Fugitive emission standards and required control measures are set forth in regulation 1.14
 - (b) Regulation 6.09 sets forth PM emission limits based on equipment throughput for all equipment constructed before 1 September 1976. The applicant stated that equipment identified as E009 – E015, E023, and E024 in this emission unit was installed prior to this date.
 - (c) Regulation 7.08 sets forth PM emission limits based on equipment throughput for all equipment constructed after 1 September 1976. The applicant stated that equipment identified as E016 – E022 in this emission unit was installed after this date.
- (2) **Opacity**

Regulation 7.08 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed after 1 September 1976. The applicant identified all equipment in this emission unit was installed after this date.
- (3) **Nitrogen Oxides**

Regulation 6.09 establishes NO_x emission limits for process operations in existence before 1 September 1976. The coke dryer (E012) meets the definition of “process operation” set forth in this regulation.
- (4) **Sulfur Dioxide**

Regulation 6.10, section 4 establishes SO₂ emission limits for process gas streams for processes in existence before 19 April 1972. The coke dryer (E012) receives the exhaust stream from the electric-arc furnace, thus meeting this definition.
- (5) **Carbon Monoxide**

Regulation 6.10, section 5 establishes CO emission limits for process gas streams for processes in existence before 19 April 1972. The coke dryer (E012) receives the exhaust stream from the electric-arc furnace, thus meeting this definition.
- (6) **Hydrogen Sulfide**

Regulation 6.10, section 3 establishes H₂S emission limits for process gas streams for processes in existence before 19 April 1972. The coke dryer (E012) receives the exhaust stream from the electric-arc furnace, thus meeting this definition.

- ii. **Monitoring and Recordkeeping**
Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards.
- iii. **Reporting**
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

g. Emission Unit U3 – Charge Mix and Furnace

The electric-arc furnace (E031) and certain related equipment (E027-E030, E032) were replaced in 2012. In addition to emission limits established by local and federal regulations, monthly and annual production limits and raw material quality requirements were established to insure that a PSD permit was not mandated by APCD regulation 2.05.

- i. **Standards**
 - (1) **Particulate Matter**
 - (a) Regulation 6.09 sets forth PM emission limits based on equipment throughput for all equipment constructed before 1 September 1976. The applicant stated that equipment identified as E027 – E030 in this emission unit was installed prior to this date.
 - (b) Regulation 7.08 sets forth PM emission limits based on equipment throughput for all equipment constructed after 1 September 1976. All components of this emission unit not identified in g.i.(1).(a) are part of the March 2012 reconstruction and therefore subject to this regulation.
 - (c) The uncontrolled emission rates of the electric arc furnace (E031) and furnace tap holes (E032) were determined to be greater than the allowable PM emission rate allowed for this equipment by regulation 7.08. Therefore the requirement that the associated control equipment be in continuous operation was included, to ensure that the allowable emission rate would not be exceeded.
 - (2) **Opacity**
 - (a) Regulation 6.09 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed before 1 September 1976. The applicant identified the equipment in this emission unit that was installed prior to this date.

- (b) Regulation 7.08 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed after 1 September 1976. The applicant identified the equipment in this emission unit that was installed after this date.
 - (3) Sulfur Dioxide
 - (a) Regulation 7.09 establishes SO₂ limits for process gas streams that contain this gas. SO₂ is present in the arc furnace gas stream.
 - (b) To avoid regulation 2.05 PSD restrictions, a maximum sulfur content for the coke used in the process was established along with annual carbide production limits to ensure that SO₂ emissions would not increase above the established significant impact level.
 - (4) Carbon Monoxide
 - (a) Regulation 7.09 establishes CO limits for process gas streams that contain this gas. CO is present in the arc furnace gas stream.
 - (b) To ensure CO emissions do not increase above the significant impact level, a maximum calcium carbide production limit was established. Carbon monoxide production is directly related to carbide production, insuring that the limit cannot be exceeded, so long as the additional requirement of CO incineration is met. The requirement for burning this exhaust gas is further established in 40 CFR 60, subpart Z.
 - (5) Hazardous Air Pollutants
Federal regulation 40 CFR 63, subpart YYYYYY sets forth control-device characteristics to ensure that HAP emissions are limited.
 - (6) Toxic Air Contaminants
Local regulations limit emission of toxic materials. Prior modeling by the applicant demonstrated that all TAC emissions met the definition of *de minimis* set forth in regulation 5.21.
- ii. Monitoring and Recordkeeping
Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards.
- iii. Reporting
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems

necessary to assure compliance with existing permit conditions. Additional reporting requirements are set forth in 40 CFR 60, subpart Z and 40 CFR 63, subpart YYYYYY.

h. Emission Unit U4 – Primary Crushing

i. Standards

(1) Particulate Matter

Regulation 6.09 sets forth PM emission limits based on equipment throughput for all equipment constructed before 1 September 1976. The applicant stated that all of the equipment in this emission unit to which PM regulations apply was installed prior to this date.

(2) Opacity

Regulation 6.09 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed before 1 September 1976. The applicant identified the equipment in this emission unit that was installed prior to this date.

(3) Volatile Organic Compounds

Any VOCs generated in the handling of the calcium carbide material are covered under the Plantwide VOC Emission Limits, section d. above.

ii. Monitoring and Recordkeeping

Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards. Regulation 6.43 provides additional requirements for VOC monitoring.

iii. Reporting

Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

i. Emission Unit U5 – Pack and Screen

i. Standards

(1) Particulate Matter

(a) Fugitive emission standards and required control measures are set forth in regulation 1.14

(b) Regulation 6.09 sets forth PM emission limits based on equipment throughput for all equipment constructed before 1 September 1976. The applicant stated that all of the equipment in this

emission unit to which PM regulations apply was installed prior to this date.

- (2) Opacity
Regulation 6.09 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed before 1 September 1976. The applicant identified the equipment in this emission unit that was installed before this date.
 - (3) Volatile Organic Compounds
Any VOCs generated in the handling of the calcium carbide material are covered under the Plantwide VOC Emission Limits, section d. above.
- ii. Monitoring and Recordkeeping
Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards. Regulation 6.43 provides additional requirements for VOC monitoring.
 - iii. Reporting
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

j. Emission Unit U6 – Back End

- i. Standards
 - (1) Particulate Matter
 - (a) Fugitive emission standards and required control measures are set forth in regulation 1.14
 - (b) Regulation 6.09 sets forth PM emission limits based on equipment throughput for all equipment constructed before 1 September 1976. The applicant stated that all of the equipment in this emission unit to which PM regulations apply was installed prior to this date.
 - (2) Opacity
Regulation 6.09 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed before 1 September 1976. The applicant identified the equipment in this emission unit that was installed before this date.
 - (3) Volatile Organic Compounds
Any VOCs generated in the handling of the calcium carbide material are covered under the Plantwide VOC Emission Limits, section d. above.

- ii. **Monitoring and Recordkeeping**
Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards. Regulation 6.43 provides additional requirements for VOC monitoring.
- iii. **Reporting**
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

k. Emission Unit U7 – Desulfurization Unit

- i. **Standards**
 - (1) **Particulate Matter**
 - (a) Fugitive emission standards and required control measures are set forth in regulation 1.14
 - (b) Regulation 7.08 sets forth PM emission limits based on equipment throughput for all equipment constructed after 1 September 1976. The applicant stated that all of the equipment in this emission unit to which PM regulations apply was installed after this date.
 - (2) **Opacity**
Regulation 7.08 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed after 1 September 1976. The applicant identified the equipment in this emission unit that was installed after this date.
 - (3) **Volatile Organic Compounds**
Any VOCs generated in the handling of the calcium carbide material are covered under the Plantwide VOC Emission Limits, section d. above.
- ii. **Monitoring and Recordkeeping**
Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards. Regulation 6.43 provides additional requirements for VOC monitoring.
- iii. **Reporting**
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

l. Emission Unit U8 – Wet Generator

- i. Standards
 - (1) Particulate Matter
 - (a) Fugitive emission standards and required control measures are set forth in regulation 1.14
 - (b) Regulation 6.09 sets forth PM emission limits based on equipment throughput for all equipment constructed before 1 September 1976. The applicant stated that all of the equipment in this emission unit to which PM regulations apply was installed prior to this date.
 - (2) Opacity
Regulation 6.09 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed before 1 September 1976. The applicant identified the equipment in this emission unit that was installed before this date.
 - (3) Volatile Organic Compounds
 - (a) Any VOCs generated in the handling of the calcium carbide material are covered under the Plantwide VOC Emission Limits, section d. above.
 - (b) The wet generator meets the definition of “process equipment” in 40 CFR 60.481. Therefore the requirements of this regulation with respect to leak detection and monitoring apply to equipment which is part of the wet generator.
 - (4) Toxic Air Contaminants
The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.
- ii. Monitoring and Recordkeeping
 - (a) Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards. Regulation 6.43 provides additional requirements for VOC monitoring.
 - (b) Additional monitoring and recordkeeping for the leak checking activities required under subpart VV is defined in 40 CFR 60.482 and 60.486.
 - (c) The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.
- iii. Reporting

- (a) Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.
- (b) Additional reporting requirements are specified in 40 CFR 60.487.
- (c) The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.

m. Emission Unit U9 – Dry Generator

This equipment is still present on the permittee's property but has been rendered inoperable. This heading is retained for reference.

n. Emission Unit U10 – Acetylene Compression and Purification

This equipment is still present on the permittee's property but has been rendered inoperable. This heading is retained for reference.

o. Emission Unit U11 – Fuel Storage

i. Standards

Volatile Organic Compounds

- (a) Any VOCs emitted from the gasoline handling equipment are covered under the Plantwide VOC Emission Limits, section d. above.
- (b) The specific equipment required to be included on the gasoline storage tank is defined in APCD regulation 6.13.
- (c) Specific requirements for the transfer of fuel into this storage tank are defined in regulation 6.15.
- (d) There are no applicable standards under regulation 6.40 if the monthly volume of gasoline dispensed is less than 10,000 gallons.

ii. Monitoring and Recordkeeping

Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards. Regulation 6.43 provides additional requirements for VOC monitoring.

- iii. Reporting
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

p. Emission Unit U12 – Gas-Fired Boiler

- i. Standards
 - (1) Particulate Matter
Regulation 7.06 sets forth PM emission limits for gas-fired boilers put into operation after 9 April 1972, based on their actual heat input.
 - (2) Opacity
Regulation 7.06 sets forth opacity limits for gas-fired boilers put into operation after 9 April 1972, based on their actual heat input.
 - (3) Sulfur Dioxide
Regulation 7.06 sets forth SO₂ emission limits for gas-fired boilers put into operation after 9 April 1972, based on their actual heat input.
- ii. Monitoring and Recordkeeping
Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards.
- iii. Reporting
Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.

q. Emission Unit U13 – Storm Water Neutralization

- i. Standards
The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.
- ii. Monitoring and Recordkeeping

The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.

i. Reporting

The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.

r. **Emission Unit U14 – Tote Reconditioning**

i. Standards

(1) Particulate Matter

- (a) Fugitive emission standards are set forth in regulation 1.14
- (b) Regulation 7.08 sets forth PM emission limits based on equipment throughput. This regulation is applicable to all equipment constructed after 1 September 1976. The applicant identified all equipment in this emission unit was installed after this date.

(2) Opacity

Regulation 7.08 establishes opacity limits for all PM emissions and fugitive emissions for equipment constructed after 1 September 1976. The applicant identified all equipment in this emission unit was installed after this date.

(3) Volatile Organic Compounds

- (a) The VOC content of the coating materials used in this process are regulated by APCD regulation 7.59.
- (b) Any VOCs emitted in painting operations are also covered under the Plantwide VOC Emission Limits, section d. above.

(4) Toxic Air Contaminants

The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.

ii. Monitoring and Recordkeeping

- (a) Regulation 2.16, section 4.1.9 establishes authority for APCD to require monitoring and recordkeeping sufficient to insure compliance with established operating limits and standards. Regulation 6.43 provides additional requirements for VOC monitoring.
- (b) The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.

iii. Reporting

- (a) Regulation 2.16, section 4.1.9.3 establishes the obligation for regular reporting of all parameters and records APCD deems necessary to assure compliance with existing permit conditions.
- (b) The permittee has submitted modeling results that show that all TAC emissions are *de minimis*, as defined in APCD Regulation 5.21. No additional action is required if processes and materials do not change.

III. Other Requirements**1. Temporary Sources:**

The source did not request to operate any temporary facilities.

2. Short Term Activities:

The source did not report any short term activities.

3. Emissions Trading:

N/A

4. Operational Flexibility:

The source did not request any operational flexibility for the emission point.

5. Compliance Status:

The source signed and submitted a Title V compliance certification.

6. Permit Fee:

Current permit fees include the application filing fee, which has been paid. Title V emission fees and STAR program fees will be billed annually by APCD. Any other fees set forth in regulation 2.08 will be billed when incurred.

7. Insignificant Activities:

Various activities are listed as insignificant activities. These activities are mentioned explicitly in the regulatory paragraphs cited in the IA Table.