



Louisville Metro Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137



Permit No.: C-0036-1009-19-V

Plant ID: 0036

Effective Date: xx/xx/2019

Expiration Date: xx/xx/2019

Owner: Clariant Corporation  
Source: Clariant Corporation (Louisville West Plant)  
1227 South 12th Street  
Louisville, KY 40210

is authorized to install the described process equipment by the Louisville Metro Air Pollution Control District. Authorization is based on information provided with the application submitted by the company and in accordance with applicable regulations and the conditions specified herein.

Process equipment description:

Construction of a powder raw material handling system that will replace filter receiver FR-204-W36-001 and its associated control equipment FIL-204-W36-001 on the Small Eirich Mixing System EU 204-W36.

Application No. 98508 and 98509

Application Received: 5/28/2019

Permit Writer: Ulalo Chirwa

Date of Public Comment 10/05/2019

Air Pollution Control Officer  
xx xx, 2019

**Construction Permit Revisions and Changes**

<b>Revision No.</b>	<b>Permit No.</b>	<b>Issue Date</b>	<b>Public Notice Date</b>	<b>Change Type</b>	<b>Change Scope</b>	<b>Description</b>
Initial	C-0036-1009-19-V	xx/xx/2019	10/05/2019	Initial	Entire Permit	Initial Permit Issuance

**Application and Related Documents**

<b>Document Number</b>	<b>Date Received</b>	<b>Description</b>
98509	05/28/2019	Confidential version of the construction application
98508	05/28/2019	Public version of the construction application

### Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors, published by U.S.EPA</i>
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
(M)SDS	- (Material) Safety Data Sheet
NAICS	- North American Industry Classification System
NO <sub>x</sub>	- Nitrogen oxides
PM	- Particulate Matter
PM <sub>10</sub>	- Particulate Matter less than 10 microns
PM <sub>2.5</sub>	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO <sub>2</sub>	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

## Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

## General Conditions

- G1. The owner or operator of the affected facility covered by this permit shall notify the District of any process change, equipment change, material change, or change in method or hours of operation. This requirement is applicable to those changes (except equipment changes) that may have the potential for increasing the emission of air contaminants to a level in excess of the applicable limits or standards specified in this permit or District regulations.
- G2. The owner or operator shall obtain new or revised permits from the District in accordance with District Regulation 2.16 for Title V sources, District Regulation 2.17 for FEDOOP sources or District Regulation 2.03 for other sources including:
  - a. The company relocates to a different physical address.
  - b. The ownership of the company is changed.
  - c. The name of the company as shown on the permit is changed.
  - d. Permits are nearing expiration or have expired.
- G3. The owner or operator shall submit a timely application for changes according to G2. Timely renewal is not always achievable; therefore, the company is hereby authorized to continue operation in compliance with the latest District permit(s) until the District issues the renewed permit(s).
- G4. The owner or operator shall not be authorized to transfer ownership or responsibility of the permit. The District may transfer permits after appropriate notification (Form AP- 100A) has been received and review has been made.
- G5. The owner or operator shall pay the required permit fees within 45 days after issuance of the SOF by the District, unless other arrangements have been proposed and accepted by the District.
- G6. This permit allows operation 8,760 hours per year unless specifically limited elsewhere in this permit.
- G7. The owner or operator shall submit emission inventory reports as required by Regulation 1.06.
- G8. The owner or operator shall timely report abnormal conditions or operational changes, which may cause excess emissions as required by Regulation 1.07.
- G9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G10. If a change in the Responsible Official (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of the date the RO change occurs.

G11. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

<b>Regulation</b>	<b>Title</b>
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectiveness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.04	Construction or Modification of Major Sources in or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)
2.05	Prevention of Significant Deterioration
2.06	Permit Requirements – Other Sources
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

District Only Enforceable Regulations:

<b>Regulation</b>	<b>Title</b>
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
2.16	Title V Operating Permits
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

**Emission Unit: 204-W36****Applicable Regulations**

<b>Federally Enforceable Regulations</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
7.08	Standards of Performance for New Process Operations	1 through 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

**Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Install Date</b>	<b>Applicable Regulations</b>	<b>Control ID</b>	<b>Stack ID</b>
T-204-W36-001	Mix Tank (25 gal)	1999	STAR	NA	Fugitive
H-204-W36-002A	Feeder Hopper (3600 lbs/hr)	2019	7.08	FIL-204-W36-002A	S-204-W36-002A
H-204-W36-002B	Scale Hopper (3600 lbs/hr)	2019		BV-204-W36-002B	S-204-W36-002B

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Stack ID
H-204-W36-003A	Feed Hopper (3600 lbs/hr)	2019	7.08	FIL-204-W36-003A	S-204-W36-003A
H-204-W36-003B	Scale Hopper (3600 lbs/hr)	2019		BV-204-W36-003B	S-204-W36-003B
H-204-W36-004	Scale Hopper (3600 lbs/hr)	2019		BV-204-W36-004	S-204-W36-004
H-204-W36-005	Scale Hopper (3600 lbs/hr)	2019		BV-204-W36-005	S-204-W36-005
FR-204-W36-001A	Filter Receiver (3600 lbs/hr)	2019		FIL-204-W36-001A	S-204-W36-001
MX-204-W36-001	Eirich Mixer (300 lbs/batch)	1999	7.08, STAR, 40 CFR 63 Subpart VVVVVV	DC-204-W36-001 FIL-204-W36-002	S-204-W36-002

### Control Devices

Control ID	Description	Install Date	Control Efficiency
BV-204-W36-002B	Bin vent	2019	99.343% PM
BV-204-W36-003B	Bin vent	2019	99.343% PM
BV-204-W36-004	Bin vent	2019	99.343% PM
BV-204-W36-005	Bin vent	2019	99.343% PM
FIL-204-W36-001A	HEPA filter	2019	99.343% PM
FIL-204-W36-002A	Filter sock	2019	95% PM
FIL-204-W36-003A	Filter sock	2019	95% PM
DC-204-W36-001	Fabric filter	1999	99.343% PM/Cr/Cr III
FIL-204-W36-002	HEPA filter	1999	99.97% PM/ Cr/Cr III



## Specific Conditions

### S1. Standards

[Regulation 2.03, section 6.1]

#### a. Control Device Operation

The owner or operator shall operate and maintain the control devices at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 2.04, 2.05, 5.00 and 5.21, Regulation 7.08 section 3.1.2, and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

i. The owner or operator shall not allow or cause the plantwide emissions of any single HAP to equal or exceed 10 tons during any consecutive 12-month period. [Regulations 2.16]

ii. The owner or operator shall not allow or cause the plantwide emissions of total HAP to equal or exceed 25 tons during any consecutive 12-month period. [Regulations 2.16]

iii. *Management Practices.* The owner or operator shall comply with the following paragraphs. [40 CFR 63 Subpart VVVVVV]

1) Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form). [40 CFR 63.11495(a)(1)]

(a) The owner or operator must conduct inspections of process vessels and equipment for each CMPU in metal HAP service, as specified in the following paragraphs to demonstrate compliance with S1.c.iii.1) and to determine that the process vessels and equipment are sound and free of leaks. [40 CFR 63.11495(a)(3)]

(b) Inspections must be conducted at least quarterly. [§63.11495(a)(3)(i)]

(c) For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, you must still perform the inspection and

- demonstration in the next quarterly monitoring period. [§63.11495(a)(3)(ii)]
- (d) Inspections must be conducted while the subject CMPU is operating. [§63.11495(a)(3)(iv)]
  - (e) No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required. [§63.11495(a)(3)(v)]
- 2) The owner or operator must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this paragraph, a leak will be considered “repaired” if a condition specified in one of the following paragraphs is met. [40 CFR 63.11495(a)(4)]
- (a) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or [§63.11495(a)(4)(i)]
  - (b) No bubbles are observed at potential leak sites during a leak check using soap solution, or [§63.11495(a)(4)(ii)]
  - (c) The system will hold a test pressure. [§63.11495(a)(4)(iii)]
- 3) The owner or operator must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair. [40 CFR 63.11495(a)(5)]
- iv. Startup, shutdown, and malfunction (SSM) provisions in subparts that are referenced in 40 CFR 63.11495(a) and (b) do not apply. [40 CFR 63.11495(c)]
  - v. *General duty.* At all times, the owner or operator must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the CMPU. [40 CFR 63.11495(d)]
  - vi. *Emissions from metal HAP process vents.* For all metal HAP process vents from each CMPU with collective uncontrolled metal HAP emissions equal to or greater than 400 lb/yr, the owner or operator shall reduce collective uncontrolled emissions of total metal HAP emissions by  $\geq 95$  percent by weight by routing emissions from a sufficient number of the metal process vents through a closed-vent system to any combination of control devices,

according to the requirements of §63.11496(f)(3). The requirements of this paragraph §63.11495(f) do not apply to metal HAP process vents from CMPU containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form). [40 CFR 63.11495(f) and Table 4]

c. **Opacity**

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. [Regulation 7.08, section 3.1.1]

d. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. The owner or operator shall not allow or cause the plantwide emissions of PM/PM<sub>10</sub>/PM<sub>2.5</sub> to equal or exceed 100 tons during any consecutive 12-month period. [Regulations 2.04 and 2.05]
- ii. For H-204-W36-002A, H-204-W36-002B, H-204-W36-003A, H-204-W36-003B, H-204-W36-004, H-204-W36-005, FR-204-W36-001A the owner or operator shall not allow PM emissions to exceed 5.17 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2]<sup>1</sup>
- iii. For MX-204-W36-001 the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr each based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2]<sup>2</sup>

e. **TAC**

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*. [Regulations 5.00 and 5.21]<sup>3</sup>
- ii. The owner or operator shall not allow nitric acid emissions to exceed *de minimis* levels from T-204-W36-001. [Regulations 5.00 and 5.21]<sup>4</sup>
- iii. The owner or operator shall not allow chromium III emissions to exceed *de minimis* levels from MX-204-W36-001. [Regulations 5.00 and 5.21]<sup>5</sup>

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<sup>1</sup> H-204-W36-002A, H-204-W36-002B, H-204-W36-003A, H-204-W36-003B, H-204-W36-004, H-204-W36-005, FR-204-W36-001A equipment cannot exceed the PM standard after the first control.

<sup>2</sup> The potential controlled PM emissions meet the applicable emissions standard in Regulation 7.08 after the first control device.

<sup>3</sup> Chromium III emissions are required to be controlled to be *de minimis*. Chromium III *de minimis* levels at the time of issuance are 0.1 lb per hour and 0.1 lb per 8 hour averaging period.

<sup>4</sup> This equipment meets Nitric Acid *de minimis* levels uncontrolled.

<sup>5</sup> This equipment needs two levels of controls to meet Chromium III *de minimis* levels.

**S2. Monitoring and Record Keeping**

[Regulation 2.03, section 6.1]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. Control Device Operation**

- i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of control devices for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.
- ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range.

Control ID	Pressure Drop (" w.c.)
BV-204-W36-002B, BV-204-W36-003B, BV-204-W36-004, BV-204-W36-005	≤5
FIL-204-W36-001A	≤5
DC-204-W36-001	0.5 – 10.0
FIL-204-W36-002	0.2 – 5.0

- iii. For any period of operating outside the established pressure drop range for control devices, the owner or operator shall maintain the following records:
  - 4) The date,
  - 5) The observed pressure drop,
  - 6) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.
- iv. Upon notification to the District, the owner or operator may modify the pressure drop ranges for control devices, once during the life of this operating permit, based on plant operating trends. Records of the operating trends that necessitated a change shall be kept for the life of the control device.

**b. HAP**

- i. The owner or operator shall monthly calculate and record the plantwide consecutive 12-month emissions of each single HAP and total HAP for each month in the reporting period. This must include all emission points and fugitive sources. Where appropriate, the specific control efficiencies and/or emission factors shall be applied. The calculation shall be performed as follows unless otherwise approved in writing by the District:

$$HAP_A = \sum_1^x [U_x(1 - C_{Conx})] + F$$

Where:

- HAP<sub>A</sub> = Total plantwide emissions of an individual HAP (A)
- U<sub>x</sub> = Uncontrolled HAP emission from each Emission Point (x)
- C<sub>Conx</sub> = Control Efficiency of each control device for each Emission Point (x)
- F = Total plantwide fugitive HAP emissions

- ii. *Management Practices.* The owner or operator must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair. (40 CFR 63.11495(a)(5))
- iii. The owner or operator must determine the sum of metal HAP emissions from all metal HAP process vents within a CMPU subject to 40 CFR 63 Subpart VVVVVV, except you are not required to determine the annual emissions if you control the metal HAP process vents within a CMPU in accordance with Table 4 of Subpart VVVVVV or if you determine your total metal HAP usage in the process unit is less than 400 lb/yr. To determine the mass emission rate you may use process knowledge, engineering assessment, or test data. You must keep records of the emissions calculations. (40 CFR 63.11495(f)(1))
- iv. If your current estimate is that total uncontrolled metal HAP emissions from a CMPU subject to this subpart are less than 400 lb/yr, then you must keep records of either the number of batches operated per month (batch vents) or the process operating hours (continuous vents). Also, you must reevaluate your total emissions before you make any process or operational change that affects emissions of metal HAP. If projected emissions increase to 400 lb/yr or more, then you must be in compliance with one of the options for metal HAP process vents in Table 4 of Subpart VVVVVV upon initiating operation under the new operating conditions. You must keep records of all recalculated emissions determinations. (40 CFR 63.11495(f)(2))
- v. For an existing source subject to the HAP metals emission limits specified in Table 4 of Subpart VVVVVV, the owner or operator must prepare a monitoring plan containing the information in the following paragraphs. The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times. You must keep records of monitoring results to demonstrate continuous compliance. (40 CFR 63.11495(f)(3)(i))
  - 1) A description of the device;
  - 2) Results of a performance test or engineering assessment conducted in accordance with §63.11495(f)(3)(ii) verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart;
  - 3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the

manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).

- 4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and
  - 5) Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment.
- vi. *Recordkeeping.* The owner or operator must maintain files of all information required by this subpart for at least 5 years following the date of each occurrence according to the requirements in §63.10(b)(1). If you are subject, you must comply with the recordkeeping and reporting requirements of §63.10(b)(2)(iii) and (vi) through (xiv), and the following applicable requirements for each CMPU subject to this Subpart VVVVVV. (40 CFR 63.11501(c)(1))
- 1) Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in §63.11495(a)(5). (§63.11501(c)(1)(i))
  - 2) Records of small heat exchange system inspections, demonstrations of indications of leaks that do not constitute leaks, repairs, and reasons for any delay in repair as specified in §63.11495(b). (§63.11501(c)(1)(ii))
  - 3) Records of metal HAP emission calculations as specified in §63.11496(f)(1) and (2). If total uncontrolled metal HAP process vent emissions from a CMPU subject to this subpart are estimated to be less than 400 lb/yr, also keep records of either the number of batches per month or operating hours, as specified in §63.11496(f)(2). (§63.11501(c)(1)(v))
  - 4) Records of the date, time, and duration of each malfunction of operation of process equipment, control devices, recovery devices, or continuous monitoring systems used to comply with this subpart that causes a failure to meet a standard. The record must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. (§63.11501(c)(1)(vii))
  - 5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (§63.11501(c)(1)(viii))

**c. Opacity**

There are no monitoring or record keeping requirements for this emission unit.

d. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. For each PM emission point, the owner or operator shall monitor and maintain records of the throughput of each raw material during each calendar month.
- ii. The owner or operator shall calculate and record the *plantwide* consecutive 12-month PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions for each month in the reporting period.

$$PM/PM_{10}/PM_{2.5} = \sum_1^x [U_x(1 - C_{Conx})] + F$$

Where:

- PM/PM<sub>10</sub>/PM<sub>2.5</sub> = Total plantwide emissions of PM/PM<sub>10</sub>/PM<sub>2.5</sub>
- U<sub>x</sub> = Uncontrolled PM emission from each Emission Point (x)
- C<sub>Conx</sub> = Control Efficiency of each control device for each Emission Point (x)
- F = Total plantwide fugitive PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions

- iii. For any period of time when the process was operating and a control device(s) was not operating, the owner or operator shall maintain the following records:
  - 1) The duration of the control device downtime;
  - 2) The process throughput during the control device downtime;
  - 3) The emissions of PM (lb/hr) and PM/PM<sub>10</sub>/PM<sub>2.5</sub> (tons); and
  - 4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

e. **TAC**

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to (M)SDS, analysis of emissions, and/or modeling results.
- ii. For any period of time when the process was operating and a TAC control device was not operating, the owner or operator shall maintain the following records:
  - 1) The duration of the control device downtime;
  - 2) The process throughput during the control device downtime;
  - 3) The emissions of each TAC (lb/hr and lb/avg. period); and
  - 4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

S3. **Reporting**

[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

The compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 <sup>st</sup> through June 30 <sup>th</sup>	August 29 <sup>th</sup>
July 1 <sup>st</sup> through December 31 <sup>st</sup>	March 1 <sup>st</sup>

a. **Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

- 1) The date,
- 2) The observed pressure drop,
- 3) Corrective action taken to minimize the extent of the excursion, and
- 4) Measures implemented to prevent reoccurrence.

b. **HAP**

i. The owner or operator shall report the consecutive 12-month *plantwide* emissions of each individual HAP for each month in the reporting period.

ii. The owner or operator shall report the consecutive 12-month *plantwide* emissions of total HAP for each month in the reporting period.

iii. *Semiannual Compliance Reports.* The owner or operator must submit semiannual compliance reports that contain the information specified in the following paragraphs, as applicable. Reports are required only for semiannual periods during which you experienced any of the events described in § 63.11501(d)(1) through (8). [40 CFR 63.11501(d)]<sup>6</sup>

- 1) *Deviations.* You must clearly identify any deviation from the requirements of this subpart. [§63.11501(d)(1)]
- 2) *Delay of leak repair.* You must provide the following information for each delay of leak repair beyond 15 days for any process equipment, storage tank, surge control vessel, bottoms receiver, and each delay of leak repair beyond 45 days for any heat exchange system with a cooling water flow rate less than 8,000 gal/min: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired. [§63.11501(d)(3)]
- 3) *Process change.* You must report each process change that affects a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in §63.11501(b). [§63.11501(d)(4)]
- 4) *Overlapping rule requirements.* Report any changes in the overlapping provisions with which you comply. [§63.11501(d)(6)]

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<sup>6</sup> The initial notification for 40 CFR 63 Subpart VVVVVV was received 6/21/2010.



- 5) *Malfunctions*. If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions you took during a malfunction of an affected source to minimize emissions in accordance with §63.11495(d), including actions taken to correct a malfunction. [§63.11501(d)(8)]

c. **Opacity**

There are no reporting requirements for this emission unit.

d. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. The owner or operator shall report the *plantwide* consecutive 12-month emissions of PM/PM<sub>10</sub>/PM<sub>2.5</sub> for each month in the reporting period.
- ii. Identification of all periods when a process was operating and an associated control device was not operating, including the information below, or a negative declaration if the control device was operating at all times the process was operating during the reporting period:
  - 1) The duration of the control device downtime;
  - 2) The process throughput during the control device downtime;
  - 3) The emissions of PM (lb/hr) and PM/PM<sub>10</sub>/PM<sub>2.5</sub> (tons); and
  - 4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

e. **TAC**

- i. Identification of all periods when a process was operating and a TAC control device was not operating, including the information below, or a negative declaration if the control device was operating at all times the process was operating during the reporting period.
  - 1) The duration of the control device downtime;
  - 2) The process throughput during the control device downtime;
  - 3) The emissions of each TAC (lb/hr and lb/avg. period); and
  - 4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

S4. **Testing**

[Regulation 2.03, Section 6.1]

a. **HAP**

- i. For an existing source subject to the HAP metals emission limits specified in Table 4 of Subpart VVVVVV, you must comply with the initial compliance and monitoring requirements in §63.11496(f)(3)(i) through (iii). You must keep records of monitoring results to demonstrate continuous compliance. [40 CFR 63.11496(f)(3)]
- ii. You must prepare a monitoring plan containing the information in §63.11496(f)(3)(i)(A) through (E). The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times. [40 CFR 63.11496(f)(3)(i)]
  - 1) A description of the device;
  - 2) Results of a performance test or engineering assessment verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart;
  - 3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).
  - 4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and
  - 5) Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment.
- iii. You must conduct a performance test or an engineering assessment for each CMPIU subject to a HAP metals emissions limit in Table 4 to this subpart and report the results in your Notification of Compliance Status (NOCS). Each performance test or engineering assessment must be conducted under representative operating conditions, and sampling for each performance test must be conducted at both the inlet and outlet of the control device. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. If you own or operate an existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the 5 years prior to the effective date using the same methods and, either no process changes have been made since the test, or, if you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes. [40 CFR 63.11496(f)(3)(ii)]

iv. If you elect to conduct a performance test, it must be conducted according to requirements in §63.11410(j)(1). As an alternative to conducting a performance test using Method 5 or 5D to determine the concentration of PM, you may use Method 29 in 40 CFR 60, appendix A-8 to determine the concentration of HAP metals. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM is equal to or greater than 95 percent. [40 CFR 63.11496(f)(3)(iii)]

b. **Opacity**

There are no testing requirements for this pollutant.

c. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

There are no testing requirements for this pollutant.

d. **TAC**

There are no testing requirements for this pollutant