



**LOUISVILLE METRO
AIR POLLUTION CONTROL DISTRICT
850 Barret Ave., Louisville, Kentucky 40204**



Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No. 40-06-F (R2)

Plant ID 1294

Effective Date xx/xx/2010

Expiration Date xx/xx/2015

Fee \$ 4151

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Altuglas International, A Div of Arkema Inc, 4350 Camp Ground Rd, Louisville, KY 40216

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein.

Emissions Limitations to Qualify for Non-Major Status:

Pollutant:	PM	VOC	HAP
Tons/Year	<100	<100	<10 and 25

Responsible Official (RO): Steve Erhardt
RO Title: Plant Manager

Application Received: 02/28/2003
Application No.:

Permit Writer: Karen Thorne

Public Notice Given: 03/14/2010

{Manager}
Air Pollution Control Officer

Final Draft: 03/14/2010

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FEDOOP Permit Revisions/Changes

Revision No.	Issue Date	Public Notice Date	Type	Attachment No./Page No.	Description
Initial	08/03/06	06/19/06	Initial	Entire Permit	Initial Permit Issuance
R1	08/31/06	N/A	Administrative	S2.ix., S2.xii., S2.xiii., and S3.c.ii.1)	Correct the identification numbers for the Clr-Load and Red-Load Filters. Correct the pressure drop range of 18-108. Change gallons to pounds of product, since it is dry.
R2	xx/xx/10	03/14/10	Renewal	Entire Permit	Renewal

Abbreviations and Acronyms

AFS	-	Airs Facility Subsystem
AIRS	-	Aerometric Information Retrieval System
APCD	-	Air Pollution Control District
ASL	-	Adjusted Significant Level
atm	-	Atmosphere
BACT	-	Best Available Control Technology
Btu	-	British Thermal Unit
°C	-	Degrees Centigrade
CEMS	-	Continuous Emission Monitoring System
CAAA	-	Clean Air Act Amendments (15 November 1990)
cf	-	Cubic foot
°F	-	Degrees Fahrenheit
gal	-	Gallon
HAP	-	Hazardous Air Pollutant
Hg	-	Mercury
hr	-	hour
lbs	-	Pounds
l	-	Liter
MACT	-	Maximum Achievable Control Technology
m	-	Meter
mg	-	Milligram
mm	-	Millimeter
MM	-	Million
NAICS	-	North American Industry Classification System
NSR	-	New Source Review
NO _x	-	Nitrogen oxides
NSPS	-	New Source Performance Standards
PM	-	Particulate Matter
PM ₁₀	-	Particulate matter less than 10 microns
ppm	-	Parts per million
P/PE	-	Process/Process Equipment
PSD	-	Prevention of Significant Deterioration
PMP	-	Preventive Maintenance Plan
psia	-	Pounds per square inch absolute
RACT	-	Reasonably Available Control Technology
SC	-	Specific Condition
SIC	-	Standard Industrial Classification
SIP	-	State Implementation Plan
SO ₂	-	Sulfur dioxide
TAC	-	Toxic Air Contaminant
TAL	-	Threshold Ambient Limit
TAP	-	Toxic Air Pollutant
tpy	-	Tons per year
UTM	-	Universal Transverse Mercator
VOC	-	Volatile Organic Compound

General Conditions

1. The owner or operator shall comply with all general conditions herein and all terms and conditions in the referenced process/process equipment list.
2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District only enforceable which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. The owner or operator shall provide written notification ([Form 9440-A](#)) to the District within thirty days following the date a change in the designated responsible official occurs for this facility.
4. The owner or operator shall submit to the District, on or before April 15 of each year, an annual compliance certification signed by the responsible official. This certification shall be via completion of District [Form 9440-O](#).
5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.
7. The owner or operator shall provide written notification to the District and receive approval prior to any changes to equipment or processes that would result in actual emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination or a notification of planned changes in equipment or processes, or an anticipated noncompliance shall not alter any permit requirement.
9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or less than 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this

limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant including particulate matter, sulfur dioxide, carbon monoxide, photochemical oxidants, hydrocarbons, nitrogen oxides, lead, gaseous fluorides, or Volatile Organic Compounds (VOC) as listed in District Regulation 3.04; any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in this limit for source categories listed in District Regulation 2.16.
11. 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.
12. Unless specified elsewhere in this permit, the owner or operator shall submit semi-annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12 month totals for each pollutant that has a federally enforceable limitation on the potential to emit. The report shall be submitted to the District no later than 60 days following the end of each semi-annual reporting period.
13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Provisions
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 and Reporting
1.07	Emissions During Shutdowns, Malfunctions, Startups, and Emergencies
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
2.01	General Application
2.02	Air Pollution Regulation Requirements and Minor Facility Exemptions
2.03	Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP

Regulation	Title
	Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement 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)

14. The owner or operator shall comply with all applicable requirements of the following District only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.01	Standards for Toxic Air Contaminants and Hazardous air Pollutants
5.11	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants
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

15. The owner or operator shall submit semi-annual compliance reports that include the information specified in the reporting section of the permit for each emission unit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement. The compliance reports shall be postmarked within 60 days

following the end of each reporting period. All semi-annual compliance reports shall include the following certification statement per Regulation 2.17, section 3.5.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete”.
- Signature and title of company responsible official.

The semi-annual 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 st through June 30 th	August 29 th
July 1 st through December 31 st	March 1 st

16. The owner or operator shall submit emission inventory reports as required by Regulation 1.06.
17. The owner or operator shall timely report abnormal conditions or operational changes which may cause excess emissions as required by Regulation 1.07.

Bulk Loading System Emission Sources

Applicable Regulations

Federally Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>6.09</u>	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2, 3 and 5

Emission Point Description

EP ID	Description	Applicable Regulation(s)	Control Device
Clear Silo DCL System (U-KM-CLR_DCL) Maximum Capacity: 30,000 lb/hr (2001)			
12-614	DCL Heads (DCL Loading Station 1)	7.08	12-613
12-615	DCL Heads Bulk Loading (DCL Loading Station 2)		
12-616	DCL Loading Middle Bay (DCL Loading Station 3)		
12-617	DCL Head Middle Bay #2 (DCL Loading Station 4)		
12-376	Railcar Unloading Filter		
12-377	Railcar Unloading Process Cyclone		
Clear Silos (U-KM-Silos1)			
16-630, 16-635	Two (2) Clear Storage Silos, 50,000 lb/hr ea. (1973)	6.09	16-671
16-640, 16-645	Two (2) Clear Storage Silos, 50,000 lb/hr ea. (1985)	7.08	
16-650, 16-655	Two (2) Clear Storage Silos, 50,000 lb/hr ea. (1986)	7.08	
16-690	KM-Blend Tank, 36,000 lb/hr (1974)	6.09	
16-644	Clear Bulk Loading (formerly Clr-Load), 30,000 (1973) (formerly in U-KM-Misc)	6.09	16-671 and 16-644
Color Silos (U-KM-Silos2)			

EP ID	Description	Applicable Regulation(s)	Control Device
12-380, 12-385	Two (2) Red Storage Silos, 50,000 lb/hr ea. (1989)	7.08	12-390
12-338	Red Bulk Loading (formerly Red-Load), 30,000 lb/hr (1989)	7.08	12-338 and 12-390

Bulk Loading System Control Devices

ID	Description	Control Efficiency (%)
Bulk Loading System (U-KM-CLR_DCL)		
12-613	DCL Loading Filter	95
Clear Silos (U-KM-Silos1)		
16-671	Clear Silo Bag Filter	95
16-644	Clear Silo Loading Filter	99
Color Silos (U-KM-Silos2)		
12-390	Red Silo Bag Filter	95
12-338	Red Silo Loading Filter (Dual Cyclone)	85

Specific Conditions**S1. Standards** (Regulation 2.17, Section 5.1)**a. PM**

- i. The owner or operator shall not allow *plantwide* PM emissions to equal or exceed 100 tons per consecutive 12-month period.
- ii. For EP 12-614, 12-615, 12-616, 12-617, 12-376, 12-377, 12-338, 16-640, 16-645, 16-650 and 16-655, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr for each piece of equipment. (Regulation 7.08, Section 3.3) (See Comment 1.)
- iii. For EP 16-630, 16-635, 16-690 and 16-644, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.58 lb/hr for each piece of equipment. (Regulation 6.09, Section 3.4) (See Comment 1.)
- iv. For EP 12-380 and 12-385, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr combined for both pieces of equipment. (Regulation 7.08, Section 3.3) (See Comment 1.)
- v. The owner or operator shall utilize the control devices at all times when the equipment is in operation.

b. Opacity (Regulation 6.09, Section 3.1 and Regulation 7.08, Section 3.1.2)

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain PM that is equal to or greater than 20% opacity.

S2. Monitoring (Regulation 2.17, Section 5.2)**a. PM**

- i. For control devices 12-613, 16-671, 16-644, 12-390 and 12-338, the owner or operator shall:
 - 1) Monthly perform a visual inspection of the structural and mechanical integrity of each control device used for process operations during the month for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed;
 - 2) Annually, during each calendar year, perform a thorough inspection of each control device used for process operations during a calendar year, including a visual inspection of the filter media and all mechanical and pneumatic systems; and

- 3) Monitor the daily pressure drop across the baghouse each operating day to ensure the pressure drop does not exceed the limits shown in the table below.
 - A) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and
 - B) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit. (See Comments 2 and 3.)

Baghouse ID	New Bag Lower Limit	Seasoned Bag Lower Limit	Upper Limit
	[Inches Water Column (W.C.)]		
12-613	0.1	0.5	4
16-671	0.1	0.5	4
16-644	0.1	0.5	13
12-390	0.5	1.0	15.0
12-338	0.4	0.8	4.0

ii. See S3.a.ii. through vi.

b. Opacity

The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points/stacks. No more than four emission points/stacks shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

S3. Record Keeping (Regulation 2.17, Section 5.2)

a. PM

- i. For control devices 12-613, 16-671, 16-644, 12-390 and 12-338, the owner or operator shall record:
 - 1) Results of the monthly visual inspections,

- 2) Results of the annual thorough inspections,
 - 3) The daily pressure drop each operating day, and
 - 4) For any excursion from the pressure drop range,
 - A) The number, duration and cause of each excursion, and
 - B) Description of the corrective action taken.
- ii. For each PM Emission Point, the owner or operator shall keep a monthly record of the throughput of each emission point.
- iii. The owner or operator shall calculate and record the *plantwide* consecutive 12-month PM emissions for each month in the reporting period using the following equation from the March 5, 2003 submittal:

$$E_{month} = \sum_{i=1}^n [EF \times T \times (1 - CE)]$$

Where:

- E_{month} = PM emissions/month
 n = Number of emission points
 EF = Emission factor (March 5, 2003 submittal)
 T = Throughput/month
 CE = Control Efficiency (99% for Filters, 95% for Baghouses and 85% for Dual Cyclones, unless a performance test has been completed)

- iv. For any period of time when the process was operating and the control device was not operating, the owner or operator shall maintain the following records:
- 1) The start and stop time;
 - 2) The plantwide consecutive 12-month PM emissions using the equation in S3.a.iii., where the emissions from the time period(s) and throughput rate(s) in which the process was operated and the control device was not operated are calculated using a zero control efficiency;
 - 3) The throughput; and
 - 4) The average pound per hour PM emissions.

b. Opacity

The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date and time of the survey, the name (or initials) of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S4. Reporting (Regulation 2.17, Section 5.2)

Reports shall include the beginning and ending date of the reporting period. Reports shall also include emission unit ID number, emission point and/or stack ID number, and control device ID number, if applicable. The owner or operator shall report the following:

a. PM**i. For Emission Points,**

- 1) The consecutive 12-month plantwide PM emissions for each month in the reporting period; and
- 2) Identification of all periods of exceedance of the pound per hour emission standards, including the quantity, duration and cause of the exceedance, and any corrective action taken.

ii. For pressure drop of each control device,

- 1) Identification of the operating parameter being monitored;
- 2) Summary information on the quantity, duration, and cause of all excursions; and
- 3) Description of any corrective action taken; or
- 4) A negative declaration of there were no excursions during the reporting period.

iii. For periods of time when a process was operating and the control device was not operating,

- 1) The start and stop time;
- 2) The plantwide consecutive 12-month PM emissions, as recorded in [S3.a.iv.2](#));
- 3) The throughput; and
- 4) The average pound per hour PM emissions; or
- 5) A negative declaration if the control device was operating at all times the process was operating during the reporting period.

b. Opacity

- i. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed, or a negative declaration if no visible emissions were observed during the reporting period;
- ii. The date, time and results of each Method 9 conducted, or a negative declaration if there were no Method 9 tests performed during the reporting period; and
- iii. Description of any corrective action taken.

Comments

1. The Bulk Loading System emission points cannot exceed the PM emission limits controlled.
2. Due to similar design and operation, the pressure drop range for Baghouse 16-644 was based on the stack test for Baghouse 12-087, conducted July 8 and 9, 2009.
3. The pressure drop range for Baghouse 12-390 was provided by The Young Industries Inc. (December 23, 2008).

Extruder Die System Emission Sources

Applicable Regulations

Federally Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>6.09</u>	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
<u>6.13</u>	Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds	1, 2 and 3.3
<u>6.24</u>	Standards of Performance for Existing Sources Using Organic Materials	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2, 3 and 5
<u>7.12</u>	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2 and 3.3
<u>7.25</u>	Standard of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.1, 4.1 and 4.2

District Only Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.02</u>	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1, 3.1, 3.54, 4, 5
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

Emission Point Description

EP ID	Description	Applicable Regulation(s)	Control Device
KM Die and Die Ventilation Systems (U-KM-Die)			

EP ID	Description	Applicable Regulation(s)	Control Device
12-701 (formerly Watertank)	One (1) 4,700 gallon Chemical Sewer Storage Tank (assigned to Die system because Rotoclone is largest discharger to tank)	7.12	N/A
12-162 and 16-162	Two (2) Extruder Die Heads (KM-1 (1974) and KM-2 (1981)), 18,800 lb/hr	5.21, 6.09, 6.24	16-547
KM Extruder System (U-KM-Extruders) Maximum Capacity: 33,000 lb/hr MMA, 10,000 lb/hr EA			
12-105	KM-1 Recycle Monomer Tank, 4,800 gal (1967)	5.21, 6.24	12-199
12-110	KM-1 MMA Mix Tank, 4,800 gal (1967)	5.21, 6.13	12-199
12-115	KM-1 EA Tank, 4,800 gal (1967)	5.21, 7.12	12-199
12-118	KM-1 nDDM Weigh Tank, 20 gal (2001)	5.21, 6.24	12-199
12-127	KM-1 Methyl Salicylate Tank, 150 gal (2001)	5.21, 7.25	12-199
12-140	KM1 Reactor, 950 gal (1967)	5.21, 6.24	12-199
12-150	KM1 Dump Tank, 2000 gal (1966)	5.21, 6.24	12-199
12-155 and 12-156	Two (2) KM-1 "Color" Additive Tanks, 150 gal ea. (1986)	5.21, 7.25	12-199
12-160	KM-1 Extruder, 20,000 lb/hr (1974)	5.21, 6.24	12-199
12-165 and 12-166	Two (2) KM-1 "Clear" Additive Tanks, 150 gal ea. (1986)	5.21, 7.25	12-199
12-190	KM Rundown Tank, 700 gal (1967)	5.21, 6.24	12-199
12-367	KM1 Hub Seal	5.21, 7.25	12-199
12-455	DtDDS Storage Tank, 100 gal	5.21, 7.25	12-199
12-458	KM-1 nDDM Storage Tank (2000)	5.21, 7.25	12-199
12-465	KM Reactor Feed Tank #1, 200 (1970)	5.21, 6.24	12-199
16-105	KM-2 Recycle Tank, 4,800 gal (1974)	5.21, 6.24	12-199
16-110	KM-2 MMA Tank, 4,800 gal (1974)	5.21, 6.13	12-199
16-127	KM-2 Methyl Salicylate Tank, 150 gal	5.21, 6.24	12-199
16-140	KM2 Reactor, 750 gal (1974)	5.21, 6.24	12-199
16-150	KM-2 Dump Tank, 2,500 gal (1973)	5.21, 6.24	12-199
16-155 – 16-156	Two (2) KM-2 "Color" Additive Tanks, 150 gal ea. (1974)	5.21, 6.24	12-199
16-160	KM-2 Extruder, 20,000 lb/hr (1986)	5.21, 6.24	12-199

EP ID	Description	Applicable Regulation(s)	Control Device
16-165 - 16-166	Two (2) KM-2 "Clear" Additive Tanks, 150 gal ea. (1974)	5.21, 6.24	12-199
16-367	KM-2 Hub Seal, 30,000 lb/hr (1974)	5.21, 7.25	12-199
16-465	KM Reactor Feed Tank #2, 200 gal (1970)	5.21, 7.25	12-199
Fugitive	KM Fugitive emissions	--	Fugitive
12-461	KM-1 DTAC Storage Tank	5.21, 7.25	NA
KM-1 Rework Feed System (U-KM-KM1Rework)			
12-256	KM-1 Rework Process Cyclone, including hopper and weigh belt, 3000 lb/hr (1995)	7.08	12-257
KM-2 Rework System (U-KM-KM2Rework)			
16-331	KM-2 Rework System (Rework Process Cyclone (1974) and DR Process Cyclone (1995)), 3,000 lb/hr	6.09	16-328
16-348		7.08	

Extruder Die System Control Devices

ID	Description	Control Efficiency (%)
KM Die and Die Ventilation Systems (U-KM-Die)		
16-547	Wet Rotoclone	62
KM Extruder System (U-KM-Extruders)		
12-199	Thermal Oxidizer (TO), Met-Pro model TX-T-3G	99.98
KM-1 Rework Feed System (U-KM-KM1Rework)		
12-257	KM-1 Rework Baghouse	95
KM-2 Rework System (U-KM-KM2Rework)		
16-328	KM-2 Rework/DR Baghouse	95

Specific Conditions

S1. Standards (Regulation 2.17, Section 5.1)

a. PM

- i. The owner or operator shall not allow *plantwide* PM emissions to equal or exceed 100 tons per consecutive 12-month period.
- ii. For EP 12-162 and 16-162, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 21.67 lb/hr combined for both pieces of equipment. (Regulation 6.09, Section 3.4) (See Comment 1.)
- iii. For EP 12-256 and 16-348, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr for each piece of equipment. (Regulation 7.08, Section 3.3) (See Comment 1.)
- iv. For EP 16-331, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.58 lb/hr for each piece of equipment. (Regulation 6.09, Section 3.4) (See Comment 1.)

b. Opacity (Regulation 6.09, Section 3.1 and Regulation 7.08, Section 3.1.2)

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain PM that is equal to or greater than 20% opacity.

c. VOC

- i. The owner or operator shall not allow *plantwide* VOC emissions to equal or exceed 100 tons per consecutive 12-month period.
- ii. The owner or operator shall utilize the Thermal Oxidizer (TO), 12-199, on the following emission points: 12-110, 12-115, 16-110, 12-140, 12-160, 16-140, 16-160, 12-105, 12-118, 12-455, 12-150, 12-190, 12-367, 12-127, 16-105, 16-127, 16-150, 16-155, 16-156, 16-165, 16-166, 16-367, 12-458, 12-465, 12-155, 12-156, 12-165, 12-166 and 16-465, except as provided for in S1.c.iv.
- iii. The owner or operator shall limit the combined post-control VOC emissions from all emission points that vent to the TO to less than or equal to 1.8345 tons per consecutive 12-month period. (Permit 207-03-C, May 31, 2004) (See Comment 2.)
- iv. The owner or operator shall limit the VOC emissions that are vented to the bypass stack (S-KM-TOBypass) to less than or equal to 0.72 tons per consecutive 12-month period. (Permit 207-03-C, May 31, 2004)

- v. When any emission point is being vented to the TO, the minimum combustion temperature shall be 1405 °F, except as provided for in [S5](#). At the minimum combustion temperature, the performance test indicated a destruction efficiency of 99.98%. (Permit 207-03-C, May 31, 2004) (See Comment 2.)
 - vi. EP 12-110, 12-115, 12-701 and 16-110 shall be equipped with a permanent submerged fill pipe. (Regulations 6.13 and 7.12, Section 3.3)
 - vii. For EP 12-162, 16-162, 12-140, 12-160, 16-140, 16-160, 12-105, 12-118, 12-465, 12-150, 12-190, 16-105, 16-127, 16-150, 16-155, 16-156, 16-165 and 16-166, the owner or operator shall limit VOC emissions from each emission point to less than or equal to 40 lbs/day and 8 lbs/hr for Class II solvents, and less than or equal to 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85% by weight. (Regulation 6.24, Section 3.2 and 3.3) (See Comment 2.)
 - viii. For EP 12-127, 12-458, 12-455, 12-461, 12-155, 12-156, 12-165, 12-166, 12-367, 16-367 and 16-465, the owner or operator shall utilize VOC BACT. The owner or operator shall vent the emissions from these Emission Points to the TO, which the District has determined to be VOC BACT for the purposes of Regulation 7.25. (Regulation 7.25, Section 3.1) (See Comment 2.)
- d. **HAP**
- i. The owner or operator shall not allow *plantwide* single HAP emissions to equal or exceed 10 tons per consecutive 12-month period for each HAP.
 - ii. The owner or operator shall not allow *plantwide* total HAP emissions to equal or exceed 25 tons per consecutive 12-month period.
- e. **HAP (LDAR)**
- These LDAR standards apply to pumps, valves, compressors, agitators, pressure relief devices, open-ended valves or lines, flanges, connectors, and instrumentation systems that operate in organic hazardous air pollutant (OHAP) service 300 hours or more during the calendar year. OHAP service means that a component either contains or contacts a fluid (liquid or gas) that is at least 5% by weight of total OHAPs. Components in vacuum service (as defined as operating at an internal pressure which is below ambient pressure) are exempt from these requirements.
- i. Each component shall be identified. Physical tagging is not required. Components can be identified on a plant site plan, in log entries, in an electronic database, or on process and instrumentation diagrams (P&IDs).

- ii. When a leak is detected, it shall be repaired as soon as practicable, but not later than 30 days after a leak is detected. The owner or operator may delay the repair of equipment for which leaks have been detected if repair within 30 days is technically infeasible without a process unit shutdown. The owner or operator shall repair such equipment by the end of the next process unit shutdown.
- iii. For rotating equipment, including pumps and agitator seals, the instrument reading that defines a leak is 500 ppm or more above background.
- iv. For all other components, the instrument reading that defines a leak is 25 ppm or more above background.

f. **TAC**

- i. The owner or operator shall not allow any TAC emissions to exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District. The owner or operator shall not increase the TAC content in a raw material or substitute any raw materials or Specific TACs for those identified in the initial permit application for this process or equipment that would result in an appreciable increase in the quantity of a TAC without prior notification to, and approval by, the District. (Regulation 5.01, Section 3)
- ii. Pursuant to the EA demonstration submitted March 8, 2010, the owner or operator shall not allow the Ethyl Acrylate emissions from the following emission points to exceed: (Regulation 5.21, section 3.1.1)
 - 1) 29.95 lbs/consecutive 12-month period from the TO; and
 - 2) 492.31 lb/consecutive 12-month period from the bypass stack;
 - 3) 594.80 lb/consecutive 12-month period from 16-547; and
 - 4) 120.01 lb/consecutive 12-month period from plantwide LDAR.

S2. Monitoring (Regulation 2.17, Section 5.2)

a. **PM**

- i. For control devices 16-547, 12-257 and 16-328, the owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of each control device used for process operations during the month for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.
- ii. For control device 16-547, the owner or operator shall monitor the water flow rate each operating day to ensure it is greater than 4.0 gallons per minute.

- iii. For control devices 12-257 and 16-328, the owner or operator shall:
 - 1) Annually, during each calendar year, perform a thorough inspection of each control device used for process operations during a calendar year, including a visual inspection of the filter media and all mechanical and pneumatic systems; and
 - 2) Monitor the daily pressure drop across the baghouse each operating day to ensure the pressure drop does not exceed the limits shown in the table below.
 - A) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and
 - B) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit. (See Comment 4.)

Baghouse ID	New Bag Lower Limit	Seasoned Bag Lower Limit	Upper Limit
	[Inches Water Column (W.C.)]		
12-257	0.1	0.5	13.0
16-328	0.1	0.5	13.0

iv. See S3.a.iv. through viii.

b. Opacity

The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points/stacks. No more than four emission points/stacks shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

c. VOC

i. When any emission point is being vented to the TO, the owner or operator shall monitor the combustion temperature of the TO every sixty (60) seconds and calculate and record 15 minute block averages.

- ii. The owner or operator shall calculate the VOC emissions using the latest version of EPA TANKS program, the EIIP SOCOMI chemical equations, and the LDAR equations in this permit.
- iii. See S3.c.
- d. **HAP**
See S3.d.
- e. **HAP (LDAR)**
 - i. Monitoring shall be conducted using Method 21 of 40 CFR 60, Appendix A.
 - ii. For all applicable closed vent systems, the owner or operator shall monitor each component annually.
 - iii. For all applicable components except closed vent systems, the owner or operator shall monitor each component quarterly.
 - iv. For pressure relief devices, the owner or operator shall monitor each pressure relief device after a pressure release to ensure the valve has closed properly as soon as practicable, but no later than 5 calendar days after the pressure release.
 - v. Any valve that is designated as unsafe-to-monitor is exempt from monitoring if the owner or operator determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of monitoring; and the owner or operator has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.
 - vi. Any valve that is designated as difficult-to-monitor is exempt from monitoring if the owner or operator determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner; the process unit within which the valve is located is an existing source or the owner or operator designates less than 3% of the total number of valves in a new source as difficult-to-monitor; and the owner or operator follows a written plan that requires monitoring of the valve at least once per calendar year.
 - vii. The owner or operator shall use the following to determine VOC and HAP emissions (Emission Inventory Improvement Program Vol II, Chapter 4 *Preferred and Alternative Methods for Estimating Fugitive Emissions from Equipment Leaks*, Tables 4.4-3 and 4.4-4):

Equipment Type	Default Zero Emission Rate (kg/hr/source)	Pegged Emission Rates (kg/hr/source)		Correlation Equation (kg/hr/source) ¹
		10,000 ppmv	100,000 ppmv	
Valves in gas/vapor service	6.6×10^{-7}	0.024	0.11	$(1.87 \times 10^{-6}) * (SV)^{0.873}$
Valves in light liquid service	4.9×10^{-7}	0.036	0.15	$(6.41 \times 10^{-6}) * (SV)^{0.797}$
Pumps in light liquid service	7.5×10^{-6}	0.14	0.62	$(1.90 \times 10^{-5}) * (SV)^{0.824}$
Connectors	6.1×10^{-7}	0.044	0.22	$(3.05 \times 10^{-6}) * (SV)^{0.885}$
Other	4.0×10^{-6}	0.073	0.11	$(1.32 \times 10^{-5}) * (SV)^{0.589}$

- viii. The owner or operator shall use the following equation to speciate the HAPs and VOCs:

$$E_X = E_{TOC} \times \left(\frac{WP_X}{WP_{TOC}} \right)$$

Where:

- E_x = Mass emissions of organic chemical “x” (kg/hr)
 E_{TOC} = TOC mass emissions from the correlation equations, default zero rate, or pegged emission rate (kg/hr)
 WP_x = Concentration of organic chemical “x” in weight percent
 WP_{TOC} = TOC concentration in weight percent

f. **TAC**

See [S3.f](#).

S3. **Record Keeping** (Regulation 2.17, Section 5.2)

a. **PM**

- i. For control devices 16-547, 12-257 and 16-328, the owner or operator shall keep a record of the results of the monthly visual inspections, in accordance with [S2.a.i](#).
- ii. For 16-547, the owner or operator shall daily record the water flow rate.
- iii. For control devices 12-257 and 16-328, the owner or operator shall keep the following records:
 - 1) Results of the annual thorough inspections,
 - 2) The daily pressure drop each operating day, and
 - 3) For any excursion from the pressure drop range,
 - A) The number, duration and cause of each excursion, and

¹ SV is the screening value (ppmv) measured by the monitoring device.

B) Description of the corrective action taken.

- iv. For each PM Emission Point, the owner or operator shall keep a monthly record of the throughput of each emission point.
- v. The owner or operator shall calculate and record the *plantwide* consecutive 12-month PM emissions for each month in the reporting period using the following equation from the March 5, 2003 submittal:

$$E_{month} = \sum_{i=1}^n [EF \times T \times (1 - CE)]$$

Where:

E_{month} = PM emissions/month

n = Number of emission points

EF = Emission factor (March 5, 2003 submittal)

T = Throughput/month

CE = Control Efficiency (95% for Baghouses and 85% for Wet Rotoclone, unless a performance test has been completed)

- vi. For any period of time when the process was operating and the control device was not operating, the owner or operator shall maintain the following records:
 - 1) The start and stop time;
 - 2) The plantwide consecutive 12-month PM emissions using the equation in [S3.a.v.](#), where the emissions from the emissions from the time period(s) and throughput rate(s) in which the process was operated and the control device was not operated are calculated using a zero control efficiency;
 - 3) The throughput; and
 - 4) The average pound per hour PM emissions.

b. **Opacity**

The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date and time of the survey, the name (or initials) of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

c. **VOC**

- i. When any emission point is being vented to the TO, the owner or operator shall keep a record of the 15 minute block average TO temperatures and when the Data Acquisition System is down, record the temperature manually once per hour.

- ii. The owner or operator shall keep a monthly throughput record of the following:
 - 1) The amount of material in pounds produced;
 - 2) The product recipe containing the amount of pounds of each component.
 - iii. The owner or operator shall keep a monthly record of what equipment is operating during each bypass and monthly calculate the consecutive 12-month VOC emissions in order to demonstrate compliance with [S1.c.iv.](#)
 - iv. For EP 12-162, 16-162, 12-140, 12-160, 16-140, 16-160, 12-105, 12-118, 12-465, 12-150, 12-190, 16-105, 16-127, 16-150, 16-155, 16-156, 16-165 and 16-166, the owner or operator shall calculate and record the lb/hr and lb/day VOC emissions from each emission point during any time that the Thermal Oxidizer is bypassed.
 - v. The owner or operator shall calculate and record the consecutive 12-month *plantwide* VOC emissions, using the following control efficiencies, unless a performance test is conducted:
 - 1) TO 12-199 = 99.98% from July 8, 2009 stack test
 - 2) Wet Rotoclone 16-547 = 62% from January 24, 2007 stack test
 - vi. The owner or operator of storage vessels (12-110, 12-115, 12-701 and 16-110) shall maintain monthly records of the material stored in the storage vessels and if the contents of the storage vessels are changed a record shall be made of the new contents in order to demonstrate compliance with [S1.c.vi.](#)
- d. **HAP**
- The owner or operator shall calculate and record the consecutive 12-month single and total HAP *plantwide* emissions using the throughput records in [S3.c.ii.](#)
- e. **HAP (LDAR)**
- i. When a leak is detected, a readily visible identification shall be attached to the leaking component.
 - ii. The owner or operator shall record the following information in the electronic database that shall be updated whenever a change occurs:
 - 1) Component identification numbers and description;
 - 2) Process stream OHAP concentrations for each component;
 - 3) Monitoring schedule for each component;
 - 4) Results of the required monitoring, including measured

- background levels; and
- 5) When a leak is detected, the component identification number, date the leak was detected, and the date of final repair.

f. **TAC**

- i. The owner or operator shall calculate and record the consecutive 12-month Ethyl Acrylate emissions from:
 - 1) The TO;
 - 2) The bypass stack;
 - 3) 16-547; and
 - 4) Plantwide LDAR.
- ii. The owner or operator shall maintain a copy onsite of all STAR EA demonstrations submitted to the District, including all air dispersion modeling input parameters and the associated EAGC Risk, in units of risk in one million for each TAC. (See Comment 3.)

S4. Reporting (Regulation 2.17, Section 5.2)

Reports shall include the beginning and ending date of the reporting period. Reports shall also include emission unit ID number, emission point and/or stack ID number, and control device ID number, if applicable. The owner or operator shall report the following:

a. **PM**

- i. For Emission Points,
 - 1) The consecutive 12-month *plantwide* PM emissions for each month in the reporting period; and
 - 2) Identification of all periods of exceedance of the pound per hour emission standards, including the quantity, duration and cause of the exceedance, and any corrective action taken.
- ii. For operating parameters of each control device,
 - 1) Identification of the operating parameter being monitored;
 - 2) Summary information on the quantity, duration, and cause of all excursions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration of there were no excursions during the reporting period.
- iii. For periods of time when a process was operating and the control device was not operating,
 - 1) The start and stop time;

- 2) The plantwide consecutive 12-month PM emissions , as recorded in [S3.a.vi.2](#));
- 3) The throughput; and
- 4) The average pound per hour PM emissions; or
- 5) A negative declaration if the control device was operating at all times the process was operating during the reporting period.

b. Opacity

- i. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed, or a negative declaration if no visible emissions were observed during the reporting period;
- ii. The date, time and results of each Method 9 conducted, or a negative declaration if there were no Method 9 tests performed during the reporting period; and
- iii. Description of any corrective action taken.

c. VOC

- i. For Emission Points,
 - 1) The consecutive 12-month VOC emissions from the bypass stack (S-KM-TOBypass) for each month in the reporting period;
 - 2) The average lb/hr and lb/day VOC emissions from emission points subject to Regulation 6.24 during any bypass;
 - 3) The consecutive 12-month plantwide VOC emissions for each month in the reporting period; and
 - 4) Description of any corrective action taken.
- ii. For the Thermal Oxidizer,
 - 1) Identification of the operating parameter being monitored;
 - 2) Identification of all periods of control device bypassing;
 - 3) Identification of the quantity, duration, and cause of all exceedances; and
 - 4) Description of any corrective action taken.

d. HAP

- i. The consecutive 12-month single and total HAP *plantwide* emissions; and
- ii. Description of any corrective action taken.

e. HAP (LDAR)

- i. Number of each type of component for which a leak was detected;
- ii. Number of each type of component monitored;
- iii. Total number of components of each type;
- iv. The facts that explain each delay of repair;

- v. Any changes in the number of components; and
- vi. Description of any corrective action taken.

f. **TAC**

- i. The consecutive 12-month Ethyl Acrylate emissions;
- ii. Quantity, duration, and cause of all exceedances; and
- iii. Description of any corrective action taken.
- iv. Any change in operations that would increase the TAC content of raw materials not identified in the STAR EA demonstrations submitted to the District, including:
 - 1) Introduction of new TACs in this process equipment not previously reported to the District; and
 - 2) Any change in the air dispersion modeling input parameters.

S5. Testing (Regulation 2.17, Section)

VOC

- a. Within 60 days of resuming operation of both KM-1 and KM-2 lines, the owner or operator shall perform the following:
 - i. An EPA Reference Method 25A performance test within +/- 10% of maximum production on the outlet and inlet of the Thermal Oxidizer; and
 - ii. A capture efficiency test using EPA guidelines.
- b. The owner or operator shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. temperature) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.
- c. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.
- d. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.

Comments

- 1. EP 12-162, 16-162, 16-331 and 16-348 cannot exceed the PM emission limit uncontrolled.
- 2. The TO stack test performed on July 8, 2009 demonstrated 99.98% reduction of VOC

emissions at 1405°F while operating the KM-2 line. Therefore, the TO meets the 85% control requirement in Regulation 6.24.

3. The source submitted an Environmental Acceptability demonstration with a modeling analysis for TAC, which demonstrated that the risk from the industrial and residential modeled emissions does not exceed the environmental acceptability (EA) goals for Ethyl Acrylate (EA). For Methacrylate (MMA), the source demonstrated that the potential emissions are de minimis. The EA demonstrations and supporting documentations were received December 14, 2006, January 22, 2007, June 28, 2007, September 29, 2008, February 4, 2010, and March 8, 2010.
4. Due to similar design and operation, the pressure drop ranges for Baghouses 12-257 and 16-328 were based on the stack test for Baghouse 12-087, conducted July 8 and 9, 2009.

Beringer Pyrolysis Oven Emission Point
(U-KM-Oven)

Applicable Regulations

Federally Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2, 3 and 5
<u>7.25</u>	Standard of Performance for New Sources Using Volatile Organic Compounds	1, 2 and 4.2

District Only Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.02</u>	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1, 3.1, 3.54, 4 and 5
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

Emission Point Description

EP ID	Description	Applicable Regulation(s)	Control Device
Oven	Pyrolysis Oven, 1,000 lb/hr (1992)	5.21, 7.08, 7.25	Uncontrolled

Specific Conditions

S1. Standards (Regulation 2.17, Section 5.1)

a. PM

- i. The owner or operator shall not allow *plantwide* PM emissions to equal or exceed 100 tons per consecutive 12-month period.
- ii. The owner or operator shall not cause to be discharged into the atmosphere PM in excess of 0.4 lb/hr and 0.6 tons/year. (Regulation 7.08, Section 3.3)

b. Opacity (Regulation 7.08, Section 3.1.2)

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain PM that is equal to or greater than 20% opacity.

c. VOC

- i. The owner or operator shall not allow *plantwide* VOC emissions to equal or exceed 100 tons per consecutive 12-month period.
- ii. The owner or operator shall not cause to be discharged into the atmosphere VOC in excess of 54 lb/hr and 6 tons/yr. (Permit 331-92-O, 03-30-96)

d. HAP

- i. The owner or operator shall not allow *plantwide* single HAP emissions to equal or exceed 10 tons per consecutive 12-month period for each HAP.
- ii. The owner or operator shall not allow *plantwide* total HAP emissions to equal or exceed 25 tons per consecutive 12-month period.

e. HAP (LDAR)

These LDAR standards apply to pumps, valves, compressors, agitators, pressure relief devices, open-ended valves or lines, flanges, connectors, and instrumentation systems that operate in organic hazardous air pollutant (OHAP) service 300 hours or more during the calendar year. OHAP service means that a component either contains or contacts a fluid (liquid or gas) that is at least 5% by weight of total OHAPs. Components in vacuum service (as defined as operating at an internal pressure which is below ambient pressure) are exempt from these requirements.

- i. Each component shall be identified. Physical tagging is not required. Components can be identified on a plant site plan, in log entries, in an electronic database, or on process and instrumentation diagrams (P&IDs).

- ii. When a leak is detected, it shall be repaired as soon as practicable, but not later than 30 days after a leak is detected. The owner or operator may delay the repair of equipment for which leaks have been detected if repair within 30 days is technically infeasible without a process unit shutdown. The owner or operator shall repair such equipment by the end of the next process unit shutdown.
 - iii. For pumps, the instrument reading that defines a leak is 500 ppm or more above background.
 - iv. For all other components, the instrument reading that defines a leak is 25 ppm or more above background.
- f. **TAC**
- i. The owner or operator shall not allow any TAC emissions to exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District. The owner or operator shall not increase the TAC content in a raw material or substitute any raw materials or Specific TACs for those identified in the initial permit application for this process or equipment that would result in an appreciable increase in the quantity of a TAC without prior notification to, and approval by, the District. (Regulation 5.01, Section 3)
 - ii. Pursuant to the EA demonstration submitted March 8, 2010, the owner or operator shall not allow the Ethyl Acrylate emissions from the following emission points to exceed: (Regulation 5.21, section 3.1.1)
 - 1) 14.98 lb/consecutive 12-month period from the oven; and
 - 2) 120.01 lb/consecutive 12-month period from plantwide LDAR.

S2. Monitoring (Regulation 2.17, Section 5.2)

a. **PM**

See [S3.a](#).

b. **Opacity**

The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points/stacks. No more than four emission points/stacks shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

c. **VOC**

- i. The owner or operator shall monitor and record the date and time of operation.
- ii. See [S3.c.](#)

d. **HAP**

See [S3.d.](#)

e. **HAP (LDAR)**

- i. Monitoring shall be conducted using Method 21 of 40 CFR 60, Appendix A.
- ii. For all applicable closed vent systems, the owner or operator shall monitor each component annually.
- iii. For all applicable components except closed vent systems, the owner or operator shall monitor each component quarterly.
- iii. For pressure relief devices, the owner or operator shall monitor each pressure relief device after a pressure release to ensure the valve has closed properly as soon as practicable, but no later than 5 calendar days after the pressure release.
- iv. Any valve that is designated as unsafe-to-monitor is exempt from monitoring if the owner or operator determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of monitoring; and the owner or operator has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.
- v. Any valve that is designated as difficult-to-monitor is exempt from monitoring if the owner or operator determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner; the process unit within which the valve is located is an existing source or the owner or operator designates less than 3% of the total number of valves in a new source as difficult-to-monitor; and the owner or operator

follows a written plan that requires monitoring of the valve at least once per calendar year.

- vi. The owner or operator shall use the following to determine VOC and HAP emissions (Emission Inventory Improvement Program Vol II, Chapter 4 *Preferred and Alternative Methods for Estimating Fugitive Emissions from Equipment Leaks*, Tables 4.4-3 and 4.4-4):

Equipment Type	Default Zero Emission Rate (kg/hr/source)	Pegged Emission Rates (kg/hr/source)		Correlation Equation (kg/hr/source) ²
		10,000 ppmv	100,000 ppmv	
Valves in gas/vapor service	6.6 x 10 ⁻⁷	0.024	0.11	(1.87 x 10 ⁻⁶) * (SV) ^{0.873}
Valves in light liquid service	4.9 x 10 ⁻⁷	0.036	0.15	(6.41 x 10 ⁻⁶) * (SV) ^{0.797}
Pumps in light liquid service	7.5 x 10 ⁻⁶	0.14	0.62	(1.90 x 10 ⁻⁵) * (SV) ^{0.824}
Connectors	6.1 x 10 ⁻⁷	0.044	0.22	(3.05 x 10 ⁻⁶) * (SV) ^{0.885}
Other	4.0 x 10 ⁻⁶	0.073	0.11	(1.32 x 10 ⁻⁵) * (SV) ^{0.589}

- vii. The owner or operator shall use the following equation to speciate the HAPs and VOCs:

$$E_x = E_{TOC} \times \left(\frac{WP_x}{WP_{TOC}} \right)$$

Where:

- E_x = Mass emissions of organic chemical “x” (kg/hr)
- E_{TOC} = TOC mass emissions from the correlation equations, default zero rate, or pegged emission rate (kg/hr)
- WP_x = Concentration of organic chemical “x” in weight percent
- WP_{TOC} = TOC concentration in weight percent

f. **TAC**

See S3.f.

S3. Record Keeping (Regulation 2.17, Section 5.2)

a. **PM**

- i. The owner or operator shall keep a monthly record of the number of oven cycles.
- ii. The owner or operator shall calculate and record the *plantwide* consecutive 12-month PM emissions for each month in the reporting period using the following equation from the March 5, 2003 submittal:

² SV is the screening value (ppmv) measured by the monitoring device.

$$E_{month} = \sum_{i=1}^n [EF \times T \times (1 - CE)]$$

Where:

- E_{month} = PM emissions/month
 n = Number of emission points
 EF = Emission factor (March 5, 2003 submittal)
 T = Throughput/month
 CE = Control Efficiency

b. Opacity

The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date and time of the survey, the name (or initials) of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

c. VOC

- i. The owner or operator shall keep a monthly throughput record of the following:
- 1) The amount of material in pounds produced;
 - 2) The product recipe containing the amount of pounds of each component.
- ii. The owner or operator shall calculate and record the consecutive 12-month *plantwide* VOC emissions.

d. HAP

The owner or operator shall calculate and record the consecutive 12-month single and total HAP *plantwide* emissions using the throughput records in [S3.c.i.](#)

e. HAP (LDAR)

- i. When a leak is detected, a readily visible identification shall be attached to the leaking component.
- ii. The owner or operator shall record the following information in the electronic database that shall be updated whenever a change occurs:
- 1) Component identification numbers and description;
 - 2) Process stream OHAP concentrations for each component;
 - 3) Monitoring schedule for each component;
 - 4) Results of the required monitoring, including measured

- background levels; and
- 5) When a leak is detected, the component identification number, date the leak was detected, and the date of final repair.

f. **TAC**

- i. The owner or operator shall calculate and record the consecutive 12-month Ethyl Acrylate emissions from:
- 1) The oven; and
 - 2) Plantwide LDAR.
- ii. The owner or operator shall maintain a copy onsite of all STAR EA demonstrations submitted to the District, including all air dispersion modeling input parameters and the associated EAGC Risk, in units of risk in one million for each TAC. (See Comment.)

S4. Reporting (Regulation 2.17, Section 5.2)

Reports shall include the beginning and ending date of the reporting period. Reports shall also include emission unit ID number, emission point and/or stack ID number, and control device ID number, if applicable. The owner or operator shall report the following:

a. **PM**

- i. The consecutive 12-month plantwide PM emissions for each month in the reporting period; and
- ii. Description of any corrective action taken.

b. **Opacity**

- i. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed, or a negative declaration if no visible emissions were observed during the reporting period;
- ii. The date, time and results of each Method 9 conducted, or a negative declaration if there were no Method 9 tests performed during the reporting period; and
- iii. Description of any corrective action taken.

c. **VOC**

- i. The consecutive 12-month *plantwide* VOC emissions for each month in the reporting period; and
- ii. Description of any corrective action taken

d. **HAP**

- i. The consecutive 12-month single and total HAP *plantwide* emissions; and

- ii. Description of any corrective action taken.
- e. **HAP (LDAR)**
- i. Number of each type of component for which a leak was detected;
 - ii. Number of each type of component monitored;
 - iii. Total number of components of each type;
 - iv. The facts that explain each delay of repair;
 - v. Any changes in the number of components; and
 - vi. Description of any corrective action taken.
- f. **TAC**
- i. The consecutive 12-month Ethyl Acrylate emissions;
 - ii. Quantity, duration, and cause of all exceedances; and
 - iii. Description of the corrective action taken.
 - iv. Any change in operations that would increase the TAC content of raw materials not identified in the STAR EA demonstrations submitted to the District, including:
 - 1) Introduction of new TACs in this process equipment not previously reported to the District; and
 - 2) Any change in the air dispersion modeling input parameters.

Comments

The source submitted an Environmental Acceptability demonstration with a modeling analysis for TAC, which demonstrated that the risk from the industrial and residential modeled emissions does not exceed the environmental acceptability (EA) goals for Ethyl Acrylate (EA). For Methacrylate (MMA), the source demonstrated that the potential emissions are de minimis. The EA demonstrations and supporting documentations were received December 14, 2006, January 22, 2007, June 28, 2007, September 29, 2008, February 4, 2010, and March 8, 2010.

Bagging Emission Sources

Applicable Regulations

Federally Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>6.09</u>	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2, 3 and 5

Emission Point Description

EP ID	Description	Applicable Regulation(s)	Control Device
Miscellaneous Emission Points (U-KM-Misc)			
18-106	Bagging Pellet Exhaust, 30,000 lb/hr (1974)	6.09	18-106
18-488	Bag Filling Station & Conveying, 30,000 lb/hr (1991)	7.08	18-520
18-542	Bag Tote Dump Station	7.08	
18-525	Bagging House Vacuum System (formerly E-KM-MiscBag) (1973)	7.08	18-525

Bagging Control Devices

ID	Description	Control Efficiency (%)
18-106	KM Bagging Silo Bag Filter	95
18-520	KM Bagging Conveyer Dust Collector	95
18-525	KM Bagging House Vacuum Bag Filter	95

Specific Conditions

S1. Standards (Regulation 2.17, Section 5.1)

a. PM

- i. The owner or operator shall not allow *plantwide* PM emissions to equal or exceed 100 tons per consecutive 12-month period.
- ii. For EP 18-488, 18-542 and 18-525, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr for each piece of equipment. (Regulation 7.08, Section 3.3) (See Comment 1.)
- iii. For EP 18-106, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.58 lb/hr for each piece of equipment. (Regulation 6.09, Section 3.4) (See Comment 1.)
- iv. The owner or operator shall utilize the control devices at all times when the equipment is in operation..

b. Opacity (Regulation 6.09, Section 3.1 and Regulation 7.08, Section 3.1.2)

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain PM that is equal to or greater than 20% opacity.

S2. Monitoring (Regulation 2.17, Section 5.2)

a. PM

- i. For control devices 18-106, 18-520 and 18-525, the owner or operator shall:
 - 1) Monthly perform a visual inspection of the structural and mechanical integrity of each control device used for process operations during the month for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed;
 - 2) Annually, during each calendar year, perform a thorough inspection of each control device used for process operations during a calendar year, including a visual inspection of the filter media and all mechanical and pneumatic systems; and
 - 3) Monitor the daily pressure drop across the baghouse each operating day to ensure the pressure drop does not exceed the limits shown in the table below.
 - A) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and

- B) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit. (See Comment 2.)

Baghouse ID	New Bag Lower Limit	Seasoned Bag Lower Limit	Upper Limit
[Inches Water Column (W.C.)]			
18-106	0.3	0.5	10
18-520	0.3	0.5	20
18-525	0.1	0.5	12

- ii. See S3.a.ii. through vi.

b. Opacity

The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points/stacks. No more than four emission points/stacks shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

S3. Record Keeping (Regulation 2.17, Section 5.2)

a. PM

- i. For control devices 18-106, 18-520 and 18-525, the owner or operator shall keep the following records:
 - 1) Results of the monthly visual inspections,
 - 2) Results of the annual thorough inspections,
 - 3) The daily pressure drop each operating day, and
 - 4) For any excursion from the pressure drop range,
 - A) The number, duration and cause of each excursion, and
 - B) Description of the corrective action taken.
- ii. For each PM Emission Point, the owner or operator shall keep a monthly record of the throughput of each emission point.

- iii. The owner or operator shall calculate and record the *plantwide* consecutive 12-month PM emissions for each month in the reporting period using the following equation from the March 5, 2003 submittal:

$$E_{month} = \sum_{i=1}^n [EF \times T \times (1 - CE)]$$

Where:

- E_{month} = PM emissions/month
 n = Number of emission points
 EF = Emission factor (March 5, 2003 submittal)
 T = Throughput/month
 CE = Control Efficiency (99% for Filters and 95% for Baghouses, unless a performance test has been completed)

- iv. For any period of time when the process was operating and the control device was not operating, the owner or operator shall maintain the following records:
- 1) The start and stop time;
 - 2) The plantwide consecutive 12-month PM emissions using the equation in [S3.a.iii.](#), where the emissions from the time period(s) and throughput rate(s) in which the process was operated and the control device was not operated are calculated using a zero control efficiency;
 - 3) The throughput; and
 - 4) The average pound per hour PM emissions.

b. Opacity

The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date and time of the survey, the name (or initials) of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S4. Reporting (Regulation 2.17, Section 5.2)

Reports shall include the beginning and ending date of the reporting period. Reports shall also include emission unit ID number, emission point and/or stack ID number, and control device ID number, if applicable. The owner or operator shall report the following:

a. PM

- i. For Emission Points,

- 1) The consecutive 12-month plantwide PM emissions for each month in the reporting period; and
 - 2) Identification of all periods of exceedance of the pound per hour PM emission standards, including the quantity, duration and cause of the exceedance, and any corrective action taken.
- ii. For pressure drop of each control device,
- 1) Identification of the operating parameter being monitored;
 - 2) Summary information on the quantity, duration, and cause of all excursions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration of there were no excursions during the reporting period.
- iii. For periods of time when a process was operating and the control device was not operating,
- 1) The start and stop time;
 - 2) The plantwide consecutive 12-month PM emissions, as recorded in [S3.a.iv.2](#));
 - 3) The throughput; and
 - 4) The average pound per hour PM emissions; or
 - 5) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
- b. **Opacity**
- i. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed, or a negative declaration if no visible emissions were observed during the reporting period;
 - ii. The date, time and results of each Method 9 conducted, or a negative declaration if there were no Method 9 tests performed during the reporting period; and
 - iii. Description of any corrective action taken.

Comments

1. The bagging emission points cannot exceed the PM emission limits controlled.
2. The pressure drop range for Baghouse 18-106 was based on manufacturer filter specifications. The pressure drop range for Baghouse 18-520 was based on Young Industries Inc. design specifications. The pressure drop range for Baghouse 18-525 was provided by Gardner Denver (November 25, 2008).

Packout System Emission Sources**Applicable Regulations**

Federally Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>6.09</u>	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2, 3 and 5

Emission Point Description

EP ID	Description	Applicable Regulation(s)	Control Device
KM-1 Product Screening (U-KM-KM1Screen)			
12-267	KM-1 Witte Screener, 12,500 lb/hr (1989)	7.08	12-270
KM-1 Product Transfer System (U-KM-KM1Transf)			
12-363	KM-1 Pellet Transfer System Process Cyclone (1995)	7.08	12-362
KM-2 Product Screening (U-KM-KM2Screen)			
16-272	KM-2 Screener (1970)	6.09	16-275
KM-2 Product Transfer System (U-KM-KM2Transf)			
16-330	KM-2 Pellet Transfer Process Cyclone, 12,500 lb/hr (1995)	7.08	16-329
Miscellaneous (U-KM-Misc)			
12-087	Packout House Vacuum System, 15,000 lb/hr (1974)	6.09	12-087
12-371	KM Pelletron Process Baghouse (1999)	7.08	Uncontrolled
Packout System Emission Point (U-KM-Pack)			
12-343, 16-303	Two (2) Fill Stations, 15,000 lb/hr ea. (1995)	7.08	16-286
Common Screen System (U-KM-Screen)			
16-337	KM Third Witte Screener, 20,000 lb/hr (1994)	7.08	16-338

Packout Control Devices

ID	Description	Control Efficiency (%)
12-270	Dual Cyclone	85
12-362	KM-1 Pellet Transfer Bag Filter	95
16-275	Dual Cyclone	85
16-329	KM-2 Pellet Transfer Bag Filter	95
12-087	KM House Vacuum Filter	95
16-286	KM Packaging Station Dust Collector	95
16-338	Dual Cyclone	85

Specific Conditions

S1. Standards (Regulation 2.17, Section 5.1)

a. PM

- i. The owner or operator shall not allow *plantwide* PM emissions to equal or exceed 100 tons per consecutive 12-month period.
- ii. For EP 12-267, 12-363, 16-330, 12-371, 12-343, 16-303 and 16-337, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr for each piece of equipment. (Regulation 7.08, Section 3.3) (See Comment 1.)
- iii. For EP 12-087 and 16-272, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.58 lb/hr for each piece of equipment. (Regulation 6.09, Section 3.4) (See Comment 1.)
- iv. The owner or operator shall utilize the control devices at all times when the equipment is in operation.

b. Opacity (Regulation 6.09, Section 3.1 and Regulation 7.08, Section 3.1.2)

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain PM that is equal to or greater than 20% opacity.

S2. Monitoring (Regulation 2.17, Section 5.2)

a. PM

- i. For control devices 12-087, 16-286, 12-362, 16-329, 12-270, 16-275 and 16-338, the owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of each control device used for process operations during the month for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.
- ii. For control devices 12-362, 16-329, 12-087 and 16-286, the owner or operator shall annually, during each calendar year, perform a thorough inspection of each control device used for process operations during a calendar year, including a visual inspection of the filter media and all mechanical and pneumatic systems.
- iii. For 12-362, 16-329, 12-087, 12-371 and 16-286, the owner or operator shall:
 - 1) Monitor the daily pressure drop across the baghouse each operating day to ensure the pressure drop does not exceed the limits shown in the table below.

- A) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and
- B) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit.

Baghouse ID	New Bag Lower Limit	Seasoned Bag Lower Limit	Upper Limit
	[Inches Water Column (W.C.)]		
12-362	0.5	0.8	10.0
16-329	0.5	0.8	10.0
12-087	0.1	0.5	13.0
12-371	0.5	1.0	15.0
16-286	0.15	0.5	4.0

iv. See [S3.a.iv.](#) through [viii.](#)

b. Opacity

The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points/stacks. No more than four emission points/stacks shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

S3. Record Keeping (Regulation 2.17, Section 5.2)

a. PM

- i. For control devices 12-087, 16-286, 12-362, 16-329, 12-270, 16-275 and 16-338, the owner or operator shall keep a record of the results of the monthly visual inspections, in accordance with [S2.a.i.](#)
- ii. For control devices 12-362, 12-087, 16-329 and 16-286, the owner or operator shall keep records of the results of the annual inspections.

- iii. For 12-362, 16-329, 12-087, 12-371 and 16-286, the owner or operator shall keep records of the following:
 - 1) The daily pressure drop each operating day, and
 - 2) For any excursion from the pressure drop range,
 - A) The number, duration and cause of each excursion, and
 - B) Description of the corrective action taken.
- iv. For each PM Emission Point, the owner or operator shall keep a monthly record of the throughput of each emission point.
- v. The owner or operator shall calculate and record the *plantwide* consecutive 12-month PM emissions for each month in the reporting period using the following equation from the March 5, 2003 submittal:

$$E_{month} = \sum_{i=1}^n [EF \times T \times (1 - CE)]$$

Where:

- E_{month} = PM emissions/month
- n = Number of emission points
- EF = Emission factor (March 5, 2003 submittal)
- T = Throughput/month
- CE = Control Efficiency (99% for Filters, 95% for Baghouses and 85% for Dual Cyclones, unless a performance test has been completed)

- vi. For any period of time when the process was operating and the control device was not operating, the owner or operator shall maintain the following records:
 - 1) The start and stop time;
 - 2) The plantwide consecutive 12-month PM emissions using the equation in [S3.a.v.](#), where the emissions from the time period(s) and throughput rate(s) in which the process was operated and the control device was not operated are calculated using a zero control efficiency;
 - 3) The throughput; and
 - 4) The average pound per hour PM emissions.

b. Opacity

The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date and time of the survey, the name (or initials) of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated

during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S4. Reporting (Regulation 2.17, Section 5.2)

Reports shall include the beginning and ending date of the reporting period. Reports shall also include emission unit ID number, emission point and/or stack ID number, and control device ID number, if applicable. The owner or operator shall report the following:

a. PM

i. For Emission Points,

- 1) The consecutive 12-month plantwide PM emissions for each month in the reporting period; and
- 2) Identification of all periods of exceedance of the pound per hour emission standards, including the quantity, duration and cause of the exceedance, and any corrective action taken.

ii. For pressure drop of each control device,

- 1) Identification of the operating parameter being monitored;
- 2) Summary information on the quantity, duration, and cause of all excursions; and
- 3) Description of any corrective action taken; or
- 4) A negative declaration of there were no excursions during the reporting period.

iii. For periods of time when a process was operating and the control device was not operating,

- 1) The start and stop time;
- 2) The plantwide consecutive 12-month PM emissions, as recorded in [S3.a.vi.2](#));
- 3) The throughput; and
- 4) The average pound per hour PM emissions; or
- 5) A negative declaration if the control device was operating at all times the process was operating during the reporting period.

b. Opacity

- i. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed, or a negative declaration if no visible emissions were observed during the reporting period;
- ii. The date, time and results of each Method 9 conducted, or a negative declaration if there were no Method 9 tests performed during the reporting period; and
- iii. Description of any corrective action taken.

Comments

1. EP 12-371 is a Process Baghouse for pneumatic conveyance. There is monitoring, recordkeeping, and reporting to demonstrate that it is operating properly. The rest of the emission points cannot exceed the PM emission limits controlled.
2. The pressure drop ranges for Baghouse 12-362 and 16-329 were based on SEMCO's Operation and Maintenance Manual and engineering judgement. The pressure drop range for Baghouse 12-087 was determined from a stack test conducted July 8 and 9, 2009. The pressure drop range for Baghouse 12-371 was based on Flex-Kleen's Operating, Equipment, and Construction Data (December, 10, 1998) and engineering judgement.

Parts Washers (U-KM-Washers)

Applicable Regulations

Federally Enforceable Regulations		
Regulation	Title	Applicable Sections
<u>6.18</u>	Standards of Performance for Solvent Metal Cleaning Equipment	1 through 4

Emission Point Description

ID	Description	Control Device
Washer1 and Washer2	KM Parts Washers in Maintenance Shop, KM Parts Washer in Pelletizer Shop (1994)	Uncontrolled

Specific Conditions

S1. **Standards** (Regulation 2.17, Section 5.1)

VOC

- a. The owner or operator shall install, maintain, and operate the control equipment as follows: (Regulation 6.18, Section 4)
 - i. The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. (Regulation 6.18, Section 4.1.1)
 - ii. The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. (Regulation 6.18, Section 4.1.2)
 - iii. A permanent, conspicuous label summarizing the operating requirements specified in S1.a.iii. shall be installed on or near the cold cleaner. (Regulation 6.18, Section 4.1.3)
 - iv. If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface

- and to prevent solvent from splashing outside of the cold cleaner. (Regulation 6.18, Section 4.1.4)
- v. If the solvent is heated above 120°F, then one of the following control devices shall be used: (Regulation 6.18, Section 4.1.5)
 - 1) Freeboard with a freeboard ratio equal to or greater than 0.7, (Regulation 6.18, Section 4.1.5.1)
 - 2) Water cover, provided that the solvent is insoluble in, and heavier than, water, or (Regulation 6.18, Section 4.1.5.2)
 - 3) Another system, approved by the District, that provides equivalent control, such as a refrigerated chiller or carbon adsorber. (Regulation 6.18, Section 4.1.5.3)
 - vi. Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. (Regulation 6.18, Section 4.1.6)
 - vii. If a pump-agitated solvent bath is used, then the agitator shall be operated to produce no more than a rolling motion of solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned. An air-agitated solvent bath shall not be used. (Regulation 6.18, Section 4.1.7)
 - viii. The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks. (Regulation 6.18, Section 4.1.8)
- b. The owner or operator shall observe at all times the following operating requirements: (Regulation 6.18, Section 4.2)
- i. Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. (Regulation 6.18, Section 4.2.1)
 - ii. The solvent level in the cold cleaner shall not exceed the fill line. (Regulation 6.18, Section 4.2.2)
 - iii. The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. (Regulation 6.18, Section 4.2.3)
 - iv. Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. (Regulation 6.18, Section

4.2.4)

- v. Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. (Regulation 6.18, Section 4.2.5)
 - vi. A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. (Regulation 6.18, Section 4.2.6)
 - vii. Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. (Regulation 6.18, Section 4.2.7)
- c. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F). (Regulation 6.18, Section 4.3.2)

S2. Monitoring (Regulation 2.17, Section 5.2)**VOC**

See S3.

S3. Record Keeping (Regulation 2.17, Section 5.2)**VOC**

The owner or operator shall maintain records that include the following for each purchase:

- a. The name and address of the solvent supplier, (Regulation 6.18, Section 4.4.2.1)
- b. The date of the purchase, (Regulation 6.18, Section 4.4.2.2)
- c. The type of the solvent, and (Regulation 6.18, Section 4.4.2.3)
- d. The vapor pressure of the solvent measured in mm Hg at 20°C (68°F). (Regulation 6.18, Section 4.4.2.4)

S4. Reporting (Regulation 2.17, Section 5.2)

There are no reporting requirements for the parts washers.

Insignificant Activities

The following is a list of activities that the District has determined do not require permitting at this time:

Description	Quantity	Basis
Direct-Fired Space Heaters (<10 MMBtu/hr)	4	Regulation 2.02, Section 2.1.1
Portable Diesel/Gasoline Storage Tanks (<500 gal)	2	Regulation 2.02, Section 2.3.23
Internal Combustion Engines, Fixed or Mobile	20	Regulation 2.02, Section 2.2
Emergency Generators (40 hp each)	2	Regulation 2.02, Section 2.2
Brazing, Soldering, Welding Equipment	5	Regulation 2.02, Section 2.3.4
Woodworking, except Conveying, Hogging, or Burning Wood/Sawdust	1	Regulation 2.02, Section 2.3.5
Lab Ventilating and Exhausting Systems, Non-radioactive materials	1	Regulation 2.02, Section 2.3.11
Blast cleaning, abrasives in water	1	Regulation 2.02, Section 2.3.13
Soil or Groundwater Contamination Remediation, Passive or total removal	1	Regulation 2.02, Section 2.3.20
Processes used exclusively for extruding metals, minerals, or wood	1	Regulation 2.02, Section 2.3.1
Ovens for curing potting materials or castings made with epoxy resins	3	Regulation 2.02, Section 2.3.7
Plastics molding	2	Regulation 2.02, Section 2.3.8
VOC Storage Vessels < 250 gal	15	Regulation 2.02, Section 2.3.24