



Louisville Metro Air Pollution Control District  
850 Barret Avenue  
Louisville, Kentucky 40204-1745



Permit No.: C-0060-1052-14-V

Plant ID: 0060

Effective Date: 0/00/2014

Expiration Date: 0/00/2015

Kosmos Cement Company  
15301 Dixie Highway  
Louisville, KY 40272

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:

Two (2) new Separators K-1008 in Unit 20 and K-1023 in Unit 21 to be controlled respectively by two (2) new replacement baghouses K-1014 and K-1030.

Applicable Regulation(s): 2.03, 2.04, 2.05, 2.16, 7.08, 40 CFR 60 Subpart F, and 40 CFR 63 Subpart LLL

Application No.                   66301  
  67803

Application Received: 07/31/2014  
Application Received: 10/31/2014

Permit Writer:                   Randy Schoenbaechler

Date of Public Comment       12/26/2014

{Manager1}  
Air Pollution Control Officer  
{date1}

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 when:  
(See District Regulation 2.16 for Title V sources. See District Regulation 2.17 for FEDOOP sources. See District Regulation 2.03 for other sources.)
- 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. For minor sources only, the District does not require application for permit renewal. The District automatically commences the process of permit renewal for minor sources upon expiration. 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 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 100A) to the District within 30 calendar days of the date the RO change occurs.

### Specific Conditions

#### S1. Standards (Regulation 2.03, section 6.1)

##### a. PM/PM<sub>10</sub>/PM<sub>2.5</sub>

- i. The owner or operator shall not allow PM emissions to exceed 33.76 lb/hr from each Separator K-1008 and K-1023 based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2)<sup>1</sup>
- ii. The owner or operator shall not exceed 65 tons per hour of throughput of material processed in each Separator K-1008 and K-1023. (Regulations 2.04 and 2.05)<sup>2</sup>

##### b. Opacity

- i. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)
- ii. The owner or operator of the Separators K-1008 and K-1023 shall not allow visible emissions to equal or exceed 10% opacity. (40 CFR 60.62(c))

##### c. HAP

Conditions pursuant to 40 CFR 63 Supart LLL are cited from February 12, 2013 unless otherwise noted.

- i. The owner or operator of the Separators K-1008 and K-1023 shall not allow visible emissions to equal or exceed 10% opacity. (40 CFR 63.1345)
- ii. The owner or operator of each Portland cement plant shall prepare for each affected source subject to the provisions of 40 CFR 63, Subpart LLL, a written operations and maintenance plan. The plan shall be submitted to the Administrator for review and approval as part of the application for a part 70 permit and shall include the following information: (40 CFR 63.1347(a))<sup>3</sup>

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<sup>1</sup>A one-time PM compliance demonstration for the separators was performed and the lb/hr standard cannot be exceeded uncontrolled. Therefore, there are no monitoring, record keeping, or reporting requirements with respect to PM lb/hr emission limits.

<sup>2</sup> The 65 tons per hour throughput limit was calculated by the Company to be the limit of the feed systems to each Finish Mill #1 and #2 based on historical throughput data with standard deviation and a resulting 3-sigma confidence level. The calculated limit is incorporated into permit conditions to ensure PSD significant thresholds are not exceeded.

<sup>3</sup> The company submitted the current Operations and Maintenance (O&M) Plan on February 25, 2011, and the company is responsible for updating the O&M Plan whenever any changes are made for review and approval by the District.

- 1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR 63.1343 through 63.1348; and (40 CFR 63.1347(a)(1))
  - 2) Corrective actions to be taken when required by 40 CFR 63.1350(f)(3). (40 CFR 63.1347(a)(2))
- iii. The owner or operator shall, at all times, operate and maintain any affected source, 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 District which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review or operation and maintenance records, and inspection of the source. (40 CFR 63.1348(d))

d. **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>4</sup>
- ii. The equipment in Unit 20 and 21 shall be controlled at all times while in operation. (Regulations 5.21 section 4.3)
- iii. Combined emissions of equipment through each stack S-1014 and S-1030 of baghouses K-1014 and K-1030 respectively shall not exceed the modeled emission rates of 2.08E-5 lb/hr of Arsenic, 3.21E-5 lb/hr of Hexavalent Chromium, and 3.03E-5 lb/hr of Cobalt and Cobalt compounds based on actual operating hours in a calendar day. (Regulation 5.21 section 4.3)

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<sup>4</sup> Based on results of the revised EAD received December 17, 2014 the individual and cumulative risk including all new or modified process or process equipment meet EAG pursuant to Regulation 5.21, sections 3.1.1, 3.1.2, 3.1.3, and 3.2. Modeling results show that for EA goals of incidents per million are achieved. All individual process risks or individual TAC are less than the EAG of 1. For industrial property modeling shows results for New/Modified Process of 1.88 which is less than the EAG of 38 and 4.46 for All Processes which is less than the EAG of 75. Residential modeling results for New/Modified processes are shown to be 3.78 which is less than the EAG of 3.8 and for all processes is 6.59 which is less than 7.5.

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

The owner or operator shall daily monitor and record the weight of throughput of each separator.

**b. Opacity**

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

ii. 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.

iii. 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 of the survey, the name 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 day, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

**c. HAP**

Conditions pursuant to 40 CFR 63 Subpart LLL are cited from February 12, 2013 unless otherwise noted.

i. Before September 9, 2015 the owner or operator must conduct required emissions monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (f)(1)(vii) of this section of the cited federal regulation and in accordance with the operation and maintenance plan developed in accordance with 40 CFR 63.1347. You must conduct emissions monitoring in accordance with paragraphs (f)(2)(i) through (f)(2)(iii) of this section of the cited federal regulation and in accordance with the operation and maintenance plan developed in accordance with (p)(1) through (p)(4) of this section of the cited federal regulation. You must also develop an opacity emissions monitoring plan in accordance with paragraphs (o)(1) through (o)(4) and paragraph (o)(5), if applicable, of this

section of the cited federal regulation. (40 CFR 63.1350(f)) [75 FR 55059, Sept. 9, 2010, as amended at 76 FR 2836, Jan. 18, 2011]

- ii. Beginning September 9, 2015 the owner or operator shall conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of this section of the cited federal regulation and in accordance with your monitoring plan developed under 40 CFR 63.1350(p). (40 CFR 63.1350(f))
  - 1) The owner or operator shall conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A-7 to 40 CFR 60. The test shall be conducted while the affected source is in operation. (40 CFR 63.1350(f)(1)(i))
  - 2) If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the owner or operator shall resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. (40 CFR 63.1350(f)(1)(ii))
  - 3) If no visible emissions are observed during the semi-annual test for any affected source, the owner or operator may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the owner or operator shall resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. (40 CFR 63.1350(f)(1)(iii))
- iii. Before September 9, 2015 if visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of this chapter, the owner or operator must conduct five 6- minute averages of opacity in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The Method 9 performance test, of appendix A-4 to part 60 of this chapter, must begin within 1 hour of any observation of visible emissions. (40 CFR 63.1350(f)(1)(iv)) [75 FR 55059, Sept. 9, 2010, as amended at 76 FR 2836, Jan. 18, 2011]
- iv. Beginning September 9, 2015 if visible emissions are observed during any Method 22 test, the owner or operator must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The Method 9 performance test, of appendix A-4 to part 60 of this chapter, must begin within 1 hour of any observation of visible emissions. (40 CFR 63.1350(f)(1)(iv))

- v. Before September 9, 2015 the requirement to conduct Method 22 visible emissions monitoring under this paragraph shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. (40 CFR 63.1350(f)(1)(v)) [75 FR 55059, Sept. 9, 2010, as amended at 76 FR 2836, Jan. 18, 2011]
- vi. Beginning September 9, 2015 any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. (40 CFR 63.1350 (f)(1)(v))
- vii. Before September 9, 2015 if any partially enclosed or unenclosed conveying system transfer point is located in a building, you must have the option to conduct a Method 22 performance test, of appendix A-7 to part 60 of this chapter, according to the requirements of paragraphs (f)(1)(i) through (f)(1)(iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (f)(1)(vii) of this section. (40 CFR 63.1350 (f)(1)(vi)) [75 FR 55059, Sept. 9, 2010, as amended at 76 FR 2836, Jan. 18, 2011]
- viii. Beginning September 9, 2015 if any partially enclosed or unenclosed conveying system transfer point is located in a building, the owner or operator shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of 40 CFR 63.1352(f)(1)(i) through (f)(1)(iv) of this section of the cited federal regulation for each such conveying system transfer point located within the building, or for the building itself, according to 40 CFR 63.1350(f)(1)(vii) of this section of the cited federal regulation. (40 CFR 63.1350(f)(1)(vi))
  - 1) If visible emissions from a building are monitored, the requirements of paragraphs 40 CFR 63.1350(f)(1)(i) through (f)(1)(iv) apply to the monitoring of the building, and the owner or operator shall also test visible emissions from each side, roof, and vent of the building for at least 10 minutes. (40 CFR 63.1350(f)(1)(vii))
- ix. The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action,

report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. (40 CFR 63.1355(a))

x. The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3) of Subpart A of the federal regulation; and (40 CFR 63.1355(b))

1) All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9; (40 CFR 63.1355(b)(1))

2) All records of applicability determination, including supporting analyses; and (40 CFR 63.1355(b)(2))

3) If the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping and reporting requirements. (40 CFR 63.1355(b)(3))

xi. The owner or operator shall maintain records of the date, time, and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time, and duration of the monitoring malfunction; the record shall list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions. (40 CFR 63.1355(g)(1))

xii. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1348(d) including corrective actions to restore the malfunctioning process to its normal or usual manner of operation. (40 CFR 63.1355(g)(2))

vi. Beginning September 9, 2015 for each exceedance from an emissions standard or established operating parameter limit, the owner or operator shall maintain records of the date, duration, and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat the performance tests and the results of those actions. (40 CFR 63.1355(h))

d. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

- ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis* at the time of the change.
- iii. The owner or operator shall maintain daily records of the hours of operation.
- iv. The owner or operator shall monthly calculate the emissions of Arsenic, Hexavalent Chromium, and Cobalt and Cobalt compounds for each stack S-1014 and S-1030 on an average hourly basis for each operating calendar day.
- v. For any period of time when the process was operating and baghouses K-1014 and K-1030 were 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 that include the information in this section. 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 compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11.

- “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 the responsible official of the company.

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

The owner or operator shall report identification of all periods of exceeding the throughput standard.

b. **Opacity**

- i. The owner or operator shall report any deviation from the requirement to perform surveys, Method 22 tests or Method 9 tests;
- ii. The owner or operator shall report any deviation from the requirement to record the results of each survey, Method 22 test, and Method 9 test performed;
- iii. The owner or operator shall report the number, date, and time of each survey or Method 22 where visible emissions were observed and the results of the Method 9 test performed;
- iv. The owner or operator shall report identification of all periods of exceeding the opacity standard; and
- v. The owner or operator shall report a description of any corrective action taken for each exceedance of the opacity standard.

c. **HAP**

- i. See section S3.b
- ii. Notification requirements in 40 CFR 63 Subpart LLL. (40 CFR 63.1353)
  - 1) The notification provisions of 40 CFR part 63, Subpart A that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any state requires a notice that contains all of the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the state to satisfy the requirements of this section of the federal regulation for that notification. (40 CFR 63.1353(a))
  - 2) The owner or operator of affected sources subject to the requirements of this permit shall comply with the notification requirements in 40 CFR 63.9 as follows: (40 CFR 63.1353(b))
    - (a) Initial notifications as required by 40 CFR 63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR part 70 permit application may be used in lieu of the initial notification required under 40 CFR 63.9(b), provided the

same information is contained in the permit application as required by 40 CFR 63.9(b), and the agency to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification. (40 CFR 63.1353(b)(1))

- (b) Notification of performance tests, as required by 40 CFR 63.7 and 63.9(e). (40 CFR 63.1353(b)(2))
  - (c) Notification of opacity and visible emission observations required by 40 CFR 63.1349 in accordance with 40 CFR 63.6(h)(5) and 63.9(f). (40 CFR 63.1353(b)(3))
  - (d) Notification, as required by 40 CFR 63.9(g), of the date that the continuous emission monitor performance evaluation required by 40 CFR 63.8(e) is scheduled to begin. (40 CFR 63.1353(b)(4))
  - (e) Notification of compliance status, as required by 40 CFR 63.9 (h). (40 CFR 63.1353(b)(5))
  - (f) Within 48 hours of an exceedance that triggers retesting to establish compliance and new operating limits, notify the appropriate permitting agency of the planned performance tests. The notification requirements of 40 CFR 63.7(b) and 63.9(e) do not apply to retesting required for exceedances under this subpart. (40 CFR 63.1353(b)(6))
- iii. Reporting requirements in 40 CFR 63, Subpart LLL. (40 CFR 63.1354)
- 1) The reporting provisions of subpart A of this part that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any state requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the state to satisfy the requirements of this section of the federal regulation for that report. (40 CFR 63.1354(a))
  - 2) The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of this part 63, subpart A as follows: (40 CFR 63.1354(b))

- (a) As required by 40 CFR 63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by 40 CFR 63.1349. (40 CFR 63.1354(b)(2))
- (b) As required by 40 CFR 63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under 40 CFR 63.6(i) shall submit such reports by the dates specified in the written extension of compliance. (40 CFR 63.1354(b)(3))
- (c) The owner or operator shall submit a summary report semi-annually which contains the information specified in 40 CFR 63.10(e)(3)(vi). In addition, the summary report shall include: (40 CFR 63.1354(b)(9))
  - (1) All failures to comply with any provision of the operation and maintenance plan developed in accordance with 40 CFR 63.1350(a). (40 CFR 63.1354(b)(9)(v))
  - (2) Beginning September 9, 2015 in response to each violation of an emissions standard or established operating parameter limit, the date, duration, and description of each violation and the specific actions taken for each violation including inspections, corrective actions and repeat performance tests and the results of those actions. (40 CFR 63.1354(b)(9)(vii))
- 3) Before September 9, 2015 The semiannual report required by paragraph (b)(9) of this section must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 63.1348(d), including actions taken to correct a malfunction. (40 CFR 63.1354(c)) [64 FR 31925, June 14, 1999, as amended at 75 FR 55063, Sept. 9, 2010]

Beginning September 9, 2015 for each failure to meet a standard or emissions limit cause by a malfunction at an affected source, the owner or operator shall report the failure in the semi-annual compliance report required by 40 CFR 63.1354(b)(9). The report shall contain the date, time, and duration, and the cause of each

even (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report shall list for each event the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report shall also include a description of actions taken by the owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1348(d), including actions taken to correct a malfunction. (40 CFR 63.1354(c))

d. **TAC**

- i. The owner or operator shall report any exceedance of the limits listed in S1.d.iii.
- ii. The owner or operator shall report the following information regarding TAC By-Pass Activity in the semi-annual compliance reports:
  - 1) Number of times of the by-pass activities;
  - 2) Duration of each by-pass to the atmosphere;
  - 3) Calculated lb/hr TAC emissions for each by-pass;
  - 4) A negative declaration if no by-passes occurred.
- iii. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.
- iv. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)
- v. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in Specific Condition S2.d.ii.

S4. **Testing** (Regulation 2.03, section 6.1)

The owner or operator shall construct all equipment in such a manner that the following testing requirements can be performed.

a. **PM**

- i. For each baghouse (K-1014 and K-1030) the owner or operator shall perform an EPA Reference Method 5 performance test within 180 days of achieving normal operation on the inlet and outlet of the control device or emission point to determine that the emission rate and control efficiency of 0.01 gr/dscf assumed by the Company in compliance demonstrations is valid. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit. In lieu of the control efficiency test, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.
- ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the compliance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the compliance test. Attached to the permit is a Protocol Checklist for Performance Test for the information to be submitted in the protocol.
- iii. 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.
- iv. The owner or operator shall furnish the District with a written report of the results of the compliance test(s) within 60 days following the actual date of completion of the compliance test(s).
- v. The owner or operator shall provide written notification to the District of the actual date of initial startup. The written notification shall be postmarked within 15 days of achieving normal operation.

b. **Opacity**

See S4.c.

c. **HAP**

- i. If you are subject to the limitations on opacity under 40 CFR 63.1345, you must demonstrate compliance with the opacity emissions standards by using the performance test methods and procedures in 40 CFR 63.1349(b)(2). Use the maximum 6-minute average opacity exhibited during the performance test period to determine whether the affected source is in compliance with the standard. (40 CFR 63.1348(a)(2))
- ii. For owners or operators subject to limitations on opacity under this subpart of the federal regulation, the owner or operator must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if there are no individual readings greater than 10 percent opacity, and there are no more than three readings of 10 percent for the first 1-hour period. For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. (40 CFR 63.1349(b)(2))
- iii. The owner or operator shall perform the test within 180 days of start-up as required by 40 CFR 63.7(a)(2)(ix) on the outlet of the control device or emission point. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.
- iv. The owner or operator shall submit written compliance test plans (protocol). They shall include the EPA test methods that will be used for Opacity compliance testing. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the compliance test. Attached to the permit is a Protocol Checklist for Performance Test for the information to be submitted in the protocol.
- v. 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.
- vi. The owner or operator shall furnish the District with a written report of the results of the compliance test(s) within 60 days following the actual date of completion of the compliance test(s).

- vii. The owner or operator shall provide written notification to the District of the actual date of initial startup. The written notification shall be postmarked within 15 days of achieving normal operation.

### **Fee Comment**

Construction permit fees are based on the construction fee for Title V source (\$2,542.40), subject to a MACT (\$1,016.96), subject to an NSPS (\$1,016.96), and EA Demo with Tier 4 Modeling (\$1,525.44). The total construction fees are \$6,101.76.

**Protocol Checklist for a Performance Test**

A completed protocol should include the following information:

- 1. Facility name, location, and ID #;
- 2. Responsible Official and environmental contact names;
- 3. Permit numbers which are requiring the test to be conducted;
- 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- 5. Alternative test methods or description of modifications to the test methods to be used;
- 6. Purpose of the test including equipment, and pollutant to be tested; the purpose may be described in the permit which requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- 7. Tentative test dates (these may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation);
- 8. Maximum rated production capacity of the system;
- 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate based on limits);
- 10. Method to be used for determining rate of production during the performance test;
- 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- 12. Description of normal operation cycles;
- 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- 14. Process flow diagram;
- 15. List the type and manufacturer of the control equipment if any;
- 16. List the control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test; note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- 17. How quality assurance and accuracy of the data will be maintained, including;
  - Sample identification and chain-of-custody procedures;
  - Are audit samples required for this test Method (EPA contact number for audit samples 919-541-1062) if yes then please make samples available to the District for observation during the stack test;
  - Audit sample provider;
  - Number of audit samples to be used:
- 18. Pipe, duct, stack, or flue diameter to be tested;
- 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
  - Method 1 if stack is >12"
  - Method 1a if stack is between 4" and 12"

- Alternate method of determination for <4”
  - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
21. The Stack Test Review fee shall be submitted with each stack test protocol.