



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

9/29/2008

DAVID MELVILLE
SAKRETE INC
PO BOX 17087
CINCINNATI, OH 45217

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1431210735
Permit Number: 14-06052
Permit Type: Initial Installation
County: Hamilton

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.state.oh.us/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.state.oh.us/dapc.

Sincerely,

Michael W. Ahern
Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: HCDOES

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

**Air Pollution Permit-to-Install and Operate
for
SAKRETE INC**

Facility ID: 1431210735
Permit Number: 14-06052
Permit Type: Initial Installation
Issued: 9/29/2008
Effective: 9/29/2008
Expiration: 9/29/2018



Air Pollution Permit-to-Install and Operate
for
SAKRETE INC

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Final Permit-to-Install and Operate
Permit Number: 14-06052
Facility ID: 1431210735
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Authorization

Facility ID: 1431210735
Application Number(s): A0010917
Permit Number: 14-06052
Permit Description: New dry-mixed concrete packaging plant.
Permit Type: Initial Installation
Permit Fee: \$6,250.00
Issue Date: 9/29/2008
Effective Date: 9/29/2008
Expiration Date: 9/29/2018
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15
This document constitutes issuance to:

SAKRETE INC
FISCHER AVE AND B & O RR
CINCINNATI, OH 45217

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660
(513)946-7777

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



Authorization (continued)

Permit Number: 14-06052
Permit Description: New dry-mixed concrete packaging plant.

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

- Emissions Unit ID:** P005
Company Equipment ID: Fluid Bed Cooler
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P006
Company Equipment ID: Aggregate and Cement Storage Silos and Material Handling
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P007
Company Equipment ID: Mixing Operations
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P008
Company Equipment ID: Bagging Operations
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P903
Company Equipment ID: 60 TPH Aggregate Dryer
Superseded Permit Number:
General Permit Category and Type: Not Applicable



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Division of Air Pollution Control

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Permit Number: 14-06052

Facility ID: 1431210735

Effective Date: 9/29/2008

A. Standard Terms and Conditions



1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.



If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Hamilton County Dept. of Environmental Services in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

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change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



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B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: 14-06052

Facility ID: 1431210735

Effective Date: 9/29/2008

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

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Facility ID: 1431210735

Effective Date: 9/29/2008

C. Emissions Unit Terms and Conditions



1. **P005, Fluid Bed Cooler**

Operations, Property and/or Equipment Description:

Fluid Bed Cooler

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) from the fabric filter stack shall not exceed 1.20 pounds per hour and 3.60 tons per year.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) from the fabric filter stack shall not exceed 0.34 pound per hour and 1.03 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).</p> <p>See (2)a. and b.</p>
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. Particulate emissions from the fluid bed cooler shall be collected and vented to a baghouse having a control efficiency of at least 99.9%.
- b. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the mass emissions limitations, the visible emissions limitation, the production limitation and the use of a fabric filter.

c) Operational Restrictions

- (1) The maximum annual production rate for this emissions unit shall not exceed 360,000 tons per year.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer=s specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that



determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (2) The permittee shall maintain monthly records of the amount of material processed in this emissions unit.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in A.1 of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:

Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.



Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

(2) Emission Limitation:

1.20 lb/hr PE, 0.34 lb/hr PM10

Applicable Compliance Method:

The hourly particulate emission limitation was established by the following methodology:

$$\text{Lbs/hr PE} = (A) \times (C) = (D)$$

$$\text{Lbs/hr PM10} = (D) \times (C)$$

Where,

A = Inlet loading of 1200 lbs/hr from PTI application 14-06052, received June 2, 2008.

B = Average PM10 emission factor of 28.7% from PTI application 14-06052, received June 2, 2008.

C = 1 – control efficiency of 99.9% = (0.001)

D = Pounds per hour for PE

If required, emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the particulate emission limitation: Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The emissions unit shall be operated at or near the maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

(3) Emission Limitation:

3.60 TPY PE, 1.03 TPY PM10

$$\text{Tons/year PE} = (A) \times (B) \times (D) \times 1 \text{ ton}/2000 \text{ lbs} = (E)$$

$$\text{Tons/year PM10} = (E) \times (C) \times 1 \text{ ton}/2000 \text{ lbs}$$

Where,

A = Annual production = 360,000 tons per year.

B = Inlet loading multiple of 0.01 lbs/lb from PTI application 14-06052, received June 2, 2008.



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C = Average PM10 emission factor of 28.7% from PTI application 14-06052, received June 2, 2008.

D = $1 - \text{control efficiency of } 99.9\% = (0.001)$

E = Tons per year for PE

(4) Compliance with the requirements of c)(1) shall be demonstrated by the record keeping required in d)(2).

g) Miscellaneous Requirements

(1) None.



2. P006, Aggregate and Cement Storage Silos and Material Handling

Operations, Property and/or Equipment Description:

Aggregate and Cement Storage Silos and Material Handling

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Fugitive particulate emissions (PE) shall not exceed 0.058 lb/hr and 0.25 TPY.</p> <p>Fugitive particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.028 lb/hr and 0.12 TPY.</p> <p>Particulate matter emissions (PE) from the baghouse outlet shall not exceed 0.36 lb/hr and 1.58 TPY.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) from the baghouse outlet shall not exceed 0.36 lb/hr and 1.58 TPY.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Visible particulate emissions of fugitive dust shall not exceed ten percent (10%) opacity, as a six minute average. See (2)g.
b.	OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed twenty percent (20%) opacity, as a three minute average.
c.	OAC rule 3745-17-08(B)	Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see (2)a. through e.)
d.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

aggregate loading to wet hopper, transfer points and loading to silos

- b. The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

Material handling operations

Control measures

Aggregate loading to wet hopper

maintain moisture content of wet aggregate

Transfer points and silo loading

enclosure with vent to baghouse

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- c. For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines,



as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.

- d. The collection efficiency of the fugitive dust control system shall be sufficient to minimize or eliminate visible particulate emissions at the point of capture.
- e. Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.
- f. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the mass emissions limitations, the visible emissions limitations and the use of a fabric filter.
- g. The control equipment shall achieve an outlet emission rate of not greater than 0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases.

c) Operational Restrictions

None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>Material handling operations</u>	<u>Minimum inspection frequency</u>
Aggregate loading to wet hopper, transfer points and silo loading	once daily, when operating

- (2) The above-mentioned inspections shall be performed during representative, normal operating conditions.
- (3) The permittee may, upon receipt of written approval from the Hamilton County Department of Environmental Services, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- (4) The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
 - c. the dates the control measure(s) was (were) implemented; and



- d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer=s specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.



Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:

0.058 lb/hr, 0.25 TPY fugitive PE;
 0.028 lb/hr, 0.12 TPY fugitive PM10 emissions.

Applicable Compliance Method:

The hourly emission limitations were established by the following methodology:

$$\text{lb/hr of PE} = (A) \times (B)$$

$$\text{lb/hr of PM10 emissions} = (A) \times (C)$$

where:

(A) = Production rate of each fugitive PE/PM10 emission point

(B) = PE emission factor of 0.000101 from AP42 table 11.19.2-2.

(C) = PM10 emission factor of 0.000048, from AP42 table 11.19.2-2.

Sum the hourly emissions rates from each fugitive PE/PM10 emission points to get the total fugitive hourly emission rates for PE and PM10.

The annual emission rate was determined by multiplying the maximum hourly emission rate by 8760 hours per year and dividing by 2000 lb/ton.



Emission Limitation:

0.36 lb/hr, 1.58 TPY stack PE/PM10;

Applicable Compliance Method:

The emission limitations were established by the following methodology:

Pound per hour of PE from aggregate silos = (A) x (B) x (D) x (E) x (F)

Pound per hour of PE from cement silos = (A) x (C) x (D) x (E) x (F)

Sum the aggregate hourly PE and the cement hourly PE to get the total hourly emissions.

PE equals PM10

where:

(A) = PE outlet concentration of 0.01 gr/dscf for aggregate silo filling, from PTI application 14-06052, received June 2, 2008.

(B) = Air volume of 1000 cubic feet per minute for aggregate silo, from PTI application 14-06052, received June 2, 2008.

(C) = Air volume of 550 cubic feet per minute for cement silo, from PTI application 14-06052, received June 2, 2008.

(D) = 60 minutes per hour

(E) = pound per 7000 grains

(F) = number of bin vents (2 for aggregate silos and 4 for cement silos)

If required, emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the particulate emission limitation: Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The emissions unit shall be operated at or near the maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

The annual emission rate was determined by multiplying the maximum hourly emission rate by 8760 hours per year and dividing by 2000 lb/ton.

(2) Emission limitations:

Visible emissions from any stack shall not exceed ten percent (10%) opacity, as a six minute average; visible particulate emissions of fugitive dust shall not exceed twenty percent (20%) opacity, as a three minute average, except as specified by rule.



Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

- (3) Compliance with OAC rule 3745-17-08(B) excluding 17-08(B)(9) shall be demonstrated by utilizing the methods outlined in OAC rules 3745-17-03(B)(1) [Method 9] and OAC rule 3745-17-03(B)(3) [Method 22].

- (4) Emissions limitation:

PE shall not exceed 0.01 gr/dscf

Applicable Compliance Method:

If required, emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the particulate emission limitation: Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The emissions unit shall be operated at or near the maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

Compliance with the requirements of b)(2)b. thru d. shall be demonstrated by the record keeping required in d)(1) thru d)(4).

- g) Miscellaneous Requirements

- (1) None.



3. P007, Mixing Operations

Operations, Property and/or Equipment Description:

Mixing Operations

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) from the fabric filter stack shall not exceed 0.94 pound per hour and 4.14 tons per year.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) from the fabric filter stack shall not exceed 0.27 pound per hour and 1.19 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).</p> <p>See (2)a.</p>
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. Particulate emissions from emissions unit P007 shall be collected and vented to a baghouse having a control efficiency of at least 99.9%.
- b. The hourly and annual emissions limitations outlined in b)(1) are based upon the emissions unit's Potential to Emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
- c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the mass emissions limitations, the visible emissions limitation and the use of a fabric filter.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer=s specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee



determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in A.1 of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:

Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.

Applicable Compliance Method:



Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

(2) Emission Limitation:

0.94 lb/hr PE, 0.27 lb/hr PM10

Applicable Compliance Method:

The hourly particulate emission limitation was established by the following methodology:

$$\text{Lbs/hr PE} = (A) \times (C) = (D)$$

$$\text{Lbs/hr PM10} = (D) \times (B)$$

Where,

A = Inlet loading of 945 lbs/hr from PTI application 14-06052, received June 2, 2008.

B = Average PM10 emission factor of 28.7% from PTI application 14-06052, received June 2, 2008.

C = 1 – control efficiency of 99.9% = (0.001)

If required, emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the particulate emission limitation: Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The emissions unit shall be operated at or near the maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

(3) Emission Limitation:

4.14 TPY PE, 1.19 TPY PM10

$$\text{Tons/year PE} = (A) \times (B) \times (D) = (E)$$

$$\text{Tons/year PM10} = (E) \times (C)$$

Where,

A = Annual production = 827,732 tons per year.

B = Inlet loading multiple of 0.005 lbs/lb from PTI application 14-06052, received June 2, 2008.

C = Average PM10 emission factor of 28.7% from PTI application 14-06052, received June 2, 2008.

D = 1 – control efficiency of 99.9% = (0.001)



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g) Miscellaneous Requirements

(1) None.



4. **P008, Bagging Operations**

Operations, Property and/or Equipment Description:

Bagging Operations

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) from the fabric filter stack shall not exceed 1.20 pounds per hour and 3.60 tons per year.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) from the fabric filter stack shall not exceed 0.34 pound per hour and 1.03 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).</p> <p>See (2)a and c)1.</p>
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. Particulate emissions from emissions unit P007 shall be collected and vented to a baghouse having a control efficiency of at least 99.9%.
- b. The hourly emissions limitations outlined in b)(1) are based upon the emissions unit's Potential to Emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
- c. Compliance with OAC rule 3745-31-05(D) shall be demonstrated by compliance with the mass emissions limitations, the visible emissions limitation, the production limitation and the use of a fabric filter.

c) Operational Restrictions

- (1) The maximum annual production rate for this emissions unit shall not exceed 360,000 tons per year.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control



equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (2) The permittee shall maintain monthly records of the amount of material processed in this emissions unit.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)1 of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:

Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.



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Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

(2) Emission Limitation:

1.20 lb/hr PE, 0.34 lb/hr PM10

Applicable Compliance Method:

The hourly particulate emission limitation was established by the following methodology:

$$\text{Lbs/hr PE} = (A) \times (C) = (D)$$

$$\text{Lbs/hr PM10} = (D) \times (B)$$

Where,

A = Inlet loading of 1200 lbs/hr from PTI application 14-06052, received June 2, 2008.

B = Average PM10 emission factor of 28.7% from PTI application 14-06052, received June 2, 2008.

C = 1 – control efficiency of 99.9% = (0.001)

If required, emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the particulate emission limitation: Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The emissions unit shall be operated at or near the maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

(3) Emission Limitation:

3.60 TPY PE, 1.03 TPY PM10

$$\text{Tons/year PE} = (A) \times (B) \times (D) = (E)$$

$$\text{Tons/year PM10} = (E) \times (C)$$

Where,

A = Annual production = 360,000 tons per year.

B = Inlet loading multiple of 0.01 lbs/lb from PTI application 14-06052, received June 2, 2008.

C = Average PM10 emission factor of 28.7% from PTI application 14-06052, received June 2, 2008.



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$D = 1 - \text{control efficiency of } 99.9\% = (0.001)$

(4) Compliance with the requirements of c)(1) shall be demonstrated by the record keeping required in d)(2).

g) Miscellaneous Requirements

(1) None.



5. P903, 60 TPH Aggregate Dryer

Operations, Property and/or Equipment Description:

60 TPH Aggregate Dryer

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) from the fabric filter stack shall not exceed 1.92 pounds per hour and 5.76 tons per year.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) from the fabric filter stack shall not exceed 0.27 pound per hour and 0.81 tons per year.</p> <p>Combustion Emissions:</p> <p>Nitrogen oxide (NOx) emissions from this emissions unit shall not exceed 4.58 pounds per hour and 13.74 tons per year.</p> <p>Carbon monoxide (CO) emissions from this emissions unit shall not exceed 2.64 pounds per hour and 7.91 tons per year.</p> <p>Sulfur dioxide (SO2) emissions from this</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>emissions unit shall not exceed 16.33 pounds per hour and 48.99 tons per year.</p> <p>Particulate emissions and particulate matter emissions 10 microns and less in diameter (PM10) from combustion shall not exceed 0.46 pounds per hour and 1.37 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).</p> <p>See (2)b. thru d. and c)1.</p>
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.
d.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-18-06(E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC shall not exceed 9.9 tons per year (TPY).
- b. Particulate emissions from the rotary dryer shall be collected and vented to a baghouse having a control efficiency of at least 99.9%.
- c. The permittee shall only burn natural gas and/or number 2 fuel oil in this emissions unit.
- d. The quality of the oil burned in this emissions unit shall meet the following specifications on an "as received" basis:
 - 1) a sulfur content of 0.5 percent sulfur by weight; and
 - 2) a heat content greater than 140,000 Btu/gallon of oil.



Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

- e. The hourly emissions limitations outlined in b.(1) are based upon the emissions unit's Potential to Emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
- f. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the mass emissions limitations, the visible emissions limitation, the use of a fabric filter and the annual limitation on quantity of fuel.

c) Operational Restrictions

- (1) The maximum annual number 2 fuel oil use for this emissions unit shall not exceed 1,374,000 gallons.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer=s specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;



- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (2) The permittee shall maintain monthly records of the amount of fuel used for this emissions unit.
- (3) The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall



maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record which shows a deviation from the allowable sulfur dioxide emission limitation contained in this permit, based upon the sulfur dioxide emission rates calculated in accordance with the formula specified in OAC rule 3745-18-04(F). The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 45 days after the deviation occurs.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:

Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six minute average, except as specified by rule.

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

- (2) Emission Limitation:

1.92 lb/hr PE, 0.27 lb/hr PM10

Applicable Compliance Method:

The hourly particulate emission limitation was established by the following methodology:



$$\text{Lbs/hr PE} = (A) \times (B) \times (D)$$

$$\text{Lbs/hr PM}_{10} = (A) \times (C) \times (D)$$

Where,

A = Maximum hourly production rate of 60 tons per hour.

B = Emission factor of 32 lbs/ton from PTI application 14-06052, received June 2, 2008.

C = Emission factor of 4.50 lbs/ton from PTI application 14-06052, received June 2, 2008.

D = 1 – control efficiency of 99.9% = (0.001)

If required, emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the particulate emission limitation: Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The emissions unit shall be operated at or near the maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

(3) Emission Limitation:

5.76 TPY PE, 0.81 TPY PM₁₀

$$\text{Tons/year PE} = (A) \times (B) \times (D) \times 1 \text{ ton}/2000 \text{ lbs}$$

$$\text{Tons/year PM}_{10} = (A) \times (C) \times (D) \times 1 \text{ ton}/2000 \text{ lbs}$$

Where,

A = Annual production rate.

B = factor of 32 lbs/ton from PTI application 14-06052, received June 2, 2008.

C = Emission factor of 4.50 lbs/ton from PTI application 14-06052, received June 2, 2008.

D = 1 – control efficiency of 99.9% = (0.001)

Compliance with the requirements of b)(2) b, c, d. and c)(2) shall be demonstrated by the record keeping required in d).(1), (2) and (3).

(4) Emissions limitations from natural gas combustion:

CO – 2.64 lbs/hr and 7.91 TPY;

VOC – 0.17 lb/hr and 0.52 TPY;

Applicable Compliance Method:



The hourly and annual emission limitations were established by the following methodology:

$$\text{Lbs/hr} = (A) \times (B) / (C)$$

$$\text{Tons/yr} = (A) \times (B) / (C) \times (D) \times 1 \text{ ton}/2000\text{lbs}$$

Where,

A = emission factor from AP-42, table 1.4-1 and 1.4-2(July, 1998).

B = Maximum heat input capacity of 32 MMBtu/hr

C = Conversion factor of 1020 Btu/scf

D = annual hours of operation

- (5) Emissions limitations from No. 2 fuel oil combustion:

NOx – 4.58 lbs/hr and 13.74 tons/yr;

PM/PM10 – 0.46 lb/hr and 1.37 tons/yr;

SO2 – 16.33 lbs/hr and 48.99 tons/yr;

Applicable Compliance Method:

The hourly and annual emission limitations were established by the following methodology:

$$\text{Lbs/hr} = (A) \times (B)$$

$$\text{Tons/yr} = (A) \times (C) \times 1 \text{ ton}/2000\text{lbs}$$

Where,

A = emission factor from AP-42, table 1.3-1 (July, 1998).

B = hourly fuel oil usage, thousand gallon per hour

C = annual fuel oil usage, thousand gallon per year

- (6) Compliance with the production limitation in c)(1) shall be demonstrated by the record keeping required in d)(2).
- (7) Compliance with the fuel quality limitations in b)(2)d shall be demonstrated by the record keeping required in d)(3).

g) Miscellaneous Requirements

- (1) None.