



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

2/6/2012

Mr. John Paglio
Southern Ohio Sand, LLC - Pike County
PO Box 748
Whilloughby, OH 44096

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0666005002
Permit Number: P0108876
Permit Type: Initial Installation
County: Pike

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

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. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: Ohio EPA-SEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Southern Ohio Sand, LLC - Pike County**

Facility ID:	0666005002
Permit Number:	P0108876
Permit Type:	Initial Installation
Issued:	2/6/2012
Effective:	2/6/2012
Expiration:	2/24/2021



Division of Air Pollution Control
Permit-to-Install and Operate
for
Southern Ohio Sand, LLC - Pike County

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Authorization

Facility ID: 0666005002
Application Number(s): A0042938
Permit Number: P0108876
Permit Description: Permit-to-Install and Operate for a Sand Dryer, a storage silo farm, and an indoor sand screening operation.
Permit Type: Initial Installation
Permit Fee: \$3,900.00
Issue Date: 2/6/2012
Effective Date: 2/6/2012
Expiration Date: 2/24/2021
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Southern Ohio Sand, LLC - Pike County
255 Wickline Road
Jackson Twp.
Beaver, OH 45613

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

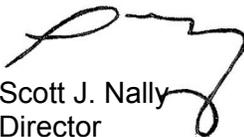
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

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


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0108876
Permit Description: Permit-to-Install and Operate for a Sand Dryer, a storage silo farm, and an indoor sand screening operation.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	F005
Company Equipment ID:	Screening (sizing/classification) Operations and associated
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P901
Company Equipment ID:	Sand Dryer and associated Material Handling Operations
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P902
Company Equipment ID:	Product Storage Silo's consisting of 8 Frac Sand Silos and 8
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 Ohio EPA DAPC, Southeast District Office 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 submitting¹ 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 emissions 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.

¹Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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 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.

B. Facility-Wide Terms and Conditions

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.
2. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart UUU: P901. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District Office or local air agency.
3. The permittee has requested a voluntary facility-wide restriction on material throughput of 500,000 tons per year. Compliance with the material throughput limit is demonstrated by the record keeping and reporting requirements specified in sections c) and d) of each emissions unit. The voluntary restriction on material throughput is not considered federally enforceable and facility potential to emit (PTE) should be based on maximum operating rate and 8,760 hours per year for Title V and PSD applicability.

C. Emissions Unit Terms and Conditions



1. F005, Screening (sizing/classification) Operations and associated material handling and bagging operations.

Operations, Property and/or Equipment Description:

Screening (sizing/classification) Operations and associated material handling and bagging operations within building enclosure. Maximum operating rate of 86 tons per hour and a maximum annual material throughput limited to 500,000 tons facility-wide with 250,000 tons potential to the screens and 100,000 tons potential to the 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 operation(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 are identified below. 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), as effective 11/30/01	Fugitive particulate emissions (PE) shall not exceed 1.44 tons per year. Visible PE shall not exceed 10 percent opacity as a 6-minute average. Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust. See b)(2)a. through b)(2)e. below.
b.	OAC rule 3745-31-05(E), as effective 12/01/06	See b)(2)f. below.
c.	OAC rule 3745-17-07(B)(6)	Exempt. See b)(2)g. below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-08(B)	Exempt. See b)(2)h. below.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006, version of 3745-31-05, then these emission limits/control measures no longer apply.

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

- i. Screens (4)
- ii. aggregate conveying and transfer (2 transfer points)
- iii. bagging operation (1)

c. 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:

<u>Material handling operations: Control measures:</u>	
screening	totally enclosed within building
aggregate conveying and transfer	totally enclosed within building with covered conveyors and/or piping
bagging operations	totally enclosed within building with enclosed pneumatic system

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

d. For each material handling operation that is not adequately enclosed, the above-identified control measures 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 measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling

operations until further observation confirms that use of the control measures are unnecessary.

- e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.
- f. This rule paragraph applies once U.S. EPA approves the December 1, 2006, version of OAC rule 3745-31-05 as part of the SIP.

Permit to Install and Operate P0108876 for this air contaminant source takes into account the following voluntary restrictions (including the use of any air pollution control equipment) as proposed by the permittee for the purposes of avoiding BAT requirements under OAC rule 3745-31-05(A)(3) for Particulate Emissions.

- i. Screening operations shall not exceed 250,000 tons per year.
 - ii. Screening operations shall be maintained within a permanent total enclosure or building.
 - iii. Bagging operations shall not exceed 100,000 tons per year.
 - iv. Bagging operations shall be maintained within a permanent total enclosure or building.
 - g. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.
 - h. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- c) **Operational Restrictions**
- (1) The maximum annual screening production rate shall not exceed 250,000 tons per year.
 - (2) The maximum annual sand bagging production rate for this emissions unit shall not exceed 100,000 tons per year.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall maintain monthly records of the following information:
 - a. the amount of material screened for each month, in tons; and
 - b. the amount of material bagged for each month, in tons.

- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

- e) Reporting Requirements
 - (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emissions Limitation:

Fugitive PE shall not exceed 1.44 tons per year.

Applicable Compliance Method:

Compliance with the 1.44tons per yearPE limitation shall be determined by calculations using air pollutant emission factors in AP-42, Chapter 11, Table 11.19.2-2 (1/95).

 - b. Emissions Limitation:

Visible PE shall not exceed 10 percent opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

 - c. Emissions Limitation:

Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust.

Applicable Compliance Method:

If required, compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 22 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, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.



2. P901, Sand Dryer and associated Material Handling Operations

Operations, Property and/or Equipment Description:

140 Ton per hour, 16 mmBtu/hr, natural gas-fired Rotary Sand Dryer controlled by a 10,000 ACFM baghouse with a 99 percent control efficiency and associated material handling operations consisting of load-in to hoppers and two conveyor transfer points. Facility-wide material throughput is limited to 500,000 tpy.

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 operation(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 are identified below. 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), as effective 11/30/01	Stack Emissions: Particulate emissions (PE) shall not exceed 1.52 lbs/hr and 3.03 tpy. Emissions of Nitrogen Oxides (NOx) shall not exceed 1.57 lbs/hr and 6.88 tpy. Emissions of Carbon Monoxide (CO) shall not exceed 1.32 lbs/hr and 5.78 tpy. Fugitive Emissions: Fugitive PE shall not exceed 1.97 tpy. There shall be no visible fugitive PE from the hoppers or conveyor transfer points.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a. below.
b.	OAC rule 3745-31-05(E) as effective 12/01/06	See b)(2)b. below.
c.	OAC rule 3745_31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)c. below.
d.	OAC rule 3745-17-07(B)(1)	Exempt. See b)(2)d. below.
e.	OAC rule 3745-17-08(B)	Exempt. See b)(2)e. below.
f.	OAC Rule 3745-17-07(A)(1)(a)	The visible PE limitation specified by this rule is less stringent than the visible PE limitation established pursuant to 40 CFR Part 60, Subpart UUU.
g.	OAC rule 3745-17-11(B)(3)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
h.	40 CFR Part 60, Subpart UUU (40 CFR 60.730 – 60.737) [In accordance with 40 CFR 60.730 this emissions unit is natural gas-fired, rotary sand dryer with a burner rating of 16 mmBtu/hr]	PE shall not exceed 0.025 gr/dscf of exhaust gases. [40 CFR 60.732(a)] The emissions unit shall not discharge into the atmosphere any stack gases which exhibit 10 percent opacity or greater. [40 CFR 60.732(b)]

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio’s State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006, version of 3745-31-05, then these emission limits/control measures no longer apply.

- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

Permit to Install and Operate P0108876 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-031-05(A)(3):

- i. The permittee has requested a facility-wide material throughput limit of 500,000 tons per year.
- ii. The emissions from this emissions unit shall be vented to a fabric filterbaghouse with a design control efficiency of 99.9 percent, at all times the emissions unit is in operation.
- iii. Emissions of PE from the baghouse exhaust shall not exceed 3.03tons per year.
- iv. Fugitive PE shall not exceed 1.97tons per year and no visible emissions.

- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to NOx and CO emissions from this air contaminant source since the uncontrolled potential to emit for NOx and CO is less than 10 tons/yr.

- d. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.
- e. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c) Operational Restrictions

- (1) The permittee shall comply with the applicable requirements of 40 CFR Part 60 Subpart UUU, including the following sections:

60.732(a)	PE shall not exceed 0.025 gr/dscf of exhaust gases.
60.732(b)	Visible PE from the baghouse exhaust shall not exceed 10 percent opacity.



60.736(b)(1)	Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.
60.736(b)(2)	Method 9 and the procedures in 60.11 shall be used to determine opacity from stack emissions.

- (2) The permittee shall employ only natural gas in this emissions unit.
- (3) The maximum annual sand production rate for this emissions unit shall not exceed 500,000 tons per year.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain monthly records of the following information:
 - a. the amount of material processed for each month, in tons.
 - (2) The permittee is exempt from the Monitoring requirements specified in 40 CFR Part 60.734 pursuant to 40 CFR Part 60.734(c).
 - (3) The permittee shall maintain a record of the date and amount of each time a fuel other than natural gas is used in this emissions unit.
 - (4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
 - (5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the location and color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitations:

PE shall not exceed 0.025 gr/dscf of exhaust gases; and

PE shall not exceed 1.52 lbs/hr and 3.03 tpy from the exhaust stack.

Applicable Compliance Method:

PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office. See f)(2).

Compliance with the annual PE limitation is demonstrated by multiplying the annual production limit of 500,000 tons by the emission factor of 0.01 lb/t, then dividing by 2,000lbs/t and then adding the PE from natural gas combustion.

b. Emissions Limitation:

The emissions unit shall not discharge into the atmosphere any stack gases which exhibit 10 percent opacity or greater.

Applicable Compliance Method:

Visible particulate emissions shall be determined according to USEPA Method 9. See f)(2).

c. Emissions Limitation:

Emissions of NO_x shall not exceed 1.57 lbs/hr and 6.88 tpy.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor from AP-42, Table 1.4-1, (7/98) (0.098039 lbNO_x/mmBtu) by the maximum rated capacity of P901 (16mmBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by utilizing a one-time worst case calculation. The emission factor from AP-42, Table 1.4-1, (7/98) (0.098039 lbNO_x/mmBtu/hr) multiplied by the maximum rated capacity of P901 and 8,760 hours/year, then divided by 2,000 lbs/ton.

d. Emissions Limitation:

Emissions of CO shall not exceed 1.32 lbs/hr and 5.78 tpy.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor from AP-42, Table 1.4-1, (7/98) (0.082353 lbCO/mmBtu) by the maximum rated capacity of P901 (16mmBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by utilizing a one-time worst case calculation. The emission factor from AP-42, Table 1.4-1, (7/98) (0.082353 lbCO/mmBtu/hr) multiplied by the maximum rated capacity of P901 and 8,760 hours/year, then divided by 2,000 lbs/ton.

e. Emissions Limitation:

Fugitive PE shall not exceed 1.97 tpy.

Applicable Compliance Method:

Compliance shall be determined based on the emission factor calculations from AP-42, Chapter 13.2.4-1 (11/06) and 11.19.2-2 (08/04). Initial compliance has been determined utilizing inputs representing current conditions as follows:

Load-in to hoppers (AP-42 Table 13.2.4-1)
 $ef = 0.00186 \text{ lb/t (500,000 tpy)} \cdot (.0005 \text{ t/lb}) = 0.47 \text{ tpy}$
 Transfer points(2) (AP-42 11.19.2-2)
 $ef = 0.00300 \text{ lb/t(500,000 tpy)} \cdot (.0005 \text{ t/lb})(2) = 1.50 \text{ tpy}$
 Total Fugitive PE = $0.47 + 1.50 = \mathbf{1.97 \text{ tpy}}$

f. Emissions Limitation:

There shall be no visible fugitive PE from the hoppers or conveyor transfer points.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.

(2) The permittee shall conduct, or have conducted, emission testing in accordance with the following requirements:

- a. The emission testing shall be conducted within 180 days of final issuance of this permit.
- b. In accordance with 60.736(a), and 60.8, initial testing shall be completed in accordance with the requirements found in 40 CFR 60.732.
- c. The emission testing shall be conducted to demonstrate compliance with the allowable stack PE limitation and the stack visible PE limitation.
- d. The following test method(s) shall be employed to demonstrate compliance with the allowable emission rate(s):

Compliance with the stack PE limitation and the stack visible PE limitation specified by 40 CFR Part 60, Subpart UUU shall be determined in accordance with Test Methods 1 – 5 and Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”) with the exceptions specified in 60.257(a)(1)(i and ii).

- e. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- f. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- h. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- i. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) **Miscellaneous Requirements**

- (1) None.



3. P902, Product Storage Silo's consisting of 8 Frac Sand Silos and 8

Operations, Property and/or Equipment Description:

Product Storage Silo's consisting of 8Frac Sand Silos all 250 tons capacity) and 8 Water Filter Media Silos (3 – 100 tons capacity; 4 – 25 tons; and 1 – 100 tons). There are 6 material transfer points and each silo is equipped with a bin vent filter with a greater than 99.99 percent design control efficiency. Maximum facility-wide material production and throughput of 500,000 tons.

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 operation(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 are identified below. 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), as effective 11/30/01	Fugitive particulate emissions (PE) shall not exceed 4.50 tons per year. There shall be no visible PE from the silo bin vent filters. See b)(2)a. below.
b.	OAC rule 3745-31-05(E) as effective 12/01/06	See b)(2)b. below.
c.	OAC rule 3745-17-07(B)(6)	Exempt. See b)(2)c. below.
d.	OAC rule 3745-17-08(B)	Exempt. See b)(2)d. below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006, version of 3745-31-05, then these emission limits/control measures no longer apply.

- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

Permit to Install and Operate P0108876 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-031-05(A)(3):

- i. There shall be no visible PE from the silo bin vent filters.
- ii. The silos shall be equipped with bin vent filters with a greater than 99.99 percent design control efficiency for the control of PE.
- iii. Emissions of PE shall not exceed 4.50 tpy.
- c. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.
- d. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c) Operational Restrictions

- (1) The maximum annual material throughput rate for this emissions unit shall not exceed 500,000 tons per year.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
- a. the amount of material processed for each month, in tons.

- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emissions Limitation:
Fugitive PE shall not exceed 4.50 tons per year.



Applicable Compliance Method:

Compliance with the 4.50tons per yearPE limitation shall be determined by calculations using air pollutant emission factors in AP-42, Chapter 11, Table 11.19.2-2 (1/95).

b. Emissions Limitation:

There shall be no visible PE from the silo bin vent filters.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.

g) Miscellaneous Requirements

(1) None.