



Environmental Protection Agency

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

8/16/2012

SHIRLEY SOLOMON  
SOLOMON'S MINES INC  
7732 SALEM-UNITY RD  
SALEM, OH 44460

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0215090337  
Permit Number: P0084455  
Permit Type: Renewal  
County: Columbiana

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	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](http://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, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, [www.epa.ohio.gov/dapc](http://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-NEDO





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
SOLOMON'S MINES INC**

Facility ID:	0215090337
Permit Number:	P0084455
Permit Type:	Renewal
Issued:	8/16/2012
Effective:	8/16/2012
Expiration:	8/16/2022





Division of Air Pollution Control
Permit-to-Install and Operate
for
SOLOMON'S MINES INC

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## Authorization

Facility ID: 0215090337  
Application Number(s): A0015021  
Permit Number: P0084455  
Permit Description: PTIO renewal for 400 TPH crushing/screening operation, material handling, storage piles, and roadways/parking areas  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 8/16/2012  
Effective Date: 8/16/2012  
Expiration Date: 8/16/2022  
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

SOLOMON'S MINES INC  
7732 SALEM-UNITY RD  
SALEM, OH 44460

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

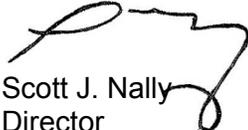
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)425-9171

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: P0084455

Permit Description: PTIO renewal for 400 TPH crushing/screening operation, material handling, storage piles, and roadways/parking areas

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

<b>Emissions Unit ID:</b>	<b>F001</b>
Company Equipment ID:	Crushing and screening operation
Superseded Permit Number:	02-91652
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F002</b>
Company Equipment ID:	Aggregate material handling
Superseded Permit Number:	02-91652
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F003</b>
Company Equipment ID:	Storage piles
Superseded Permit Number:	02-91652
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F004</b>
Company Equipment ID:	Unpaved roadways and parking areas
Superseded Permit Number:	02-91652
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, Northeast 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 submitting<sup>1</sup> 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.

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<sup>1</sup>Permittees 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.

## **C. Emissions Unit Terms and Conditions**



1. F001, Crushing and screening operation

Operations, Property and/or Equipment Description:

400 TPH Crushing and Screening Operation

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)(c) PTI #02-91652	Particulate matter emissions shall not exceed 1.0 pound per hour and 4.38 tons per year.
b.	OAC rule 3745-17-08(B)	Reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.  See Section b)(2)a. below
c.	40 CFR Part 60, Subpart OOO	Visible emissions from any crushing operations shall not exceed 15% opacity as a six-minute average.  See Section b)(2)b. below
d.	OAC rule 3745-17-07(B)	The emissions limitation pursuant to 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 permittee shall only employ aggregate material with inherently high moisture content.
  - b. The permittee shall not cause any visible emissions from the wet screening operations and subsequent screening operations and belt conveyors that process saturated material in the production line.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall record the annual 12-month summation of sand, gravel, and sandstone throughput, in tons per year.
  - (2) The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60, Subpart OOO, section 60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with 40 CFR, Subpart OOO, section 60.672(c).
  - (3) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under section 60.672(c) of 40 CFR Subpart OOO, the duration of the Method 9 observation may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (10 6-minute averages) only if the following conditions apply:
    - a. There are no individual readings greater than 15 percent opacity, and
    - b. There are no more than 3 readings of 15 percent for the 1-hour period.
  - (4) If the permittee subsequently processes unsaturated materials, the permittee shall submit a report of this change within 30 days following such change. The screening operations and belt conveyors are then subject to the 10% opacity limit as specified in 40 CFR 60, Subpart OOO, section 60.672(b) and the emission test requirements on 40 CFR 60, Subpart A, section 60.11.
- 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. Emission Limitation:

Particulate matter emissions shall not exceed 1.0 pound per hour.

Applicable Compliance Method:

Compliance shall be determined by calculating hourly particulate emissions in the following manner.

Multiplying the maximum rated capacity of the crusher/screener (400 TPH) by the summation of the emission factor for crusher (0.0007 lb/ton) and the emission factor for screeners (0.0018 lb/ton), both of which were determined by AP-42, "Crushed Stone Processing and Pulverized Mineral Processing" table 11.19.2-2, 1/95 version).

b. Emission Limitation:

Particulate matter emissions shall not exceed 4.38 tons per year.

Applicable Compliance Method:

Compliance shall be determined by calculating the annual particulate emissions in the following manner:

Multiplying the annual 12-month summation of sand, gravel, and sandstone produced, in tons by the summation of the emission factor for crusher (0.0007 lb/ton) and the emission factor for screeners (0.0018 lb/ton), both of which were determined by AP-42, "Crushed Stone Processing and Pulverized Mineral Processing" table 11.19.2-2, 1/95 version) and then dividing by 2000 lbs/ton.

c. Emission Limitation:

Visible emissions from any crushing operation shall not exceed 15% opacity, as a six minute average.

Applicable Compliance Method:

Compliance shall be determined pursuant to US EPA Method 9, (40 CFR Part 60, Appendix A).

## g) Miscellaneous Requirements

- (1) None.



2. F002, Aggregate material handling

Operations, Property and/or Equipment Description:

Aggregate handling by front-end loaders and 8-unit conveyor lines for sand/gravel/sandstone

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)(c) PTI #02-91652	Particulate matter emissions shall not exceed 1.40 tons per year.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.  See Sections b)(2)a. through c. below
b.	40 CFR 60, Subpart OOO	Visible emissions from any material handling operation shall not exceed 10% opacity, as a six-minute average, except as provided in 40 CFR 60.
c.	OAC rule 3745-17-07(B)(1)	The emissions limitation pursuant to this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	The emissions limitation pursuant to 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 permittee shall employ best available control measures for the 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 measures to ensure compliance:

Material Handling Operation(s)

Control Measures

Aggregate Handling by Front-End Loaders

Permittee will only use aggregate material with inherently high moisture content and minimize drop height distance from front-end loaders to truck beds, stock piles, and/or aggregate cold feed bins.

8-Unit Conveyor Line for Sand, Gravel, and Sandstone

Permittee shall only use aggregate material with inherently high moisture content to control dust emissions during subsequent aggregate handling.

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

- b. 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 operation(s) until further observation confirms that use of the control measures is unnecessary.
- c. 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 rule 3745-17-08 and 3745-31-05.

c) Operational Restrictions

- (1) 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 weekly inspections of both the aggregate handling by front-end loaders and also the 8-unit conveyor line for sand, gravel, and sandstone.
- (2) The above-mentioned inspections shall be performed during representative, normal operating conditions.

- (3) The permittee may, upon receipt of written approval from the Ohio EPA District Office or local air agency, 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 d)(4) shall be kept separate 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 record the annual 12-month summation of aggregate material throughput, in tons per year
- 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. Emission Limitation:

Particulate matter emissions shall not exceed 1.40 tons per year.

Applicable Compliance Method:

Compliance shall be determined by calculating the annual particulate emissions in the following manner:

Multiplying the annual 12-month aggregate throughput (in tons), by the controlled emission factor rate, 0.0001 lb/ton (which was determined by AP-42, "Crushed Stone Processing and Pulverized Mineral Processing" table 11.19.2-2, 1/95

version). The product shall then be multiplied by the number of conveyor transfer points (8) and divided by 2,000 lbs/ton.

b. Emission Limitation:

Visible emissions from any material handling operation shall not exceed 10% opacity, as a six minute average.

Applicable Compliance Method:

Compliance shall be determined pursuant to US EPA Method 9, (40 CFR Part 60, Appendix A).

g) Miscellaneous Requirements

(1) None.



3. F003, Storage piles

Operations, Property and/or Equipment Description:

Mason sand, Concrete sand, Fill sand, Clay fill, Rip-Rap stone, #57 Gravel, #8 Gravel, Crushed stone, #46 Gravel, and #1 Stone

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) PTI #02-91652	Particulate matter emissions shall not exceed 12.94 tons per year.  Visible emissions shall not exceed one minute in any one hour observation period.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.  See section b)(2)a through e. below
b.	OAC rule 3745-17-07(B)(6)	The emissions limitation pursuant to this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	The emissions limitation pursuant to 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. The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles 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 only store aggregate materials that are saturated with water to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- b. The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
- c. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles 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 only store aggregate material that is saturated with water to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- 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 3745-17-08 and OAC rule 3745-31-05

c) Operational Restrictions

- (1) None.

## d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this sections, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

<u>Storage Pile Identification</u>	<u>Minimum load-in inspection frequency</u>
All	Weekly

- (2) Except as otherwise provided in this sections, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

<u>Storage Pile Identification</u>	<u>Minimum load-out inspection frequency</u>
All	Weekly

- (3) Except as otherwise provided in this sections, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

<u>Storage Pile Identification</u>	<u>Minimum wind erosion inspection frequency</u>
All	Weekly

- (4) No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such events have ended, except if the next required inspection is within one week.

- (5) The purpose of the inspections is to determine the need for implementing the control measures for load-in and load-out of a storage pile, and wind erosion from the surface of the storage piles. The inspections shall be performed during representative, normal storage pile operating conditions.

- (6) The permittee may, upon receipt of written approval from the Northeast District Office of the Ohio EPA, 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.

- (7) The permittee shall maintain records of the following information:

- a. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c.

- d. The dates the control measures were implemented; and,
- e. On a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in d)(7)d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (8) The permittee shall record the annual throughput of materials stored, in tons per year.

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. Emission Limitation:

Visible emissions shall not exceed one minute in any one hour observation period.

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 22 as set forth in 40 CFR Part 60, Appendix A.

b. Emission Limitation:

Particulate matter emissions shall not exceed 12.94 tons per year.

Applicable Compliance Method:

Compliance shall be determined using the following equations:

$$\text{Emission rate (tons/year)} = [(2A*B) + (C*D*F)] * [1 \text{ ton}/2,000 \text{ lbs.}]$$

Where: A = emission factor for drop batch operation, in lbs/ton, which can be calculated by AP-42 section 13.2.4 "Aggregate Handling and Storage Piles," Table 3:

$$A = k*(0.0032)*[(U/5)^{1.3} / (M/2)^{1.4}]$$

k = particle size multiplier (0.74)

U = mean wind speed (10 mph)

M = material moisture content (4%)

B = annual 12-month summation of sand/gravel/sandstone processed (tons/year)

C = emission factor for wind erosion, in lb/day/acre, which can be calculated using AP-42, Section 13.2.5 "Industrial Wind Erosion," Equation 3:

$$C = 1.7(s/1.5)*[(365-p)/235]*(f/15)$$

s = silt content of aggregate (5%)

p = number of days with > or = to 0.25 mm/0.01 in of precipitation per year (140 days)

f = percentage of time that the unobstructed wind speed exceeds 5.4 m/s (12mph) at the mean pile height (assume 30%)

D = number of days in a year (365 days)

F = number of acres of storage piles (2.75 acres)

g) Miscellaneous Requirements

(1) None.

**4. F004, Unpaved roadways and parking areas**

**Operations, Property and/or Equipment Description:**

Unpaved roadways and parking areas

- 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(3) PTI #02-91652	Particulate matter emissions shall not exceed 3.05 tons per year  Visible particulate emissions shall not exceed 3 minutes during any 60-minute observation period.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.  See section b)(2)a. through f. below
b.	OAC rule 3745-17-07(B)(6)	The emissions limitation pursuant to this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	The emissions limitation pursuant to 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 permittee shall employ best available control measures on all unpaved roadways and parking areas 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 treat the unpaved roadways and parking areas with water as sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
  - b. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for an unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
  - c. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled using any combination of flushing, sweeping, and/or watering. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas specified in OAC rule 3745-17-07(B)(4).
  - d. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, each and/or other material from paved streets onto which such material has been deposited by trucking or each moving equipment or erosion by water or other means.
  - e. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
  - f. 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.
- c) Operational Restrictions
- (1) When a dust suppressants used for controlling fugitive dust from the unpaved road segments and parking areas, the following restrictions shall be followed:
    - a. The permittee shall certify or possess certification that all dust suppressants used to control fugitive dust meet the PCB limitations set forth in 40 CFR 761, and that

there are no listed hazardous wastes or characteristic hazardous wastes as set forth in 40 CFR 261.

- b. The permittee shall not apply used oil as defined by OAC rule 3745-279-01(A)(12) as a dust suppressant.
- c. The dust suppressant shall be applied in such a manner as to prevent pollution of waters of the State as required by the Ohio Revised Code, section 6111.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of the unpaved roadways and parking areas in accordance with the following frequencies:

<u>Unpaved Roadways</u>	<u>Minimum Inspection Frequency</u>
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All

Daily

<u>Unpaved Parking Areas</u>	<u>Minimum Inspection Frequency</u>
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All

Daily

- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspections shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspections is within one week.
- (3) The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, 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 inspections was not performed including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. The date of each inspections where it was determined by the permittee that it was necessary to implement the control measures;
  - c. The dates the control measures were implemented; and,
  - d. On a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(4)d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

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. Emission Limitation:

Visible particulate emissions shall not exceed 3 minutes during any 60-minute observation period.

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 22 as set forth in 40 CFR Part 60, Appendix A.

b. Emission Limitation:

Particulate matter emissions shall not exceed 3.05 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using AP-42 Section 13.2.2, "Unpaved Roadways," Equation 2:

$$E = k(s/12)^{a*} (W/30)^b / (M_{dry}/0.2)^c * [(365-p)/365] * (1 \text{ ton}/2,000 \text{ lbs.}) * V$$

Where: E = particulate matter emissions, in tons per year

$M_{dry}$  = surface material content under dry, uncontrolled condition (%)

W = mean vehicle weight (tons)

p = number of days with at least 0.254 mm/0.01 in of precipitation

k = empirical constant for PM (10 lb/VMT)

s = surface material silt content (%)

a = empirical constant for PM (0.8)

b = empirical constant for PM (0.5)

c = empirical constant for PM (0.4)

V = total vehicle miles traveled per year

g) Miscellaneous Requirements

(1) None.