



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

4/26/2013

Rich Walker  
SANDS HILL MINING LLC  
PO BOX 650  
38701 SR. 160  
HAMDEN, OH 45634

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0627010066  
Permit Number: P0108418  
Permit Type: Renewal  
County: Gallia

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
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 Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO 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  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

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.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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.

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  
SANDS HILL MINING LLC**

Facility ID:	0627010066
Permit Number:	P0108418
Permit Type:	Renewal
Issued:	4/26/2013
Effective:	4/26/2013
Expiration:	4/26/2023





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
SANDS HILL MINING LLC

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**Final Permit-to-Install and Operate**  
SANDS HILL MINING LLC  
**Permit Number:** P0108418  
**Facility ID:** 0627010066  
**Effective Date:** 4/26/2013

## Authorization

Facility ID: 0627010066  
Application Number(s): A0042216  
Permit Number: P0108418  
Permit Description: PTIO Renewal Permit for roadways and parking areas, coal piles and material handling.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 4/26/2013  
Effective Date: 4/26/2013  
Expiration Date: 4/26/2023  
Permit Evaluation Report (PER) Annual Date: July 1 - June 30, Due Aug 15

This document constitutes issuance to:

SANDS HILL MINING LLC  
465 UPPER RIVER ROAD  
Gallipolis, OH 45631

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

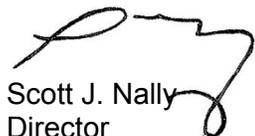
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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



**Final Permit-to-Install and Operate**  
SANDS HILL MINING LLC  
**Permit Number:** P0108418  
**Facility ID:** 0627010066  
**Effective Date:** 4/26/2013

## Authorization (continued)

Permit Number: P0108418

Permit Description: PTIO Renewal Permit for roadways and parking areas, coal piles and material handling.

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:	Roadways & Parking
Superseded Permit Number:	06-03913
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F002</b>
Company Equipment ID:	Storage Piles
Superseded Permit Number:	06-03913
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F003</b>
Company Equipment ID:	Material Handling
Superseded Permit Number:	06-03913
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
SANDS HILL MINING LLC  
**Permit Number:** P0108418  
**Facility ID:** 0627010066  
**Effective Date:** 4/26/2013

## **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 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.



**Final Permit-to-Install and Operate**  
SANDS HILL MINING LLC  
**Permit Number:** P0108418  
**Facility ID:** 0627010066  
**Effective Date:** 4/26/2013

## **B. Facility-Wide Terms and Conditions**



**Final Permit-to-Install and Operate**

SANDS HILL MINING LLC

**Permit Number:** P0108418

**Facility ID:** 0627010066

**Effective Date:** 4/26/2013

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.



**Final Permit-to-Install and Operate**  
SANDS HILL MINING LLC  
**Permit Number:** P0108418  
**Facility ID:** 0627010066  
**Effective Date:** 4/26/2013

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



**1. F001, Roadways & Parking**

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

Paved and Unpaved Roadways, with Maximum VMT of 29,125 miles (Supersedes PTI 06-03913, issued 06/14/2000)

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 established in PTI 06-3913, issued 06/14/2000)	Total Fugitive Particulate Emissions (PE) shall not exceed 10.95 tons/year.  Fugitive PE shall not exceed 5% opacity per six-minute average for paved and unpaved roadways and parking areas;  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections b)(2)a. through b)(2)i.).
b.	OAC Rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-05.
c.	OAC Rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Sections b)(2)a. through b)(2)i.).

(2) Additional Terms and Conditions

- a. The paved roadways that are covered by this permit and subject to the requirements of this permit are listed below:

Paved Roadways:

entrance road from State Route 7 to Scalehouse;

exit road from wheelwash to State Route 7.

- b. The unpaved roadways that are covered by this permit and subject to the requirements of this permit are listed below:

Unpaved Roadways:

scalehouse to wheelwash road;

unpaved parking areas;

scalehouse parking area;

loading facility parking area.

- c. The permittee shall employ best/reasonably available control measures on all paved 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 paved roadways and parking areas by maintaining the pavement on the entrance and exit roads, enforcing a 5-mile per hour speed limit, employing a wheelwash station with stutter bumps, using a sweeper truck, and utilizing one-way roadways. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance. The permittee shall employ best/reasonably 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 sprays and put down fresh aggregate at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- d. 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, which inspections must only be performed when the facility is in operation. Implementation of the control measures shall not be necessary for a paved or 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 conditions make implementing the control impossible or if unsafe or hazardous conditions would be created by its use.

- e. 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 with the control measures specified above for paved surfaces. 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.
- f. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water, use of a street sweeper, or other means.
- g. 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.
- h. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05 and OAC rule 3745-17-08.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

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

<u>Paved Roadways and Parking Areas</u>	<u>Minimum Inspection Frequency</u>
All Paved Roadways and Parking Areas	Daily when facility is in operation
<u>Unpaved Roadways and Parking Areas</u>	<u>Minimum Inspection Frequency</u>
All Unpaved Roadways and Parking Areas	Daily when facility is in operation

- (2) The purpose of the inspections for roadways and parking areas is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection 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 inspection is within one week.

- (3) The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was 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. the dates the control measures were implemented;
  - d. if control measures are suspended pursuant to paragraph b.)(2.)e. because of unsafe or hazardous conditions, documentation of those conditions; and,
  - e. 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 in (3)e. shall be kept separately for (i) the paved roadways and parking areas, and (ii) the unpaved roadways and parking areas identified above, and 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. Emissions Limitation:

Fugitive PE from paved and unpaved roadways and parking areas shall not exceed 10.95 tons/year.

Applicable Compliance Method:

Compliance with fugitive PE limitations shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant



Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 1/11) for paved roadways and Section 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for unpaved roadways. Should further updates in AP-42 occur, the most current equations for unpaved roads shall be used.

Paved Roadways (access roadways):

$$EF = ((k*(sL)^{0.91}*(W)^{1.02})^{(1-P/4*365)})$$

Where:

$$k = 0.011$$

sL = 70 road surface silt loading

W = 39.3567 tons average vehicle weight

P = 140 days/year with > 0.01 inch precipitation

VMT = 19,200 miles/year

Total Control Efficiency = 95%

Unpaved roadways (access roadways and parking areas):

$$EF = ((k*(s/12)^a*(W/3)^b)^{(365-p)/365})$$

Where:

s = 5.1% surface material silt content

W = 37.9597 tons average vehicle weight

p = 140 days/year with > 0.01 inch precipitation

VMT = 9,925 miles/yr

$$k = 4.9$$

$$a = 0.7$$

$$b = 0.45$$

Total Control Efficiency = 95%

b. Emissions Limitation:

Fugitive PE shall not exceed 5% opacity per six-minute average for paved and unpaved roadways and parking areas.

Applicable Compliance Method:



**Final Permit-to-Install and Operate**  
SANDS HILL MINING LLC  
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If required, visible particulate emissions shall be determined according to USEPA Method 9, with the modifications found in OAC rule 3745-17-03(B)(3)(a) and (b).

- g) Miscellaneous Requirements
  - (1) None.



**2. F002, Storage Piles**

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

Storage Piles, Maximum of Two Coal Storage Piles Equaling 0.23 acres (Supersedes PTI 06-03913, issued 06/14/2000)

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 established in PTI 06-3913, issued 06/14/2000)	Total Fugitive Particulate Emissions (PE) shall not exceed 0.0908 tons/year;  Fugitive PE shall not exceed 20% opacity as a three-minute average;  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections b)(2)a. through b)(2)f.).
b.	OAC Rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-05.
c.	OAC Rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections b)(2)a. through b)(2)f.).



(2) Additional Terms and Conditions

- a. All coal storage piles in existence on 06/14/2000 (the effective date of PTI #06-3913) are covered by this permit and subject to the requirements of this permit.
- b. The permittee shall employ best/reasonably available control measures on all coal load-in and load-out operations associated with the coal storage piles and 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 treat the coal load-in and load-out operations and pile surfaces with water sprays at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- c. The above-mentioned control measures shall be employed for each coal load-in and load-out operation and surface of each storage pile if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Such inspections must only be performed when the facility is in operation. Any required implementation of the control measures shall continue during any such operation until further observation confirms that use of the measures is unnecessary.
- d. 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 treat each storage pile with water and any other suitable dust suppressant chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. 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.
- 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 best available technology requirements of OAC rule 3745-31-05 and OAC rule 3745-17-08.

c) Operational Restrictions

- (1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of the coal load-in and load-out operations, and of the pile surfaces for wind erosion, for each coal storage pile, in accordance with the following frequencies:

<u>Coal Storage Pile Operation</u>	<u>Minimum Inspection Frequency</u>
Coal Load-In	Daily when facility is in operation
Coal Load-Out	Daily when facility is in operation
Wind Erosion	Daily when facility is in operation

- (2) No inspection shall be necessary for wind erosion from the surface of a 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 event(s) has (have) ended, except if the next required inspection is within one week.
- (3) The purpose of the inspections for coal storage piles is to determine the need for implementing the control measures specified in this permit for coal load-in or load-out of each storage pile, and wind erosion from the surface of each coal storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
- (4) The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was 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. the dates the control measures were implemented;
  - d. if control measures are suspended pursuant to paragraph b)(2)c. because of impossible, unsafe, or hazardous conditions, documentation of those conditions; and,
  - e. 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 in (4)e. shall be kept separately for (i) the storage pile load-in operations, (ii) the storage pile load-out operations, and (iii) the pile surfaces, and 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. Emissions Limitation:

Total Fugitive Particulate Emissions (PE) shall not exceed 0.0908 tons/year.

Applicable Compliance Method:

The ton per year limit was established based upon emission calculations using AP-42 (11/06) emission factors and shall be calculated using AP-42 emission factors. Should further updates in AP-42 occur, the most current equations for storage piles shall be used.

Load In/Load Out Emissions (coal storage piles):

$$EF = k \cdot 0.0032(U/5)^{1.3} / (M/2)^{1.4}$$

Where:

EF = emission factor expressed in pounds (lbs) / ton

k = particle size multiplier for TSP (dimensionless) = 0.74

U = mean wind speed expressed in miles per hour (MPH) = 6.5

M = material moisture content (%) = 4.8

Therefore, EF = 0.000978 lb/ton

Maximum annual throughput= 1,500,000 tons/year

$$[(1,500,000 \text{ tons/yr})(0.000978 \text{ lb/ton}) + (1,500,000 \text{ tons/yr})(0.000978 \text{ lb/ton})] / 2,000 \text{ lb/ton}$$

$$= 1.466573 \text{ TPY}$$

Assume 95% control for precautionary measures (BAT)

$$(1.466573 \text{ TPY})(.05) = 0.0733 \text{ TPY controlled PE}$$



Wind Erosion:

$$EF = 1.7(s/1.5)((365-p)/235)(f/15)$$

Where:

EF = emission factor expressed in pounds (lbs) /day/acre

s = silt content of road surface material (%) = 4.6 %

p = number of rain days per year > 0.1 in = 140

f = percentage of time wind speed exceeds 12 mph (%) = 25

A = total surface area of storage piles (acres) = 0.23

Therefore, EF = 8.319149 lbs/day/acre

$(8.319149 \text{ lbs/day/acre})(365 \text{ days/yr})(0.23 \text{ acres})/2,000 \text{ lbs/ton} = 0.349196 \text{ TPY}$   
uncontrolled PE

Assume 95% control for precautionary operating practices (BAT)

$(0.349196 \text{ TPY})(.05) = 0.0175 \text{ TPY}$  controlled PE

b. Emissions Limitation:

Fugitive PE shall not exceed 20% opacity, as a three-minute average.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9, with the modifications found in OAC rule 3745-17-03(B)(3)(a) and (b).

g) Miscellaneous Requirements

(1) None.



**3. F003, Material Handling**

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

Coal handling including conveyor belts with maximum unloading rate of 550 tons/hour and transfer points (Supersedes PTI 06-03913, issued 06/14/2000)

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 established in PTI 06-3913, issued 06/14/2000)	Total Fugitive Particulate Emissions (PE) shall not exceed 0.15 tons/year;  Fugitive PE shall not exceed 20% opacity, as a three-minute average.;  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections b)(2)a. through b)(2)d.).
b.	OAC Rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-05.
c.	OAC Rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections b)(2)a. through b)(2)d.).



(2) Additional Terms and Conditions

- a. The coal transfer operations in existence on 06/14/2000 (the effective date of PTI #06-3913) which are covered by this permit and subject to the requirements of this permit are listed below:

coal conveyors

coal transfer points

loading of coal into barges

other miscellaneous coal handling

- b. The permittee shall employ best/reasonably available control measures on all coal conveyors, coal transfer points, coal loading stations for barges, and other miscellaneous coal handling operations 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 coal transferred through these operations with water sprays at sufficient treatment frequencies. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance, such as the use of adequate enclosure.

- c. For each coal conveyor, coal transfer point, coal loading station for barges, and other miscellaneous coal handling operation that is not adequately enclosed, such conveyor, transfer point, barge loading station, or other miscellaneous coal handling operation shall be treated with water if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Such inspections must only be performed when the facility is in operation. Any required implementation of the control measures shall continue during operation of any coal conveyor, coal transfer point, coal loading station for barges, or other miscellaneous coal handling operation until further observation confirms that use of the control measures is unnecessary.

- d. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05 and OAC rule 3745-17-08.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except for coal transfer operations that are adequately enclosed, the permittee shall perform inspections of all coal transfer operations in accordance with the following frequencies:



<u>Coal Transfer Operation</u>	<u>Minimum Inspection Frequency</u>
Coal Conveyors	Daily when facility is in operation
Coal Transfer Points	Daily when facility is in operation
Barge Loading	Daily when facility is in operation

Other Miscellaneous Coal Handling Daily when facility is in operation

The above-mentioned inspections for coal transfer operations shall be performed during representative, normal operating conditions.

- (2) The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was 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. the dates the control measures were implemented;
  - d. if control measures are suspended pursuant to paragraph b)(2)c. because of impossible, unsafe, or hazardous conditions, documentation of those conditions; and,
  - e. 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 in (2)e. shall be kept separately for each coal transfer operation identified above, and 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. Emissions Limitation:

Total Fugitive PE shall not exceed 0.15 tons/year.

Applicable Compliance Method:

The ton per year limit was established based upon emission calculations using AP-42 (11/06) emission factors and shall be calculated using AP-42 emission factors..

$$EF = k \cdot (0.0032) \cdot [(U/5)^{1.3} / (M/2)^{1.4}]$$

Where:

EF = PM emission factor expressed in pounds per ton  
k = particle size multiplier for PM (dimensionless) = 0.74  
U = mean wind speed expressed in miles per hour (MPH) = 6.5  
M = material moisture content (%) = 4.8

Therefore, EF = 0.000978 lb PM/ton

$(EF \cdot (\text{Number of Conveyors} + \text{Number of Transfer Points}) \cdot \text{Maximum Throughput}) / 2000 = \text{TPY uncontrolled PE}$

$$(0.000978 \cdot (1+3) \cdot 1,500,000) / 2,000 = 2.933 \text{ TPY uncontrolled PE}$$

Assume 95% control for precautionary operating practices (BAT)

$$(2.933 \cdot 0.05) = 0.1466 \text{ tons/year}$$

b. Emissions Limitation:

Fugitive PE shall not exceed 20% opacity, as a three-minute average.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9, with the modifications found in OAC rule 3745-17-03(B)(3)(a) and (b).

g) Miscellaneous Requirements

- (1) None.