



1/6/2014

Certified Mail

Beth Mowrey
SHELLY MATERIALS INC. - MARBLE CLIFF QUARRY
P.O. Box 266
8775 Blackbird Lane
Thornville, OH 43076

| | |
|----|------------------------------------|
| 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 |

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0125040476
Permit Number: P0082716
Permit Type: Renewal
County: Franklin

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

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.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 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, Central District Office at (614)728-3778 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-CDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for**

SHELLY MATERIALS INC. - MARBLE CLIFF QUARRY

| | |
|----------------|------------|
| Facility ID: | 0125040476 |
| Permit Number: | P0082716 |
| Permit Type: | Renewal |
| Issued: | 1/6/2014 |
| Effective: | 1/6/2014 |
| Expiration: | 1/6/2024 |



Division of Air Pollution Control
Permit-to-Install and Operate
for
SHELLY MATERIALS INC. - MARBLE CLIFF QUARRY

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Authorization

Facility ID: 0125040476
Application Number(s): A0013051, A0013052
Permit Number: P0082716
Permit Description: PTIO renewal permit for material handling, mineral extraction, paved and unpaved roadways and parking areas, and storage piles located at a Crushed and Broken Limestone Mining and Quarrying facility.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 1/6/2014
Effective Date: 1/6/2014
Expiration Date: 1/6/2024
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

SHELLY MATERIALS INC. - MARBLE CLIFF QUARRY
2650 OLD DUBLIN RD
HILLIARD, OH 43026

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

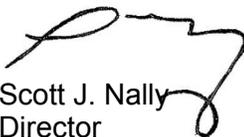
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

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: P0082716
Permit Description: PTIO renewal permit for material handling, mineral extraction, paved and unpaved roadways and parking areas, and storage piles located at a Crushed and Broken Limestone Mining and Quarrying facility.

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

| | |
|-----------------------------------|--------------------|
| Emissions Unit ID: | F005 |
| Company Equipment ID: | Material Handling |
| Superseded Permit Number: | 01-12200 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | F006 |
| Company Equipment ID: | Mineral Extraction |
| Superseded Permit Number: | 01-12200 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | F007 |
| Company Equipment ID: | Plant Roadway |
| Superseded Permit Number: | 01-12200 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | F008 |
| Company Equipment ID: | Storage Piles |
| Superseded Permit Number: | 01-12200 |
| General Permit Category and Type: | Not Applicable |



Final Permit-to-Install and Operate
SHELLY MATERIALS INC. - MARBLE CLIFF QUARRY
Permit Number: P0082716
Facility ID: 0125040476
Effective Date: 1/6/2014

A. Standard Terms and Conditions



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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

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

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

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

7. What reports must I submit under this permit?

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

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

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit 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 [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

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

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

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

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

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

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

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

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

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

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



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
SHELLY MATERIALS INC. - MARBLE CLIFF QUARRY
Permit Number: P0082716
Facility ID: 0125040476
Effective Date: 1/6/2014

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.



Final Permit-to-Install and Operate
SHELLY MATERIALS INC. - MARBLE CLIFF QUARRY
Permit Number: P0082716
Facility ID: 0125040476
Effective Date: 1/6/2014

C. Emissions Unit Terms and Conditions



1. F005, Material Handling

Operations, Property and/or Equipment Description:

Aggregate material handling and conveying

- 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) | Fugitive particulate emissions (PE) shall not exceed 14.28 pounds per hour (lbs/hr) and 23.8 tons per year (TPY). Fugitive emissions of particulate matter less than ten microns in aerodynamic diameter (PM ₁₀) shall not exceed 4.69 lbs/hr and 7.82 TPY. The requirements of this rule also include compliance with OAC rules 3745-17-08(B), 3745-17-07(B)(1), and 40 CFR Part 60, Subpart 000. See b)(2)a. |
| b. | OAC rule 3745-17-08(B) | The permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|--|
| | | See b)(2)b. and b)(2)c. |
| c. | OAC rule 3745-17-07(B)(1) | The visible emissions limitation established by this rule is less stringent than the visible emissions limitation established pursuant to 40 CFR Part 60, Subpart OOO. |
| d. | 40 CFR Part 60, Subpart OOO | Visible emissions of fugitive dust discharging from the screening operations, transfer points, and conveyors shall not exceed 10% opacity. |
| e. | 40 CFR Part 60, Subpart A | See b)(2)d. |

(2) Additional Terms and Conditions

- a. The material handling operations that are covered by this permit and subject to the above-mentioned requirements include:

| <u>Material Handling Operations</u> | <u>Control Measures</u> |
|--------------------------------------|---|
| Load in, load out, and any conveying | Application of water and dust suppressant where necessary to control particulate emissions. |

- b. The permittee shall employ reasonably available control measures for the above-identified handling operations associated with the screens for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to control fugitive emissions by utilizing water and/or chemical dust suppressant sprays as sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- c. For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines as a result of the inspection conducted pursuant to d)(1), that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that the use of control measures is no longer necessary.
- d. The permittee shall demonstrate compliance with the applicable provisions of 40 CFR Part 60, Subpart OOO in accordance with 40 CFR Part 60, Subpart A.



c) Operational Restrictions

- (1) The maximum annual tons of material processed shall not exceed 5,000,000 tons based upon a rolling, 12-month summation of the materials processed.

d) Monitoring and/or Recordkeeping Requirements

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

| <u>Material Handling Operations</u> | <u>Minimum Inspection Frequency</u> |
|---|-------------------------------------|
| Load in, load out, and any combination of loading and conveying | Daily |

- (2) The permittee may, upon receipt of written approval from Ohio EPA, CDO, 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.
- (3) 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 measures;
 - c. the dates when excess visible fugitive particulate emissions were observed and control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented.

The information in d)(3)d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (4) The permittee shall also maintain monthly records of the following information:
 - a. the total tons of materials processed ; and
 - b. the rolling, 12 month summation of the tons of materials processed.

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.

- (2) The following information shall be included in the annual PER:
 - a. each day when excess visible fugitive particulate emissions were observed;
 - b. each day during which an inspection was not performed by the required frequency;
 - c. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented; and
 - d. each month during which the rolling, 12 month limitation on the tons of material processed was exceeded.

f) Testing Requirements

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

- a. Emissions limitations:

Fugitive PE shall not exceed 14.28 lbs/hr and 23.8 TPY.

Applicable Compliance Method:

Compliance with the allowable hourly mass emission rate for particulate emissions shall be determined by multiplying an emission factor of 0.00014 pound of particulate emissions per ton of stone processed by the emissions unit's maximum process weight rate of 1500 tons per hour and then multiplying by the number of transfer points (68). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 11.19.2, Table 11.19.2-2(8/04).

Compliance with the allowable annual mass emission rate for particulate emissions shall be determined by multiplying an emission factor of 0.00014 pound of particulate emissions per ton of stone processed by the emissions unit's maximum allowable annual process weight rate of 5 million tons and then multiplying by the number of transfer points (68). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 11.19.2, Table 11.19.2-2(8/04).

- b. Emissions limitations:

Fugitive PM₁₀ emissions shall not exceed 4.69 lbs/hr and 7.82 TPY.



Applicable Compliance Method:

Compliance with the allowable hourly mass emission rate for particulate emissions shall be determined by multiplying an emission factor of 0.000046 pound of particulate emissions per ton of stone processed by the emissions unit's maximum process weight rate of 1500 tons per hour and then multiplying by the number of transfer points (68). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 11.19.2, Table 11.19.2-2(8/04).

Compliance with the allowable annual mass emission rate for particulate emissions shall be determined by multiplying an emission factor of 0.000046 pound of particulate emissions per ton of stone processed by the emissions unit's maximum allowable annual process weight rate of 5 million tons and then multiplying by the number of transfer points (68). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 11.19.2, Table 11.19.2-2(8/04).

c. Emissions limitation:

Visible emissions of fugitive dust discharging from the screening operations, transfer points, and conveyors shall not exceed 10% opacity.

Applicable Compliance Method:

If required, compliance with the visible emission limitation specified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

- (1) None.



2. F006, Mineral Extraction

Operations, Property and/or Equipment Description:

Mineral Extraction (Includes overburden removal, drilling, blasting, storage piles and handling)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific 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) | Fugitive particulate emissions (PE) shall not exceed 24.04 tons per year (TPY). Fugitive emissions of particulate matter less than ten microns in aerodynamic diameter (PM ₁₀) shall not exceed 11.81 TPY. The requirements of this rule also include compliance with OAC rules 3745-17-08(B) and 3745-17-07(B)(1). See b)(2)a. |
| b. | OAC rule 3745-17-08(B) | The permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)b. and b)(2)c. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|---|
| c. | OAC rule 3745-17-07(B)(1) | Visible particulate emissions shall not exceed 20% opacity as a three-minute average, except as provided by rule. |

(2) Additional Terms and Conditions

- a. The following mineral extraction operations are covered by this permit and subject to the above mentioned requirements:
 - i. drilling;
 - ii. blasting;
 - iii. mineral loading and unloading; and
 - iv. bulldozing

- b. The permittee shall employ reasonably available control measures for the above-identified mineral extraction operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to control fugitive emissions by those measures identified in the following table:

| <u>Mineral Extraction Operations</u> | <u>Control Measures</u> |
|--------------------------------------|---|
| drilling | dust collector and water application and/or dust suppressant as necessary |
| blasting | precision detonation techniques, blast control plugs, use of stemming materials |
| mineral loading and unloading | water and/or dust suppressant application as necessary |
| bulldozing | water and/or dust suppressant application as necessary |

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

- c. For each mineral extraction operation, the above-identified control measures shall be implemented if the permittee determines as a result of the inspection conducted pursuant to d)(1), 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 mineral extraction operations until further observation confirms that the use of control measures is no longer necessary.

c) Operational Restrictions

- (1) The maximum annual tons of material processed shall not exceed 5,000,000 tons based upon a rolling, 12-month summation of the materials processed.
- (2) The maximum annual blast rate for this emissions unit shall not exceed 260 blasts based upon a rolling, 12-month summation of blasts.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, for mineral extraction operations that are not adequately enclosed, the permittee shall perform inspections of such operations during representative, normal operating conditions in accordance with the following minimum frequencies:

| <u>Mineral Extraction Operations</u> | <u>Minimum Inspection Frequency</u> |
|--------------------------------------|-------------------------------------|
| drilling | once per day of operation |
| blasting | once per day of operation |
| mineral loading and unloading | once per day of operation |
| bulldozing | once per day of operation |

- (2) The permittee may, upon receipt of written approval from Ohio EPA, CDO, 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.
- (3) 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 measures;
 - c. the dates when excess visible fugitive particulate emissions were observed and control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented.



The information in d)(3)d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (4) The permittee shall maintain the following monthly blasting records:
 - a. the date that each blast occurred;
 - b. the total number of blasts each month; and
 - c. the rolling, 12 month summation of the number of blasts.
- (5) The permittee shall also maintain monthly records of the following information:
 - a. the total tons of materials processed ; and
 - b. the rolling, 12 month summation of the tons of materials processed.

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.
- (2) The following information shall be included in the annual PER:
 - a. each day when excess visible fugitive particulate emissions were observed;
 - b. each day during which an inspection was not performed by the required frequency;
 - c. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented;
 - d. each month during which the rolling, 12 month limitation on the tons of material processed was exceeded; and
 - e. each month during which the rolling, 12-month limitation on the number of blasts was exceeded.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emissions limitation:
Fugitive PE shall not exceed 24.04 TPY.



Applicable Compliance Method:

Compliance with the annual particulate emissions limitation shall be based upon the summation of annual particulate emissions from each individual mineral extraction operation, as described by the emission factors and throughput limitations in the table below.

| <u>Mineral Extraction Operation</u> | <u>PM emissions factor</u> | <u>Emissions Factor Units</u> | <u>Basis</u> | <u>Annual Throughput</u> | <u>Annual PE</u> |
|-------------------------------------|----------------------------|-------------------------------|--|--------------------------|------------------|
| Truck unloading | 0.0021 | lb/ton | AP-42 13.2.4(1/95) | 5,000,000 tons | 5.20 |
| Truck loading | 0.0021 | lb/ton | AP-42 13.2.4(1/95) | 5,000,000 tons | 5.20 |
| Bulldozing | 3.57 | lb/dozer hour | AP-42 11.9-1 (10/98) | 1,000 hours | 1.79 |
| Drilling | 1.30 | lb/hole | AP-42 11.9-4 (10/98) and 80% control efficiency for the use of a dust collector | 13,000 holes | 1.69 |
| Blasting | 78.27 | lb/blast | AP-42 11.9-1 (10/98) | 260 blasts | 10.18 |
| Total | | | | | 24.04 |

b. Emissions limitation:

Fugitive PM₁₀ emissions shall not exceed 11.81 TPY.

Applicable Compliance Method:

Compliance with the annual PM₁₀ emissions limitation shall be based upon the summation of annual PM₁₀ emissions from each individual mineral extraction operation, as described by the emission factors and throughput limitations in the table below.

| <u>Mineral Extraction Operation</u> | <u>PM₁₀ emissions factor</u> | <u>Emissions Factor Units</u> | <u>Basis</u> | <u>Annual Throughput</u> | <u>Annual PE</u> |
|-------------------------------------|---|-------------------------------|-----------------------|--------------------------|------------------|
| Truck unloading | 0.0010 | lb/ton | AP-42 13.2.4(1/95) | 5,000,000 tons | 2.46 |



| | | | | | |
|---------------|--------|---------------|--|-------------------|-------|
| Truck loading | 0.0010 | lb/ton | AP-42 13.2.4(1/95) | 5,000,000 tons | 2.46 |
| Bulldozing | 0.47 | lb/dozer hour | AP-42 11.9-1 (10/98) | 1,000 hours | 0.24 |
| Drilling | 1.05 | lb/hole | AP-42 11.9-4 (10/98) and 80% control efficiency for the use of a dust collector | 13,000 holes | 1.37 |
| Blasting | 40.70 | lb/blast | AP-42 11.9-1 (10/98) | 260 blasts | 5.29 |
| Total | | | | | 11.81 |

c. Emissions limitation:

Visible particulate emissions shall not exceed 20% opacity as a three-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation specified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

- (1) None.



3. F007, Plant Roadway

Operations, Property and/or Equipment Description:

Paved and 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(A)(3) | Fugitive particulate emissions (PE) shall not exceed 112.75 tons per year (TPY). Fugitive emissions of particulate matter less than ten microns in aerodynamic diameter (PM ₁₀) shall not exceed 24.71 TPY. See b)(2)a. |
| b. | OAC rule 3745-17-08(B) | The permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)b. through b)(2)f. |
| c. | OAC rule 3745-17-07(B)(4) | No visible particulate emission except for six minutes during any 60-minute period from the paved roadways and parking areas. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|---|
| d. | OAC rule 3745-17-07(B)(5) | No visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed thirteen minutes during any 60-minute observation period. |

(2) Additional Terms and Conditions

a. The following paved and unpaved roadways and parking areas are covered by this permit and subject to the above mentioned requirements:

- i. all unpaved roadways and parking areas; and
- ii. all paved roadways and parking areas.

b. The permittee shall employ 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 at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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

c. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections conducted pursuant to d)(1). 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 unsafe or hazardous driving conditions would be created by its use.

d. Any unpaved roadway, which during the term of this permit is paved or takes on the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled using appropriate dust control measures for paved roadways. Any unpaved roadway that takes on the characteristics of a paved surface due to the application of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways. Any unpaved area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas. There shall be no visible particulate emissions from any paved



roadway or parking area except for a period of time not to exceed six minutes during any sixty minute observation period.

- e. The permittee shall promptly remove, in such a manner as to minimize or prevent re-suspension, 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 or other means.
- f. 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.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform daily inspections of all roadways and parking areas.

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 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 events have ended, except if the next required inspection is within one week.

- (2) 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 measure(s);
- c. the dates when excess visible fugitive particulate emissions were observed and control measure(s) was (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)(2)d. shall be kept separately for the paved roadways and parking areas and the unpaved roadways and parking areas, 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.
- (2) The following information shall be included in the annual PER:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

f) Testing Requirements

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

a. Emissions limitation:

Fugitive PE shall not exceed 112.75 TPY.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be determined by the summation of particulate emissions from the paved roadways and unpaved roadways. The particulate emissions from the paved roadways are determined by using equation 1 found in Chapter 13.2.1 (12/2003) of AP-42:

Paved roadways

$$E = k(sL/2)^{0.65} (W/3)^{1.5} (1-P/4N) - C$$

where,

E = emission factor lbs/VMT

k = particle size multiplier = 0.082

sL = silt loading on road surface = 8.2 g/m²

W = average vehicle weight (tons) = 30 (for customer trucks);

P = number of days with at least 0.01 inches of precipitation per year (149)

N = number of days in the averaging period (365 for annual)

C = emission factor for 1980s vehicle fleet exhaust and tire wear (0.00047)

The maximum miles traveled per year equals 578,947 miles for customer trucks.

Therefore, the particulate matter emissions from paved roadways are obtained by multiplying the respective total vehicle miles traveled per year with the derived emission factors of 6.33 lbs/VMT and then dividing by 2,000 pounds per ton. The



resulting uncontrolled emissions rate (1648.26 tons) is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 82.41 TPY. The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

Unpaved roadways

$$E = k(s/12)^a(W/3)^b$$

where,

E = emission factor lbs/VMT

k = particle size multiplier = 4.9.

sL = silt loading on road surface = 8.2 g/m²

W = average vehicle weight (tons) = see table below

a and b = constants from table 13.2.2-2; a= 0.7; b= 0.45;

| Roadway ID | W | Emission factor (PM) | VMT/yr | Uncontrolled emissions (Tons/yr) |
|---|----|----------------------|---------|----------------------------------|
| Wheelwash to farthest storage pile | 30 | 6.31 | 166,094 | 524.33 |
| Equipment lot to work area(FELS) | 43 | 7.43 | 3,741 | 13.89 |
| Equipment lot to work area(Rock trucks) | 76 | 9.59 | 3,117 | 14.95 |
| Wheelwash to shop | 4 | 2.62 | 4,216 | 5.53 |
| Loader loading pattern | 60 | 8.63 | 11,106 | 47.94 |

Therefore, the particulate matter emissions from unpaved roadways are obtained by multiplying the total vehicle miles traveled per year with the derived emission factor in the table above and dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 30.33 TPY (606.64 * 0.05). The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

The total PM emissions are therefore equal to 112.75 TPY (the sum of the particulate emissions from paved roadways and unpaved roadways).

b. Emissions limitation:

Fugitive PM₁₀ emissions shall not exceed 24.71 TPY.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be determined by the summation of PM₁₀ emissions from the paved roadways and unpaved roadways. The PM₁₀ emissions from the paved roadways are determined by using equation 1 found in Chapter 13.2.1 (12/2003) of AP-42:



Paved roadways

$$E = k(sL/2)^{0.65} (W/3)^{1.5} (1-P/4N) - C$$

where,

- E = emission factor lbs/VMT
- k = particle size multiplier = 0.016
- sL = silt loading on road surface = 8.2 g/m²
- W = average vehicle weight (tons) = 30 (for customer trucks); 13 (for other vehicles)
- P = number of days with at least 0.01 inches of precipitation per year (149)
- N = number of days in the averaging period (365 for annual)
- C = emission factor for 1980s vehicle fleet exhaust and tire wear (0.00047)
- E = 1.23 lbs PM₁₀/VMT (for customer trucks); 0.35 lbs PM-10/VMT (for other vehicles)

The maximum miles traveled per year equals 578,947 miles for customer trucks and 6,336 miles for other vehicles. Therefore, the PM₁₀ emissions from paved roadways are obtained by multiplying the respective total vehicle miles traveled per year with the derived emission factors of 1.23 lbs/VMT and 0.35 lbsPM₁₀/VMT and then dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 16.08 TPY. The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

The PM₁₀ emissions from the unpaved roadways are determined by using equation 2 found in Chapter 13.2.2 (10/2001) of AP-42:

Unpaved roadways

$$E = k(s/12)^a (W/3)^b$$

where,

- E = emission factor lbs/VMT
- k = particle size multiplier = 4.9.
- sL = silt loading on road surface = 8.2 g/m²
- W = average vehicle weight (tons) = see table below
- a and b = constants from table 13.2.2-2; a= 0.7; b= 0.45;

| Roadway ID | W | Emission factor (PM) | VMT/yr | Uncontrolled emissions (Tons/yr) |
|---|----|----------------------|---------|----------------------------------|
| Wheelwash to farthest storage pile | 30 | 1.80 | 166,094 | 149.10 |
| Equipment lot to work area(FELS) | 43 | 2.11 | 3,741 | 3.95 |
| Equipment lot to work area(Rock trucks) | 76 | 2.73 | 3,117 | 4.25 |
| Wheelwash to shop | 4 | 0.75 | 4,216 | 1.57 |



| Roadway ID | W | Emission factor (PM) | VMT/yr | Uncontrolled emissions (Tons/yr) |
|------------------------|----|----------------------|--------|----------------------------------|
| Loader loading pattern | 60 | 2.45 | 11,106 | 13.63 |

Therefore, the PM₁₀ emissions from unpaved roadways are obtained by multiplying the total vehicle miles traveled per year with the derived emission factor in the table above and dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate (172.5 tons) is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 8.63 TPY. The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

The total PM₁₀ emissions are therefore equal to 24.71 TPY (the sum of the PM₁₀ emissions from paved roadways and unpaved roadways).

c. Emissions limitation:

No visible particulate emission except for six minutes during any 60-minute period from the paved roadways and parking areas.

Applicable Compliance Method:

If required, compliance with the visible emission limitation specified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

d. Emissions limitation:

No visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed thirteen minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible emission limitation specified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

- (1) None.



4. F008, Storage Piles

Operations, Property and/or Equipment Description:

Storage Piles

- 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) | Fugitive particulate emissions (PE) shall not exceed 7.12 tons per year (TPY). Fugitive emissions of particulate matter less than ten microns in aerodynamic diameter (PM ₁₀) shall not exceed 3.55 TPY. See b)(2)a. |
| b. | OAC rule 3745-17-08(B) | The permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)b. through b)(2)e. |
| c. | OAC rule 3745-17-07(B)(6) | No visible particulate emissions from any material storage pile except for a period of time not to exceed thirteen minutes during any 60-minute observation period. |



(2) Additional Terms and Conditions

- a. The following storage operations are covered by this permit and subject to the above mentioned requirements:
 - i. all storage piles.
- b. The permittee shall employ reasonably 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 application, the permittee has committed to control fugitive emissions by maintaining sufficient moisture content from upstream application 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 load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant d)(1), 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 any such operation until further observation confirms that use of the measures is unnecessary.
- d. The permittee shall employ reasonably 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 application, the permittee has committed to watering storage piles to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. The above-mentioned control measures shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to d)(1), that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measures 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.

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 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 | Daily |

- (2) Except as otherwise provided in this section, 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 | Daily |

- (3) Except as otherwise provided in this section, 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 | Daily |

- (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 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. 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, 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 measures.



The information required in d)(5) shall be kept separately for the load-in operations, the load-out operations, and the pile surfaces (wind erosion), 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.
- (2) The following information shall be included in the annual PER:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

f) Testing Requirements

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

a. Emissions limitation:

Fugitive PE shall not exceed 7.12 TPY.

Applicable Compliance Method:

Compliance with the annual particulate emission limitation shall be based upon the summation of particulate emissions from the load in/loadout of material and wind erosion, as described below.

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

where,

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

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

U = mean wind speed expressed in miles per hour (MPH) = 7.67

M = material moisture content (%) = 3.25

Therefore, EF = 0.00209 lbs/ton

maximum annual load-in throughput = 5,000,000 tons/year

maximum annual load-out throughput = 5,000,000 tons/year

[(2 load activities) (5,000,000 tons/year) (0.00209 lb PE/ton) / 2000lb/ton
= 10.46 TPY of uncontrolled PE.



Assume 95% control for watering
 (10.46 TPY) (.05) = 0.52 TPY of controlled PE; and

Based upon the following equation, which follows from Section 13.2.4 of AP-42, the emissions due to wind erosion are calculated as follows:

$$E = 1.7(s/1.5)((365-p)/235)(f/15)(365)(A/2000)$$

where,

- E = the emission factor in lbs/day/acre
- s = the silt content of the stored materials = 10%
- p = the number of days w more than 0.1 inch of precipitation = 149
- f = the percentage of time the wind speed exceeds 12 mph = 13
- A = the totals surface area of the specific storage pile = 80.07

The total emissions from wind erosion after the application of a 95% control factor is 6.60 TPY. Summation of the emissions due to load in/load out and wind erosion results in a total annual particulate emission rate of 7.12 tons.

b. Emissions limitation:

Fugitive PM₁₀ emissions shall not exceed 3.55 TPY.

Applicable Compliance Method:

Compliance with the annual PM₁₀ emission limitation shall be based upon the summation of particulate emissions from the load in/loadout of material and wind erosion, as described below.

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

where,

- EF = emission factor expressed in pounds per ton (lbs/ton)
- k = particle size multiplier for TSP (dimensionless) = 0.35
- U = mean wind speed expressed in miles per hour (MPH) = 7.67
- M= material moisture content (%) = 3.25

Therefore, EF = 0.00099 lbs/ton

maximum annual load-in throughput = 5,000,000 tons/year
 maximum annual load-out throughput = 5,000,000 tons/year
 [(2 load activities) (5,000,000 tons/year) (0.00099 lb PE/ton)/ 2000lb/ton]
 = 4.95 TPY of uncontrolled PM₁₀.

Assume 95% control for watering
 (4.95 TPY) (.05) = 0.25 TPY of controlled PM-10; and

Based upon the following equation, which follows from Section 13.2.4 of AP-42, the emissions due to wind erosion are calculated as follows:



$$E = 1.7(s/1.5)((365-p)/235)(f/15)(365)(A/2000)$$

where,

E = the emission factor in lbs/day/acre
s = the silt content of the stored materials = 10%
p = the number of days w more than 0.1 inch of precipitation = 149
f = the percentage of time the wind speed exceeds 12 mph = 13
A = the totals surface area of the specific storage pile = 80.07

The total emissions from wind erosion after the application of a 95% control factor is 3.30 tons per year. Summation of the emissions due to load in/load out and wind erosion results in a total annual particulate emission rate of 3.55 tons.

c. Emissions limitation:

No visible particulate emissions from any material storage pile except for a period of time not to exceed thirteen minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible emission limitation specified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.