



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
MONROE COUNTY**

CERTIFIED MAIL

Street Address:

50 West Town Street, Suite 700

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 06-08188

Fac ID: 0656060056

DATE: 1/16/2007

Christman Quarry
Gerald Christman
47248 Swazey Rd.
Lewisville, OH 43754

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

SEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

FINAL PERMIT TO INSTALL 06-08188

Application Number: 06-08188
Facility ID: 0656060056
Permit Fee: **\$1300**
Name of Facility: Christman Quarry
Person to Contact: Gerald Christman
Address: 47248 Swazey Rd.
Lewisville, OH 43754

Location of proposed air contaminant source(s) [emissions unit(s)]:
47278 Swazey Rd.
Lewisville, Ohio

Description of proposed emissions unit(s):
Aggregate crushing.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Laura Powell
Acting Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

Christman Quarry
PTI Application: 06-08188
Issued: 1/16/2007

Facility ID: 0656060056

the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

Christman Quarry
PTI Application: 06-08188
Issued: 1/16/2007

Facility ID: 0656060056

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

Christman Quarry
PTI Application: 06-08188
Issued: 1/16/2007

Facility ID: 0656060056

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this

Emissions Unit ID: **F001**

permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
Fugitive PE	14.4

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (F001) - Aggregate processing plant, including 150 TPH Roll Crusher (Cedar Rapids 3030), 150 TPH Screen (Pioneer 516-E) and ten conveyors (with 13 transfer points).

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Total particulate emissions (PE) shall not exceed 4.2 tons per year (TPY). Visible emissions of fugitive dust discharging from the crusher shall not exceed 15% opacity. Visible emissions of fugitive dust discharging from the screening operation, transfer points, or conveyors, shall not exceed 10% opacity. The permittee shall implement Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.a through A.2.d).
OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

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

150 TPH roll crusher, Cedar Rapids 3030

Issued: 1/16/2007

Screen, Pioneer 516-E
10 conveyors (13 transfer points)

- 2.b** The permittee shall employ best available control measures for the above-identified material 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 perform the following control measures to ensure compliance:

<u>material handling operation(s)</u>	<u>control measure(s)</u>
150 TPH roll crusher	watering
screen	watering
conveyors	watering
transfer points	watering

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

- 2.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 the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure(s) is unnecessary.
- 2.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 requirements of OAC rule 3745-31-05.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, for material handling operations that are

Emissions Unit ID: **F001**

not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
150 TPH Roll Crusher	Daily
Screen	Daily
10 conveyors	Daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
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 the control measures were implemented; and,
 - d. on a calendar quarter basis, the total number of days the control measures were implemented.

The information in 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.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency; and,
 - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

The deviation reports shall be submitted in accordance with the reporting requirements

Issued: 1/16/2007

of the General Terms and Conditions of this permit.

E. Testing Requirements

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

- a. Emission limitation:
Total PE shall not exceed 4.2 TPY.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by the following calculations based on the emission factors in AP-42 section 11.19.2 (8/04), and the maximum annual throughput of 2,190,000 TPY:

$$PE = [[(\# \text{ transfer points})(\text{transfer points EF})(\text{Max Annual Tons})] + [(\text{Roll Crusher EF})(\text{Max Annual Tons})] + [(\text{Screening EF})(\text{Max Annual Tons})]] / 2000 \text{ lbs/ton}$$

$$= [[(13)(0.00014 \text{ lb/ton})(2,190,000 \text{ TPY})] + [(0.0012 \text{ lb/ton})(1,314,000)] + [(0.0022 \text{ lb/ton})(1,314,000 \text{ TPY})]] / 2000 \text{ lbs/ton}$$

$$= [3,985.8 \text{ lbs/yr}] + [1576.8 \text{ lbs/yr}] + [2890.8 \text{ lbs/yr}] / 2000 \text{ lbs/ton.}$$

$$= 4.2 \text{ TPY}$$

Above calculations are based upon controlled EF values from AP-42 table 11.19.2-2

- b. Emission Limitation:
Visible emissions of fugitive dust discharging from the crushers shall not exceed 15% opacity.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation in accordance with Method 9 of 40 CFR Part 60, Appendix A.

- c. Emission Limitation:
Visible emissions of fugitive dust discharging from the screening operation, transfer points, or conveyors, shall not exceed 10% opacity.

Issued: 1/16/2007

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation in accordance with Method 9 of 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 180 days of issuance of this permit.

The emission testing shall be conducted to demonstrate compliance with the visible emission limitations for fugitive emissions for each crusher, screening operation, transfer point, and conveyor as specified in Section A.2.a of this permit.

The following test method(s) shall be employed to demonstrate compliance with the allowable emission rate(s): for visible emissions, Method 9 of 40 CFR 60, Appendix A.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio

Christman Quarry
DTI Application: 06 00100

Facility ID: 0656060056

Emissions Unit ID: **F001**

EPA, Southeast District Office.

F. Miscellaneous Requirements

None

Issued: 1/16/2007

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. Applicable Emissions Limitations and/or Control Requirements**

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

Operations, Property, and/or Equipment - (F002) - Storage Piles

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3) (load-in and load-out of storage piles)	Total particulate emissions (PE) shall not exceed 4.8 tons per year. There shall be no visible emissions except for 1 minute in any sixty minute observation period. The permittee shall implement Best Available Control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b, A.2.c and A.2.f).
OAC rule 3745-31-05(A)(3) (wind erosion from storage piles)	There shall be no visible emissions except for 1 minute in any sixty minute observation period. The permittee shall implement Best Available Control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.d through A.2.f).
OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are listed below:

Issued: 1/16/2007

All

- 2.b** The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to maintaining reduced drop height and watering to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c** The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
- 2.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 maintaining low pile height and watering to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.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.
- 2.f** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

B. Operational Restrictions

None

C. 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>wind erosion inspection frequency</u>
ALL	Daily

- 4. No inspection shall be necessary for wind erosion from the surface of a storage pile

Issued: 1/16/2007

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.

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

The information required in 6.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an

Issued: 1/16/2007

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.

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. **Emission Limitation:**
There shall be no visible emissions except for 1 minute in any sixty minute observation period.

Compliance Method:

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

- b. **Emission Limitation:**
Total PE shall not exceed 4.8 TPY.

Applicable Compliance Method:

Compliance shall be determined based on the emission factor calculation for drop operations associated with storage piles in AP-42 section 13.2.4 (11/06). Initial compliance has been determined using inputs representing current conditions as follows:

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

Where:

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

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

Emissions Unit ID: F002

U = mean wind speed expressed in miles per hour (MPH) = 8.7
 M = material moisture content (%) = 0.7

Therefore, E = 0.021 lb PE/ton

maximum annual load-in throughput = 2,190,000 tons/year
 maximum annual load-out throughput = 2,190,000 tons/year

$[(2,190,000 \text{ tons/yr})(0.021 \text{ lb PE/ton}) + (2,190,000 \text{ tons/yr})(0.021 \text{ lb PE/ton})] / 2000 \text{ lb/ton}$
 = 45.99 TPY uncontrolled PE

Assume 90% control for watering (BAT, AP-42 table 13.2.4.4)
 $(45.99 \text{ TPY})(.10) = 4.60 \text{ TPY controlled PE and;}$

Compliance shall be determined based on the emission factor calculation for wind erosion from storage piles found in USEPA's *Control of Open Fugitive Dust Sources* (9/88). Initial compliance has been determined using inputs representing current conditions as follows:

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

Where:

E = emission factor expressed in pounds (lbs) /day/acre
 s = silt content of stored material (%) = 1.6 %
 p = number of rain days per year > 0.01 in = 145
 f = percentage of time wind speed exceeds 12 mph (%) = 18
 A = total surface area of storage piles (acres) = 4.0

Therefore, E = 2.04 lbs/day/acre

$(2.04 \text{ lbs/day/acre})(365 \text{ days/yr})(4.0 \text{ acres}) / 2000 \text{ lbs/ton} = 1.49 \text{ TPY uncontrolled PE}$

Assume 90% control for watering (BAT, AP-42 table 13.2.4.4)
 $(1.49 \text{ ton/year})(0.10) = 0.15 \text{ TPY controlled PE}$

Issued: 1/16/2007

TOTAL EMISSION SUMMARY

Load-in/load-out = 4.60 TPY

Wind erosion = 0.15 TPY

Total emissions = 4.75 TPY

F. Miscellaneous Requirements

None

Issued: 1/16/2007

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. Applicable Emissions Limitations and/or Control Requirements**

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

Operations, Property, and/or Equipment - (F003) - Unpaved Roadways and Parking Areas

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) shall not exceed 5.4 tons per year.</p> <p>The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.a through A.2.g).</p> <p>There shall be no visible PE except for 3 minutes during any 60-minute period.</p>
OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

unpaved roadways:

The parking area, the roadway around the load out and plant, the roadway to the north end of the quarry and the proposed roadway to the south end of the quarry.

- 2.b The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the

Emissions Unit ID: F003

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.

- 2.c** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a 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.
- 2.d** 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 measure(s) 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 of no visible PE except for 1 minute during any 60 minute period.
- 2.e** 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 or other means.
- 2.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.
- 2.g** 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.

B. Operational Restrictions

Issued: 1/16/2007

None

C. 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:

All unpaved roadways, parking areas, material handling areas and the storage pile area - Daily

2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No 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, 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 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 3.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:

Emissions Unit ID: F003

- 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.

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

Issued: 1/16/2007

E. Testing Requirements

1. Compliance with the emissions limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:
PE shall not exceed 5.4 tons per year.

Applicable Compliance Method:

Compliance shall be determined based on the emissions factor calculation for unpaved roadways and parking areas in AP-42 section 13.2.2 (11/06). Initial compliance has been determined using inputs representing current conditions as follows:

$$E = [k(s/12)^a(W/3)^b[(365-p)/365]]$$

Where:

E = site-specific emission factor (lb/VMT)
 s = silt content of road surface material (%) = 10 %
 W = mean vehicle weight (tons) = 39.1
 a = constant (dimensionless) = 0.7
 b = constant (dimensionless) = 0.45
 k = particle size multiplier (dimensionless) = 4.9
 p = number of rain days per year >0.01 in = 145

Therefore, E = 8.23 lbs PE/VMT

Maximum travel = 26,000 VMT/year

$$(26,000 \text{ VMT/yr})(8.23 \text{ lbs/VMT})(1 \text{ ton}/2000 \text{ lbs}) = 106.99 \text{ TPY uncontrolled PE}$$

Assume 95% control for roadway watering (BAT)
 $(106.99 \text{ TPY})(.05) = 5.4 \text{ TPY controlled PE}$

- b. Emission Limitation:
There shall be no visible PE except for 3 minutes during any 60-minute period.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 22

Issued: 1/16/2007

as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

F. Miscellaneous Requirements

None