



4/9/2015

CHRISTOPHER SCALA  
AMERICAN SAND & GRAVEL, CRYSTAL SPRINGS  
9500 Forty Corners Rd.  
Massillon, OH 44647

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1576001801  
Permit Number: P0101055  
Permit Type: Renewal  
County: Stark

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

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	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

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

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

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

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://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](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Canton



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
AMERICAN SAND & GRAVEL, CRYSTAL SPRINGS**

Facility ID:	1576001801
Permit Number:	P0101055
Permit Type:	Renewal
Issued:	4/9/2015
Effective:	4/9/2015
Expiration:	4/9/2025





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
AMERICAN SAND & GRAVEL, CRYSTAL SPRINGS

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## Authorization

Facility ID: 1576001801  
Application Number(s): A0032816, A0051145  
Permit Number: P0101055  
Permit Description: Renewal PTIO for aggregate processing operation with no control equipment and associated storage piles and roadways.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 4/9/2015  
Effective Date: 4/9/2015  
Expiration Date: 4/9/2025  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

AMERICAN SAND & GRAVEL, CRYSTAL SPRINGS  
9500 FORTY CORNERS ROAD  
MASSILLON, OH 44646

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

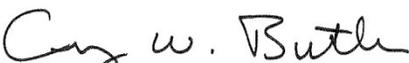
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department  
420 Market Avenue  
Canton, OH 44702-1544  
(330)489-3385

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

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0101055

Permit Description: Renewal PTIO for aggregate processing operation with no control equipment and associated storage piles and roadways.

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

<b>Emissions Unit ID:</b>	<b>F001</b>
Company Equipment ID:	Plant Roadways
Superseded Permit Number:	15-01466
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F002</b>
Company Equipment ID:	Storage Piles
Superseded Permit Number:	15-01466
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F003</b>
Company Equipment ID:	Aggregate Processing Plant
Superseded Permit Number:	15-01466
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
AMERICAN SAND & GRAVEL, CRYSTAL SPRINGS  
**Permit Number:** P0101055  
**Facility ID:** 1576001801  
**Effective Date:** 4/9/2015

## **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**  
AMERICAN SAND & GRAVEL, CRYSTAL SPRINGS  
**Permit Number:** P0101055  
**Facility ID:** 1576001801  
**Effective Date:** 4/9/2015

## **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**  
AMERICAN SAND & GRAVEL, CRYSTAL SPRINGS  
**Permit Number:** P0101055  
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**Effective Date:** 4/9/2015

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



**1. F001, Plant Roadways**

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

Paved and Unpaved Roadways and parking areas traveled by vehicles averaging 23.5 tons and 70000 VMT annually for both paved and unpaved areas (total 140,000 VMT/yr).

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)  [Best Available Technology (BAT) established in PTI 15-01466 issued 08/22/2002]	<u>Paved Roadways and Parking Areas</u>  Fugitive particulate matter equal to or less than 10 microns in diameter (PM10) shall not exceed 10.20 tons a year.  Fugitive particulate emissions (PE) shall not exceed 52.00 tons a year.  There shall be no visible emissions of fugitive dust except for a period of time not to exceed one minute during any sixty-minute observation period.  Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>See b)(2)a., b)(2)b., b)(2)c., b)(2)e., and b)(2)g. through (2)i.</p> <p><u>Unpaved Roadways and Parking Areas</u></p> <p>Fugitive particulate matter equal to or less than 10 microns in diameter (PM10) shall not exceed 3.53 tons a year.</p> <p>Fugitive particulate emissions (PE) shall not exceed 13.25 tons a year.</p> <p>There shall be no visible emissions of fugitive dust except for a period of time not to exceed three minutes during any sixty-minute observation period.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust</p> <p>See b)(2)a., b)(2)d. through (2)f., b)(2)h., and b)(2)i.</p>
b.	OAC rule 3745-17-07(B)(11)(e)	See b)(2)j.
c.	OAC rule 3745-17-08(A)(1)	See b)(2)k.

(2) Additional Terms and Conditions

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

Paved or unpaved roadways:

All

Paved or unpaved parking areas:

All

- b. The permittee shall employ best 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 application, the permittee has committed to treat the paved roadways and parking areas by sweeping and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.



- c. The permittee shall employ best available control measures on the unpaved shoulders of all paved roadways 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 shoulders of all paved roadways 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.
- d. The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to treat the unpaved roadways and parking areas by watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. The 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 paved and/or unpaved roadways and parking areas that are 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.
- f. 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 for paved roadways and parking areas.
- g. 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.
- h. 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.
- i. 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.
- j. This emissions unit is exempt from the visible emissions limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-



07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.

- k. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

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

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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all roads and parking areas	daily
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<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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all roads and parking areas	daily
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- (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 may, upon receipt of written approval from the Canton City Health Department, Air Pollution Control Division, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

- (4) The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed, 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; and
  - c. the dates the control measures were implemented.



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 permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements in term number d)(4) above:
  - 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 of precipitation; and
  - b. each instance when a control measure, that was to be performed 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. Emission Limitation:

There shall be no visible emissions of fugitive dust from paved roadways and parking areas except for a period of time not to exceed one minute during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible emissions limitation listed 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"), and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

b. Emission Limitation:

There shall be no visible emissions of fugitive dust from unpaved roadways and parking areas except for a period of time not to exceed three minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible emissions limitation listed 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"), and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.



c. Emission Limitation:

Fugitive PM10 from paved roadways and parking areas shall not exceed 10.20 tons a year; and

Fugitive PE from paved roadways and parking areas shall not exceed 52.00 tons a year.

Applicable Compliance Method:

The fugitive PE and PM10 emission limitations were established in PTI 15-01466 issued on 08/22/2002, which utilized AP-42, Section 13.2.1. (revised January 1995), which was the most current version that existed at that time. See that PTI document for details.

Compliance with the fugitive PE and PM10 limitations shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant Emission Factors, AP-42 (revised January 2011) for paved roadways and parking areas, as shown below. Should further updates in AP-42 occur, the most current equations for paved roads shall be used.

$$E_{ext} = [k(sL)^{0.91} \times (W)^{1.02}] \left(1 - \frac{P}{4N}\right)$$

where:

$E_{ext}$  = annual or other long-term average size-specific emission factor extrapolated for natural mitigation in the same units as k,

k = particle size multiplier for particle size range (lb/VMT),

sL = road surface silt loading (grams per square meter) (g/m<sup>2</sup>), and

W = average weight (tons) of the vehicles traveling the road

P = number of "wet" days with at least 0.01 in of precipitation during the averaging period, in which zero was used to estimate the worst case scenario, and

N = number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly).

The equations with site specific data are shown below:

$$PM10 E_{ext} = [0.0022(70)^{0.91}(23.5)^{1.02}] \left(1 - \frac{0}{4 \times 365}\right) = 2.63 \frac{\text{lbs PM 10}}{\text{VMT}}$$

$$PE E_{ext} = [0.011(70)^{0.91}(23.5)^{1.02}] \left(1 - \frac{0}{4 \times 365}\right) = 13.15 \frac{\text{lbs PE}}{\text{VMT}}$$



This emission factor is then multiplied by the annual vehicle miles traveled (VMT) and the control efficiency of 95% (for the use of control measures specified in this permit) then divided by 2000 pounds per ton, as shown below:

$$PM_{10} = 2.63 \frac{\text{lbs } PM_{10}}{\text{VMT}} \times 70000 \frac{\text{VMT}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{(100 - 95)}{100} = 4.60 \frac{\text{tons } PM_{10}}{\text{yr}}$$

$$< 8.2 \frac{\text{tons } PM_{10}}{\text{yr}} \text{ limit}$$

$$PE = 13.15 \frac{\text{lbs } PE}{\text{VMT}} \times 70000 \frac{\text{VMT}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{(100 - 95)}{100} = 23.01 \frac{\text{tons } PE}{\text{yr}}$$

$$< 52.0 \frac{\text{tons } PE}{\text{yr}} \text{ limit}$$

d. Emission Limitation:

Fugitive PM10 from unpaved roadways and parking areas shall not exceed 3.53 tons a year; and

Fugitive PE from unpaved roadways and parking areas shall not exceed 13.25 tons a year.

Applicable Compliance Method:

The fugitive PE and PM10 emission limitations were previously established in PTI 15-01466 issued on 08/22/2002, which utilized AP-42, Section 13.2.2. (revised January 1995), which was the most current version that existed at that time. See that PTI document for details. That section of AP-42 was revised in November 2006, which changed to the emission estimation procedures, causing the PE and PM10 to increase. Therefore, this permit administratively increases the PE and PM10 emission limitations, as shown below.

Compliance with the fugitive PE and PM10 limitations shall be determined by using the emission factor equations in Section 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42 (revised November 2006) for unpaved roadways and parking areas, as shown below. Should further updates in AP-42 occur, the most current equations for unpaved roads shall be used.

$$E = k \left( \frac{s}{12} \right)^a \left( \frac{W}{3} \right)^b$$

where k, a, and b are empirical constants, and

E = size-specific emission factor (lb/VMT)

s = surface material silt content (%)

W = mean vehicle weight (tons), and



$$E_{\text{ext}} = E \left( \frac{365 - P}{365} \right)$$

where:

$E_{\text{ext}}$  = annual size-specific emission factor extrapolated for natural mitigation, lb/VMT

E = emission factor from first equation above

P = number of days in a year with at least 0.01 in of precipitation.

The annual limit for PM10 and PE was set, as shown below, by combining the above two equations:

$$\text{PM10 } E_{\text{ext}} = \left[ 1.5 \left( \frac{5.95}{12} \right)^{0.9} \left( \frac{23.5}{3} \right)^{0.45} \right] \left( \frac{365 - 0}{365} \right) = 2.01 \frac{\text{lbs PM10}}{\text{VMT}}$$

$$\text{PE } E_{\text{ext}} = \left[ 4.9 \left( \frac{5.95}{12} \right)^{0.7} \left( \frac{23.5}{3} \right)^{0.45} \right] \left( \frac{365 - 0}{365} \right) = 7.57 \frac{\text{lbs PE}}{\text{VMT}}$$

This emission factor is then multiplied by the annual vehicle miles traveled (VMT) and the control efficiency of 95% (for the use of control measures specified in this permit) then divided by 2000 pounds per ton, as shown below:

$$\text{PM10} = 2.01 \frac{\text{lbs PM10}}{\text{VMT}} \times 70000 \frac{\text{VMT}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{(100 - 95)}{100} = 3.53 \frac{\text{tons PM10}}{\text{yr}}$$

$$\text{PE} = 7.57 \frac{\text{lbs PE}}{\text{VMT}} \times 70000 \frac{\text{VMT}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{(100 - 95)}{100} = 13.25 \frac{\text{tons PE}}{\text{yr}}$$

g) Miscellaneous Requirements

- (1) None.



**2. F002, Storage Piles**

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

Aggregate storage piles of crushed gravel, washed gravel and washed sand, with fugitive dust from load-in and load-out activities, and wind erosion.

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)  [Best Available Technology (BAT) established in PTI 15-01466 issued 08/22/2002]	Fugitive particulate matter equal to or less than 10 microns in diameter (PM10) from wind erosion and load-in and load-out operations shall not exceed 6.80 tons a year.  Fugitive particulate emissions (PE) from wind erosion and load-in and load-out operations shall not exceed 7.30 tons a year.  There shall be no visible emissions of fugitive dust from either wind erosion or load-in and/or load-out operations except for a period of time not to exceed one minute during any sixty-minute observation period.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust.  See b)(2)b. through b)(2)f.
b.	OAC rule 3745-17-07(B)(11)(e)	See b)(2)g.
c.	OAC rule 3745-17-08(A)(1)	See b)(2)h.

(2) Additional Terms and Conditions

- a. The storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are: crushed gravel, washed gravel, and washed sand.
- b. The permittee shall employ best available control measures for 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 using a minimal drop heights and/or low pile heights and/or mobile conveyor/stacker, and/or watering the storage piles as needed 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 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 any such operation until further observation confirms that use of the measure is unnecessary.
- d. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to watering the storage piles as needed 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 the monitoring section of this permit, 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.



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

c) Operational Restrictions

- (1) 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>
crushed gravel	monthly
washed gravel	monthly
washed sand	monthly

- (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>
crushed gravel	monthly
washed gravel	monthly
washed sand	monthly

- (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>
crushed gravel	monthly
washed gravel	monthly
washed sand	monthly

- (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 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 for wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
- (6) The permittee may, upon receipt of written approval from the Canton City Health Department, Air Pollution Control Division, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- (7) The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s); and
  - c. the dates the control measure(s) were implemented.

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 permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements in term number d)(7) above:
  - a. each month 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. Emission Limitation:

There shall be no visible emissions of fugitive dust except for a period of time not to exceed one minute in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible emissions limitations 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").

- b. Emissions Limitations:

6.80 tons/year of fugitive PM10

7.30 tons/year of fugitive PE

Applicable Compliance Method:

Fugitive emissions from storage piles occur during load-in and load-out operations and during wind events (wind erosion).

The fugitive PE and PM10 emission limitations were established in PTI 15-01466 issued on 08/22/2002, which utilized AP-42, Section 13.2.4. (revised January 1995) for load-in and load-out operations and U.S. EPA's Control of Open Fugitive Dust Sources (September 1988) for wind erosion from storage piles. These documents were the most current versions that existed at that time. See that PTI document for details.

Compliance with the fugitive PE and PM10 limitations shall be determined by using the emission factor equations in Sections 13.2.4 and 13.2.5, in Compilation of Air Pollutant Emission Factors, AP-42, (revised November 2006), for load-in operations, load-out operations, and wind erosion, as shown below. Should further updates in AP-42 occur, the most current equations for storage piles shall be used.

- i. Load-in/Load-out:

The emission factor equation from AP-42, Section 13.2.4 (revised November 2006) for a load-in and load-out operation is shown below:



$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} (\text{lb/ton})$$

where:

E = emission factor

k = particle size multiplier (dimensionless) = 0.35 (PM10); 0.74 (PE),

U = mean wind speed (miles per hour [mph]) = 9.5 mph, and

M = material moisture content (%) = 2% (crushed gravel); 15% (washed gravel/sand).

PM10 Emission Factors:

$$\text{PM10 crushed gravel } E = 0.35(0.0032) \frac{\left(\frac{9.5}{5}\right)^{1.3}}{\left(\frac{2}{2}\right)^{1.4}} = 0.0026 \frac{\text{lb PM10}}{\text{ton transferred}}$$

$$\begin{aligned} \text{PM10 washed gravel/sand } E &= 0.35(0.0032) \frac{\left(\frac{9.5}{5}\right)^{1.3}}{\left(\frac{15}{2}\right)^{1.4}} \\ &= 0.00015 \frac{\text{lb PM10}}{\text{ton transferred}} \end{aligned}$$

These emission factors are then multiplied by the annual production, by aggregate type, in tons and divided by 2000 pounds per ton, as shown below:

$$\begin{aligned} \text{PM10 Crushed Gravel} &= 0.0026 \frac{\text{lbs PM10}}{\text{ton transferred}} \times 200,000 \frac{\text{tons}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \\ &= 0.26 \frac{\text{tons PM10}}{\text{yr}} \end{aligned}$$

PM10 Washed Gravel & Sand

$$\begin{aligned} &= 0.00015 \frac{\text{lbs PM10}}{\text{ton transferred}} \times 2,000,000 \frac{\text{tons}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \\ &= 0.15 \frac{\text{tons PM10}}{\text{yr}} \end{aligned}$$

Total PM10 Load-in/Load-out



$$0.26 \frac{\text{tons PM10}}{\text{yr}} + 0.15 \frac{\text{tons PM10}}{\text{yr}} = 0.41 \frac{\text{tons PM10}}{\text{yr}}$$

PE Emission Factors:

$$\text{PE crushed gravel E} = 0.74(0.0032) \frac{\left(\frac{9.5}{5}\right)^{1.3}}{\left(\frac{2}{2}\right)^{1.4}} = 0.0055 \frac{\text{lb PE}}{\text{ton transferred}}$$

$$\text{PE washed gravel/sand E} = 0.74(0.0032) \frac{\left(\frac{9.5}{5}\right)^{1.3}}{\left(\frac{15}{2}\right)^{1.4}} = 0.00032 \frac{\text{lb PE}}{\text{ton transferred}}$$

These emission factors are then multiplied by the annual production, by aggregate type, in tons and divided by 2000 pounds per ton, as shown below:

$$\begin{aligned} \text{PE Crushed Gravel} &= 0.0055 \frac{\text{lbs PE}}{\text{ton transferred}} \times 200,000 \frac{\text{tons}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \\ &= 0.55 \frac{\text{tons PE}}{\text{yr}} \end{aligned}$$

*PE Washed Gravel & Sand*

$$\begin{aligned} &= 0.00032 \frac{\text{lbs PE}}{\text{ton transferred}} \times 2,000,000 \frac{\text{tons}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \\ &= 0.32 \frac{\text{tons PE}}{\text{yr}} \end{aligned}$$

Total PE Load-in/Load-out:

$$0.55 \frac{\text{tons PE}}{\text{yr}} + 0.32 \frac{\text{tons PE}}{\text{yr}} = 0.87 \frac{\text{tons PE}}{\text{yr}}$$

ii. Wind Erosion:

Calculations from AP-42 Section 13.2.5 emission factor equations for wind erosion, using calendar year 2013 wind data from the National Oceanic and Atmospheric Administration for Canton-Akron Airport weather station, yield annual emissions of 4.30 tons of PE and 2.15 tons of PM10.



Wind Erosion Emission Factors:

$$\text{Emission factor} = k \sum_{i=1}^N P_i$$

where:

k = particle size multiplier, 1.0 for PE and 0.5 for PM10;

N = number of disturbances per year, used 365 (daily) for worst case scenario; and

$P_i$  = erosion potential corresponding to the observed (or probable) fastest mile of wind for the  $i^{\text{th}}$  period between disturbances,  $\text{g/m}^2$

$$P_i = 58(u^* - u_t^*)^2 + 25(u^* - u_t^*)$$

$$P_i = 0 \text{ for } u^* \leq u_t^*$$

where:

$u^*$  = friction velocity (m/s)

$u_t^*$  = threshold friction velocity (m/s) (equivalent values taken from Table 13.2.5-2), 1.33 for gravel (roadbed material equivalent) and 0.55 for sand (ground coal equivalent)

Based on an average pile surface area of 0.85 acres and conical pile shape, the following annual emissions were calculated:

$$\text{PM10 Crushed and Washed Gravel per pile} = 0.010 \frac{\text{tons PM10}}{\text{pile} \cdot \text{year}}$$

$$\begin{aligned} \text{PM10 Crushed and Washed Gravel} &= 0.010 \frac{\text{tons PM10}}{\text{pile} \cdot \text{year}} \times 5 \text{ piles} \\ &= 0.05 \frac{\text{tons PM10}}{\text{year}} \end{aligned}$$

$$\text{PE Crushed and Washed Gravel per pile} = 0.019 \frac{\text{tons PE}}{\text{pile} \cdot \text{year}}$$

$$\text{PE Crushed and Washed Gravel} = 0.019 \frac{\text{tons PE}}{\text{pile} \cdot \text{year}} \times 5 \text{ piles} = 0.10 \frac{\text{tons PE}}{\text{year}}$$

$$\text{PM10 Washed Sand per pile} = 0.70 \frac{\text{tons PM10}}{\text{pile} \cdot \text{year}}$$

$$\text{PM10 Washed Sand} = 0.70 \frac{\text{tons PM10}}{\text{pile} \cdot \text{year}} \times 3 \text{ piles} = 2.10 \frac{\text{tons PM10}}{\text{year}}$$



$$\text{PE Washed Sand per pile} = 1.40 \frac{\text{tons PE}}{\text{pile} \cdot \text{year}}$$

$$\text{PE Washed Sand} = 1.40 \frac{\text{tons PE}}{\text{pile} \cdot \text{year}} \times 3 \text{ piles} = 4.20 \frac{\text{tons PE}}{\text{year}}$$

Total Wind Erosion Emissions:

$$\text{PM10 Wind Erosion} = 0.05 \frac{\text{tons PM10}}{\text{year}} + 2.10 \frac{\text{tons PM10}}{\text{year}} = 2.15 \frac{\text{tons PM10}}{\text{year}}$$

$$\text{PE Wind Erosion} = 0.10 \frac{\text{tons PE}}{\text{year}} + 4.20 \frac{\text{tons PE}}{\text{year}} = 4.30 \frac{\text{tons PE}}{\text{year}}$$

iii. Total Storage Pile Emissions = Load-in/Load-out Operations + Wind Erosion:

$$\begin{aligned} \text{PM10 Storage Piles} &= 0.41 \frac{\text{tons PM10}}{\text{yr}} + 2.15 \frac{\text{tons PM10}}{\text{year}} \\ &= 2.56 \frac{\text{tons PM10}}{\text{year}} < 6.80 \frac{\text{tons PM10}}{\text{year}} \text{ Limit} \end{aligned}$$

$$\begin{aligned} \text{PE Storage Piles} &= 0.87 \frac{\text{tons PE}}{\text{yr}} + 4.30 \frac{\text{tons PE}}{\text{year}} \\ &= 5.17 \frac{\text{tons PE}}{\text{year}} < 7.30 \frac{\text{tons PE}}{\text{year}} \text{ Limit} \end{aligned}$$

g) Miscellaneous Requirements

(1) None.



**3. F003, Aggregate Processing Plant**

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

800 tons per hour (TPH) washed sand and aggregate processing plant with primary, secondary, and tertiary crushing, screening, and conveying equipment.

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)  [Best Available Technology (BAT) established in PTI 15-01466 issued 08/22/2002]	Fugitive particulate matter equal to or less than 10 microns in diameter (PM10) shall not exceed 7.00 tons a year.  Fugitive particulate emissions (PE) shall not exceed 17.79 tons a year.  Visible particulate emissions of fugitive dust shall not exceed 10% opacity, as a six-minute average.  See b)(2)a. through c.
b.	OAC rule 3745-17-07(B)(11)(e)	See b)(2)d.
c.	OAC rule 3745-17-08(A)(1)	See b)(2)e.
d.	40 CFR, Part 60, Subpart OOO	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

- a. The permittee shall employ control measures during sand and aggregate processing (including crushing, screening, material handling, and truck dumping of raw material into the crusher hopper) for the purposes of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the material should be kept sufficiently moist during processing and handling to ensure compliance. If at any time the moisture content of the material processed or handled is not sufficient to meet the above applicable requirements, the permittee shall employ watering to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- b. For each sand and aggregate processing operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measures is unnecessary.
- c. 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.
- d. This emissions unit is exempt from the visible emissions limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.
- e. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform inspections of sand and aggregate processing in accordance with the following frequencies:

<u>Process identification</u>	<u>minimum load-in inspection frequency</u>
sand and aggregate processing	monthly



- (2) The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for sand and aggregate processing (including crushing, screening, material handling, and truck dumping of raw material into the crusher hopper). The inspections shall be performed during representative, normal sand and aggregate processing operating conditions.
  - (3) The permittee may, upon receipt of written approval from the Canton City Health Department, Air Pollution Control Division,, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
  - (4) The permittee shall maintain records of the following information:
    - a. the date and reason any required inspection was not performed;
    - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s); and
    - c. the dates the control measure(s) was (were) implemented.
- 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 permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements in term number d)(4) above:
    - 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.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:  
  
Visible particulate emissions of fugitive dust shall not exceed 10% opacity, as a six-minute average.



Applicable Compliance Method:

If required, compliance shall be demonstrated using Method 9 of 40 CFR Part 60, Appendix A, and the procedures specified in 40 CFR Part 60, Subpart OOO, section 60.675.

b. Emission Limitations:

7.00 tons/year of fugitive PM10

17.79 tons/year of fugitive PE

Applicable Compliance Method:

The fugitive PE and PM10 emission limitations were previously established in PTI 15-01466 issued on 08/22/2002, which utilized AP-42, Section 11.19.2-2 (revised January 1995), which was the most current version that existed at that time. See that PTI document for details. That section of AP-42 was revised in August 2004, which is still the most current version of that document to date. The August 2004 version updated several emission factors, causing the PE to increase and the PM10 to decrease. Therefore, this permit administratively increases the PE emission limitation, as shown below.

Compliance with the fugitive PM10 emission limitation shall be determined by multiplying the following controlled (with wet suppression) emission factors from AP-42 Section 11.19.2-2 (8/04) by the annual throughput of 2,190,000 tons/year for crushing and screening and 2,200,000 for conveying, and then dividing by 2000 pounds/ton:

<b>Aggregate Processing Operation</b>	<b>PM10 Emission Factor</b>
3 screens	0.00074 lb/ton processed
3 crushers	0.00054 lb/ton processed
43 transfer points	0.000046 lb/ton processed

The calculations for PM10 are shown below:

$$\begin{aligned}
 \text{PM10 Screens} &= 0.00074 \frac{\text{lb}}{\text{ton}} \times 2,190,000 \frac{\text{tons}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times 3 \text{ screens} \\
 &= 2.43 \frac{\text{tons PM10}}{\text{year}}
 \end{aligned}$$



$$\begin{aligned}
 \text{PM10 Crushers} &= 0.00054 \frac{\text{lb}}{\text{ton}} \times 2,190,000 \frac{\text{tons}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times 3 \text{ crushers} \\
 &= 1.77 \frac{\text{tons PM10}}{\text{year}}
 \end{aligned}$$

$$\begin{aligned}
 \text{PM10 Transfer Points} &= 0.000046 \frac{\text{lb}}{\text{ton}} \times 2,200,000 \frac{\text{tons}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times 43 \text{ points} \\
 &= 2.18 \frac{\text{tons PM10}}{\text{year}}
 \end{aligned}$$

$$\begin{aligned}
 \text{PM10 Total} &= 2.43 \frac{\text{tons PM10}}{\text{year}} + 1.77 \frac{\text{tons PM10}}{\text{year}} + 2.18 \frac{\text{tons PM10}}{\text{year}} \\
 &= 6.38 \frac{\text{tons PM10}}{\text{year}} < 7.00 \frac{\text{tons PM10}}{\text{year}} \text{ limit}
 \end{aligned}$$

Compliance with the fugitive PEmission limitation shall be determined by multiplying the following controlled (with wet suppression) emission factors from AP-42 Section 11.19.2-2 (8/04) by the annual throughput of 2,190,000 tons/year for crushing and screening and 2,200,000 for conveying, and then dividing by 2000 pounds/ton:

Aggregate Processing Operation	PE Emission Factor
3 screens	0.0022 lb/ton processed
3 crushers	0.0012 lb/ton processed
43 transfer points	0.00014 lb/ton processed

The limit for PE was established by the calculations shown below:

$$\text{PE Screens} = 0.0022 \frac{\text{lb}}{\text{ton}} \times 2,190,000 \frac{\text{tons}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times 3 \text{ screens} = 7.23 \frac{\text{tons PE}}{\text{year}}$$

$$\begin{aligned}
 \text{PE Crushers} &= 0.0012 \frac{\text{lb}}{\text{ton}} \times 2,190,000 \frac{\text{tons}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times 3 \text{ crushers} \\
 &= 3.94 \frac{\text{tons PE}}{\text{year}}
 \end{aligned}$$

$$\begin{aligned}
 \text{PE Transfer Points} &= 0.00014 \frac{\text{lb}}{\text{ton}} \times 2,200,000 \frac{\text{tons}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times 43 \text{ points} \\
 &= 6.62 \frac{\text{tons PE}}{\text{year}}
 \end{aligned}$$



$$\text{PE Total} = 7.23 \frac{\text{tons PE}}{\text{year}} + 3.94 \frac{\text{tons PE}}{\text{year}} + 6.62 \frac{\text{tons PE}}{\text{year}} = 17.79 \frac{\text{tons PE}}{\text{year}}$$

g) Miscellaneous Requirements

(1) None.