



10/22/2014

Certified Mail

Mr. Phil Eisel  
 Cardinal Aggregates Inc.  
 8026 Fremont Pike  
 Perrysburg, OH 43551

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
 Facility ID: 0326940003  
 Permit Number: P0117313  
 Permit Type: Renewal  
 County: Fulton

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

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

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
 77 South High Street, 17th Floor  
 Columbus, OH 43215

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

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

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

Please complete a survey at [www.epa.ohio.gov/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 Ohio EPA DAPC, Northwest District Office at (419)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: Ohio EPA-NWDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Cardinal Aggregates Inc.**

Facility ID:	0326940003
Permit Number:	P0117313
Permit Type:	Renewal
Issued:	10/22/2014
Effective:	10/22/2014
Expiration:	10/22/2019





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Cardinal Aggregates Inc.

**Table of Contents**

Authorization .....	1
A. Standard Terms and Conditions .....	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit? .....	4
3. What records must I keep under this permit? .....	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application? .....	4
6. What happens to this permit if my project is delayed or I do not install or modify my source? .....	5
7. What reports must I submit under this permit? .....	5
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? .....	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? .....	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? .....	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? .....	6
13. Can I transfer this permit to a new owner or operator?.....	6
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? .....	7
15. What happens if a portion of this permit is determined to be invalid? .....	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions .....	10
1. P901, Portable Chrusher.....	11





**Final Permit-to-Install and Operate**  
Cardinal Aggregates Inc.  
**Permit Number:** P0117313  
**Facility ID:** 0326940003  
**Effective Date:** 10/22/2014

## Authorization

Facility ID: 0326940003  
Application Number(s): A0051205  
Permit Number: P0117313  
Permit Description: Renewal FEPTIO for an aggregate processing operation.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 10/22/2014  
Effective Date: 10/22/2014  
Expiration Date: 10/22/2019  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Cardinal Aggregates Inc.  
1613 S. Defiance Street  
Archbold, OH 43502

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

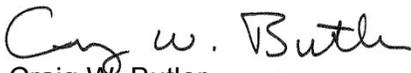
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419)352-8461

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



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

Cardinal Aggregates Inc.

**Permit Number:** P0117313

**Facility ID:** 0326940003

**Effective Date:** 10/22/2014

## Authorization (continued)

Permit Number: P0117313

Permit Description: Renewal FEPTIO for an aggregate processing operation.

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>P901</b>
Company Equipment ID:	Genset
Superseded Permit Number:	03-17233
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
Cardinal Aggregates Inc.  
**Permit Number:** P0117313  
**Facility ID:** 0326940003  
**Effective Date:** 10/22/2014

## **A. Standard Terms and Conditions**



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

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

**2. Who is responsible for complying with this permit?**

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

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

**3. What records must I keep under this permit?**

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

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

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

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

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

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

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

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



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

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

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

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

**7. What reports must I submit under this permit?**

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

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

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

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

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

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

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

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

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

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

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

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

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



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

Cardinal Aggregates Inc.

**Permit Number:** P0117313

**Facility ID:** 0326940003

**Effective Date:** 10/22/2014

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**  
Cardinal Aggregates Inc.  
**Permit Number:** P0117313  
**Facility ID:** 0326940003  
**Effective Date:** 10/22/2014

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



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

Cardinal Aggregates Inc.

**Permit Number:** P0117313

**Facility ID:** 0326940003

**Effective Date:** 10/22/2014

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.
2. All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



**Final Permit-to-Install and Operate**  
Cardinal Aggregates Inc.  
**Permit Number:** P0117313  
**Facility ID:** 0326940003  
**Effective Date:** 10/22/2014

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



**1. P901, Portable Chrusher**

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

Portable Crusher with 330hp diesel engine

- 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. b)(1)b., b)(2)b., c)(1), d)(1), e)(2) and f)(1)g.
- 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)	<u>Emissions from diesel engine:</u>  10.23 lbs nitrogen oxide (NOx) per hour 2.20 lbs carbon monoxide (CO) per hour 0.68 lb sulfur dioxide (SO2) per hour 0.82 lb organic compounds (OC) per hour 0.73 lb particulate matter 10 microns or less in size (PM10) per hour  Visible particulate emissions (PE) shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown  <u>Emissions from screening and material</u>



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

Cardinal Aggregates Inc.

**Permit Number:** P0117313

**Facility ID:** 0326940003

**Effective Date:** 10/22/2014

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><u>handling operations:</u></p> <p>3.40 tons fugitive PE/yr</p> <p>1.93 tons fugitive PM10/yr</p> <p>Visible PE restrictions [See b)(2)h. and b)(2)i.]</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust</p> <p>[See b)(2)d. through b)(2)g.]</p>
b.	OAC rule 3745-31-05(D)	<p><u>Emissions from diesel engine:</u></p> <p>20.46 tons NOX per rolling, 12-month period</p> <p>4.41 tons CO per rolling, 12-month period</p> <p>1.35 tons SO2 per rolling, 12-month period</p> <p>1.63 ton OC per rolling, 12-month period</p> <p>1.45 ton PM10 per rolling, 12-month period</p> <p>See b)(2)b. and b)(2)c.</p>
c.	OAC rule 3745-17-07(B) OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-17-11(B)(5)(a) OAC rule 3745-17-07(A)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-18-06(G)	This emissions unit is exempt from the requirements of this rule pursuant to OAC rule 3745-18-06(B).
f.	40 CFR Part 60 Subpart OOO	The emission limitation specified by this rule is equivalent to and/or less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



(2) Additional Terms and Conditions

- a. This emissions unit is a portable source and is applicable to the requirements of OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B) when located in an "Appendix A" area as identified in OAC rule 3745-17-08. Best Available Technology (BAT) for this emissions unit, as set forth by the requirements/emissions limitations of this permit under OAC 3745-31-05(A)(3) are more stringent than any requirements/emissions limitations as may be applicable under OAC 3745-17-07(B) and OAC 3745-17-08(B).
- b. This permit establishes the following federally enforceable emission limitations based on the hours of operation restriction in condition c)(1), for purposes of limiting potential to emit (PTE):
- i. 20.46 tons NO<sub>x</sub> per rolling, 12-month period;
  - ii. 4.41 tons CO per rolling, 12-month period;
  - iii. 1.35 tons SO<sub>2</sub> per rolling, 12-month period;
  - iv. 1.63 tons OC per rolling, 12-month period; and
  - v. 1.45 tons PM<sub>10</sub> per rolling, 12-month period.
- For purposes of federal enforceability, a limitation on OC effectively restricts VOC.
- c. The unrestricted PTE from emissions unit P901 and the associated roadways/parking areas and storage piles does not exceed major source thresholds for Title V or New Source Review. Given the portable nature of this emissions unit, the permittee has requested federally enforceable limitations for the purpose of limiting any combined PTE when this emissions unit (and the associated roadways/parking areas and storage piles) is located at a stationary source or at a source comprised of portable emissions units, see g)(2).
- d. The processes and material handling operations that are covered by this permit and subject to the requirements of this permit are listed below:
- i. truck unloading to feed bin
  - ii. feed bin to crusher
  - iii. crusher to main conveyor or conveyor to conveyor
- e. The permittee shall employ best available control measures for the above-identified processes and material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee maintains that the inherent moisture content of the materials involved in the crushing operation and associated material handling operations will in many instances be at a level which is more than sufficient to comply with applicable requirements. If at any time the inherent moisture content is not sufficient to meet the above applicable requirements, the permittee has committed to perform watering as needed. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- f. For each material processing and 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 measures is unnecessary.

- 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 requirements of OAC rule 3745-31-05.
- h. Visible fugitive PE from the material processing equipment when processing concrete materials shall not exceed the following opacity restrictions:

<b>Emissions Point Description</b>	<b>Equipment Type</b>	<b>Opacity Limit<sup>1</sup></b>	<b>Regulatory Basis for Limit</b>
truck unloading to feed bin	transfer point	20% as a 3-minute average	OAC rule 3745-31-05(A)(3)
feed bin to crusher	transfer point	10%	OAC rule 3745-31-05(A)(3)
crusher	crushing	10%	OAC rule 3745-31-05(A)(3)
crusher to main conveyor	transfer point	10%	OAC rule 3745-31-05(A)(3)
conveyor to conveyor	transfer point	10%	OAC rule 3745-31-05(A)(3)

<sup>1</sup>asa 6-minute average, unless otherwise specified

- i. Visible PE from the material processing equipment when processing non-concrete materials shall not exceed the following opacity restrictions:

<b>Emissions Point Description</b>	<b>Equipment Type</b>	<b>Opacity Limit<sup>1</sup></b>	<b>Regulatory Basis for Limit</b>
truck unloading to feed bin	transfer point	20% as a 3-minute average	OAC rule 3745-31-05(A)(3)
feed bin to crusher	transfer point	15%	OAC rule 3745-31-05(A)(3)
crusher	crushing	15%	OAC rule 3745-31-05(A)(3)
crusher to main conveyor	transfer point	15%	OAC rule 3745-31-05(A)(3)
conveyor to conveyor	transfer point	15%	OAC rule 3745-31-05(A)(3)

<sup>1</sup>asa 6-minute average, unless otherwise specified



c) Operational Restrictions

- (1) The maximum annual operating hours for emissions unit P901 shall not exceed 4000 hours, based upon a rolling, 12-month summation of operating hours.
- (2) The permittee shall combust only distillate fuel oil in this emissions unit. The oil combusted shall only be distillate oil (fuel oil numbers 1 or 2, as defined by the American Society of Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils"). The sulfur content of the distillate oil shall contain no more than 0.5 weight percent sulfur.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. number of hours operated; and,
  - b. the rolling, 12-month summation of the number of hours operated;
- (2) Except as otherwise provided in this section, for each material processing and handling operation that is not adequately enclosed, the permittee shall perform inspections of such material processing and handling operations in accordance with the following minimum frequencies:

Material Processing/Handling Operations Minimum Inspection Frequency

All

Once During Each Day of Operation

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.

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

- (4) For each day during which the permittee burns a fuel other than distillate fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.



- (5) The permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in term c)(2). Records of fuel supplier certification shall include the following information:
- a. the name of the oil supplier; and
  - b. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in c)(2) above.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. all exceedances of the rolling, 12-month restriction of 4000 hours.
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) The permittee shall identify the following information in the annual PER in accordance with the operational restrictions and monitoring requirements for visible emissions specified 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.



(4) The permittee shall comply with applicable notification(s) and report(s) as specified in 40 CFR 60.676.

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:

3.40 tons fugitive PE/yr  
 1.93 tons fugitive PM10/yr

Applicable Compliance Method:

The annual particulate emission limitations were developed by applying the following emission factors/equations to the associated process weight rates:

Processing Operation	Emission Factor (controlled)	Emission Factor Citation
truck unloading into feed bin	0.005 lb PE/ton 0.003 lb PM10/ton	AP-42 section 13.2.4 (1/95)
Material handling (7 - transfer points)	0.00014 lb PE/ton 0.000046 lb PM10/ton	AP-42 Table 11.19.2-2 (6/03)
Crushing	0.00081 lb PE/ton 0.00054 lb PM10/ton	AP-42 Table 11.19.2-2 (6/03)

The maximum annual process weightrate, 1,000,000 tpy, is based on a maximum throughput of 250 tons/hr and the annual hours of operation limitation of 4000. Therefore, provided compliance is shown with the annual hours of operation limitation and the requirements of this permit to apply best available control measures, compliance with the ton per year PE limitations shall also be demonstrated.

b. Emission Limitation:

0.73 lb PM10/hr (from the diesel engine)

Applicable Compliance Method:

The hourly emission limitation represents the potential to emit\* for this emissions unit. Therefore, no hourly record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

\*Potential to emit for this emissions unit was established by multiplying the appropriate AP-42 Emission factor (Section 3.3 (10/96)) by the emission units' maximum capacity of 330hp.



If required, the permittee shall demonstrate compliance with the PM10 limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

c. Emission Limitation:

10.23 lbs NO<sub>x</sub>/hr (from the diesel engine)

Applicable Compliance Method:

The hourly emission limitation represents the potential to emit\* for this emissions unit. Therefore no hourly record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

\*Potential to emit for this emissions unit was established in accordance with testing data (8/15/03) supplied by the engine manufacturer.

If required, the permittee shall demonstrate compliance in accordance with the test methods and procedures in Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

d. Emission Limitation:

2.20 lbs CO/hr (from the diesel engine)

Applicable Compliance Method:

The hourly emission limitation represents the potential to emit\* for this emissions unit. Therefore no hourly record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

\*Potential to emit for this emissions unit was established by multiplying the appropriate AP-42 Emission factor (Section 3.3 (10/96) by the emission units' maximum capacity of 330 hp.

If required, the permittee shall demonstrate compliance in accordance with the test methods and procedures in Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

0.68 lb SO<sub>2</sub>/hr (from the diesel engine)

Applicable Compliance Method:

The hourly emission limitation represents the potential to emit\* for this emissions unit. Therefore no



ourly record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

\*Potential to emit for this emissions unit was established by multiplying the appropriate AP-42 Emission factor (Section 3.3(10/96) by the emission units' maximum capacity of 330hp.

If required, the permittee shall demonstrate compliance in accordance with the test methods and procedures in Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.82 lb OC/hr (from the diesel engine)

Applicable Compliance Method:

The hourly emission limitation represents the potential to emit\* for this emissions unit. Therefore no hourly record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

\*Potential to emit for this emissions unit was established by multiplying the appropriate AP-42 Emission factor (Section 3.3(10/96) by the emission units' maximum capacity of 330hp.

If required, the permittee shall demonstrate compliance in accordance with the test methods and procedures in Methods 1-4 and 18, 25, or 25A as applicable, of 40 CFR Part 60, Appendix A.

g. Emission Limitations (from the diesel engine):

- 20.46 tons NO<sub>x</sub> per rolling, 12-month period
- 4.41 tons CO per rolling, 12-month period
- 1.35 tons SO<sub>2</sub> per rolling, 12-month period
- 1.63 ton OC per rolling, 12-month period
- 1.45 ton PM<sub>10</sub> per rolling, 12-month period

Applicable Compliance Method:

The annual emission limitations were established by multiplying the hourly emission limitations by a maximum operating schedule of 4000 hours per rolling, 12-month period and dividing by 2000 lbs/ton. Therefore provided compliance is shown the hourly limitation and with the 4000 hours per rolling 12-month period operational restriction, compliance with the annual limitations shall also be demonstrated.

h. Emission Limitation:



20% opacity, as a 3-minute average for truck dumping to feed bin

Applicable Compliance Method:

If required, compliance shall be demonstrated using Test Method 9 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)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

i. Emission Limitation:

The permittee shall not cause to be discharged into the atmosphere from any crusher or transfer point, when non-concrete material is processed, any fugitive emissions which exhibit greater than 15% opacity.

Applicable Compliance Method:

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

j. Emission Limitation:

The permittee shall not cause to be discharged into the atmosphere from any crusher or transfer point, when concrete material is processed, any fugitive emissions which exhibit greater than 10% opacity.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

- (1) Pursuant to the permanent exemption for portable sources in OAC rule 3745-31-03(A)(1), the permittee may relocate the portable source within the State of Ohio without first obtaining a permit-to-install and operate (PTIO) or a permit-to-install (PTI), providing the appropriate exemption requirements have been met and following the approval of the director (the appropriate Ohio EPA District Office or local air agency).
- (2) If the relocation of the portable source would result in the installation of a major source or the modification of a major source, as defined in OAC rule 3745-31-01, the permittee shall submit an application and obtain a PTIO or PTI (as applicable) for the new location prior to moving the portable source.

When a portable source is located at a stationary source or at a site with multiple portable sources, the potential emissions of the portable source may be required to be added to that of the facility, in order to determine the potential to emit for Title V and PSD applicability. Relocation of any portable source that results in the creation of a major source, as defined in OAC rule 3745-77-01, must also meet all applicable requirements under the Title V program contained in OAC rule 3745-77, which may include the requirement to apply for a Title V permit.



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

Cardinal Aggregates Inc.

**Permit Number:** P0117313

**Facility ID:** 0326940003

**Effective Date:** 10/22/2014