



State of Ohio Environmental Protection Agency

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RE: FINAL PERMIT TO INSTALL MODIFICATION

CERTIFIED MAIL

WOOD COUNTY

Application No: 03-16245

Fac ID: 0387040399

DATE: 9/5/2006

Cardinal Aggregates, Inc.
Mark Murray
PO Box 30 8026 Fremont Pike
Perrysburg, OH 43551

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

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

Sincerely,

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

CC: USEPA

NWDO

**FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 03-16245**

Application Number: 03-16245
Facility ID: 0387040399
Permit Fee: **\$450**
Name of Facility: Cardinal Aggregates, Inc.
Person to Contact: Mark Murray
Address: PO Box 30 8026 Fremont Pike
Perrysburg, OH 43551

Location of proposed air contaminant source(s) [emissions unit(s)]:
8026 Fremont Pike
Perrysburg, Ohio

Description of proposed emissions unit(s):
Administrative modification to PTI 03-16245, issued 5/26/05.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and

regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions

may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

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

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

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

14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Fugitive PE	18.65

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Mineral extraction including overburden removal, overburden replacement, loading of overburden, drilling, blasting and loading of limestone. Administrative modification to PTI #03-16245, issued 5/26/05, to increase the number of blasts per year and the corresponding emission increase.	OAC rule 3745-31-05(A)(3)	6.86 tons fugitive particulate emissions (PE)/yr Opacity Restrictions (see A.2.e) Use of best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.2.a through A.2.c)
	OAC rule 3745-17-07(B)	See A.2.f
	OAC rule 3745-17-08(B)	See A.2.g

2. Additional Terms and Conditions

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

Overburden removal, overburden replacement, loading of overburden, drilling, blasting and loading of limestone

- 2.b The permittee shall employ best available control measures for the above-identified mineral extraction operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measures to ensure compliance:

<u>mineral extraction operation</u>	<u>control measure(s)</u>
overburden removal	watering as necessary
overburden replacement	watering as necessary
loading of overburden	watering as necessary
blasting	minimize area to be blasted and prevention of overshooting
drilling	use of water control system or vent to a cyclone and/or baghouse
loading of limestone	watering as necessary

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

- 2.c** For each mineral extraction operation, the above-identified control measure(s) 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(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures(s) shall continue during the mineral extraction operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
- 2.d** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05(A)(3).
- 2.e** Visible particulate emissions shall not exceed 20% opacity as a 3-minute average from the following mineral extraction operations: overburden removal, overburden replacement, loading of overburden, drilling and loading of limestone.
- 2.f** This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.g** This facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

B. Operational Restrictions

1. The permittee shall not exceed 150 blasts per year.
2. The permittee shall not exceed a mineral extraction throughput of 1,000,000 tons of limestone per year (this restriction is based on the amount of materials loaded into trucks).

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, for mineral extraction operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>mineral extraction operation</u>	<u>minimum inspection frequency</u>
all	once per day of operation

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, 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);
 - c. the dates the control measure(s) was (were) implemented; and
 - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each mineral extraction operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. The permittee shall maintain the following monthly records for each blast:
 - a. the date the blast occurred;
 - b. the total number of blasts each month; and

- c. the annual year to date, number of blasts (sum of b for each calendar month to date from January to December).
6. The permittee shall maintain monthly records of the mineral extraction throughput of limestone (i.e. the amount of materials loaded into trucks), in tons per month. For each month, the permittee shall also calculate the annual, year-to-date, amount of stone processed (cumulative total of each month to date from January to December).

D. Reporting Requirements

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

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

2. The permittee shall submit annual deviation (excursion) reports that identify any exceedances of the following:
 - a. exceedance of the 150 blasts per year limitation in term B.1.
 - b. exceedance of the mineral extraction throughput of 1,000,000 tons of limestone per year limitation in term B.2.

The deviation reports shall include the corrective actions that have been taken to achieve compliance. If no deviations occurred during the calendar year, the permittee shall submit an annual report which states that no deviations occurred during the calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emissions limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation: 6.86 tons fugitive PE/yr

Applicable Compliance Method: The annual particulate emission limitations were developed by applying the following emission factors/equations and control efficiencies to the associated process weight rates:

Mineral Extraction Operation	Maximum Process Weight Rate	Control Efficiency	Emission Factor	Emission Factor Citation
Overburden Removal	500,000 tons/yr	90%	0.058 lb/ton removed	AP-42 Section 11.9 (7/98)
Overburden Replacement	500,000 tons/yr	90%	0.012 lb/ton removed	AP-42 Section 11.9 (7/98)
Loading of Overburden	500,000 tons/yr	90%	0.0082 lb/ton	AP-42 Section 13.2.4 (1/95)
Drilling	1,000,000 tons/yr	90%	0.008 lb/ton	RACM, Table 2.1.4-4 (9/80)
Blasting	150 blasts/yr	None	58.5 lbs/blast	RACM, Table 2.1.4-4 (9/80)
Loading of Limestone	1,000,000 tons/yr	90%	0.0021 lb/ton	AP-42, Section 13.2.4 (1/95)

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the ton per year PE limitation will be assumed.

- b. Emission Limitation: Visible particulate emissions shall not exceed 20% opacity as a 3-minute average from the following mineral extraction operations: overburden removal, overburden replacement, loading of overburden, drilling, and loading of limestone.

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") as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Storage Piles	OAC rule 3745-31-05(A)(3)	0.90 tons fugitive particulate emissions (PE)/yr
load-in and load-out of storage piles (see Section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	No visible particulate emissions except for a period of time not to exceed one minute during any 60-minute observation period. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.2.b, A.2.c and A.2.f)
	OAC rule 3745-17-07(B)	See A.2.g
	OAC rule 3745-17-08(B)	See A.2.h
wind erosion from storage piles (see Section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	No visible particulate emissions except for a period of time not to exceed one minute during any 60-minute observation period. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.2.d through A.2.f)
	OAC rule 3745-17-07(B)	See A.2.g

| OAC rule 3745-17-08(B)

| See A.2.h

2. Additional Terms and Conditions

- 2.a** The storage piles that are covered by this permit and subject to the above-mentioned requirements are listed below:

All storage piles

- 2.b** The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to watering, low drop heights from front end loaders and conveyors and maintenance of inherent moisture content to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c** The above-mentioned control 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 measures is unnecessary.
- 2.d** The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to watering, maintenance of as low a pile height as possible, wash plant carry over and maintenance of inherent moisture content to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e** The above-mentioned control 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.
- 2.f** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

- 2.g** This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.h** This facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

<u>Storage Pile Identification</u>	<u>Minimum Load-In Inspection Frequency</u>
all storage piles	once during each day of operation

- 2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

<u>Storage Pile identification</u>	<u>Minimum Load-Out Inspection Frequency</u>
all storage piles	once during each day of operation

- 3. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

<u>Storage Pile Identification</u>	<u>Minimum Wind Erosion Inspection Frequency</u>
all storage piles	once during each day of operation

- 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 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 appropriate Ohio EPA District Office or local air agency, 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 measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an 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.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 0.90 tons fugitive PE/yr

Applicable Compliance Method: The emission limitation was established by combining the emissions from load-in and load-out operations and from wind erosion from each storage pile as listed in the permittee's application and applying a 95% control efficiency for use of best available control measures. Load-in and load-out operation emissions are based on a maximum load-in and load-out rate of 1,000,000 tons per year of limestone. Wind erosion emissions are based on a maximum storage pile surface area of 10 acres as listed in the permit application:

The emission rate was determined as follows:

- i. Load-in - emissions associated with load-in operations were established by multiplying the maximum load-in rate of 1,000,000 tons per year of limestone by the appropriate emission factor from AP-42 section 13.2.4.(1/95) [0.0021 lb PE/ton product], applying a 95% control efficiency and dividing by 2000 lbs/ton. (0.053 ton fugitive PE/yr)
- ii. Load-out - emissions associated with load-out operations were established by multiplying the maximum load-in rate of 1,000,000 tons per year of limestone by the appropriate emission factor from AP-42 section 13.2.4 (1/95) [0.0021 lb PE/ton product], applying a 95% control efficiency and dividing by 2000 lbs/ton. (0.053 ton fugitive PE/yr)
- iii. Wind erosion - emissions were established by multiplying a maximum combined storage pile surface area of 10 acres for limestone, the appropriate emission factor from USEPA's Control of Open Fugitive Dust Sources (9/88) [8.68 lbs PE/acre/day of limestone], a maximum operating schedule of 365 days per year and dividing by 2000 and applying a 95% control efficiency. (0.79 ton PE/yr)

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the ton per year PE limitation will be assumed.

- b. Emission Limitation: No visible particulate emissions except for a period of time not to exceed one minute during any 60-minute observation period from load-in and load-out of the storage piles

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

- c. Emission Limitation: No visible particulate emissions except for a period of time not to exceed one minute during any 60-minute observation period from wind erosion

Cardinal Aggregates, Inc.
PTI Application: 03-16245
Modification Issued: 9/5/2006

Facility ID: 038704039
Emissions Unit ID: F002

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

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 -Paved and unpaved roadways and parking areas	OAC rule 3745-31-05(A)(3)	10.89 tons fugitive particulate emissions (PE)/yr
paved roadways and parking areas (see Section A.2.a)	OAC rule 3745-31-05(A)(3)	no visible particulate emissions except for one minute during any 60-minute period best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c, A.2.e, and A.2.g through A.2.i)
	OAC rule 3745-17-07(B)	See A.2.k
	OAC rule 3745-17-08(B)	See A.2.l
unpaved roadways and parking areas (see Section A.2.b)	OAC rule 3745-31-05(A)(3)	no visible particulate emissions except for 3 minutes during any 60-minute period best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.d through A.2.i)
	OAC rule 3745-17-07(B)	See A.2.j
	OAC rule 3745-17-08(B)	See A.2.k

2. Additional Terms and Conditions

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

paved roadways:
all paved roadways

paved parking areas:
all paved parking area

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

unpaved roadways:
all unpaved roadways

unpaved parking areas:
none

- 2.c** 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 permit application, the permittee has committed to treat the paved roadways and parking areas by watering and sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.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 permit application, the permittee has committed to treat the unpaved roadways and parking areas with water, chemical stabilization, surface improvement, speed reduction and good housekeeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.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 a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

- 2.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.
- 2.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.
- 2.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.
- 2.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.
- 2.j** This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.k** This facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

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

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
all	once per day of operation
<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
all	once per day of operation

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 appropriate Ohio EPA District Office or local air agency, 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;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an 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.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

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

- a. Emission Limitation: 10.89 tons fugitive PE/yr from paved and unpaved roadways and parking areas

Applicable Compliance Method: This emission limitation was developed by multiplying emission factors from AP-42, Chapter 13.2.1 (1) [paved] and Chapter 13.2.2 (12/03) [unpaved], the maximum vehicle miles traveled (VMT), applying a control efficiency of 95% for use of best available control measures and dividing by 2000 lbs/ton:

- i. entrance road (paved): $(4.49 \text{ lb PE/VMT}) (7500 \text{ VMT}) (\text{ton}/2000 \text{ lbs}) (1-0.95) = 0.84 \text{ tons/yr}$
- ii. service road (unpaved): $(6.70 \text{ lb PE/VMT}) (60,000 \text{ VMT}) (\text{ton}/2000 \text{ lbs}) (1-0.95) = 10.05 \text{ tons/yr}$
- iii. parking area (paved): $(0.29 \text{ lb PE/VMT}) (150 \text{ VMT}) (\text{ton}/2000 \text{ lbs}) (1-0.95) = 0.001 \text{ tons/yr}$

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the ton per year PE limitation will be assumed.

- b. Emission Limitation: no visible particulate emissions except for 1 minutes during any 60-minute period from paved roadways and parking areas

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

- c. Emission Limitation: no visible particulate emissions except for 3 minutes during any 60-minute period from unpaved roadways and parking areas

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

F. Miscellaneous Requirements

Cardinal Aggregates, Inc.
PTI Application: 03-16245
Modification Issued: 9/5/2006

Facility ID: 038704039
Emissions Unit ID: F003

None