



12/18/2014

Michael Klenda  
 Carmeuse Lime, Inc. - Maple Grove Operations  
 1967 W County Road 42  
 PO Box 708  
 Bettsville, OH 44815

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 0374000010  
 Permit Number: P0115519  
 Permit Type: Administrative Modification  
 County: Seneca

Certified Mail

No	TOXIC REVIEW
Yes	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. 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 PTI 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)3528461 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: U.S. EPA  
Ohio EPA-NWDO; Michigan; Canada



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Carmeuse Lime, Inc. - Maple Grove Operations**

Facility ID:	0374000010
Permit Number:	P0115519
Permit Type:	Administrative Modification
Issued:	12/18/2014
Effective:	12/18/2014





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Carmeuse Lime, Inc. - Maple Grove Operations

**Table of Contents**

Authorization .....	1
A. Standard Terms and Conditions .....	4
1. Federally Enforceable Standard Terms and Conditions .....	5
2. Severability Clause .....	5
3. General Requirements .....	5
4. Monitoring and Related Record Keeping and Reporting Requirements.....	6
5. Scheduled Maintenance/Malfunction Reporting .....	7
6. Compliance Requirements .....	7
7. Best Available Technology .....	8
8. Air Pollution Nuisance .....	9
9. Reporting Requirements .....	9
10. Applicability .....	9
11. Construction of New Sources(s) and Authorization to Install .....	9
12. Permit-To-Operate Application .....	10
13. Construction Compliance Certification .....	11
14. Public Disclosure .....	11
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations .....	11
16. Fees.....	11
17. Permit Transfers .....	11
18. Risk Management Plans .....	11
19. Title IV Provisions .....	11
B. Facility-Wide Terms and Conditions.....	12
C. Emissions Unit Terms and Conditions .....	14
1. F001, Roadways & Parking.....	15
2. F002, Material Storage Piles .....	21
3. F003, Limestone Handling .....	32
4. P001, Product Handling #1 .....	39
5. P002, Product Handling # 2 .....	45
6. P901, Solid Fuel Handling.....	51
7. P902, Common Product Handling.....	59



8. P903, Product Storage/Load-out # 1 ..... 66

9. P904, Product Storage/Loadout # 2 ..... 74

10. P905, Lime Kiln Dust Handling/Load-Out ..... 82

11. Emissions Unit Group – Rotary Lime Kilns: P003 & P004 ..... 91



## Authorization

Facility ID: 0374000010  
 Facility Description: Lime plant.  
 Application Number(s): A0048859, M0002941, M0002942, M0002943  
 Permit Number: P0115519  
 Permit Description: Administrative permit modification to incorporate the following revisions: Roadways & Parking Areas (Emissions Unit F001) - Revisions to correctly reflect portions of the roadways which are paved and associated revisions to vehicle miles traveled; Material Storage Piles (Emissions Unit F002) - Removal of manmade floor requirement for engineered, 3-sided enclosure for waste lime and temporary lime kiln dust piles; Limestone, Solid Fuel, & Common Product Handling and Product Storage/Loadout (Emission Units F003, P901 to P904) - Revisions of fugitive particulate limitations based on revised emission factors and throughput values; Product, Lime, & Limestone Material Handling (Emission Units P001 & P002) - Monitoring requirements revised to involve monitoring of visible emissions in place of pressure drop monitoring; Lime Kiln Dust Handling Operation (Emissions Unit P905) - Language associated with fugitive emissions revised to clarify opacity restrictions are applied to building egress points; Rotary Lime Kiln Operations (Emission Units P003 & P004) - Revisions to incorporate MACT requirements for 40 CFR Part 63, Subpart AAAAA - National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants.

Permit Type: Administrative Modification  
 Permit Fee: \$1,450.00  
 Issue Date: 12/18/2014  
 Effective Date: 12/18/2014

This document constitutes issuance to:

Carmeuse Lime, Inc. - Maple Grove Operations  
1967 W County Road 42  
PO Box 708  
Bettsville, OH 44815

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

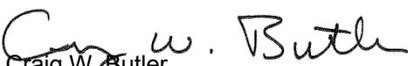
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0115519

Permit Description: Administrative permit modification to incorporate the following revisions: Roadways & Parking Areas (Emissions Unit F001) - Revisions to correctly reflect portions of the roadways which are paved and associated revisions to vehicle miles traveled; Material Storage Piles (Emissions Unit F002) - Removal of manmade floor requirement for engineered, 3-sided enclosure for waste lime and temporary lime kiln dust piles; Limestone, Solid Fuel, & Common Product Handling and Product Storage/Loadout (Emission Units F003, P901 to P904) - Revisions of fugitive particulate limitations based on revised emission factors and throughput values; Product, Lime, & Limestone Material Handling (Emission Units P001 & P002) - Monitoring requirements revised to involve monitoring of visible emissions in place of pressure drop monitoring; Lime Kiln Dust Handling Operation (Emissions Unit P905) - Language associated with fugitive emissions revised to clarify opacity restrictions are applied to building egress points; Rotary Lime Kiln Operations (Emission Units P003 & P004) - Revisions to incorporate MACT requirements for 40 CFR Part 63, Subpart AAAAA - National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants.

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:	Roadways & Parking
Superseded Permit Number:	P0104549
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F002</b>
Company Equipment ID:	Material Storage Piles
Superseded Permit Number:	P0107350
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F003</b>
Company Equipment ID:	Limestone Handling
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	Product Handling # 1
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	Product Handling # 2
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	# 1 Kiln
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Carmeuse Lime, Inc. - Maple Grove Operations  
**Permit Number:** P0115519  
**Facility ID:** 0374000010  
**Effective Date:** 12/18/2014

<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	# 2 Kiln
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P901</b>
Company Equipment ID:	Solid Fuel Handling
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P902</b>
Company Equipment ID:	Common Product Handling
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P903</b>
Company Equipment ID:	Product Storage/Loadout # 1
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P904</b>
Company Equipment ID:	Product Storage/Loadout # 2
Superseded Permit Number:	03-13527
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P905</b>
Company Equipment ID:	Lime Kiln Dust Handling/Load-Out
Superseded Permit Number:	P0107351
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Carmeuse Lime, Inc. - Maple Grove Operations  
**Permit Number:** P0115519  
**Facility ID:** 0374000010  
**Effective Date:** 12/18/2014

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



## **1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

## **2. Severability Clause**

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

## **3. General Requirements**

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) 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 or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) 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.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **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, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## **6. Compliance Requirements**

- a) 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 appropriate Ohio EPA District Office or contracted



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 electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.



**8. 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.

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.
- 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 state-only required 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 Ohio EPA DAPC, Northwest District Office. 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, 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.)

**10. Applicability**

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

**11. Construction of New Sources(s) and Authorization to Install**

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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 permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

## **12. Permit-To-Operate Application**

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



**13. Construction Compliance Certification**

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. 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.

**15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

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 by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**16. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

**18. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

**19. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



**Final Permit-to-Install**  
Carmeuse Lime, Inc. - Maple Grove Operations  
**Permit Number:** P0115519  
**Facility ID:** 0374000010  
**Effective Date:** 12/18/2014

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



**Final Permit-to-Install**  
Carmeuse Lime, Inc. - Maple Grove Operations  
**Permit Number:** P0115519  
**Facility ID:** 0374000010  
**Effective Date:** 12/18/2014

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.



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



**1. F001, Roadways & Parking**

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

Roadways and Parking Areas

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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 rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)a and b)(2)b.</p> <p>4.05 tons fugitive particulate emissions (PE) per rolling, 12-month period</p> <p>1.13 tons fugitive particulate matter ≤10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>There shall be no visible fugitive PE from the paved roadways and parking areas, except for a period of time not to exceed one minute during any 60-minute observation period.</p> <p>There shall be no visible fugitive PE from the unpaved roadways and parking areas, except for a period of time not to exceed three minutes during any 60-minute observation period.</p>
b.	OAC rule 3745-31-05(A)(3)(a), as effective 11/30/2001	Work Practice Standards [See b)(2)c.]
c.	OAC rule 3745-31-05(A)(3)(a), as effective 12/1/2006	See b)(2)d.
d.	OAC rule 3745-17-08(B)	This emissions unit 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), the emissions



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		unit is exempt from the requirements of OAC rule 3745-17-08.
e.	OAC rule 3745-17-07(B)	Pursuant to OAC rule 3745-17-07(B)(11)(e), OAC rule 3745-17-07(B)(1) does not apply because OAC rule 3745-17-08 is not applicable.

(2) Additional Terms and Conditions

- a. The permittee shall employ best available control technology (BACT) on this emissions unit for the control of particulate emissions. The BACT control requirements for this emissions unit have been determined to be:
  - i. The permittee shall employ work practice standards and/or control measures capable of meeting the following visible emission restrictions that are consistent with a 90% reduction in fugitive emissions, as proposed in the permit application:
    - (a) There shall be no visible fugitive PE from the paved roadways and parking areas, except for a period of time not to exceed one minute during any 60-minute observation period.
    - (b) There shall be no visible fugitive PE from the unpaved roadways and parking areas, except for a period of time not to exceed three minutes during any 60-minute observation period.
  - ii. The work practice standards and/or control measures may include, but are not limited to the following operating practices:
    - (a) watering and/or the application of chemical stabilization/dust suppressants;
    - (b) speed reduction;
    - (c) rapid removal of spillage on plant roadways and parking areas;
    - (d) covering at all times any open-bodied vehicles transporting materials likely to become airborne, if the control measure is necessary for the materials being transported; and
    - (e) prompt removal, in such a manner as to minimize or prevent resuspension, of 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.



- iii. The needed frequencies of implementation of the work practice standards and/or control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit.

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

- b. Any unpaved roadway or parking area that takes on the characteristics of a paved surface due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved surfaces. Any unpaved roadway or parking area that is paved during the term of this permit, shall be subject to the visible emission limitation for paved roadways and parking areas.
- c. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3), effective November 30, 2001, have been determined to be the following:
  - i. The permittee shall employ work practice standards and/or control measures consistent with a 90% reduction in fugitive dust from the roadways and parking areas [See b)(2)a].

The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

It should be noted that the requirements established pursuant to OAC rules 3745-31-10 through -20 will remain applicable after the above SIP revisions are approved by U.S. EPA.

- d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The "Best Available Technology (BAT)" requirements under OAC rule 3745-31-05(A)(3)(a) are not applicable to the particulate emissions (PE) from this emissions unit. BAT is only applicable to emissions of an air contaminant or precursor of an air contaminant for which a national ambient air quality standard (NAAQS) has been adopted under the Clean Air Act. PE (also referred to as total suspended particulate or particulate matter) is an air contaminant that does not involve an established NAAQS. In addition, the BAT requirements under 3745-31-05(A)(3) do not apply to the emissions of PM<sub>10</sub> because the potential to



emit (PTE) is less than 10 tons per year taking into consideration the voluntary restriction(s) established under OAC rules 3745-31-10 through -20.

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 and parking area in accordance with the following frequencies:

<u>Roadways and Parking Areas</u>	<u>Minimum Inspection Frequency</u>
all paved roadways and parking areas	daily
all unpaved roadways and parking areas	daily

- (2) The purpose of the inspections is to determine the need for implementing the work practice standards and/or control measures identified in b)(2)a.

- a. The inspections shall be performed during representative, normal traffic conditions.
- b. 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.
- c. 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.
- d. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

- (3) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates the control measures were implemented;
- d. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures, but implementation of the control measures would have resulted in unsafe or hazardous driving conditions; and
- e. on a calendar quarter basis, the permittee shall record the following:
  - i. the total number of days that the control measures were implemented;



- ii. the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures; and
- iii. the total number of days where it was determined that control measures were necessary, but would have resulted in unsafe or hazardous driving conditions.

The information required in d)(3)e shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
- (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring and recordkeeping requirements for visible fugitive emissions in terms d)(1) through d)(3) 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 or precipitation;
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented; and
  - c. each instance when the permittee determined it was necessary to implement control measures, but implementation of the control measure would have resulted in unsafe or hazardous driving conditions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (4) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.



f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitations

1.13 tons fugitive PM<sub>10</sub> per rolling, 12-month period

4.05 tons fugitive PE per rolling, 12-month period

Applicable Compliance Method

Compliance with the emission limitations shall be determined by using the emission factor equations in Sections 13.2.1 (1/2011) and 13.2.2 (12/2003) of Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 for paved and unpaved roadways, respectively. Should further updates in AP-42 occur, the most current equations shall be used. These emission limits were based on a maximum of 6,600 paved and 5,700 unpaved vehicle miles traveled (VMT)/year and a 90% control efficiency for the reduction of fugitive emissions.

b. Emission Limitations

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

There shall be no visible fugitive PE from the 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 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").

g) Miscellaneous Requirements

(1) None.



**2. F002, Material Storage Piles**

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

Material Storage Piles and LKD/Waste Lime Disposal

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p>15.32 tons particulate emissions (PE) per rolling, 12-month period</p> <p>5.45 tons particulate matter <math>\leq</math> 10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>See b)(2)b. through b)(2)e.</p> <hr/> <p><u>Load-in and Load-out of Storage Piles:</u> There shall be no visible fugitive emissions except for a period of time not to exceed one minute during any 60-minute observation period.</p> <hr/> <p><u>Wind Erosion from Storage Piles:</u> There shall be no visible fugitive emissions except for a period of time not to exceed one minute during any 60-minute observation period.</p> <hr/> <p><u>LKD/Waste Lime Disposal Bulldozing and Compacting:</u> Visible fugitive emissions shall not exceed 20% opacity, as a three-minute average.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-08(A)	This emissions unit 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).
d.	OAC rule 3745-17-11(B)	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) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.
- b. The storage piles and operations that are covered by this permit and subject to the requirements of OAC rules 3745-31-10 through -20 are listed below:
  - i. Coal;
  - ii. Coke;
  - iii. Cooling tower lime dust drop pile (hopper north of kilns);
  - iv. Cooling tower lime dust drop pile (hopper south of kilns);
  - v. Small limestone pile #1 (north);
  - vi. Small limestone pile #2 (south);
  - vii. Lime cleanout chute pile (north lime kiln);
  - viii. Lime cleanout chute pile (south lime kiln,);
  - ix. Housekeeping LKD pile (at LKD load-out);
  - x. Temporary LKD pile (south of pug mill); and
  - xi. LKD/waste lime disposal area and material handling activities.
- c. The permittee shall employ best available control technology (BACT) on this emissions unit in order to reduce the fugitive emissions from all load-in and load-out operations associated with the storage piles and the wind erosion from the storage pile surfaces for the purpose of ensuring compliance with the above-mentioned applicable requirements. BACT has been determined to be the following control measures:



<b>Material Storage Pile</b>	<b>Best Available Control Techniques:</b>	<b>Best Available Control Techniques:</b>
	<b>Wind Erosion</b>	<b>Loading Operations</b>
Coal	Water as needed	Minimize drop heights
Coke	Water as needed	Minimize drop heights

BACT shall also include good housekeeping practices on all storage pile operations in order to prevent additional wind dispersal of the materials. Nothing in this term shall prohibit the permittee from employing other control measures to ensure compliance.

- d. The above control measures shall be employed for all load-in and load-out operations associated with the storage piles and the wind erosion from the storage pile surfaces [as identified in b)(2)c.], if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements.
  - i. Any required implementation of the control measure(s) for the loading operations shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
  - ii. Implementation of the control measure(s) for wind erosion 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.
- e. The permittee shall employ BACT on this emissions unit in order to reduce the fugitive emissions from the activities associated with the LKD and waste lime material storage piles that will be transferred into the quarry for disposal (LKD/waste lime disposal area):

<b>Material Storage Pile or Disposal Activity</b>	<b>Best Available Control Technology:</b>
(2) Kiln limestone fall-out piles (north and south piles)	Partially enclosed/sheltered piles due to location.  The material shall be transferred into the quarry for disposal continuously during operation to maintain the size of the pile within the partial enclosure. If continuous operations cease, the pile will be removed as part of the shutdown process.  During material handling operations and transport of the material to the quarry for disposal, the material shall be covered or otherwise managed to



Material Storage Pile or Disposal Activity	Best Available Control Technology:
	prevent wind dispersal of dust.
Housekeeping waste lime pile (at truck load-out)	The storage piles must be contained within a storage hopper or engineered, three-sided enclosure manufactured of a material suitable for storage of its contents. The piles shall be maintained at a height below the sides of the enclosure.
Temporary LKD pile (south of pug mill)	<p>The materials shall be kept adequately wet and transferred to the quarry for disposal prior to drying out; OR covered at all times to prevent fugitive emissions.</p> <p>During material handling operations and transport of the material to the quarry for disposal, the material shall be covered or otherwise managed to prevent wind dispersal of dust.</p>
LKD/Waste Lime Disposal Operations	<p>All materials disposed of in the quarry must be emplaced in a manner sufficient to minimize emissions from wind dispersal.</p> <p>All materials shall be pushed below grade on the same day during which they were disposed.</p> <p>Adequate of amounts of stone screenings or soil shall be added to the materials at the active dumping zone, as needed, to allow adequate compaction and to prevent wind erosion.</p> <p>All surfaces of the disposal area, other than the below-grade side slope and active dumping zone, shall be covered with a sufficient thickness of soil, limestone, or other material at the end of each operating day, or at more frequent intervals if</p>



Material Storage Pile or Disposal Activity	Best Available Control Technology:
	<p>necessary, to control blowing dust. Watering may also be employed as an additional dust control measure.</p> <p>Pursuant to MSHA requirements, the permittee shall always maintain a berm around the top of the LKD/waste lime disposal area. The berm shall be composed of the most recent material disposed.</p> <p>The facility shall only dispose of material at the face/edge of the active dumping zone in the quarry. No additional LKD/waste lime piles are permitted in the quarry.</p> <p>The materials disposed of in the quarry shall be maintained at a height below the height of the quarry walls.</p>
	<p>(2) Cooling tower lime dust drop piles (hoppers north and south of kilns):</p> <p>These piles are generated during maintenance activities only. The piles shall be properly disposed of in the quarry within 24 hours of generation.</p>
	<p>(2) Lime cleanout chute piles (north and south of kilns):</p> <p>These piles are generated during maintenance activities only. The permittee shall unload the material directly into the back of a truck with minimal drop heights. If a truck or loader is not available, temporary chutes or equivalent devices shall be employed to minimize drop heights. The material shall be properly disposed of in the quarry within 24 hours of generation.</p>

BACT shall also include good housekeeping practices on all LKD/waste lime disposal activities in order to prevent additional wind dispersal of the materials. Nothing in this term shall prohibit the permittee from employing other control measures to ensure compliance.

- c) Operational Restrictions
  - (1) None.



d) Monitoring and/or Recordkeeping Requirements

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

<b>Storage pile identification:</b>	<b>Minimum load-in inspection frequency:</b>
Coal	Once per day, during each day of operation
Coke	Once per day, 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:

<b>Storage pile identification:</b>	<b>Minimum load-out inspection frequency:</b>
Coal	Once per day, during each day of operation
Coke	Once per day, 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:

<b>Storage pile identification:</b>	<b>Minimum wind erosion inspection frequency:</b>
Coal	Daily
Coke	Daily

- (4) No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- (5) The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for the load-in and load-out of each storage pile and for the wind erosion from the surface of each storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
- (6) The permittee shall maintain records of the following information for each storage pile inspection required in accordance with the monitoring requirements in terms d)(1) through d)(3) above:



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

- (7) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from the following operations associated with the LKD/waste lime disposal operations:
  - a. Storage pile load-in operations:
    - i. Limestone fall-out pile #1 (north kiln);
    - ii. Limestone fall-out pile #2 (south kiln);
    - iii. Cooling tower lime dust drop pile (hopper south of kilns)
    - iv. Cooling tower lime dust drop pile (hopper north of kilns);
    - v. Lime cleanout chute pile (north kiln);
    - vi. Lime cleanout chute pile (south kiln);
    - vii. Housekeeping waste lime pile (at truck load-out); and
    - viii. Temporary LKD pile (south of pug mill);
  - b. Storage pile load-out operations:
    - i. Limestone fall-out pile #1 (north kiln);
    - ii. Limestone fall-out pile #2 (south kiln);
    - iii. Cooling tower lime dust drop pile (hopper south of kilns)
    - iv. Cooling tower lime dust drop pile (hopper north of kilns);



- v. Lime cleanout chute pile (north kiln);
  - vi. Lime cleanout chute pile (south kiln);
  - vii. Housekeeping waste lime pile (at truck load-out); and
  - viii. Temporary LKD pile (south of pug mill);
- c. Wind erosion from storage pile surfaces:
- i. Limestone fall-out pile #1 (north kiln);
  - ii. Limestone fall-out pile #2 (south kiln);
  - iii. Cooling tower lime dust drop pile (hopper south of kilns)
  - iv. Cooling tower lime dust drop pile (hopper north of kilns);
  - v. Lime cleanout chute pile (north kiln);
  - vi. Lime cleanout chute pile (south kiln);
  - vii. Housekeeping waste lime pile (at truck load-out); and
  - viii. Temporary LKD pile (south of pug mill); and
- d. Material handling operations associated with the LKD/Waste Lime Disposal Operations (bulldozing, rolling/compacting, surface cover requirements).
- (8) In accordance with the daily visible fugitive emission checks in term d)(7), the presence or absence of any visible emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:
- a. whether the emissions are representative of normal operations;
  - b. if the emissions are not representative of normal operations, the cause of the visible emissions;
  - c. the total duration of any visible emission incident; and
  - d. any corrective actions taken to eliminate the visible emissions.

The information above shall be kept separately for each operation identified in term d)(7).

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s). 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.
  - (3) The permittee shall identify in the quarterly deviation reports any of the following occurrences in accordance with the monitoring requirements for daily fugitive emission inspections in terms d)(1) through d)(6) 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 or precipitation; and
    - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
  - (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for daily visible fugitive emission checks in terms d)(7) and d)(8) above:
    - a. all visible emissions checks during which any visible particulate emissions were observed; and
    - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
  - (5) The permittee shall submit reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emissions Limitations  
5.45 tons fugitive PM<sub>10</sub> per rolling, 12-month period  
15.32 tons fugitive PE per rolling, 12-month period



Applicable Compliance Method

Compliance with the fugitive emission limitations shall be determined using the following emission factor equations for the storage pile operations:

i. Load-in and Load-out operations

The fugitive emissions from each load-in and load-out operation associated with each storage pile was estimated using the emission factor equation from AP-42, Chapter 13.2.4 (1/95) and the moisture contents, mean wind speed, maximum annual throughputs, and control factors, as supplied in the permit application for each storage pile.

ii. Wind erosion

The fugitive emissions generated from the wind erosion of each storage pile surface was estimated using the emission factor equation from U.S. EPA's Control of Open Fugitive Dust Sources (9/88) and the silt contents, precipitation data, wind velocity data, and maximum pile acreages, as supplied in the permit application for each storage pile. PM<sub>10</sub> emissions were estimated to be 50% of the total PE.

iii. Bulldozing

The fugitive emissions generated from the bulldozing operations associated with the LKD quarry pile were estimated using the emission factor equation from AP-42, Chapter 11.9 (10/98) and the silt content, moisture content, and maximum annual hours of bulldozer operation, as supplied in the permit application.

iv. Pile rolling/compacting

The fugitive emissions generated from the pile rolling/compacting operations associated with the LKD quarry pile were estimated using the emission factor equation from AP-42, Chapter 13.2.2 (11/06) and the silt content, mean vehicle weight, and maximum annual vehicle miles travelled over the pile, as supplied in the permit application.

b. Emission Limitation

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

Applicable Compliance Method

If required, compliance 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").



c. Emission Limitation

Visible fugitive PE shall not exceed 20% opacity, as a three-minute average from the LKD material handling activities.

Applicable Compliance Method

If required, compliance shall be determined in accordance with 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.

g) Miscellaneous Requirements

- (1) None.



**3. F003, Limestone Handling**

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

Limestone Material Handling: material transfer/conveying and screening with building enclosure(s)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p>4.65 tons fugitive particulate emissions (PE) per rolling, 12-month period</p> <p>1.56 tons fugitive particulate matter ≤10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.</p> <p>Visible fugitive emissions shall not exceed 10% opacity, as a six-minute average, from any emission point associated with this emissions unit that is not fully enclosed within a building.</p>
c.	OAC rule 3745-17-08(B)	This emissions unit 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), the emissions unit is exempt from the requirements of OAC rule 3745-17-08.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(B)	Pursuant to OAC rule 3745-17-07(B)(11)(e), OAC rule 3745-17-07(B)(1) does not apply because OAC rule 3745-17-08 is not applicable.
e.	40 CFR, Part 60, Subpart OOO	The requirements specified by this rule are equivalent to or less stringent than the requirements established pursuant to OAC rules 3745-31-10 through -20 and/or 40 CFR, Part 63, Subpart AAAAA.
f.	40 CFR, Part 63, Subpart AAAAA	See b)(2)c.
g.	40 CFR, Part 63.1 – 63.15	Table 8 to 40 CFR, Part 63, Subpart AAAAA – Applicability of General Provisions to Subpart AAAAA specifies the applicable General Provisions from 40 CFR 63.1 – 63.15.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20; 40 CFR, Part 60, Subpart OOO; 40 CFR, Part 63, Subpart AAAAA; and 60 CFR, Part 63.1 – 63.15.
- b. The permittee shall employ best available control technology (BACT) on this emissions unit for the control of particulate emissions. The BACT control requirements for this emissions unit have been identified, as follows:
  - i. The limestone material handling operation shall be designed and operated in such a manner as to result in the following visible emission restrictions:
    - (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
    - (b) Visible fugitive emissions shall not exceed 10% opacity, as a six-minute average, from any emission point associated with this emissions unit that is not fully enclosed within a building.
  - ii. Maintain the high moisture content of the limestone. If at any time the moisture content is not sufficient to meet the above applicable requirements, the permittee shall apply water to the limestone at appropriate treatment frequencies.

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



- c. The permittee shall comply with the applicable visible emission limitations and additional restrictions required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7080	Purpose of the subpart.
63.7081 63.7082	Subjectivity to the subpart.
63.7083	Compliance dates for the subpart.
63.7090(a)	Table 1 visible emission limitations: Fugitive emissions from all processed stone handling (PSH) operations must not exceed 10% opacity; and/or All PSH operations enclosed in a building must comply with the 10% opacity limitation for fugitive emissions, or there must be no visible emissions from the building, except from a vent; and/or Vent emissions <sup>(1)</sup> from a building enclosing PSH operations must not exceed 0.05 grams per dry standard cubic meter; and Vent emissions <sup>(1)</sup> must not exceed 7% opacity.
63.7090(b)	Table 2 operating limit: Prepare a written operations, maintenance, and monitoring (OM&M) plan and the corrective actions to be taken when required.
63.7100(a) 63.7100(b)	Facility must comply with the emission limitations and operating limits at all times, except during periods of startup, shutdown, and malfunctions.
63.7100(c)	Operating and maintenance requirements.
63.7100(d)	Prepare, implement, and submit a written OM&M plan.
63.7100(e)	Develop and implement a written startup, shutdown, and malfunction plan (SSMP).

\*Pursuant to this rule, a vent means “an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying PM [particulate matter] emissions”.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7121(c)	Operate in accordance with SSMP during periods of startup, shutdown, and malfunction.
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d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from this emissions unit.

- a. Daily checks shall be performed on the following emission points associated with this emissions unit:



- i. all operations/emissions points that are not fully enclosed within a building; and
    - ii. all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
  - b. A separate record shall be kept for each operation, building egress point, and/or building surface specified in d)(1)a.
  - c. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
  - d. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
    - i. the color of the emissions;
    - ii. the total duration of any visible emission incident; and
    - iii. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7120	Monitor and collect data to demonstrate continuous compliance.
63.7121(a)	Demonstration of continuous compliance with each emission limitation:
	Monthly, 1-minute VE check for each PSH operation subject to an opacity limit.
	Monthly, VE check of the building for enclosed PSH operations.
63.7121(d)	Deviations that occur during periods of startup, shutdown, and malfunction.
63.7121(e)	Specifications for the monthly, 1-minute VE check for each PSH operation subject to an opacity limit.
63.7132 63.7133	Recordkeeping requirements.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).



- (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(1) above:
- a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any operation/emission point that is not fully enclosed within a building;
  - b. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and
  - c. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (4) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (5) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7121(b)	Report deviations of each operating limit, opacity limit, and VE limit, including periods of startup, shutdown, and malfunction.
63.7130 63.7131	Notification and reporting requirements.

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 Limitations
    - 4.65 tons fugitive PE per rolling, 12-month period
    - 1.56 tons fugitive PM<sub>10</sub> per rolling, 12-month period
- Applicable Compliance Method
- Compliance with the fugitive emission limitations shall be determined using the following fugitive emission calculations for each operation associated with this emissions unit:



i. **Material Transfer/Conveying Operations**

tons stone <sup>(1)</sup>	lb pollutant <sup>(2)</sup>	1 ton <sup>(3)</sup>
year	ton	2000 lbs

Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factors for controlled transfer and conveying due to high moisture content of limestone from AP-42 Chapter 11.19.2 (8/2004).

PE	0.00014 lb PE/ton
PM <sub>10</sub>	4.6 x 10 <sup>-5</sup> lb PM <sub>10</sub> /ton

- (3) Conversion factor.

ii. **Screening**

tons stone <sup>(1)</sup>	lb pollutant <sup>(2)</sup>	1 ton <sup>(3)</sup>
year	ton	2000 lbs

Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factors for controlled screening due to high moisture content of limestone from AP-42 Chapter 11.19.2 (8/2004).

PE	0.0022 lb PE/ton
PM <sub>10</sub>	0.00074 lb PM <sub>10</sub> /ton

- (3) Conversion factor.

b. **Emission Limitation**

Visible fugitive emissions shall not exceed 10% opacity, as a six-minute average, from any emission point associated with this emissions unit that is not fully enclosed within a building.

**Applicable Compliance Method**

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").



c. Emission Limitation

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.

Applicable Compliance Method

If required, compliance 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").

- (2) The permittee shall comply with the applicable testing requirements under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7110(a)	Dates for performance tests and other initial compliance demonstrations.
63.7111	Requirements for subsequent performance tests.
63.7112	Performance test requirements, design evaluations, and procedures.
63.7114	Demonstration of initial compliance with the emission limitations.

g) Miscellaneous Requirements

- (1) None.



**4. P001, Product Handling #1**

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

Product Handling #1: Lime Material Handling with building enclosure(s) and baghouse control (D-136)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<b>Best Available Control Technology:</b> See b)(2)b.
		<b>Fugitive Emissions:</b> There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
		<b>Stack Emissions:</b> <u>Baghouse D-136:</u> 0.01 grain (gr) PM <sub>10</sub> /dry standard cubic foot (dscf) & 1.05 pounds PM <sub>10</sub> /hour  4.60 tons PM <sub>10</sub> per rolling, 12-month period  Visible PE shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-136.
c.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rules 3745-31-10 through -20.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.
- b. The permittee shall employ best available control technology (BACT) on this emissions unit for the control of particulate emissions. The BACT control requirements for this emissions unit have been identified, as follows:
  - i. The material transfer system shall be designed and operated in such a manner as to result in the following visible fugitive emission restrictions:
    - (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
  - ii. The material transfer system shall be equipped with baghouse control capable of achieving 0.01 gr PM<sub>10</sub>/dscf. Baghouse D-136 is currently operated in order to meet this requirement.
  - iii. Visible PE shall not exceed 7% opacity, as a six-minute average from the stack serving baghouse D-136.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving baghouse D-136. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and



- e. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
- a. A separate record shall be kept for each building egress point and/or building surface.
  - b. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
  - c. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
    - i. the color of the emissions;
    - ii. the total duration of any visible emission incident; and
    - iii. any corrective actions taken to eliminate the visible emissions.
- e) Reporting Requirements
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
  - (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:
    - a. all visible emissions checks during which any visible particulate emissions were observed from the stack serving baghouse D-136; and
    - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.



- (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(2) above:
- a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and
  - b. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

0.01 grain PM<sub>10</sub>/dscf (D-136)

Applicable Compliance Method

If required, compliance with the emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

b. Emission Limitation

1.05 pounds PM<sub>10</sub>/hour (D-136)

Applicable Compliance Method

The hourly emission limitation represents the potential to emit of the baghouse serving this emissions unit and can be calculated using the following equation:

0.01 gr PM <sub>10</sub> <sup>(1)</sup>	dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,



- (1) Maximum outlet grain loading of the baghouse, as supplied in the permit application.
- (2) Maximum outlet gas flow rate of the baghouse (D-136 = 12,304 dscfm), as supplied in the permit application.
- (3) Conversion factors.

If required, compliance with this emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitation

4.60 tons PM<sub>10</sub> per rolling, 12-month period (D-136)

Applicable Compliance Method

The annual emission limitation was calculated using the following equation:

1.05 pounds PM <sub>10</sub> <sup>(1)</sup>	8760 hours <sup>(2)</sup>	1 ton <sup>(3)</sup>
hour	year	2000 pounds

Where,

- (1) Hourly emission rate for the baghouse.
- (2) Maximum annual operating scheduled.
- (3) Conversion factor.

Therefore, provided compliance is shown with the hourly limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitation

Visible PE shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-136.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

e. Emission Limitations

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.



Applicable Compliance Method

If required, compliance 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").

- g) Miscellaneous Requirements
  - (1) None.



**5. P002, Product Handling # 2**

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

Product Handling #2: Lime Material Handling with building enclosure(s) and baghouse control (D-151)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p><b>Fugitive Emissions:</b> There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.</p> <p><b>Stack Emissions:</b> <u>Baghouse D-151:</u> 0.01 grain (gr) PM<sub>10</sub>/dry standard cubic foot (dscf) &amp; 1.38 pounds PM<sub>10</sub>/hour  6.04 tons PM<sub>10</sub> per rolling, 12-month period  Visible PE shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-151.</p>
c.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rules 3745-31-10 through -20.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.
- b. The permittee shall employ best available control technology (BACT) on this emissions unit for the control of particulate emissions. The BACT control requirements for this emissions unit have been identified, as follows:
  - i. The material transfer system and screening operations shall be designed and operated in such a manner as to result in the following visible fugitive emission restrictions:
    - (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
  - ii. The material transfer system and screening operations shall be equipped with baghouse control capable of achieving 0.01 gr PM<sub>10</sub>/dscf. Baghouse D-151 is currently operated in order to meet this requirement.
  - iii. Visible PE shall not exceed 7% opacity, as a six-minute average from the stack serving baghouse D-151.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving baghouse D-151. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;



- d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
- a. A separate record shall be kept for each building egress point and/or building surface.
  - b. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
  - c. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
    - i. the color of the emissions;
    - ii. the total duration of any visible emission incident; and
    - iii. any corrective actions taken to eliminate the visible emissions.
- e) Reporting Requirements
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
  - (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:
    - a. all visible emissions checks during which any visible particulate emissions were observed from the stack serving baghouse D-151; and
    - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.



- (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(2) above:
- a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and
  - b. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

0.01 grain PM<sub>10</sub>/dscf (D-151)

Applicable Compliance Method

If required, compliance with the emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

b. Emission Limitation

1.38 pounds PM<sub>10</sub>/hour (D-151)

Applicable Compliance Method

The hourly emission limitation represents the potential to emit of the baghouse serving this emissions unit and can be calculated using the following equation:

0.01 gr PM <sub>10</sub> <sup>(1)</sup>	dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,



- (1) Maximum outlet grain loading of the baghouse, as supplied in the permit application.
- (2) Maximum outlet gas flow rate of the baghouse (D-151 = 16,089 dscfm), as supplied in the permit application.
- (3) Conversion factors.

If required, compliance with this emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitation

6.04 tons PM<sub>10</sub> per rolling, 12-month period (D-151)

Applicable Compliance Method

The annual emission limitation was calculated using the following equation:

1.38 pounds PM <sub>10</sub> <sup>(1)</sup>	8760 hours <sup>(2)</sup>	1 ton <sup>(3)</sup>
hour	year	2000 pounds

Where,

- (1) Hourly emission rate for the baghouse.
- (2) Maximum annual operating scheduled.
- (3) Conversion factor.

Therefore, provided compliance is shown with the hourly limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitation

Visible PE shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-151.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

e. Emission Limitations

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.



Applicable Compliance Method

If required, compliance 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").

- g) Miscellaneous Requirements
  - (1) None.



**6. P901, Solid Fuel Handling**

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

Solid Fuel Handling (coal and coke): material receiving, transfer, crushing, and storage with building enclosure(s) and baghouse control (D-191)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p><b>Fugitive Emissions:</b> 5.38 tons particulate emissions (PE) per rolling, 12-month period</p> <p>1.62 tons particulate matter ≤ 10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.</p> <p>There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building.</p> <p>Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the solid fuel receiving operation.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><b>Stack Emissions:</b>  <u>Baghouse D-191:</u>            0.01 grain (gr) PM<sub>10</sub>/dry standard cubic foot (dscf) &amp; 0.89 pound PM<sub>10</sub>/hour</p> <p>3.90 tons PM<sub>10</sub> per rolling, 12-month period</p> <p>Visible PE shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-191.</p>
c.	OAC rule 3745-17-08(A)	The permittee 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 emission unit is exempt from the requirements of OAC rule 3745-17-07(B).
d.	OAC rule 3745-17-07(B)	This emission 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).
e.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.
f.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rules 3745-31-10 through -20.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.
- b. The permittee shall employ best available control technology (BACT) on this emissions unit for the control of particulate emissions. The BACT control requirements for this emissions unit have been identified, as follows:
  - i. The solid fuel receiving, material transfer points, and crusher shall be designed and operated in such a manner as to result in the following visible fugitive emission restrictions:



- (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
      - (b) There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for solid fuel receiving.
      - (c) Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the solid fuel receiving operation.
    - ii. The material transfer system from the solid fuel hopper and (12) storage tanks to the bucket elevator shall be equipped with baghouse control capable of achieving 0.01 gr PM<sub>10</sub>/dscf. Baghouse D-191 is currently operated in order to meet this requirement.
    - iii. Visible PE shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-191.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving baghouse D-191. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to eliminate the visible emissions.
  - (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from this emissions unit.
    - a. Daily checks shall be performed on the following emission points associated with this emissions unit:
      - i. solid fuel receiving operation;



- ii. all operations/emissions points, other than the solid fuel receiving operation, that are not fully enclosed within a building; and
    - iii. all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
  - b. A separate record shall be kept for each operation, building egress point, and/or building surface specified in d)(2)a.
  - c. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
  - d. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
    - i. the color of the emissions;
    - ii. the total duration of any visible emission incident; and
    - iii. any corrective actions taken to eliminate the visible emissions.
- e) Reporting Requirements
  - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
  - (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:
    - a. all visible emissions checks during which any visible particulate emissions were observed from the stack serving baghouse D-191; and
    - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.



- (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(2) above:
- a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from the solid fuel receiving operation;
  - b. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any operation/emission point, other than the load-out operation, that is not fully enclosed within a building;
  - c. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and
  - d. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

0.01 grain PM<sub>10</sub>/dscf (D-191)

Applicable Compliance Method

If required, compliance with the emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

b. Emission Limitation

0.89 pound PM<sub>10</sub>/hour (D-191)



Applicable Compliance Method

The hourly emission limitation represents the potential to emit of the baghouse serving this emissions unit and can be calculated using the following equation:

0.01 gr PM <sub>10</sub> <sup>(1)</sup>	dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,

- (1) Maximum outlet grain loading of the baghouse, as supplied in the permit application.
- (2) Maximum outlet gas flow rate of the baghouse (D-191 = 10,411 dscfm), as supplied in the permit application.

(3) Conversion factors.

If required, compliance with this emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitation

3.90 tons PM<sub>10</sub> per rolling, 12-month period (D-191)

Applicable Compliance Method

The annual emission limitation was calculated using the following equation:

0.89 pound PM <sub>10</sub> <sup>(1)</sup>	8760 hours <sup>(2)</sup>	1 ton <sup>(3)</sup>
hour	year	2000 pounds

Where,

- (1) Hourly emission rate for the baghouse.
- (2) Maximum annual operating scheduled.
- (3) Conversion factor.

Therefore, provided compliance is shown with the hourly limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitations

5.38 tons fugitive PE per rolling, 12-month period

1.62 tons fugitive PM<sub>10</sub> per rolling, 12-month period



Applicable Compliance Method

Compliance with the fugitive emission limitations shall be determined using the following fugitive emission calculations for each operation associated with this emissions unit that is not fully enclosed within a building and/or is vented to a dust collector that does not achieve 100% capture efficiency:

i. Solid Fuel Receiving

tons fuel <sup>(1)</sup>	0.007 lb PE <sup>(2)</sup>	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup>	0.30 lb PM <sub>10</sub> <sup>(5)</sup>
year	ton		2000 lbs	PE

Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factor for truck dumping from AP-42, Chapter 11.9 (7/98).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application.
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 30% of PE is PM<sub>10</sub>, derived from RACM Section 2.1, page 2-57 (9/80).

ii. Material Transfer/Conveying Operations

tons fuel <sup>(1)</sup>	0.02 lb PE <sup>(2)</sup>	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup>	0.30 lb PM <sub>10</sub> <sup>(5)</sup>
year	ton		2000 lbs	PE

Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factor for product transfer and conveying from RACM Section 2.1, pages 2-57 (9/80).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application.
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 30% of PE is PM<sub>10</sub>, derived from RACM Section 2.1, page 2-57 (9/80).



e. Emission Limitation

Visible PE shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-191.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

f. Emission Limitation

Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the solid fuel receiving operation.

Applicable Compliance Method

If required, compliance shall be determined in accordance with 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 procedures specified in OAC rule 3745-17-03(B)(3).

g. Emission Limitations

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.

There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for the solid fuel receiving operation.

Applicable Compliance Method

If required, compliance 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").

g) Miscellaneous Requirements

- (1) None.



**7. P902, Common Product Handling**

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

Common Product Handling: product transfer and screening operations with building enclosure(s) and baghouse control (D-131 and D-135)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p><b>Fugitive Emissions:</b> 1.75 tons particulate emissions (PE) per rolling, 12-month period</p> <p>1.52 tons particulate matter ≤ 10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.</p> <p>There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building.</p> <p><b>Stack Emissions:</b>  <u>Baghouse D-131:</u> 0.01 grain (gr) PM<sub>10</sub>/dry standard cubic foot (dscf) &amp; 1.38 pounds PM<sub>10</sub>/hour</p> <p><u>Baghouse D-135:</u> 0.01 gr PM<sub>10</sub>/dscf &amp; 0.39 pound PM<sub>10</sub>/hour</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<u>Baghouses D-131 and D-135, combined:</u> 7.75 tons PM <sub>10</sub> per rolling, 12-month period  Visible PE shall not exceed 7% opacity, as a 6-minute average, from the stack serving baghouses D-131 and D-135.
c.	OAC rule 3745-17-08(A)	The permittee 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 emission unit is exempt from the requirements of OAC rule 3745-17-07(B).
d.	OAC rule 3745-17-07(B)	This emission 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).
e.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.
f.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rules 3745-31-10 through -20.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.
- b. The permittee shall employ best available control technology (BACT) on this emissions unit for the control of particulate emissions. The BACT control requirements for this emissions unit have been identified, as follows:
  - i. The common product handling, product transfer and screening operations shall be designed and operated in such a manner as to result in the following visible fugitive emission restrictions:
    - (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.



- (b) There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building.
    - ii. This emissions unit shall be equipped with baghouse control capable of achieving 0.01 gr PM<sub>10</sub>/dscf. Baghouses D-131 and D-135 are currently operated in order to meet this requirement.
    - iii. Visible PE shall not exceed 7% opacity, as a 6-minute average, from the stack serving baghouses D-131 and D-135.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stacks serving baghouses D-131 and D-135. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to eliminate the visible emissions.
  - (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from this emissions unit.
    - a. Daily checks shall be performed on the following emission points associated with this emissions unit:
      - i. all operations/emissions points, other than the load-out operation, that are not fully enclosed within a building; and
      - ii. all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
    - b. A separate record shall be kept for each operation, building egress point, and/or building surface specified in d)(2)a.



- c. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
- d. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
  - i. the color of the emissions;
  - ii. the total duration of any visible emission incident; and
  - iii. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
- (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:
  - a. all visible emissions checks during which any visible particulate emissions were observed from the stacks serving baghouses D-131 and D-135; and
  - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(2) above:
  - a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any operation/emission point, other than the load-out operation, that is not fully enclosed within a building;
  - b. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and



- c. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

0.01 grain PM<sub>10</sub>/dscf per baghouse (D-131 and D-135)

Applicable Compliance Method

If required, compliance with the emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

- b. Emission Limitations

1.38 pounds PM<sub>10</sub>/hour (D-131)

0.39 pound PM<sub>10</sub>/hour (D-135)

Applicable Compliance Method

Each hourly emission limitation represents the potential to emit of the corresponding baghouse serving this emissions unit and can be calculated using the following equation:

0.01 gr PM <sub>10</sub> <sup>(1)</sup>	dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,

- (1) Maximum outlet grain loading of each baghouse, as supplied in the permit application.
- (2) Maximum outlet gas flow rate of each baghouse (D-131 = 16,089 dscfm and D-135 = 4,543 dscfm), as supplied in the permit application.



(3) Conversion factors.

If required, compliance with the emission limitations shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitation

7.75 tons PM<sub>10</sub> per rolling, 12-month period, combined for baghouses D-131 and D-135

Applicable Compliance Method

The annual emission limitation was calculated using the following equation:

1.77 pounds PM <sub>10</sub> <sup>(1)</sup>	8760 hours <sup>(2)</sup>	1 ton <sup>(3)</sup>
hour	year	2000 pounds

Where,

(1) Combined, hourly emission rate for the baghouses.

(2) Maximum annual operating scheduled.

(3) Conversion factor.

Therefore, provided compliance is shown with the hourly limitations, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitations

1.75 tons fugitive PE per rolling, 12-month period

1.52 tons fugitive PM<sub>10</sub> per rolling, 12-month period

Applicable Compliance Method

Compliance with the fugitive emission limitations shall be determined using the following fugitive emission calculations for each operation associated with this emissions unit that is not fully enclosed within a building and/or is vented to a dust collector that does not achieve 100% capture efficiency:

i. Material Transfer/Conveying Operations

tons lime <sup>(1)</sup>	0.1 lb PE <sup>(2)</sup>	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup>	0.87 PM <sub>10</sub> <sup>(5)</sup>
year	ton		2000 lbs	PE

Where:



- (1) Maximum annual material throughput for each emission point, as indicated in the permit application.
- (2) Emission factor for product transfer and conveying from RACM Section 2.3, page 2-158 (9/80).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application (98%).
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 87% of PE is PM<sub>10</sub>, from RACM Section 2.3, page 2-160 (9/80).

e. Emission Limitation

Visible PE shall not exceed 7% opacity from the stacks serving baghouses D-131 and D-135.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

f. Emission Limitations

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.

There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building.

Applicable Compliance Method

If required, compliance 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").

g) Miscellaneous Requirements

- (1) None.



**8. P903, Product Storage/Load-out # 1**

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

Product Storage/Load-out #1: product transfer, storage, and railcar load-out with building enclosure(s) and baghouse control (D-138 and D-139)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p><b>Fugitive Emissions:</b> 9.64 tons particulate emissions (PE) per rolling, 12-month period</p> <p>8.39 tons particulate matter ≤ 10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.</p> <p>There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building.</p> <p>Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the railcar load-out operation.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><b>Stack Emissions:</b></p> <p><u>Baghouse D-138:</u> 0.01 grain (gr) PM<sub>10</sub>/dry standard cubic foot (dscf) &amp; 0.52 pound PM<sub>10</sub>/hour</p> <p><u>Baghouse D-139:</u> 0.01 gr PM<sub>10</sub>/dscf &amp; 0.10 pound PM<sub>10</sub>/hour</p> <p><u>Baghouses D-138 and D-139, combined:</u> 2.72 tons PM<sub>10</sub> per rolling, 12-month period</p> <p>Visible particulate emissions shall not exceed 7% opacity, as a six-minute average, from the stacks serving baghouses D-138 and D-139.</p>
c.	OAC rule 3745-17-08(A)	The permittee 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 emission unit is exempt from the requirements of OAC rule 3745-17-07(B).
d.	OAC rule 3745-17-07(B)	This emission 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).
e.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.
f.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rules 3745-31-10 through -20.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.
- b. The permittee shall employ best available control technology (BACT) on this emissions unit for the control of particulate emissions. The BACT control requirements for this emissions unit have been identified, as follows:



- i. The product transfer/conveying, storage, and railcar load-out operations shall be designed and operated in such a manner as to result in the following visible fugitive emission restrictions:
    - (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
    - (b) There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for the load-out operation.
    - (c) Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the railcar load-out operation.
  - ii. This emissions unit shall be equipped and operated with baghouse control capable of achieving 0.01 gr PM<sub>10</sub>/dscf. Baghouses D-138 and D-139 are currently operated in order to meet this requirement.
  - iii. Visible particulate emissions shall not exceed 7% opacity, as a six-minute average, from the stacks serving baghouses D-138 and D-139.
  - iv. The railcar load-out operation shall be equipped and operated with a telescopic spout with baghouse aspiration, or equivalent load-out spout. Baghouse D-139 is currently operated in order to meet this requirement.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stacks serving baghouses D-138 and D-139. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to eliminate the visible emissions.



- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from this emissions unit.
  - a. Daily checks shall be performed on the following emission points associated with this emissions unit:
    - i. railcar load-out operation;
    - ii. all operations/emissions points, other than the load-out operation, that are not fully enclosed within a building; and
    - iii. all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
  - b. A separate record shall be kept for each operation, building egress point, and/or building surface specified in d)(2)a.
  - c. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
  - d. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
    - i. the color of the emissions;
    - ii. the total duration of any visible emission incident; and
    - iii. any corrective actions taken to eliminate the visible emissions.
- e) Reporting Requirements
  - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
  - (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:
    - a. all visible emissions checks during which any visible particulate emissions were observed from the stacks serving baghouses D-138 and D-139; and



- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(2) above:

- a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from the railcar load-out operation;
- b. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any operation/emission point, other than the load-out operation, that is not fully enclosed within a building;
- c. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and
- d. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

0.01 grain PM<sub>10</sub>/dscf per baghouse (D-138 and D-139)

- Applicable Compliance Method

If required, compliance with the emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.



b. Emission Limitations

0.52 pound PM<sub>10</sub>/hour (D-138)

0.10 pound PM<sub>10</sub>/hour (D-139)

Applicable Compliance Method

Each hourly emission limitation represents the potential to emit of the corresponding baghouse serving this emissions unit and can be calculated using the following equation:

0.01 gr PM <sub>10</sub> <sup>(1)</sup>	dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,

- (1) Maximum outlet grain loading of each baghouse, as supplied in the permit application.
- (2) Maximum outlet gas flow rate of each baghouse (D-138 = 6,057 dscfm and D-139 = 1,136 dscfm), as supplied in the permit application.

<sup>(3)</sup> Conversion factors.

If required, compliance with the emission limitations shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitation

2.72 tons PM<sub>10</sub> per rolling, 12-month period, combined for baghouses D-138 and D-139

Applicable Compliance Method

The annual emission limitation was calculated using the following equation:

0.62 pound PM <sub>10</sub> <sup>(1)</sup>	8760 hours <sup>(2)</sup>	1 ton <sup>(3)</sup>
hour	year	2000 pounds

Where,

- (1) Combined, hourly emission rate for the baghouses.
- (2) Maximum annual operating scheduled.
- (3) Conversion factor.



Therefore, provided compliance is shown with the hourly limitations, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitations

9.64 tons fugitive PE per rolling, 12-month period

8.39 tons fugitive PM<sub>10</sub> per rolling, 12-month period

Applicable Compliance Method

Compliance with the fugitive emission limitations shall be determined using the following fugitive emission calculations for each operation associated with this emissions unit that is not fully enclosed within a building and/or is vented to a dust collector that does not achieve 100% capture efficiency:

i. Material Transfer/Conveying Operations

tons lime <sup>(1)</sup>	0.1 lb PE <sup>(2)</sup>	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup>	0.87 PM <sub>10</sub> <sup>(5)</sup>
year	ton		2000 lbs	PE

Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factor for product transfer and conveying from RACM Section 2.3, page 2-158 (9/80).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application (98%).
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 87% of PE is PM<sub>10</sub>, from RACM Section 2.3, page 2-160 (9/80).

ii. Load-out Operations

tons lime <sup>(1)</sup>	0.25 lb PE <sup>(2)</sup>	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup>	0.87 PM <sub>10</sub> <sup>(5)</sup>
year	ton		2000 lbs	PE

Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factor for packaging and shipping from RACM Section 2.3, page 2-158 (9/80).



- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application (99%).
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 87% of PE is PM<sub>10</sub>, from RACM Section 2.3, page 2-160 (9/80).

e. Emission Limitation

Visible emissions shall not exceed 7% opacity, as a six-minute average, from the stacks serving baghouses D-138 and D-139.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

f. Emission Limitation

Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the railcar load-out operation.

Applicable Compliance Method

If required, compliance shall be determined in accordance with 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 procedures specified in OAC rule 3745-17-03(B)(3).

g. Emission Limitations

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.

There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for the load-out operation.

Applicable Compliance Method

If required, compliance 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").

g) Miscellaneous Requirements

- (1) None.



**9. P904, Product Storage/Loadout # 2**

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

Product Storage/Loadout #2: product transfer, screening, pelletizing, storage, and truck/rail load-out operations with building enclosure(s) and baghouse control (D-152)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p>Fugitive Emissions: 5.26 tons particulate emissions (PE) per rolling, 12-month period</p> <p>4.58 tons particulate matter ≤ 10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.</p> <p>There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building.</p> <p>Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the truck and rail load-out operations.</p> <p><b>Stack Emissions:</b> Baghouse D-152:</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		0.01 grain (gr) PM <sub>10</sub> /dry standard cubic foot (dscf) & 1.30 pounds PM <sub>10</sub> /hour  5.69 tons PM <sub>10</sub> per rolling, 12-month period  Visible particulate emissions shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-152.
c.	OAC rule 3745-17-08(A)	The permittee 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 emission unit is exempt from the requirements of OAC rule 3745-17-07(B).
d.	OAC rule 3745-17-07(B)	This emission 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).
e.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.
f.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rules 3745-31-10 through -20.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.
  - i. The product transfer/conveying, storage, and railcar load-out operations shall be designed and operated in such a manner as to result in the following visible fugitive emission restrictions:
    - (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
    - (b) There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for the load-out operation.





- iii. all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
  - b. A separate record shall be kept for each operation, building egress point, and/or building surface specified in d)(2)a.
  - c. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
  - d. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
    - i. the color of the emissions;
    - ii. the total duration of any visible emission incident; and
    - iii. any corrective actions taken to eliminate the visible emissions.
- e) Reporting Requirements
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
  - (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:
    - a. all visible emissions checks during which any visible particulate emissions were observed from the stack serving baghouse D-152; and
    - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.
  - (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(2) above:



- a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from the railcar load-out operation;
- b. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any operation/emission point, other than the load-out operation, that is not fully enclosed within a building;
- c. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and
- d. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

0.01 grain PM<sub>10</sub>/dscf (D-152)

Applicable Compliance Method

If required, compliance with the emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

- b. Emission Limitation

1.30 pounds PM<sub>10</sub>/hour (D-152)

Applicable Compliance Method

The hourly emission limitation represents the potential to emit of the baghouse serving this emissions unit and can be calculated using the following equation:



0.01 gr PM <sub>10</sub> <sup>(1)</sup>	dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,

- (1) Maximum outlet grain loading of the baghouse, as supplied in the permit application.
- (2) Maximum outlet gas flow rate of the baghouse (D-152 = 15,143 dscfm), as supplied in the permit application.

(3) Conversion factors.

If required, compliance with this emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitation

5.69 tons PM<sub>10</sub> per rolling, 12-month period (D-152)

Applicable Compliance Method

The annual emission limitation was calculated using the following equation:

1.30 pounds PM <sub>10</sub> <sup>(1)</sup>	8760 hours <sup>(2)</sup>	1 ton <sup>(3)</sup>
hour	year	2000 pounds

Where,

- (1) Hourly emission rate for the baghouse.
- (2) Maximum annual operating scheduled.
- (3) Conversion factor.

Therefore, provided compliance is shown with the hourly limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitations

5.26 tons fugitive PE per rolling, 12-month period

4.58 tons fugitive PM<sub>10</sub> per rolling, 12-month period

Applicable Compliance Method

Compliance with the fugitive emission limitations shall be determined using the following fugitive emission calculations for each operation associated with this



emissions unit that is not fully enclosed within a building and/or is vented to a dust collector that does not achieve 100% capture efficiency:

i. Material Transfer/Conveying Operations

tons lime <sup>(1)</sup> year	0.1 lb PE <sup>(2)</sup> ton	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup> 2000 lbs	0.87 PM <sub>10</sub> <sup>(5)</sup> PE
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Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factor for product transfer and conveying from RACM Section 2.3, pages 154-171 (9/80).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application (98%).
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 87% of PE is PM<sub>10</sub>, from RACM Section 2.3, pages 154-171 (9/80).

ii. Load-out Operations

tons lime <sup>(1)</sup> year	0.25 lb PE <sup>(2)</sup> ton	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup> 2000 lbs	0.87 PM <sub>10</sub> <sup>(5)</sup> PE
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Where:

- (1) Maximum annual material throughput, as indicated in the permit application (1,752,000 tons).
- (2) Emission factor for packaging and shipping from RACM Section 2.3, pages 154-171 (9/80).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application (99%).
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 87% of PE is PM<sub>10</sub> [RACM Section 2.3, pages 154-171 (9/80)].

e. Emission Limitation

Visible particulate emissions shall not exceed 7% opacity, as a six-minute average, from the stack serving baghouse D-152.



Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

f. Emission Limitation

Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the truck and railcar load-out operations.

Applicable Compliance Method

If required, compliance shall be determined in accordance with 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 procedures specified in OAC rule 3745-17-03(B)(3).

g. Emission Limitations

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.

There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for the load-out operations.

Applicable Compliance Method

If required, compliance 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").

g) Miscellaneous Requirements

- (1) None.



**10. P905, Lime Kiln Dust Handling/Load-Out**

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

Lime Kiln Dust (LKD) Handling Operation – including (1) box/dump truck load-out operation and (1) pneumatic/dry bulk tank truck load-out operation

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p><b>Fugitive Emissions:</b> 4.01 tons particulate emissions (PE) per rolling, 12-month period</p> <p>3.49 tons particulate matter ≤ 10 microns (PM<sub>10</sub>) per rolling, 12-month period</p> <p>There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.</p> <p>There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building.</p> <p>Visible fugitive emissions shall not exceed 10% opacity from the truck load-out operations.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><b>Stack Emissions:</b></p> <p><u>Baghouse D-188.1 (LKD silo):</u> 0.01 grain (gr) PM<sub>10</sub>/dry standard cubic foot (dscf) &amp; 0.17 pound PM<sub>10</sub>/hour</p> <p><u>Baghouse D-188.2 (LKD silo):</u> 0.01 gr PM<sub>10</sub>/dscf &amp; 0.17 pound PM<sub>10</sub>/hour</p> <p><u>Baghouse D-189 (load-out):</u> 0.01 gr PM<sub>10</sub>/dscf &amp; 0.10 pound PM<sub>10</sub>/hour</p> <p><u>Baghouses D-188.1, D-188.2, and D-189, combined:</u> 1.93 tons PM<sub>10</sub> per rolling, 12-month period</p> <p>Visible PE shall not exceed 7% opacity, as a six-minute average, from the stacks serving baghouses D-188.1, D-188.2, and D-189.</p>
c.	OAC rule 3745-17-08(A)	The permittee 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 emission unit is exempt from the requirements of OAC rule 3745-17-07(B).
d.	OAC rule 3745-17-07(B)	This emission 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).
e.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.
f.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rules 3745-31-10 through -20.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20.



- i. The material transfer points and truck load-out operations shall be designed and operated in such a manner as to result in the following visible fugitive emission restrictions:
    - (a) There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.
    - (b) There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for the load-out operation.
    - (c) Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the truck load-out operations.
  - ii. The lime kiln dust (LKD) silo and pneumatic material transfer system leading to the silo shall be equipped with baghouse control capable of achieving 0.01 gr PM<sub>10</sub>/dscf. Baghouses D-188.1 and D-188.2 are currently operated in order to meet this requirement.
  - iii. Visible particulate emissions shall not exceed 7% opacity, as a six-minute average, from the stacks serving baghouses D-188.1, D-188.2, and D-189.
  - iv. The box/dump truck load-out operation shall be equipped with a pug mill that sufficiently wets the LKD material prior to load-out.
  - v. The pneumatic/dry bulk tank truck load-out operation shall be equipped with baghouse control capable of achieving 0.01 gr PM<sub>10</sub>/dscf. Baghouse D-189 is currently operated in order to meet this requirement.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse discharges serving baghouses D-188.1, D-188.2, and D-189. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and



- e. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from this emissions unit.
- a. Daily checks shall be performed on the following emission points associated with this emissions unit:
    - i. box/dump truck load-out operation;
    - ii. pneumatic/dry bulk tank truck load-out operation;
    - iii. all operations/emissions points, other than the load-out operations, that are not fully enclosed within a building; and
    - iv. all egress points associated with the building enclosure serving this emissions unit. It would be acceptable to observe each side of the building and roof for visible fugitive emissions.
  - b. A separate record shall be kept for each operation, building egress point, and/or building surface specified in d)(2)a.
  - c. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
  - d. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
    - i. the color of the emissions;
    - ii. the total duration of any visible emission incident; and
    - iii. any corrective actions taken to eliminate the visible emissions.
- e) Reporting Requirements
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).



- (3) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:
- a. all visible emissions checks during which any visible particulate emissions were observed from the stacks serving baghouses: D-188.1, D-188.2, and D-189 that are associated with this emissions unit; and
  - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(2) above:
- a. all visible fugitive emissions checks during which any visible fugitive emissions were observed from the box/dump truck load-out operation;
  - b. all visible fugitive emissions checks during which any visible fugitive emissions were observed from the pneumatic/dry bulk tank truck load-out operation;
  - c. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any operation/emission point, other than the load-out operations, that is not fully enclosed within a building;
  - d. all visible fugitive emissions checks during which any visible fugitive emissions were observed from any egress point associated with the building enclosure serving this emissions unit; and
  - e. any corrective actions taken to minimize or eliminate the visible fugitive emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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 Limitations

0.01 grain PM<sub>10</sub>/dscf per baghouse (D-188.1, D-188.2, and D-189)

Applicable Compliance Method

If required, compliance with the emission limitations shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

b. Emission Limitations

0.17 pound PM<sub>10</sub>/hour (D-188.1)

0.17 pound PM<sub>10</sub>/hour (D-188.2)

0.10 pound PM<sub>10</sub>/hour (D-189)

Applicable Compliance Method

Each hourly emission limitation represents the potential to emit of each baghouse serving the dried fines processing operation and can be calculated using the following equation:

0.01 gr PM <sub>10</sub> <sup>(1)</sup>	dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,

(1) Maximum outlet grain loading of each baghouse, as supplied in the permit application.

(2) Maximum outlet gas flow rate of each baghouse (D-188.1 = 2,000 dscfm; D-188.2 = 2,000 dscfm; and D-189 = 1,200 dscfm), as supplied in the permit application.

(3) Conversion factors.

If required, compliance with this emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitation

1.93 tons PM<sub>10</sub> per rolling, 12-month period, combined for baghouses D-188.1, D-188.2, and D-189



Applicable Compliance Method

The annual emission limitation was calculated using the following equation:

0.44 pound PM <sub>10</sub> <sup>(1)</sup> hour	8760 hours <sup>(2)</sup> year	1 ton <sup>(3)</sup> 2000 pounds
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Where,

- (1) Combined, hourly emission rate for the baghouses.
- (2) Maximum annual operating scheduled.
- (3) Conversion factor.

Therefore, provided compliance is shown with the hourly limitations, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitations

4.01 tons PE per rolling, 12-month period

3.49 tons PM<sub>10</sub> per rolling, 12-month period

Applicable Compliance Method

Compliance with the fugitive emission limitations shall be determined using the following fugitive emission calculations for each material transfer/conveying operation associated with this emissions unit:

i. Material Transfer/Conveying Operations

tons LKD <sup>(1)</sup> year	0.1 lb PE <sup>(2)</sup> ton	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup> 2000 lbs	0.87 PM <sub>10</sub> <sup>(5)</sup> PE
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Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factor for product transfer and conveying from RACM Section 2.3, pages 154-171 (9/80).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application.
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 87% of PE is PM<sub>10</sub>, from RACM Section 2.3, pages 154-171 (9/80).



ii. Load-out Operations

tons LKD <sup>(1)</sup>	0.25 lb PE <sup>(2)</sup>	1-CE <sup>(3)</sup>	1 ton <sup>(4)</sup>	0.87 PM <sub>10</sub> <sup>(5)</sup>
year	ton		2000 lbs	PE

Where:

- (1) Maximum annual material throughput, as indicated in the permit application.
- (2) Emission factor for packaging and shipping from RACM Section 2.3, pages 154-171 (9/80).
- (3) CE = control efficiency for the reduction of fugitive particulate emissions, as indicated in the permit application.
- (4) Conversion factor.
- (5) To estimate fugitive PM<sub>10</sub> emissions, assume 87% of PE is PM<sub>10</sub> [RACM Section 2.3, pages 154-171 (9/80)].

e. Emission Limitations

Visible particulate emissions shall not exceed 7% opacity, as a six-minute average, from the stacks serving baghouses D-188.1, D-188.2, and D-189.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

f. Emission Limitations

Visible fugitive emissions shall not exceed 10% opacity, as a three-minute average, from the truck and railcar load-out operations.

Applicable Compliance Method

If required, compliance shall be determined in accordance with 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 procedures specified in OAC rule 3745-17-03(B)(3).

g. Emission Limitation

There shall be no visible fugitive emissions from any building egress point enclosing any operation associated with this emissions unit.



There shall be no visible fugitive emissions from any operation associated with this emissions unit that is not fully enclosed within a building, except for the load-out operations.

Applicable Compliance Method

If required, compliance 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").

- g) Miscellaneous Requirements
  - (1) None.



**11. Emissions Unit Group – Rotary Lime Kilns: P003 & P004**

EU ID	Operations, Property and/or Equipment Description
P003	rotary lime kiln #1 with cooler and baghouse D-185 (P003 and P004 share a common stack)
P004	rotary lime kiln #2 with cooler and baghouse D-285 (P003 and P004 share a common stack)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
- (1) 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)	See b)(2)a.
b.	OAC rules 3745-31-10 through -20	<p><b>Best Available Control Technology:</b> See b)(2)b.</p> <p>0.021 grain (gr) particulate matter 10 microns or less in size (PM<sub>10</sub>)/dry standard cubic foot (dscf)</p> <p>14.23 pounds PM<sub>10</sub>/hour &amp; 62.33 tons PM<sub>10</sub> per rolling, 12-month period</p> <p>1,234.90 pounds nitrogen oxides (NO<sub>x</sub>)/hour &amp; 5,408.90 tons NO<sub>x</sub> per rolling, 12-month period</p> <p>1,102.00 pounds sulfur dioxide (SO<sub>2</sub>)/hour &amp; 4,826.80 tons SO<sub>2</sub> per rolling, 12-month period</p> <p>270.83 pounds carbon monoxide (CO)/hour &amp; 1,186.23 tons CO per rolling, 12-month period</p> <p>16.25 pounds volatile organic compounds (VOC)/hour &amp; 71.17 tons VOC per rolling, 12-month period</p> <p>0.005 pound lead (Pb)/hour &amp; 0.02 ton</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Pbper rolling 12-month period  Visible particulate emissions shall not exceed 15% opacity, as a six-minute average, from the stack serving baghouses D-185 and D-285.
c.	OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitations established pursuant to OAC rules 3745-31-10 through -20.
d.	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rules 3745-31-10 through -20.
e.	OAC rule 3745-18-80(B)	The permittee shall not cause or permit the emission of SO <sub>2</sub> to exceed a maximum of 34.0 pounds SO <sub>2</sub> per ton of actual process weight input.
f.	40 CFR Part 63, Subpart AAAAA (63.7080 through 63.7143)	See 63.7090  0.12 pound particulate matter (PM) per ton stone feed from kiln/cooler  See b)(2)c and b)(2)d.
g.	40 CFR, Part 63.1 – 63.15	Table 8 to 40 CFR, Part 63, Subpart AAAAA – Applicability of General Provisions to Subpart AAAAA specifies the applicable General Provisions from 40 CFR 63.1 – 63.15.

(2) Additional Terms and Conditions

- a. The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through -20 and OAC rule 3745-18-80(B).
- b. The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the following:
  - i. Control requirements:
    - (a) The permittee shall employ a baghouse with a maximum outlet grain loading of 0.021 gr PM<sub>10</sub>/dscf. Baghouses D-185 and D-285 are currently employed during the operation of emissions units P003 and P004, respectively, to meet this requirement.



(b) Based on the BACT analysis, it was determined that there are no cost-effective control technologies for NO<sub>x</sub>, SO<sub>2</sub>, CO, or VOC.

ii. Emissions limitations:

- (a) 0.021 gr PM<sub>10</sub>/dry standard cubic foot (dscf);
- (b) 14.23 pounds PM<sub>10</sub>/hour & 62.33 tons PM<sub>10</sub> per rolling, 12-month period;
- (c) 1,234.90 pounds NO<sub>x</sub>/hour & 5,408.90 tons NO<sub>x</sub> per rolling, 12-month period;
- (d) 1,102.00 pounds SO<sub>2</sub>/hour & 4,826.80 tons SO<sub>2</sub> per rolling, 12-month period;
- (e) 270.83 pounds CO/hour & 1,186.23 tons CO per rolling, 12-month period;
- (f) 16.25 pounds VOC/hour & 71.17 tons VOC per rolling, 12-month period;
- (g) 0.005 pound Pb/hour & 0.02 ton Pb per rolling 12-month period;
- (h) Visible particulate emissions shall not exceed 15% opacity, as a six-minute average, from the stack serving baghouses D-185 and D-285.

c. The visible emission limitation specified by this rule is equivalent to the visible emission limitation established pursuant to OAC rules 3745-31-10 through -20.

d. The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart AAAAA (MACT for Lime Manufacturing Plants), including the following sections:

63.7090(a) and Table 1 of Subpart AAAAA of Part 63	Emission limitations
63.7090(b) and Table 2 of Subpart AAAAA of Part 63	Operating limitations
63.7100	General requirements

c) Operational Restrictions

(1) The permittee shall only burn coal, petroleum coke, and/or natural gas in this emissions unit, unless otherwise approved by the appropriate Ohio EPA District Office or local air agency.



- (2) The maximum sulfur content of the coal burned in this emissions unit shall not exceed 5.50 percent, by weight.
- (3) The maximum sulfur content of the coke burned in this emissions unit shall not exceed 6.50 percent, by weight.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall collect or require the coal and coke supplier(s) to collect a representative grab sample for each shipment of coal and/or coke that is received for burning in this emissions unit.

The permittee shall perform or require the supplier(s) to perform the analysis of sulfur content (in percent, by weight) in accordance with the most recent version of the following ASTM methods:

- a. ASTM Method D3177, Total Sulfur in the Analysis Sample of Coal and Coke; or
- b. ASTM Method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods.

Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

- (2) The permittee shall maintain monthly fuel records that include the following:
  - a. the total quantity of coal received;
  - b. the total quantity of petroleum coke received; and
  - c. the results of the sulfur content analyses of each coal and coke shipment (in percent, by weight).
- (3) For each day during which the permittee burns a fuel other than coal, coke, or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. Daily checks shall be performed to demonstrate the capture of all particulate emissions associated with the operation of the kiln/cooler:
  - a. Daily checks shall be performed on the following:
    - i. kiln operations; and
    - ii. the building housing cooler operations.
  - b. A separate record shall be kept for each operation specified in d)(1)a.



- c. The presence or absence of any visible fugitive emissions shall be noted in an operations log.
- d. If visible fugitive emissions are observed, the permittee shall also note the following in the operations log:
  - i. the location and color of the emissions;
  - ii. the total duration of any visible emission incident; and
  - iii. any corrective actions taken to eliminate the visible emissions.
- (5) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7113(a)	Install, operate, and maintain a continuous opacity monitoring system (COMS)
63.7113(g)	Monitoring installation, operation, and maintenance requirements
63.7120, 63.7121 and Tables 5 and 6 of Subpart AAAAA of Part 63.	Continuous compliance requirements
63.7132 and 63.7133	Recordkeeping requirements

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than coal, coke, or natural gas in this emissions, unless that fuel was approved by the appropriate Ohio EPA District Office or local air agency. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
- (4) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible emissions in term d)(1) above:



- a. all visible emissions checks during which any visible particulate emissions were observed from kiln and/or cooler operations; and
- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If there are no day(s) and/or corrective actions(s) to identify, as required above, the permittee shall indicate that no visible emissions were observed and/or that no corrective actions were taken.

- (5) The permittee shall identify the following information in the quarterly report in accordance with the monitoring requirements for visible fugitive emissions in term d)(4) above:
- (6) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (7) The permittee shall comply with the applicable notification and reporting requirements required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7130	Notification requirements
63.7131 and Table 7 of Subpart AAAAA of Part 63	Reporting requirements

- (8) In accordance with 40 CFR Part 63.7131(b), the compliance report shall be submitted on a quarterly basis.

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

0.021 gr PM<sub>10</sub>/dscf

Applicable Compliance Method

Compliance with the above emission limitation shall be based on the results of emission testing. If required, compliance with the emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.



b. Emission Limitation

14.23 pounds PM<sub>10</sub>/hour

Applicable Compliance Method

The hourly emission limitation represents the potential to emit of the baghouse serving this emissions unit and can be calculated using the following equation:

0.021 gr PM <sub>10</sub> <sup>(1)</sup>	79044 dscf <sup>(2)</sup>	1 pound <sup>(3)</sup>	60 minutes <sup>(3)</sup>
dscf	minute	7000 grains	hour

Where,

- (1) Maximum BACT outlet concentration of the baghouse.
- (2) Maximum outlet gas flow rate of the baghouse, as supplied in the permit application.

<sup>(3)</sup> Conversion factors.

If required, compliance with this emission limitation shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and in 40 CFR, Part 51, Appendix M, Methods 201/201A and 202.

c. Emission Limitations

- 1,234.90 pounds NO<sub>x</sub>/hour
- 1,102.00 pounds SO<sub>2</sub>/hour
- 270.83 pounds CO/hour
- 16.25 pounds VOC/hour
- 0.005 pound lead/hour

Applicable Compliance Method

Compliance with the hourly emissions limitations shall be based on the results of emission testing. If required, compliance with the emission limitations shall be demonstrated in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1-4 and the following additional test methods from 40 CFR, Part 60, Appendix A, as necessary:

- i. NO<sub>x</sub>: Method 7;
- ii. SO<sub>2</sub>: Method 6;
- iii. CO: Method 10;
- iv. VOC: Method 25; and/or
- v. Lead: Method 12.

Alternative U.S. EPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.



d. Emission Limitation

62.33 tons PM<sub>10</sub> per rolling, 12-month period  
 5,408.90 tons NO<sub>x</sub> per rolling, 12-month period  
 4,826.80 tons SO<sub>2</sub> per rolling, 12-month period  
 1,186.23 tons CO per rolling, 12-month period  
 71.17 tons VOC per rolling, 12-month period  
 0.02 ton Pb per rolling, 12-month period

Applicable Compliance Method

The 12-month, rolling emission limitations were calculated using the following equation:

pounds pollutant <sup>(1)</sup>	8760 hours <sup>(2)</sup>	1 ton <sup>(3)</sup>
hour	year	2000 pounds

Where,

- (1) Established hourly emission rate.
- (2) Maximum annual operating scheduled.
- (3) Conversion factor.

Therefore, provided compliance is shown with the hourly limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

e. Emission Limitation

Visible PE shall not exceed 15% opacity, as a six-minute average, from the stack serving baghouses D-185 and D-285.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

- (2) The permittee shall comply with the applicable testing requirements required under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.7110	Initial compliance/performance tests
63.7111, 63.7112, and Table 4 of Subpart AAAAA of Part 63	Performance test frequency and requirements
63.7114 and Table 3 of Subpart AAAAA of Part 63	Demonstration of initial compliance



**Final Permit-to-Install**  
Carmeuse Lime, Inc. - Maple Grove Operations  
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**Effective Date:** 12/18/2014

g) Miscellaneous Requirements

(1) None.