



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

9/28/2016

Certified Mail

TRUSKIE BURSON-RAGER
OWENS CORNING
100 BLACKJACK RD
MOUNT VERNON, OH 43050

Facility ID: 0142010065
Permit Number: P0120812
County: Knox

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Off-Permit Change

Dear Permit Holder:

Enclosed is a final Ohio Environmental Protection Agency (EPA) Air Pollution Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it 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**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

The issuance of this Title V permit 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

How to give us feedback on your permitting experience

Please complete a survey at 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 by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Central District Office as indicated on page one of your permit.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA DAPC, Central District Office



FINAL

**Division of Air Pollution Control
Title V Permit
for
OWENS CORNING**

Facility ID:	0142010065
Permit Number:	P0120812
Permit Type:	Off-Permit Change
Issued:	9/28/2016
Effective:	9/28/2016
Expiration:	12/18/2017



Division of Air Pollution Control
Title V Permit
for
OWENS CORNING

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Final Title V Permit
OWENS CORNING
Permit Number: P0120812
Facility ID: 0142010065
Effective Date: 9/28/2016

Authorization

Facility ID: 0142010065
Facility Description: Mineral Wool
Application Number(s): M0004006
Permit Number: P0120812
Permit Description: Title V Permit for unbonded loose fill fiberglass insulation manufacturing plant. Includes glass melting, fiberization and packaging.
Permit Type: Off-Permit Change
Issue Date: 9/28/2016
Effective Date: 9/28/2016
Expiration Date: 12/18/2017
Superseded Permit Number: P0108721

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

OWENS CORNING
100 BLACKJACK RD
Mount Vernon, OH 43050

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

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Central District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Final Title V Permit
OWENS CORNING
Permit Number: P0120812
Facility ID: 0142010065
Effective Date: 9/28/2016

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. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. 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 (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- 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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenance requests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the

probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Central District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Central District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally

enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Central District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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 except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. 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, reopening 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.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
- (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.
 - (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, Central 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.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Central District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.
 - b. The permittee's current compliance status.

- c. Whether compliance was continuous or intermittent consistent with A.13.d.2.a above.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.
 - e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

- a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Central District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Central District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible 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 Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the Ohio EPA DAPC, Central District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Central District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine

whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

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

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Central District Office must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.



Final Title V Permit
OWENS CORNING
Permit Number: P0120812
Facility ID: 0142010065
Effective Date: 9/28/2016

30. Submitting Documents Required by this Permit

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 Ohio EPA DAPC, Central District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.



Final Title V Permit
OWENS CORNING
Permit Number: P0120812
Facility ID: 0142010065
Effective Date:9/28/2016

B. Facility-Wide Terms and Conditions

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.
2. The following insignificant emission units at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emission unit. The insignificant emission units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP-approved versions of OAC Chapters 3745-17, 3745-18 and 3745-21:

P061 – Emergency Generator (PBR 09163)
3. The permittee is advised that this facility may be subject to the “Generally Available Control Technology” (GACT) requirements under Title 40 of the Code of Regulations, Part 63, Subpart ZZZZ, the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines. At this time the Ohio EPA is not accepting the delegating authority to enforce the standards promulgated under the Urban Air Toxics Strategy. The requirements of this rule, that are applicable to the area source(s) (for hazardous air pollutants) identified in this permit, shall be enforceable by U.S. EPA, Region 5. The complete requirements of this Subpart (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting Ohio EPA, Central District Office.



Final Title V Permit
OWENS CORNING
Permit Number: P0120812
Facility ID: 0142010065
Effective Date: 9/28/2016

C. Emissions Unit Terms and Conditions

1. P004, Batch Mixer & Scale Hoppers #1 & #2

Operations, Property and/or Equipment Description:

Batch Mixer and Scale Hoppers No. 1 and No. 2 controlled by a baghouse.

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) (P0105936 , as issued February 4, 2010)	Particulate emissions (PE) shall not exceed 0.07 pound per hour and 0.30 ton/year. All PE are considered PM-10. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)a.

(2) Additional Terms and Conditions

- a. This emissions unit's uncontrolled PE are less than 10 pounds per hour, therefore, this emissions unit is exempt from the requirements of OAC rule 3747-17-11 per OAC rule 3745-17-11(A)(2)(a)(ii).

(Authority for term: OAC rule 3745-17-11)

- b. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(3))

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in d)(1). The report shall include a copy of such record and shall be sent to the Director (Ohio EPA, Central District Office) following the end of the quarter. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(c)(1))

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:

Limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-



03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

0.07 lb/hr and 0.30 ton/yr PE.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 400 cfm.

$$E(PE) = 0.02 \text{ gr/scf} \times 400 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.07 \text{ lb/hr.}$$

Annual emissions are determined by multiplying the hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton.

If required, pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

g) Miscellaneous Requirements

(1) None.

2. P006, Batch Ingredient Transporter

Operations, Property and/or Equipment Description:

Batch Ingredient Transporter controlled by a baghouse.

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) (P0105936 , as issued February 4, 2010)	Particulate emissions (PE) shall not exceed 0.07 pound per hour and 0.30 ton/year. All PE are considered PM-10. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)a.

(2) Additional Terms and Conditions

- a. This emissions unit's uncontrolled PE are less than 10 pounds per hour, therefore, this emissions unit is exempt from the requirements of OAC rule 3747-17-11 per OAC rule 3745-17-11(A)(2)(a)(ii).

(Authority for term: OAC rule 3745-17-11)

- b. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in d)(1). The report shall include a copy of such record and shall be sent to the Director (Ohio EPA, Central District Office) following the end of the quarter. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

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:
Limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.



Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC Rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

- b. Emission Limitation:
0.07 lb/hr and 0.30 ton/yr PE

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 400 cfm.

$$E(\text{PE}) = 0.02 \text{ gr/scf} \times 400 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.07 \text{ lb/hr.}$$

Annual emissions are determined by multiplying the hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton.

If required, pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, Appendix A, Method 5.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

- g) Miscellaneous Requirements

- (1) None.

3. P015, Cullet Unloading Chute

Operations, Property and/or Equipment Description:

Raw material unloading screw conveyor and bucket elevator.

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) (PTI 01-6653, as issued January 15, 1997)	Particulate Emissions (PE) shall not exceed 0.02 grain/scf, 0.51 lb/hr and 2.25 tons per year.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 01-6653, issued on January

15, 1997:d)(2) and d)(3). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

(Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii))

- (2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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 location and 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 emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(Authority for term: OAC rule 3745-77-07(A)(3) and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

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

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 01-6653, issued on January 15, 1997:e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

(Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii))

- (3) The permittee shall submit semiannual written reports that identify:
- any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
 - all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack.

These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-77-07(A)(3) and OAC rule 3745-77-07(C)(1))

f) Testing Requirements

- (1) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install # 01-6653, issued on January 15, 1997: f)(2)a. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

(Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii))

- (2) 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:
PE shall not exceed 0.02 grain/scf, 0.51 lb/hr and 2.25 tons per year.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 3000 cfm.

$$E(PE) = 0.02 \text{ gr/scf} \times 3000 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.51 \text{ lb/hr.}$$



Annual emissions are determined by multiplying the hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton.

If required, pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, Appendix A, Method 5.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

g) Miscellaneous Requirements

- (1) None.

4. P030, New Raw Material Silo

Operations, Property and/or Equipment Description:

New Raw Material Silo with dust collector.

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) (P0105936, as issued February 4, 2010)	Particulate emissions (PE) shall not exceed 0.446 pound per hour and 0.34 ton/year. All PE are considered PM-10. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)a.

(2) Additional Terms and Conditions

- a. This emissions unit's uncontrolled PE are less than 10 pounds per hour, therefore, this emissions unit is exempt from the requirements of OAC rule 3747-17-11 per OAC rule 3745-17-11(A)(2)(a)(ii).
- b. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), OAC rule 3745-77-07(C)(1))

- (2) The permittee shall operate and maintain equipment to monitor the pressure drop across the dust collector(s) while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), OAC rule 3745-77-07(C)(1))

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass

emission tests and/or visible emission readings, using USEPA approved methods and procedures.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), OAC rule 3745-77-07(C)(1))

(4) The permittee shall collect and record the following information for each month for this emissions unit:

- a. the maximum number of deliveries;
- b. the maximum number of operating cycles; and
- c. a yearly summation of a. and b.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

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

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in d)(1). The report shall include a copy of such record and shall be sent to the Director (Ohio EPA, Central District Office) following the end of the quarter. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), OAC rule 3745-31-05(A)(3), and OAC rule 3745-77-07(C)(1))

(3) The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), OAC rule 3745-31-05(A)(3), and OAC rule 3745-77-07(C)(1))

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:

Limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC Rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

Emission Limitation:

0.446 lb/hr PE (based on depressurization)

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 2600 cfm.

$$E(PE) = 0.02 \text{ gr/scf} \times 2600 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.446 \text{ lb/hr.}$$

If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, Appendix A, Method 5.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

0.34 ton/yr PE

Applicable Compliance Method:

Yearly compliance shall be based on an annual calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, an 800 cfm air flow that lasts 2 hours for filling, a 2,600 cfm airflow that lasts 5 seconds for depressurization, an 800 cfm air flow that lasts 5 minutes for transfer, and a 1500 cfm air flow that lasts 1.5 minutes for purging.

Annual emissions are determined by multiplying silo filling air flow volume times the loading factor times the maximum yearly deliveries, adding the transfer air flow volume multiplied by loading factor times the maximum yearly material transfers and dividing by 2000 lbs/ton.



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$$PE = [(96217 \text{ cf/deliveries} \times 0.02 \text{ gr/cf} \times \text{maximum number of deliveries per year}) + (6250 \text{ cf/transfer cycle} \times 0.02 \text{ gr/cf} \times \text{maximum number of operating cycles per year})] \times 1 \text{ lb/7000 gr} \times 1 \text{ ton/2000 lbs.}$$

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

- g) Miscellaneous Requirements
 - (1) None.

5. P031, Mixed Batch Transfer

Operations, Property and/or Equipment Description:

Mixed Batch Transfer controlled by a baghouse vent indoors.

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) (P0105963, as issued February 4, 2010)	Particulate emissions (PE) shall not exceed 0.13 pound per hour and 0.56 ton/year. All PE are considered PM-10. Visible PE shall not exceed twenty-percent opacity as a three minute average at the associated egress points, north wall upper louvers, north wall lower louvers, south wall upper louvers, and south wall lower louvers. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and OAC rule 3745-17-11.
b.	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across each baghouse is between 1 to 5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouses while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouses on a daily basis.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

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

- (2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in d)(1). The report shall include a copy of such record and shall be sent to the Director (Ohio EPA, Central District Office) following the end of the quarter. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

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:

Limit for visible particulate emissions- twenty (20) percent opacity, as a three-minute average at the associated egress points, north wall upper louvers, north wall lower louvers, south wall upper louvers, and south wall lower louvers.

Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed at the associated egress points, north wall upper louvers, north wall lower louvers, south wall upper louvers, and south wall lower louvers, in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

0.13 lb/hr and 0.56 ton/yr PE.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 250 cfm.

$E(PE) = 0.02 \text{ gr/scf} \times 250 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} \times 3 \text{ units} = 0.13 \text{ lb/hr.}$

Annual emissions are determined by multiplying the hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton.

If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and 40 CFR Part 51, Appendix M, Method 202.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

g) Miscellaneous Requirements

(1) None.

6. P032, Glass Making System #1

Operations, Property and/or Equipment Description:

Glass Making System No. 1 controlled by a baghouse.

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) (P0105936, as issued February 4, 2010)	Particulate emissions (PE) shall not exceed 0.462 pound per hour and 2.05 tons/year. All PE are considered PM-10. Sulfur dioxide emissions (SO ₂) shall not exceed 0.14 pound per hour and 0.62 ton/year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across each baghouse is between 2 to 5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in d)(1). The report shall include a copy of such record and shall be sent to the Director (Ohio EPA, Central District Office) following the end of the quarter. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

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:

Limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

0.462 lb/hr and 2.05 tons/yr PE.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(PE) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section f)(2)

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

0.14 lb/hr and 0.62 tons/yr SO₂.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

If required, pursuant to OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 6.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 2.5 years after permit issuance.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate matter and to determine the emission factor in pounds per ton of glass produced.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate matter, Method 5 of 40 CFR Part 60, Appendix A, and Method 202 of 40 CFR Part 51, Appendix M.



- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA, Central District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to Ohio, EPA Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Ohio EPA, Central District Office refusal to accept the results of the emission test(s).
- f. Personnel from Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office.

(Authority for term: OAC rule 3745-77-07(C)(1))

- g) Miscellaneous Requirements
 - (1) None.

7. P033, Glass Making System #2

Operations, Property and/or Equipment Description:

Glass Making System No. 2 controlled by a baghouse.

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) (P0105936, as issued February 4, 2010)	Particulate emissions (PE) shall not exceed 0.462 pound per hour and 2.05 tons/year. All PE are considered PM ₁₀ . Sulfur dioxide emissions (SO ₂) shall not exceed 0.14 pound per hour and 0.62 ton/year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3), and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 2 to 5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in d)(1). The report shall include a copy of such record and shall be sent to the Director (Ohio EPA, Central District Office) following the end of the quarter. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

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:

Limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

0.462 lb/hr and 2.05 tons/yr PE.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(PE) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section f)(2).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

0.14 lb/hr and 0.62 tons/yr SO₂.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

If required pursuant to OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 6.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 2.5 years after permit issuance.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate matter and to determine the emission factor in pounds per ton of glass produced.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate matter, Method 5 of 40 CFR Part 60, Appendix A, and Method 202 of 40 CFR Part 51, Appendix M.



- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA, Central District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to Ohio, EPA Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Ohio EPA, Central District Office refusal to accept the results of the emission test(s).
- f. Personnel from Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office.

(Authority for term: OAC rule 3745-77-07(C)(1))

- g) Miscellaneous Requirements
 - (1) None.

8. P037, Fabrication and Packaging Operations

Operations, Property and/or Equipment Description:

fabrication and packaging that include the following operations: fiberizers, rotary formers, mills, baggers and screen filters.

- 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) (P0105901, as issued March 2, 2010)	<p>Particulate emissions (PE) shall not exceed 12.33 pounds per hour and 54.02 tons/year.</p> <p>All PE emissions are considered PM₁₀ for the purpose of Title V and PSD applicability determination.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 1.13 pounds per hour and 4.93 tons/year.</p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 1.58 pounds per hour and 6.94 tons/year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 19.13 pounds per hour and 83.80 tons/year.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 5.57 pounds per hour and 24.38 tons/year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule OAC rule 3745-17-07(A)(1).</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	40 CFR Part 60, Subpart PPP	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The hourly and annual PE emissions limits for this emissions unit are based on the emission unit's potential to emit vented through its associated rotary filters. Therefore, the monitoring, record keeping and reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- b. The emissions from this emissions unit shall be vented to the rotary filters at all times the emissions unit is in operation. The rotary filters shall be in operation whenever this emission unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The acceptable range for the pressure drop across the rotary filter modules is 0.1 to 5.5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the rotary filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The

permittee shall record the pressure drop across the rotary filter on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the rotary filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate

for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative permit modification.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) 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 stack serving this emissions unit. 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the rotary filter was outside of the acceptable range;

- b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the rotary filter;
- c. each incident of deviation described in e)(2)a. where a prompt investigation was not conducted;
- d. each incident of deviation described in e)(2)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. each incident of deviation described in e)(2)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit semiannual written reports that identify:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in EPA Method 9 of 40 CFR Part 60, Appendix A.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

PE shall not exceed 12.33 pounds per hour and 54.02 tons/year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation shall be based upon the emission testing requirements specified in Section f)(2) below.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

SO₂ emissions shall not exceed 1.13 pounds per hour and 4.93 tons/year.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission developed using data from the most recent compliance demonstration.

$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

d. Emission Limitation:

NO_x emissions shall not exceed 1.58 pounds per hour and 6.94 tons/year.

Applicable Compliance Method:

The hourly and annual NO_x emission limitations represent the potential to emit for this emissions unit using AP-42 Table 1.4-1 emission factors and maximum natural gas consumption. Therefore, no hourly record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

e. Emission Limitation:

CO emissions shall not exceed 19.13 pounds per hour and 83.80 tons/year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation shall be based upon the emission testing requirements specified in Section f)(2) below.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

f. Emission Limitation:

VOC emissions shall not exceed 5.57 pounds per hour and 24.38 tons/year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation shall be based upon the emission testing requirements specified in Section f)(2) below.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

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

- a. The emission testing shall be conducted within 2.5 years following permit issuance and within 6 months of permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, CO, and VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate:

- i. PM - 40 CFR Part 60, Appendix A, Methods 1-5.
- ii. PM₁₀ - 40 CFR Part 60, Appendix M, Method 201 or Method 201A and 202.
- iii. CO - 40 CFR Part 60, Appendix A, Method 10.
- iv. VOC - 40 CFR Part 60, Appendix A, Method 25 or Method 25A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA, Central District Office.
- e. Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time and date of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in Ohio EPA, Central District Office refusal to accept the results of the emission tests.
- f. Personnel from Ohio EPA, Central District Office shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office.

(Authority for term: OAC rule 3745-77-07(C)(1))

- g) Miscellaneous Requirements
 - (1) None.

9. P038, Glass Making System #3

Operations, Property and/or Equipment Description:

Glass Making System #3 (controlled by a baghouse).

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) (P0105834, as issued March 2, 2010)	Particulate emissions (PE) shall not exceed 0.47 pounds per hour and 2.05 tons/year. All PE emissions are considered PM ₁₀ for the purpose of Title V and PSD applicability determination. Sulfur dioxide (SO ₂) emissions shall not exceed 0.14 pounds per hour and 0.62 tons/year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible PE shall not exceed 60% opacity, as a 6-minute average, at any time.
c.	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 2 to 5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturers recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative permit modification.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in e)(2)a. where a prompt investigation was not conducted;
 - d. each incident of deviation described in e)(2)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in e)(2)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit semiannual written reports that identify:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in EPA Method 9 of 40 CFR Part 60, Appendix A.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

PE shall not exceed 0.47 pounds per hour and 2.05 tons/year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation shall be based upon the emission testing requirements specified in Section f)(2) below.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

SO₂ emissions shall not exceed 0.14 pounds per hour and 0.62 tons/year.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission developed using data from the most recent compliance demonstration.

$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 2.5 years after permit issuance.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate:
 - i. PM - 40 CFR Part 60, Appendix A, Methods 1-5.
 - ii. PM₁₀ - 40 CFR Part 60, Appendix M, Method 201 or Method 201A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA, Central District Office.
- e. Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time and date of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in Ohio EPA, Central District Office refusal to accept the results of the emission tests.
- f. Personnel from Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office.

(Authority for term: OAC rule 3745-77-07(C)(1))



Final Title V Permit
OWENS CORNING
Permit Number: P0120812
Facility ID: 0142010065
Effective Date: 9/28/2016

- g) Miscellaneous Requirements
 - (1) None.



10. P039, Fabrication and Packaging Operations Module #3

Operations, Property and/or Equipment Description:

Fabrication and packaging that include the following operations: fiberizers, rotary formers, mills, baggers, and screen filters.

- 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) (P0105834, as issued March 2, 2010)	Particulate emissions (PE) shall not exceed 6.17 pounds per hour and 27.01 tons/year. All PE emissions are considered PM10 for the purpose of Title V and PSD applicability determination. SO ₂ emissions shall not exceed 0.56 pound per hour and 2.46 tons/year. Nitrogen oxides (NO _x) emissions shall not exceed 0.792 pound per hour and 3.47 tons/year. Carbon monoxide (CO) emissions shall not exceed 9.57 pounds per hour and 41.9 tons/year. Volatile organic compound (VOC) emissions shall not exceed 2.78 pounds per hour and 12.2 tons/year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		exceed 20 percent opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	40 CFR Part 60, Subpart PPP	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The hourly and annual PE emissions limits for this emissions unit are based on the emission unit's potential to emit vented through its associated rotary filters. Therefore, the monitoring, record keeping and reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- b. The emissions from this emissions unit shall be vented to the rotary filters at all times the emissions unit is in operation. The rotary filters shall be in operation whenever this emission unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.1 to 5.5 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the rotary filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the rotary filter on daily basis. The

monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturers recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the rotary filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative permit modification.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

- (3) 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 stack serving this emissions unit. 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the rotary filter was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the rotary filter;

- c. each incident of deviation described in e)(2)a. where a prompt investigation was not conducted;
- d. each incident of deviation described in e)(2)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. each incident of deviation described in e)(2)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

(3) The permittee shall submit semiannual written reports that identify:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

f) **Testing Requirements**

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in EPA Method 9 of 40 CFR Part 60, Appendix A.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

PE shall not exceed 6.17 pounds per hour and 27.01 tons/year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation shall be based upon the emission testing requirements specified in Section f)(2) below.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

SO₂ emissions shall not exceed 0.56 pounds per hour and 2.46 tons/year.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission developed using data from the most recent compliance demonstration.

$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

d. Emission Limitation:

NO_x emissions shall not exceed 0.79 pounds per hour and 3.47 tons/year.

Applicable Compliance Method:

The hourly and annual NO_x emission limitations represent the potential to emit for this emissions unit using AP-42 Table 1.4-1 emission factors and maximum natural gas consumption. Therefore, no hourly record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

e. Emission Limitation:

CO emissions shall not exceed 9.57 pounds per hour and 41.9 tons/year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation shall be based upon the emission testing requirements specified in Section f)(2) below.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

f. Emission Limitation:

VOC emissions shall not exceed 2.78 pounds per hour and 12.2 tons/year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation shall be based upon the emission testing requirements specified in Section f)(2) below.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8760 hours / year and dividing by 2000 lbs / ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

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

- a. The emission testing shall be conducted within 2.5 years of permit issuance and within 6 months of permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, CO, and VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate:
 - i. PM - 40 CFR Part 60, Appendix A, Methods 1-5.
 - ii. PM₁₀ - 40 CFR Part 60, Appendix M, Method 201 or Method 201A and 202.
 - iii. CO - 40 CFR Part 60, Appendix A, Method 10.
 - iv. VOC - 40 CFR Part 60, Appendix A, Method 25 or Method 25A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.



- d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA, Central District Office.
- e. Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time and date of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in Ohio EPA, Central District Office refusal to accept the results of the emission tests.
- f. Personnel from Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office.

(Authority for term: OAC rule 3745-77-07(C)(1))

- g) Miscellaneous Requirements
 - (1) None.

11. P069, Oasis Line Fabrication/Packaging/Fiber&Trim Collection Sys

Operations, Property and/or Equipment Description:

Oasis Mechanical Fabrication & Packaging.

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) June 30, 2008 (P0119940, as issued February 5, 2016)	The permittee shall install a baghouse designed to meet 0.01 gr/dscf for particulate matter less than 10 microns in aerodynamic diameter (PM10). The permittee shall install a baghouse designed to meet 0.01 gr/dscf for particulate matter less than 2.5 microns in aerodynamic diameter (PM2.5). See b)(2)a. below.
b.	OAC Rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 and PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	OAC rule 3745-17-07(A)(1)(b)	See b)(2)c. below.
d.	OAC rule 3745-17-11(B)(2)	PE from the stack serving this emission unit shall not exceed 3.17 lbs/hr based on Curve P-2 from Figure II. See b)(2)e. below.

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-05(A)(3))

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-05(A)(3)(a)(ii))

- c. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except:

- i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any 60 minutes; but
- ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and
- iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.

(Authority for term: OAC rule 3745-17-07(A)(1)(b) and OAC rule 3745-77-07(A)(1))

- d. The emissions from the equipment with dust pick-up shall be vented to a dust collector at all times the equipment is in operation.

(Authority for term: OAC rule 3745-77-07(A)(1))

- e. This limit is less stringent than the BAT limits established under OAC rule 3745-31-05(A)(3) until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-17-11(B)(2) and OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

(Authority for term: OAC rule 3745-17-07(A)(1)(b), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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 emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(Authority for term: OAC rule 3745-17-07(A)(1)(b), OAC rule 3745-77-07(A)(3), and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

- a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
- b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions with dust pick-ups were not vented to the baghouse;
- c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
- d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-77-07(A)(3) and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall submit semiannual written reports that identify:
 - a. all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-77-07(A)(3) and OAC rule 3745-77-07(C)(1))

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

The permittee shall install a baghouse designed to meet 0.01 gr/dscf for particulate matter less than 10 microns in aerodynamic diameter (PM₁₀).



Applicable Compliance Method

Compliance with this concentration shall be demonstrated via testing required in Section f)(2).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation

The permittee shall install a baghouse designed to meet 0.01 gr/dscf for particulate matter less than 2.5 microns in aerodynamic diameter (PM_{2.5}).

Applicable Compliance Method

Compliance with this concentration shall be demonstrated via testing required in Section f)(2).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation

Visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

d. Emission Limitation

3.17 lbs PE/hr

Applicable Compliance Method

The emission limitation is established pursuant to the requirement specified in OAC rule 3745-17-11(B)(2). Per Curve P-2 of Figure II, the calculated SIP allowable rate is:

$$A = 0.20 * U$$

where U is uncontrolled mass rate of emission in pounds per hour.

$$A = 0.20 \times 15.83 \text{ tons/hr}$$

$$E = 3.17 \text{ lbs PE/hr}$$

(Authority for term: OAC rule 3745-17-11(B)(2) and OAC rule 3745-77-07(C)(1))

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted 1.5 years following start-up (testing for P069 can occur when testing is scheduled for emissions units P037 and P039).
 - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for PM₁₀.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - i. particulate matter less than 10 microns in aerodynamic diameter (PM₁₀), Method 201A and 202, 40 CFR Part 51, Appendix M (or alternative method with prior approval from Ohio EPA, Central District Office).

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by Ohio EPA, Central District Office. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

- d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).
- e. Personnel from Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- f. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office.

(Authority for term: OAC rule 3745-77-07(C)(1))



Final Title V Permit
OWENS CORNING
Permit Number: P0120812
Facility ID: 0142010065
Effective Date: 9/28/2016

g) Miscellaneous Requirements

- (1) None.

12. Emissions Unit Group -Ingredient Storage Bins: P018,P019,P020,P021,P022,P023,P024,P025,

EU ID	Operations, Property and/or Equipment Description
P018	Storage Bin #1
P019	Storage Bin #2
P020	Storage Bin #3 & Bad Batch Bin #1
P021	Storage Bin #4/5
P022	Storage Bin #6
P023	Storage Bin #7
P024	Storage Bin #8
P025	Storage Bin #9 & Bad Batch Bin #2

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) (PTI 01-6653, as issued January 15, 1997)	Particulate Emissions (PE) shall not exceed 0.02 grain/scf, 0.14 lb/hr and 0.40 ton per year.
b.	OAC rule 3745-17-07(A)(1)	Opacity shall not exceed 20%, as a 6-minute average.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The emissions from the emissions units listed above shall be vented to the baghouse when one or more of the emissions units are in operation.

(Authority for term: OAC rule 3745-77-07(A)(1))

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install No. 01-6653, issued on January 15, 1997:d)(2) and d)(3) The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

(Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii))

- (2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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 location and 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 emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(Authority for term: OAC rule 3745-77-07(A)(3) and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

- (1) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 01-6653, issued on January 15, 1997: e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

(Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii))

- (2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air Services online web portal.
- (3) The permittee shall submit semiannual written reports that identify:
 - a. any period of time (start time and date, and end time and date) when the emissions units were in operation and the process emissions were not vented to the baghouse;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack.

These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-77-07(A)(3) and OAC rule 3745-77-07(C)(1))

f) Testing Requirements

- (1) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install # 01-6653, issued on January 15, 1997: f)(2)a. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

(Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii))

- (2) 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:
PE shall not exceed 0.02 grain/scf, 0.14 lb/hr and 0.40 ton per year.



Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the air flow during the transfer phase of an unloading cycle, 800 cfm.

$$E(PE) = 0.02 \text{ gr/scf} \times 800 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.14 \text{ lb/hr.}$$

Annual emissions are determined by an annual calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, an 800 cfm air flow that lasts 2 hours during the transfer phase of the unloading cycle, a 2,600 cfm airflow that lasts 5 seconds for depressurization per cycle, and the maximum number of delivery cycles possible in a year.

$$PE \text{ (tpy)} = [(0.02 \text{ gr/cf} \times 800 \text{ cfm} \times 60 \text{ min/sec} \times 1 \text{ lb/7000 gr} \times 2 \text{ hr/transfer cycle}) + (0.02 \text{ gr/cf} \times 2600 \text{ cfm} \times 60 \text{ min/s} \times 1 \text{ lb/7000 gr} \times 5 \text{ second (depressurization cycle)} \times 1 \text{ hr/3600 sec.})] \times 2920 \text{ cycles/yr} \times 1 \text{ ton/2000 lbs.}$$

If required, pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

Visible particulate emissions shall not exceed twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

(Authority for term: OAC rule 3745-17-07(A)(1) and OAC rule 3745-77-07(C)(1))

g) **Miscellaneous Requirements**

- (1) None.