Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

3/19/2012

Certified Mail

Facility ID: 1677120043
Permit Number: P0109280
County: Summit

Mr. Edward Puhala
Owens Corning Foam Insulation, LLC
170 South Avenue
Tallmadge, OH 44278-0037

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Minor Permit Modification

Dear Permit Holder:

Enclosed is the 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. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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
309 South Fourth Street, Room 222
Columbus, OH 43215

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. If you have any questions regarding this permit, please contact the Akron Regional Air Quality Management District. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Akron Regional Air Quality Management District

Ohio | Environmental Protection Agency

FINAL

Division of Air Pollution Control
Title V Permit
for
Owens Corning Foam Insulation, LLC

Facility ID:	1677120043
Permit Number:	P0109280
Permit Type:	Minor Permit Modification
Issued:	3/19/2012
Effective:	3/19/2012
Expiration:	4/27/2014

Ohio Environmental Protection Agency

Division of Air Pollution Control
Title V Permit
for
Owens Corning Foam Insulation, LLC

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Authorization

Facility ID:	1677120043
Facility Description:	Plastic Foam Products Manufacturer
Application Number(s):	A0043437
Permit Number:	P0109280
Permit Description:	Minor permit modification for a plastic foam products manufacturing facility to incorporate terms and conditions from recently issued PTIs P0109177 & P0109178, and remove references to OAC rule 3745-21-07.
Permit Type:	Minor Permit Modification
Issue Date:	3/19/2012
Effective Date:	3/19/2012
Expiration Date:	4/27/2014
Superseded Permit Number:	P0106135

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

Owens Corning Foam Insulation, LLC
170 South Avenue
Tallmadge, OH 44278

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

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 Akron Regional Air Quality Management District. 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 (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

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

(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

(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 (i.e., postmarked) 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 scheduled maintenance, 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 promptly made to the appropriate Ohio EPA District Office or

local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency 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."

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

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Akron Regional Air Quality Management District.

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

3. 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) The permittee must comply with all terms and conditions of this permit. 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.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition 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 contaminent 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency) 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 (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

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 appropriate Ohio EPA District Office or local air agency 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 appropriate District Office of the Ohio EPA or local air agency 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 Fed. Reg. 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 has 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.

No emissions unit 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 opening 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 RequirementsUnder 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 appropriate Ohio EPA District Office or local air agency.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (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 appropriate Ohio EPA District Office or local air agency. 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 (i.e., postmarked) 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 RequirementsUnder 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

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

28. Permit Transfers

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

(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 (i.e., postmarked) 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 potentials to emit; or

c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

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 emissions units are located at this facility:

   T001 - tank unloading station #2
   T002 - tank unloading station #3
   T003 - tank unloading station #1

   Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more of the applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

3. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirement (as defined in OAC rule 3745-77-01(H)) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

   B001 - space heaters
   F001 - plant paved roadways and parking areas
   L001 - solvent parts washer
   P014 - barometric leg #4
   P016 - hot wire cutter #1
   P017 - hot wire cutter #2
   P019 - dot sprayer
   P021 - dry materials blender
   P022 - house vacuum system
   P023 - electric oven
   P024 - cooling towers
   P025 - line #2 laminator
   P026 - printer #1
   P027 - printer #2
   P028 - printer #3
   T004 - one ton tank unloading station #1

C. Emissions Unit Terms and Conditions

1. P002, Barometric Leg #2

Operations, Property and/or Equipment Description:

Polystyrene foam board extrusion, Line 2 - barametric leg

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 #P0109178, Issued 12/29/2011)	When employing a blowing agent containing any volatile organic compound (VOC), the VOC emissions shall not exceed 0.39 lb/hr and 1.69 tons/yr. See b)(2)a.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Nonattainment New Source Review	VOC emissions from emissions units P002 and P006, combined, shall not exceed 32.8 tons per rolling, 12-month period. See c)(1)

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the organic compound (OC) emissions from this air contaminant source since the non-ODS blowing agents that do not contain VOC are not air contaminants for which a National Ambient Air Quality Standard (NAAQS) has been established or a precursor of an air contaminant for which a NAAQS has been established.

c) Operational Restrictions

(1) Annual hours of operation for this emissions unit shall not exceed 3,240 hours based upon a rolling, 12-month summation of the operating hours, when employing a blowing agent containing any VOC.

[Authority for term: OAC rule 3745-7707(C)(1) and OAC rule 3745-31-05(A)(3)]

(2) The permittee shall only employ the following blowing agents in this emissions unit:

a. 1,1,1,2-tetrafluoroethane (HFC-134a) - organic compound;

b. 1,1,1-trifluoroethane (HFC-143a) - organic compound;

c. 1,1-difluoroethane (HFC-152a) - organic compound;

d. 1,1,1,3,3-pentafluoropropane (HFC-245 FA) - organic compound;

e. 1,1,1,3,3-pentafluorobutane (HFC-365 MFC) - organic compound;

f. USEPA SNAP approved blowing agent containing VOC; and

g. 1,1,2,2-tetrafluoroethane (HFC-134) - organic compound.

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall evaluate the blowing agent efficiency on a once per shift frequency to ensure that material is being added to meet product specification by performing a "rate check", or by recording the data from the micro motion mass-flow sensor, in accordance with one of the following methods:

a. weighing the amount of blowing agent introduced into the extrusion line during a given period of time, by supplying blowing agent from a container, which is weighed at the beginning and end of the evaluation;

b. data from the micro motion mass-flow sensors, which control the flow rate of the blowing agent, will be averaged on a per shift frequency and used to determine blowing agent percent to the extrusion line; or

c. other procedures approved by the Akron Regional Air Quality Management District (ARAQMD) and Ohio EPA.

The permittee shall maintain records of the performance of the blowing agent by rate check or micro-motion flow sensor, on the extrusion line, including date and time, results, i.e., whether the blowing agent rate was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check or micro-motion data.

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

(2) The permittee shall evaluate the efficiency of the board forming operations (extrusion die and shaping device at the inlet bulkhead of the barometric leg) on a once per day frequency to ensure the amount of scrap material generated is minimized by performing a "trim loss check." The trim loss checks may be conducted by one of the following methods:

a. calculating the percentage of trim loss by using the weights of the untrimmed and trimmed product;

b. calculating the percentage trim loss using untrimmed and trimmed product widths;

c. calculating the percentage trim loss based on weight and width of a trimmed board and the width of an untrimmed board; or

d. other procedures approved by ARAQMD and Ohio EPA.

The permittee shall maintain records of the performance of trim loss checks on the extrusion line, including date and time, results, i.e., whether the trim was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check.

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

(3) The permittee shall calculate and record the following information on a daily basis for this emissions unit:

a. total amount of raw materials consumed, in pounds (i.e. polystyrene resin + blowing agent + colorant + flame retardant + fillers);

b. record of each blowing agent employed, the amount used, and the number of hours it was employed;

c. the number of hours of operation; and

d. the VOC emission rate, in pounds per hour (average), calculated in accordance with the equations in f)(1)a.

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

(4) The permittee shall maintain monthly record of the following information for this emissions unit:

a. the number of hours of operation for each month, when a blowing agent that contains any VOC is employed; and

b. the rolling, 12-month summation of the operating hours, when a blowing agent that contains any VOC is employed.

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

(5) The permittee shall maintain monthly records of the following information for emissions units P002 and P006, combined:

a. the VOC emissions, in tons; and

b. the rolling, 12-month summation of the VOC emissions, in tons.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports which include the following:

a. an identification of each day during which the average hourly VOC emissions exceeded 0.39 pound per hour, and the actual average hourly VOC emissions for each such day;

b. all exceedances of the rolling, 12-month VOC emission limitation for emissions units P002 and P006, combined; and

c. allexceedances of the rolling,12-month restriction on the numbers of hours of operation.

The quarterly deviation reports shall be submitted as specified in the Standard Terms and Conditions of this permit.

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

(2) The permittee shall submit quarterly written reports which (a) identify all days during which either the blowing efficiency or trim loss checks results in out of specification results and (b) describe any corrective actions taken bring the results back into proper specifications. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

(3) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing the use of any blowing agent other than those allowed in c)(2) above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

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

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. <u>Emission Limitation:</u>

VOC emissions shall not exceed 0.39 lb/hr and 1.69 tons/yr

<u>Applicable Compliance Methods:</u>

Compliance with the hourly allowable VOC emission limitation identified above shall be determined in accordance with the following equation:

Hourly VOC rate (lbs/hr) = SUM (M) x EF x P_{VOC} for each product recipe

Where:

M = actual raw material in-feed rate factoring in buoyancy factor entering extruder

EF = emission factor, 0.0004 VOC/lb raw material (accounts for buoyancy factor)

P_{VOC} = Concentration VOC blend/BA % content of in-feed.

*The constant factors were developed by the permittee as the result of stack testing performed at a similar facility for the same product mix.

Compliance with the annual allowable VOC emission limitation identified above shall be determined by multiplying the hourly allowable VOC emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual allowable emission limitation shall be assumed.

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

b. Emission Limitation:

VOC emissions from emissions units P002 and P006, combined, shall not exceed 32.8 tons per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation identified above shall be demonstrated through the recordkeeping requirements specified in d)(5).

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

g) Miscellaneous Requirements

(1) None.

2. P003, Barometric Leg #3

Operations, Property and/or Equipment Description:

Polystyrene foam board extrusion, Line 3 - barometric leg

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 #P0109178, Issued 12/29/2011)	See b)(2)a.

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the organic compound (OC) emissions from this air contaminant source since the non-ODS blowing agents are not air contaminants for which a National Ambient Air Quality Standard (NAAQS) has been established or a precursor of an air contaminant for which a NAAQS has been established.

c) Operational Restrictions

(1) The permittee shall employ only the following blowing agents in this emissions unit:

a. 1,1,1,2-tetrafluoroethane (HFC-134a) - organic compound;

b. 1,1,1-trifluoroethane (HFC-143a) - organic compound;

c. 1,1-difluoroethane (HFC-152a) - organic compound;

d. 1,1,1,3,3-pentafluoropropane (HFC-245 FA) - organic compound;

e. 1,1,1,3,3-pentafluorobutane (HFC-365 MFC) - organic compound; and

f. 1,1,2,2-tetrafluoroethane (HFC-134) - organic compound.

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall evaluate the blowing agent efficiency on a once per shift frequency to ensure that material is being added to meet product specification by performing a "rate check", or by recording the data from the micro motion mass-flow sensor, in accordance with one of the following methods:

a. weighing the amount of blowing agent introduced into the extrusion line during a given period of time, by supplying blowing agent from a container, which is weighed at the beginning and end of the evaluation;

b. data from the micro motion mass-flow sensors, which control the flow rate of the blowing agent, will be averaged on a per shift frequency and used to determine blowing agent percent to the extrusion line; or

c. other procedures approved by the Akron Regional Air Quality Management District (ARAQMD) and Ohio EPA.

The permittee shall maintain records of the performance of the blowing agent by rate check or micro-motion flow sensor, on the extrusion line, including date and time, results, i.e., whether the blowing agent rate was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check or micro-motion data.

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

(2) The permittee shall evaluate the efficiency of the board forming operations (extrusion die and shaping device at the inlet bulkhead of the barometric leg) on a once per day frequency to ensure the amount of scrap material generated is minimized by performing a "trim loss check." The trim loss checks may be conducted by one of the following methods:

a. calculating the percentage of trim loss by using the weights of the untrimmed and trimmed product; or

b. calculating the percentage trim loss using untrimmed and trimmed product widths;

c. calculating the percentage trim loss based on weight and width of a trimmed board and the width of an untrimmed board; or

d. other procedures approved by ARAQMD and Ohio EPA.

The permittee shall maintain records of the performance of trim loss checks on the extrusion line, including date and time, results, i.e., whether the trim was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check.

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

(3) The permittee shall maintain a record of each blowing agent employed in this emissions unit on a daily basis.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly written reports which (a) identify all days during which either the blowing efficiency or trim loss checks results in out of specification results and (b) describe any corrective actions taken bring the results back into proper specifications. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing the use of any blowing agent other than those allowed in c)(1) above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

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

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

3. P006, Finishing Equipment

Operations, Property and/or Equipment Description:

Polystyrene foam board trimming and cutting equipment associated with Line 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(F) (PTI #P0109178, Issued 12/29/2011) Voluntary Restriction to Avoid BAT	Particulate emissions (PE) shall not exceed 9.74 tons/yr. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Nonattainment New Source Review	Volatile organic compound (VOC) emissions from emissions units P002 and P006, combined, shall not exceed 32.8 tons per rolling, 12-month period. See c)(1) Fugitive VOC emissions from the warehouse shall not exceed 7.37 tons/yr.
c.	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)	PE shall not exceed 5.34 lbs/hr.
e.	40 CFR Part 64.1-64.10 Compliance Assurance Monitoring	See b)(2)b., d)(1) through (6), e)(1) and (2), and g)(1).

(2) Additional Terms and Conditions

a. Permit to Install (PTI) P0109178 for this air contaminant source takes into account the use of a cyclone and baghouse, whenever this air contaminant source is in operation, with a minimum overall control efficiency of 98.5%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

c) Operational Restrictions

(1) Annual hours of operation for this emissions unit shall not exceed 3,240 hours, based on a rolling 12-month summation of the operating hours, when finishing foam boards containing any VOC blowing agents.

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

(2) The permittee shall only finish foam board containing the following blowing agents in this emissions unit:

a. 1,1,1,2-tetrafluoroethane (HFC-134a) - organic compound;

b. 1,1,1-trifluoroethane (HFC-143a) - organic compound;

c. 1,1-difluoroethane (HFC-152a) - organic compound;

d. 1,1,1,3,3-pentafluoropropane (HFC-245 FA) - organic compound;

e. 1,1,1,3,3-pentafluorobutane (HFC-365 MFA) - organic compound;

f. USEPA SNAP approved blowing agent containing VOC; and

g. 1,1,2,2-tetrafluoroethane (HFC-134) - organic compound.

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

d) Monitoring and/or Recordkeeping Requirements

(1) 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).

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) Whenever the monitored value for the pressure drop deviates from the limit or range specified in d(4) of 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.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(3) 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 d)(4) of 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; and

f. 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 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(4) The acceptable pressure drop range across the baghouse is 0.1 to 5.0 inches of water.

This specified 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 the appropriate Ohio EPA District Office or local air agency. 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(5) The permittee shall maintain an operational maintenance log for the baghouse which documents the following:

a. daily records of the pressure drop across the baghouse;

b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and

c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(6) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(7) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the number of hours of operation for each month, when finishing foam boards containing any VOC blowing agents; and

b. the rolling, 12-month summation of the operating hours, when finishing foam boards containing any VOC blowing agents.

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

(8) The permittee shall maintain monthly records of the following information for emissions units P002 and P006, combined:

a. the VOC emissions, in tons; and

b. the rolling, 12-month summation of the VOC emissions, in tons.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit:

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. an identification of each incident of deviation described in e)(1)a. above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. above 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

d. an identification of each incident of deviation described in e)(1)a. above 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.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation 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(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) The permittee shall submit semiannual written reports that (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 minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) The permittee shall submit quarterly deviation (excursion) reports which include the following:

a. all exceedances of the rolling, 12-month VOC emission limitation for emissions units P002 and P006, combined; and

b. allexceedances of the rolling,12-month restriction on the numbers of hours of operation.

The quarterly deviation reports shall be submitted as specified in the Standard Terms and Conditions of this permit.

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

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:

PE shall not exceed 9.74 tons/yr

Applicable Compliance Method:

Compliance with the annual allowable PE limitation identified above shall be demonstrated by multiplying the maximum hourly controlled PE rate [(148.25 lbs PE/hr) x (1-0.985) = 2.22 lbs PE/hr] by the maximum annual number of hours of operation (8760 hrs/yr) and dividing by 2000 lbs/ton.

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

b. Emission Limitation:

VOC emissions from emissions units P002 and P006, combined, shall not exceed 32.8 tons per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation identified above shall be demonstrated through the recordkeeping requirements specified in d)(8).

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

c. Emission Limitation:

Fugitive VOC emissions from the warehouse shall not exceed 7.37 tons/yr

Applicable Compliance Method:

Compliance with the annual allowable fugitive VOC emission limitation identified above shall be determined in accordance with the following equation:

Annual VOC rate (tons/yr) = SUM (M x Trim%)EF2 x P_{Mix} x 3240 hrs/2000

SUM = summation of each VOC in the blowing agent mix

M = actual raw material in-feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material removed from board stock

EF2 = emission factor based on in-feed material less trim with buoyancy accounted for

P_{Mix} = concentration VOC blend/BA% content of in-feed

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

d. Emission Limitation:

Visible PE shall not exceed 20% opacity as a six-minute average

Applicable Compliance Method:

If required, compliance with the allowable opacity limitation identified above shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-17-03(B)(1).

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

e. Emission Limitation:

PE shall not exceed 5.34 lbs/hr

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation identified above shall be determined in accordance with the test method(s) and procedures in Methods 1-5 of 40 CFR Part 60, Appendix A.

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

g) Miscellaneous Requirements

(1) The permittee shall ensure the following QA/QC parameters are achieved as part of the facility's Compliance Assurance Monitoring (CAM) Plan:

a. personnel completing the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22);

b. pressure gauges and pressure monitoring equipment will be calibrated at least once per year; and

c. periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

4. P007, Finishing Equipment

Operations, Property and/or Equipment Description:

Polystyrene foam board trimming and cutting equipment associated with Line 3

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(F) (PTI #P0109178, Issued 12/29/2011) Voluntary Restriction to Avoid BAT	Particulate emissions (PE) shall not exceed 9.81 tons/yr. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)	PE shall not exceed 5.34 lbs/hr.
d.	40 CFR Part 64.1-64.10 Compliance Assurance Monitoring	See b)(2)b., d)(1) through (6), e)(1) and (2), and g)(1).

(2) Additional Terms and Conditions

a. Permit to Install (PTI) P0109178 for this air contaminant source takes into account the use of a cyclone and baghouse, whenever this air contaminant source is in operation, with a minimum overall control efficiency of 98.6%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

c) Operational Restrictions

(1) The permittee shall only finish foam board containing the following blowing agents in this emissions unit:

a. 1,1,1,2-tetrafluoroethane (HFC-134a) - organic compound;

b. 1,1,1-trifluoroethane (HFC-143a) - organic compound;

c. 1,1-difluoroethane (HFC-152a) - organic compound;

d. 1,1,1,3,3-pentafluoropropane (HFC-245 FA) - organic compound;

e. 1,1,1,3,3-pentafluorobutane (HFC-365 MFC) - organic compound; and

f. 1,1,2,2-tetrafluoroethane (HFC-134) - organic compound.

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

d) Monitoring and/or Recordkeeping Requirements

(1) 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).

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) Whenever the monitored value for the pressure drop deviates from the limit or range specified in d(4) of 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.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(3) 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 d)(4) of 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; and

f. 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 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(4) The acceptable pressure drop range across the baghouse is 0.1 to 5.0 inches of water.

This specified 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 the appropriate Ohio EPA District Office or local air agency. 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(5) The permittee shall maintain an operational maintenance log for the baghouse which documents the following:

a. daily records of the pressure drop across the baghouse;

b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and

c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(6) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit:

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. an identification of each incident of deviation described in e)(1)a. above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. above 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

d. an identification of each incident of deviation described in e)(1)a. above 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.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation 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(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) The permittee shall submit semiannual written reports that (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 minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

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:

PE shall not exceed 9.81 tons/yr

Applicable Compliance Method:

Compliance with the annual allowable PE limitation identified above shall be demonstrated by multiplying the maximum hourly controlled PE rate [(160.0 lbs PE/hr) x (1-0.986) = 2.24 lbs PE/hr] by the maximum annual number of hours of operation (8760 hrs/yr) and dividing by 2000 lbs/ton.

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

b. Emission Limitation:

Visible PE shall not exceed 20% opacity as a six-minute average

Applicable Compliance Method:

If required, compliance with the allowable opacity limitation identified above shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-17-03(B)(1).

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

c. Emission Limitation:

PE shall not exceed 5.34 lbs/hr

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation identified above shall be determined in accordance with the test methods and procedures in Methods 1-5 of 40 CFR Part 60, Appendix A.

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

g) Miscellaneous Requirements

(1) The permittee shall ensure the following QA/QC parameters are achieved as part of the facility's Compliance Assurance Monitoring (CAM) Plan:

a. personnel completing the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22);

b. pressure gauges and pressure monitoring equipment will be calibrated at least once per year; and

c. periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

5. P008, Nelmor Foam Grinder

Operations, Property and/or Equipment Description:

Scrap foam grinder for EPS, XPS, and R&D foam

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 #16-02490, Issued 11/15/2007)	Organic compound (OC) emissions shall not exceed 138.5 lbs/hr and 608.6 tons/yr. Volatile organic compound (VOC) emissions shall not exceed 2.5lbs/hr.
b.	OAC rule 3745-31-05(D)	VOC emissions shall not exceed 11.04 tons per rolling, 12-month period. See c)(1)
c.	OAC rule 3745-31-05(F) (PTI #16-02490, Issued 11/15/2007) Voluntary Restriction to Avoid BAT	Particulate matter less than 10 microns (PM_{10}) emissions shall not exceed 7.9 tons/yr. See b)(2)a.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
e.	OAC rule 3745-17-11(B)	PE shall not exceed 3.82 lbs/hr.
f.	40 CFR Part 64.1-64.10 Compliance Assurance Monitoring	See c)(2), d)(1) through (6), e)(1) and (2), and g)(1).

(2) Additional Terms and Conditions

a. Permit to Install 16-02490 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 98%, by weight for PM_{10}, as a voluntary

restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) The maximum annual polystyrene usage shall not exceed 200,000 pounds of R&D scrap expanded polystyrene (EPS) or R&D extruded polystyrene (XPS) foam based on a rolling, 12-month summation of the polystyrene foam throughput.

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

(2) The permittee shall operate the baghouse installed on this emissions unit, in accordance with the manufacturer's specifications, instructions and operating manual(s), with modification deemed necessary by the permittee, at all times while the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64].

d) Monitoring and/or Recordkeeping Requirements

(1) 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).

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) Whenever the monitored value for the pressure drop deviates from the limit or range specified in d(4) of 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.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(3) 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 d)(4) of 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; and

f. 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 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(4) The acceptable pressure drop range across the baghouse is 0.1 to 5.0 inches of water.

This specified 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 the appropriate Ohio EPA District Office or local air agency. 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(5) The permittee shall maintain an operational maintenance log for the baghouse which documents the following:

a. daily records of the pressure drop across the baghouse;

b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and

c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(6) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(7) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the total amount of scrap EPS foam processed, including R&D EPS, in pounds;

b. the total amount of scrap XPS foam processed, including R&D XPS, in pounds;

c. the rolling, 12-month total amount of EPS foam processed, including R&D EPS, in pounds;

d. the rolling, 12-month total amount of XPS foam processed, including R&D XPS, in pounds;

e. the calculated VOC emission rate, in tons, as calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the grinder (actual emission factor varies depending on type of XPS foam ground and the VOC content of each type of XPS foam); and

f. the calculated, rolling, 12-month VOC emission rate, in tons.

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

(8) The permittee shall maintain records documenting any time periods when the emissions unit was in operation and the baghouse was not operating.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;

b. an identification of each incident of deviation described in e)(1)a. where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)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

d. an identification of each incident of deviation described in e)(1)a. where proper records were not maintained for the investigation and/or the corrective action(s).

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation 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(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) The permittee shall submit semiannual written reports that (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 minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. all exceedances of the annual material usage restriction of 200,000 pounds of R&D scrap EPS or R&D extruded XPS)foam; and

b. allexceedances of the rolling, 12-month VOC emission limitation of 11.04 tons.

The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

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

f) Testing Requirements

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

a. Emission Limitations:

OC emissions shall not exceed 138.5 lbs/hr and 608.6 tons/yr

Applicable Compliance Methods:

Compliance with the hourly allowable OC emission limitation identified above shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

Compliance with the annual allowable OC emission limitation identified above shall be determined by multiplying the hourly allowable OC emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual allowable emission limitation shall be assumed.

*Emission Factors:

Extruded Polystyrene foam XPS, including R&D XPS = 0.0176 lb OC per pound of polystyrene**

Expanded polystyrene EPS, including R&D EPS = 0.0014 lb OC per pound of polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

b. Emission Limitation:

VOC emissions shall not exceed 2.5lbs/hr

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation identified above shall be demonstrated by multiplying the maximum hourly usage rate by the appropriate VOC emission factor*.

*Emission Factors:

Expanded polystyrene EPS, including R&D EPS = 0.0014 lb VOC per pound of polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

c. Emission Limitation:

VOC emissions shall not exceed 11.04 tons per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation identified above shall be demonstrated by the recordkeeping requirements specified in d)(7).

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

d. Emission Limitation:

PM_{10} shall not exceed 7.9 tons/yr

Applicable Compliance Method:

Compliance with the annual allowable PM_{10} emission limitation identified above shall be demonstrated by multiplying the maximum hourly uncontrolled PE rate [(1,800 pounds/hr) by (1 - 0.95*) and by (1-.98*)]. The result is multiplied by the maximum annual number of hours of operation (8,760 hours/yr), and divided by 2,000 lbs/ton.

*The capture efficiency is assumed to be 95% and the control efficiency is assumed to be 98%.

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

e. Emission Limitation:

Visible PE shall not exceed 20% opacity as a six-minute average

Applicable Compliance Method:

If required, compliance with the allowable opacity limitation identified above shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-17-03(B)(1).

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

f. Emission Limitation:

PE shall not exceed 3.82 lbs/hr

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation identified above shall be determined based on the results of stack testing conducted in accordance with OAC rule 3745-17-03(B)(10).

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

g) Miscellaneous Requirements

(1) The permittee shall ensure the following QA/QC parameters are achieved as part of the facility's Compliance Assurance Monitoring (CAM) Plan:

a. personnel completing the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22);

b. pressure gauges and pressure monitoring equipment will be calibrated at least once per year; and

c. periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

6. P009, Reclaim Unit No. 1 - Polystyrene Extruder

Operations, Property and/or Equipment Description:

Polystyrene extruder

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 #16-02490, Issued 11/15/2007)	Organic compound (OC) emissions shall not exceed 15.6 lbs/hr and 62.3 tons/yr.
b.	OAC rule 3745-31-05(D)	Volatile organic compound (VOC) emissions shall not exceed 1.5 tons per rolling, 12-month period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The maximum annual polystyrene usage shall not exceed 200,000 pounds of R&D scrap expanded polystyrene (EPS) or R&D extruded polystyrene (XPS) foam based on a rolling, 12-month summation of the polystyrene foam throughput.

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;

b. the amount of extruded polystyrene (XPS), including R&D XPS used, in pounds;

c. the rolling, 12-month total amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;

d. the VOC emission rate, in tons, calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the extruder (actual emission factor varies depending on type of XPS foam and the VOC content of each type of XPS foam); and

e. the calculated, rolling, 12-month VOC emission rate, in tons.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. all exceedances of the annual material usage restriction of 200,000 pounds of R&D scrap EPS or R&D XPS foam based; and

b. allexceedances of the rolling, 12-month VOC emission limitation of 1.5 tons.

The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

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

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. <u>Emission Limitations:</u>

OC emissions shall not exceed 15.6 lbs/hr and 62.3 tons/yr

<u>Applicable Compliance Methods:</u>

Compliance with the hourly allowable OC emission limitation identified above shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

Compliance with the annual allowable OC emission limitation identified above shall be determined by multiplying the hourly allowable OC emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual allowable emission limitation shall be assumed.

* Emission Factors:

R&D scrap EPS polystyrene = 0.0016 lb OC per pound of polystyrene**

Scrap EPS polystyrene = 0.0002 lb OC per pound of polystyrene**

XPS ground foam and R&D XPS foam = 0.0142 lb OC per pound of polystyrene**

Reclaim XPS foam = 0.0053 lb OC per lb polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

b. Emission Limitation:

VOC emissions shall not exceed 1.5 tons per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation identified above shall be demonstrated by the recordkeeping requirements specified in d)(1).

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

g) Miscellaneous Requirements

(1) None.

7. P010, Reclaim Unit No. 2 - Polystyrene Extruder

Operations, Property and/or Equipment Description:

Polystyrene extruder

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 #16-02490, Issued 11/15/2007)	Organic compound (OC) emissionsshall not exceed 20.2 lbs/hr and 80.3 tons/yr.
b.	OAC rule 3745-31-05(D)	Volatile organic compound (VOC) emissions shall not exceed 1.9 tons per rolling, 12-month period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The maximum annual polystyrene usage shall not exceed 200,000 pounds of R&D scrap expanded polystyrene (EPS) or R&D extruded polystyrene (XPS) foam based on a rolling 12-month summation of the polystyrene foam throughput.

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;

b. the amount of extruded polystyrene (XPS), including R&D XPS used, in pounds;

c. the rolling, 12-month total amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;

d. the VOC emission rate, in tons, calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the extruder (actual emission factor varies depending on type of XPS foam and the VOC content of each type of XPS foam); and

e. the calculated, rolling, 12-month VOC emission rate, in tons.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. all exceedances of the annual material usage restriction of 200,000 pounds of R&D scrap EPS or R&D XPS foam based; and

b. allexceedances of the rolling, 12-month VOC emission limitation of 1.9 tons.

The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

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

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. <u>Emission Limitations:</u>

OC emissions shall not exceed 20.2 lbs/hr and 80.3 tons/yr

<u>Applicable Compliance Methods:</u>

Compliance with the hourly allowable OC emission limitation identified above shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

Compliance with the annual allowable OC emission limitation identified above shall be determined by multiplying the hourly allowable OC emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual allowable emission limitation shall be assumed.

*Emission Factors:

R&D scrap EPS polystyrene = 0.0016 lb OC per pound of polystyrene**

Scrap EPS polystyrene = 0.0002 lb OC per pound of polystyrene**

XPS ground foam and R&D XPS foam = 0.0142 lb OC per pound of polystyrene**

Reclaim XPS foam = 0.0053 lb OC per lb polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

b. Emission Limitation:

VOC emissions shall not exceed 1.9 tons per rolling,12-month period

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation identified above shall be demonstrated by the recordkeeping requirements specified in d)(1).

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

g) Miscellaneous Requirements

(1) None.

8. P011, Staging and Warehouse Storage

Operations, Property and/or Equipment Description:

Store foam board prior to shipping

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.	None	None

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

9. P012, Vortex Foam Grinder

Operations, Property and/or Equipment Description:

Scrap polystyrene foam grinder

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 #P0109177, Issued 12/22/2011)	See b)(2)a.
b.	OAC rule 3745-31-05(F) (PTI #P0109177, Issued 12/22/2011) Voluntary Restriction to avoid BAT	Particulate matter emissions less than 10 microns (PM_{10}) shall not exceed 6.6 tons/yr. See b)(2)b.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)	PE shall not exceed 3.4 lbs/hr.
e.	40 CFR Part 64.1-64.10 Compliance Assurance Monitoring	See c)(2), d)(1) through (6), e)(1) and (2), and g)(1).

(2) Additional Terms and Conditions

a. Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons per year.

b. Permit to Install (PTI) P0109177 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 98%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A)(3) for particulate emissions.

c) Operational Restrictions

(1) The permittee shall grind only scrap expanded polystyrene (EPS) foam, or scrap extruded polystyrene (XPS) foam containing no detectable amount of blowing agent, in this emission unit.

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

(2) The permittee shall operate the baghouse installed on this emissions unit, in accordance with the manufacturer's specifications, instructions, and operating manual(s), with modification deemed necessary by the permittee, at all times while the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) Whenever the monitored value for the pressure drop deviates from the range specified in d)(4) of 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;

c. the date(s) the investigation was conducted;

d. the names of the personnel who conducted the investigation; and

e. the findings and recommendations of the investigation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(3) 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 d)(4) of 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 the 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; and

f. the names of the personnel who performed the work.

Investigation and records required by this permit 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 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(4) Except for an initial operating period after filter media replacement to attain design filtering efficiency, the acceptable range for the pressure drop across the baghouse is 0.1 to 5.0 inches of water.

The specified 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 the appropriate Ohio EPA District Office or Local Air Agency. The permittee may request revisions to the pressure drop range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the pressure drop range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of administrative modification.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(5) The permittee shall maintain an operational maintenance log for the baghouse which documents the following:

a. daily records of the pressure drop across the baghouse;

b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and

c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(6) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(7) The permittee shall maintain records documenting any time periods when the emissions unit was in operation and the baghouse was not operating.

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

(8) The permittee shall maintain records documenting any time periods when the permittee was grinding anything other than scrap EPS foam, or scrap XPS foam containing no detectable amount of blowing agent, in this emission unit.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;

b. an identification of each incident of deviation described in e)(1)a. where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)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

d. an identification of each incident of deviation described in e)(1)a. where proper records were not maintained for the investigation and/or the corrective action(s).

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation 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(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64]

(2) The permittee shall submit semiannual written reports that (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 minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) The permittee shall submit deviation (excursion) reports that identify any time periods when the emissions unit was in operation and the baghouse was not operating. Each report shall be submitted within 30 days after the deviation occurs.

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

(4) The permittee shall submit deviation (excursion) reports that identify any time periods when the permittee was grinding anything other than scrap EPS foam, or scrap extruded polystyrene (XPS) foam containing no detectable amount of blowing agent, in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.

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

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. <u>Emission Limitation:</u>

PM_{10} shall not exceed 6.6 tons/yr

<u>Applicable Compliance Method:</u>

Compliance with the annual allowable PM_{10} emission limitation identified above shall be demonstrated by multiplying the maximum hourly uncontrolled PE rate [(1,500 pounds/hr) by (1 - 0.95*) and by (1-.98*)]. The result is multiplied by the maximum annual number of hours of operation (8,760 hours/yr), and divided by 2,000 lbs/ton.

*The capture efficiency is assumed to be 95% and the control efficiency is assumed to be 98%.

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

b. Emission Limitation:

Visible PE shall not exceed 20% opacity as a six-minute average

Applicable Compliance Method:

If required, compliance with the allowable opacity limitation identified above shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-17-03(B)(1).

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

c. Emission Limitation:

PE shall not exceed 3.4 lbs/hr

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation identified above shall be determine based on the results of stack testing conducted in accordance with OAC rule 3745-17-03(B)(10).

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

g) Miscellaneous Requirements

(1) The permittee shall ensure the following QA/QC parameters are achieved as part of the facility's Compliance Assurance Monitoring (CAM) Plan:

a. personnel completing the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22);

b. pressure gauges and pressure monitoring equipment will be calibrated at least once per year; and

c. periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

10. P013, Reclaim Unit No. 3 - Polystyrene Extruder

Operations, Property and/or Equipment Description:

Polystyrene extruder

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 #16-02490, Issued 11/15/2007)	Organic compound (OC) emissions shall not exceed 20.2 lbs/hr and 88.7 tons/yr. Volatile organic compound (VOC) emissionsshall not exceed 3.1 lbs/hr and 13.7 tons/yr.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;

b. the amount of extruded polystyrene (XPS), including R&D XPS used, in pounds;

c. the VOC emission rate, in tons, calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the extruder (actual emission factor varies depending on type of XPS foam and the VOC content of each type of XPS foam); and

d. the year-to-date VOC emissions, in tons.

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

e) Reporting Requirements

(1) The permittee shall submit annual reports that summarize the actual annual VOC emissions for this emissions unit. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

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

f) Testing Requirements

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

a. Emission Limitations:

OC emissions shall not exceed 20.2 lbs/hr and 88.7 tons/yr

Applicable Compliance Methods:

Compliance with the hourly allowable OC emission limitation identified above shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

Compliance with the annual allowable OC emission limitation identified above shall be determined by multiplying the hourly allowable OC emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual allowable emission limitation shall be assumed.

* Emission Factors:

R&D scrap EPS polystyrene = 0.0016 lb OC per pound of polystyrene**

Scrap EPS polystyrene = 0.0002 lb OC per pound of polystyrene**

XPS ground foam and R&D XPS foam = 0.0142 lb OC per pound of polystyrene**

Reclaim XPS foam = 0.0053 lb OC per lb polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

b. Emission Limitations:

VOC emissions shall not exceed 3.1 lbs/hr and 13.7 tons/yr

Applicable Compliance Methods:

Compliance with the hourly allowable VOC emission limitation identified above shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate VOC emission factor*.

Compliance with the annual allowable VOC emission limitation identified above shall be determined by multiplying the hourly allowable VOC emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual allowable emission limitation shall be assumed. Compliance may also be demonstrated by the recordkeeping requirements specified in d)(1).

*Emission Factors:

R&D scrap EPS polystyrene = 0.0016 lb VOC per pound of polystyrene**

Scrap EPS polystyrene = 0.0002 lb VOC per pound of polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

g) Miscellaneous Requirements

(1) None.