



12/4/2014

Robert Hooper
IVEX Protective Packaging Inc. (Protec Pac USA)
456 S. Stolle Ave
P.O. Box 4699
Sidney, OH 45365-8846

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0575010238
Permit Number: P0117385
Permit Type: Administrative Modification
County: Shelby

Certified Mail

Table with 2 columns: Status (No) and Category (TOXIC REVIEW, PSD, SYNTHETIC MINOR TO AVOID MAJOR NSR, CEMS, MACT/GACT, NSPS, NESHAPS, NETTING, MAJOR NON-ATTAINMENT, MODELING SUBMITTED, MAJOR GHG, SYNTHETIC MINOR TO AVOID MAJOR GHG)

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Southwest District Office at (937)2856357 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: U.S. EPA
Ohio EPA-SWDO; Indiana



FINAL

**Division of Air Pollution Control
Permit-to-Install**

for

IVEX Protective Packaging Inc. (Protec Pac USA)

Facility ID:	0575010238
Permit Number:	P0117385
Permit Type:	Administrative Modification
Issued:	12/4/2014
Effective:	12/4/2014



Division of Air Pollution Control
Permit-to-Install
for
IVEX Protective Packaging Inc. (Protec Pac USA)

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Authorization

Facility ID: 0575010238
Facility Description: Polyolefin foam extrusion
Application Number(s): A0051352
Permit Number: P0117385
Permit Description: This administrative modification will address the permit conditions that refer to blowing agent usage for Emissions Units P001 and P002. The October 9, 2013 emission test and subsequent product analyses have demonstrated that a significant portion of blowing agent is retained in the product leaving the IVEX facility. The revision of permit conditions for Emissions Units P001 and P002 will also require revision of affected conditions for Emissions Units P003 and P004.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 12/4/2014
Effective Date: 12/4/2014

This document constitutes issuance to:

IVEX Protective Packaging Inc. (Protec Pac USA)
456 S. Stolle Avenue
P.O. Box 4699
Sidney, OH 45365-8846

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

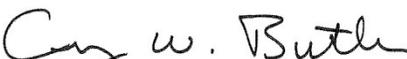
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southwest District Office
401 East Fifth Street
Dayton, OH 45402
(937)285-6357

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0117385

Permit Description: This administrative modification will address the permit conditions that refer to blowing agent usage for Emissions Units P001 and P002. The October 9, 2013 emission test and subsequent product analyses have demonstrated that a significant portion of blowing agent is retained in the product leaving the IVEX facility. The revision of permit conditions for Emissions Units P001 and P002 will also require revision of affected conditions for Emissions Units P003 and P004.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P001
Company Equipment ID:	P001
Superseded Permit Number:	P0109160
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	P002
Superseded Permit Number:	P0103888
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	P003
Superseded Permit Number:	P0109160
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	P004
Superseded Permit Number:	P0109160
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
IVEX Protective Packaging Inc. (Protec Pac USA)
Permit Number: P0117385
Facility ID: 0575010238
Effective Date: 12/4/2014

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

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

2. Severability Clause

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

3. General Requirements

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



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

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southwest District Office.



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

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Southwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted



local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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

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

7. Best Available Technology

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



8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

10. Applicability

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the



Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

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

12. Permit-To-Operate Application

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



13. Construction Compliance Certification

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

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

14. Public Disclosure

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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



Final Permit-to-Install
IVEX Protective Packaging Inc. (Protec Pac USA)
Permit Number: P0117385
Facility ID: 0575010238
Effective Date: 12/4/2014

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 overall combined volatile organic compound (VOC) emitted from this facility shall not exceed 240 tons per rolling 12-month period.
3. This facility shall maintain the following monthly records on all blowing agent materials employed in emissions units P001 and P002 and the combined VOC emissions from emissions unit P001, P002, P003, and P004:
 - a) the amount of blowing agent employed, in tons;
 - b) the 12-month rolling total amount of blowing agent employed, in tons per last 12-month period.
 - c) the amount of VOC emitted in the enclosures of emissions units P001 and P002, in tons per month, [the amount of blowing agent utilized from d)(1)c. multiplied by percent emitted in the enclosure¹];
 - d) the amount of VOC emitted from the incinerator vent, in tons per month, [the amount of: (c) multiplied by (1-percent control efficiency) ²];
 - e) the amount of VOC emitted from emissions unit P003, the "off-gassing" warehouse, in tons per month;
 - f) the amount of VOC emitted from P004, foam grinder, in tons per month;
 - g) the amount of combined VOC emitted, in tons per month,[the sum of: (d) + (e) + (f)];
 - h) the total VOC emissions from all emissions units P001, P002, P003, and P004, in tons per rolling 12-month period [the sum of (total VOC emissions for the current month (g) plus the total VOC emission (g) for the 11 previous calendar months)].

¹. The amount of VOC emitted into the enclosure is required by this permit to be at least 50%. In the most recent stack test, on October 9, 2013, the actual percentage was determined to be 51.32%.

². The control efficiency of the thermal incinerator is required by this permit to be at least 98%. In the most recent stack test, October 9, 2013, the actual control efficiency was determined to be 99.1%.

4. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a) The overall combined volatile organic compound (VOC) emitted from this facility exceeds 240 tons per rolling 12-month period.

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

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]



Final Permit-to-Install
IVEX Protective Packaging Inc. (Protec Pac USA)
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C. Emissions Unit Terms and Conditions



1. P001, Foam extrusion line 1

Operations, Property and/or Equipment Description:

Foam extrusion line 1 with incinerator

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) b)(1)g. and d)(5), below.

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)	The combined hourly stack volatile organic compound (VOC) emissions from emissions units P001 and P002 shall not exceed 2.6 pounds.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	The emissions from natural gas and VOC combustion in the thermal oxidizer shall not exceed the following: 1.41 tons/yr nitrogen oxides (NO _x); 0.53 ton/yr carbon monoxide (CO); 0.04 ton/yr particulate emissions (PE); 0.09 ton/yr volatile organic compound (VOC); and 0.13 ton/yr sulfur dioxide (SO ₂). See Sections b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See Sections b)(2)b. below.
d.	OAC rule 3745-31-05(D) (to avoid PSD)	The overall combined volatile organic compound (VOC) emitted from this facility is listed in the facility-wide terms and conditions in B.2. The recordkeeping and reporting requirements in section from this facility as specified in B.3 and B.4.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average. See Section f)(1)c., below
f.	OAC rule 3745-17-10(B)	0.02 lbs of PE per mmBtu for the fuel burning equipment.
g.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(5), below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, and then these emission limitations/control measures no longer apply.
- b. The following rule paragraphs will apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan: The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to NOx, CO, PE, VOC, and SO2 emissions from the thermal incinerator since the controlled potential to emit is less than 10 tons per year.
- c. The combined hourly stack emission limitation of 2.6 pounds of volatile organic compound (VOC), from emissions units P001 and P002, is established to reflect the combined potential emissions from these two emissions units. Therefore, it is not necessary to establish record keeping and reporting requirements to ensure compliance with these limitations.

c) Operational Restrictions

- (1) The permittee shall operate and maintain emissions units P001 and P002 in such a manner that will achieve an overall 50% capture of all volatile organic compounds, (VOC), in the blowing agents employed, minus the amount of VOC retained in the product.



- (2) The volatile organic compound (VOC) emissions captured in this emissions unit's enclosure shall be vented to a control device that with a control efficiency of at least 98%.
- (3) The combined blowing agent "utilized", (the employed blowing agent minus the amount retained in product) in emissions units P001 and P002 shall not exceed 575 tons per rolling 12 month period.
- (4) The permittee shall burn only natural gas in the thermal oxidizer employed in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) This facility shall maintain the following monthly records on all blowing agent materials employed in emissions units P001 and P002:
 - a. the amount of blowing agent employed, in tons;
 - b. the total amount of blowing agent retained in the facility products (RTP) during the month, in tons;

$$RTP = \sum_{i=1}^n F_{pi} \times \left(\frac{Pri}{100}\right)$$

Where:

RTP = Retained in product, in tons;

n = Number of representative foam product grades produced during month;

F_{pi} = Quantity in tons of foam product "i" produced during month; and

Pri = Amount of blowing amount retained in representative foam product "i", in percent by weight.*

* The facility shall maintain all records and testing results that are the bases for the percent of blowing agent retained in product "n" for the product grade produced.

- c. the amount of blowing agents "utilized", in tons, (the sum of: ("a" – "b")); and
 - d. the 12-month rolling total amount of blowing agent "utilized", in tons per last 12-month period.
- (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with



the manufacturer's recommendations, instructions, and the operating manuals. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

- a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and
- b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of five years.

[OAC rule 3745-77-07(C)(1)]

- (3) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

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

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

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



- e. the temperature 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.

The temperature range/limit 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 temperature range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a 3-hour average.

[OAC rule 3745-77-07(C)(1)]

- (4) For each day during which the permittee burns a fuel other than natural gas in the thermal oxidizer, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (5) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTI prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[ORC 3704.03(F)(3)(c) and F(4)]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the thermal oxidizer during the operation of the emissions unit(s):
 - a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;
 - b. each period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;



- c. an identification of each incident of deviation described in :”a” or “b” (above) where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in “a” or “b” 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.

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. The combined blowing agent “utilized” in emissions units P001 and P002 exceeds 575 tons per rolling 12 month period.

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

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]

- (3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in section b)(1) of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation:

Combined stack hourly VOC emission rate from emissions units P001 and P002 shall not exceed of 2.6 pounds

The allowable hourly emission rate is based on the following equation:

$$HER = \{[(M_{P001} + M_{P002}) \times Cc] \times (1 - Ce)\}$$

Where:

HER = Hourly Emission Rate, in lbs of VOC/hr;



M_{P001} = Maximum hourly blowing agent usage rate in emissions unit P001, in lbs/hr, (96 lbs/hr);

M_{P002} = Maximum hourly blowing agent usage rate in emissions unit P002, in lbs/hr, (168 lbs/hr);

C_c = Capture of blowing agents within enclosures, in percent (%) by weight, (50%); and

C_e = Control efficiency, in percent (98%).

Applicable Compliance Method:

Compliance is based on the combined maximum production rate of emissions units P001 and P002. If in the future, either of these emissions units are modified to increase the maximum amount of blowing agent that can be employed, those changes will need to be reviewed under appropriate permitting requirements prior to initiation of the modifications.

Compliance will also be based on future stack tests as required in section f)(2).

b. Emission Limitation:

Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any 60 minutes; but shall not exceed 60 percent opacity, as a six-minute average, at any time.

Applicable Compliance Method:

When requested, the permittee shall demonstrate compliance through visible emission observations performed in accordance U.S. EPA Method 9.

c. Emission Limitation:

The maximum allowable amount of particulate emissions for any new or existing fuel burning equipment which is fired only with gaseous fuels, excluding blast furnace gas, and/or number two fuel oil shall be 0.020 pound per million Btu of actual heat input.

Applicable Compliance Method:

When requested, the permittee shall conduct or have conducted a performance stack test demonstrate compliance with the 0.020 pound per million Btu of actual heat input. When requested performed in accordance U.S. EPA Method 1-5 in 40 CFR Part 60 Appendix A.

d. The emissions from natural gas and VOC combustion in the oxidizer shall not exceed the following:



1.41 tons/yr nitrogen oxides (NO_x);
0.53 ton/yr carbon monoxide (CO);
0.04 ton/yr particulate emissions (PE);
0.09 ton/yr VOC; and
0.13 ton/yr sulfur dioxide (SO₂).

Applicable Compliance Method:

The hourly allowable emission limitations above were established by multiplying the maximum natural gas or propane usage rate (1.53mmBtu/hr) by the higher of the emission factors* for each pollutant, from AP-42, Tables 1.4-1, and 1.4-2, revised 7/98 (for natural gas) and Table 1.5-1, revised October 1996 (for propane).

* forNO_x: 0.21 lbNO_x/mmBtu; for CO, 0.08 lb CO/mmBtu; for PE, 0.007 lb PE/mmBtu; for VOC, 0.01 lb VOC/mmBtu; and for SO₂, 0.017 lb SO₂/mmBtu.

If required, compliance with the hourly allowable emission limitations above shall be determined in accordance with the appropriate Methods** of 40 CFR Part 60, Appendix A.

** For NO_x, Methods 1 - 4 and 7; for CO, Methods 1 - 4 and 10; for VOC, Methods 1 - 4 and 25 or 25A, as appropriate; for PE, Methods 1 - 5; and for SO₂, Methods 1 - 4 and 6.

- (2) The permittee shall conduct, or have conducted, emission testing(s) on the regenerative thermal oxidizer and the associated capture systems so as to demonstrate compliance with the above listed requirements.
- a. The emission testing(s) for this emissions unit and/or facility shall be conducted within 6 months prior to the expiration of the operating permit in effect.
 - b. The emission testing(s) shall be conducted to demonstrate compliance with the required hourly stack emissions rate, destruction efficiency of the control device, and the capture requirements of the environmental chambers on emissions units P001 and P002.
 - c. The following test methods shall be employed to demonstrate compliance with the require efficiencies.

Destruction Efficiency of the common control device: The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total



concentration, and on a consideration of the potential presence of interfering gases.

Capture Efficiency of the environmental chambers: The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

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

- d. The test(s) shall be conducted while the emission units being controlled by the control device(s) are being operated at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Southwest District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g) Miscellaneous Requirements
 - (1) None.



2. P002, Foam extrusion line 2

Operations, Property and/or Equipment Description:

Foam extrusion line 2 with incinerator

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) b)(1)f. and d)(5), below.

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)	The combined hourly stack volatile organic compound (VOC) emissions from emissions units P001 and P002 shall not exceed 2.6 pounds.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	The emissions from natural gas and VOC combustion in the thermal oxidizer shall not exceed the following: 1.41 tons/yr nitrogen oxides (NOx); 0.53 ton/yr carbon monoxide (CO); 0.04 ton/yr particulate emissions (PE); 0.09 ton/yr VOC; and 0.13 ton/yr sulfur dioxide (SO2). See Sections b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See Sections b)(2)b. below.
d.	OAC rule 3745-31-05(D) (to avoid PSD)	The overall combined volatile organic compound (VOC) emitted from this facility is listed in the facility-wide terms and conditions in B.2. The recordkeeping and reporting requirements in section from this facility as specified in B.3 and B.4.
e.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average. See Section f)(1)c., below



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-10(B)	0.02 lbs of PE per mMBtu for the fuel burning equipment.
g.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(5), below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, and then these emission limitations/control measures no longer apply.
- b. The following rule paragraphs will apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan: The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to NOx, CO, PE, VOC, and SO2 emissions from the thermal incinerator since the controlled potential to emit is less than 10 tons per year.
- c. The combined hourly stack emission limitation of 2.6 pounds of volatile organic compound (VOC), from emissions units P001 and P002, is established to reflect the combined potential emissions from these two emissions units. Therefore, it is not necessary to establish record keeping and reporting requirements to ensure compliance with these limitations.

c) Operational Restrictions

- (1) The permittee shall operate and maintain emissions units P001 and P002 in such a manner that will achieve an overall 50% capture of all volatile organic compounds, (VOC), in the blowing agents employed, minus the amount of VOC retained in the product.
- (2) The volatile organic compound (VOC) emissions captured in this emissions unit's enclosure shall be vented to a control device that with a control efficiency of at least 98%.



- (3) The combined blowing agent “utilized”, (the employed blowing agent minus the amount retained in product) in emissions units P001 and P002 shall not exceed 575 tons per rolling 12 month period.
- (4) The permittee shall burn only natural gas in the thermal oxidizer employed in this emissions unit.

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

- (1) This facility shall maintain the following monthly records on all blowing agent materials employed in emissions units P001 and P002:

- a. the amount of blowing agent employed, in tons;
- b. the total amount of blowing agent retained in the facility products (RTP) during the month, in tons;

$$RTP = \sum_{i=1}^n F_{pi} \times \left(\frac{P_{ri}}{100}\right)$$

Where:

RTP = Retained in product, in tons;

n = Number of representative foam product grades produced during month;

F_{pi} = Quantity in tons of foam product “i” produced during month; and

P_{ri} = Amount of blowing amount retained in representative foam product “i”, in percent by weight.*

* The facility shall maintain all records and testing results that are the bases for the percent of blowing agent retained in product “n” for the product grade produced.

- c. the amount of blowing agents “utilized”, in tons, (the sum of: (“a” – “b”)); and
 - d. the 12-month rolling total amount of blowing agent “utilized”, in tons per last 12-month period.
- (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and the operating manuals. The acceptable temperature setting shall be based upon the manufacturer’s specifications until such time as any required emission testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance



testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

- a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and
- b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of five years.

[OAC rule 3745-77-07(C)(1)]

- (3) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

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

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

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



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

The temperature range/limit 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 temperature range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a 3-hour average.

[OAC rule 3745-77-07(C)(1)]

- (4) For each day during which the permittee burns a fuel other than natural gas in the thermal oxidizer, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (5) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTI prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[ORC 3704.03(F)(3)(c) and F(4)]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the thermal oxidizer during the operation of the emissions unit(s):
 - a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;
 - b. each period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
 - c. an identification of each incident of deviation described in : "a" or "b" (above) where a prompt investigation was not conducted;



- d. an identification of each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in “a” or “b” 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.

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. The combined blowing agent “utilized” in emissions units P001 and P002 exceeds 575 tons per rolling 12 month period.

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

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]

- (3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in section b)(1) of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation:

Combined hourly stack VOC emission rate from emissions units P001 and P002 shall not exceed of 2.6 pounds

The allowable hourly emission rate is based on the following equation:

$$HER = \{[(M_{P001} + M_{P002}) \times Cc] \times (1 - Ce)\}$$

Where:

HER = Hourly Emission Rate, in lbs of VOC/hr;

M_{P001} = Maximum hourly blowing agent usage rate in emissions unit P001, in lbs/hr, (96 lbs/hr);



M_{P002} = Maximum hourly blowing agent usage rate in emissions unit P002, in lbs/hr, (168 lbs/hr);

C_c = Capture of blowing agents within enclosures, in percent (%) by weight, (50%); and

C_e = Control efficiency, in percent (98%).

Applicable Compliance Method:

Compliance is based on the combined maximum production rate of emissions units P001 and P002. If in the future, either of these emissions units are modified to increase the maximum amount of blowing agent that can be employed, those changes will need to be reviewed under appropriate permitting requirements prior to initiation of the modifications.

Compliance will also be based on future stack tests as required in section f)(2).

b. Emission Limitation:

Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any 60 minutes; but shall not exceed 60 percent opacity, as a six-minute average, at any time.

Applicable Compliance Method:

When requested, the permittee shall demonstrate compliance through visible emission observations performed in accordance U.S. EPA Method 9.

c. Emission Limitation:

The maximum allowable amount of particulate emissions for any new or existing fuel burning equipment which is fired only with gaseous fuels, excluding blast furnace gas, and/or number two fuel oil shall be 0.020 pound per million Btu of actual heat input.

Applicable Compliance Method:

When requested, the permittee shall conduct or have conducted a performance stack test demonstrate compliance with the 0.020 pound per million Btu of actual heat input. When requested performed in accordance U.S. EPA Method 1-5 in 40 CFR Part 60 Appendix A.

d. The emissions from natural gas and VOC combustion in the oxidizer shall not exceed the following:

1.41 tons/yr nitrogen oxides (NO_x);

0.53 ton/yr carbon monoxide (CO);



0.04 ton/yr particulate emissions (PE);

0.09 ton/yr VOC; and

0.13 ton/yr sulfur dioxide (SO₂).

Applicable Compliance Method:

The hourly allowable emission limitations above were established by multiplying the maximum natural gas or propane usage rate (1.53mmBtu/hr) by the higher of the emission factors* for each pollutant, from AP-42, Tables 1.4-1, and 1.4-2, revised 7/98 (for natural gas) and Table 1.5-1, revised October 1996 (for propane).

* forNO_x: 0.21 lbNO_x/mmBtu; for CO, 0.08 lb CO/mmBtu; for PE, 0.007 lb PE/mmBtu; for VOC, 0.01 lb VOC/mmBtu; and for SO₂, 0.017 lb SO₂/mmBtu.

If required, compliance with the hourly allowable emission limitations above shall be determined in accordance with the appropriate Methods** of 40 CFR Part 60, Appendix A.

** For NO_x, Methods 1 - 4 and 7; for CO, Methods 1 - 4 and 10; for VOC, Methods 1 - 4 and 25 or 25A, as appropriate; for PE, Methods 1 - 5; and for SO₂, Methods 1 - 4 and 6.

- (2) The permittee shall conduct, or have conducted, emission testing(s) on the regenerative thermal oxidizer and the associated capture systems so as to demonstrate compliance with the above listed requirements.
- a. The emission testing(s) for this emissions unit and/or facility shall be conducted within 6 months prior to the expiration of the operating permit in effect.
 - b. The emission testing(s) shall be conducted to demonstrate compliance with the required hourly stack emissions rate, destruction efficiency of the control device, and the capture requirements of the environmental chambers on emissions units P001 and P002.
 - c. The following test methods shall be employed to demonstrate compliance with the require efficiencies.

Destruction Efficiency of the common control device: The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Capture Efficiency of the environmental chambers: The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51,



Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

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

- d. The test(s) shall be conducted while the emission units being controlled by the control device(s) are being operated at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Southwest District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g) Miscellaneous Requirements
 - (1) None.



3. P003, Warehouse emissions

Operations, Property and/or Equipment Description:

Warehouse emissions

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) b)(1)c., and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)	The hourly volatile organic compound (VOC) emissions shall not exceed 105.6 pounds. See Sections b)(2)a., and f)(1)a., below.
b.	OAC rule 3745-31-05(D) (to avoid PSD)	The overall combined volatile organic compound (VOC) emitted from this facility is listed in the facility-wide terms and conditions in B.2. The recordkeeping and reporting requirements in section from this facility as specified in B.3 and B.4.
c.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(2), below.

(2) Additional Terms and Conditions

a. The hourly emission limitation of 105.6 pounds of volatile organic compound (VOC), from this emissions unit, is established to reflect the potential emission from this emissions unit. Therefore, it is not necessary to establish record keeping and reporting requirements to ensure compliance with these limitations.

c) Operational Restrictions

(1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) Modeling to demonstrate compliance with, the Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

[ORC 3704.03(F)(3)(c) and F(4)]

e) Reporting Requirements

- (1) None.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in section b)(1) of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

105.6 pounds of VOC per hour

The allowable hourly emission rate is based on the following equation:

$$HER = \{[(M_{Lines}) \times Co] - [(M_{Lines}) \times 10\%^{1.}]\}$$

Where:

HER = Hourly Emission Rate, in lbs of VOC/hr;

M_{Lines} = Maximum hourly blowing agent usage rate in emissions units P001 and P002, in lbs/hr, (264 lbs/hr);

Co = Amount of VOC carried over to warehouse/degassing area, in percent (%) by weight, (50%); and

1.= There is an estimated 10% of the overall blowing agent employed that is retained within the foam sheeting.

Applicable Compliance Method:

Compliance is based on the maximum production rate of emissions units P001 and P002, the assumed carry over into the degassing area, and the assumed amount of VOC's retained in foam sheeting.



If in the future, the production rates change and/or the above emission related assumptions are increased, this emissions unit will need to be exampled for possible required permit modifications due to updated emission determinations.

- g) Miscellaneous Requirements
 - (1) None.



4. P004, P004

Operations, Property and/or Equipment Description:

Scrap grinder with incinerator

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) b)(1)e, and d)(5).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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
	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Use of and enclosure and thermal incinerator to reduce VOC emissions. The emissions from natural gas and VOC combustion in the oxidizer shall not exceed the following: 0.32 lb/hr and 1.41 tons/yr nitrogen oxides (NOx); 0.12 lb/hr and 0.53 ton/yr carbon monoxide (CO); 0.01 lb/hr and 0.04 ton/yr particulate emissions (PE); 0.02 lb/hr and 0.09 ton/yr VOC; and 0.03 lb/hr and 0.13 ton/yr sulfur dioxide (SO2). See Sections b)(2)a. below.
	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See Sections b)(2)b. below.
b.	OAC rule 3745-31-05(D) (to avoid PSD)	The overall combined volatile organic compound (VOC) emitted from this facility is listed in the facility-wide terms and conditions in B.2. The recordkeeping and reporting requirements in section from this facility as specified in B.3 and B.4.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average. See Section f)(1)c., below
d.	OAC rule 3745-17-10(B)	0.02 lbs of PE per mmBtu for the fuel burning equipment See Section f)(1)d., below
e.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(5), below.

(2) Additional Terms and Conditions

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

b. The following rule paragraphs will apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to NOX, CO, PE, VOC, and SO2 emissions from the thermal incinerator since the controlled potential to emit is less than 10 tons per year, taking into consideration the federally enforceable limitation established under OAC rule 3745-31-05(D).

c) Operational Restrictions

- (1) This emissions unit shall be equipped with a total enclosure and venting system that directs all volatile organic compound (VOC) emissions to the control device with a control efficiency of at least 98%.
- (2) The permittee shall burn only natural gas and the emissions from the operations in the thermal oxidizer employed to control this emissions unit.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of five years.

[OAC rule 3745-77-07(C)(1)]

- (2) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

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



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

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

The temperature range/limit 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 temperature range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a 3-hour average.

[OAC rule 3745-77-07(C)(1)]

- (3) For each day during which the permittee burns a fuel other than natural gas and/or emissions from the operations in the thermal oxidizer, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (4) Modeling to demonstrate compliance with, the Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

[ORC 3704.03(F)(3)(c) and F(4)]

e) Reporting Requirements

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



- a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;
- b. each period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
- c. an identification of each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in “a” or “b” 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.

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Each day when a fuel other than natural gas and/or operation emissions were burned in the thermal oxidizer controlling this emissions unit

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

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in section b)(1) of this permit shall be
 - a. Emission Limitation:

Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any 60 minutes; but shall not exceed 60 percent opacity, as a six-minute average, at any time.



Applicable Compliance Method:

When requested, the permittee shall demonstrate compliance through visible emission observations performed in accordance U.S. EPA Method 9.

b. Emission Limitation:

The maximum allowable amount of particulate emissions for any new or existing fuel burning equipment which is fired only with gaseous fuels, excluding blast furnace gas, and/or number two fuel oil shall be 0.020 pound per million Btu of actual heat input.

Applicable Compliance Method:

When requested, the permittee shall conduct or have conducted a performance stack test demonstrate compliance with the 0.020 pound per million Btu of actual heat input. When requested performed in accordance U.S. EPA Method 1-5 in 40 CFR Part 60 Appendix A.

c. The emissions from natural gas and VOC combustion in the oxidizer shall not exceed the following:

1.41 tons/yr nitrogen oxides (NO_x);

0.53 ton/yr carbon monoxide (CO);

0.04 ton/yr particulate emissions (PE);

0.09 ton/yr VOC; and

0.13 ton/yr sulfur dioxide (SO₂).

Applicable Compliance Method:

The hourly allowable emission limitations above were established by multiplying the maximum natural gas or propane usage rate (1.53mmBtu/hr) by the higher of the emission factors* for each pollutant, from AP-42, Tables 1.4-1, and 1.4-2, revised 7/98 (for natural gas) and Table 1.5-1, revised October 1996 (for propane).

* forNO_x: 0.21 lbNO_x/mmBtu; for CO, 0.08 lb CO/mmBtu; for PE, 0.007 lb PE/mmBtu; for VOC, 0.01 lb VOC/mmBtu; and for SO₂, 0.017 lb SO₂/mmBtu.

If required, compliance with the hourly allowable emission limitations above shall be determined in accordance with the appropriate Methods** of 40 CFR Part 60, Appendix A.

** For NO_x, Methods 1 - 4 and 7; for CO, Methods 1 - 4 and 10; for VOC, Methods 1 - 4 and 25 or 25A, as appropriate; for PE, Methods 1 - 5; and for SO₂, Methods 1 - 4 and 6.



- (2) The permittee shall conduct, or have conducted, emission testing(s) on the regenerative thermal oxidizer and the associated capture systems so as to demonstrate compliance with the above listed requirements.
- a. The emission testing(s) for this emissions unit and/or facility shall be conducted within 6 months prior to the expiration of the operating permit in effect.
 - b. The emission testing(s) shall be conducted to demonstrate compliance with the require destruction of efficiency of the control device and the total enclosure requirements of emissions unit P004.
 - c. The following test methods shall be employed to demonstrate compliance with the require efficiencies.

Destruction Efficiency of the common control device: The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Capture Efficiency of the total enclosure: The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

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

- d. The test(s) shall be conducted while the emission units being controlled by the control device(s) are being operated at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Southwest District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the



operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g) Miscellaneous Requirements
 - (1) None.