



State of Ohio Environmental Protection Agency

STREET ADDRESS:

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Columbus, Ohio 43215

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P.O. Box 1049
Columbus, OH 43216-1049

1/16/2009

Certified Mail

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

Yes	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0575010238
Permit Number: P0103888
Permit Type: OAC Chapter 3745-31 Modification
County: Shelby

Dear Permit Holder:

Enclosed please find a final 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.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Southwest District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

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

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

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

**Air Pollution Permit-to-Install
for**

IVEX Protective Packaging Inc. (Formerly Protec Pac USA

Facility ID: 0575010238
Permit Number: P0103888
Permit Type: OAC Chapter 3745-31 Modification
Issued: 1/16/2009
Effective: 1/16/2009



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

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

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: P0103888
Facility ID: 0575010238
Effective Date: 1/16/2009

Authorization

Facility ID: 0575010238
Facility Description: Polyolefin foam extrusion
Application Number(s): A0035966
Permit Number: P0103888
Permit Description: Protective foam sheeting lines, warehouse, extruder and grinder with capture and control
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$800.00
Issue Date: 1/16/2009
Effective Date: 1/16/2009

This document constitutes issuance to:

IVEX Protective Packaging Inc. (Formerly 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 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

Chris Korleski
Director



Authorization (continued)

Permit Number: P0103888

Permit Description: Protective foam sheeting lines, warehouse, extruder and grinder with capture and control

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:	05-14396
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	P002
Superseded Permit Number:	05-14396
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	P003
Superseded Permit Number:	05-14396
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	P004
Superseded Permit Number:	05-14396
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: P0103888
Facility ID: 0575010238
Effective Date: 1/16/2009

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 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) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and 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 (i.e., postmarked) 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) 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.

c) 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.
- d) 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



(i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

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).

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 party 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 through completion of the annual PER covering the last period of operation 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 PER covering the last period the emissions unit operated.



No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a PER, 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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), 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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: P0103888
Facility ID: 0575010238
Effective Date: 1/16/2009

17. Permit Transfers

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

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: P0103888
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B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: P0103888
Facility ID: 0575010238
Effective Date: 1/16/2009

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: P0103888
Facility ID: 0575010238
Effective Date: 1/16/2009

C. Emissions Unit Terms and Conditions



1. P001, P001

Operations, Property and/or Equipment Description:

Foam extrusion line 1 with environmental enclosure and 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., d)(5), d)(6), d)(7), d)(8), and e)(4).

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)	<p>The combined hourly volatile organic compound (VOC) emissions from emissions units P001 and P002 shall not exceed 2.6 pounds.</p> <p>The emissions from natural gas and VOC combustion in the oxidizer shall not exceed the following:</p> <p>0.32 lb/hr and 1.41 tons/yr nitrogen oxides (NO_x); 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).</p> <p>See Sections b)(2)a., c)(1), c)(2), d)(2), d)(3), e)(1), f)(1)a., f)(1)e., and f)(2), below.</p>
b.	OAC rule 3745-31-05(D) (to avoid becoming a Federal Facility)	<p>The overall combined volatile organic compound (VOC) emitted from this facility shall not exceed 240 tons per rolling 12-month period.</p> <p>See Sections c)(3), d)(1), e)(2), and f)(1)b., below.</p>
c.	OAC rule 3745-21-07(G)(2)	The emissions limitation specified by this



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3) BAT See Section b)(2)c., below.
d.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average. See Section f)(1)c., below
e.	OAC rule 3745-17-10(B)	0.02 lbs of PE per mmBtu for the fuel burning equipment See Section f)(1)d., below
f.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(5), d)(6), d)(7), d)(8), and e)(4), below.

(2) Additional Terms and Conditions

a. The combined hourly 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.

b. All of the VOC emissions from the emissions units listed above shall be vented to a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when one or more of the emissions units are in operation.

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

c. On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (G); therefore, paragraph (G) is no longer part of the State regulations. However, that rule revision has not been approved by the U.S.EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs to OAC rule 3745-21-07, the requirement of the previous OAC rule 3745-21-07(G) still exists as part of the federally approved SIP for Ohio.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the terms and conditions within this permit which are required by previous OAC rule 3745-21-07(G) will not be required and will not be federally and/or state enforceable.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State



Implementation Plan (SIP) is revised, the permittee shall take immediate steps to assure compliance with any and all requirements of the revised OAC rule and/or SIP.

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 compound in the blowing agents employed.
- (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 employed 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 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 sum of: (a) multiplied by the percent emitted in the enclosure ¹];
 - d. the amount of VOC emitted from the incinerator vent, in tons per month, [the sum 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 August 16, 2008, the actual percentage was determined to be 51.4%.



². The control efficiency of the thermal incinerator is required by this permit to be at least 98%. In the most recent stack test, August 16, 2008, the actual control efficiency was determined to be 99.6%.

- (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) The PTI application for this emissions unit, P001, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The AToxic Air Contaminant Statute[®], ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled AReview of New Sources of Air Toxic Emissions, Option A[®], as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been



documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) Δ Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices Δ ; or
- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) Δ Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices Δ ; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or Δ worst case Δ toxic contaminant(s):

Toxic Contaminant: Isobutane;

TLV (mg/m³): 1900;

Maximum Hourly Emission Rate (lbs/hr): 1.12;

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5078.52;

MAGLC (ug/m³): 45,200.

The permittee, has demonstrated that emissions of isobutene, from emissions unit(s) P001, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the Δ Toxic Air Contaminant Statute Δ , ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (6) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration Δ , the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
 - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (8) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum



ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

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 overall combined volatile organic compound (VOC) emitted from this facility exceeds 240 tons per rolling 12-month period; and
- b. The combined blowing agent employed in emissions units P001 and P002 shall not exceed 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.
- (4) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the AToxic Air Contaminant Statute², ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

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 VOC emissions from emissions units P001 and P002 shall not exceed of 2.6 pounds

The allowable emissions are 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);

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

Ce = Control efficiency, in percent (%) reduced, (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 of section f)(2) of this permit.

b. Emission Limitation:

Combined VOC emissions from emissions units P001, P002, P003, and P004 shall not exceed of 240 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance is based the record keeping as required of section d)(1) of this permit.

c. 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.

d. 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.

e. 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 (NO_x);

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).Applicable Compliance Method:



The hourly allowable emission limitations above were established by multiplying the maximum natural gas or propane usage rate (1.53 mmBtu/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).

* for NO_x: 0.21 lb NO_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) shall be conducted within 5 years of the issuance of this permit.
 - b. The emission testing(s) shall be conducted to demonstrate compliance with the require destruction of 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, P002

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., d)(5), d)(6), d)(7), d)(8), and e)(4).

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)	<p>The combined hourly volatile organic compound (VOC) emissions from emissions units P001 and P002 shall not exceed 2.6 pounds.</p> <p>The emissions from natural gas and VOC combustion in the oxidizer shall not exceed the following:</p> <p>0.32 lb/hr and 1.41 tons/yr nitrogen oxides (NO_x); 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).</p> <p>See Sections b)(2)a., c)(1), c)(2), d)(2), d)(3), e)(1), f)(1)a., f)(1)e., and f)(2), below.</p>
b.	OAC rule 3745-31-05(D) (to avoid becoming a Federal Facility)	<p>The overall combined volatile organic compound (VOC) emitted from this facility shall not exceed 240 tons per rolling 12-month period.</p> <p>See Sections c)(3), d)(1), e)(2), and f)(1)b., below.</p>
c.	OAC rule 3745-21-07(G)(2)	The emissions limitation specified by this



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3) BAT See Section b)(2)c., below.
d.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average. See Section f)(1)c., below
e.	OAC rule 3745-17-10(B)	0.02 lbs of PE per mmBtu for the fuel burning equipment See Section f)(1)d., below
f.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(5), d)(6), d)(7), d)(8), and e)(4), below.

(2) Additional Terms and Conditions

a. The combined hourly 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.

b. All of the VOC emissions from the emissions units listed above shall be vented to a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when one or more of the emissions units are in operation.

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

c. On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (G); therefore, paragraph (G) is no longer part of the State regulations. However, that rule revision has not been approved by the U.S.EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs to OAC rule 3745-21-07, the requirement of the previous OAC rule 3745-21-07(G) still exists as part of the federally approved SIP for Ohio.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the terms and conditions within this permit which are required by previous OAC rule 3745-21-07(G) will not be required and will not be federally and/or state enforceable.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State



Implementation Plan (SIP) is revised, the permittee shall take immediate steps to assure compliance with any and all requirements of the revised OAC rule and/or SIP.

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 compound in the blowing agents employed.
- (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 employed 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 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 sum of: (a) multiplied by the percent emitted in the enclosure ¹];
 - d. the amount of VOC emitted from the incinerator vent, in tons per month, [the sum 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 August 16, 2008, the actual percentage was determined to be 51.4%.



². The control efficiency of the thermal incinerator is required by this permit to be at least 98%. In the most recent stack test, August 16, 2008, the actual control efficiency was determined to be 99.6%.

- (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) The PTI application for this emissions unit, P002, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The AToxic Air Contaminant Statute[®], ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled AReview of New Sources of Air Toxic Emissions, Option A[®], as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been



documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) Δ Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices Δ ; or
- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) Δ Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices Δ ; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or Δ worst case Δ toxic contaminant(s):

Toxic Contaminant: Isobutane;

TLV (mg/m³): 1900;

Maximum Hourly Emission Rate (lbs/hr): 1.12;

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5078.52;

MAGLC (ug/m³): 45,200.

The permittee, has demonstrated that emissions of isobutene, from emissions unit(s) P002, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the Δ Toxic Air Contaminant Statute Δ , ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (6) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration Δ , the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (8) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum



ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

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 Aa@ or “b” (above) where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in Aa@ 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 Aa@ 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 overall combined volatile organic compound (VOC) emitted from this facility exceeds 240 tons per rolling 12-month period; and
- b. The combined blowing agent employed in emissions units P001 and P002 shall not exceed 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.
- (4) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the AToxic Air Contaminant Statute², ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

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 VOC emissions from emissions units P001 and P002 shall not exceed of 2.6 pounds

The allowable emissions are 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);

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

Ce = Control efficiency, in percent (%) reduced, (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 of section f)(2) of this permit.

b. Emission Limitation:

Combined VOC emissions from emissions units P001, P002, P003, and P004 shall not exceed of 240 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance is based the record keeping as required of section d)(1) of this permit.

c. 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.

d. 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.

e. 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 (NO_x);

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).Applicable Compliance Method:



The hourly allowable emission limitations above were established by multiplying the maximum natural gas or propane usage rate (1.53 mmBtu/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).

* for NO_x: 0.21 lb NO_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) shall be conducted within 5 years of the issuance of this permit.
 - b. The emission testing(s) shall be conducted to demonstrate compliance with the require destruction of 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, P003

Operations, Property and/or Equipment Description:

Warehouse emissions degassing area

- 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)d., d)(3), d)(4), d)(5), d)(6), and e)(2).
- 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 becoming a Federal Facility)	The overall combined volatile organic compound (VOC) emitted from this facility shall not exceed 240 tons per rolling 12-month period. See Sections d)(1), e)(1), and f)(1)b., below.
c.	OAC rule 3745-21-07(G)(2)	When coating non-metal parts, the OC emissions from the use photochemically reactive liquid organic materials or substance containing photochemically reactive material shall not exceed 8 pounds per hour nor 40 pounds per day. See Sections b)(2)b, d)(2), e)(1), and f)(2), below.
d.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(3), d)(4), d)(5), d)(6), and e)(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.
- b. On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (G); therefore, paragraph (G) is no longer part of the State regulations. However, that rule revision has not been approved by the U.S.EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs to OAC rule 3745-21-07, the requirement of the previous OAC rule 3745-21-07(G) still exists as part of the federally approved SIP for Ohio.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the terms and conditions within this permit which are required by previous OAC rule 3745-21-07(G) will not be required and will not be federally and/or state enforceable.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the permittee shall take immediate steps to assure compliance with any and all requirements of the revised OAC rule and/or SIP.

c) Operational Restrictions

- (1) None.

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 and the combined VOC emissions from emissions unit P001, P002, P003, and P004:
 - a. the amount of blowing agent employed, in tons;
 - b. the amount of VOC emitted in the enclosures of emissions units P001 and P002, in tons per month, [the sum of: (a) multiplied by the percent emitted in the enclosure ¹];
 - c. the combined VOC emitted from emissions units P001 and P002, in tons per month;
 - d. the amount of VOC emitted from emissions unit P003, the "off-gassing" warehouse, in tons per month, {the sum of: [(a - b) - (a x 10% ²)]};
 - e. the amount of VOC emitted from P004, foam grinder, in tons per month;
 - f. the amount of combined VOC emitted, in tons per month,[the sum of: (c) + (d) + (e)];



- g. 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 (f) plus the total VOC emission (f) 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 August 16, 2008, the actual percentage was determined to be 51.4%.
 - ². Based on the best industry information available at this time, there is an assumed 10% of the blowing agent used that becomes trapped inside the foam sheeting product.
- (2) This facility shall maintain the following daily records if any material employed is by definition photo chemically reactive material "PRM" or contains a substance that is by definition "PRM" during any time when non-metal parts are being coated in this emissions unit:
- a. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the amount of each "PRM" material or "PRM" containing material employed while coating non-metal parts, in gallons;
 - b. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the organic compound content of each "PRM" material or "PRM" containing material employed while coating non-metal parts, in lbs/gal;
 - c. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the organic compound (OC) emissions of each "PRM" material or "PRM" containing material employed while coating non-metal parts, in lbs of OC/day ("a" x "b");
 - d. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the total number of hours this emission unit was used to coat non-metal parts, in hours/day; and
 - e. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the estimated hourly OC emission rate while coating non-metal parts, in lbs of OC/hr ("c"/"d").
- (3) The PTI application for this emissions unit, P003, was evaluated based on the actual materials and the design parameters of the emissions unit's(s) exhaust system, as specified by the permittee. The AToxic Air Contaminant Statute[®], ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled AReview of New Sources of Air Toxic Emissions, Option A[®], as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw



materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) Δ Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices Δ ; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) Δ Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices Δ ; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or Δ worst case Δ toxic contaminant(s):

Toxic Contaminant: Isobutane;

TLV (mg/m³): 1900;

Maximum Hourly Emission Rate (lbs/hr): 105.6;

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 776.63¹;

MAGLC (ug/m³): 45,200.

¹based on the use of two of four existing roof vents.

The permittee, has demonstrated that emissions of isobutene, from emissions unit P003, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the Δ Toxic Air Contaminant Statute Δ , ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration Δ , the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:



- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute[®] will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute[®], ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute[®], ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the AToxic Air Contaminant Statute[®], ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the AToxic Air Contaminant Statute[®], ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the AToxic Air Contaminant Statute[®], ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]



- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the AToxic Air Contaminant Statute^o, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

e) Reporting Requirements

- (1) 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; and\
 - b. The organic compound (OC) emissions exceed 8 pounds per hour and/or 40 pounds per day whenever photochemically reactive materials are employed in 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)]

- (2) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the AToxic Air Contaminant Statute^o, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

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 emissions are 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);

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

C_e = Control efficiency, in percent (%) reduced, (98%); 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 exempted for possible required permit modifications due to updated emission determinations.

b. Emission Limitation:

Combined VOC emissions from emissions units P001, P002, P003, and P004 shall not exceed of 240 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance is based the record keeping as required of section d)(1) of this permit.

(2) Compliance with the emission limitations specified by the SIP and the previous OAC rule 3745-21-07(G)(2) in b)(1)h of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

The OC emissions from the use photochemically reactive liquid organic materials or substance containing photochemically reactive material shall not exceed 8 pounds per hour nor 40 pounds per day, while coating non-metal parts.

Applicable Compliance Method:

Compliance with the above OC emission limitations shall be determined by the recordkeeping requirement specified in Section d)(2).

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) None.
- 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)	<p>The hourly volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.96 pounds.</p> <p>The emissions from natural gas and VOC combustion in the oxidizer shall not exceed the following:</p> <p>0.32 lb/hr and 1.41 tons/yr nitrogen oxides (NO_x); 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).</p> <p>See Sections b)(2)a., c)(1), c)(2), d)(2), d)(3), e)(1), f)(1)a., f)(1)e., and f)(2), below.</p>
b.	OAC rule 3745-31-05(D) (to avoid becoming a Federal Facility)	<p>The overall combined volatile organic compound (VOC) emitted from this facility shall not exceed 240 tons per rolling 12-month period.</p> <p>See Sections c)(3), d)(1), e)(2), and f)(1)b., below.</p>
c.	OAC rule 3745-21-07(G)(2)	The emissions limitation specified by this rule is less stringent than the emission



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		limitation established pursuant to OAC rule 3745-31-05(A)(3) BAT See Section b)(2)c., below.
d.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average. See Section f)(1)c., below
e.	OAC rule 3745-17-10(B)	0.02 lbs of PE per mmBtu for the fuel burning equipment See Section f)(1)d., below
f.	OAC rule 3745-114-01	Ohio Toxic Rule See Section d)(5), d)(6), d)(7), d)(8), and e)(4), below.

(2) Additional Terms and Conditions

a. The combined hourly emission limitation of 0.96 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.

b. All of the VOC emissions from the emissions units listed above shall be vented to a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when one or more of the emissions units are in operation.

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

c. On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (G); therefore, paragraph (G) is no longer part of the State regulations. However, that rule revision has not been approved by the U.S.EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs to OAC rule 3745-21-07, the requirement of the previous OAC rule 3745-21-07(G) still exists as part of the federally approved SIP for Ohio.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the terms and conditions within this permit which are required by previous OAC rule 3745-21-07(G) will not be required and will not be federally and/or state enforceable.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the permittee shall take immediate steps to



assure compliance with any and all requirements of the revised OAC rule and/or SIP.

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.
- (2) The volatile organic compound (VOC) emissions captured in this emissions unit shall be vented to a control device that with a control efficiency of at least 98%.
- (3) 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 materials employed in emissions unit P004 and the combined VOC emissions from emissions unit P001, P002, P003, and P004:
 - a. the amount of foam recycled, in tons;
 - b. the amount of VOC generated by the recycling of the foam materials, in tons per month, [the sum of: (a) multiplied by 0.12 pound of VOC emitted per pound of foam recycled¹]
 - c. the amount of VOC emitted from P004, in tons per month, [the sum of: (b) x (1-percent control efficiency²)];
 - d. the combined amount of VOC emitted from emissions units P001 and P002, in tons per month;
 - e. the amount of VOC emitted from emissions unit P003, the “off-gassing” warehouse, in tons per month;
 - f. the amount of combined VOC emitted, in tons per month,[the sum of: (c) + (d) + (e)];
 - g. 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 (f) plus the total VOC emission (f) for the 11 previous calendar months)].

¹. The 0.12 pound of VOC emitted to pound of foam recycled is based on the August 16, 2008, stack test. The stack test determined that 44.1 pounds of VOC are emitted for every 376 pounds of foam recycled.

². The control efficiency of the thermal incinerator is required by this permit to be at least 98%. In the most recent stack test, August 16, 2008, the actual control efficiency was determined to be 99.6%.

- (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) The PTI application for this emissions unit, P004, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The AToxic Air Contaminant Statute[@], ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled AReview of New Sources of Air Toxic Emissions, Option A[@], as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) AThreshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices[@]; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) AThreshold

Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or worst case toxic contaminant(s):

Toxic Contaminant: Isobutane;

TLV (mg/m³): 1900;

Maximum Hourly Emission Rate (lbs/hr): 0.96;

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4,352.8;

MAGLC (ug/m³): 45,200.

The permittee, has demonstrated that emissions of isobutene, from emissions unit(s) P004, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the Toxic Air Contaminant Statute, ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (6) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
 - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the Toxic Air Contaminant Statute will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or



process operation, where compliance with the Δ Toxic Air Contaminant Statute $\text{\textcircled{a}}$, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification”, the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the Δ Toxic Air Contaminant Statute $\text{\textcircled{a}}$, ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the Δ Toxic Air Contaminant Statute $\text{\textcircled{a}}$, ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the Δ Toxic Air Contaminant Statute $\text{\textcircled{a}}$, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the Δ Toxic Air Contaminant Statute $\text{\textcircled{a}}$, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

- (8) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the Δ Toxic Air Contaminant Statute $\text{\textcircled{a}}$, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

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 Aa@ or "b" (above) where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in Aa@ 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 Aa@ 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 overall combined volatile organic compound (VOC) emitted from this facility exceeds 240 tons per rolling 12-month period; and
 - b. The VOC from this emissions unit exceeds 4.20 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.
- (4) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the AToxic Air Contaminant Statute@, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report



shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01]

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:

VOC emissions from emissions unit P004 shall not exceed of 0.96 pounds

The allowable emissions are based on the following equation:

$$HER = \{[(Mr) \times Ef] \times (1 - Ce)\}$$

Where:

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

Mr = Foam Material recycled, in lbs/hr, (400 lbs/hr maximum);

Ef = 0.12 pound of VOC emitted to pound of foam recycled is based on the August 16, 2008, stack test. The stack test determined that 44.1 pounds of VOC are emitted for every 376 pounds of foam recycled. and

Ce = Control efficiency, in percent (%) reduced, (98%).

Applicable Compliance Method:

Compliance is based on the maximum production rate of this emissions unit. If in the future, if the production rate increases and/or the enclosure and venting system is modified, those changes will need to be reviewed under appropriate permitting requirements prior to initiation of the changes occur.

b. Emission Limitation:

Combined VOC emissions from emissions units P001, P002, P003, and P004 shall not exceed of 240 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance is based the record keeping as required of section d)(1) of this permit.

c. 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.

d. 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.

e. 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 (NO_x);

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).Applicable Compliance Method:

The hourly allowable emission limitations above were established by multiplying the maximum natural gas or propane usage rate (1.53 mmBtu/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).

* for NO_x: 0.21 lb NO_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) shall be conducted within 5 years of the issuance of this permit.
 - 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 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



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Division of Air Pollution Control

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characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g) Miscellaneous Requirements

- (1) None.