

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install **08-04715**

A. Source Description

Dolco Packaging, SIC 3086 is a manufacturer of polystyrene products. This PTI application is to request a facility wide synthetic minor permit to limit their volatile organic compound (VOC) emissions. Based on new emissions factors without control, Dolco would be considered a major source. Dolco is requesting a synthetic minor permit to stay out of Title V by making the use of a regenerative thermal oxidizer (RTO) with 95% destruction efficiency federally enforceable and thus the PTE with control for major NSR less than 100 TPY VOC. Due to including the control in their PTE calculations, they will only be synthetic minor for Title V and not NSR. The following sources contribute to Dolco's facility wide VOC emissions:

See emission calculations spreadsheet

B. Facility Emissions and Attainment Status

Dolco Packaging is located in Miami County, which is currently non-attainment for Ozone. Dolco has 14 emission sources, of which 3 have negligible emissions, 2 are de minimis, and 6 are controlled through the use of an RTO. The current facility wide VOC potential to emit (PTE) with control is 87.86 TPY VOC from all emission sources including those that are de minimis and those that are uncontrolled. The emission sources which are controlled contribute 16.58 TPY VOC to the facility wide VOC PTE. The allowable emissions associated with this PTI are 76.5 TPY VOC.

C. Source Emissions

Uncontrolled potential to emit for the facility is 402.91 TPY VOC. This permit will be issued in draft and will contain federally enforceable rolling, 12-month limitations to limit the facilities PTE to below major source thresholds for TV permitting. The short term and annual VOC emission limitation is based on the potential to emit of the individual emissions unit with control where applicable. VOC emissions will be controlled by an RTO with 95% destruction efficiency. Parametric monitoring and daily record keeping of the RTO will also be federally enforceable.

D. Conclusion

A PTI is recommended for the facility. Federal enforceability of the synthetic minor limitations will be achieved through parametric monitoring of the control device through daily record keeping and rolling, 12-month limitations on VOC emissions.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
MIAMI COUNTY**

CERTIFIED MAIL

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

Application No: 08-04715

Fac ID: 0855140332

DATE: 3/2/2006

Dolco Packaging
Rusty Slonaker
1261 Brukner Dr
Troy, OH 45373

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1400** will be due. Please do not submit any payment now.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

RAPCA

Miami Valley Regional Planning Commission

IN

PUBLIC NOTICE

ISSUANCE OF DRAFT PERMIT TO INSTALL **08-04715** FOR AN AIR CONTAMINANT SOURCE FOR
Dolco Packaging

On 3/2/2006 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Dolco Packaging**, located at **1261 Brukner Dr, Troy, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 08-04715:

ch 31 mod replacing PTIs 08-02677 5/19/93, 08-01653 3/15/89, 08-04085 2/9/00, 08-04419 7/30/02, and 08-04160 4/26/00 to go from a non tv facility to a smtv.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

John Paul, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, OH 45422-1280
[(937)225-4435]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 08-04715

Application Number: 08-04715
Facility ID: 0855140332
Permit Fee: **To be entered upon final issuance**
Name of Facility: Dolco Packaging
Person to Contact: Rusty Slonaker
Address: 1261 Brukner Dr
Troy, OH 45373

Location of proposed air contaminant source(s) [emissions unit(s)]:

**1261 Brukner Dr
Troy, Ohio**

Description of proposed emissions unit(s):

Ch 31 mod replacing PTIs 08-02677 5/19/93, 08-01653 3/15/89, 08-04085 2/9/00, 08-04419 7/30/02, and 08-04160 4/26/00 to go from a non tv facility to a smtv.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

Director

Dolco Packaging

PTI Application: 08-04715

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

Facility ID: 0855140332

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from 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 appropriate Ohio EPA District Office or local air agency. 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., 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.)

3. Records Retention Requirements

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.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections,

Dolco Packaging**Facility ID: 0855140332****PTI Application: 08-04715****Issued: To be entered upon final issuance**

conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

6. Permit Transfers

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

7. 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.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental

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Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

10. 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.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available

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Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. 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 this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	76.5

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - Outside Regrind Storage Silos with regenerative thermal oxidizer	OAC rule 3745-31-05(A)(3)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.08 pound per hour (lb/hr) and 0.36 ton per year (TPY). The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B).
	OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V)	The total allowable VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a The 0.08 pound VOC per hour and 0.36 ton VOC per year emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
- 2.b The VOC emissions from this emissions unit (P005) shall be controlled through the application of a regenerative thermal oxidizer (RTO) system, operating at a minimum of 95% overall VOC destruction efficiency (The capture efficiency shall be assumed to be 100%, since the unit is totally enclosed with no natural draft

Emissions Unit ID: **P005**

openings, and all emissions are vented to the RTO). [This RTO system is a common VOC control device for emissions units P005, P007, P008, P014, P016, and P017 (Emission Unit Group No. 2 (P015 is excluded from this group because it does not vent to the RTO))].

B. Operational Restrictions

1. The RTO system shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
2. The average combustion temperature within the RTO, for any 3-hour block of time when any emissions units within Emission Unit Group No. 2 is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test that demonstrated the emissions units were in compliance.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall calculate and maintain monthly records of the following information for this emissions unit:
 - a. The total measured mass of the blowing agent (volatile organic compound) employed, in pounds.
 - b. The total calculated uncontrolled VOC emission rate, in pounds (i.e. (a) x 1.01% VOC emitted per process based on maximum VOC extruder input).
 - c. The total calculated controlled VOC emission rate, in tons [the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance [i.e., (b) multiplied by a factor of (1 minus the overall control efficiency) divided by 2000 lbs/ton].
2. The permittee shall calculate and maintain monthly records of the following information for emissions units P005, P007, P008, P014, P015, P016, and P017, combined:
 - a. The total controlled VOC emissions, in tons [summation of the VOC emissions rate from section C.1. for emissions units P005, P007, P008, P014, P015, P016, and P017].
 - b. The rolling, 12-month VOC emission rate, in tons.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The

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monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information on a daily basis:

- a. All 3-hour blocks of time when the average combustion temperature within the RTO, when any emissions units within Emission Unit Group No. 2 was in operation, was more than 50 degrees Fahrenheit below the average temperature measured during the most recent stack test that demonstrated the emissions units were in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment, when any emissions units contained within Emission Unit Group No. 2 were in operation.
4. The permit to install for this emissions unit (P005) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install applications, for P005, P007, P008, P014, P015, P016, and P017. The Ohio EPA's REVIEW of New Sources of Air Toxic Emissions policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the worst case pollutant(s):

Pollutant: Isopentane

TLV (mg/m³): 1,771

Maximum Hourly Emission Rate (lbs/hr): 20.06

Predicted 1-Hour Maximum Ground Level
Concentration (ug/m³): 1,962

MAGLC (ug/m³): 42,156

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or

Emissions Unit ID: P005

not the Air Toxic Policy is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the Air Toxic Policy will still be satisfied. If, upon evaluation, the permittee determines that the Air Toxic Policy will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the Air Toxic Policy include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled.
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the Air Toxic Policy:
 - a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.).
 - b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy.
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

Dolco**PTI A****Issued: To be entered upon final issuance**Emissions Unit ID: **P005****D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following information when any emissions units contained within Emission Unit Group No. 2 was in operation:
 - a. All 3-hour blocks of time during which the average combustion temperature within the RTO did not comply with the temperature limitation specified in this permit.
 - b. All exceedances of the rolling, 12-month VOC emission limitation of 76.5 tons (for emissions units P005, P007, P008, P014, P015, P016, and P017 combined).
 - c. Any period of times in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed.
2. In accordance with the General Terms and Conditions of this permit, the above quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.
3. The permittee shall submit annual reports that specify the actual annual VOC emission rate, in tons, from this emissions unit, as well as, the total actual annual VOC emission rate, in tons, from the facility. These reports shall be submitted by April 15 of each year and shall cover the previous calendar year.
4. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment when any emissions units within Emission Unit Group No. 2 was in operation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation
The VOC emissions from this emissions unit shall not exceed 0.08 pound per hour.

Dolco Packaging

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Facility ID: 0855140332

Emissions Unit ID: P005

Applicable Compliance Method

Compliance with the hourly allowable VOC emission limitation may be determined by multiplying the maximum blowing agent usage rate (161 lbs/hour) by the facility derived emission factor of "1.01% VOC emitted per process based on total VOC extruder input", and then multiplying that calculated value by the minimum required overall control efficiency-(1-0.95).

b. Emission Limitation-

The VOC emissions from this emissions unit shall not exceed 0.36 ton per year.

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Applicable Compliance Method-

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured (the annual limitation was determined by multiplying the hourly limitation by 8760, and dividing by 2000 lbs/ton).

c. Emission Limitation-

The VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method-

Compliance with the annual allowable VOC emission limitation shall be demonstrated based on record keeping requirements established in section C.1. of this permit.

2. The permittee shall conduct, or have conducted, emissions and compliance demonstration testing on this emissions unit within six months after installation, in accordance with the following requirements:
 - a. Emission testing shall be conducted to demonstrate compliance with the combined allowable emissions rate from Emission Unit Group No. 2 of 3.78 lbs VOC/hr and a minimum overall control efficiency of 95% for volatile organic compounds. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18 of 40 CFR Part 60, Appendix A and/or Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate, before and after the regenerative thermal oxidizer, to demonstrate compliance with the destruction efficiency for volatile organic compounds. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
3. The emissions and compliance demonstration testing tests shall be conducted while the emissions units contained within Emission Unit Group No. 2 are operating at or near their maximum capacities, unless otherwise specified or approved by the RAPCA.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the RAPCA. 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 RAPCA's refusal to accept the results of the emission test(s).

Dolco Packaging
PTI Application: 08-04715
Issue

Facility ID: 0855140332

Emissions Unit ID: P005

Personnel from the RAPCA shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operations of the applicable emissions units and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the RAPCA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the RAPCA.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B)), A.2.b, B.1 and 2, C.1 and 2, D.1 and 4, E.1.c., and E.2.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P007 - Pelletizer No. 27 with regenerative thermal oxidizer	OAC rule 3745-31-05(A)(3)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.04 pound per hour (lb/hr) and 0.18 ton per year (TPY). The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B).
	OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V)	The total allowable VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group no. 1) shall not exceed 76.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a The 0.04 pound VOC per hour and 0.18 ton VOC per year emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
- 2.b The VOC emissions from this emissions unit (P007) shall be controlled through the application of a permanent total enclosure (PTE) with 100% capture efficiency and a regenerative thermal oxidizer (RTO) system, operating at a minimum of 95% overall VOC destruction efficiency. [This RTO system is a

Dolco**PTI A**Emissions Unit ID: **P007****Issued: To be entered upon final issuance**

common VOC control device for emissions units P005, P007, P008, P014, P016, and P017 (Emission Unit Group No. 2 (P015 is excluded from this group because it does not vent to the RTO))].

- 2.c** The permittee has the option to perform an alternative demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating a monitoring device(s) along with a recorder which simultaneously and continuously measures and records the average facial velocity or pressure differential across the PTE.

If the permittee elects not to perform the alternative demonstration or the alternative demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the average facial velocity or differential pressure monitoring, record keeping, reporting and testing requirements as specified below (See sections B.3. through B.5., C.5., C.6., D.5., E.2.b., E.3. and E.4.), to ensure the integrity of the PTE.

B. Operational Restrictions

1. The RTO system shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
2. The average combustion temperature within the RTO, for any 3-hour block of time when any emissions units within Emission Unit Group No. 2 is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test that demonstrated the emissions units were in compliance.
3. The permanent total enclosure shall be maintained under negative pressure whenever this emissions unit is in operation, and shall be designed, installed, maintained, and operated in accordance with 40 CFR Part 51, Appendix M, Method 204, whenever this emissions unit is in operation. The permanent total enclosure shall meet all of the following criteria :
 - a. any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point;
 - b. the total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosures four walls, floor, and ceiling;

- c. the direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity through all natural draft openings being no less than 3,600 m/hr (200 fpm) corresponding to a pressure drop of 0.013 mm Hg (0.007 inch of water);
- d. all access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in (b) and are not included in the calculation in paragraph (c), shall be completely closed to any air movement during process operations; and
- e. all VOC emissions shall be captured and contained for discharge through the control device.

By satisfying the above criteria for a permanent total enclosure, the VOC capture efficiency shall be assumed to be 100%.

4. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inch of water), as a 3-hour average, whenever this emissions unit is in operation.
5. A permanent total enclosure shall be constructed to enclose the applicable emission unit. Air flow monitor(s) or differential pressure gauge(s) shall be installed to continuously measure and record the average facial velocity or pressure differential across the enclosure in accordance with 40 CFR Part 51, Appendix M, Method 204. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturers recommendations, instructions, and operating manuals.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall calculate and maintain monthly records of the following information for this emissions unit:
 - a. The total measured mass of the blowing agent (VOC) employed, in pounds.
 - b. The total calculated uncontrolled VOC emission rate, in pounds (i.e. (a) x 0.505% VOC emitted per process based on maximum VOC extruder input).
 - c. The total calculated controlled VOC emissions rate, in tons [the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance [i.e., (b) multiplied by a

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factor of 1 minus the overall control efficiency divided by 2000 lbs/ton].

2. The permittee shall calculate and maintain monthly records of the following information for emissions units P005, P007, P008, P014, P015, P016, and P017, combined:
 - a. The total controlled VOC emissions, in tons [summation the VOC emissions rate from section C.1. fro emissions units P005, P007, P008, P014, P015, P016, and P017].
 - b. The rolling, 12-month VOC emission rate, in tons.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information on a daily basis:

- a. All 3-hour blocks of time when the average combustion temperature within the RTO, when any emissions units within Emission Unit Group No. 2 was in operation, was more than 50 degrees Fahrenheit below the average temperature measured during the most recent stack test that demonstrated the emissions units were in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment, when any emissions units contained within Emission Unit Group No. 2 were in operation.
4. The permit to install for this emissions unit (P007) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install applications, for P005, P007, P008, P014, P015, P016, and P017. The Ohio EPA's REVIEW of New Sources of Air Toxic Emissions policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the worst case pollutant(s):

Pollutant: Isopentane

TLV (mg/m3): 1,771

Maximum Hourly Emission Rate (lbs/hr): 20.06

Predicted 1-Hour Maximum Ground Level
Concentration (ug/m3): 1,962

MAGLC (ug/m3): 42,156

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the Air Toxic Policy is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the Air Toxic Policy will still be satisfied. If, upon evaluation, the permittee determines that the Air Toxic Policy will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the Air Toxic Policy include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled.
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the Air Toxic Policy:
 - a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.).
 - b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy.
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

6. The permittee shall record and maintain the following information on a daily basis:
 - a. the 3-hour average facial velocity of the air flow through or the pressure differential across the enclosure; and
 - b. all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the average facial velocity of 3,600 meters per hour (200 feet per minute) or the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
7. The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured surface area of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosures four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following information when any emissions units contained within Emission Unit Group No. 2 was in operation:
 - a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified in this permit.
 - b. All exceedances of the rolling, 12-month VOC emission limitation of 76.5 tons (for emissions units P005, P007, P008, P014, P015, P016, and P017, combined).
 - c. Any period of time in which less than 100% of the VOC emissions were captured

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for discharge through the control device or the control device was bypassed.

2. In accordance with the General Terms and Conditions of this permit, the above quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.
3. The permittee shall submit annual reports that specify the actual annual VOC emission rate, in tons, from this emissions unit, as well as, the total actual annual VOC emission rate, in tons, from the facility. These reports shall be submitted by April 15 of each year and shall cover the previous calendar year.
4. The permittee shall submit on a quarterly basis "Summary Reports", in accordance with the General Terms and Conditions of this permit, that identify any of the following information when the emissions unit was in operation:
 - a. any period of time in which a natural draft opening to the enclosure was located at a distance of less than four equivalent opening diameters, or less than 4 times the diameter of the opening, from any VOC emitting point;
 - b. any period of time in which the total area of all natural draft openings exceeded 5 percent of the surface area of the enclosures four walls, floor, and ceiling;
 - c. any period of time in which the 3-hour average facial velocity of the air flow into the enclosure was less than 3,600 meters per hour (200 feet per minute) or identify all 3-hour blocks of time during which the enclosure was not maintained at the minimum pressure differential of 0.013 mm Hg (0.007 inch of water), as a 3-hour average;
 - d. any period of time in which an access door or window to the enclosure, that does not meet the requirements of a natural draft opening and whose surface area was not included in the 5 percent surface area determination, was not completely closed to air movement;
 - e. any period of time in which any access doors or window was opened during process operations;
 - f. any period of times in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed;

The report shall include the date and number of hours that the emissions unit was

operating under each non-compliant scenario.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

5. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, an combustion temperature monitoring and recording equipment when any emissions units within Emission Unit Group No. 2 was in operation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. **Emission Limitation**
 The VOC emissions from this emissions unit shall not exceed 0.04 pound per hour.

Applicable Compliance Method
 Compliance with the hourly allowable VOC emissions limitation may be determined by multiplying the maximum blowing agent usage rate (161 lbs/hour) by the facility derived emission factor of "0.505% VOC emitted per process based on total VOC extruder input", and then multiplying that calculated value by the minimum required overall control efficiency (1-0.95).
 - b. **Emission Limitation-**
 The VOC emissions from this emissions unit shall not exceed 0.18 ton per year.

Applicable Compliance Method-
 As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured (the annual limitation was determined by multiplying the hourly limitation by 8760, and dividing by 2000 lbs/ton)
 - c. **Emission Limitation-**
 The VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method-
 Compliance with the annual allowable VOC emissions limitation shall be demonstrated based on record keeping requirements established in section C.1. of this permit.

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2. The permittee shall conduct, or have conducted, emissions and compliance demonstration testing on this emissions unit within six months after installation, in accordance with the following requirements:
 - a. Emissions testing shall be conducted to demonstrate compliance with the combined allowable emissions rate from Emission Unit Group No. 2 of 3.78 lbs VOC/hr and a minimum overall control efficiency of 95% for volatile organic compounds. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18 of 40 CFR Part 60, Appendix A and/or Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate, before and after the regenerative thermal oxidizer, to demonstrate compliance with the destruction efficiency for volatile organic compounds. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - b. A compliance demonstration for the permanent total enclosure shall be conducted to demonstrate compliance with the capture efficiency requirement. The following test method(s) shall be employed to demonstrate compliance: Method 204 of 40 CFR Part 60, Appendix A to demonstrate the permanent total enclosure can achieve 100% capture efficiency.
3. During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through, or the pressure differential across, the natural draft openings in accordance with 40 CFR Part 51, Appendix M, Method 204. The continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration by checking the direction of air flow through the use of streamers, smoke tubes, or tracer gases at each natural draft opening. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeter using smoke tubes or tracer gases.

The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening during the compliance demonstration:

- a. the measured surface area of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting point in the process;

Emissions Unit ID: **P007**

- c. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening; and
 - d. the total surface area of each natural draft opening and the surface area of the enclosures four walls, floor, and ceiling.
4. In accordance with 40 CFR Part 51, Appendix M, Method 204, compliance with the requirements with for a permanent total enclosure shall be demonstrated if the following determinations are documented during testing:
 - a. the average facial velocity of the air flow into the enclosure is maintained at a minimum of 3,600 m/hr (200 feet per minute) or at a minimum pressure differential of 0.013 mm Hg (0.007 in. of water);
 - b. each natural draft opening is at a distance of at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point in the process;
 - c. the sum of the surface areas of all of the natural draft openings in the total enclosure are not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling; calculated by dividing the total area of all natural draft openings by the total inside surface area of the enclosure;
 - d. there is no leakage detected at any of the closed access doors and windows, and it is certified that they always remain closed during process operations; and
 - e. all VOC emissions captured by the permanent total enclosure are entirely vented for discharge through the control device.
5. The emissions and compliance demonstration testing tests shall be conducted while the emissions units contained within Emission Group No. 2 are operating at or near their maximum capacity, unless otherwise specified or approved by the RAPCA.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the RAPCA. 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 RAPCA's refusal to accept the results of the emission test(s).

Personnel from the RAPCA shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that operations of the emissions units and the testing procedures provide a valid characterization of the

Dolco**PTI A**Emissions Unit ID: **P007****Issued: To be entered upon final issuance**

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

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the RAPCA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B)), A.2.b, B.1 and 2, C.1 and 2, D.1 and 5, E.1.c., and E.2.
2. The terms for emissions unit P007 in this permit supercede those identified in PTI 08-04085, issued April 2, 2002, and reflects a change to the applicable facility derived emission factor which represents a decrease of 5.78 TPY VOC.

Dolco

PTI A

Emissions Unit ID: P008

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P008 - Pelletizer No. 28 with regenerative thermal oxidizer	OAC rule 3745-31-05(A)(3)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.04 pound per hour (lb/hr) and 0.18 ton per year (TPY).
	OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B).
		The total allowable VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a** The 0.04 pound VOC per hour and 0.18 ton VOC per year emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
- 2.b** The VOC emissions from this emissions unit (P008) shall be controlled through

Emissions Unit ID: **P008**

the application of a permanent total enclosure (PTE) with 100% capture efficiency and a regenerative thermal oxidizer (RTO) system, operating at a minimum of 95% overall VOC destruction efficiency. [This RTO system is a common VOC control device for emissions units P005, P007, P008, P014, P016, and P017 (Emission Unit Group No. 2 (P015 is excluded from this group because it does not vent to the RTO))].

- 2.c** The permittee has the option to perform an alternative demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating a monitoring device(s) along with a recorder which simultaneously and continuously measures and records the average facial velocity or pressure differential across the PTE.

If the permittee elects not to perform the alternative demonstration or the alternative demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the average facial velocity or differential pressure monitoring, record keeping, reporting and testing requirements as specified below (See sections B.3. through B.5., C.5., C.6., D.5., E.2.b., E.3. and E.4.), to ensure the integrity of the PTE.

B. Operational Restrictions

1. The RTO system shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
2. The average combustion temperature within the RTO, for any 3-hour block of time when any emissions units within Emission Unit Group No. 2 is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test that demonstrated the emissions units were in compliance.
3. The permanent total enclosure shall be maintained under negative pressure whenever this emissions unit is in operation, and shall be designed, installed, maintained, and operated in accordance with 40 CFR Part 51, Appendix M, Method 204, whenever this emissions unit is in operation. The permanent total enclosure shall meet all of the following criteria :
 - a. any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point;
 - b. the total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosures four walls, floor, and ceiling;

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- c. the direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity through all natural draft openings being no less than 3,600 m/hr (200 fpm) corresponding to a pressure drop of 0.013 mm Hg (0.007 inch of water);
- d. all access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in (b) and are not included in the calculation in paragraph (c), shall be completely closed to any air movement during process operations; and
- e. all VOC emissions shall be captured and contained for discharge through the control device.

By satisfying the above criteria for a permanent total enclosure, the VOC capture efficiency shall be assumed to be 100%.

4. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inch of water), as a 3-hour average, whenever this emissions unit is in operation.
5. A permanent total enclosure shall be constructed to enclose the applicable emission unit. Air flow monitor(s) or differential pressure gauge(s) shall be installed to continuously measure and record the average facial velocity or pressure differential across the enclosure in accordance with 40 CFR Part 51, Appendix M, Method 204. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturers recommendations, instructions, and operating manuals.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall calculate and maintain monthly records of the following information for this emissions unit:
 - a. The total measured mass of the blowing agent (VOC) employed, in pounds.
 - b. The total calculated uncontrolled VOC emission rate, in pounds (i.e. (a) x 0.505% VOC emitted per process based on maximum VOC extruder input).
 - c. The total calculated controlled VOC emissions rate, in tons [the controlled VOC

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emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance [i.e., (b) multiplied by a factor of (1 minus the overall control efficiency) divided by 2000 lbs/ton].

2. The permittee shall calculate and maintain monthly records of the following information for emissions units P005, P007, P008, P014, P015, P016, and P017, combined:
 - a. The total controlled VOC emissions, in tons [summation of the VOC emissions rate from section C.1. for emissions units P005, P007, P008, P014, P015, P016, and P017].
 - b. The rolling, 12-month VOC emission rate, in tons.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information on a daily basis:

- a. All 3-hour blocks of time when the average combustion temperature within the RTO, when any emissions units within Emission Unit Group No. 2 was in operation, was more than 50 degrees Fahrenheit below the average temperature measured during the most recent stack test that demonstrated the emissions units were in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment, when any emissions units contained within Emission Unit Group No. 2 were in operation.
4. The permit to install for this emissions unit (P008) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install applications, for P005, P007, P008, P014, P015, P016, and P017. The Ohio EPA's REVIEW of New Sources of Air Toxic Emissions policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the worst case pollutant(s):

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Emissions Unit ID: P008

Pollutant: Isopentane

TLV (mg/m3): 1,771

Maximum Hourly Emission Rate (lbs/hr): 20.06

Predicted 1-Hour Maximum Ground Level
Concentration (ug/m3): 1,962

MAGLC (ug/m3): 42,156

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the Air Toxic Policy is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the Air Toxic Policy will still be satisfied. If, upon evaluation, the permittee determines that the Air Toxic Policy will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the AIR Toxic Policy include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled.
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

Dolco Packaging

PTI Application: 08 04715

Issue

Facility ID: 0855140332

Emissions Unit ID: P008

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the Air Toxic Policy:
 - a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.).
 - b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy.
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

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6. The permittee shall record and maintain the following information on a daily basis:
 - a. the 3-hour average facial velocity of the air flow through or the pressure differential across the enclosure; and
 - b. all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the average facial velocity of 3,600 meters per hour (200 feet per minute) or the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
7. The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured surface area of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosures four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following when any emissions units contained within Emission Unit Group No. 2 was in operation:
 - a. All 3-hour blocks of time during which the average combustion temperature within the RTO did not comply with the temperature limitation specified in this permit.
 - b. All exceedances of the rolling, 12-month VOC emission limitation of 76.5 tons (for emissions units P005, P007, P008, P014, P015, P016, and P017,

combined).

- c. Any period of time in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed.
2. In accordance with the General Terms and Conditions of this permit, the above quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.
 3. The permittee shall submit annual reports that specify the actual annual VOC emission rate, in tons, from this emissions unit, as well as, the total actual annual VOC emission rate, in tons, from the facility. These reports shall be submitted by April 15 of each year and shall cover the previous calendar year.
 4. The permittee shall submit on a quarterly basis "Summary Reports", in accordance with the General Terms and Conditions of this permit, that identify any of the following information when the emissions unit was in operation:
 - a. any period of time in which a natural draft opening to the enclosure was located at a distance of less than four equivalent opening diameters, or less than 4 times the diameter of the opening, from any VOC emitting point;
 - b. any period of time in which the total area of all natural draft openings exceeded 5 percent of the surface area of the enclosures four walls, floor, and ceiling;
 - c. any period of time in which the 3-hour average facial velocity of the air flow into the enclosure was less than 3,600 meters per hour (200 feet per minute) or identify all 3-hour blocks of time during which the enclosure was not maintained at the minimum pressure differential of 0.013 mm Hg (0.007 inch of water), as a 3-hour average;
 - d. any period of time in which an access door or window to the enclosure, that does not meet the requirements of a natural draft opening and whose surface area was not included in the 5 percent surface area determination, was not completely closed to air movement;
 - e. any period of time in which any access doors or window was opened during process operations;
 - f. any period of times in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed;

The report shall include the date and number of hours that the emissions unit was

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operating under each non-compliant scenario.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

5. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment when any emissions units within Emission Unit Group No. 2 was in operation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. **Emission Limitation**
The VOC emissions from this emissions unit shall not exceed 0.04 pound per hour.

Applicable Compliance Method
Compliance with the hourly allowable VOC emission limitation may be determined by multiplying the maximum blowing agent usage rate (161 lbs/hour) by the facility derived emission factor of "0.505% VOC emitted per process based on total VOC extruder input", and then multiplying that calculated value by the minimum required overall control efficiency (1-0.95).
 - b. **Emission Limitation-**
The VOC emissions from this emissions unit shall not exceed 0.18 ton per year.

Applicable Compliance Method-
As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured (the annual limitation was determined by multiplying the hourly limitation by 8760, and dividing by 2000 lbs/ton).
 - c. **Emission Limitation-**
The VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method-
Compliance with the annual allowable VOC emission limitation shall be

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demonstrated based on record keeping requirements established in section C.1. of this permit.

2. The permittee shall conduct, or have conducted, emissions and compliance demonstration testing on this emissions unit within six months after installation, in accordance with the following requirements:
 - a. Emissions testing shall be conducted to demonstrate compliance with the combined allowable emissions rates from Emission Unit Group No. 2 of 3.78 lbs VOC/hr and a minimum overall control efficiency of 95% for volatile organic compounds. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18 of 40 CFR Part 60, Appendix A and/or Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate, before and after the regenerative thermal oxidizer, to demonstrate compliance with the destruction efficiency for volatile organic compounds. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - b. A compliance demonstration for the permanent total enclosure shall be conducted to demonstrate compliance with the capture efficiency requirement. The following test method(s) shall be employed to demonstrate compliance: Method 204 of 40 CFR Part 60, Appendix A to demonstrate the permanent total enclosure can achieve 100% capture efficiency.
3. During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through, or the pressure differential across, the natural draft openings in accordance with 40 CFR Part 51, Appendix M, Method 204. The continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration by checking the direction of air flow through the use of streamers, smoke tubes, or tracer gases at each natural draft opening. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeter using smoke tubes or tracer gases.

The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening during the compliance demonstration:

- a. the measured surface area of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting point in the process;

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- c. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening; and
 - d. the total surface area of each natural draft opening and the surface area of the enclosures four walls, floor, and ceiling.
4. In accordance with 40 CFR Part 51, Appendix M, Method 204, compliance with the requirements with for a permanent total enclosure shall be demonstrated if the following determinations are documented during testing:
 - a. the average facial velocity of the air flow into the enclosure is maintained at a minimum of 3,600 m/hr (200 feet per minute) or at a minimum pressure differential of 0.013 mm Hg (0.007 in. of water);
 - b. each natural draft opening is at a distance of at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point in the process;
 - c. the sum of the surface areas of all of the natural draft openings in the total enclosure are not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling; calculated by dividing the total area of all natural draft openings by the total inside surface area of the enclosure;
 - d. there is no leakage detected at any of the closed access doors and windows, and it is certified that they always remain closed during process operations; and
 - e. all VOC emissions captured by the permanent total enclosure are entirely vented for discharge through the control device.
5. The emissions and compliance demonstration testing tests shall be conducted while the emissions units contained within Emission Group No. 2 are operating at or near their maximum capacities, unless otherwise specified or approved by the RAPCA.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the RAPCA. 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 RAPCA's refusal to accept the results of the emission test(s).

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Personnel from the RAPCA shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that operations of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the RAPCA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the RAPCA.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B)), A.2.b, B.1 and 2, C.1 and 2, D.1 and 5, E.1.c., and E.2.
2. The terms for emissions unit P008 in this permit supercede those identified in PTI 08-04085, issued April 2, 2002, and reflects a change to the applicable facility derived emission factor which represents a decrease of 5.78 TPY VOC.

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PTI A

Emissions Unit ID: **P014**

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P014 - Roll Stock Storage (Curing) Warehouse with regenerative thermal oxidizer	OAC rule 3745-31-05(A)(3)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.34 pounds per hour (lbs/hr) and 5.88 tons per year (TPY). The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B).
	OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V)	The total allowable VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a The 1.34 pounds VOC per hour and 5.88 tons VOC per year emissions limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
- 2.b The VOC emissions from this emissions unit (P014) shall be controlled through

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the application of a permanent total enclosure (PTE) with 100% capture efficiency and a regenerative thermal oxidizer (RTO) system, operating at a minimum of 95% overall VOC destruction efficiency. [This RTO system is a common VOC control device for emissions units P005, P007, P008, P014, P016, and P017 (Emission Unit Group No. 2 (P015 is excluded from this group because it does not vent to the RTO))].

2.c The permittee has the option to perform an alternative demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring device(s) along with a recorder which simultaneously and continuously measures and records the average facial velocity or pressure differential across the PTE.

If the permittee elects not to perform the alternative demonstration or the alternative demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the average facial velocity or differential pressure monitoring, record keeping and reporting and testing requirements as specified below (See sections B.3. through B.5., C.5., C.6., D.5., E.2.b., E.3. and E.4.), to ensure the integrity of the PTE.

B. Operational Restrictions

1. The RTO system shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
2. The average combustion temperature within the RTO, for any 3-hour block of time when any emissions units within Emission Unit Group No. 2 is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test that demonstrated the emissions units were in compliance.
3. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed, installed, maintained, and operated in accordance with 40 CFR Part 51, Appendix M, Method 204, whenever the emissions unit is in operation. The permanent total enclosure shall meet all of the following criteria :

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- a. any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point;
- b. the total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosures four walls, floor, and ceiling;
- c. the direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity through all natural draft openings being no less than 3,600 m/hr (200 fpm) corresponding to a pressure drop of 0.013 mm Hg (0.007 inch of water);
- d. all access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in (b) and are not included in the calculation in paragraph (c), shall be completely closed to any air movement during process operations; and
- e. all VOC emissions shall be captured and contained for discharge through the control device.

By satisfying the above criteria for a permanent total enclosure, the VOC capture efficiency shall be assumed to be 100%.

4. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inch of water), as a 3-hour average, whenever the emissions unit is in operation.
5. A permanent total enclosure shall be constructed to enclose the applicable emission unit. Air flow monitor(s) or differential pressure gauge(s) shall be installed to continuously measure and record the average facial velocity or pressure differential across the enclosure in accordance with 40 CFR Part 51, Appendix M, Method 204. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturers recommendations, instructions, and operating manuals.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall calculate and maintain monthly records of the following information for this emissions unit:
 - a. The total measured mass of the blowing agent (VOC) employed, in pounds.
 - b. The total calculated uncontrolled VOC emissions rate, in pounds (i.e. (a) x 16.68% VOC emitted per process based on maximum VOC extruder input).

- c. The total calculated controlled VOC emissions rate, in tons [the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance [i.e., (b) multiplied by a factor of (1 minus the overall control efficiency) divided by 2000 lbs/ton].
2. The permittee shall calculate and maintain monthly records of the following information for emissions units P005, P007, P008, P014, P015, P016, and P017, combined:
 - a. The total controlled VOC emissions, in tons [summation of the VOC emissions rate from section C.1. for emissions units P005, P007, P008, P014, P015, P016, and P017].
 - b. The rolling, 12-month VOC emissions rate, in tons.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information on a daily basis:

- a. All 3-hour blocks of time which the average combustion temperature within the RTO, when any emissions units within Emission Unit Group No. 2 was in operation, was more than 50 degrees Fahrenheit below the average temperature measured during the most recent stack test that demonstrated the emissions units were in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment, when any emissions units contained within Emission Unit Group No.2 were in operation.
4. The permit to install for this emissions unit (P014) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install applications, for P005, P007, P008, P014, P015, P016, and P017. The Ohio EPA's REVIEW of New Sources of Air Toxic Emissions policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground level concentration from the use of the SCREEN 3.0 model was compared to the

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Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the Worst case pollutant(s):

Pollutant: Isopentane

TLV (mg/m³): 1,771

Maximum Hourly Emission Rate (lbs/hr): 20.06

Predicted 1-Hour Maximum Ground Level Concentration (ug/m³): 1,962

MAGLC (ug/m³): 42,156

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the Air Toxic Policy is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the Air Toxic Policy will still be satisfied. If, upon evaluation, the permittee determines that the Air Toxic Policy will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the Air Toxic Policy include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled.
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under

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other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the Air Toxic Policy:
 - a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.).
 - b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy.
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

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6. The permittee shall record and maintain the following information on a daily basis:
 - a. the 3-hour average facial velocity of the air flow through or the pressure differential across the enclosure; and
 - b. all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the average facial velocity of 3,600 meters per hour (200 feet per minute) or the minimum pressure differential of 0.007 inch of water, as a 3-hour average.

7. The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured surface area of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosures four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following when any emissions units contained within Emission Unit Group No. 2 was in operation:
 - a. All 3-hour blocks of time during which the average combustion temperature within the RTO did not comply with the temperature limitation specified in this permit.
 - b. All exceedances of the rolling, 12-month VOC emissions limitation of 76.5 tons (for emissions units P005, P007, P008, P014, P015, P016, and P017, combined)

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- c. Any period of time in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed.
2. In accordance with the General Terms and Conditions of this permit, the above quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.
3. The permittee shall submit annual reports that specify the actual annual VOC emissions rate, in tons, from this emissions unit, as well as, the total actual annual VOC emissions rate, in tons, from the facility. These reports shall be submitted by April 15 of each year and shall cover for the previous calendar year.
4. The permittee shall submit on a quarterly basis "Summary Reports", in accordance with the General Terms and Conditions of this permit, that identify any of the following information when the emissions unit was in operation:
 - a. any period of time in which a natural draft opening to the enclosure was located at a distance of less than four equivalent opening diameters, or less than 4 times the diameter of the opening, from any VOC emitting point;
 - b. any period of time in which the total area of all natural draft openings exceeded 5 percent of the surface area of the enclosures four walls, floor, and ceiling;
 - c. any period of time in which the 3-hour average facial velocity of the air flow into the enclosure was less than 3,600 meters per hour (200 feet per minute) or identify all 3 hour blocks of time during which the enclosure was not maintained at the minimum pressure differential of 0.013 mm Hg (0.007 inch of water), as a 3 hour average;
 - d. any period of time in which an access door or window to the enclosure, that does not meet the requirements of a natural draft opening and whose surface area was not included in the 5 percent surface area determination, was not completely closed to air movement;
 - e. any period of time in which any access doors or window was opened during process operations;
 - f. any period of times in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed;

The report shall include the date and number of hours that the emissions unit was operating under each non-compliant scenario.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

5. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment when any emissions units within Emission Unit Group No. 2 was in operation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. **Emission Limitation**
 The VOC emissions from this emissions unit shall not exceed 1.34 pounds per hour VOC.

Applicable Compliance Method
 Compliance with the hourly allowable VOC emission limitation may be determined by multiplying the maximum blowing agent usage rate (161 lbs/hour) by the facility derived emission factor of "16.68% VOC emitted per process based on total VOC extruder input", and then multiplying that calculated value by the minimum required overall control efficiency (1-0.95).
 - b. **Emission Limitation-**
 The VOC emissions from this emissions unit shall not exceed 5.88 tons per year.

Applicable Compliance Method-
 As long as compliance with the hourly limitation is maintained, compliance with the annual limitations shall be ensured (the annual limitation was determined by multiplying the hourly limitation by 8760, and dividing by 2000 lbs/ton).
 - c. **Emission Limitation-**
 The VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method-
 Compliance with the annual allowable VOC emissions limitation shall be demonstrated based on record keeping requirements established in section C.1.

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of this permit.

2. The permittee shall conduct, or have conducted, emissions and compliance demonstration testing on this emissions unit within six months after installation, in accordance with the following requirements:
 - a. Emissions testing shall be conducted to demonstrate compliance with the combined allowable emissions rates from Emission Unit Group No. 2 of 3.78 lbs VOC/hr and a minimum overall control efficiency of 95% for volatile organic compounds. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18 of 40 CFR Part 60, Appendix A and/or Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate, before and after the regenerative thermal oxidizer, to demonstrate compliance with the destruction efficiency for volatile organic compounds. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - b. A compliance demonstration for the permanent total enclosure shall be conducted to demonstrate compliance with the capture efficiency requirement. The following test method(s) shall be employed to demonstrate compliance: Method 204 of 40 CFR Part 60, Appendix A to demonstrate the permanent total enclosure can achieve 100% capture efficiency.
3. During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through, or the pressure differential across, the natural draft openings in accordance with 40 CFR Part 51, Appendix M, Method 204. The continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration by checking the direction of air flow through the use of streamers, smoke tubes, or tracer gases at each natural draft opening. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeter using smoke tubes or tracer gases.

The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening during the compliance demonstration:

- a. the measured surface area of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting

- point in the process;
- c. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening; and
 - d. the total surface area of each natural draft opening and the surface area of the enclosures four walls, floor, and ceiling.
4. In accordance with 40 CFR Part 51, Appendix M, Method 204, compliance with the requirements with for a permanent total enclosure shall be demonstrated if the following determinations are documented during testing:
- a. the average facial velocity of the air flow into the enclosure is maintained at a minimum of 3,600 m/hr (200 feet per minute) or at a minimum pressure differential of 0.013 mm Hg (0.007 in. of water);
 - b. each natural draft opening is at a distance of at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point in the process;
 - c. the sum of the surface areas of all of the natural draft openings in the total enclosure are not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling; calculated by dividing the total area of all natural draft openings by the total inside surface area of the enclosure;
 - d. there is no leakage detected at any of the closed access doors and windows, and it is certified that they always remain closed during process operations; and
 - e. all VOC emissions captured by the permanent total enclosure are entirely vented for discharge through the control device.
5. The emissions and compliance demonstration testing tests shall be conducted while the emissions units contained within Emission Group No. 2 are operating at or near their maximum capacities, unless otherwise specified or approved by the RAPCA.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the RAPCA. 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 RAPCA's refusal to accept the results of the emission test(s).

Personnel from the RAPCA shall be permitted to witness the tests, examine the testing

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equipment, and acquire data and information necessary to ensure that operations of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the RAPCA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the RAPCA.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B)), A.2.b, B.1 and 2, C.1 and 2, D.1 and 5, E.1.c., and E.2.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P015 - Finished Product Storage Warehouse	OAC rule 3745-31-05(A)(3) OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 13.69 pounds per hour (lbs/hr) and 59.96 tons per year (TPY). The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B). The total allowable VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a The 13.69 pounds VOC per hour and 59.96 tons VOC per year emission limitations were established for PTI purposes to reflect the potentials to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

B. Operational Restrictions

None

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Dolco**PTI A**Emissions Unit ID: **P015****Issued: To be entered upon final issuance****C. Monitoring and/or Record keeping Requirements**

1. The permittee shall calculate and maintain monthly records of the following information for this emissions unit:
 - a. The total measured mass of the blowing agent (VOC) employed, in pounds.
 - b. The total calculated uncontrolled VOC emission rate, in pounds (i.e. (a) x 8.50% VOC emitted per process based on maximum VOC extruder input).
 - c. The total calculated uncontrolled VOC emissions rate, in tons [i.e., (b) divided by 2000 lbs/ton].
2. The permittee shall calculate and maintain monthly records of the following information for emissions units P005, P007, P008, P014, P015, P016, and P017, combined:
 - a. The total controlled VOC emissions, in tons [summation of the VOC emissions rate from section C.1. for emissions units P005, P007, P008, P014, P015, P016, and P017].
 - b. The rolling, 12-month VOC emissions rate, in tons.
3. The permit to install for this emissions unit (P015) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install applications, for P005, P007, P008, P014, P015, P016, and P017. The Ohio EPA's REVIEW of New Sources of Air Toxic Emissions policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the worst case pollutant(s):

Pollutant: Isopentane

TLV (mg/m3): 1,771

Maximum Hourly Emission Rate (lbs/hr): 20.06

Predicted 1-Hour Maximum Ground Level
Concentration (ug/m3): 1,962

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MAGLC (ug/m3): 42,156

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the Air Toxic Policy is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the Air Toxic Policy will still be satisfied. If, upon evaluation, the permittee determines that the Air Toxic Policy will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the Air Toxic Policy include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled.
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745 15 05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the Air Toxic Policy:
 - a. A description of the parameters changed (composition of materials, new

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pollutants emitted, change in stack/exhaust parameters, etc.).

- b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy.
- c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

Dolco**PTI A**Emissions Unit ID: **P015****Issued: To be entered upon final issuance****D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following information when any emissions units contained within Emission Unit Group No. 2 was in operation:
 - a. All exceedances of the rolling, 12-month VOC emissions limitation of 76.5 tons (for emissions units P005, P007, P008, P014, P015, P016, and P017, combined).
2. In accordance with the General Terms and Conditions of this permit, the above quarterly deviation reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter
3. The permittee shall submit annual reports that specify the actual annual VOC emissions rate, in tons, from this emissions unit, as well as, the total actual annual VOC emissions rate, in tons, from the facility. These reports shall be submitted by April 15 of each year and shall cover for the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation
The VOC emissions from this emissions unit shall not exceed 13.69 pounds per hour.

Applicable Compliance Method
Compliance with the hourly allowable VOC emissions limitation may be determined by multiplying the maximum blowing agent usage rate (161 lbs/hour) by the facility derived emission factor of "8.50% VOC emitted per process based on total VOC extruder input", and then multiplying that calculated value by the minimum required overall control efficiency (1-0.95).
 - b. Emission Limitation-
The VOC emissions from this emissions unit shall not exceed 59.96 tons per year.

Applicable Compliance Method-
As long as compliance with the hourly limitation is maintained, compliance with

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the annual limitation shall be ensured (the annual limitation was determined by multiplying the hourly limitation by 8760, and dividing by 2000 lbs/ton).

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- c. Emission Limitation-
The VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method-

Compliance with the annual allowable VOC emissions limitation shall be demonstrated based on record keeping requirements established in section C.1. of this permit.

F. Miscellaneous Requirements

- 1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B)), C.1., D.1, and E.1.c.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P016 - Scrap (Off Spec) Sheet Grinding	OAC rule 3745-31-05(A)(3)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.63 pound per hour (lb/hr) and 2.77 tons per year (TPY).
	OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B).
		The total allowable VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a** The 0.63 pound VOC per hour and 2.77 tons VOC per year emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
- 2.b** The VOC emissions from this emissions unit (P016) shall be controlled through the application of a permanent total enclosure (PTE) with 100% capture efficiency and a regenerative thermal oxidizer (RTO) system, operating at a minimum of 95% overall VOC destruction efficiency. [This RTO system is a

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common VOC control device for emissions units P005, P007, P008, P014, P016, and P017 (Emission Unit Group No. 2 (P015 is excluded from this group because it does not vent to the RTO))].

- 2.c** The permittee has the option to perform an alternative demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating a monitoring device(s) along with a recorder which simultaneously and continuously measures and records the average facial velocity or pressure differential across the PTE.

If the permittee elects not to perform the alternative demonstration or the alternative demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the average facial velocity or differential pressure monitoring, record keeping and reporting and testing requirements as specified below (See sections B.3. through B.5., C.5., C.6., D.5., E.2.b., E.3. and E.4.), to ensure the integrity of the PTE.

B. Operational Restrictions

1. The RTO system shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
2. The average combustion temperature within the RTO, for any 3-hour block of time when any emissions unit within Emission Unit Group No. 2 is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test that demonstrated the emissions units were in compliance.
3. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed, installed, maintained, and operated in accordance with 40 CFR Part 51, Appendix M, Method 204, whenever the emissions unit is in operation. The permanent total enclosure shall meet all of the following criteria :
 - a. any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point;
 - b. the total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosures four walls, floor, and ceiling;

- c. the direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity through all natural draft openings being no less than 3,600 m/hr (200 fpm) corresponding to a pressure drop of 0.013 mm Hg (0.007 inch of water);
- d. all access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in (b) and are not included in the calculation in paragraph (c), shall be completely closed to any air movement during process operations; and
- e. all VOC emissions shall be captured and contained for discharge through the control device.

By satisfying the above criteria for a permanent total enclosure, the VOC capture efficiency shall be assumed to be 100%.

4. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inch of water), as a 3-hour average, whenever the emissions unit is in operation.
5. A permanent total enclosure shall be constructed to enclose the applicable emission unit. Air flow monitor(s) or differential pressure gauge(s) shall be installed to continuously measure and record the average facial velocity or pressure differential across the enclosure in accordance with 40 CFR Part 51, Appendix M, Method 204. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall calculate and maintain monthly records of the following information for this emissions unit:
 - a. The total measured mass of the blowing agent (VOC) employed, in pounds.
 - b. The total calculated uncontrolled VOC emission rate, in pounds (i.e. (a) x 7.86% VOC emitted per process based on maximum VOC extruder input).
 - c. The total calculated controlled VOC emissions rate, in tons [the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance [i.e., (b) multiplied by a factor of (1 minus the overall control efficiency) divided by 2000 lbs/ton].

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2. The permittee shall calculate and maintain monthly records of the following information for emissions units P005, P007, P008, P014, P015, P016, and P017, combined:
 - a. The total controlled VOC emissions, in tons [summation of the VOC emissions rate from section C.1. for emissions units P005, P007, P008, P014, P015, P016, and P017].
 - b. The rolling, 12-month VOC emissions rate, in tons.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information on a daily basis:

- a. All 3-hour blocks of time which the average combustion temperature within the RTO, when any emissions unit within Emission Unit Group No. 2 was in operation, was more than 50 degrees Fahrenheit below the average temperature measured during the most recent stack test that demonstrated the emissions unit was in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment, when any emissions units contained within Emission Unit Group No. 2 were in operation.
4. The permit to install for this emissions unit (P016) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install applications, for P005, P007, P008, P014, P015, P016, and P017. The Ohio EPA's REVIEW of New Sources of Air Toxic Emissions policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the Worst case pollutant(s):

Pollutant: Isopentane

TLV (mg/m3): 1,771

Maximum Hourly Emission Rate (lbs/hr): 20.06

Predicted 1-Hour Maximum Ground Level
Concentration (ug/m3): 1,962

MAGLC (ug/m3): 42,156

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the Air Toxic Policy is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the Air Toxic Policy will still be satisfied. If, upon evaluation, the permittee determines that the Air Toxic Policy will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the Air Toxic Policy include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled.
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the Air Toxic Policy:
 - a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.).
 - b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy.
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

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6. The permittee shall record and maintain the following information on a daily basis:
 - a. the 3-hour average facial velocity of the air flow through or the pressure differential across the enclosure; and
 - b. all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the average facial velocity of 3,600 meters per hour (200 feet per minute) or the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
7. The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured surface area of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosures four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following when any emissions units contained within Emission Unit Group No. 2 was in operation:
 - a. All 3-hour blocks of time during which the average combustion temperature within the RTO did not comply with the temperature limitation specified in this permit.
 - b. All exceedances of the rolling, 12-month VOC emissions limitation of 76.5 tons (for emissions units P005, P007, P008, P014, P015, P016, and P017,

combined).

- c. Any period of time in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed.
2. In accordance with the General Terms and Conditions of this permit, the above quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.
 3. The permittee shall submit annual reports that specify the actual annual VOC emissions rate, in tons, from this emissions unit, as well as, the total actual annual VOC emissions rate, in tons, from the facility. These reports shall be submitted by April 15 of each year and shall cover the previous calendar year.
 4. The permittee shall submit on a quarterly basis "Summary Reports", in accordance with the General Terms and Conditions of this permit, that identify any of the following information when the emissions unit was in operation:
 - a. any period of time in which a natural draft opening to the enclosure was located at a distance of less than four equivalent opening diameters, or less than 4 times the diameter of the opening, from any VOC emitting point;
 - b. any period of time in which the total area of all natural draft openings exceeded 5 percent of the surface area of the enclosures four walls, floor, and ceiling;
 - c. any period of time in which the 3-hour average facial velocity of the air flow into the enclosure was less than 3,600 meters per hour (200 feet per minute) or identify all 3-hour blocks of time during which the enclosure was not maintained at the minimum pressure differential of 0.013 mm Hg (0.007 inch of water), as a 3-hour average;
 - d. any period of time in which an access door or window to the enclosure, that does not meet the requirements of a natural draft opening and whose surface area was not included in the 5 percent surface area determination, was not completely closed to air movement;
 - e. any period of time in which any access doors or window was opened during process operations;
 - f. any period of times in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed;

The report shall include the date and number of hours that the emissions unit was

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operating under each non-compliant scenario.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

5. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment when any emissions units within Emission Unit Group No. 2 was in operation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation
The VOC emissions from this emissions unit shall not exceed 0.63 pound per hour.

Applicable Compliance Method
Compliance with the hourly allowable VOC emission limitation may be determined by multiplying the maximum blowing agent usage rate (161 lbs/hour) by the facility derived emission factor of "7.86% VOC emitted per process based on total VOC extruder input", and then multiplying that calculated value by the minimum required overall control efficiency (1-0.95).
 - b. Emission Limitation-
The VOC emissions from this emissions unit shall not exceed 2.77 tons per year.

Applicable Compliance Method-
As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured (the annual limitation was determined by multiplying the hourly limitation by 8760, and dividing by 2000 lbs/ton).
 - c. Emission Limitation-
The VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method-
Compliance with the annual allowable VOC emission limitation shall be

Emissions Unit ID: **P016**

demonstrated based on record keeping requirements established in section C.1. of this permit.

2. The permittee shall conduct, or have conducted, emissions and compliance demonstration testing on this emissions unit within six months after installation, in accordance with the following requirements:
 - a. Emissions testing shall be conducted to demonstrate compliance with the combined allowable emissions rate from Emission Unit Group No. 2 of 3.78 lbs VOC/hr and a minimum overall control efficiency of 95% for volatile organic compounds. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18 of 40 CFR Part 60, Appendix A and/or Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate, before and after the regenerative thermal oxidizer, to demonstrate compliance with the destruction efficiency for volatile organic compounds. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - b. A compliance demonstration for the permanent total enclosure shall be conducted to demonstrate compliance with the capture efficiency requirement. The following test method(s) shall be employed to demonstrate compliance: Method 204 of 40 CFR Part 60, Appendix A to demonstrate the permanent total enclosure can achieve 100% capture efficiency.
3. During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through, or the pressure differential across, the natural draft openings in accordance with 40 CFR Part 51, Appendix M, Method 204. The continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration by checking the direction of air flow through the use of streamers, smoke tubes, or tracer gases at each natural draft opening. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeter using smoke tubes or tracer gases.

The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening during the compliance demonstration:

- a. the measured surface area of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting point in the process;

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- c. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening; and
 - d. the total surface area of each natural draft opening and the surface area of the enclosures four walls, floor, and ceiling.
4. In accordance with 40 CFR Part 51, Appendix M, Method 204, compliance with the requirements with for a permanent total enclosure shall be demonstrated if the following determinations are documented during testing:
 - a. the average facial velocity of the air flow into the enclosure is maintained at a minimum of 3,600 m/hr (200 feet per minute) or at a minimum pressure differential of 0.013 mm Hg (0.007 in. of water);
 - b. each natural draft opening is at a distance of at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point in the process;
 - c. the sum of the surface areas of all of the natural draft openings in the total enclosure are not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling; calculated by dividing the total area of all natural draft openings by the total inside surface area of the enclosure;
 - d. there is no leakage detected at any of the closed access doors and windows, and it is certified that they always remain closed during process operations; and
 - e. all VOC emissions captured by the permanent total enclosure are entirely vented for discharge through the control device.
5. The emissions and compliance demonstration testing tests shall be conducted while the emissions units contained within Emission Group No. 2 are operating at or near their maximum capacities, unless otherwise specified or approved by the RAPCA.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the RAPCA. 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 RAPCA's refusal to accept the results of the emission test(s).

Personnel from the RAPCA shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that operations of the emissions units and the testing procedures provide a valid characterization of the

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

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the RAPCA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the RAPCA.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B)), A.2.b, B.1 and 2, C.1 and 2, D.1 and 5, E.1.c., and E.2.

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P017 - Trim Scrap Grinding	OAC rule 3745-31-05(A)(3)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.65 pounds per hour (lbs/hr) and 7.22 tons per year (TPY).
	OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B).
		The total allowable VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No.1) shall not exceed 76.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- 2.a The 1.65 pounds VOC per hour and 7.22 tons per year emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
- 2.b The VOC emissions from this emissions unit (P017) shall be controlled through

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the application of a permanent total enclosure (PTE) with 100% capture efficiency and a regenerative thermal oxidizer (RTO) system, operating at a minimum of 95% overall VOC destruction efficiency. [This RTO system is a common VOC control device for emissions units P005, P007, P008, P014, P016, and P017 (Emission Unit Group No. 2 (P015 is excluded from this group because it does not vent to the RTO))].

- 2.c** The permittee has the option to perform an alternative demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating a monitoring device(s) along with a recorder which simultaneously and continuously measures and records the average facial velocity or pressure differential across the PTE.

If the permittee elects not to perform the alternative demonstration or the alternative demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the average facial velocity or differential pressure monitoring, record keeping and reporting and testing requirements as specified below (See sections B.3. through B.5., C.5., C.6., D.5., E.2.b., E.3. and E.4.), to ensure the integrity of the PTE.

B. Operational Restrictions

1. The RTO system shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
2. The average combustion temperature within the RTO, for any 3-hour block of time when any emissions units within Emission Unit Group No.2 is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test that demonstrated the emissions units were in compliance.
3. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed, installed, maintained, and operated in accordance with 40 CFR Part 51, Appendix M, Method 204, whenever the emissions unit is in operation. The permanent total enclosure shall meet all of the following criteria :
 - a. any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point;
 - b. the total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosures four walls, floor, and ceiling;

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- c. the direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity through all natural draft openings being no less than 3,600 m/hr (200 fpm) corresponding to a pressure drop of 0.013 mm Hg (0.007 inch of water);
- d. all access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in (b) and are not included in the calculation in paragraph (c), shall be completely closed to any air movement during process operations; and
- e. all VOC emissions shall be captured and contained for discharge through the control device.

By satisfying the above criteria for a permanent total enclosure, the VOC capture efficiency shall be assumed to be 100%.

4. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inch of water), as a 3-hour average, whenever the emissions unit is in operation.
5. A permanent total enclosure shall be constructed to enclose the applicable emissions unit. Air flow monitor(s) or differential pressure gauge(s) shall be installed to continuously measure and record the average facial velocity or pressure differential across the enclosure in accordance with 40 CFR Part 51, Appendix M, Method 204 . The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturers recommendations, instructions, and operating manuals.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall calculate and maintain monthly records of the following information for this emissions unit:
 - a. The total measured mass of the blowing agent (VOC) employed, in pounds.
 - b. The total calculated uncontrolled VOC emissions rate, in pounds (i.e. (a) x 20.47% VOC emitted per process based on maximum VOC extruder input).
 - c. The total calculated controlled VOC emissions rate, in tons [the controlled VOC

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emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance [i.e., (b) multiplied by a factor of (1- the overall control efficiency) divided by 2000 lbs/ton].

2. The permittee shall calculate and maintain monthly records of the following information for emissions units P005, P007, P008, P014, P015, P016, and P017, combined:
 - a. The total controlled VOC emissions, in tons [summation of the VOC emissions rate from section C.1. for emissions units P005, P007, P008, P014, P015, P016, and P017].
 - b. The rolling, 12-month VOC emissions rate, in tons.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information on a daily basis:

- a. All 3-hour blocks of time which the average combustion temperature within the RTO, when any emissions units within Emission Unit Group No. 2 was in operation, was more than 50 degrees Fahrenheit below the average temperature measured during the most recent stack test that demonstrated the emissions units were in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment, when any emissions units contained within Emission Unit Group No.2 was in operation.
4. The permit to install for this emissions unit (P017) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install applications, for P005, P007, P008, P014, P015, P016, and P017. The Ohio EPA's REVIEW of New Sources of Air Toxic Emissions policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the Worst case pollutant(s):

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Pollutant: Isopentane

TLV (mg/m³): 1,771

Maximum Hourly Emission Rate (lbs/hr): 20.06

Predicted 1-Hour Maximum Ground Level
Concentration (ug/m³): 1,962MAGLC (ug/m³): 42,156

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the Air Toxic Policy is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the Air Toxic Policy will still be satisfied. If, upon evaluation, the permittee determines that the Air Toxic Policy will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the Air Toxic Policy include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled.
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis

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level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the AIR Toxic Policy:
 - a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.).
 - b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy.
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

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6. The permittee shall record and maintain the following information on a daily basis:
 - a. the 3-hour average facial velocity of the air flow through or the pressure differential across the enclosure; and
 - b. all 3-hour blocks of time during which the permanent total enclosure was not maintained at or above the average facial velocity of 3,600 meters per hour (200 feet per minute) or the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
7. The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured surface area of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosures four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following when any emissions units contained within Emission Unit Group No. 2 was in operation:
 - a. All 3-hour blocks of time during which the average combustion temperature within the RTO did not comply with the temperature limitation specified in this permit.
 - b. All exceedances of the rolling, 12-month VOC emission limitation of 76.5 tons (for emissions units P005, P007, P008, P014, P015, P016, and P017,

combined).

- c. Any period of times in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed.
2. In accordance with the General Terms and Conditions of this permit, the above quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.
 3. The permittee shall submit annual reports that specify the actual annual VOC emissions rate, in tons, from this emissions unit, as well as, the total actual annual VOC emissions rate, in tons, from the facility. These reports shall be submitted by April 15 of each year and shall cover the previous calendar year.
 4. The permittee shall submit on a quarterly basis "Summary Reports", in accordance with the General Terms and Conditions of this permit, that identify any of the following information when the emissions unit was in operation:
 - a. any period of time in which a natural draft opening to the enclosure was located at a distance of less than four equivalent opening diameters, or less than 4 times the diameter of the opening, from any VOC emitting point;
 - b. any period of time in which the total area of all natural draft openings exceeded 5 percent of the surface area of the enclosures four walls, floor, and ceiling;
 - c. any period of time in which the 3-hour average facial velocity of the air flow into the enclosure was less than 3,600 meters per hour (200 feet per minute) or identify all 3-hour blocks of time during which the enclosure was not maintained at the minimum pressure differential of 0.013 mm Hg (0.007 inch of water), as a 3-hour average;
 - d. any period of time in which an access door or window to the enclosure, that does not meet the requirements of a natural draft opening and whose surface area was not included in the 5 percent surface area determination, was not completely closed to air movement;
 - e. any period of time in which any access doors or window was opened during process operations;
 - f. any period of times in which less than 100% of the VOC emissions were captured for discharge through the control device or the control device was bypassed;

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The report shall include the date and number of hours that the emissions unit was operating under each non-compliant scenario.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

5. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and combustion temperature monitoring and recording equipment when any emissions units within Emission Unit Group No. 2 was in operation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation
The VOC emissions from this emissions unit shall not exceed 1.65 pounds per hour.

Applicable Compliance Method
Compliance with the hourly allowable VOC emission limitation may be determined by multiplying the maximum blowing agent usage rate (161 lbs/hour) by the facility derived emission factor of "20.47% VOC emitted per process based on total VOC extruder input", and then multiplying that calculated value by the minimum required overall control efficiency (1-0.95).
 - b. Emission Limitation-
The VOC emissions from this emissions unit shall not exceed 7.22 tons per year.

Applicable Compliance Method-
As long as compliance with the hourly limitation is maintained, compliance with the annual limitations shall be ensured (the annual limitation was determined by multiplying the hourly limitation by 8760, and dividing by 2000 lbs/ton).
 - c. Emission Limitation-
The VOC emissions from emissions units P005, P007, P008, P014, P015, P016, and P017, combined (Emission Unit Group No. 1) shall not exceed 76.5 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method-

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Compliance with the annual allowable VOC emission limitation shall be demonstrated based on record keeping requirements established in section C.1. of this permit.

2. The permittee shall conduct, or have conducted, emissions and compliance demonstration testing on this emissions unit within six months after installation, in accordance with the following requirements:
 - a. Emissions testing shall be conducted to demonstrate compliance with the combined allowable emissions rate from Emission Unit Group No. 2 of 3.78 lbs VOC/hr and a minimum overall control efficiency of 95% for volatile organic compounds. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18 of 40 CFR Part 60, Appendix A and/or Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate, before and after the regenerative thermal oxidizer, to demonstrate compliance with the destruction efficiency for volatile organic compounds. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - b. A compliance demonstration for the permanent total enclosure shall be conducted to demonstrate compliance with the capture efficiency requirement. The following test method(s) shall be employed to demonstrate compliance: Method 204 of 40 CFR Part 60, Appendix A to demonstrate the permanent total enclosure can achieve 100% capture efficiency.
3. During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through, or the pressure differential across, the natural draft openings in accordance with 40 CFR Part 51, Appendix M, Method 204. The continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration by checking the direction of air flow through the use of streamers, smoke tubes, or tracer gases at each natural draft opening. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeter using smoke tubes or tracer gases.

The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening during the compliance demonstration:

- a. the measured surface area of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting point in the process;

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- c. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening; and
 - d. the total surface area of each natural draft opening and the surface area of the enclosures four walls, floor, and ceiling.
4. In accordance with 40 CFR Part 51, Appendix M, Method 204, compliance with the requirements with for a permanent total enclosure shall be demonstrated if the following determinations are documented during testing:
 - a. the average facial velocity of the air flow into the enclosure is maintained at a minimum of 3,600 m/hr (200 feet per minute) or at a minimum pressure differential of 0.013 mm Hg (0.007 in. of water);
 - b. each natural draft opening is at a distance of at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point in the process;
 - c. the sum of the surface areas of all of the natural draft openings in the total enclosure are not more than 5 percent of the sum of the surface areas of the enclosures four walls, floor, and ceiling; calculated by dividing the total area of all natural draft openings by the total inside surface area of the enclosure;
 - d. there is no leakage detected at any of the closed access doors and windows, and it is certified that they always remain closed during process operations; and
 - e. all VOC emissions captured by the permanent total enclosure are entirely vented for discharge through the control device.
5. The emissions and compliance demonstration testing tests shall be conducted while the emissions units contained within Emission Group No. 2 are operating at or near their maximum capacities, unless otherwise specified or approved by the RAPCA.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the RAPCA. 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 RAPCA's refusal to accept the results of the emission test(s).

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Personnel from the RAPCA shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that operations of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the RAPCA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the RAPCA.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B)), A.2.b, B.1 and 2, C.1 and 2, D.1 and 5, E.1.c., and E.2.