



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
HAMILTON COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-05783**

**Fac ID: 1431053380**

**DATE: 4/11/2006**

Da Lite Screen Company Inc  
Eric Doll  
11500 Williamson Road  
Blue Ash, OH 45241

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

*Michael W. Ahern*

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

CC: USEPA

HCDES



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**Permit To Install  
Terms and Conditions**

**Issue Date: 4/11/2006  
Effective Date: 4/11/2006**

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**FINAL PERMIT TO INSTALL 14-05783**

Application Number: 14-05783  
Facility ID: 1431053380  
Permit Fee: **\$1400**  
Name of Facility: Da Lite Screen Company Inc  
Person to Contact: Eric Doll  
Address: 11500 Williamson Road  
Blue Ash, OH 45241

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**11500 Williamson Road  
Blue Ash Ohio, Ohio**

Description of proposed emissions unit(s):  
**Permit includes: federally enforceable limits for HAPs, the addition of two cleaning processes and two existing curing ovens, and an increase in throughput for existing EUs R001 - R003.**

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

## Part I - GENERAL TERMS AND CONDITIONS

### 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

**Da Lite Screen Company Inc**  
**PTI Application: 14-05783**  
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the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**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)**

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

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**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>
OC	21.96
NOx	0.88
CO	0.74
HAPs (single)	9.9
HAPs (combined)	24.9

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**PTI Application: 14-05783**  
**Issued: 4/11/2006**

**Facility ID: 1431053380**

**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>	
P001 - Flex machine for flexible films with thermal oxidizer - No.2 - modification	OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G)(1)
		OAC rule 3745-21-07(G)(2)
		OAC rule 3745-35-07(B) Synthetic minor to avoid Title V
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

**Da Li****PTI A****Issued: 4/11/2006**Emissions Unit ID: **P001**Applicable Emissions  
Limitations/Control Measures

The emissions of organic compounds (OC) shall not exceed 0.22 lb/hr and 0.96 ton per year (TPY), excluding cleanup.

The emissions of organic compounds (OC) from cleanup materials for emissions units P001, P003, P004 and P005, combined shall not exceed 0.41 TPY.

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>;  
0.17 lb/hr CO and 0.74 TPY CO.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-35-07(B).

See terms and conditions A.2.a - A.2.d., B.1 and B.2.

The oven is exempt per OAC rule 3745-21-07(G)(9)(d).

The emission limitation specified by this rule for the dipping and cleanup operation is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

See term and condition A.2.e.

See term and condition A.2.g.

See term and condition A.2.h.

## 2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a permanent total enclosure followed by a thermal oxidizer with at least a 95% OC destruction efficiency, by weight, and compliance with the emissions limitations.
- 2.b** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95%, by weight.
- 2.c** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, and D below) to ensure the ongoing integrity of the PTE.

- 2.d** The maximum organic cleanup material usage for emissions units P001, P003, P004 and P005 combined shall not exceed 16,488 pounds per year.

The emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with a destruction efficiency of at least 95% by weight.

- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in

Emissions Unit ID: **P001**

Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.e. upon permit issuance.

- 2.f** The hourly emission limitation(s) outlined for OC are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limitations.

In addition, emission limitations from the combustion of the natural gas in the thermal oxidizer are based upon PTE and therefore records are not required to demonstrate compliance with these limitations.

- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State

Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **B. Operational Restrictions**

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer 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.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
  - b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in

Emissions Unit ID: **P001**

operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emissions unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain the following monthly records for this emissions unit:
    - a. The number of hours the emissions unit was in operation during the month. The permittee may monitor a surrogate parameter for determining the hours of operation.
    - b. The monthly OC emissions from the process, in pounds per month, as calculated below:

Monthly OC emissions from the process  
 = number of hours of operation \* 4.3 lbs OC/hr<sup>1</sup> \* (1-control efficiency during the most recent performance test that demonstrated compliance).

<sup>1</sup>maximum hourly uncontrolled emissions = 4.3 lbs OC/hr

These records shall be summarized at the end of the calendar year.

5. The permittee shall maintain monthly records of the following information for emissions units P001, P003, P004 and P005 combined:
  - a. The identification of each liquid organic cleanup material employed.

- b. The amount of liquid organic material employed\* in pounds.
- c. The annual OC emissions from liquid organic cleanup materials, in tons per year, as calculated below:

Annual OC emissions from cleanup  
= Annual OC emissions from cleanup \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

- 6. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.e:
  - a. The name and identification number of each coating or solvent employed;
  - b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
  - c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
  - d. The number of pounds of each coating or solvent employed;
  - e. The name and identification of each cleanup material employed;
  - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
  - h. The number of gallons of each cleanup material employed;
  - i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the

Emissions Unit ID: **P001**

sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];

- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
2. The permittee shall submit annual reports which identify the total OC emissions for this emissions unit and the total organic cleanup material usage for emissions units P001, P003, P004 and P005, combined. The reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.

5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.e. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

#### **E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):
  - . Emissions Limitations:  
95% by weight control efficiency for OC emissions.

Applicable Compliance Methods:

Emissions units P001, P003, P004 and P005 are vented to a common thermal oxidizer. The permittee conducted emission testing for emissions units P001, P003, P004 and P005 on August 10, 2005. Destruction efficiency of the thermal oxidizer was 97.5% during the test, the capture efficiency was 100% and in accordance with the following requirements. If required, the permittee shall perform an emissions compliance test which meets the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Emissions Unit ID: P001

**Emissions Limitations**

0.22 lb/hr OC, 0.96 TPY OC from process

0.41 TPY OC from cleanup materials for emissions units P001, P003, P004 and P005 combined.

**Applicable Compliance Method**

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in terms and conditions C.4 and C.5.

**Emissions Limitations**

9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

**Applicable Compliance Method**

Compliance with the HAPs emissions limitation in A.2.e shall be demonstrated by the record keeping in term and condition C.6.

**Emissions Limitations**

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;

0.20 lb/hr NOx and 0.88 TPY NOx; and

0.17 lb/hr CO and 0.74 TPY CO.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

2. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
3. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.
4. Compliance with the annual organic cleanup material usage limitation in term and condition A.2.d shall be demonstrated by the record keeping in term and condition C.5.

**F. Miscellaneous Requirements**

**Da Li**  
**PTI A**  
**Issued: 4/11/2006**

Emissions Unit ID: **P001**

1. The requirements of this Permit to Install shall supercede the requirements in PTI 14-4743 as issued on June 30, 1999, PTI 14-4812 as issued on October 20, 1999, and PTI 14-05635 issued on March 1, 2005.
2. The following terms and conditions shall be federally enforceable: A, B, C, D, and E.
3. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**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>	
P003 - Flex machine for flexible films with thermal oxidizer - No. 3 - modification	OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G)(1)
		OAC rule 3745-21-07(G)(2)
		OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

**Da Li****PTI A****Issued: 4/11/2006**Emissions Unit ID: **P003**Applicable Emissions  
Limitations/Control Measures

The emissions of organic compounds (OC) shall not exceed 0.22 lb/hr and 0.96 ton per year (TPY), excluding cleanup.

The emissions of organic compounds (OC) from cleanup materials for emissions units P001, P003, P004 and P005, combined shall not exceed 0.41 TPY.

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>;  
0.17 lb/hr CO and 0.74 TPY CO.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-35-07(B).

See terms and conditions A.2.a - A.2.d, B.1, and B.2.

The oven is exempt per OAC rule 3745-21-07(G)(9)(d).

The emission limitation specified by this rule for the dipping and cleanup operation is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

See term and condition A.2.e.

See term and condition A.2.g.

See term and condition A.2.h.

## 2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a permanent total enclosure followed by a thermal oxidizer with at least a 95% OC destruction efficiency, by weight, and compliance with the emissions limitations.
- 2.b** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95%, by weight.
- 2.c** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be comprised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, and D below) to ensure the ongoing integrity of the PTE.

- 2.d** The maximum organic cleanup material usage for emissions units P001, P003, P004 and P005 combined shall not exceed 16,488 pounds per year.

The emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with a destruction efficiency of at least 95% by weight.

- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in

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Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.e. upon permit issuance.

- 2.f** The hourly emission limitation(s) outlined for OC are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

In addition, emission limitations from the combustion of the natural gas in the thermal oxidizer are based upon PTE and therefore records are not required to demonstrate compliance with these limitations.

- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **B. Operational Restrictions**

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer 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.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more

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than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.

- b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emissions unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
- b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain the following monthly records for this emissions unit:
- a. The number of hours the emissions unit was in operation during the month. The permittee may monitor a surrogate parameter for determining the hours of operation.
- b. The monthly OC emissions from the process, in pounds per month, as calculated below:

Monthly OC emissions from the process

= number of hours of operation \* 4.3 lbs OC/hr<sup>1</sup> \* (1-control efficiency during the most recent performance test that demonstrated compliance).

<sup>1</sup>maximum hourly uncontrolled emissions = 4.3 lbs OC/hr.

These records shall be summarized at the end of the calendar year.

5. The permittee shall maintain monthly records of the following information for emissions units P001, P003, P004 and P005 combined:
  - a. The identification of each liquid organic cleanup material employed.
  - b. The amount of liquid organic material employed\* in pounds.
  - c. The annual OC emissions from liquid organic cleanup materials, in tons per year, as calculated below:

Annual OC emissions from cleanup  
= Annual OC emissions from cleanup \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

6. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.e.:
  - a. The name and identification number of each coating or solvent employed;
  - b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
  - c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
  - d. The number of pounds of each coating or solvent employed;
  - e. The name and identification of each cleanup material employed;
  - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;

- g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### **D. Reporting Requirements**

- 1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
- 2. The permittee shall submit annual reports which identify the total OC emissions for this emissions unit and the total organic cleanup material usage for emissions units P001, P003, P004 and P005, combined. The reports shall be submitted by January 31 of

each year.

3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.e. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.).

#### **E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):  
  
Emissions Limitations:  
95% by weight control efficiency for OC emissions.

Applicable Compliance Methods:

Emissions units P001, P003, P004 and P005 are vented to a common thermal oxidizer. The permittee conducted emission testing for emissions units P001, P003, P004 and P005 on August 10, 2005. Destruction efficiency of the thermal oxidizer was 97.5% during the test, the capture efficiency was 100% and in accordance with the following requirements. If required, the permittee shall perform an emissions compliance test which meets the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

2. Emissions Limitations  
0.22 lb/hr OC, 0.96 TPY OC from process  
0.41 TPY OC from cleanup materials for emissions units P001, P003, P004 and P005 combined.

Applicable Compliance Method

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in terms and conditions C.4 and C.5.

3. Emissions Limitations  
9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method

Compliance with the HAPs emissions limitation in A.2.e. shall be demonstrated by the record keeping in term and condition C.6.

4. Emissions Limitations  
The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:  
0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NOx and 0.88 TPY NOx; and  
0.17 lb/hr CO and 0.74 TPY CO.

Applicable Compliance Method

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

5. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
6. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.
7. Compliance with the annual organic cleanup material usage limitation in term and condition A.2.d shall be demonstrated by the record keeping in term and condition C.5.

## F. Miscellaneous Requirements

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1. The requirements of this Permit to Install shall supercede the requirements of PTI 14-05283 as issued on April 11, 2002 and PTI 14-05635 issued on March 1, 2005.
2. The following terms and conditions shall be federally enforceable: A, B, C, D, and E.
3. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined

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by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

Da Li

PTI A

Issued: 4/11/2006

Emissions Unit ID: P004

**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>	
P004 - Flex machine for flexible films with thermal oxidizer - No. 4 - modification	OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G)(1)
		OAC rule 3745-21-07(G)(2)
		OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

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Applicable Emissions  
Limitations/Control Measures

The emissions of organic compounds (OC) shall not exceed 0.22 lb/hr and 0.96 ton per year (TPY), excluding cleanup.

The emissions of organic compounds (OC) from cleanup materials for emissions units P001, P003, P004 and P005, combined shall not exceed 0.41 TPY.

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>;  
0.17 lb/hr CO and 0.74 TPY CO.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-35-07(B).

See terms and conditions A.2.a

- A.2.d, B.1 and B.2.

The oven is exempt per OAC rule 3745-21-07(G)(9)(d).

The emission limitation specified by this rule for the dipping and cleanup operation is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

See term and condition A.2.e.

See term and condition A.2.g.

See term and condition A.2.h.

Emissions Unit ID: P004

## 2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a permanent total enclosure followed by a thermal oxidizer with at least a 95% OC destruction efficiency, by weight, and compliance with the emissions limitations.
- 2.b** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95%, by weight.
- 2.c** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be comprised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, and D below) to ensure the ongoing integrity of the PTE.

- 2.d** The maximum organic cleanup material usage for emissions units P001, P003, P004 and P005 combined shall not exceed 16,488 pounds per year.

The emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with a destruction efficiency of at least 95% by weight.

- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex

machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.e. upon permit issuance.

- 2.f** The hourly emission limitation(s) outlined for OC are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

In addition, emission limitations from the combustion of the natural gas in the thermal oxidizer are based upon PTE and therefore records are not required to demonstrate compliance with these limitations.

- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **B. Operational Restrictions**

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer 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.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during

the most recent emissions test that demonstrated the emissions unit to be in compliance.

- b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emissions unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain the following monthly records for this emissions unit:
    - a. The number of hours the emissions unit was in operation during the month. The permittee may monitor a surrogate parameter for determining the hours of operation.
    - b. The monthly OC emissions from the process, in pounds per month, as calculated below:

Monthly OC emissions from the process  
= number of hours of operation \* 4.3 lbs OC/hr<sup>1</sup> \* (1-control efficiency during the most recent performance test that demonstrated compliance).

<sup>1</sup>maximum hourly uncontrolled emissions = 4.3 lbs OC/hr.

These records shall be summarized at the end of the calendar year.

5. The permittee shall maintain monthly records of the following information for emissions units P001, P003, P004 and P005 combined:
- The identification of each liquid organic cleanup material employed.
  - The amount of liquid organic material employed\* in pounds.
  - The annual OC emissions from liquid organic cleanup materials, in tons per year, as calculated below:

Annual OC emissions from cleanup  
= Annual OC emissions from cleanup \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

6. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.e:
- The name and identification number of each coating or solvent employed;
  - The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
  - The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
  - The number of pounds of each coating or solvent employed;
  - The name and identification of each cleanup material employed;
  - The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
  - The total combined HAP content of each cleanup material, in pounds of

combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];

- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### **D. Reporting Requirements**

- 1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
- 2. The permittee shall submit annual reports which identify the total OC emissions for this emissions unit and the total organic cleanup material usage for emissions units P001, P003, P004 and P005, combined. The reports shall be submitted by January 31 of each year.

3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.e. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

#### **E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):
  - . Emissions Limitations:  
95% by weight control efficiency for OC emissions

Applicable Compliance Methods:

Emissions units P001, P003, P004 and P005 are vented to a common thermal oxidizer. The permittee conducted emission testing for emissions units P001, P003, P004 and P005 on August 10, 2005. Destruction efficiency of the thermal oxidizer was 97.5% during the test, the capture efficiency was 100% and in accordance with the following requirements. If required, the permittee shall perform an emissions compliance test which meets the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

2. Emissions Limitations  
0.22 lb/hr OC, 0.96 TPY OC from process  
0.41 TPY OC from cleanup materials for emissions units P001, P003, P004 and P005 combined.

Applicable Compliance Method

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in terms and conditions C.4 and C.5.

3. Emissions Limitations  
9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method

Compliance with the HAPs emissions limitation in A.2.e. shall be demonstrated by the record keeping in term and condition C.6.

4. Emissions Limitations  
The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:  
0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NOx and 0.88 TPY NOx; and  
0.17 lb/hr CO and 0.74 TPY CO.

Applicable Compliance Method

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

5. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
6. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.
7. Compliance with the annual organic cleanup material usage limitation in term and condition A.2.d shall be demonstrated by the record keeping in term and condition C.

## F. Miscellaneous Requirements

**Da Lite Screen Company Inc**  
**PTI Application: 14-05782**  
**Issue**

**Facility ID: 1431053380**

**Emissions Unit ID: P004**

1. The requirements of this Permit to Install shall supercede the requirements of PTI 14-4743 as issued on June 30, 1999, PTI 14-4812 as issued on October 20, 1999, PTI 14-05283 as issued on April 11, 2002, PTI 14-05337 as issued on August 22, 2002, and PTI 14-05635 issued on March 1, 2005.
2. The following terms and conditions shall be federally enforceable: A, B, C, D, and E.
3. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**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>	
P005 - Flex machine for flexible films with thermal oxidizer - No. 5 - modification	OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G)(1)
		OAC rule 3745-21-07(G)(2)
		OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

**Da Li****PTI A****Issued: 4/11/2006**Emissions Unit ID: **P005**

Applicable Emissions  
Limitations/Control Measures

The emissions of organic compounds (OC) shall not exceed 0.29 lb/hr and 1.27 ton per year (TPY), excluding cleanup.

The emissions of organic compounds (OC) from cleanup materials for emissions units P001, P003, P004 and P005, combined shall not exceed 0.41 TPY.

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>;  
0.17 lb/hr CO and 0.74 TPY CO.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-35-07(B).

See term and conditions A.2.a -

A.2.d, B.1 and B.2.

The oven is exempt per OAC rule 3745-21-07(G)(9)(d).

The emission limitation specified by this rule for the dipping and cleanup operation is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

See term and condition A.2.e.

See term and condition A.2.g.

See term and condition A.2.h.

Emissions Unit ID: P005

## 2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a permanent total enclosure followed by a thermal oxidizer with at least a 95% OC destruction efficiency, by weight, and compliance with the emissions limitations.
- 2.b** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95%, by weight.
- 2.c** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, and D below) to ensure the ongoing integrity of the PTE.

- 2.d** The maximum organic cleanup material usage for emissions units P001, P003, P004 and P005 combined shall not exceed 16,488 pounds per year.

The emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with a destruction efficiency of at least 95% by weight.

- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex

machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.e. upon permit issuance.

- 2.f** The hourly emission limitation(s) outlined for OC are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

In addition, emission limitations from the combustion of the natural gas in the thermal oxidizer are based upon PTE and therefore records are not required to demonstrate compliance with these limitations.

- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **B. Operational Restrictions**

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer 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.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during

the most recent emissions test that demonstrated the emissions unit to be in compliance.

- b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emissions unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain the following monthly records for this emissions unit:
    - a. The number of hours the emissions unit was in operation during the month. The permittee may monitor a surrogate parameter for determining the hours of operation.
    - b. The monthly OC emissions from the process, in pounds per month, as calculated below:

Monthly OC emissions from the process  
= number of hours of operation \* 5.7 lbs OC/hr<sup>1</sup> \* (1-control efficiency during the most recent performance test that demonstrated compliance).

<sup>1</sup>maximum hourly uncontrolled emissions = 5.7 lbs OC/hr.

These records shall be summarized at the end of the calendar year.

5. The permittee shall maintain monthly records of the following information for emissions units P001, P003, P004 and P005 combined:
- The identification of each liquid organic cleanup material employed.
  - The amount of liquid organic material employed\* in pounds.
  - The annual OC emissions from liquid organic cleanup materials, in tons per year, as calculated below:

Annual OC emissions from cleanup  
= Annual OC emissions from cleanup \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

6. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.e:
- The name and identification number of each coating or solvent employed;
  - The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
  - The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
  - The number of pounds of each coating or solvent employed;
  - The name and identification of each cleanup material employed;
  - The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
  - The total combined HAP content of each cleanup material, in pounds of

combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];

- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### **D. Reporting Requirements**

- 1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
- 2. The permittee shall submit annual reports which identify the total OC emissions for this emissions unit and the total organic cleanup material usage for emissions units P001, P003, P004 and P005, combined. The reports shall be submitted by January 31 of each year.

3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.e. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

#### **E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):
  - . Emissions Limitations:  
95% by weight control efficiency for OC emissions.

Applicable Compliance Methods:

Emissions units P001, P003, P004 and P005 are vented to a common thermal oxidizer. The permittee conducted emission testing for emissions units P001, P003, P004 and P005 on August 10, 2005. Destruction efficiency of the thermal oxidizer was 97.5% during the test, the capture efficiency was 100% and in accordance with the following requirements. If required, the permittee shall perform an emissions compliance test which meets the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

2. Emissions Limitations  
0.29 lb/hr OC, 1.27 TPY OC from process  
0.41 TPY OC from cleanup materials for emissions units P001, P003, P004 and P005 combined.

Applicable Compliance Method

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in terms and conditions C.4 and C.5.

3. Emissions Limitations  
9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method

Compliance with the HAPs emissions limitation in A.2.e. shall be demonstrated by the record keeping in term and condition C.6.

4. Emissions Limitations  
The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:  
0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NOx and 0.88 TPY NOx; and  
0.17 lb/hr CO and 0.74 TPY CO.

Applicable Compliance Method

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

5. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
6. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.
7. Compliance with the annual organic cleanup material usage limitation in term and condition A.2.d shall be demonstrated by the record keeping in term and condition C.

## F. Miscellaneous Requirements

**Da Lite Screen Company Inc**  
**PTI Application: 14-05782**  
**Issue**

**Facility ID: 1431053380**

**Emissions Unit ID: P005**

1. The requirements of this Permit to Install shall supercede the requirements in PTI 14-05635 issued on March 1, 2005.
2. The following terms and conditions shall be federally enforceable: A, B, C, D, and E.
3. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply

**Da Li****PTI A****Issued: 4/11/2006**Emissions Unit ID: **P005**

for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**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>	OAC rule 3745-21-07(G)(2)
P006 - Cleaning process for the flex machine mix and mill room	OAC rule 3745-31-05(A)(3)	OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V  OAC rule 3745-21-08(B)  OAC rule 3745-23-06(B)

**Da Li****PTI A****Issued: 4/11/2006**Emissions Unit ID: **P006**

Applicable Emissions  
Limitations/Control Measures

The emissions of organic compounds (OC) shall not exceed 4.83 lb/day.

The emissions of organic compounds (OC) for emissions units P006 and P007, combined shall not exceed 0.98 TPY.

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>;  
0.17 lb/hr CO and 0.74 TPY CO.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-31-05(C).

See terms and conditions A.2.a - A.2.d, B.1 - B.3.

The emission limitation

specified by this rule for the cleanup operation is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

See term and condition A.2.e.

See term and condition A.2.f.

See term and condition A.2.g.

Emissions Unit ID: P006

## 2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a permanent total enclosure followed by a thermal oxidizer with at least a 95% OC destruction efficiency, by weight, and compliance with the emissions limitations.
- 2.b** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95% by weight.
- 2.c** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be comprised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, D, and E below) to ensure the ongoing integrity of the PTE.

- 2.d** The daily emission limitation(s) outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no daily records are required to demonstrate compliance with these limits.

In addition, emission limitations from the combustion of the natural gas in the thermal oxidizer are based upon PTE and therefore records are not required to demonstrate compliance with these limitations.

- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.e upon permit issuance.

- 2.f** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.g** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## B. Operational Restrictions

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation. If this negative pressure is maintained, 100 percent capture is presumed. A capture test may be required to demonstrate negative pressure in this room is maintained.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
3. The maximum organic cleanup material usage shall not exceed 39,347.0 pounds per year of evaporated losses for emissions units P006 and P007 combined. The organic cleanup evaporation rate, in pounds, shall be based on mass balance.

The OC emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with a destruction efficiency of at least 95% by weight.

## C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer 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.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
  - b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emissions unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information for emissions units P006 and P007 combined:
    - a. The identification of each liquid organic cleanup material employed.
    - b. The amount of liquid organic cleanup material evaporated\* in pounds.

\* Records of cleanup material evaporated shall be based on mass balance calculations provided in PTI application received on November 4, 2005 and the material recovered from the process for reuse, recycle or disposal.

- c. the annual cleanup material evaporation rates, in pounds or tons per year. Annual OC emissions from cleanup = the sum of (b) for the previous calendar year \* (1-control efficiency during the most recent performance test) / 2000 lbs/ton.
5. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.e.:

- a. The name and identification number of each coating or solvent employed;
- b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
- c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
- d. The number of pounds of each coating or solvent employed;
- e. The name and identification of each cleanup material employed;
- f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
- g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and

- I. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
2. The permittee shall submit annual reports which identify the total OC emissions for this emissions unit and the total organic material usage for emissions units P006 and P007, combined. The reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.e. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

#### **E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):  
  
Emissions Limitations:  
95% by weight control efficiency for OC emissions.

Applicable Compliance Methods:

Emissions units P006 and P007, as well as emissions units P001, P003, P004, and P005, are vented to a common thermal oxidizer. If required, the permittee shall perform an emissions compliance test which meets the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

2. Emissions Limitations  
4.83 lb/day OC;

0.98 TPY OC from emissions units P006 and P007 combined.

**Applicable Compliance Method**

The daily OC emissions limitation is based on a mass balance determination of the maximum OC evaporation from the equipment used for cleanup in P006 and P007, provided in PTI application received on November 4, 2005. Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in term and condition C.4.

**3. Emissions Limitations**

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>; and  
0.17 lb/hr CO and 0.74 TPY CO.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

**4. Emissions Limitations**

9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

**Applicable Compliance Method**

Compliance with the HAPs emissions limitation in A.2.e. shall be demonstrated by the record keeping in term and condition C.5.

5. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.

6. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.

7. Compliance with the annual organic cleanup material usage limitation in term and condition B.3 shall be demonstrated by the record keeping in term and condition C.4.

**F. Miscellaneous Requirements**

**Da Lite Screen Company Inc**  
**PTI Application: 11-05782**  
**Issue**

**Facility ID: 1431053380**

**Emissions Unit ID: P006**

1. The following terms and conditions shall be federally enforceable: A, B, C, D and E.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**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>	OAC rule 3745-21-07(G)(2)
P007 - Cleaning process for the ball mill room with thermal oxidizer	OAC rule 3745-31-05(A)(3)	OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V  OAC rule 3745-21-08(B)  OAC rule 3745-23-06(B)

**Da Li****PTI A****Issued: 4/11/2006**Emissions Unit ID: **P007**

Applicable Emissions  
Limitations/Control Measures

The emissions of organic compounds (OC) shall not exceed 4.83 lb/day.

The emissions of organic compounds (OC) for emissions units P006 and P007, combined shall not exceed 0.98 TPY.

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>;  
0.17 lb/hr CO and 0.74 TPY CO.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-35-07(B).

See terms and conditions A.2.a - A.2.d, B.1 - B.3.

The emission limitation specified by this rule for the

cleanup operation is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

See term and condition A.2.e.

See term and condition A.2.f.

See term and condition A.2.g.

## 2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a permanent total enclosure followed by a thermal oxidizer with at least a 95% OC destruction efficiency, by weight, and compliance with the emissions limitations.
- 2.b** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95% by weight.
- 2.c** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be comprised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, D, and E below) to ensure the ongoing integrity of the PTE.

- 2.d** The daily emission limitation(s) outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no daily records are required to demonstrate compliance with these limits.

In addition, emission limitations from the combustion of the natural gas in the thermal oxidizer are based upon PTE and therefore records are not required to demonstrate compliance with these limitations.

- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.e. upon permit issuance.

- 2.f** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.g** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **B. Operational Restrictions**

Emissions Unit ID: P007

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation. If this negative pressure is maintained, 100 percent capture is presumed. A capture test may be required to demonstrate negative pressure in this room is maintained.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
3. The maximum organic cleanup material usage shall not exceed 39,347.0 pounds per year of evaporated losses for emissions units P006 and P007 combined. The organic cleanup evaporation rate, in pounds, shall be based on mass balance.

The OC emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with a destruction efficiency of at least 95% by weight.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer 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.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
  - b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emissions unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information for emissions units P006 and P007 combined:
    - a. The identification of each liquid organic cleanup material employed.
    - b. The amount of liquid organic cleanup material evaporated\* in pounds.

\* Records of cleanup material evaporated shall be based on mass balance calculations provided in PTI application received on November 4, 2005 and the material recovered from the process for reuse, recycle or disposal.

- c. the annual cleanup material evaporation rates, in pounds or tons per year. Annual OC emissions from cleanup = the sum of (b) for the previous calendar year \* (1-control efficiency during the most recent performance test) / 2000 lbs/ton.
5. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.e.:

Emissions Unit ID: **P007**

- a. The name and identification number of each coating or solvent employed;
- b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
- c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
- d. The number of pounds of each coating or solvent employed;
- e. The name and identification of each cleanup material employed;
- f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
- g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and

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- I. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
2. The permittee shall submit annual reports which identify the total OC emissions for this emissions unit and the total organic material usage for emissions units P006 and P007, combined. The reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.e. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.).

#### **E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):

Emissions Limitations:

95% by weight control efficiency for OC emissions.

Emissions Unit ID: P007

Applicable Compliance Methods:

Emissions units P006 and P007, as well as emissions units P001, P003, P004, and P005, are vented to a common thermal oxidizer. If required, the permittee shall perform an emissions compliance test which meets the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Emissions Limitations

4.83 lb/day OC;

0.98 TPY OC from emissions units P006 and P007 combined

#### Applicable Compliance Method

The daily OC emissions limitation is based on a mass balance determination of the maximum OC evaporation from the equipment used for cleanup in P006 and P007, provided in PTI application received on November 4, 2005. Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in term and condition C.4.

#### Emissions Limitations

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NOx and 0.88 TPY NOx; and  
0.17 lb/hr CO and 0.74 TPY CO.

#### Applicable Compliance Method

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

#### Emissions Limitations

9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

#### Applicable Compliance Method

Compliance with the HAPs emissions limitation in A.2.e. shall be demonstrated by the record keeping in term and condition C.5.

2. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
3. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.
4. Compliance with the annual organic cleanup material usage limitation in term and condition B.3 shall be demonstrated by the record keeping in term and condition C.4.

## F. Miscellaneous Requirements

1. The following terms and conditions shall be federally enforceable: A, B, C, D, and E.

**Da Lite Screen Company Inc**  
**PTI Application: 11-05782**  
**Issue**

**Facility ID: 1431053380**

**Emissions Unit ID: P007**

2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**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>
R001 - Automatic Coating Machine (ACM) coating room with thermal oxidizer and uncontrolled curing ovens	OAC rule 3745-31-02(A)(2)	<p>The emissions of organic compounds (OC) shall not exceed 5.28 TPY, excluding cleanup.</p> <p>The emissions of organic compounds (OC) from cleanup materials, for R001-R003, combined shall not exceed 0.48 TPY.</p> <p>The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:                      0.02 lb/hr OC and 0.10 TPY OC;                      0.20 lb/hr NOx and 0.88 TPY NOx;                      0.17 lb/hr CO and 0.74 TPY CO.</p> <p>See terms and conditions A.2.a. - A.2.d and B.1 through B.4.</p> <p>The requirements of OAC rule 3745-31-02(A)(2) are more</p>

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**Da Li**

**PTI A**

**Issued: 4/11/2006**

Emissions Unit ID: **R001**

stringent than the requirements  
of OAC rule 3745-21-07(G)(2).

## 2. Additional Terms and Conditions

- 2.a** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure around the coating room and vent the emissions from the coating room to a thermal oxidizer, which has an OC destruction efficiency of at least 95% by weight.
- 2.b** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be comprised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, D, and E below) to ensure the ongoing integrity of the PTE.

- 2.c** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

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The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.c upon permit issuance.

- 2.d** The OC content of the coatings employed in the emissions unit shall not exceed 0.788 lb OC/lb coating and the density of the coatings shall not exceed 8.56 lbs of coating/gallon coating.

## B. Operational Restrictions

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation. If this negative pressure is maintained, 100 percent capture is presumed. A capture test may be required to demonstrate negative pressure in this room is maintained.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
3. The maximum organic cleanup material usage shall not exceed 19,167 pounds per year based on a summation for emissions units R001- R003 combined.

The cleanup emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95% by weight.

The permittee has existing records to demonstrate compliance with the limitations in term and condition B.3 upon permit issuance.

4. The maximum organic material usage from coating room operations, excluding cleanup, shall not exceed 77,137 pounds per year (13,975.5 pounds per year from stripping and manual wipe down and 63,161.3 pounds per year from coatings).

The permittee has existing records to demonstrate compliance with the limitations in term and condition B.4 upon permit issuance.

## C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal

oxidizer 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.

2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
  - b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emission unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information for this

Emissions Unit ID: **R001**

emissions unit:

- a. The identification of each liquid organic material employed in the stripping process, manual wipe-down process and the coatings.
  - b. The amount of liquid organic material employed in pounds for each of the three processes identified in C.4.a.
  - c. The number of screens employed in the two dryers. Monthly emissions from the dryers =  
 $0.765 \text{ lbs. OC/screen} \times \text{the number of screens dried per month in both dryers.}$
  - d. The OC content of the coatings employed and the density of coatings employed in pound OC/pound of coating and pound per gallon of coating, respectively.
5. The monthly records from term and condition C.4. shall be summarized at the end of each calendar year to determine the annual OC emissions from liquid organic materials, in tons per year, as calculated below:

Annual OC emissions

= Annual OC emissions [(from the stripping process + manual wipe-down of screens + coatings employed) \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton ] + evaporated emission from the two drying ovens.

6. The permittee shall maintain monthly cleanup records of the following information for emissions units R001- R003, combined:

- a. The identification of each liquid organic cleanup material employed.
- b. The amount of liquid organic material employed\* in pounds.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

- c. The OC emissions from liquid organic cleanup materials, in pounds or tons, as calculated below:

OC emissions from cleanup

= OC emissions from cleanup \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

7. The monthly records from term and condition C.6 shall be summarized at the end of each calendar year to determine the annual cleanup material evaporation rates, in pounds or tons per year. Annual OC emissions from cleanup = the sum of C.6(b) for the previous 12 months \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lbs/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

8. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.c:

- a. The name and identification number of each coating or solvent employed;

- b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
- c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
- d. The number of pounds of each coating or solvent employed;
- e. The name and identification of each cleanup material employed;
- f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
- g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of the combined HAP emissions, in

Emissions Unit ID: R001

pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
2. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify any exceedance of the material usage limitations in terms and conditions B.3 and B.4 for this emissions unit for the manual wipe-down process, the stripping process, coating materials and the combined total organic cleanup material usage for emissions units R001 - R003, combined.
3. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.c. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)
6. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the OC content and density limits outlined in A.2.d.

## E. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):

### Emissions Limitations

95% by weight control efficiency for OC emissions.

### Applicable Compliance Methods

Emissions units P001, P003, P004, P005, P006, P007, R001, R002 and R003 are vented to a common thermal oxidizer. The permittee conducted emission testing for emissions units P001, P003, P004 and P005 on August 10, 2005. Destruction efficiency of the thermal oxidizer was 97.5% during the test, the capture efficiency was 100%. If required, emissions testing shall be in accordance with the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in

OAC rule 3745-21-10 or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Hamilton County Department of Environmental Services' refusal to accept the results of the emission tests. Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

#### Emissions Limitations

5.28 TPY OC from manual wipe down, screen stripping and coating.

#### Applicable Compliance Method

Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in terms and conditions C.4 and 5.

Emissions Unit ID: **R001**

**Emissions Limitations**

0.48 TPY of controlled OC emissions from cleanup materials, for R001-R003, combined.

**Applicable Compliance Method**

Compliance with the annual OC emissions limitation shall be demonstrated by the record keeping in term and condition C.7.

**Emissions Limitations**

The emissions from the combustion of natural gas in the thermal oxidizer shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
 0.20 lb/hr NOx and 0.88 TPY NOx; and  
 0.17 lb/hr CO and 0.74 TPY CO.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

**Emissions Limitations**

9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

**Applicable Compliance Method**

Compliance with the HAPs emissions limitation in A.2.c shall be demonstrated by the record keeping in term and condition C.8.

2. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
3. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.
4. Compliance with the annual organic cleanup material usage limitation in term and condition B.3 shall be demonstrated by the record keeping in term and condition C.6.
5. Compliance with the annual organic material usage limitation in term and condition B.4 shall be demonstrated by the record keeping in term and condition C.4.
6. Formulation data or USEPA Method 24 shall be used to determine the OC content and density of each coating and cleanup material employed.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable: A, B, C, D and E.

**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>
R002 - In-wall coating room No. 1 with thermal oxidizer and uncontrolled curing ovens	OAC rule 3745-31-02(A)(2)	<p>The emissions of organic compounds (OC) shall not exceed 5.28 TPY, excluding cleanup.</p> <p>The emissions of organic compounds (OC) from cleanup materials, for R001-R003, combined shall not exceed 0.48 TPY.</p> <p>The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:                      0.02 lb/hr OC and 0.10 TPY OC;                      0.20 lb/hr NOx and 0.88 TPY NOx;                      0.17 lb/hr CO and 0.74 TPY CO.</p> <p>See terms and conditions A.2.a. - A.2.d and B.1 through B.4.</p> <p>The requirements of OAC rule 3745-31-02(A)(2) are more</p>

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**Issue**

**Facility ID: 1431053380**

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stringent than the requirements  
of OAC rule 3745-21-07(G)(2).

## 2. Additional Terms and Conditions

- 2.a** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure around the coating room and vent the emissions from the coating room to a thermal oxidizer, which has an OC destruction efficiency of at least 95% by weight.
- 2.b** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be comprised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, D, and E below) to ensure the ongoing integrity of the PTE.

- 2.c** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.c upon permit issuance.

- 2.d** The OC content of the coatings employed in the emissions unit shall not exceed 0.788 lb OC/lb of coating and the density of the coatings shall not exceed 8.56 lbs/gallon coating.

## **B. Operational Restrictions**

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation. If this negative pressure is maintained, 100 percent capture is presumed. A capture test may be required to demonstrate negative pressure in this room is maintained.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
3. The maximum organic cleanup material usage shall not exceed 19,167 pounds per year based on a summation for emissions units R001- R003 combined.

The cleanup emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95% by weight.

The permittee has existing records to demonstrate compliance with the limitations in term and condition B.3 upon permit issuance.

4. The maximum organic material usage from coating room operations, excluding cleanup, shall not exceed 77,137 pounds per year (13,975.5 pounds per year from stripping and manual wipe down and 63,161.3 pounds per year from coatings).

The permittee has existing records to demonstrate compliance with the limitations in term and condition B.4 upon permit issuance.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and

Emissions Unit ID: **R002**

recorder which measures and records the combustion temperature within the thermal oxidizer 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.

2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
  - b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emission unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information for this

emissions unit:

- a. The identification of each liquid organic material employed in the stripping process, manual wipe-down process and the coatings.
  - b. The amount of liquid organic material employed in pounds for each of the three processes identified in C.4.a.
  - c. The number of screens employed in the two dryers. Monthly emissions from the dryers =  
 $0.765 \text{ lbs. OC/screen} \times \text{the number of screens dried per month in both dryers.}$
  - d. The OC content of the coatings employed and the density of coatings employed in pound OC/pound of coating and pound per gallon of coating, respectively.
5. The monthly records from term and condition C.4. shall be summarized at the end of each calendar year to determine the annual OC emissions from liquid organic materials, in tons per year, as calculated below:

Emissions Unit ID: **R002**

Annual OC emissions

= Annual OC emissions [(from the stripping process + manual wipe-down of screens + coatings employed) \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton ] + evaporated emission from the two drying ovens.

6. The permittee shall maintain monthly cleanup records of the following information for emissions units R001- R003, combined:

- a. The identification of each liquid organic cleanup material employed.
- b. The amount of liquid organic material employed\* in pounds.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

- c. The OC emissions from liquid organic cleanup materials, in pounds or tons, as calculated below:

OC emissions from cleanup

= OC emissions from cleanup \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

7. The monthly records from term and condition C.6 shall be summarized at the end of each calendar year to determine the annual cleanup material evaporation rates, in pounds or tons per year. Annual OC emissions from cleanup = the sum of C.6(b) for the previous 12 months \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lbs/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

8. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.c:

- a. The name and identification number of each coating or solvent employed;
- b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each

coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;

- c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
- d. The number of pounds of each coating or solvent employed;
- e. The name and identification of each cleanup material employed;
- f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
- g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the

preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
2. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify any exceedance of the material usage limitations in terms and conditions B.3 and B.4 for this emissions unit for the manual wipe-down process, the stripping process, coating materials and the combined total organic cleanup material usage for emissions units R001 - R003, combined.
3. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.c. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)
6. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the OC content and density limits outlined in A.2.d.

## E. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):

### Emissions Limitations

95% by weight control efficiency for OC emissions.

### Applicable Compliance Methods

Emissions units P001, P003, P004, P005, P006, P007, R001, R002 and R003 are vented to a common thermal oxidizer. The permittee conducted emission testing for emissions units P001, P003, P004 and P005 on August 10, 2005. Destruction efficiency of the thermal oxidizer was 97.5% during the test, the capture efficiency was 100%. If required, emissions testing shall be in accordance with the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test

methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Hamilton County Department of Environmental Services' refusal to accept the results of the emission tests. Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

#### Emissions Limitations

5.28 TPY OC from manual wipe down, screen stripping and coating.

#### Applicable Compliance Method

Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in terms and conditions C.4 and 5.

#### Emissions Limitations

Emissions Unit ID: R002

0.48 TPY of controlled OC emissions from cleanup materials, for R001-R003, combined.

#### Applicable Compliance Method

Compliance with the annual OC emissions limitation shall be demonstrated by the record keeping in terms and conditions C.7.

#### Emissions Limitations

The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NOx and 0.88 TPY NOx; and  
0.17 lb/hr CO and 0.74 TPY CO.

#### Applicable Compliance Method

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

#### Emissions Limitations

9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

#### Applicable Compliance Method

Compliance with the HAPs emissions limitation in A.2.c shall be demonstrated by the record keeping in term and condition C.8.

2. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
3. Compliance with the combustion chamber temperature operational limitation in term and condition B.2 shall be based upon the monitoring in term and condition C.2.
4. Compliance with the annual organic cleanup material usage limitation in term and condition B.3 shall be demonstrated by the record keeping in term and condition C.6.
5. Compliance with the annual organic material usage limitation in term and condition B.4 shall be demonstrated by the record keeping in term and condition C.4.
6. Formulation data or USEPA Method 24 shall be used to determine the OC content and density of each coating and cleanup material employed.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable: A, B, C, D and E.

**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>
R003 - In-wall coating room - No.2 with thermal oxidizer and uncontrolled curing ovens	OAC rule 3745-31-02(A)(2)	<p>The emissions of organic compounds (OC) shall not exceed 5.28 TPY, excluding cleanup.</p> <p>The emissions of organic compounds (OC) from cleanup materials, for R001-R003, combined shall not exceed 0.48 TPY.</p> <p>The emissions from the combustion of natural gas in the thermal oxidizer for emissions units P001, P003 thru P007, and R001 thru R003 shall not exceed the following limitations:                      0.02 lb/hr OC and 0.10 TPY OC;                      0.20 lb/hr NOx and 0.88 TPY NOx;                      0.17 lb/hr CO and 0.74 TPY CO.</p> <p>See terms and conditions A.2.a. - A.2.d and B.1 through B.4.</p> <p>The requirements of OAC rule 3745-31-02(A)(2) are more stringent than the requirements of</p>

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**Issued: 4/11/2006**

Emissions Unit ID: **R003**

OAC rule 3745-21-07(G)(2).

## 2. Additional Terms and Conditions

- 2.a** The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure around the coating room and vent the emissions from the coating room to a thermal oxidizer, which has an OC destruction efficiency of at least 95% by weight.
- 2.b** The permittee has the option to perform an additional demonstration to show that the permanent total enclosure (PTE) cannot be compromised, under normal plant conditions, when the emissions unit is in operation [i.e., air flow through the PTE to the control device is 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 devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record-keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified above, to show that the PTE cannot be comprised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, recordkeeping, and reporting requirements specified below (see sections B, C, D, and E below) to ensure the ongoing integrity of the PTE.

- 2.c** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P001 (flex machine cleanup), P003 (flex machine cleanup), P004 (flex machine cleanup), P005 (flex machine cleanup), P006 (mixing room cleanup), P007 (mixing room cleanup), R001-R003 (coating rooms with cleanup and ovens), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with the limitations in term and condition A.2.c upon permit issuance.

- 2.d** The OC content of the coatings employed in the emissions unit shall not exceed 0.788 lb OC/lb of coating and the density of the coatings shall not exceed 8.56 lbs/gallon coating.

## **B. Operational Restrictions**

1. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inches of water, whenever the emissions unit is in operation. If this negative pressure is maintained, 100 percent capture is presumed. A capture test may be required to demonstrate negative pressure in this room is maintained.
2. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
3. The maximum organic cleanup material usage shall not exceed 19,167 pounds per year based on a summation for emissions units R001- R003 combined.

The cleanup emissions are controlled by the use of a permanent total enclosure followed by a thermal oxidizer with an OC destruction efficiency of at least 95% by weight.

The permittee has existing records to demonstrate compliance with the limitations in term and condition B.3 upon permit issuance.

4. The maximum organic material usage from coating room operations, excluding cleanup, shall not exceed 77,137 pounds per year (13,975.5 pounds per year from stripping and manual wipe down and 63,161.3 pounds per year from coatings).

The permittee has existing records to demonstrate compliance with the limitations in term and condition B.4 upon permit issuance.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and

Emissions Unit ID: **R003**

recorder which measures and records the combustion temperature within the thermal oxidizer 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.

2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance.
  - b. A log of all downtime\* periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

\* The control device downtime is defined as any time when the emissions unit is in operation, employing organic compounds, and the thermal oxidizer is not in operation. Monitoring equipment downtime is defined as any time the emission unit is in operation, employing organic compounds, and the temperature monitoring equipment is not functioning.

3. The permittee shall maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with changes as deemed necessary by the permittee.

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

- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information for this

emissions unit:

- a. The identification of each liquid organic material employed in the stripping process, manual wipe-down process and the coatings.
  - b. The amount of liquid organic material employed in pounds for each of the three processes identified in C.4.a.
  - c. The number of screens employed in the two dryers. Monthly emissions from the dryers =  
 $0.765 \text{ lbs. OC/screen} \times \text{the number of screens dried per month in both dryers.}$
  - d. The OC content of the coatings employed and the density of coatings employed in pound OC/pound of coating and pound per gallon of coating, respectively.
5. The monthly records from term and condition C.4 shall be summarized at the end of each calendar year to determine the annual OC emissions from liquid organic materials, in tons per year, as calculated below:

Emissions Unit ID: **R003**

Annual OC emissions

= Annual OC emissions [(from the stripping process + manual wipe-down of screens + coatings employed) \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton ] + evaporated emission from the two drying ovens.

6. The permittee shall maintain monthly cleanup records of the following information for emissions units R001- R003, combined:

- a. The identification of each liquid organic cleanup material employed.
- b. The amount of liquid organic material employed\* in pounds.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

- c. The OC emissions from liquid organic cleanup materials, in pounds or tons, as calculated below:

OC emissions from cleanup

= OC emissions from cleanup \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lb/ton

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

7. The monthly records from term and condition C.6 shall be summarized at the end of each calendar year to determine the annual cleanup material evaporation rates, in pounds or tons per year. Annual OC emissions from cleanup = the sum of C.6(b) for the previous 12 months \* (1-control efficiency during the most recent performance test that demonstrated compliance) / 2000 lbs/ton.

\* Records of cleanup material employed may include mass balance calculations that include material recovered from the process for reuse, recycle or disposal.

8. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.c:

- a. The name and identification number of each coating or solvent employed;
- b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each

coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;

- c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
- d. The number of pounds of each coating or solvent employed;
- e. The name and identification of each cleanup material employed;
- f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
- g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
- h. The number of gallons of each cleanup material employed;
- i. The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the

preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

#### D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Install.
2. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify any exceedance of the material usage limitations in Term and conditions B.3. and B.4. for this emissions unit for the manual wipe-down process, the stripping process, coating materials and the combined total organic cleanup material usage for emissions units R001 - R003, combined.
3. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term and condition B.2.
4. The permittee shall submit pressure differential deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in term and condition B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.c. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)
6. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the OC content and density limits outlined in A.2.d.

## E. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):

### Emissions Limitations

95% by weight control efficiency for OC emissions.

### Applicable Compliance Methods

Emissions units P001, P003, P004, P005, P006, P007, R001, R002 and R003 are vented to a common thermal oxidizer. The permittee conducted emission testing for emissions units P001, P003, P004 and P005 on August 10, 2005. Destruction efficiency of the thermal oxidizer was 97.5% during the test, the capture efficiency was 100%. If required, emissions testing shall be in accordance with the following requirements:

- a. The test(s) shall be conducted while the emissions unit operated at or near its maximum capacity, as approved by Hamilton County Department of Environmental Services.
- b. The following test methods shall be employed to demonstrate compliance with the minimum overall control efficiency for OC:

OC: Methods 1 through 4 and 25 or 25A of 40 CFR, Part 60, Appendix A, or other USEPA Reference Method with written approval from Hamilton County Environmental Services.

- c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol. The test

methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Hamilton County Department of Environmental Services' refusal to accept the results of the emission tests. Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

#### Emissions Limitations

5.28 TPY OC from manual wipe down, screen stripping and coating.

#### Applicable Compliance Method

Compliance with the annual OC emissions limitations shall be demonstrated by the record keeping in terms and conditions C.4 and 5.

#### Emissions Limitations

Emissions Unit ID: **R003**

0.48 TPY of controlled OC emissions from cleanup materials, for R001-R003, combined.

#### Applicable Compliance Method

Compliance with the annual OC emissions limitation shall be demonstrated by the record keeping in terms and conditions C.7.

#### Emissions Limitations

The emissions from the combustion of natural gas in the thermal oxidizer shall not exceed the following limitations:

0.02 lb/hr OC and 0.10 TPY OC;  
0.20 lb/hr NO<sub>x</sub> and 0.88 TPY NO<sub>x</sub>; and  
0.17 lb/hr CO and 0.74 TPY CO.

#### Applicable Compliance Method

Compliance shall be determined by multiplying the maximum hourly and annual gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4 (revised 7/98) emissions factor.

#### Emissions Limitations

9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

#### Applicable Compliance Method

Compliance with the HAPs emissions limitation in A.2.c. shall be demonstrated by the record keeping in term and condition C.8.

2. Compliance with the permanent total enclosure operational limitation in term and condition B.1 shall be based upon the monitoring in term and condition C.3.
3. Compliance with the combustion chamber temperature operational limitation in term and condition B.2. shall be based upon the monitoring in term and condition C.2.
4. Compliance with the annual organic cleanup material usage limitation in term and condition B.3. shall be demonstrated by the record keeping in term and condition C.6.
5. Compliance with the annual organic material usage limitation in term and condition B.4. shall be demonstrated by the record keeping in term and condition C.4.
6. Formulation data or USEPA Method 24 shall be used to determine the OC content and density of each coating and cleanup material employed.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable: A, B, C, D and E.