

Facility ID: 1431053380 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

- [Go to Part II for Emissions Unit P001](#)
- [Go to Part II for Emissions Unit P003](#)
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Facility ID: 1431053380 Emissions Unit ID: P001 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P001 - Flex machine for flexible films with thermal oxidizer - No.2 - modification	OAC rule 3745-31-05(A)(3)	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 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 of OC and 0.10 TPY of OC; 0.20 lb/hr of NOx and 0.88 TPY of NOx; 0.17 lb/hr of CO and 0.74 TPY of CO.  See terms A.2.a - A.2.f and Sections B.1 -B.3.
	OAC rule 3745-21-07(G)(2)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B) and 3745-35-07(B). See terms A.2.a - A.2.c. See Sections B.1- B.3.
	OAC rule 3745-21-07(G)(1)	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 A.2.d.
	OAC rule 3745-35-07(B) Synthetic minor to avoid Title V OAC rule 3745-21-08(B)	See term A.2.f.

**2. Additional Terms and Conditions**

- (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 emission limitations.  
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.  
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.

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 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.

The permittee shall satisfy 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 (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

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. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision 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.

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

The cleanup 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 Record Keeping 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 emission 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 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 emission unit was in operation, was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emission test that demonstrated the emission 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 emission unit was in operation.

\* The control device downtime is defined as any time when the emission 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 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 emission unit.
4. The permittee shall maintain the following monthly records for this emissions unit:
- a. The number of hours the emission 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 x maximum hourly uncontrolled emissions\* x (1-control efficiency during the most recent performance test that demonstrated compliance).  
  
 \* 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 x (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.d:
- 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 Operate.
  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 Section 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 Section B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emission limitations outlined in term A.2.d. 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 emission limitation(s) in Section A of these terms and conditions shall be determined in accordance with the following method(s):

**Control Efficiency Requirement:**

The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure around the coating room and venting the emissions from the coating room to a thermal oxidizer, which has an OC destruction efficiency of at least 95% by weight.

**Applicable Compliance Methods:**

Emissions units P001, P003, P004, P005, P006, P007, R001, R002 and R003 are vented to a common thermal oxidizer.

a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.

b. 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.

c. 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.

2. Emission Limitations:

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

**Applicable Compliance Method:**

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emission limitation from the process shall be demonstrated by the record keeping in Section C.4.

3. Emission Limitation:

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

Applicable Compliance Method:

Compliance with the annual OC emission limitation from cleanup materials shall be demonstrated by the record keeping in Section C.5.

4. Emission Limitations:

Emissions of Hazardous Air Pollutants (HAPs) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term A.2.d shall be demonstrated by the record keeping in Section C.6.

5. Emission 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 of OC and 0.10 TPY of OC;  
 0.20 lb/hr of NOx and 0.88 TPY of NOx; and  
 0.17 lb/hr of CO and 0.74 TPY of 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) emission factor.

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

F. **Miscellaneous Requirements**

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

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Facility ID: 1431053380 Emissions Unit ID: P003 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

A. **Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P003 - Flex machine for flexible films with thermal oxidizer - No.3 - modification	OAC rule 3745-31-05(A)(3)	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 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 of OC and 0.10 TPY of OC;  
 0.20 lb/hr of NOx and 0.88 TPY of NOx;  
 0.17 lb/hr of CO and 0.74 TPY of CO.

See terms A.2.a - A.2.f and Sections B.1 -B.3.

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

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

See terms A.2.a - A.2.c.

OAC rule 3745-21-07(G)(1)

See Sections B.1- B.3.  
 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).

OAC rule 3745-35-07(B)  
 Synthetic minor to avoid Title V

See term A.2.d.

OAC rule 3745-21-08(B)

See term A.2.f.

**2. Additional Terms and Conditions**

- (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 emission limitations.

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.

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.

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 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.

The permittee shall satisfy 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 (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

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. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision 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.

**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.
- 3. The maximum organic cleanup material usage for emissions units P001, P003, P004 and P005 combined shall

not exceed 16,488 pounds per year.

The cleanup 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 Record Keeping 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 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 emission 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 emission 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 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 x maximum hourly uncontrolled emissions\* x (1-control efficiency during the most recent performance test that demonstrated compliance).

\* 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 x (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.d:
  - 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 Operate.
- 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 Section 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 Section B.1.
- 5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emission limitations outlined in term A.2.d. 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 emission limitation(s) in Section A of these terms and conditions shall be determined in accordance with the following method(s):
  - Control Efficiency Requirement:
 

The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure around the coating room and venting the emissions from the coating room to a thermal oxidizer, which has an OC destruction efficiency of at least 95% by weight.
  - Applicable Compliance Methods:
 

Emissions units P001, P003, P004, P005, P006, P007, R001, R002 and R003 are vented to a common thermal oxidizer.

    - a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
    - b. 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.
    - c. 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.

2. Emission Limitations:

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

Applicable Compliance Method:

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emission limitation from the process shall be demonstrated by the record keeping in Section C.4.

3. Emission Limitation:

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

Applicable Compliance Method:

Compliance with the annual OC emission limitation from cleanup materials shall be demonstrated by the record keeping in Section C.5.

4. Emission Limitations:

Emissions of Hazardous Air Pollutants (HAPs) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term A.2.d shall be demonstrated by the record keeping in Section C.6.

5. Emission 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 of OC and 0.10 TPY of OC;  
0.20 lb/hr of NO<sub>x</sub> and 0.88 TPY of NO<sub>x</sub>; and  
0.17 lb/hr of CO and 0.74 TPY of 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) emission factor.

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

F. **Miscellaneous Requirements**

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

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1431053380 Emissions Unit ID: P004 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P004 - Flex machine for flexible films with thermal oxidizer - No.4 - modification	OAC rule 3745-31-05(A)(3)	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 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 of OC and 0.10 TPY of OC; 0.20 lb/hr of NOx and 0.88 TPY of NOx; 0.17 lb/hr of CO and 0.74 TPY of CO.  See terms A.2.a - A.2.f and Sections B.1 -B.3.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B) and 3745-35-07(B).
	OAC rule 3745-21-07(G)(2)	See terms A.2.a - A.2.c. See Sections B.1- B.3.
	OAC rule 3745-21-07(G)(1)	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).
	OAC rule 3745-35-07(B) Synthetic minor to avoid Title V	See term A.2.d.
	OAC rule 3745-21-08(B)	See term A.2.f.

**2. Additional Terms and Conditions**

- (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 emission limitations.  
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.  
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.  
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 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.

The permittee shall satisfy 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 (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

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. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision 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.

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

The cleanup 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 Record Keeping 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 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 emission 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 emission 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 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 x maximum hourly uncontrolled emissions\* x (1-control efficiency during the most recent performance test that demonstrated compliance).

\* 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 x (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.d:
- 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)];
  - The number of gallons of each cleanup material employed;
    - 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];
  - 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];
  - 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
  - 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**

- The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this Permit to Operate.
- 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.
- 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 Section B.2.
- 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 Section B.1.
- The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emission limitations outlined in term A.2.d. 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**

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

**Control Efficiency Requirement:**

The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure around the coating room and venting the emissions from the coating room to a thermal oxidizer, which has an OC destruction efficiency of at least 95% by weight.

**Applicable Compliance Methods:**

Emissions units P001, P003, P004, P005, P006, P007, R001, R002 and R003 are vented to a common thermal oxidizer.

a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.

b. 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.

c. 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.

**2. Emission Limitations:**

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

**Applicable Compliance Method:**

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emission limitation from the process shall be demonstrated by the record keeping in Section C.4.

**3. Emission Limitation:**

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

**Applicable Compliance Method:**

Compliance with the annual OC emission limitation from cleanup materials shall be demonstrated by the record keeping in Section C.5.

**4. Emission Limitations:**

Emissions of Hazardous Air Pollutants (HAPs) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

**Applicable Compliance Method:**

Compliance with the HAP emission limitations in term A.2.d shall be demonstrated by the record keeping in Section C.6.

**5. Emission 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 of OC and 0.10 TPY of OC;  
 0.20 lb/hr of NOx and 0.88 TPY of NOx; and  
 0.17 lb/hr of CO and 0.74 TPY of 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) emission factor.

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

**F. Miscellaneous Requirements**

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

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1431053380 Emissions Unit ID: P005 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - Flex machine for flexible films with thermal oxidizer - No.5 - modification	OAC rule 3745-31-05(A)(3)	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 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 of OC and 0.10 TPY of OC; 0.20 lb/hr of NOx and 0.88 TPY of NOx; 0.17 lb/hr of CO and 0.74 TPY of CO.
		See terms A.2.a - A.2.f and Sections B.1 -B.3.
	OAC rule 3745-21-07(G)(2)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B) and 3745-35-07(B). See terms A.2.a - A.2.c. See Sections B.1- B.3.
	OAC rule 3745-21-07(G)(1)	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).

OAC rule 3745-35-07(B)  
Synthetic minor to avoid Title V  
OAC rule 3745-21-08(B)

See term A.2.d.  
See term A.2.f.

## 2. Additional Terms and Conditions

- (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 emission limitations.

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.

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.

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 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.

The permittee shall satisfy 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 (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

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. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision 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.

### B. Operational Restrictions

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

The cleanup 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 Record Keeping Requirements

- 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- The permittee shall collect and record the following information for each day for the control equipment:
  - All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emission 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 emission 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 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 x maximum hourly uncontrolled emissions\* x (1-control efficiency during the most recent performance test that demonstrated compliance).
- \* 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 x (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.d:
- 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 from 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 Operate.
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 Section 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 Section B.1.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emission limitations outlined in term A.2.d. 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 emission limitation(s) in Section A of these terms and conditions shall be determined in accordance with the following method(s):

Control Efficiency Requirement:

The permittee shall control OC emissions from this emissions unit by use of a permanent total enclosure around the coating room and venting the emissions from the coating room to a thermal oxidizer, which has an OC destruction efficiency of at least 95% by weight.

Applicable Compliance Methods:

Emissions units P001, P003, P004, P005, P006, P007, R001, R002 and R003 are vented to a common thermal oxidizer.

a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.

b. 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.

c. 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.

2. Emission Limitations:

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

Applicable Compliance Method:

The hourly OC emissions limitation is based on maximum capacity of the equipment. Compliance with the annual OC emission limitation from the process shall be demonstrated by the record keeping in Section C.4.

3. Emission Limitation:

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

Applicable Compliance Method:

Compliance with the annual OC emission limitation from cleanup materials shall be demonstrated by the record keeping in Section C.5.

4. Emission Limitations:

Emissions of Hazardous Air Pollutants (HAPs) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term A.2.d shall be demonstrated by the record keeping in Section C.6.

5. Emission 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 of OC and 0.10 TPY of OC;  
0.20 lb/hr of NO<sub>x</sub> and 0.88 TPY of NO<sub>x</sub>; and  
0.17 lb/hr of CO and 0.74 TPY of 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) emission factor.

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

F. **Miscellaneous Requirements**

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