

Facility ID: 0857173193 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.

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Facility ID: 0857173193 Emissions Unit ID: K001 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>
K001 - Coating of Circuit Boards - Dip Line	OAC rule 3745-31-05(A)(3) (PTI 08-04121)	less than or equal to 5 gallons/day coating usage, including thinner
		35.45 lbs VOC/day, excluding cleanup
	OAC rule 3745-21-09(U)(2)(e)	6.00 TPY VOC, including cleanup The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**
 - (a) The 35.45 lbs VOC/day limitation was established for PTI purposes to reflect the potential to emit for this unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for the coating line:
 - a. The name and identification number of each coating and/or thinner employed;
 - b. The volume, in gallons, of each coating and/or thinner employed; and,
 - c. The total volume, in gallons, of all coatings and/or thinners employed.
2. The permittee shall collect and record the following information each month for the purpose of determining annual VOC emissions:
 - a. The name and identification of each cleanup material employed;
 - b. The number of gallons of each cleanup material employed;
 - c. The VOC content of each cleanup material, in pounds per gallon;
 - d. The VOC content of each coating and/or thinner, as applied, in pounds per gallon; and,
 - e. The total VOC emissions from all coatings/thinners and cleanup materials employed, in pounds or tons.
3. The permit to install for emissions unit K001 was evaluated based on the actual materials (coatings) employed, and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and

the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,040

Maximum hourly Emission Rate (lbs/hour): 5.05

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):170.5

MAGLC (ug/m3):1884

Pollutant: Xylene

TLV (ug/m3): 434,192

Maximum hourly Emission Rate (lbs/hour): 4.72

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):157.2

MAGLC (ug/m3):4341

Pollutant: Ethyl Benzene

TLV (ug/m3): 434,190

Maximum hourly Emission Rate (lbs/hour): 1.06

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):34.63

MAGLC (ug/m3):4341

Pollutant: MEK

TLV (ug/m3): 589,780

Maximum hourly Emission Rate (lbs/hour): 1.32

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):45.28

MAGLC (ug/m3):5897

Pollutant: Isopropyl Alcohol

TLV (ug/m3): 983,070

Maximum hourly Emission Rate (lbs/hour): 2.60

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):483.6

MAGLC (ug/m3):9831

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

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "2002 TLVs and BEIs," by the American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic contaminant not, previously emitted, and a modification of the existing permit to install will not be required, even if the air toxic contaminant emissions are greater than the de minimus in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. **Reporting Requirements**
 - 1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employed more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.
- E. **Testing Requirements**
 - 1. Compliance with the usage restriction(s) and emission limitation(s) specified in section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - Usage Restriction -
5 gallons/day coating usage
 - Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section C.1 of this permit.
 - Emission Limitation -
35.45 lbs VOC/day, excluding cleanup materials
 - Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum daily coating usage (5 gallons/day) by the maximum VOC content of all coatings employed in this emissions unit (lbs VOC/gallon of coating).
 - Emission Limitation -
6.00 TPY VOC, including cleanup
 - Applicable Compliance Method -
Compliance with the annual emission limitation shall be based upon the record keeping as specified in section C.1 & C.2 and shall be the sum of the twelve monthly VOC emission rates for the calendar year.
- F. **Miscellaneous Requirements**
 - 1. None

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Facility ID: 0857173193 Emissions Unit ID: K002 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>
K002 - Coating of Circuit Boards - Spray Line	OAC rule 3745-31-05(A)(3) (PTI 08-04121)	less than or equal to 5 gallons/day coating usage, including thinner 28.55 lbs VOC/day, excluding cleanup 6.21 TPY VOC, including cleanup
	OAC rule 3745-21-09(U)(2)(e)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) The 28.55 lbs VOC/day limitation was established for PTI purposes to reflect the potential to emit for this unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

B. Operational Restrictions

1. None
- C. **Monitoring and/or Record Keeping Requirements**
1. The permittee shall collect and record the following information each day for the coating line:
 - a. The name and identification number of each coating and/or thinner employed;
 - b. The volume, in gallons, of each coating and/or thinner employed; and,
 - c. The total volume, in gallons, of all coatings and/or thinners employed.
 2. The permittee shall collect and record the following information each month for the purpose of determining annual VOC emissions:
 - a. The name and identification of each cleanup material employed;
 - b. The number of gallons of each cleanup material employed;
 - c. The VOC content of each cleanup material, in pounds per gallon;
 - d. The VOC content of each coating and/or thinner, as applied, in pounds per gallon; and,
 - e. The total VOC emissions from all coatings/thinners and cleanup materials employed, in pounds or tons.
 3. The permit to install for emissions unit K002 was evaluated based on the actual materials (coatings) employed, and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,040

Maximum hourly Emission Rate (lbs/hour): 5.05

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):170.5

MAGLC (ug/m3):1884

Pollutant: Xylene

TLV (ug/m3): 434,192

Maximum hourly Emission Rate (lbs/hour): 4.72

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):157.2

MAGLC (ug/m3):4341

Pollutant: Ethyl Benzene

TLV (ug/m3): 434,190

Maximum hourly Emission Rate (lbs/hour): 1.06

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):34.63

MAGLC (ug/m3):4341

Pollutant: MEK

TLV (ug/m3): 589,780

Maximum hourly Emission Rate (lbs/hour): 1.32

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):45.28

MAGLC (ug/m3):5897

Pollutant: Isopropyl Alcohol

TLV (ug/m3): 983,070

Maximum hourly Emission Rate (lbs/hour): 2.60

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):483.6

MAGLC (ug/m3):9831

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

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "2002 TLVs and BEIs," by the American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic contaminant not, previously emitted, and a modification of the existing permit to install will not be required, even if the air toxic contaminant emissions are greater than the de minimus in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

- 4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. **Reporting Requirements**
 - 1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employed more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.
- E. **Testing Requirements**
 - 1. Compliance with the usage restriction(s) and emission limitation(s) specified in section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - Usage Restriction -
5 gallons/day coating usage
 - Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section C.1 of this permit.
 - Emission Limitation -
28.55 lbs VOC/day, excluding cleanup materials
 - Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum daily coating usage (5 gallons/day) by the maximum VOC content of all coatings employed in this emissions unit (lbs VOC/gallon of coating).
 - Emission Limitation -
6.21 TPY VOC, including cleanup
 - Applicable Compliance Method -
Compliance with the annual emission limitation shall be based upon the record keeping as specified in section C.1 & C.2 and shall be the sum of the twelve monthly VOC emission rates for the calendar year.
- F. **Miscellaneous Requirements**
 - 1. None

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Facility ID: 0857173193 Emissions Unit ID: P001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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- 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 - Wave Soldering Machine	OAC rule 3745-31-05(A)(3) (PTI 08-04121) OAC rule 3745-21-07(G)(2)	2.04 lbs OC/hr, 20.4 lbs OC/day, 3.72 TPY OC The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

- (a) None

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for the soldering operation:
 - a. The name and identification of each cleanup material employed;
 - b. The number of gallons of each cleanup material employed;
 - c. The number of gallons of each cleanup material employed each hour of the day;
 - d. The OC content of each cleanup material, in pounds per gallon;
 - e. The total OC emission rate for all cleanup materials, in pounds per day; and,
 - f. The total OC emission rate for all cleanup materials, in pounds per hour for the day.
 - e. The total VOC emissions from all coatings/thinners and cleanup materials employed, in pounds or tons.

2. The permit to install for emissions unit P001 was evaluated based on the actual materials (coatings and cleanup materials) employed, and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Isopropyl alcohol

TLV (ug/m3): 983,070

Maximum hourly Emission Rate (lbs/hour): 2.60

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3):483.6

MAGLC (ug/m3):9831

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

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "2002 TLVs and BEIs," by the American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic contaminant not, previously emitted, and a modification of the existing permit to install will not be required, even if the air toxic contaminant emissions are greater than the de minimus in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. Reporting Requirements**
1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the OC emissions exceeded 20.4 lbs/day, and the actual OC emissions for each such day. These quarterly deviation (excursion) reports shall be submitted to the Ohio EPA Central District Office or local air agency by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter. If no deviations occurred during the calendar quarter, the permittee shall submit a report which states that no deviations occurred during the calendar quarter.
- E. Testing Requirements**
1. Compliance with the usage restriction(s) and emission limitation(s) specified in section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - Emission Limitation -
2.04 lbs OC/hr

 - Applicable Compliance Method -
Compliance shall be based on the record keeping in section C.1.
 - Emission Limitation -
20.4 lbs OC/day

 - Applicable Compliance Method -
Compliance shall be based on the record keeping in section C.1.
 - Emission Limitation -
3.72 TPY OC

 - Applicable Compliance Method -
Compliance shall be based on the record keeping in section C.1 and shall be the summation of the 365 daily OC emission rates for the calendar year.
- F. Miscellaneous Requirements**
1. None