



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL**  
**MONTGOMERY COUNTY**

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 08-04121**

**DATE: 3/15/00**

Quality Circuits, Inc.  
Randy Seiter  
4245 GIBSON RD  
TIPP CITY, OH 45377

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

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

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

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

RAPCA



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: 3/15/00

**FINAL PERMIT TO INSTALL 08-04121**

Application Number: 08-04121  
APS Premise Number: 0857173193  
Permit Fee: **\$1200**  
Name of Facility: Quality Circuits, Inc.  
Person to Contact: Randy Seiter  
Address: 4245 GIBSON RD  
TIPP CITY, OH 45377

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

**815 S Brown School Rd  
Vandalia, Ohio**

Description of proposed emissions unit(s):

**Coating lines, dip line, spray booth, wave soldering machine.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

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

#### 2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

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

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio

Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

**Quality Circuits, Inc.**  
**PTI Application: 08-04121**  
**Issued: 3/15/00**

**Facility ID: 0857173193**

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

**15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	15.93

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - Coating of Circuit Boards - Dip Line	OAC rule 3745-31-05 (A)(3)	less than or equal to 5 gallons/day coating usage, including thinner  35.45 lbs VOC/day, excluding cleanup  6.00 TPY VOC, including cleanup  Compliance with the Air Toxic Policy
	OAC rule 3745-21-09 (U)(2)(e)	See Section A.2.b.

**2. Additional Terms and Conditions**

- 2.a The 35.45 lbs VOC/day limitation in this permit was established by multiplying the maximum VOC content by the 5 gallon/day coating limitation. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with this limitation.
- 2.b The coating usage limitation based on OAC rule 3745-21-09 (U)(2)(e) is less stringent than the coating usage limitation established in accordance with the best available technology requirements specified in OAC rule 3745-31-05 (A)(3).

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping 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 of the 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 permittee shall collect and record the following information for each change where air toxic modeling was required pursuant to the Air Toxic Policy:
- a. Background data that describes 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**

3. 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 employs 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 emissions limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation -  
less than or equal to 5 gallons/day coating usage, including thinner  
  
Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section C.1.
  - b. Emission Limitation -  
35.45 lbs VOC/day, excluding cleanup  
  
Applicable Compliance Method -  
Compliance shall be determined by multiplying the maximum VOC content by the maximum daily usage rate of 5 gallons.
  - c. Emission Limitation -  
6.00 TPY VOC, including cleanup  
  
Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section C.1. & C.2. and shall be the sum of the 12 monthly VOC emission rates for the calendar year.

#### **F. Miscellaneous Requirements**

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s) for emissions units K001, K002, and K003 combined:

Pollutant: toluene

Quality Circuits, Inc.  
PTI Application: 08-04121  
Issued

Facility ID: 0857173193

Emissions Unit ID: K001

TLV (ug/m3): 188,04

Maximum Hourly Emission Rate (lbs/hr): 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/hr): 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/hr): 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/hr): 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/hr): 2.60

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

MAGLC (ug/m3): 9831

Physical changes or changes in the method of operation of the emissions unit that result in changes to the factors affecting the air toxic analysis could result in noncompliance with this permit to install. In order to avoid this noncompliance situation, prior to initiating any changes, permittees are required to conduct an evaluation to determine that the "Air Toxic Policy" is still satisfied. Changes that can affect the "Air Toxic Policy" include, but are not limited to, the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; 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.)

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in

its permit to install; and,

- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K002 - Coating of circuit boards - Spray Line	OAC rule 3745-31-05 (A)(3)         OAC rule 3745-21-09(U)(2)(e)	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  Compliance with the Air Toxic Policy  See Section A.2.b.

**2. Additional Terms and Conditions**

- 2.a The 28.55 lbs VOC/day limitation in this permit was established to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with this limitation.
- 2.b The coating usage limitation based on OAC rule 3745-21-09 (U)(2)(e) is less stringent than the coating usage limitation established in accordance with the best available technology requirements specified in OAC rule 3745-31-05 (A)(3).

**B. Operational Restrictions**

None

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

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 of the coatings and/or thinners employed.
4. 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 permittee shall collect and record the following information for each change where air toxic modeling was required pursuant to the Air Toxic Policy:
- a. Background data that describes 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 employs 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**

3. Compliance with the emissions limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation -  
less than or equal to 5 gallons/day coating usage, including thinner

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section C.1.

- b. Emission Limitation -  
28.55 lbs VOC/day, excluding cleanup

Applicable Compliance Method -  
Compliance shall be determined by multiplying the maximum VOC content by the maximum daily usage rate of 5 gallons.

- c. Emission Limitation -  
6.21 TPY VOC, including cleanup

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section C.1. & C.2. and shall be the sum of the 12 monthly VOC emission rates for the calendar year.

#### **F. Miscellaneous Requirements**

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the

Emissions Unit ID: **K002**

modeling for the "worse case" each pollutant(s) for emissions units K001, K002, and K003 combined:

Pollutant: toluene

TLV (ug/m3): 188,04

Maximum Hourly Emission Rate (lbs/hr): 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/hr): 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/hr): 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/hr): 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/hr): 2.60

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

MAGLC (ug/m3): 9831

Physical changes or changes in the method of operation of the emissions unit that result in changes to the factors affecting the air toxic analysis could result in noncompliance with this permit to install. In order to avoid this noncompliance situation, prior to initiating any changes, permittees are required to conduct an evaluation to determine that the "Air Toxic Policy" is still satisfied. Changes that can affect the "Air Toxic Policy" include, but are not limited to, the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; 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.)

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Wave Soldering Machine	OAC rule 3745-31-05 (A)(3)	2.04 lbs/hr; 20.4 lbs/day; and 3.72 TPY OC
	OAC rule 3745-21-07 (G)(2)	Compliance with the Air Toxic Policy See Section A.2.a.

**2. Additional Terms and Conditions**

- 2.a** The lbs OC/hr and lbs OC/day emissions limitations based on OAC rule 3745-21-07 (G)(2) are less stringent than the limitations established in accordance with the best available technology requirements specified in OAC rule 3745-31-05 (A)(3).

**B. Operational Restrictions**

None

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

1. The permittee shall collect and record the following information for each day for the coating operation:
  - a. The company identification for 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 organic compound content of each cleanup material, in pounds per gallon;
  - e. The total organic compound emission rate for all cleanup materials, in pounds per day;  
and,
  - f. The total organic compound emission rate for all cleanup materials, in pounds per hour for each hour of the day.
2. The permittee shall collect and record the following information for each change where air toxic modeling was required pursuant to the Air Toxic Policy:
- a. Background data that describes 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 in accordance with the general terms and conditions Section A.2. which include the following information for this emissions unit:
  - a. An identification of each day during which the total organic compound emissions exceeded 20.4 pounds per day, and the actual organic compound emissions for each such day.

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

2. Compliance with the emissions limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation -  
2.04 lbs OC/hr

Quality Circuits, Inc.  
PTI Application Number: 08-04121  
Issued: 3/15/00

Facility ID: 0857173193  
Emissions Unit ID: **P001**

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section C.1.

- b. Emission Limitation -  
20.4 lbs OC/day

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section C.1.

Quality Circuits, Inc.  
 PTI Application Number: 08-04121  
 Issued: 3/15/00

Facility ID: 0857173193

- c. Emission Limitation -  
 3.72 TPY OC

Applicable Compliance Method -  
 Compliance shall be based upon record keeping as specified in Section C.1. and shall be the summation of the 365 daily OC emission rates for the calendar year.

## F. Miscellaneous Requirements

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s) for emissions units K001, K002, and K003 combined:

Pollutant: Isopropyl Alcohol

TLV (ug/m3): 983,070

Maximum Hourly Emission Rate (lbs/hr): 2.60

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

MAGLC (ug/m3): 9831

Physical changes or changes in the method of operation of the emissions unit that result in changes to the factors affecting the air toxic analysis could result in noncompliance with this permit to install. In order to avoid this noncompliance situation, prior to initiating any changes, permittees are required to conduct an evaluation to determine that the "Air Toxic Policy" is still satisfied. Changes that can affect the "Air Toxic Policy" include, but are not limited to, the following:

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Emissions Unit ID: **P001**

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; 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.)

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04121 Facility ID: 0857173193

FACILITY NAME Quality Circuits, Inc.

FACILITY DESCRIPTION Coating lines, dip line, spray booth, wave soldering machine CITY/TWP Vandalia

SIC CODE 3679 SCC CODE 4-02-025-01 EMISSIONS UNIT ID K001

EMISSIONS UNIT DESCRIPTION dip line coating

DATE INSTALLED After PTI issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	attainment	35.45 lbs/day	6.00	35.45	6.00
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

Enter Determination BAT is compliance with the applicable OAC rules, specified allowable coating usage and emission limitations, record keeping and reporting requirements, and compliance with the air toxic policy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*?  X  YES   NOIDENTIFY THE AIR CONTAMINANTS:  toluene, xylene, ethyl benzene, MEK, and Isopropyl alcohol

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04121 Facility ID: 0857173193

FACILITY NAME Quality Circuits, Inc.

FACILITY DESCRIPTION Coating lines, dip line, spray booth, wave soldering machine CITY/TWP Vandalia

SIC CODE 3679 SCC CODE 4-02-025-01 EMISSIONS UNIT ID K002

EMISSIONS UNIT DESCRIPTION spray line coating

DATE INSTALLED After PTI issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	attainment	28.55 lbs/day	6.21	28.55	6.21
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**Enter Determination** BAT is compliance with the applicable OAC rules, specified allowable coating usage and emission limitations, record keeping and reporting requirements, and compliance with the air toxic policy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

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AIR TOXICS MODELING PERFORMED\*?  X  YES   NOIDENTIFY THE AIR CONTAMINANTS:  toluene, xylene, ethyl benzene, and isopropyl alcohol

