



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 14-05723

Fac ID: 1409030976

DATE: 6/2/2005

Pacific Manufacturing Ohio Inc.
Kim Hall
8955 Seward Road
Fairfield, OH 45011-9109

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

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

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

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

Sincerely,

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

cc: USEPA

HCDES



**Permit To Install
Terms and Conditions**

**Issue Date: 6/2/2005
Effective Date: 6/2/2005**

FINAL PERMIT TO INSTALL 14-05723

Application Number: 14-05723
Facility ID: 1409030976
Permit Fee: **\$200**
Name of Facility: Pacific Manufacturing Ohio Inc.
Person to Contact: Kim Hall
Address: 8955 Seward Road
Fairfield, OH 450119109

Location of proposed air contaminant source(s) [emissions unit(s)]:
**8700 Seward Road
Fairfield, Ohio**

Description of proposed emissions unit(s):
Plastic parts paint line with regenerative thermal oxidizer.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon 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

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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

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and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

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

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

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14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

SUMMARY (for informational purposes only)

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	4.69
CO	1.65
NOx	1.97

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 - Paint line with thermal oxidizer	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compound (VOC) emissions shall not exceed 25.7 pounds per day and 4.69 tons per year (TPY).</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 0.45 pound per hour and 1.97 ton per year.*</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.38 pound per hour and 1.65 ton per year.*</p> <p>* The hourly and annual emissions limitations for NOx and CO are based upon the emissions units' potential to emit. Therefore, no records are required to demonstrate compliance with these limits.</p> <p>See terms A.2.a through A.2.h. and B.1.</p> <p>The emission limitations specified by this rule are less stringent than the emission limitations established pursuant to OAC rule</p>
	OAC rule 3745-21-07(G)	

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Emissions Unit ID: **K001**

3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The VOC content of each coating employed in this emissions unit shall not exceed 6.0 pounds per gallon, as applied.
- 2.b The VOC content of each cleanup material employed in this emissions unit shall not exceed 7.67 pounds per gallon.
- 2.c The daily usage of all coatings employed in this emissions unit shall not exceed 80.4 gallons.
- 2.d The maximum annual usage of all coatings employed in this emissions unit shall not exceed 29,309 gallons.
- 2.e The maximum annual usage of all cleanup materials employed in this emissions unit shall not exceed 950 gallons.
- 2.f The permittee shall operate the regenerative thermal oxidizer serving the spray paint booth and curing oven of K001 so that the overall control efficiency of the emission of volatile organic compounds is equal to or greater than 95 percent, by weight.
- 2.g Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations, usage and VOC content limitations and the use of a regenerative thermal oxidizer having an overall VOC control efficiency of at least 95%.
- 2.h The permittee shall conduct, or have conducted, emission testing for this emissions unit within 6 months after the startup of the emissions unit to demonstrate the control efficiency specified in A.2.g.

B. Operational Restrictions

- 1. The regenerative thermal oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The overall VOC capture and destruction efficiency shall be at least 95%.
- 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 during the most recent emission test that demonstrated the emissions unit was in compliance.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information on a daily basis:
 - a. the name and identification of each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the VOC content of each coating and cleanup material, in pounds per gallon;
 - d. the VOC emission rate [the summation of (b x c) for all coatings and cleanup materials employed times 1 minus the overall control efficiency of the thermal oxidizer (i.e., the value of the overall control efficiency from the most recent performance test that demonstrated that this emissions unit was in compliance.)]
2. The permittee shall collect and record the following information for the purpose of determining annual organic compound emissions:
 - a. the number of gallons of each coating and cleanup material employed;
 - b. the tons of VOC emissions from all coating and cleanup materials using the annual total of emissions calculated on a daily basis.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day for the control equipment:

- a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
- b. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that

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Emissions Unit ID: K001

demonstrated that the emissions unit was in compliance.

4. The permit to install for this emissions unit K001 was evaluated based on the actual materials (typically coatings and cleanup materials) 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 Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: n-butyl acetate

TLV (ug/m3): 712,600

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23

MAGLC (ug/m3): 16,967

Physical changes to or 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 Toxics 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 the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; 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 air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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Emissions Unit ID: K001

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will 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 it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the 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 Hamilton County Department of Environmental Services in writing of any daily record showing an exceedance of the maximum daily coating usage or the daily volatile organic compound emissions limitation. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
2. The permittee shall submit annual written reports which specify the total volatile organic compound emissions and the usage, in gallons, for all coatings and cleaning materials employed during the reporting period for this emissions unit.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31 of each year and shall cover the previous twelve calendar months .

3. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing the use of noncomplying coatings and/or cleaning materials (i.e., VOC contents). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

5. 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, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
6. Unless specified, the deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitations specified in Section A.1 shall be determined by the following methods:

Emissions Limitations:

25.7 lbs VOC/day;
4.69 TPY VOC

Applicable Compliance Method:

Compliance with the VOC emissions limitations outlined in term A.1. shall be demonstrated by the required recordkeeping in terms C.1 and C.2.

Emissions Limitations:

0.45 lb NO_x/day;
1.79 TPY NO_x

Applicable Compliance Method:

The pound per hour and annual emissions limitations are based upon the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits. Compliance with the NO_x emissions limitations outlined in term A.1. shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 14-05723 as submitted May 9, 2005.

Emissions Limitations:

0.38 lb CO/day;
1.65 TPY CO

Applicable Compliance Method:

The pound per hour and annual emissions limitations are based upon the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits. Compliance with the CO emissions limitations outlined in term A.1. shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 14-05723 as submitted May 9, 2005.

2. Emissions Limitation:
95% overall VOC emissions control efficiency

Applicable Compliance Method:

Compliance with this emission limitation shall be based upon on the results of emission testing

Emissions Unit ID: **K001**

conducted in accordance with the methods established in 40 CFR Part 60, Appendix A.

3. Compliance with the coating VOC content limitations in terms and conditions A.2.a. and A.2.b. shall be demonstrated by the record keeping requirements specified in term and condition C.1.
4. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) shall be used to determine the VOC contents of the coatings.
5. Compliance with the coating usage limitations in terms and conditions A.2.c. through A.2.e. shall be demonstrated by the record keeping requirements specified in terms and conditions C.1. and C.2.
6. Compliance with the oxidizer combustion chamber temperature requirement in term and condition B.2. shall be demonstrated by the record keeping requirements specified in term and condition C.3.
7. Emission testing to demonstrate compliance with the limitation in term A.2.f. shall comply with the following requirements:
 - a. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds (95%) from K001.
 - b. The test methods which the permittee must employ are specified in E.7.c. and E.7.d. below.
 - c. The capture efficiency shall be determined using methods 204 through 204F, as specified in 40 CFR 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with 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.

- d. 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 an approved alternative test protocol.
- e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), 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 emissions test(s) 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 test(s). 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.

F. Miscellaneous Requirements

None