State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
WYANDOT 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: 03-13644

DATE: 11/15/2001

Diamond Manufacturing
Jeff Pfeiffer
300 Commerce Way
Upper Sandusky, OH 43351

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

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

CC: USEPA **NWDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 11/15/2001**
Terms and Conditions	**Effective Date: 11/15/2001**

FINAL PERMIT TO INSTALL 03-13644

Application Number:	03-13644
APS Premise Number:	0388010153
Permit Fee:	**$400**
Name of Facility:	Diamond Manufacturing
Person to Contact:	Jeff Pfeiffer
Address:	300 Commerce Way Upper Sandusky, OH 43351

Location of proposed air contaminant source(s) [emissions unit(s)]:
300 Commerce Way
Upper Sandusky, **Ohio**

Description of proposed emissions unit(s):
PTI for installation of two coating operations and one infrared oven.

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 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 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

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

Pollutant	Tons Per Year
OC	63.28
Individual HAPS	9.90
Aggregate HAPS	24.90
PE	10.77

Emissions Unit ID: **R001**

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
R001 - paint booth for the coating of wood and composite doors (spray booth 1)	OAC rule 3745-31-05(A)(3)	Use of dry filtration
		0.82 lb particulate emissions (PE)/hour, 3.59 ton PE/year
		0% opacity as a six-minute average
		17.50 lb organic compounds (OC)/hour, 49.00 ton OC/year
		Group Limit for R001 and R002: 1.19 ton OC/month, 14.28 ton OC/year for cleanup operations
	OAC rule 3745-21-07(G)(2)	See B.5
	OAC rule 3745-17-11(B)	See A.2.a
	OAC rule 3745-17-07(A)	See A.2.a
	OAC rule 3745-31-05(D)	Group Limit for R001 and R002: 49.00 tons OC per rolling, 12-month period based on coating usage and OC content restrictions (see A.2.b.)
		Group Limit for R001 and R002: 9.90 tons per rolling, 12-month period for any individual HAP* and 24.90

tons per rolling 12-month period for any combination of HAPs (see A.2.b)

* Hazardous Air Pollutant (HAP) as defined in Section 112(b) of the Clean Air Act.

2. Additional Terms and Conditions

2.a 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.b The permittee has requested federally enforceable limitations for emissions units R001 and R002 of 49.00 tons of OC, 9.9 tons of any individual HAP, and 24.9 tons of combined HAPs per rolling, 12-month period, all based on content and gallon usage restrictions for the purpose of avoiding Title V applicability (see B.1, B.2 and B.3).

For the purpose of federal enforceability, emission limitations on OC's will effectively restrict emission of VOC's.

B. Operational Restrictions

1. The permittee shall not employ any primer or topcoat coating, as applied, in excess of 3.5 lbs OC/gallon.

2. The maximum annual coating material usage for emissions units R001 and R002 combined shall not exceed 28,000 gallons.

The annual coating usage limitation shall be based upon a rolling, 12-month summation of the monthly coating usage rate.

To ensure federal enforceability during the first 12 calendar months of operation, the permittee shall not exceed the cumulative usage levels specified below:

Maximum Allowable Cumulative Coating Usage (gallons)

Month(s)	Combined
1-1	2333
1-2	4667
1-3	7000
1-4	9333
1-5	11667

1-6	14000
1-7	16333
1-8	18667
1-9	21000
1-10	23333
1-11	25667
1-12	28000

After the first 12 calendar months of operation, compliance with the annual coating usage limitation shall be based upon a rolling, 12-month summation of the monthly coating usage rates.

3. Combined annual HAP emissions from emissions units R001 and R002 shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation, the permittee shall not exceed the HAP emission rates specified in the following table:

Maximum Allowable Cumulative HAP Emission Rates (tons)

Month(s)	Individual HAP	Combined HAPs
1-1	0.83	2.08
1-2	1.65	4.15
1-3	2.48	6.23
1-4	3.30	8.30
1-5	4.13	10.38
1-6	4.95	12.45
1-7	5.78	14.53
1-8	6.60	16.60
1-9	7.43	18.68
1-10	8.25	20.75
1-11	9.08	22.83
1-12	9.90	24.90

After the first 12 calendar months of operation, compliance with the annual HAP emission limitations of 9.90 tons and 24.90 tons shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

4. The permittee shall operate the dry filtration system when this emissions unit is in operation.

5. The use of photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for coating material usage in emissions units R001 and R002, combined:

   a. the company name and identification for each coating material employed;

   b. documentation of whether or not each coating employed is a photochemically reactive material;

   c. the OC content of each coating, as applied, in lbs/gal;

   d. the number of gallons of each coating employed;

   e. the OC emission rate for each coating, (c) x (d) x 1 ton/2000 lbs, in tons per month;

   f. the total OC emission rate for all coatings, summation of (e) in tons per month;

   g. for the first 12 months of operation under the provisions of this permit, the cumulative monthly emission rate of OC, in tons per month; and,

   h. after the first 12 months of operation under the provisions of this permit, the annual emissions of OC, based on a rolling, 12-month summation.

2. The permittee shall collect and record the following each month for cleanup material usage in emissions units R001 and R002, combined:

   a. the company name and identification for each cleanup material employed;

   b. documentation of whether or not each cleanup material employed is a photochemically reactive material;

   c. the OC content of each cleanup material, as applied, in lbs/gallon;

   d. the number of gallons of each cleanup material employed;

   e. the OC emission rate for each cleanup material, (c) x (d) x 1 ton/2000 lbs., in tons per

month;

f. the total OC emission rate for all cleanup materials, summation of (e) in tons per month;

g. the annual, year to date OC emissions from all cleanup materials employed (sum of f for each calendar month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons clenaup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. In addition to the above information, the permittee shall also record the following information for each month for emissions units R001 and R002, combined:

a. for the first 12 months of operation:

i. the cumulative gallon usage rate for each coating; and

ii. the total number of gallons of all coatings.

b. after the first 12 months of operation the annual number of gallons of all coatings, based upon a rolling, 12-month summation of the coating usage rates.

Note: The coating information recorded above must be for the materials employed, including any thinning solvents added at the emissions unit.

4. The permittee shall collect and record the following information regarding HAPs emissions each month for emissions units R001 and R002, combined:

a. the company identification of each coating and cleanup material employed;

b. the lbs per gallon of each HAP in each coating and cleanup material, as applied;

c. the number of gallons of each coating and cleanup material employed;

d. the emission rate for each HAP from each coating and cleanup material employed, (b) x (c) for each HAP in lbs/month;

e. the total emission rate for each HAP from all coatings and cleanup materials employed, summation of (d) for each HAP in lbs/month;

f. the total HAP emission rate for the combination of all HAPs from all coatings and cleanup materials employed, summation of (e) for all HAPs in lbs/month;

g. for the first 12 months of operation, the cumulative monthly emission rate of each individual HAP and the combination of all HAPs, in tons per month; and

h. after the first 12 months of operation, the annual emissions of each HAP and the combination of all HAPs, based upon a rolling 12-month summation.

Note: The coating information recorded above must be for the materials as employed, including any thinning solvents added at the emissions unit.

5. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.

6. The permit to install for emission units R001 and R002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of each 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 these emission units 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: methyl isobutyl ketone
TLV (mg/m3): 204.82
Maximum Hourly Emission Rate (lbs/hr): 3.87
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 111.2
MAGLC (ug/m3): 4876

Pollutant: xylene
TLV (mg/m3): 434.2
Maximum Hourly Emission Rate (lbs/hr): 2.87
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 83.44
MAGLC (ug/m3): 10338

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 "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the compositions 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.).

7. 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

8. The permittee shall collect, record, and retain the following information when it conducts evaluation 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 deviation (excursion) reports for emissions units R001 and R002, as a group, which identify exceedances of any of the following:

a. Any exceedances of the maximum allowable gallon usage rates and OC content limitations specified in paragraphs B.1. and B.2.; and

b. Any exceedances of the maximum emissions limitations for each HAP and total combined HAPs specified in paragraph B.3.

2. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this permit, unless otherwise specified.

3. The permittee shall submit annual written reports for emissions units R001 and R002, as a group, of any deviations (excursions) from the annual emission limitation in section A.1. (14.28 tons OC/year from cleanup materials). If no deviations occurred during a calendar year, the permittee shall submit an annual report, which states that no deviation occurred during that calendar year. The reports shall be submitted annually, by January 31 or each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

5. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any monthly record showing the use of photochemically reactive materials. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days following the end of the calendar month.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>
17.50 lbs OC/hour

<u>Applicable Compliance Method</u>
The hourly OC emission limitation is based on the emission unit's potential to emit.* Therefore, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance.

*The potential to emit is based on a maximum gallon usage of 5.00 gal/hr and a maximum OC content of 3.50 lbs/gal.

b. Emission Limitation
49.00 tons OC/yr

Applicable Compliance Method
Compliance with the ton/yr limitation shall be determined by the recordkeeping in section C.1 required for the rolling 12-month OC emission rate for R001 and R002 combined.

c. Emission Limitation
Group Limit for R001 and R002 of 1.19 ton OC/month and 14.28 tons OC/year from cleanup operations

Applicable Compliance Method
Compliance shall be based on the recordkeeping requirements as specified in C.2**.**

d. Emission Limitation
Group limit for R001 and R002 of 49.00 tons OC per rolling, 12-month period based on coating usage and OC content restrictions

Applicable Compliance Method
Compliance shall be based on the recordkeeping requirements as specified in C.1.

e. Emission Limitation
Group limit of 9.90 tons OC per rolling, 12-month period of an individual HAP and 24.90 tons per rolling, 12-month period of any combination of HAPs

Applicable Compliance Method
Compliance shall be based on the recordkeeping requirements as specified in C.4.

f. Emission Limitation
0.82 lb PE/hr and 3.59 tons PE/yr

Applicable Compliance Method
The permittee shall demostrate compliance with this limitation by utilizing the following equation:

E = (maximum coating solids usage rate in lbs/hr) x (1- TE)(1- CE)

where:

E = PE rate (lbs/hr)

TE = Transfer Efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 60%)

CE = Control Efficiency of the control equipment (assumed to be 95%)

Annual emissions shall be calculated based on multiplying E by the annual operating schedule for the emissions unit and dividing by 2000 lbs per ton.

If required, the permittee shall demostrate compliance with the above emissions limit by testing in accordance with US EPA Method 5 of 40 CFR Part 60, Appendix A.

g. Emission Limitation
0% opacity, as a six-minute average

Applicable Compliance Method
If required compliance shall be demonstrated in accordance with US EPA Method 9 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
R002 - paint spray booth with infrared oven for the coating of wood and composite doors (spray booth 2)	OAC rule 3745-31-05(A)(3)	Use of dry filtration
		1.64 lb particulate emissions (PE)/hour, 7.18 ton PE/year
		0% opacity as a six-minute average
		35.00 lb organic compounds (OC)/hour, 49.00 tons OC/year
		Group Limit for R001 and R002: 1.19 ton OC/month, 14.28 ton OC/year for cleanup operations
	OAC rule 3745-21-07(G)(2)	See B.5
	OAC rule 3745-17-11(B)	See A.2.a
	OAC rule 3745-17-07(A)	See A.2.a
	OAC rule 3745-31-05(D)	Group Limit for R001 and R002: 49.00 tons OC per rolling, 12-month period based on coating usage and OC content restrictions (see A.2.b.)
		Group Limit for R001 and R002:

9.90 tons per rolling, 12-month period for any individual HAP* and 24.90 tons per rolling 12-month period for any combination of HAPs (see A.2.b)	

* Hazardous Air Pollutant (HAP) as defined in Section 112(b) of the Clean Air Act.

2. Additional Terms and Conditions

2.a 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.b The permittee has requested federally enforceable limitations for emissions units R001 and R002 of 49.00 tons of OC, 9.9 tons of any individual HAP, and 24.9 tons of combined HAPs per rolling, 12-month period, all based on content and gallon usage restrictions for the purpose of avoiding Title V applicability (see B.1, B.2 and B.3).

For the purpose of federal enforceability, emission limitations on OC's will effectively restrict emission of VOC's.

B. Operational Restrictions

1. The permittee shall not employ any primer or topcoat coating, as applied, in excess of 3.5 lbs OC/gallon.

2. The maximum annual coating material usage for emissions units R001 and R002 combined shall not exceed 28,000 gallons.

The annual coating usage limitation shall be based upon a rolling, 12-month summation of the monthly coating usage rate.

To ensure federal enforceability during the first 12 calendar months of operation, the permittee shall not exceed the cumulative usage levels specified below:

Maximum Allowable Cumulative Coating Usage (gallons)

Month(s)	Combined

1-1	2333
1-2	4667
1-3	7000
1-4	9333
1-5	11667
1-6	14000
1-7	16333
1-8	18667
1-9	21000
1-10	23333
1-11	25667
1-12	28000

After the first 12 calendar months of operation, compliance with the annual coating usage limitation shall be based upon a rolling, 12-month summation of the monthly coating usage rates.

3. Combined annual HAP emissions from emissions units R001 and R002 shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation, the permittee shall not exceed the HAP emission rates specified in the following table:

Maximum Allowable Cumulative HAP Emission Rates (tons)

Month(s)	Individual HAP	Combined HAPs
1-1	0.83	2.08
1-2	1.65	4.15
1-3	2.48	6.23
1-4	3.30	8.30
1-5	4.13	10.38
1-6	4.95	12.45
1-7	5.78	14.53
1-8	6.60	16.60
1-9	7.43	18.68
1-10	8.25	20.75
1-11	9.08	22.83
1-12	9.90	24.90

After the first 12 calendar months of operation, compliance with the annual HAP emission limitations of 9.90 tons and 24.90 tons shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

4. The permittee shall operate the dry filtration system when this emissions unit is in operation.

5. The use of photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for coating material usage in emissions units R001 and R002, combined:

   a. the company name and identification for each coating material employed;

   b. documentation of whether or not each coating employed is a photochemically reactive material;

   c. the OC content of each coating, as applied, in lbs/gal;

   d. the number of gallons of each coating employed;

   e. the OC emission rate for each coating, (c) x (d) x 1 ton/2000 lbs, in tons per month;

   f. the total OC emission rate for all coatings, summation of (e) in tons per month;

   g. for the first 12 months of operation under the provisions of this permit, the cumulative monthly emission rate of OC, in tons per month; and,

   h. after the first 12 months of operation under the provisions of this permit, the annual emissions of OC, based on a rolling, 12-month summation.

2. The permittee shall collect and record the following each month for cleanup material usage in emissions units R001 and R002, combined:

   a. the company name and identification for each cleanup material employed;

b. documentation of whether or not each cleanup material employed is a photochemically reactive material;

c. the OC content of each cleanup material, as applied, in lbs/gallon;

d. the number of gallons of each cleanup material employed;

e. the OC emission rate for each cleanup material, (c) x (d) x 1 ton/2000 lbs., in tons per month;

f. the total OC emission rate for all cleanup materials, summation of (e) in tons per month;

g. the annual, year to date OC emissions from all cleanup materials employed (sum of f for each calendar month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons clenaup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. In addition to the above information, the permittee shall also record the following information for each month for emissions units R001 and R002, combined:

a. for the first 12 months of operation:

i. the cumulative gallon usage rate for each coating; and

ii. the total number of gallons of all coatings.

b. after the first 12 months of operation the annual number of gallons of all coatings, based upon a rolling, 12-month summation of the coating usage rates.

Note: The coating information recorded above must be for the materials employed, including any thinning solvents added at the emissions unit.

4. The permittee shall collect and record the following information regarding HAPs emissions each month for emissions units R001 and R002, combined:

a. the company identification of each coating and cleanup material employed;

b. the lbs per gallon of each HAP in each coating and cleanup material, as applied;

c. the number of gallons of each coating and cleanup material employed;

d. the emission rate for each HAP from each coating and cleanup material employed, (b) x (c) for each HAP in lbs/month;

e. the total emission rate for each HAP from all coatings and cleanup materials employed, summation of (d) for each HAP in lbs/month;

f. the total HAP emission rate for the combination of all HAPs from all coatings and cleanup materials employed, summation of (e) for all HAPs in lbs/month;

g. for the first 12 months of operation, the cumulative monthly emission rate of each individual HAP and the combination of all HAPs, in tons per month; and

h. after the first 12 months of operation, the annual emissions of each HAP and the combination of all HAPs, based upon a rolling 12-month summation.

Note: The coating information recorded above must be for the materials as employed, including any thinning solvents added at the emissions unit.

5. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.

6. The permit to install for emission units R001 and R002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of each 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: methyl isobutyl ketone

TLV (mg/m3): 204.82
Maximum Hourly Emission Rate (lbs/hr): 3.87
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 111.2
MAGLC (ug/m3): 4876

Pollutant: xylene
TLV (mg/m3): 434.2
Maximum Hourly Emission Rate (lbs/hr): 2.87
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 83.44
MAGLC (ug/m3): 10338

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 "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the compositions 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.).

7. 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

8. The permittee shall collect, record, and retain the following information when it conducts evaluation 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 deviation (excursion) reports for emissions units R001 and R002, as a group, which identify exceedances of any of the following:

   a. Any exceedances of the maximum allowable gallon usage rates and OC content limitations specified in paragraphs B.1. and B.2.; and

b. Any exceedances of the maximum emissions limitations for each HAP and total combined HAPs specified in paragraph B.3.

2. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this permit, unless otherwise specified.

3. The permittee shall submit annual written reports for emissions units R001 and R002, as a group, of any deviations (excursions) from the annual emission limitation in section A.1. (14.28 tons OC/year from cleanup materials). If no deviations occurred during a calendar year, the permittee shall submit an annual report, which states that no deviation occurred during that calendar year. The reports shall be submitted annually, by January 31 or each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

5. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any monthly record showing the use of photochemically reactive materials. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days following the end of the calendar month.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. <u>Emission Limitation</u>
   35.00 lbs OC/hour

   <u>Applicable Compliance Method</u>
   The hourly OC emission limitation is based on the emission unit's potential to emit.* Therefore, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance.

   *The potential to emit is based on a maximum gallon usage of 10.00 gal/hr and a maximum OC content of 3.50 lbs/gal.

b. <u>Emission Limitation</u>
49.00 tons OC/yr

Applicable Compliance Method
Compliance with the ton/yr limitation shall be determined by the recordkeeping in section C.1 required for the rolling 12-month OC emission rate for R001 and R002 combined.

c. Emission Limitation
Group Limit for R001 and R002 of 1.19 ton OC/month and 14.28 tons OC/year from cleanup operations

Applicable Compliance Method
Compliance shall be based on the recordkeeping requirements as specified in C.2**.**

d. Emission Limitation
Group limit for R001 and R002 of 49.00 tons OC per rolling, 12-month period based on coating usage and OC content restrictions

Applicable Compliance Method
Compliance shall be based on the recordkeeping requirements as specified in C.1.

e. Emission Limitation
Group limit of 9.90 tons OC per rolling, 12-month period of an individual HAP and 24.90 tons per rolling, 12-month period of any combination of HAPs

Applicable Compliance Method
Compliance shall be based on the recordkeeping requirements as specified in C.4.

f. Emission Limitation
1.64 lb PE/hr and 7.18 tons PE/yr

Applicable Compliance Method
The permittee shall demonstrate compliance with this limitation by utilizing the following equation:

E = (maximum coating solids usage rate in lbs/hr) x (1- TE)(1- CE)

where:

E = PE rate (lbs/hr)

TE = Transfer Efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 60%)

CE = Control Efficiency of the control equipment (assumed to be 95%)

Annual emissions shall be calculated based on multiplying E by the annual operating schedule for the emissions unit and dividing by 2000 lbs per ton.

If required, the permittee shall demonstrate compliance with the above emissions limit by testing in accordance with US EPA Method 5 of 40 CFR Part 60, Appendix A.

g. Emission Limitation
0% opacity, as a six-minute average

Applicable Compliance Method
If required compliance shall be demonstrated in accordance with US EPA Method 9 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None