

## Synthetic Minor Determination and/or Netting Determination

Permit To Install: 08-04899

### A. Source Description

Paramount Coating, Inc. (PCI) submitted a permit to install application for an auger coating machine. PCI is an entirely new entity in the process of acquiring some of the assets from Midwest Technical Coating. PCI will operate in a portion of the same building as Midwest Technical, located at 101 Dye Mill Rd, Troy.

PCI is requesting annual emissions be restricted to less than 9.9 TPY of any single HAP and 24.9 TPY of combined HAPs to establish PCI as a synthetic minor source of HAPs. Compliance will be insured through the operation of a catalytic thermal oxidizer. PCI is also requesting a annual voluntary throughput limitation of 14,000 gallons and an overall capture and control efficiency of at least 81 percent to limit their potential to emit to less than 10 tons per year, which will exempt them from the requirement to employ BAT per SB 265.

### B. Facility Emissions and Attainment Status

Paramount Coating, Inc. (PCI), located in Miami county, which is in attainment for all criteria pollutants except PM 2.5, has submitted a permit to install application for an auger coating machine. This is the only emission unit planned for this facility.

When evaluating the potential emissions for this facility, the worst case scenario incorporated the maximum hourly coating usage rate of 15 gallons per hour multiplied by the maximum coating VOC content of 6.93 lbs VOC /gal. for 8,760 hours per year. The Ohio EPA SIP plan would take into account OAC 3745-21-09(B)(6), which requires at least 81% overall control efficiency. Potential emissions using 81% destruction efficiency for 8,760 hours per year would be 86.76 tons of VOC per year. PCI has requested a voluntary throughput limitation of 14,000 gallons of coatings per year and 365 gallons of cleanup per year to limit their potential to emit to less than 10 tons per year, which will exempt them from the requirement to employ BAT per SB 265. PCI is also requesting annual emissions be restricted to less than 9.9 TPY of any single HAP and 24.9 TPY of combined HAPs to establish PCI as a synthetic minor source of HAPs. Compliance will be insured through the operation of a catalytic thermal oxidizer.

### C. Source Emissions

Although the potential emissions are very large for this source, these emissions are not practical due to the variable nature of the production. The production is such that the auger machine will never run at the maximum daily production rate for all days of the month or year. The annual usage limitation reflects realistic worst case needs. When evaluating the actual emissions based upon predicted production, total HAP emissions and total VOC emissions will not exceed 9.47 tons per year.

### D. Conclusion

The maximum coating usage for the auger machine will be limited to 14,000 gallons of coating per year with an overall control and capture efficiency of 81%. Additionally, limiting the HAP emissions to 9.9 TPY of an individual HAP and 24.9 TPY of any combination of HAPs through federally enforceable terms and conditions and record keeping requirements, will allow PCI not to trigger Title V or MACT permitting requirements.



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
50 West Town Street, Suite 700  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**CERTIFIED MAIL**

**RE: DRAFT PERMIT TO INSTALL**

**MIAMI COUNTY**

**Application No: 08-04899**

**Fac ID: 0855140559**

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

**DATE: 2/28/2008**

Paramount Coating Inc.  
Shawn Weatherhead  
1003 Cooperfield Lane  
Tipp City, OH 45371

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$200** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

**MIAMI COUNTY**

**PUBLIC NOTICE**  
**ISSUANCE OF DRAFT PERMIT TO INSTALL 08-04899 FOR AN AIR CONTAMINANT SOURCE**  
**FOR Paramount Coating Inc.**

On 2/28/2008 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Paramount Coating Inc.**, located at **101 Dye Mill Rd., Troy, Ohio.**

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 08-04899:

**Aunger coating machine with 250,000 BTU/hr gas-fired dryer and catalytic thermal oxidizer.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

John Paul, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, OH 45422-1280  
[(937)225-4435]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 08-04899**

Application Number: 08-04899  
Facility ID: 0855140559  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Paramount Coating Inc.  
Person to Contact: Shawn Weatherhead  
Address: 1003 Cooperfield Lane  
Tipp City, OH 45371

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**101 Dye Mill Rd.  
Troy, Ohio**

Description of proposed emissions unit(s):  
**Aunger coating machine with 250,000 BTU/hr gas-fired dryer and catalytic 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

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Chris Korleski  
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 (i.e., postmarked) quarterly 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 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.

**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	9.47
Individual HAP	9.9
Combined HAP	24.9

**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 - (K001) - Auger coating machine with catalytic thermal oxidizer**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C) (voluntary restriction to avoid BAT, State only)	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 9.47 tons per year (TPY), including cleanup.  See A.2.b below.
OAC rule 3745-31-05(A)(3)(b)	See A.2.d below.
OAC rule 3745-21-09(B)(6)	When coating metal parts, the emissions of organic compounds shall be reduced by at least eighty-one percent (81%), by weight, as an overall control efficiency.  See A.2.a below.
OAC rule 3745-31-05(C) (synthetic minor to avoid Title V)	The total allowable emissions of individual hazardous air pollutant (HAP) emissions from emissions units K001 shall not exceed 9.9 tons per rolling 12 month summation, including cleanup.  The total allowable emissions of combined hazardous air pollutant (HAP) emissions from emissions units K001 shall not exceed 24.9 tons per rolling 12 month summation, including cleanup.

**2. Additional Terms and Conditions**

- 2.a OAC rule 3745-21-09(B)(6) allows the use of control equipment with a capture and control efficiency of at least 81 percent reduction, by weight, in the overall VOC emissions from the coating line and that the control equipment has an efficiency of not less than 90 percent, by weight, for the VOC emissions vented to the control equipment, in lieu of complying with a pounds of VOC per gallon of solids limitation.

- 2.b** The Permit to Install 08-04899 for this air contaminant source takes into account the use of a catalytic thermal oxidizer, whenever this air contaminant source is in operation with a minimum control efficiency of 81%, by weight for OC and a coating usage limitation of 14,000 gallons per year as voluntary restrictions as proposed by the permittee.
- 2.c** The potential to emit (PTE), as defined in OAC rule 3745-31-01, for this emissions unit is 86.76 tons VOC per year. The PTE is not an emissions limitation and is strictly for informational purposes only. The PTE is based on the latest information available and may be re-evaluated in the future.
- 2.d** The Permit to Install 08-04899 for this air contaminant source takes into account the voluntary use of a catalytic thermal oxidizer as proposed by the permittee therefore the requirements of Best Available Technology (BAT) per OAC rule 3745-31-05(A)(3) do not apply.

**B. Operational Restrictions**

- 1. The maximum annual coating usage rate shall not exceed 14,000 gallons.
- 2. The maximum annual cleanup usage rate shall not exceed 365 gallons.
- 3. The maximum annual HAPs material usage for emission unit K001 shall not exceed 9.9 tons per year for any individual HAP based upon a rolling, 12-month summation of the monthly HAPs material usage figures from a combination of coatings and cleanup.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the permittee shall not process raw materials containing actual individual HAP components which result in an exceedance of the maximum allowable cumulative individual HAP emissions specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative individual HAP Emissions (tons/month)</u>
1	1.7
1-2	3.3
1-3	5.0
1-4	6.6
1-5	8.3
1-6	9.9
1-7	9.9
1-8	9.9
1-9	9.9
1-10	9.9
1-11	9.9
1-12	9.9

**Paramount Coating Inc.****PTI Application: 08-04899****Issued: To be entered upon final issuance****Facility ID: 0855140559****Emissions Unit ID: K001**

4. The maximum annual HAPs material usage for emission unit K001 shall not exceed 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the monthly HAPs material usage figures from a combination of coatings and cleanup.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the permittee shall not process raw materials containing actual combined HAPs components which result in an exceedance of the maximum allowable cumulative combined HAPs emissions specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Combined HAP Emissions (tons/month)</u>
1	4.2
1-2	8.3
1-3	12.5
1-4	16.6
1-5	20.8
1-6	24.9
1-7	24.9
1-8	24.9
1-9	24.9
1-10	24.9
1-11	24.9
1-12	24.9

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

1. In order to maintain compliance with the applicable limitations contained in this permit, the average temperature of the combustion chamber within the catalytic thermal oxidizer, for any 3 hour block of time when 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.
2. The catalytic thermal oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
3. The permittee shall install, operate, and maintain equipment to continuously monitor the combustion temperature within the catalytic thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations with any modifications deemed necessary by the permittee.
4. The permittee shall collect and calculate the following information for each day for the coating line and catalytic thermal oxidizer:

- a. any 3-hour blocks of time, when the emissions unit was in operation, during which the average combustion temperature within the catalytic thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance; and
- b. a log of the downtime for the capture (collection) system, catalytic thermal oxidizer, and monitoring equipment when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of five years.

5. Whenever the monitored average combustion temperature within the catalytic thermal oxidizer deviates from the range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
  - a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and
  - e. the findings and recommendations.
6. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:
  - a. a description of the corrective action;
  - b. the date corrective action was completed;
  - c. the date and time the deviation ended;
  - d. the total period of time (in minutes) of the deviation;
  - e. the temperature readings immediately after the corrective action was implemented; and
  - f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range based upon information obtained during future VOC emission tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In

addition, approved revisions to the temperature range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

7. The permittee shall collect and record the following information each month:
  - a. The name and identification of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The name and identification of each coating employed.
  - d. The number of gallons of each coating material employed.
  - e. The summation of the monthly coating and cleanup usage in gallons.
  - f. The VOC content of each cleanup material, in pounds per gallon.
  - g. The VOC content of each coating, as applied, in pounds per gallon.
  - h. The total uncontrolled VOC emissions from all coatings and cleanup materials employed, in tons, i.e. the summation of (C.3.b x C.3.f) + (C.3.d x C.3.g) divided by 2,000 lbs/ton for each coating and cleanup material.
  - i. The calculated, controlled VOC emissions rate for all coatings and cleanup materials, in tons. The controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent test that demonstrated that the emissions unit was in compliance.
  
8. The permittee shall collect and record the following information each month for the purpose of determining rolling, 12-month HAP emissions:
  - a. The name and identification of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The name and identification of each coating employed.
  - d. The number of gallons of each coating material employed.
  - e. The individual Hazardous Air Pollutant (HAP) content for each HAP of each coating material, in pounds of individual HAP per gallon, as applied.
  - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied.

- g. The total individual HAP emission from all coatings and cleanup materials employed, in tons per month i.e, the summation of  $(C.3.d \times C.3.e) + (C.3.b \times C.3.f)$ .
- h. The total combined HAP emission from all coating and cleanup materials employed, in tons per month i.e, the summation of C.3.g.
- i. The rolling 12- month summation, of the total individual HAP emission rate (C.3.g) for each HAP employed at this facility.
- j. The rolling 12-month summation, of the total combined HAPs (C.3.h) for all of the HAPs employed at this facility.

\*A listing of the HAPs can be found in Section 112 (b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local agency contact. This information does not have to be kept on a line-by-line basis.

- 9. The permit to install for this/these emissions unit(s) K001 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
  - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
    - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Toluene (methyl isobutyl ketone, xylene)

TLV (mg/m<sup>3</sup>): 188

Maximum Hourly Emission Rate (lbs/hr): 19.76

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 1,438

MAGLC (ug/m<sup>3</sup>): 4,486

The permittee, has demonstrated that emissions of Toluene, from emissions unit(s) K001, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- 10. Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" 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 a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- 11. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination

that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

12. The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly summaries that identify all 3-hour blocks of time, when the emissions unit was in operation, during which:
  - a. the average temperature of the process vent stream immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance;
  - b. the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance; and/or
  - c. any records of downtime for the capture (collection) system, the catalytic incinerator, and/or the monitoring equipment when the emissions unit was in operation. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12 month individual facility HAP limitation, and the actual rolling, 12-month individual facility HAP limitation for each such month.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12 month combined facility HAP limitation, and the actual rolling, 12-month combined facility HAP limitation for each such month.
4. The permittee shall submit annual reports that specify the total coating and cleanup usage rate, in gallons, from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by

including and identifying the specific emission data from this emissions unit in the annual Fee Emission Report.

5. The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

## **E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation -  
9.47 tons VOC/yr, including cleanup  
  
Applicable Compliance Method -  
Compliance shall be based upon the following calculation  $((14,000 \text{ gals coating/yr} * (6.93 \text{ lbs/gal})) + (((365 \text{ gals cleanup/yr} * (7.25 \text{ lbs/gal}))) * (1 \text{ tons}/2000 \text{ lbs}) * (1 - 0.81))$ .
  - b. Emission Limitation -  
9.9 tons/yr of an individual HAP, based on a 12-month rolling summation  
  
Applicable Compliance Method -  
Compliance shall be based upon the record keeping requirements specified in Section C.8. of this permit.
  - c. Emission Limitation -  
24.9 tons/yr of any combination of HAPs, based on a 12-month rolling summation  
  
Applicable Compliance Method -  
Compliance shall be based upon the record keeping requirements specified in Section C.8. of this permit.
2. USEPA Method 24 shall be used to determine the VOC contents for coatings. If an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for

**Paramount Coating Inc.**

**PTI Application: 08-04899**

**Issued: To be entered upon final issuance**

**Facility ID: 0855140559**

**Emissions Unit ID: K001**

that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

**F. Miscellaneous Requirements**

None

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SIC CODE 3479 SCC CODE 40200101 EMISSIONS UNIT ID K001

EMISSIONS UNIT DESCRIPTION Auger coating machine with catalytic thermal oxidizer

DATE INSTALLED Nov. 07

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		9.47		9.47
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? \_\_\_\_\_ NESHAP? \_\_\_\_\_ PSD? \_\_\_\_\_ OFFSET POLICY? \_\_\_\_\_

<b>WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?</b>	
<b>Enter Determination</b>	BAT does not apply, all criteria pollutants are voluntarily limited to below 10 TPY

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 contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? X YES \_\_\_\_\_ NO \_\_\_\_\_

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IDENTIFY THE AIR CONTAMINANTS:           toluene          

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