



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov.  
Center

**RE: FINAL PERMIT TO INSTALL  
SANDUSKY COUNTY  
Application No: 03-3173**

**CERTIFIED MAIL**

**DATE: October 14, 1999**

Moore North America  
Ed Lindsey  
2275 Commerce Drive  
Fremont, OH 43420

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

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

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

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

Very truly yours,

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

cc: USEPA  
DAPC, NWDO



**Permit To Install  
Terms and  
Conditions**

**Issue Date: October 14, 1999  
Effective Date: October 14, 1999**

**FINAL PERMIT TO INSTALL 03-3173**

Application Number: 03-3173  
APS Premise Number: 0372030100  
Permit Fee: **\$400**  
Name of Facility: Moore North America  
Person to Contact: Ed Lindsey  
Address: 2275 Commerce Drive  
Fremont, OH 43420

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**2275 Commerce Drive  
Fremont, Ohio**

Description of proposed emissions unit(s):  
**61 INCH AND 36 INCH ALCOHOL BASED TINTERS WITH A COMMON CATALYTIC  
INCINERATOR.**

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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Director

## Part I - GENERAL TERMS AND CONDITIONS

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

#### 1. Compliance Requirements

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

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

The permittee shall submit required reports in the following manner:

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

#### 3. Records Retention Requirements

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

#### 4. Inspections and Information Requests

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

the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

#### **5. Scheduled Maintenance/Malfunction Reporting**

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

#### **6. Permit Transfers**

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

#### **7. Air Pollution Nuisance**

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

#### **8. Termination of Permit to Install**

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

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

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

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

#### **10. Public Disclosure**

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

#### **11. Applicability**

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

#### **12. Best Available Technology**

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

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

**Moore North America**

PTI Application: **03-3173**

**October 14, 1999**

Facility ID: **0372030100**

### **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.

**Moore North America**  
 PTI Application: **03-3173**  
**October 14, 1999**

Facility ID: **0372030100**

#### **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>
OC	11.86
Fugitive OC	26.36
Methanol	1.90
Fugitive Methanol	4.22

**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>
61" alcohol based tinter	OAC rule 3745-31-05	6.56 lbs OC/gallon coating (See A.2.c)
		5.89 lbs OC/hr, 9.13 TPY OC
		20.29 TPY fugitive OC
		1.46 TPY Methanol
		3.25 TPY fugitive Methanol
		Use of control system with 85% overall control efficiency rate for OC
	OAC rule 3745-21-09(B)(6)	See A.2.a
	OAC rule 3745-21-09(F)	See A.2.a

**2. Additional Terms and Conditions**

- 2.a In lieu of complying with the pounds of OC per gallon of solids limitations contained in OAC rule 3745-21-09(F), the permittee has chosen to employ a control system and will demonstrate that the capture and control equipment provide not less than an eighty one per cent reduction, by weight, in the overall OC emissions from the coating line and that the control equipment has an efficiency of not less than ninety per cent, by weight, for the VOC emissions vented to the control system in accordance with OAC rule

3745-21-09(B)(6).

**2.b** Emissions unit K005 shall be equipped with a catalytic incinerator capable of achieving a minimum overall control efficiency of 85% for OC (90% capture and 95% destruction efficiency).

**2.c** The permittee shall not employ a coating, as applied, in excess of 6.56 lbs OC per gallon.

**B. Operational Restrictions**

1. The permittee shall use a catalytical incinerator at all times when the emissions unit is operating.
2. The maximum annual coating usage for this emissions unit shall not exceed 61,856 gallons per year, based upon a rolling, twelve-month summation of the coating usage for this emissions unit. In order to ensure federal enforceability during the first twelve months of operation under this permit, the permittee shall comply with the following monthly cumulative usage restrictions:

<u>Month</u>	<u>Maximum Allowable Cumulative Coating Usage (gallons)</u>
Month 1	5155
Months 1-2	10,310
Months 1-3	15,465
Months 1-4	20,620
Months 1-5	25,775
Months 1-6	30,930
Months 1-7	36,085
Months 1-8	41,240
Months 1-9	46,395
Months 1-10	51,550
Months 1-11	56,705

Months 1-12 61,856

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

3. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for these emissions units (K005 and K006). To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: methanol

TLV (ug/m3): 262,000

Maximum Hourly Emission Rate (lbs/hr): 8.53

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 853.6

MAGLC (ug/m3): 6238

4. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":
  - 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 specified in the above table;
  - b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
  - c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and,

- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.
5. The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:
- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
  - b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
  - c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

6. For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.
7. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference 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 each month:
  - a. The name and identification number of each coating, as applied.
  - b. The OC content of each coating, as applied, in pounds per gallon.\*
  - c. The methanol content in each coating, in pounds per gallon.\*
  - d. The number of gallons of each coating employed.
  - e. The total gallons of all coatings employed (summation of c).
  - f. Beginning the first month after the first 12 calendar months of operation, the rolling 12-month summation of the monthly coating usages. Also, during the first 12 calendar months of operation under this permit, the permittee shall record the cumulative monthly coating usages.

\* Formulation data shall be used to determine the HAP(s) content(s) of the coatings. Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the coatings.
2. The permittee shall (in conjunction with the information required in C.1) collect and record the following information each month for purposes of determining annual OC and HAP emissions:
  - a. The total controlled OC emission rate for each coating in tons per month (i.e., C.1.b x

Emissions Unit ID: **K005**

- C.1.d employing the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
- b. The total combined ( controlled) OC emissions, tons per month and total tons, to date, for the calendar year from all coatings (summation of C.2.a).
  - c. The total controlled methanol emission rate for each coating in tons per month (i.e., C.1.c x C.1.d employing the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
  - d. The total combined (controlled) methanol emissions, tons per month and total tons, to date, for the calendar year from all coatings (summation of C.2.c).
3. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
- a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and,
  - b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.
4. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed 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 monitors and recorder(s) 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 each day:

- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
- b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

- c. A log for the capture (collection) system, control device and monitoring equipment which includes the following:
  - i. Downtime when the associated emissions unit was in operation.
  - ii. Operating time.

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

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. The rolling, 12-month coating usage limitation and, for the first 12 calendar months of operation under this permit, all exceedances of the maximum allowable cumulative coating usage levels.
  - b. The 6.56 lbs OC per gallon of coating restriction.
  - c. All downtime for the capture (collection ) system, control device, monitoring equipment, when the associated emissions unit was in operation.
  - d. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
  - e. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most recent performance test that demonstrated the emissions unit was in compliance.

The deviation reports shall be submitted in accordance with Part I-General Terms and Conditions.

2. The permittee shall submit annual deviation (excursion) reports which identify exceedances of the annual methanol emission limitation. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

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

1. Testing Requirements
  - a. the emission testing shall be conducted within 3 months after startup of this emissions unit;
  - b. the emission testing shall be conducted to demonstrate compliance with an overall control efficiency of 85% for OC (90% capture and 95% minimum destruction efficiency). The emission testing shall be also be conducted to demonstrate compliance with the emission limitation of 5.89 lbs OC/hr;

- c. Method 25 or 25A of 40 CFR Part 60, Appendix A shall be employed to demonstrate compliance with the overall control efficiency of 85% for OC. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;
- d. the capture efficiency used in determining overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 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 method if such method does not contravene any other applicable requirement.) 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. The test methods and procedures selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of the potential presence of interfering gases; and,
- e. the test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

2. Compliance Methods Requirements:

- a. Emission Limitation: 6.56 lbs OC/gallon coating

Applicable Compliance Method: The recordkeeping requirements in section C.1.b of this permit shall be used to determine compliance with the above limits.

- b. Emission Limitation: 5.89 lbs OC/hr, 9.13 TPY OC

Applicable Compliance Method: The lb/hr limit represents the emissions unit's potential to emit and was developed by multiplying the maximum hourly coating usage (19.96 gal/hr), the maximum allowable coating OC content (6.56 lbs/gallon coating) and an 85% overall control efficiency (90% capture, 95% destruction efficiency). Compliance with the 5.89 lbs OC/hr limit will be shown by the testing required in section E.1. The TPY limit was developed by multiplying the maximum allowable annual coating usage (61,856 gal/yr), the maximum allowable coating OC content (6.56 lbs/gallon coating) and an 85% overall control efficiency. Compliance will be achieved by complying with the maximum allowable coating usage, coating OC content and the overall control efficiency established in this permit.

- c. Emission Limitation: 20.29 TPY fugitive OC

Applicable Compliance Method: The TPY limit was developed using the maximum allowable coating OC content (6.56 lbs/gallon coating), the maximum allowable annual coating usage (61,856 gal/yr) and a capture efficiency of 90%. Compliance will be achieved by complying with the maximum allowable coating usage, coating OC content and capture efficiencies established in this permit.

- d. Emission Limitation: Use of control system with 85% overall control efficiency rate for OC

Applicable Compliance Method: Compliance with this limitation will be shown with the required testing in section E.1.

- e. Emission Limitation: 1.46 tons Methanol/yr

Applicable Compliance Method: The TPY limit was developed by multiplying the maximum allowable annual coating usage (61,856 gal/yr), the maximum allowable coating

**Moore North America**

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Facility ID: **0372030100**

Emissions Unit ID: **K005**

methanol content of 1.05 lbs/gallon and an 85% overall control efficiency. Compliance shall be demonstrated by the recordkeeping contained in section C.2.d.

- f. Emission Limitation: 3.25 tons fugitive Methanol/yr

Applicable Compliance Method: The TPY limit was developed using a maximum coating methanol content of 1.05 lbs/gallon, the maximum allowable annual coating usage (61,856 gal/yr) and a capture efficiency of 90%. Compliance will be achieved by complying with the maximum allowable coating usage, and capture efficiencies established in this permit.

**F. Miscellaneous Requirements**

None.

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

**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>
36" alcohol based tinter with a catalytic incinerator	OAC rule 3745-31-05	6.56 lbs OC/gallon coating (See A.2.c) 2.64 lbs OC/hr, 2.73 TPY OC 6.07 TPY fugitive OC 0.44 TPY Methanol 0.97 TPY fugitive Methanol Use of control system with 85% overall control efficiency rate for OC
	OAC rule 3745-21-09(B)(6)	See A.2.a
	OAC rule 3745-21-09(F)	See A.2.a

**2. Additional Terms and Conditions**

- 2.a In lieu of complying with the pounds of OC per gallon of solids limitations contained in OAC rule 3745-21-09(F), the permittee has chosen to employ a control system and will demonstrate that the capture and control equipment provide not less than an eighty one per cent reduction, by weight, in the overall OC emissions from the coating line and that

Moore  
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October 14, 1999

Emissions Unit ID: **K006**

the control equipment has an efficiency of not less than ninety per cent, by weight, for the VOC emissions vented to the control system in accordance with OAC rule 3745-21-09(B)(6).

- 2.b** Emissions unit K006 shall be equipped with a catalytic incinerator capable of achieving a minimum overall control efficiency of 85% for OC (90% capture and 95% destruction efficiency).
- 2.c** The permittee shall not employ a coating, as applied, in excess of 6.56 lbs OC per gallon.

## **B. Operational Restrictions**

1. The permittee shall use a catalytical incinerator at all times when the emissions unit is operating.
2. The maximum annual coating usage for this emissions unit shall not exceed 18,509 gallons per year, based upon a rolling, twelve-month summation of the coating usage for this emissions unit. In order to ensure federal enforceability during the first twelve months of operation under this permit, the permittee shall comply with the following monthly cumulative usage restrictions:

<b><u>Month</u></b>	<b><u>Maximum Allowable Cumulative Coating Usage (gallons)</u></b>
Month 1	1542
Months 1-2	3084
Months 1-3	4626
Months 1-4	6168
Months 1-5	7710
Months 1-6	9252
Months 1-7	10,794
Months 1-8	12,336
Months 1-9	13,878

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Months 1-10 15,420

Months 1-11 16,962

Months 1-12 18,509

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

3. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for these emissions units (K005 and K006). To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: methanol

TLV (ug/m3): 262,000

Maximum Hourly Emission Rate (lbs/hr): 8.53

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 853.6

MAGLC (ug/m3): 6238

4. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":
- 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 specified in the above table;
  - b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);

- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and,
  - d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.
5. The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:
- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
  - b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
  - c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

6. For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.
7. The average temperature of the exhaust gases immediately before the catalyst bed, 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. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference 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 each month:
  - a. The name and identification number of each coating, as applied.
  - b. The OC content of each coating, as applied, in pounds per gallon.
  - c. The methanol content for each coating, in pounds per gallon.\*
  - d. The number of gallons of each coating employed.
  - e. The total gallons of all coatings employed (summation of c).
  - f. Beginning the first month after the first 12 calendar months of operation, the rolling 12-month summation of the monthly coating usages. Also, during the first 12 calendar months of operation under this permit, the permittee shall record the cumulative monthly coating usages.
- \* Formulation data shall be used to determine the HAP(s) content(s) of the coatings. Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the coatings.
2. The permittee shall (in conjunction with the information required in C.1) collect and record the following information each month for purposes of determining annual OC and HAP emissions:
  - a. The total controlled OC emission rate for each coating in tons per month (i.e., C.1.b x

Emissions Unit ID: **K006**

- C.1.d employing the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
- b. The total combined (controlled) OC emissions, tons per month and total tons, to date, for the calendar year from all coatings (summation of C.2.a).
  - c. The total controlled methanol emission rate for each coating in tons per month (i.e., C.1.c x C.1.d employing the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
  - d. The total combined (controlled) methanol emissions, tons per month and total tons, to date, for the calendar year from all coatings (summation of C.2.c).
3. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
- a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and,
  - b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.
4. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed 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 monitors and recorder(s) 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 each day:

- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
- b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

- c. A log for the capture (collection) system, control device and monitoring equipment which includes the following:
  - i. Downtime when the associated emissions unit was in operation.
  - ii. Operating time.

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

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. The rolling, 12-month coating usage limitation and, for the first 12 calendar months of operation under this permit, all exceedances of the maximum allowable cumulative coating usage levels.
  - b. The 6.56 lbs OC per gallon of coating restriction.
  - c. All downtime for the capture (collection ) system, control device, monitoring equipment, when the associated emissions unit was in operation.
  - d. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
  - e. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most recent performance test that demonstrated the emissions unit was in compliance.

The deviation reports shall be submitted in accordance with Part I-General Terms and Conditions.

2. The permittee shall submit annual deviation (excursion) reports which identify exceedances of the annual methanol emission limitation. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

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

1. Testing Requirements
  - a. the emission testing shall be conducted within 3 months after startup of this emissions unit;
  - b. the emission testing shall be conducted to demonstrate compliance with an overall control efficiency of 85% for OC (90% capture and 95% minimum destruction efficiency). The emission testing shall be also be conducted to demonstrate compliance with the emission limitation of 2.64 lbs OC/hr;

- c. Method 25 or 25A of 40 CFR Part 60, Appendix A shall be employed to demonstrate compliance with the overall control efficiency of 85% for OC. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;
- d. the capture efficiency used in determining overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 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 method if such method does not contravene any other applicable requirement.) 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. The test methods and procedures selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of the potential presence of interfering gases; and,
- e. the test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

2. Compliance Methods Requirements:

- a. Emission Limitation: 6.56 lbs OC/gallon coating

Applicable Compliance Method: The recordkeeping requirements in section C.1.b of this permit shall be used to determine compliance with the above limits.

- b. Emission Limitation: 2.64 lbs OC/hr, 2.73 TPY OC

Applicable Compliance Method: The lb/hr limit represents the emissions unit's potential to emit and was developed by multiplying the maximum hourly coating usage (8.946 gal/hr), the maximum allowable coating OC content (6.56 lbs/gallon coating) and an 85% overall control efficiency (90% capture, 95% destruction efficiency). Compliance with the 2.64 lbs OC/hr limit will be shown by the testing required in section E.1. The TPY limit was developed by multiplying the maximum allowable annual coating usage (18,509 gal/yr), the maximum allowable coating OC content (6.56 lbs/gallon coating) and an 85% overall control efficiency. Compliance will be achieved by complying with the maximum allowable coating usage, coating OC content and the overall control efficiency established in this permit.

- c. Emission Limitation: 6.07 TPY fugitive OC

Applicable Compliance Method: The TPY limit was developed using the maximum allowable coating OC content (6.56 lbs/gallon coating), the maximum allowable annual coating usage (18,509 gal/yr) and a capture efficiency of 90%. Compliance will be achieved by complying with the maximum allowable coating usage, coating OC content and control efficiencies established in this permit.

- d. Emission Limitation: Use of control system with 85% overall control efficiency rate for OC

Applicable Compliance Method: Compliance with this limitation will be shown with the required testing in section E.1.

- e. Emission Limitation: 0.44 ton Methanol/yr

Applicable Compliance Method: The TPY limit was developed by multiplying the maximum allowable annual coating usage (18,509 gal/yr), the maximum coating methanol content of 1.05 lbs/gallon and an 85% overall control efficiency. Compliance shall be

demonstrated by the recordkeeping contained in section C.2.d.

- g. Emission Limitation: 0.97 ton fugitive Methanol/yr

Applicable Compliance Method: The TPY limit was developed using the maximum coating methanol content of 1.05 lbs/gallon, the maximum allowable annual coating usage (18,509 gal/yr) and a capture efficiency of 90%. Compliance will be achieved by complying with the maximum allowable coating usage and capture efficiencies established in this permit.

**F. Miscellaneous Requirements**

None.