



State of Ohio Environmental Protection Agency

Street Address:

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P.O. Box 1049
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL
CHAMPAIGN COUNTY
Application No: 05-12411**

CERTIFIED MAIL

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

DATE: 7/15/2003

KTH Parts Inc
Steve Huels
PO Box 0940 1111 N St Rt 235
St Paris, OH 43072

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

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

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

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

Sincerely,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

SWDO



**Permit To Install
Terms and Conditions**

**Issue Date: 7/15/2003
Effective Date: 7/15/2003**

FINAL PERMIT TO INSTALL 05-12411

Application Number: 05-12411
APS Premise Number: 0511010103
Permit Fee: **\$200**
Name of Facility: KTH Parts Inc
Person to Contact: Steve Huels
Address: PO Box 0940 1111 N St Rt 235
St Paris, OH 43072

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1111 N St Rt 235
St Paris, Ohio**

Description of proposed emissions unit(s):
Painted Metal Fuel Tanks.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized 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>
PE	0.04
VOC	19.47
NOx	0.54
CO	0.45

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>
<p>K002 - Fuel Tank Coating Operation:</p> <p>PVC Paint Booth 1 and Booth 2; and</p> <p>Paint Booth 3 and 4 (including 3-incinerators); Flashing Booth; and Bake Off Oven</p> <p>(Terms in this permit supersede those of PTI 05-01881 issued on 8/20/86)</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>16.6 (15.2 fugitive and 1.4 stack emissions) pounds of volatile organic compounds (VOC) per hour after control equipment (excluding cleanup solvent materials);</p> <p>16.4 (14.7 fugitive and 1.7 stack emissions) tons of volatile organic compounds (VOC) per year after control equipment (excluding cleanup solvent materials)</p> <p>2.58 pounds of VOC per gallon of solids after emissions control, <u>for the primer coating</u>;</p> <p>2.2 tpy of VOC for emissions from the cleanup material (K002 & K004);</p> <p>0.12 pound per hour of particulate emissions (PE); 0.2 TPY from primer coating booth; and</p> <p>0.3 pound per hour of particulate emissions (PE); 0.2 TPY from PVC coating booth;</p> <p>Emissions from natural gas usage in the bake-off oven shall not exceed the following:</p> <p>0.12 lb NO_x/hr; 0.54 tons NO_x/yr;</p>

	0.10 lb CO/hr; 0.45 tons CO/yr; 0.01 lb PE/hr (filterable); 0.04 ton PE/yr (filterable); 0.01 lb VOC/hr; and 0.02 ton VOC/yr.
OAC rule 3745-21-09(U)(1)(c)	The requirements established pursuant to this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average -except as provided by rule, from any stack associated with any coating booth covered by this permit.
OAC rule 3745-17-10(B) (as applied to incinerators)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-11(B)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-35-07(B) (Synthetic minor to avoid Title V applicability)	19.47 tons VOC as a rolling, 12-month summation of the emissions year (including cleanup solvent materials)

2. Additional Terms and Conditions

- 2.a** The VOC content of the primer coating employed in the coating booths shall not exceed 2.58 pounds of VOC per gallon of solids after emissions control.
- 2.b** The VOC content of the PVC coating employed in the coating booths shall not exceed 0.4 lbs VOC per gallon of coating, excluding water and exempt solvents, as applied.
- 2.c** The VOC content of the cleanup material used in K002 and K004 shall not exceed 6.6 pounds of VOC per gallon.

- 2.d** The hourly and yearly emission limitations for PM, SO₂, NO_x, CO and VOC from combustion of natural gas and/or propane in the drying oven and incinerator are established to reflect potential to emit for this emissions unit. Therefore, record keeping and reporting requirements are not necessary to ensure compliance with these limits.

- 2.e** The hourly and yearly emission limitations for PE from over-spray in the coating booths are established to reflect potential to emit for this emissions unit. Therefore, record keeping and reporting requirements are not necessary to ensure compliance with these limits.

B. Operational Restrictions

- 1. The permittee shall burn only natural gas in this emissions unit.

- 2. The average combustion temperature within the thermal incinerator, 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.

- 3. The permittee shall operate the dry filtration system (or comparable PE control system) whenever the emissions unit is in operation.

- 4. The maximum annual usage for this emissions unit shall not exceed the following gallons based upon a rolling, 12-month summation of the coating usage figures.

<u>Coating Type</u>	<u>Maximum Allowable Gallons</u>
Primer	15, 000
PVC	41, 400
Cleanup solvent material	660 (K002 and K004 combined)

Given that the facility has been maintaining monthly records of coating and cleanup solvent material usage for this emissions unit for over a year, compliance with the rolling 12-month emissions limit shall begin immediately following final issuance of this PTI.; and no cumulative monthly restrictions are required for the first 12-months of operation, following the issuance of this permit.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following primer coating information each day for the applicable coating booth:
 - a. The name and identification number of each coating material, as applied;
 - b. the pounds of VOC per gallon of coating solids, as applied, the volume solids content (gal solids per gal coating), as applied, and the volume (gallon), as applied, of each coating;
 - c. the maximum VOC content (in pounds of VOC per gallon of coating solids, as applied) or the daily volume-weighted average VOC content (in pounds of VOC per gallon of coating solids, as applied) of all the coatings;
 - d. the calculated, controlled VOC emission rate, in pounds of VOC per gallon of coating solids, as applied. The controlled VOC emission rate shall be calculated using (i) either the maximum VOC content or the daily volume-weighted VOC content recorded in accordance with paragraph (c) above and (ii) the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
 - e. the rolling, 12-month summation of the coating usage (gallons);
 - f. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
 - g. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated that the emissions unit was in compliance;
 - h. the rolling, 12-month summation of VOC emissions from the primer coating.

3. The permittee shall collect and record the following information each month for the PVC coating line:
 - a. The name and identification number of each coating, as applied;
 - b. the VOC content of each coating (excluding water and exempt solvents), as applied;
 - c. the number of gallons (excluding water and exempt solvents) of each coating employed;
 - d. the rolling, 12-month summation of VOC in pounds or tons; and
 - e. the rolling 12 month summation for each type of coating utilized.

4. The permittee shall collect and record the following cleanup solvent material information each month as used in this emissions unit:
 - a. the name and identification number of each cleanup solvent material, as applied;
 - b. the VOC content of each cleanup solvent material employed;
 - c. the volume in gallons of each cleanup solvent material employed;
 - d. the rolling, 12-month usage summation of cleanup solvent material employed;
 - e. the rolling, 12-month summation of VOC emissions from the cleanup solvent material employed, prior to any credit for recovered materials; and
 - f. if a credit from recovered materials is applied, the rolling, 12-month summation of VOC emissions from the coating, and cleanup solvent material employed, less the total emissions credit from recovered materials shipped during the 12-month period.

5. If a credit for recovered cleanup solvent material is used to demonstrate compliance and/or used in the calculation of rolling, 12-month emission calculations, the permittee shall maintain the following records for the recovered cleanup solvent material, and the recovery drum or tank serving this emissions unit:
 - a. the date recovered materials were first added to the recovery tank/drum and the date the materials from the recovery drum or tank were shipped off site;
 - b. the total amount of material collected and shipped for recycle/recovery and/or disposal at an outside facility, in gallons, on the day it is shipped;
 - c. a record of the VOC content of each cleanup solvent material that is collected for recovery, in pounds per gallon, or a record of the testing results of the VOC content of the material shipped;
 - d. the mass (lbs) of VOC to be credited to the rolling, 12 month emissions summation, from each shipment of recovered material, calculated using the lowest VOC content of any cleanup/pan solvent material recovered, unless a higher VOC content is established from the testing results of the recovered material shipped (i.e., $b \times c$), and the date of each such shipment or record of credit; and
 - e. the record of the total amount of VOC emissions (lbs or tons) that may be applied as a credit, for the materials shipped for recycle/recovery and/or disposal at an outside facility, summed from the records of the VOC emission credits (d), for each shipment recorded during the rolling 12-month period.

6. The permittee shall sum the rolling, 12-month emissions for the PVC and primer coatings and cleanup solvent materials (minus cleanup solvent material recovery credit) to determine the rolling, 12-month summation of VOC emissions.
7. The permittee shall maintain daily records that document any time periods when the dry filtration (or comparable PE control system) system was not in service when the emissions unit was in operation.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month coatings and cleanup solvent material usage limitations. These quarterly deviation (excursion) reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).
2. The permittee shall notify the Director (the Ohio EPA Southwest District Office) in writing of any daily record showing that the calculated, controlled VOC emission rate exceeds the applicable pounds of VOC per gallon of solids limitation for the primer coating (a maximum VOC content of 2.58 pounds of VOC per gallon of solids). The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Southwest District Office) within 45 days after the exceedance occurs.
3. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated that the emissions unit was in compliance.
4. The permittee shall notify the Director (the Ohio EPA Southwest District Office) in writing of any daily record showing the use of noncomplying coating materials or an exceedance of the maximum VOC content of materials of 0.4 lbs VOC per gallon of coating as applied, excluding water and exempt solvents, for the PVC coating.

The notification shall include a copy of such records and shall be sent to the Director (the Ohio EPA Southwest District Office) within 30 days following the end of the calendar month.

5. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
6. The permittee shall notify the Director (the Ohio EPA Southwest District Office) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Southwest District Office) within 30 days after the event occurs.

- 7. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

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

- a. Emission Limitation:

16.6 pounds VOC per hour (15.2 pounds VOC per hour fugitive emissions and 1.4 pounds VOC per hour stack emissions)

Applicable Compliance Method:

Compliance for the hourly fugitive emissions may be determined by the following formula:

$$MHFER = MHFER_{Primer} + MHFER_{Pvc} = 15.2 \text{ pounds VOC/hr}$$

where

MHFER = the maximum hourly fugitive emission rate (15.2 pounds VOC/hr)

MHFER_{Primer} = the maximum hourly fugitive emission rate from the primer(5.2 pounds VOC/hr

MHFER_{Pvc} = the maximum hourly fugitive emission rate from the PVC coating(10.0 pounds per hour)

The fugitive emissions from the primer coating may be determined by the following equation:

$$MHFER_{Primer} = \{CVOC \times MHCU\} \times \{1-CE\} = 5.2 \text{ pounds VOC/hr}$$

where

MHFER_{Primer} = the maximum hourly fugitive emission rate from the primer(5.2 pounds VOC/hr

CVOC = the VOC content of the primer coating (5.4 lbs. VOC / gallon)

MHCU = the maximum primer coating usage (6 gallons per hour)

CE = the capture efficiency of the control equipment (0.84)

$$MHFER_{Primer} = \{CVOC \times MHCU\} \times \{1-CE\} = 5.2 \text{ pounds VOC/hr}$$

The fugitive emissions from the PVC coating may be determined by the following formula:

$$MHFER_{Pvc} = CVOC \times MHCU = 10.0 \text{ pounds of VOC per hour}$$

where

$MHFER_{Pvc}$ = the maximum hourly fugitive emission rate from the PVC coating (10.0 pounds of VOC/hr)

CVOC = the VOC content of the PVC coating (0.4 lb of VOC / gallon)

MHCU = the maximum PVC coating usage (25.0 gallons per hour)

CE = this part of coating line is uncontrolled (1-0.00)

Compliance shall be demonstrated through the record keeping as specified in Section C., less any recovered materials where records were maintained as required in Section C.5.

b. Emission Limitation:

1.4 pounds of VOC/hr from the stack

Applicable Compliance Method:

Compliance for the hourly stack emissions may be determined by the following formula:

$$MHSER_{Primer} = (CVOC \times MHCU) \times (CE) (1-DE) = 1.4 \text{ pounds VOC/hr}$$

where

$MHSER_{Primer}$ = the maximum hourly stack emissions from the primer (1.4 pounds VOC/hr)

CVOC = the VOC content of the primer coating (5.4 lbs. VOC / gallon)

MHCU = the maximum primer coating usage (6 gallons per hour)

CE = the capture efficiency of the control equipment (0.84)

DE = the destruction efficiency of the control equipment (0.95)

c. VOC Per Gallon of Solids Limitation:

2.58 pounds of VOC per gallon of solids after emissions control, for the primer coating;

Applicable Compliance Method:

Compliance for the VOC per gallon of solids after emissions control may be determined by the following formula:

$$\text{lbs VOC / gal solids} = \{ [D_c] [W_c] / [V_s] \} [1 - \text{CE} \times \text{DE}]$$

$$= [(10.2) (0.45) / (0.36)] [1 - (0.84) (0.95)]$$

Where:

D_c = density of coating (10.2 lbs. / gal.)

W_c = weight fraction of VOC (45%)

V_s = volume fraction of solids (36%)

CE = capture efficiency of the control equipment (84%)

DE = destruction efficiency of the control equipment (95%)

Formulation data or USEPA Method 24 shall be used to determine the VOC contents of the coating materials. If, pursuant to Section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

d. Annual VOC Emission Limitation for the Fugitive Emissions:

16.4 tons of VOC per year (14.7 tons of VOC per year fugitive emissions and 1.7 tons of VOC per year stack emissions)

Applicable Compliance Method:

Compliance for the annual fugitive emissions may be determined by the following formula:

$$\text{MAFER} = \text{MAFER}_{\text{Primer}} + \text{MAFER}_{\text{Pvc}} = 14.7 \text{ tons of VOC/yr}$$

where

MAFER= the maximum annual fugitive emission rate (14.7 tons of VOC/yr)

$\text{MAFER}_{\text{Primer}}$ = the maximum annual fugitive emission rate from the primer (6.48 tons of VOC/yr)

$\text{MAFER}_{\text{Pvc}}$ = the maximum annual fugitive emission rate from the PVC coating (8.28 tons of VOC/yr)

The annual fugitive emissions from the primer coating may be determined by the following equation:

$$MAFER_{\text{Primer}} = \{CVOC \times MACU \times CONV\} \times \{1-CE\} = 6.48 \text{ tons of VOC/yr}$$

where

$MAFER_{\text{Primer}}$ = the maximum annual fugitive emission rate from the primer (6.48 tons of VOC/yr)

CVOC = the VOC content of the primer coating (5.4 lbs. VOC / gallon)

MACU = the maximum annual primer coating usage (15,000 gallons per year)

CONV= Conversion factor (1 ton/ 2,000 lbs)

CE = the capture efficiency of the control equipment (0.84)

and where the annual fugitive emissions from the PVC coating may be determined by the following formula:

$$MAFER_{\text{Pvc}} = \{(CVOC)(MACU)(CONV)\} \{1-CE\} = 8.28 \text{ tons of VOC/yr}$$

where

$MAFER_{\text{Pvc}}$ = the maximum annual fugitive emission rate from the PVC coating (8.28 tons of VOC/yr)

CVOC = the VOC content of the PVC coating (0.4 lb of VOC / gallon)

MACU = the maximum annual PVC coating usage (41,400 gal/yr)

CONV= Conversion factor (1 ton/ 2,000 lbs)

CE = capture efficiency (this part of coating line is uncontrolled, 1-0.00)

e. Emission Limitation:

1.7 tons of VOC/yr from the stack

Applicable Compliance Method:

Compliance for the annual stack emissions may be determined by the following formula:

$$MASER_{\text{Primer}} = \{CVOC \times MHCU\} \times \{CE\} \{1-DE\} \times CONV = 1.7 \text{ tons of VOC/yr}$$

where

$MASER_{\text{Primer}}$ = the maximum annual stack emissions from the primer (1.7 tons of VOC/yr)

CVOC = the VOC content of the primer coating (5.4 lbs. VOC / gallon)

MHCU = the maximum annual primer coating usage (15,000 gallons/yr)

CE = the capture efficiency of the control equipment (0.84)

DE= the destruction efficiency of the control equipment (0.95)

CONV= the conversion factor (1 ton/2,000 lbs)

f. Particulate Emission Limitations:

0.12 pound per hour of particulate emissions (PE); 0.2 TPY from primer coating booth; and

0.3 pound per hour of particulate emissions (PE); 0.2 TPY from PVC coating booth

Applicable Compliance Method:

Compliance with the PE limitation shall be determined by the following equations:

(1) 0.12 lbs of PE/hr = maximum weight of gallon of coating in lbs (10.2 lbs/gal) for the x maximum weight fraction of solids (36%) x maximum number of gallons of coatings per hour (6.0 gals ctg/hr) x 1-TE x 1-CE, where TE = fractional transfer efficiency (0.45) and CE = fractional control efficiency of particulate control device (0.99); plus the total from

(2) 0.3 lbs of PE/hr = maximum weight of gallon of coating in lbs (12.0 lbs/gal) x maximum weight fraction of solids (97.7%) x maximum number of gallons of coatings per hour (25.0 gals ctg/hr) x 1-TE x 1-CE, where TE = fractional transfer efficiency (0.90) and CE = fractional control efficiency of particulate control device (0.99);

(3) 0.2 TPY of PE = maximum weight of gallon of coating in lbs (10.2 lbs/gal) x maximum weight fraction of solids (36%) x gallons of coatings per year (15,000 gals/yr) x 1-TE x 1-CE x 1/2000, where TE = fractional transfer efficiency (0.45) and CE = fractional control efficiency of particulate control device (0.84).

(4) 0.2 TPY of PE = maximum weight of gallon of coating in lbs (12.0 lbs/gal) x maximum weight fraction of solids (97.7%) x maximum number of gallons of coatings per year (41,400 gals ctg/yr) x 1-TE x 1-CE x 1/2,000, where TE = fractional transfer efficiency (0.90) and CE = fractional control efficiency of particulate control device (0.99);

Compliance with the hourly PE limit ensures compliance with the annual PE limit.

g. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

h. Emissions from natural gas usage in the drying oven shall not exceed the following:

0.12 lb NO_x/hr;
0.54 tons NO_x/yr;
0.10 lb CO/hr;
0.45 tons CO/yr;
0.01 lb PE/hr (filterable);
0.04 ton PE/yr (filterable);
0.01 lb VOC/hr; and
0.02 ton VOC/yr.

Applicable Compliance Method:

These limits represent the maximum capacity of the drying oven. These emission limitations were determined by multiplying the maximum natural gas usage from the bake-off oven (1225.5 ft³/hr) by the emission factors for each pollutant (lbs. of pollutant/MM ft³) found in "Compilation of Air Pollutant Emission Factors", the 7/98 edition of AP-42, Tables 1.4-1, and 1.4-2. These amounts were multiplied by 8,760 hours per year and divided by 2,000 pounds per ton, to document the annual potential emissions of the oven. Since these limits reflect the potential emissions, no additional compliance determination is required.

i. **Annual Emission Limitation for Cleanup Solvent Usage**

Annual solvent cleanup emissions equals 2.2 tons VOC per year.

Applicable Compliance Method:

Compliance for the cleanup solvent usage may be determined by the following formula:

$$\text{MACFER}_{\text{Primer}} = \{ \text{CVOC} \times \text{MHCUC} \} \times \text{CONV} = 2.2 \text{ tons VOC/yr}$$

where

MACFER_{Primer} = the maximum annual fugitive emission rate from the cleanup material usage (2.2 tons VOC/yr)

CUVOC = the VOC content of the cleanup material (6.66 lbs. VOC / gallon)

MACU = the maximum annual cleanup material usage (660 gallons per year*)

CONV = the conversion factor (1 ton/2,000 lbs)

* K002 And K004 combined usage

Compliance shall be demonstrated through the record keeping as specified in Section C., less any recovered materials where records were maintained as required in Section C.5.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit renewal.
- b. The emission testing shall be conducted to demonstrate compliance with the hourly mass emissions rate of 16.6 lbs VOC/hr (after control); as well as to determine the overall efficiency limitations for demonstrating compliance with the lbs VOC per gallon of solids limitation.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 25 or 25A for VOC concentrations before and after the oven.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; or, any Method of testing may be required/requested by the Administrator (whichever is applicable) of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA, Southwest District Office.

The capture 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 the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) 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 the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

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

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

F. Miscellaneous Requirements

Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. 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 OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

- c. The total volume, in gallons, of all of the coatings employed.
2. The permittee shall collect and record the following information each month for the purpose of determining annual VOC emissions:
 - a. The name and identification of each cleanup material employed.
 - b. The number of gallons of each cleanup material employed.
 - c. The VOC content of each cleanup material, in pounds per gallon.
 - d. The VOC content of each coating, as applied, in pounds per gallon.
 - e. The total VOC emissions from all coatings and cleanup materials employed, in pounds or tons.

D. Reporting Requirements

1. The permittee shall notify the Director (Ohio EPA Southwest District Office) in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA Southwest District Office) within 45 days after the exceedance occurs.
2. The permittee shall also submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -

58.0 pounds VOC per day

Applicable Compliance Method -

Compliance shall be determined by multiplying the coating VOC content (maximum of 5.8 lbs/gal) by the daily coating usage (maximum of 10 gallons).
 - b. Emission Limitation -

0.87 tons VOC per year

Applicable Compliance Method -

Compliance shall be determined by the following method: (a) multiply the monthly gallon usage for each coating employed by its respective VOC content; (b) sum the monthly VOC emissions from each coating and clean up material as determined in (a) for the calendar year; and (c) convert the results to tons by dividing the sum by 2000 lbs/ton.

c. Emission Limitation -

Maximum daily coating usage shall not exceed 10 gallons.

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements contained in Section C.1.

d. Annual Emission Limitation for Cleanup Solvent Usage

Annual solvent cleanup emissions equals 2.2 tons VOC per year.

Applicable Compliance Method:

Compliance for the cleanup solvent usage may be determined by the following formula:

$$\text{MACFER}_{\text{Primer}} = \{ \text{CVOC} \times \text{MHCU} \} \times \text{CONV} = 2.2 \text{ tons VOC/yr}$$

where

$\text{MACFER}_{\text{Primer}}$ = the maximum annual fugitive emission rate from the cleanup material usage (2.2 tons VOC/yr)

CVOC = the VOC content of the cleanup material (6.66 lbs. VOC / gallon)

MACU = the maximum annual cleanup material usage (660 gallons per year*)

CONV = the conversion factor (1 ton/2,000 lbs)

* K002 And K004 combined usage

Compliance shall be demonstrated through the record keeping as specified in Section C., less any recovered materials where records were maintained as required in Section C.5.

F. Miscellaneous Requirements

Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. 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 OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.