



State of Ohio Environmental Protection Agency

Street Address:

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

Lazarus Gov.  
Center

RE: PERMIT TO INSTALL MODIFICATION  
ERIE COUNTY  
Application No: 03-09956

CERTIFIED MAIL

DATE: 8/31/2000

Ford Motor Co - Sandusky Plastics  
Richard H Frasca  
3020 Tiffin Ave  
Sandusky, OH 44870

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

NWDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 8/31/2000  
Effective Date: 8/31/2000**

ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 03-09956

Application Number: **03-09956**  
APS Premise Number: **0322020042**  
Permit Fee: **\$0**  
Name of Facility: **Ford Motor Co - Sandusky Plastics**  
Person to Contact: **Richard H Frasca**  
Address: **3020 Tiffin Ave  
Sandusky, OH 44870**

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3020 Tiffin Ave  
Sandusky, OHIO**

Description of modification:

**Modification for PTI 03-9956, issued 8/27/97, Draft mod issued 12/8/99, to change short-term allowable emission rate for emission unit R054 to 70.2 lbs OC/hr.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Director

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## **GENERAL PERMIT CONDITIONS**

### **TERMINATION OF PERMIT TO INSTALL**

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

### **NOTICE OF INSPECTION**

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

### **CONSTRUCTION OF NEW SOURCES**

The proposed source(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 source(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 Ohio Administrative Code (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 applicable standards.

### **PERMIT TO INSTALL FEE**

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

## **PUBLIC DISCLOSURE**

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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.

### **APPLICABILITY**

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

### **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.

### **PERMIT TO OPERATE APPLICATION**

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

### **SOURCE OPERATION 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 and regulations.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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**AIR EMISSION SUMMARY**

The air contaminant sources listed below comprise the Permit to Install for **Ford Motor Co - Sandusky Plastics** located in **ERIE** County. The sources listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification</u>	<u>Description</u>	<u>BAT Determination</u>
R054 (new)			Thermal cure oven associated with dual coating spray booth (R054)
R052 (Modification)	P056 (New)	Basecoat spray booth for automotive plastic parts with ultra-violet cure oven (DN-101 Second Surface Decorating)	Use of materials that are not photochemically reactive and compliance with the terms and conditions of this permit
R053 (Modification)		Topcoat spray booth for automotive plastic parts with ultra-violet cure oven (DN-101 Second Surface Decorating)	Use of materials that are not photochemically reactive and compliance with the terms and conditions of this permit
		Dual coating (topcoat and primer) spray booth for automotive plastic parts	Use of materials that are not photochemically reactive and compliance with the terms and conditions of this permit

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
of this permit	ce with the terms and conditions of this permit		3745-31-05 3745-21-07(G)(1)	Permit Allowable Mass Emissions and/or Control/Usage Requirements
		<u>Applicable Federal &amp; OAC Rules</u>		<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		3745-31-05		30 lbs OC/hr, 235.6 tons OC/yr (combined emissions from facility - see Additional Special Terms and Conditions)
Use of materials that are not photochemically reactive and compliance with the terms and conditions of this permit		3745-17-11 3745-17-07		0.13 lb PM/hr, 0.57 ton PM/yr; 20% opacity, except as provided by rule
		3745-31-05		30 lbs OC/hr, 235.6 tons OC/yr (combined emissions from facility - see Additional Special Terms and Conditions)
		3745-17-11 3745-17-07		0.52 lb PM/hr, 2.28 tons PM/yr; 20% opacity except as provided by rule
Use of materials that are not photochemically reactive and compliance		3745-31-05		70.2 lbs OC/hr, 235.6 tons OC/yr (combined emissions from facility - see Additional Special Terms and Conditions)
				3 lbs OC/hr not to

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exceed  
15 lbs  
OC/day,  
235.6  
tons  
OC/yr  
(combined  
emissions  
from  
facility -  
see  
Additional  
Special  
Terms  
and  
Conditions)

**SUMMARY**  
**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons/Year</u>
Organic Compounds (OC)	235.6*
PM	2.85

\* As a result of the installation/modification of emissions units in this permit and the shutdown of six existing units existing OC emissions units, the facility's total OC emissions will be maintained at 235.6 TPY which was the limit previously established by PTI Number 03-8126. This facility will remain a "minor" for PSD purposes (please refer to the Synthetic Minor Determination).

**RECORD(S) RETENTION AND AVAILABILITY**

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All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

### **REPORTING REQUIREMENTS**

Unless otherwise specified, reports required by the Permit to Install need only be submitted to OEPA Northwest District Office - DAPC, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

### **WASTE DISPOSAL**

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

### **MAINTENANCE OF EQUIPMENT**

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

### **MALFUNCTION/ABATEMENT**

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the OEPA Northwest District Office - DAPC, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

### **AIR POLLUTION NUISANCES PROHIBITED**

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

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### **NINETY DAY OPERATING PERIOD**

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

### **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.

### **ADDITIONAL SPECIAL TERMS AND CONDITIONS**

The Ford Motor Company previously voluntarily reduced the facility's potential organic compounds (OC) emission rate by accepting a federally enforceable limit for the facility of 235.6 tons of OC per rolling 365-day period through PTI #03-8126. The company's strategy is to avoid becoming a major facility for PSD i.e., by accepting a limit on OC input rate, the company is ensured that the facility's potential to emit will remain below 250 tons of volatile organic compounds (VOC) per year. Since the issuance of PTI #03-8126, the facility has also removed six (6) emissions units (R013, R019, R020, R026, R041 and R048) emitting OC.

With this PTI, the company plans to install a new coating operation with a thermal curing oven, emissions units R054 and P056 respectively, and modify two existing (2) coating operations to increase their short-term OC emission limits, emissions units R052 and R053. Although a PTI is only required for these installations and/or modifications, based on all the changes that have occurred since PTI #03-8126 was issued and to satisfy the company's desire to have a single permit to reference applicable permit restrictions for all OC emitting units at the facility, this PTI will supersede PTI #03-8126 and will contain federally enforceable permit limitations for all OC emitting emission units at the facility.

With the issuance of this PTI, there will be permits for all (total of 34) OC emitting emissions units at the facility. The company has requested that the limits in this PTI be made federally enforceable and the appropriate language has been added to this permit to do so. The facility will remain below "major" PSD source levels for all criteria pollutants.

#### **A. Applicable Emissions Limitations and/or Control Requirements**

1. OC and PM emissions from coating usage individual OC emitting emissions units at the facility shall not exceed the following rates:

<b>Emissions Unit #</b>	<b>Maximum Hourly OC Emission Rate (lbs/hr/emissions unit)</b>	<b>Maximum Hourly PM Emission Rate (lb/hr/emissions unit)</b>
R027, R050, R051	37.5	N/A (UMRE <10 lbs/hr/unit)

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R052	30.0	0.13
R053	30.0	0.52
R054	70.2	N/A (flowcoat application not a source of PM emissions)
R028, R029, R030 R031, R032, R033 R034, R035, R036 R037, R039, R040 R042, R043, R044 R045, R046, R047	1.0	N/A (adhesive application not a source of PM emissions)
P052, P053, P054	1.0	N/A (adhesive application not a source of PM emissions)
P056	3.0 (not to exceed 15 lbs/day)	N/A (oven not significant source of of PM emissions, i.e. PM emissions only from NG combustion)

\*UMRE is the uncontrolled mass rate of emissions as defined in OAC rule 3745-17-01.

- The permittee shall not employ coatings and/or cleanup materials in emissions units R009, R010, R021, R022, R025, R027, R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R038, R039, R040, R042, R043, R044, R045, R046, R047, R050, R051, R052, R053, R054, P052, P053, P054, and P056 at an input rate\* that would exceed 235.6 tons of OC per year, based upon a rolling, 365-day summation of the daily OC input rates for the combined emissions units.

\* Daily OC input rate =  $\sum(C \times D)$  where C - the number of gallons of each coating and clean up material employed per day and D = the OC content of each coating and clean up material employed in pounds per gallon.

## **B. Operational Restrictions**

- The permittee shall only employ coatings and cleanup materials in emissions units R027, R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R039, R040, R042, R043, R044, R045, R046, R047, R050, R051, R052, R053, R054, P052, P053, and P054 which are not

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photochemically reactive. "Photochemically reactive material" is defined in OAC Rule 3745-21-01(C)(5).

2. The permittee shall only employ cleanup materials in emissions units R009, R010, R021, R022, R025 and R038 which are not photochemically reactive. "Photochemically reactive material" is defined in OAC Rule 3745-21-01(C)(5).
3. The permittee shall not place any part coated in emissions units R009, R010, R021, R022, R025, R027, R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R038, R039, R040, R042, R043, R044, R045, R046, R047, R050, R051, R052, R053, P052, P053, and P054 in an oven in which the coating, or solvent vapor from the coating, comes into contact with flame or is baked, heat-cured, or heat-polymerized, in the presence of oxygen. The determination of whether or not the coating is baked, heat-cured, or heat-polymerized is based on whether the coating will redissolve in the original solvent mixture. Note: This restriction does not pertain to infrared cure ovens, ultraviolet cure ovens, or thermal cure ovens in which the part is cured in an atmosphere other than oxygen.
4. This permit allows for the use of the coatings, in emissions units R052, R053 and R054, and cleanup materials, in emissions unit R054, specified by the permittee in PTI application #03-9956. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the coating and cleanup material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from Screen 3 model and a comparison of the predicted 1 hour maximum ground level concentration to the MAGLC. The following table summarizes the results of the modeling for each pollutant:

<b>Ohio EPA Emissions Unit</b>	<b>Pollutant</b>	<b>TLV ug/m<sup>3</sup></b>	<b>Maximum Hourly Emission Rate (lbs/hr)</b>	<b>Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m<sup>3</sup>)</b>	<b>Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>)</b>
R052	propylene glycol monomethyl ether*	369,000	30.0	988.1	8,786
R053	toluene	188,000	30.0	988.1	4,476
R054	diacetone alcohol*	238,000	70.2	3096	5,667
P056	diacetone alcohol*	238,000	3.0	133.9	5,667

\*Note: The following additional conservative assumptions were made:

For emissions units R052, R054, and P056, the compound in the coating with the lowest TLV was

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assumed to be the only air toxic emitted and it was emitted at the maximum hourly emission rate i.e., the emission rate was not broken down into individual constituent proportions based on the coating formulation data.

Any of the following changes may be deemed a "modification" to the emissions units and, as such, prior notification to and approval from the Ohio EPA, Northwest District Office are required:

- a. any change in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup 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. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table;
- c. a reduction in the TLV by the ACGIH for any of the coatings and cleanup materials that at the maximum hourly emission rate specified in the above table, would result in an exceedance of the MAGLC; and,
- d. any change to the emissions unit or its method of operation that would either 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.

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

1. In order to demonstrate compliance with the allowable emissions limits of 8 lbs/hr (average) and 40 lbs/day, the permittee shall collect and record the following information, for each emissions unit on a daily basis, for coating materials employed in emissions units R009, R010, R021, R022, R025 and R038:
  - a. the company identification for each coating employed;
  - b. the number of gallons of each coating employed;
  - c. the organic compound content of each coating, in pounds per gallon, as applied\*;
  - d. the organic compound emission rate for each coating, in pounds per day [(b) x (c)];

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- e. the total organic compound emission rate for all coatings, in pounds per day [summation of (d)];
- f. the total number of hours the emissions unit was in operation; and,
- g. the average hourly organic compound emission rate for all coatings in pounds per hour (average) [(e)/(f)].

\*Note: The coating information must be for the coatings as applied, including any thinning solvents added to the coatings at the facility.

- 2. In order to demonstrate compliance with the allowable coating and/or cleanup material input rate of 235.6 tons per year, based upon a rolling, 365-day summation of the daily OC input rates, the permittee shall collect and record the following information each day for emissions units R009, R010, R021, R022, R025, R027, R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R038, R039, R040, R042, R043, R044, R045, R046, R047, R050, R051, R052, R053, R054, P052, P053 and P054:

**FOR INPUT RATES FOR COATING MATERIAL USAGE IN EACH EMISSIONS UNIT**

- a. The company identification for each coating employed.
- b. The determination of whether or not the coating material is photochemically reactive (for emissions units R027, R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R039, R040, R042, R042, R043, R044, R045, R046, R047, R050, R051, R052, R053, R054, P052, P053 and P054)
- c. The number of gallons of each coating employed (gallons/day).
- d. The organic compound content of each coating, in pounds per gallon.
- e. The organic compound input rate for each coating, in pounds per day. [(c) x (d)]
- f. The total organic compound input rate for all coatings, in pounds per day. [summation of (e)]

**FOR INPUT RATES FOR CLEANUP MATERIAL USAGE IN EACH EMISSIONS UNIT**

- g. The company identification for each cleanup material\* employed.
- h. The determination of whether or not the cleanup material is photochemically reactive.
- i. The number of gallons of each cleanup material employed (gallons/day).
- j. The organic compound content of each cleanup material, in pounds per gallon.

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- k. The organic compound input rate for each cleanup material, in pounds per day. [(i) x(j)]
- l. The total organic compound input rate for all cleanup material, in pounds per day. [summation of (k)]

\*Note: The permittee is only required to maintain records for cleanup materials that result in the emissions of OC.

**FOR COMBINED INPUT RATES FOR ALL COATINGS AND CLEANUP MATERIALS FROM THE FACILITY**

- m. The total organic compound input rate for all coatings, in pounds per day [summation of (e)].
  - n. The total organic compound input rate for all cleanup materials, in pounds per day [summation of (l)].
  - o. The total organic compound input rate for all coatings and cleanup materials, in pounds per day [(m) + (n)].
  - p. The total organic compound input rate per rolling 365-day period. [calculated as follows:  
Input per rolling 365-day period = Sum of (o) from preceding 364 calendar days + (o) for the current day].
3. In order to demonstrate compliance with the allowable emissions limits of 3 lbs/hr and 15 lbs/day for emissions unit P056, the permittee shall determine and record the following information on a daily basis:
- a. the total (prior to applying the booth/oven "split")\* daily OC emissions rate from all coatings employed in the coating operation (emissions unit R054) associated with this oven, in pounds per day. [calculated previously in accordance with condition C.2.(f)];
  - b. the total (after applying the booth/oven "split") daily OC emissions rate from the oven, in pounds per day [(a) x (0.05)];
  - c. the total number of hours the oven was in operation. (This should only be the number of hours parts were being cured in the oven); and,
  - d. the average hourly OC emissions rate from the oven, in pounds per hour (average)[(b)/(c)].

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- \* For the purpose of calculating the OC emission rates from the oven, emissions unit P056, and the associated spray booth, emissions unit R054, the permittee shall utilize a value of 95 percent of the total OC content of material on the parts as the amount of OC emitted from the flowcoating booth. The remaining 5 percent of the total OC content of material on the parts shall be of organic compound emissions between the oven and the associated spray booth is based on calculations provided by the company that incorporated information from the coatings supplier.

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

1. The permittee shall notify the Director (Ohio EPA, Northwest District Office) within 5 calendar days of any daily record showing the following:
  - a. the use of noncomplying i.e., photochemically reactive, coatings or cleanup materials in emissions units R027, R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R039, R040, R042, R043, R044, R045, R046, R047, R050, R051, R052, R053, R054, P052, P053 and P054;
  - b. the use of noncomplying i.e., photochemically reactive, cleanup materials in emissions units R009, R010, R021, R022, R025, and R038;
  - c. the average hourly organic compound emissions from the coatings exceeding 8 pounds per hour and/or 40 pounds per day in emissions units R009, R010, R021, R022, R025 and R038;
  - d. the average hourly organic compound emissions exceeding 3 pounds per hour and/or 15 pounds per day in emissions unit P056; and,
  - e. the total organic compound input rate from the facility exceeding 235.6 tons per rolling 365-day period.

A copy of such record shall be sent to Ohio EPA within 30 days following the date of the excursion(s). Accompanying the record, the permittee shall indicate, in writing, the actual emission rate(s) and/or input rate of the excursion(s), the probable cause(s) of the excursion(s) and the steps which have been implemented to correct the violation(s) and prevent any such future occurrences.

2. The permittee shall submit an annual report which specifies the total combined annual (January 1 through December 31 of each year) OC emissions and input rates from emissions units R009, R010, R021, R022, R025, R027, R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R038, R039, R040, R042, R043, R044, R045, R046, R047, R050, R051, R052, R053, R054, P052, P053, P054 and P056 for the previous calendar year. The report shall also include the maximum rolling 365-day emission rate and input rate for the period. The report shall be submitted by January 31 of each year.

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**E. Testing Requirements**

1. Any determination of OC content\*, solids content, or density of a coating and/or cleanup material shall be based on the coating/cleanup material as employed (as applied), including the addition of any thinner or viscosity reducer to the coating/cleanup material. The company shall determine the composition of the coatings/cleanup materials by formulation data supplied by the manufacturer of the coating/cleanup material or from data determined by an analysis of each coating/cleanup material, as received, by Reference Method 24. The Ohio EPA may require the company, if it uses formulation data supplied by the manufacturer, to determine data used in the calculation of the OC content of coatings/cleanup materials by Reference Method 24 or an equivalent or alternative method.

\* "OC content" means all organic compounds that are in a coating/cleanup material expressed as pounds of OC per gallon.

2. Unless otherwise specified in Section C., **Monitoring and/or Recordkeeping Requirements**, compliance with the emission limitations in Section A of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

0.13 lb particulate matter/hr/unit from emissions unit R052.

The hourly PM limits for this emissions unit was calculated by multiplying the maximum coating application rate (gal/hr) of the coating in the emissions unit's application by its solids content (lbs/gal), taking into account the transfer efficiency of the applicator and the control efficiency of the PM control device. For this permit, the unit's maximum PM emission rate was determined to be 0.13 lb/hr. This limit was based on the following parameters:

1. the use of a coating with a maximum solids content of 0.42 lbs/gal;
2. a maximum coating application rate of 4.0 gal/hr;
3. the use of air guns with a minimum coating solids transfer efficiency of 25%; and,
4. the use of a water wash exhaust system with a minimum control efficiency for PM of 90%.

Applicable Compliance Method:

As long as the above parameters are not changed and the PM control device is operating properly and in accordance with the manufacturer's specifications, Ohio EPA will assume that compliance with the PM limit of 0.13 lb/hr will be maintained. However, should the permittee desire to make a change, the permittee shall document whether such change requires a permit modification, as specified in Section B.4.(d) above, in accordance with the following:

To determine the actual worst case PM emissions rate from a spray coating emissions units, the following equation shall be used:

$$E = CS \times (1-TE) \times (1-CE)$$

where:

E = the PM emissions rate in lbs/hr

CS = the maximum coating solids usage rate (in pounds per hour) calculated by multiplying the % by weight solids content of the coating applied (in pounds per gallon) by the maximum hourly usage rate of the coating (in gallons per hour)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used, expressed as a decimal fraction

CE = control efficiency of the control device expressed as a decimal fraction

The permittee shall maintain copies of such documentation to verify the change did not require a permit modification. If required, the permittee shall demonstrate compliance with the PM emissions limits in accordance with OAC rule 3745-17-03(B)(10).

b. Emission Limitation

0.52 lb particulate matter/hr/unit from emissions unit R053.

The hourly PM limits for this emissions unit was calculated by multiplying the maximum coating application rate (gal/hr) of the coating in the emissions unit's application by its solids content (lbs/gal), taking into account the transfer efficiency of the applicator and the control efficiency of the PM control device. For this permit, the unit's maximum PM emission rate was determined to be 0.52 lb/hr. This limit was based on the following parameters:

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1. the use of a coating with a maximum solids content of 1.74 lbs/gal;
2. a maximum coating application rate of 4.0 gal/hr;
3. the use of air guns with a minimum coating solids transfer efficiency of 25%; and,
4. the use of a water wash exhaust system with a minimum control efficiency for PM of 90%.

**Applicable Compliance Method:**

As long as the above parameters are not changed and the PM control device is operating properly and in accordance with the manufacturer's specifications, Ohio EPA will assume that compliance with the PM limit of 0.52 lb/hr will be maintained. However, should the permittee desire to make a change, the permittee shall document whether such change requires a permit modification, as specified in Section B.4.(d) above, in accordance with the following:

To determine the actual worst case PM emissions rate from a spray coating emissions units, the following equation shall be used:

$$E = CS \times (1-TE) \times (1-CE)$$

where:

E = the PM emissions rate in lbs/hr

CS = the maximum coating solids usage rate (in pounds per hour) calculated by multiplying the % by weight solids content of the coating applied (in pounds per gallon) by the maximum hourly usage rate of the coating (in gallons per hour)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used, expressed as a decimal fraction

CE = control efficiency of the control device expressed as a decimal fraction

The permittee shall maintain copies of such documentation to verify the change did not require a permit modification. If required, the permittee shall demonstrate compliance with the PM emissions limits in accordance with OAC rule 3745-17-03(B)(10).

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c. Emission Limitation:

37.5 lbs OC/hr/unit from emissions units R027, R050 and R051.

The hourly OC limits for these emissions units were calculated by multiplying the maximum coating application rate (gal/hr) of each coating in the emissions unit's EAC form by its respective OC content (lbs/gal). For this permit, each unit's maximum hourly OC emission rate was determined to be 37.5 lbs. This limit was based on the following parameters:

1. the use of coating with a maximum OC content of 7.5 lbs/gal: and,
2. a maximum coating application rate of 5.0 gal/hr.

Applicable Compliance Method:

As long as the above parameters are not changed, Ohio EPA will assume that compliance with the OC limit of 37.5 lbs/hr/unit will be maintained. However, should the permittee desire to make a change, the permittee shall document whether such change requires a permit modification, as specified in Section B.4.(d) above, in accordance with the following:

To determine the actual worst case hourly OC emissions rate from a coating application emissions unit (without OC control), the following equation shall be used:

$$E = CA \times OC$$

where:

E = the OC emissions rate in lbs/hr

CA = the maximum coating application rate in gal/hr

OC = the OC content, as applied, of the respective coating in lbs/gal

The permittee shall maintain copies of such documentation to verify the change did not require a permit modification.

d. Emission Limitation:

30.0 lbs OC/hr/unit from emissions units R052 and R053.

The hourly OC limits for these emissions units were calculated by multiplying the maximum coating application rate (gal/hr) of each coating in the emissions unit's application by its respective OC content (lbs/gal). For this permit, each unit's maximum hourly OC emission rate was determined to be 30.0 lbs. This limit was based on the following parameters:

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1. the use of coating with a maximum OC content of 7.5 lbs/gal: and,
2. a maximum coating application rte of 4.0 gal/hr.

Applicable Compliance Method:

As long as the above parameters are not changed, Ohio EPA will assume that compliance with the OC limit of 30.0 lbs/hr/unit will be maintained. However, should the permittee desire to make a change, the permittee shall document whether such change requires a permit modification, as specified in Section B.4.(d) above, in accordance with the following:

To determine the actual worst case hourly OC emissions rate from a coating application emissions unit (without OC control), the following equation shall be used:

$$E = CA \times OC$$

where:

E = the OC emissions rate in lbs/hr

CA = the maximum coating application rate in gal/hr

OC = the OC content, as applied, of the respective coating in lbs/gal

The permittee shall maintain copies of such documentation to verify the change did not require a permit modification.

- e. Emission Limitation:

70.2 lbs OC/hr/unit from emissions units R054.

The hourly OC limit for this emissions unit was calculated by multiplying the maximum coating application rate (gal/hr) of each coating in the emissions unit's application by its respective OC content (lbs/gal). For this permit, each unit's maximum hourly OC emission rate was determined to be 70.2 lbs. This limit was based on the following parameters:

1. the use of a topcoat and primer with a maximum OC content of 7.8 lbs/gal for each; and,

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2. a maximum coating application rate of 9.0 gal/hr based on the simultaneous application of a topcoat at a maximum rate of 3.6 gal/hr and a primer at a maximum rate of 5.4 gal/hr.

Applicable Compliance Method:

As long as the above parameters are not changed, Ohio EPA will assume that compliance with the OC limit of 39.0 lbs/hr unit will be maintained. However, should the permittee desire to make a change, the permittee shall document whether such change requires a permit modification, as specified in Section B.4.(d) above, in accordance with the following:

To determine the actual worst case hourly OC emissions rate from a coating application emissions unit (without OC control), the following equation shall be used:

$$E = CA \times OC$$

where:

E = the OC emissions rate in lbs/hr

CA = the maximum coating application rate in gal/hr

OC = the OC content, as applied, of the respective coating in lbs/gal

The permittee shall maintain copies of such documentation to verify the change did not require a permit modification.

f. Emission Limitation:

1.0 lb OC/hr/unit from emissions units R028, R029, R030, R031, R032, R033, R034, R035, R036, R037, R039, R040, R042, R043, R044, R045, R046, R047, P052, P053, and P054.

The hourly OC limits for these emissions units were calculated by multiplying the maximum coating application rate (gal/hr) of each coating in the emissions unit's application by its respective OC content (lbs/gal). For this permit, each unit's maximum hourly OC emission rate was determined to be 1.0 lb. This limit was based on the following parameters:

1. the use of a coating with a maximum OC content of 0.5 lb/gal: and,

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2. a maximum coating application rate of 2.0 gal/hr.

Applicable Compliance Method:

As long as the above parameters are not changed, Ohio EPA will assume that compliance with the OC limit of 1.0 lb/hr/unit will be maintained. However, should the permittee desire to make a change, the permittee shall document whether such change requires a permit modification, as specified in Section B.4.(d) above, in accordance with the following:

To determine the actual worst case hourly OC emissions rate from a coating application emissions unit (without OC control), the following equation shall be used:

$$E = CA \times OC$$

where:

E = the OC emissions rate in lbs/hr

CA = the maximum coating application rate in gal/hr

OC = the OC content, as applied, of the respective coating in lbs/gal

The permittee shall maintain copies of such documentation to verify the change did not require a permit modification.

**F. Miscellaneous Requirements**

None.