



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: DRAFT PERMIT TO INSTALL  
LUCAS COUNTY  
Application No: 04-1157**

**CERTIFIED MAIL**

**DATE:** August 4, 1999

Rieter Automotive North America  
Steve Thomas  
645 N Lallendorf Road  
Oregon, OH 43616

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$ 400** will be due. Please do not submit any payment now.



The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

cc: USEPA  
TOLEDO DIVISION OF ENVIRONMENTAL SERVICES  
Michael J White City of Oregon  
Indiana Office of Air Management  
Michigan Department of Environmental Quality

Toledo Metropolitan Area Council of Governments

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install**

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**Terms and  
Conditions**

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

**DRAFT PERMIT TO INSTALL 04-1157**

Application Number: 04-1157  
APS Premise Number: 0448020035  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Rieter Automotive North America  
Person to Contact: Steve Thomas  
Address: 645 N Lallendorf Road  
Oregon, OH 43616

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**645 N Lallendorf Road  
Oregon, Ohio**

Description of proposed emissions unit(s):  
**MODIFICATION OF 2 MOLDING PRESSES.**

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

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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 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

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commencing operation of the emissions unit(s) covered by this permit.

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#### 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>
Ammonia	1.282 (0.238 increase)
Formaldehyde	0.074 (0.045 increase)
OC	10.296 (3.5 increase)
Phenol	0.148 (0.016 increase)
PM	6.976 (2.368 increase)

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**Part II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

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

**1. Applicable Emissions Limitations and/or Control Requirements**

- a. 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>
SA #1/Hot air heated molding press	OAC rule 3745-31-05(A)(3)	From Scrubber Stack: 0.786 lb/hr and 3.443 tons/yr PM; 1.157 lbs/hr and 5.069 tons/yr OC; 0.015 lb/hr and 0.068 ton/yr phenol; 0.008 lb/hr and 0.037 ton/yr formaldehyde; 0.138 lb/hr and 0.603 ton/yr ammonia  Fugitive Emissions 0.045 ton/yr PM; 0.079 ton/yr OC; 0.006 ton/yr phenol; 0.038 ton/yr ammonia
	OAC rule 3745-17-07(A)(1)	See A.2.c
	OAC rule 3745-17-11(B)	See A.2.d

**2. Additional Terms and Conditions**

- 2.a Press emissions shall be controlled by a venturi scrubber followed by a packed bed scrubber for press emissions.
- 2.b The air pollution control system shall have the following minimum control

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efficiencies: 35 percent for organic compounds, 23 percent for particulate, 89 percent for phenol, 6 percent for formaldehyde and 84 percent for ammonia.

- 2.c Visible emissions from the scrubber stack shall not exceed 20% opacity, unless otherwise specified by the rule.
- 2.d Emissions of particulates shall not exceed 1.64 pounds per hour. This limit is less stringent than the limit established by OAC 3745-31-05.

## B. Operational Restrictions

- 1. Venturi/Packed Bed Scrubber Operational Restrictions
  - a. The pressure drop across the Scrubber #1 shall be continuously maintained at a value of not less than 0.7 inch of water at all times while the emissions unit is in operation.
  - b. The Scrubber #1 water flow rate shall be continuously maintained at a value of not less than 900 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the Scrubber #1 liquor shall be maintained within the range of 3 to 6.
  - d. The oxidation-reduction potential of the Scrubber #1 liquor shall be maintained within the range of 200 to 600 (unitless).
- 2. While any one or more of emissions units P013 through P016 is in operation, the "tool" emissions from emissions units P009 and P010 shall be diverted to the thermal oxidizer controlling emissions from P013 through P016.
- 3. The maximum daily production rate for this emissions unit shall not exceed 12,192 pounds per day.

## C. Monitoring and/or Recordkeeping Requirements

- 1. Venturi/Packed Bed Scrubber Monitoring and Recordkeeping Requirements
  - a. The permittee shall properly operate and maintain equipment to continuously monitor the following operating parameters of Scrubber #1:

- i. Pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
    - ii. The pH and the oxidation-reduction potential of the scrubber liquor while the emissions unit is in operation. The monitoring devices and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
  - b. The permittee shall collect and record the following information from Scrubber #1 for each day the emissions unit is in operation:
    - i. The pressure drop across the scrubber, in inches of water, once per shift.
    - ii. The scrubber water flow rate, in gallons per minute, once per shift.
    - iii. A log of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
  - c. The permittee shall collect and record the following information each day from Scrubber #1:
    - i. The pH of the scrubber liquor on an hourly basis.
    - ii. The oxidation-reduction potential of the scrubber liquor on an hourly basis.
    - iii. A log of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit, and the operating status of emissions units P013 through P016.
2. The permittee shall maintain daily records of the periods of time that the thermal oxidizer is bypassed.
3. The permittee shall maintain daily records of the pounds of molded pad produced in this emissions unit.

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

1. Venturi/Packed Bed Scrubber Reporting Requirements
  - a. The permittee shall submit semi-annual deviation (excursion) reports that identify all periods of time during which the following parameters for Scrubber #1 were not maintained at or above the required levels while the emissions unit is in operation:

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- i. The pressure drop across the scrubber.
    - ii. The scrubber water flow rate.
    - iii. The pH of the scrubber liquor.
    - iv. The oxidation-reduction potential of the scrubber liquor.
  - b. This semi-annual report shall be submitted to the Toledo Division of Environmental Services by February 1 and August 1 of each year and shall cover the previous six calendar months (July through December and January through June, respectively).
2. The permittee shall submit semi-annual reports that identify any exceedances of the 12,192 pounds per day production rate limitation, as well as the corrective actions that were taken to achieve compliance.
  3. The permittee shall submit semi-annual reports identifying all periods of time that this emissions unit bypassed the thermal oxidizer while emissions unit P013, P014, P015, or P016 was operating.

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

1. Compliance with the emissions limitation(s) in A.1.a of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
20% opacity as a 6-minute average  
  
Applicable Compliance Method:  
  
Monitoring the parameters of Scrubber #1 as required by C.1.a.i. and C.1.b. above. If required, compliance shall be demonstrated by Method 9 of 40 CFR Part 60, Appendix A.
  - b. Emission Limitation:  
  
1.64 pounds per hour particulates

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Applicable Compliance Method:

$E = PWR \times EF_{press} \times (1 - Eff_{sc}/100) \times CE_{sc}/100$  for scrubber

Where E = emission rate, pounds per hour

PWR = Production rate, lbs/hr.

EF<sub>press</sub> = uncontrolled emission factor for press emissions. The emission factors were developed by Rieter Automotive based on actual test data using Method 5 of 40 CFR Part 60, Appendix A.

= 2.03E-03 lb/lb for PM

Eff<sub>sc</sub> = Scrubber control equipment efficiency as determined during most recent inlet and outlet Method 5 stack test.

CE<sub>sc</sub> = percent of press emissions that are captured by scrubber, 99

c. Emission Limitation:

pound per hour stack emissions listed in A.1.a.

Applicable Compliance Method:

$E = PWR \times EF_{press} \times (1 - Eff_{sc}/100) \times CE_{sc}/100$  for scrubber

Where E = emission rate, pounds per hour

PWR = Production rate, lbs/hr.

EF<sub>press</sub> = uncontrolled emission factor for press emissions. The emission factors were developed by Rieter Automotive based on actual test data.

= 2.03E-03 lb/lb for PM

= 3.54E-03 lb/lb for OC

= 2.80E-04 lb/lb for Phenol

= 1.79E-05 lb/lb for Formaldehyde

= 1.71E-03 lb/lb for Ammonia

Eff<sub>sc</sub> = Scrubber control equipment efficiency as determined during most recent stack test as performed under E.1.e through E.1.i.

CE<sub>sc</sub> = percent of press emissions that are captured by scrubber, 99

d. Emission Limitation:

Ton per year emission limitations as listed in A.1.a

Applicable Compliance Method:

$E = [APWR \times EF_{press} \times [(1 - Eff_{sc}/100) \times CE_{sc}/100]] / 2000$  for emissions from scrubber stack

$E = (APWR \times EF_{press} \times Fug/100) / 2000$  for fugitive emissions

Where E = emission rate, tons/yr

APWR = Annual production, lbs/yr

$EF_{press}$  = Uncontrolled emission factor for press emissions  
= same as E.1.c.

$Eff_{sc}$  = Scrubber control equipment efficiency as determined during most recent stack test as performed under E.1.e through E.1.i.

$CE_{sc}$  = percent of press emissions that are captured by scrubber, 99

Fug = percent of uncontrolled emissions that are fugitive, 1

e. Efficiency Limitation:

scrubber control efficiency of 35 percent for organic compounds

If required, 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 25A of 40 CFR Part 60, Appendix A. 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.

f. Efficiency Limitation:

scrubber control efficiency of 23 percent for particulate matter

If required, 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 Method 5 of 40 CFR Part 60, Appendix A..

g. Efficiency Limitation:

scrubber control efficiency of 89 percent for phenol

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If required, 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 Modified Method 5/NIOSH 3502.

h. Efficiency Limitation:

scrubber control efficiency of 6 percent for formaldehyde

If required, 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 Draft Method 0011.

i. Efficiency Limitation:

scrubber control efficiency of 84 percent for ammonia

If required, 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 Draft Method 206.

## F. Miscellaneous Requirements

1. This PTI modification supersedes the terms and conditions of PTI 04-905 issued May 10, 1995 and modifications to PTI 04-905 issued on May 25, 1995 and February 18, 1998.
2. The following terms and conditions are federally enforceable: A.2.c, A.2.d, B.1.a. and b., C.1.a.i, C.1.b., D.1.a.i. and ii, D.1.b, E.1.a and b.

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

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

**1. Applicable Emissions Limitations and/or Control Requirements**

- a. 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>
SA #1/Hot air heated molding press	OAC rule 3745-31-05(A)(3)	From Scrubber Stack: 0.786 lb/hr and 3.443 tons/yr PM; 1.157 lbs/hr and 5.069 tons/yr OC; 0.015 lb/hr and 0.068 ton/yr phenol; 0.008 lb/hr and 0.037 ton/yr formaldehyde; 0.138 lb/hr and 0.603 ton/yr ammonia
	OAC rule 3745-17-07(A)(1)	Fugitive Emissions 0.045 ton/yr PM; 0.079 ton/yr OC; 0.006 ton/yr phenol; 0.038 ton/yr ammonia
	OAC rule 3745-17-11(B)	See A.2.c  See A.2.d

**2. Additional Terms and Conditions**

- 2.a Press emissions shall be controlled by a venturi scrubber followed by a packed bed scrubber for press emissions.
- 2.b The air pollution control system shall have the following minimum control efficiencies: 35 percent for organic compounds, 23 percent for particulate, 89 percent for phenol, 6 percent for formaldehyde and 84 percent for ammonia.
- 2.c Visible emissions from the scrubber stack shall not exceed 20% opacity, unless otherwise specified by the rule.

Emissions Unit ID: P010

- 2.d** Emissions of particulates shall not exceed 1.64 pounds per hour. This limit is less stringent than the limit established by OAC 3745-31-05.

## **B. Operational Restrictions**

1. Venturi/Packed Bed Scrubber Operational Restrictions
  - a. The pressure drop across the Scrubber #1 shall be continuously maintained at a value of not less than 0.7 inch of water at all times while the emissions unit is in operation.
  - b. The Scrubber #1 water flow rate shall be continuously maintained at a value of not less than 900 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the Scrubber #1 liquor shall be maintained within the range of 3 to 6.
  - d. The oxidation-reduction potential of the Scrubber #1 liquor shall be maintained within the range of 200 to 600 (unitless).
2. While any one or more of emissions units P013 through P016 is in operation, the "tool" emissions from emissions units P009 and P010 shall be diverted to the thermal oxidizer controlling emissions from P013 through P016.
3. The maximum daily production rate for this emissions unit shall not exceed 12,192 pounds per day.

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

1. Venturi/Packed Bed Scrubber Monitoring and Recordkeeping Requirements
  - a. The permittee shall properly operate and maintain equipment to continuously monitor the following operating parameters of Scrubber #1:
    - i. Pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
    - ii. The pH and the oxidation-reduction potential of the scrubber liquor while the emissions unit is in operation. The monitoring devices and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
  - b. The permittee shall collect and record the following information from Scrubber

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#1 for each day the emissions unit is in operation:

- i. The pressure drop across the scrubber, in inches of water, once per shift.
  - ii. The scrubber water flow rate, in gallons per minute, once per shift.
  - iii. A log of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
- c. The permittee shall collect and record the following information each day from Scrubber #1:
- i. The pH of the scrubber liquor on an hourly basis.
  - ii. The oxidation-reduction potential of the scrubber liquor on an hourly basis.
  - iii. A log of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit, and the operating status of emissions units P013 through P016.
2. The permittee shall maintain daily records of the periods of time that the thermal oxidizer is bypassed.
3. The permittee shall maintain daily records of the pounds of molded pad produced in this emissions unit.

**D. Reporting Requirements**

1. Venturi/Packed Bed Scrubber Reporting Requirements
  - a. The permittee shall submit semi-annual deviation (excursion) reports that identify all periods of time during which the following parameters for Scrubber #1 were not maintained at or above the required levels while the emissions unit is in operation:
    - i. The pressure drop across the scrubber.
    - ii. The scrubber water flow rate.

- iii. The pH of the scrubber liquor.
- iv. The oxidation-reduction potential of the scrubber liquor.
- b. This semi-annual report shall be submitted to the Toledo Division of Environmental Services by February 1 and August 1 of each year and shall cover the previous six calendar months (July through December and January through June, respectively).
- 2. The permittee shall submit semi-annual reports that identify any exceedances of the 12,192 pounds per day production rate limitation, as well as the corrective actions that were taken to achieve compliance.
- 3. The permittee shall submit semi-annual reports identifying all periods of time that this emissions unit bypassed the thermal oxidizer while emissions unit P013, P014, P015, or P016 was operating.

#### E. Testing Requirements

- 1. Compliance with the emissions limitation(s) in A.1.a of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:
 

20% opacity as a 6-minute average

Applicable Compliance Method:

Monitoring the parameters of Scrubber #1 as required by C.1.a.i. and C.1.b. above. If required, compliance shall be demonstrated by Method 9 of 40 CFR Part 60, Appendix A.
  - b. Emission Limitation:
 

1.64 pounds per hour particulates

Applicable Compliance Method:

$E = PWR \times EF_{press} \times (1 - Eff_{sc}/100) \times CE_{sc}/100$  for scrubber  
 Where E = emission rate, pounds per hour  
 PWR = Production rate, lbs/hr.  
 $EF_{press}$  = uncontrolled emission factor for press emissions. The emission factors were developed by Rieter Automotive based on actual test data using Method 5 of 40 CFR Part 60, Appendix A.  
 = 2.03E-03 lb/lb for PM

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Effsc = Scrubber control equipment efficiency as determined during most recent inlet and outlet Method 5 stack test.

CEsc = percent of press emissions that are captured by scrubber, 99

## c. Emission Limitation:

pound per hour stack emissions listed in A.1.a.

Applicable Compliance Method:

$E = PWR \times EF_{press} \times (1 - Eff_{sc}/100) \times CE_{sc}/100$  for scrubber

Where E = emission rate, pounds per hour

PWR = Production rate, lbs/hr.

EF<sub>press</sub> = uncontrolled emission factor for press emissions. The emission factors were developed by Rieter Automotive based on actual test data.

= 2.03E-03 lb/lb for PM

= 3.54E-03 lb/lb for OC

= 2.80E-04 lb/lb for Phenol

= 1.79E-05 lb/lb for Formaldehyde

= 1.71E-03 lb/lb for Ammonia

Effsc = Scrubber control equipment efficiency as determined during most recent stack test as performed under E.1.e through E.1.i.

CEsc = percent of press emissions that are captured by scrubber, 99

## d. Emission Limitation:

Ton per year emission limitations as listed in A.1.a

Applicable Compliance Method:

$E = [APWR \times EF_{press} \times [(1 - Eff_{sc}/100) \times CE_{sc}/100]] / 2000$  for emissions from scrubber stack

$E = (APWR \times EF_{press} \times Fug/100) / 2000$  for fugitive emissions

Where E = emission rate, tons/yr

APWR = Annual production, lbs/yr

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

EF<sub>press</sub> = Uncontrolled emission factor for press emissions  
= same as E.1.c.

Eff<sub>sc</sub> = Scrubber control equipment efficiency as determined during most recent stack test as performed under E.1.e through E.1.i.

CE<sub>sc</sub> = percent of press emissions that are captured by scrubber, 99  
Fug = percent of uncontrolled emissions that are fugitive, 1

e. Efficiency Limitation:

scrubber control efficiency of 35 percent for organic compounds

If required, 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 25A of 40 CFR Part 60, Appendix A. 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.

f. Efficiency Limitation:

scrubber control efficiency of 23 percent for particulate matter

If required, 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 Method 5 of 40 CFR Part 60, Appendix A..

g. Efficiency Limitation:

scrubber control efficiency of 89 percent for phenol

If required, 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 Modified Method 5/NIOSH 3502.

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## h. Efficiency Limitation:

scrubber control efficiency of 6 percent for formaldehyde

If required, 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 Draft Method 0011.

## i. Efficiency Limitation:

scrubber control efficiency of 84 percent for ammonia

If required, 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 Draft Method 206.

**F. Miscellaneous Requirements**

1. This PTI modification supersedes the terms and conditions of PTI 04-905 issued May 10, 1995 and modifications to PTI 04-905 issued on May 25, 1995 and February 18, 1998.
2. The following terms and conditions are federally enforceable: A.2.c, A.2.d, B.1.a. and b., C.1.a.i, C.1.b., D.1.a.i. and ii, D.1.b, E.1.a and b.