

Synthetic Minor Determination and/or  Netting Determination

Permit To Install **02-18111**

**A. Source Description**

American Standard is located in Columbiana County and is a manufacturer of bathtubs and sinks. There are three primary production departments at the American Standard Facility; Acrylics, Smallware, and Tubs. American Standard filed a FESOP application with NOVAA. The purpose of this application is to modify the operations facility-wide to allow operational flexibility and stay out of Title V permitting.

**B. Facility Emissions and Attainment Status**

The potential to emit VOC from all affected units in the facility would exceed the 100 TPY Title V threshold. The potential to emit for Styrene and MEK (facility-wide) would exceed the 10 TPY Title V threshold. Total combined HAPS potential, facility wide, would exceed the 25 TPY Title V threshold. This synthetic minor permit will establish limits of VOC, Styrene, MEK and HAP to avoid Title V permitting. Columbiana County is currently designated as attainment for ozone.

**C. Source Emissions**

The Acrylics Department has two FRP lamination lines. Emissions from both lines are captured in PTE's and vented to the POLYAD control system and destroyed in the thermal oxidizer. 100% capture and 87% destruction efficiency is required. The Smallware and Tubs Departments are similar to each other in that steel sheets are stamped and coated. There are no VOC controls in these units but limits are established for each emissions unit in the permit to limit emissions, facility wide, as follows: VOC, 76.55 TPY; Styrene, 9.95 TPY; MEK, 5.0 TPY; and total HAPS, 15 TPY.

**D. Conclusion**

American Standard's reconfiguration of operations with the control system in the Acrylics Department, and limitations established in the other operations will allow the company the flexibility in operations it needs and remain below the PSD review and Title V thresholds.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
COLUMBIANA COUNTY**

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No:** 02-18111

**Fac ID:** 0215090011

**DATE:** 9/7/2004

American Standard Inc  
Jim Hobbs  
605 South Ellsworth Ave  
Salem, OH 44460

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 **\$5700** will be due. Please do not submit any payment now.

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

Sincerely,

*Michael W. Ahern*

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

CC: USEPA

NEDO

Eastgate Dev. & Trans. Study

WV

PA

**COLUMBIANA COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL 02-18111 FOR AN AIR CONTAMINANT SOURCE FOR  
American Standard Inc**

On 9/7/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **American Standard Inc**, located at **605 South Ellsworth Ave, Salem, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 02-18111:

**Facility wide synthetic minor application.**

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

Dennis Bush, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087  
[(330)425-9171]



**Permit To Install  
Terms and Conditions**

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

**DRAFT PERMIT TO INSTALL 02-18111**

Application Number: 02-18111  
Facility ID: 0215090011  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: American Standard Inc  
Person to Contact: Jim Hobbs  
Address: 605 South Ellsworth Ave  
Salem, OH 44460

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**605 South Ellsworth Ave  
Salem, Ohio**

Description of proposed emissions unit(s):  
**Facility wide synthetic minor application.**

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

American Standard Inc

Facility ID: 0215090011

PTI Application: 02-18111

Issued: To be entered upon final issuance

**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

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

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

**American Standard Inc**  
**PTI Application: 02-18111**

**Facility ID: 0215090011**

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

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

American Standard Inc  
PTI Application: 02-18111

Facility ID: 0215090011

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

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>
Particulate	16.27
OC	118.87
VOC	76.55
NOx	18.88
CO	15.84
SO2	0.09
Styrene	9.95
MEK	5.00
Total HAPs	15.0

**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>
K001 - Smallware Department Finish Coat Line vented to 2 dust collectors (ES-05 and ES-06). This operation includes a primary and auxiliary spray booth, drying oven, and curing furnace.	<p>OAC rule 3745-31-05(A)(3)</p> <p>OAC rule 3745-17-07</p> <p>OAC rule 3745-17-11</p> <p>OAC rule 3745-31-05(C)</p>

Applicable Emissions  
Limitations/Control Measures

The total emissions for this emissions unit shall not exceed the following limits:

Process Operations

0.47 pound per hour and 2.06 ton per year of particulate emissions from dust collectors ES-05 and ES-06.

Natural Gas Combustion

0.01 pound per hour and 0.05 ton per year of particulate emissions.

0.06 pound per hour and 0.27 ton per year of OC emissions.

0.03 pound per hour and 0.14 ton per year of VOC emissions.

0.57 pound per hour and 2.50 tons per year of NO<sub>x</sub> emissions.

0.48 pound per hour and 2.10 tons per year of CO emissions.

0.0005 pound per hour and 0.002 ton per year of SO<sub>2</sub> emissions.

Visible particulate emissions shall not exceed 10% opacity as a six-minute average.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule

3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See Sections A.2.a and A.2.b below.

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

1. The permittee shall operate the dust collectors (ES-05 and ES-06) whenever this emissions unit is in operation.
2. The pressure drop across each of the dust collectors (ES-05 and ES-06) shall be maintained within the following ranges while the emissions unit is in operation:  
ES-05: 3-5 inches of water  
ES-06: 6-8.5 inches of water
3. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas

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

are permitted at the potential usage of natural gas in all of the drying ovens contained in this permit.

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

1. The permittee shall maintain daily records that document any time periods when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each of the dust collectors (ES-05 and ES-06) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each of the dust collectors on a daily basis.
3. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.
4. At the end of each month the permittee shall collect, calculate, and record the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023. Two tons of VOC emissions shall be added to these rolling 12-month emissions record, to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020.
5. At the end of each year the permittee shall collect and record the total tons of frit coatings applied in this emissions unit, to be used in the annual demonstration of compliance with the particulate emissions limit from overspray, by applying the annual tons of frit coating employed in the calculation of the estimated emissions contained in Section E.2.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the dust collectors did not comply with the allowable range specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a

fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.

4. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
5. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
6. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.
7. The permittee shall submit any calculated exceedance of the limitation(s) on particulate emissions from overspray from the frit and non-OC/VOC coatings applied in emission units K001, R005, R009, R019, and R020, as determined in the annual calculation required in Section E.2 of this permit. This report shall be included in the 4th quarter exceedance report if it is determined an exceedance has occurred.

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

1. Emission Limitation:  
0.47 pound per hour of particulate emissions (total from dust collectors ES-05 and ES-06)  
  
Applicable Compliance Method:

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

This limit represents the estimated controlled potential emissions of this emissions unit, calculated as follows:

$$(107 \text{ parts/hr}) \times (2.5 \text{ lbs coat/part}) \times (100\% - 30\% \text{TE}) \times (25\% \text{ to filter}^*) \times (100\% - 99\% \text{ control for ES-05 and ES-06}) = 0.47 \text{ lb/hr}$$

If required by the Ohio EPA, compliance with the allowable particulate emission limit shall be determined in accordance with U.S. EPA Reference Methods 1 through 5 of 40 CFR Part 60, Appendix A.

\* it is estimated that a minimum of 75% of the overspray is collected in the reclaim trough

2. Emission Limitation:  
2.06 tons per year of particulate emissions (total from dust collectors ES-05 and ES-06)

## Applicable Compliance Method:

The annual limit is based on the allowable hourly emission rate (0.47 lb/hr) multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. In order to demonstrate compliance with the annual particulate emissions limits from frit coatings, the following calculation shall be performed at the end of each year:

$$PE = (FC \times 70\% \text{ overspray} \times 25\% \text{ to filter} \times 1\% \text{ lost from filter})$$

where:

PE = total estimated particulate emissions from overspray, in tons of PE per year

FC = total annual frit coating usage in this emissions unit, in tons per year

3. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.01 pound per hour of particulate emissions
  - 0.06 pound per hour of OC emissions
  - 0.03 pound per hour of VOC emissions
  - 0.57 pound per hour of NO<sub>x</sub> emissions
  - 0.48 pound per hour of CO emissions
  - 0.0005 pound per hour of SO<sub>2</sub> emissions

## Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3) by the maximum rated capacity of the oven and furnace.

4. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.05 ton per year of particulate emissions
  - 0.27 ton per year of OC emissions
  - 0.14 ton per year of VOC emissions
  - 2.50 tons per year of NO<sub>x</sub> emissions
  - 2.10 tons per year of CO emissions
  - 0.002 ton per year of SO<sub>2</sub> emissions

Applicable Compliance Method:

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

5. Emission Limitation:

10% opacity, as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1); or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

## F. Miscellaneous Requirements

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1263 issued on December 20, 1995. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
P010 - Acrylics Whirlpool Assembly Operation	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  25.5 pounds per hour (daily average) and 82.1 tons per year of organic compound (OC) emissions.  17.4 pounds per hour (daily average) and 55.8 tons per rolling 12-month period of Volatile Organic Compound (VOC) emissions.  1.52 pound per hour (daily average) and 4.86 tons per rolling 12-month period of methyl ethyl ketone (MEK) emissions.
	OAC rule 3745-21-07(G)	See Section A.2.a below.
	OAC rule 3745-31-05(C)	See Sections A.2.b and A.2.c below.

**2. Additional Terms and Conditions**

- 2.a This emissions unit shall not employ photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5).

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

**2.b** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.c** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.b above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;

Emissions Unit ID: P010

- c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the MEK content of each process material employed, in pounds per gallon or in weight percent;
  - f. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - g. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - h. the daily MEK emissions from all process materials employed containing MEK, in pounds per day, i.e., the sum of "b" x "e" for each process material employed;
  - i. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "f" for each cleanup material applied;
  - j. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - k. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("g" + "i")/ "j" for each pollutant; and
  - l. the average hourly MEK emission rate for all process materials employed, in pounds per hour, i.e. "h" / "j" for each pollutant.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds or tons per the

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

month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds or tons of each pollutant per month, from Section C.1.g above;
  - b. the monthly total MEK emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds or tons per month, from Section C.1.h above;
  - c. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds or tons per month, from Section C.1.i above;
  - d. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds or tons per month;
  - e. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds or tons per month (i.e., "c"- "d"); and
  - f. the total rolling 12-month VOC, and MEK emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions and the sum of "b" for process MEK emissions from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
  - a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

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

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions

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

- unit exceeded 25.5 pounds per hour and the actual average hourly OC emissions for each such day; and
- b. an identification of each day during which any photochemically reactive material is employed, and the actual OC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports which identify each day during which the average VOC emissions from the emissions unit exceeded 17.4 pounds per hour and the actual average hourly VOC emissions for each such day.
  3. The permittee shall submit deviation (excursion) reports which identify each day during which the average MEK emissions from the emissions unit exceeded 1.52 pound per hour and the actual average hourly MEK emissions for each such day.
  4. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
    - a. 6.46 tons of VOC;
    - b. 0.83 ton of styrene;
    - c. 0.42 ton of methyl ethyl ketone; and
    - d. 1.25 tons of total aggregate HAPs.
  5. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
    - a. 77.48 tons of VOC;
    - b. 9.95 tons of styrene;
    - c. 5.00 tons of methyl ethyl ketone; and
    - d. 15.0 tons of total aggregate HAPs.
  6. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions

**Issued: To be entered upon final issuance**  
of this permit.

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

1. Emission Limitation:  
25.5 pounds per hour (daily average) and 82.1 tons per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
17.4 pounds per hour (daily average) and 55.8 tons per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
3. Emission Limitation:  
1.52 pounds per hour (daily average) and 4.86 tons per rolling 12-month period of MEK emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

#### **F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1552 issued on July 2, 1997. The following terms and conditions are federally enforceable requirements: A, C, D, E, and F.

## 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>
P011 - Smallware Finishing Station 1. This operation uses cleaning solvent rags for wipe cleaning of parts.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.41 pound per hour (daily average) and 1.79 tons per year of OC emissions.  0.17 pound per hour (daily average) and 0.72 ton per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	See Section A.2.a below.
	OAC rule 3745-31-05(C)	See Sections A.2.b and A.2.c below.

### 2. Additional Terms and Conditions

- 2.a This emissions unit shall not employ photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5).
- 2.b During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

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

- i. 6.46 tons of VOC;
  - ii. 0.83 ton of styrene;
  - iii. 0.42 ton of methyl ethyl ketone; and
  - iv. 1.25 tons of total aggregate HAPs.
- 2.c** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.b above, are less than or equal to the following:
- i. 77.48 tons of VOC;
  - ii. 9.95 tons of styrene;
  - iii. 5.00 tons of methyl ethyl ketone; and
  - iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each cleanup material employed;
  - b. the number of gallons or pounds of each cleanup material employed;
  - c. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - d. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "b" x "c" for each cleanup material applied;

- e. the total number of hours the emissions unit was in operation, i.e., hours/day; and
  - f. the average hourly OC and VOC emission rate for all cleanup materials employed, in pounds per hour, i.e., "d" / "e" for each pollutant.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".
- \* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.
- \*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.
3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
- a. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.d above;
  - b. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly

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

total OC and/or VOC emissions, in pounds per month;

- c. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "a"- "b"); and
- d. the total rolling 12-month VOC emissions for all cleanup materials employed, in tons, i.e., the sum of "a" or "c" for VOC emissions from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

- 4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
- 5. The permittee shall keep the following records on all materials employed in this emissions unit:

- a. the identification of the chemical compound and its physical state; and
- b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

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

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.41 pound per hour and the actual hourly OC emissions for each such day;
  - b. an identification of each day during which the average VOC emissions from the emission unit exceeded 0.17 pound per hour and the actual average hourly VOC emissions; and
  - c. any photochemically reactive material is employed and the actual OC and VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and

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

- d. 15.0 tons of total aggregate HAPs.
- 4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

- 1. Emission Limitation:  
0.41 pound per hour (daily average) of OC emissions and 1.79 tons per year.  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
- 2. Emission Limitation:  
0.17 pound per hour (daily average) of VOC emissions and 0.72 ton per rolling 12-month period.  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

**F. Miscellaneous Requirements**

- 1. The following terms and conditions are federally enforceable requirements: A, C, D, E, and F.

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

**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>
P012 - Smallware Finishing Station 2. This operation uses cleaning solvent rags for wipe cleaning of parts.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.41 pound per hour (daily average) and 1.79 tons year of OC emissions.  0.17 pound per hour (daily average) and 0.72 ton per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	See Section A.2.a below.
	OAC rule 3745-31-05(C)	See Sections A.2.b and A.2.c below.

**2. Additional Terms and Conditions**

- 2.a This emissions unit shall not employ photochemically reactive materials as defined in OAC rule 3745-21-01(1)(5).
- 2.b During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:
  - i. 6.46 tons of VOC;

- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.c** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.b above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

## **B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each cleanup material employed;
  - b. the number of gallons or pounds of each cleanup material employed;
  - c. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - d. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "b" x "c" for each cleanup material applied;
  - e. the total number of hours the emissions unit was in operation, i.e., hours/day; and

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

- f. the average hourly OC and VOC emission rate for all cleanup materials employed, in pounds per hour, i.e., "d" / "e" for each pollutant.
  2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
    - a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
    - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
    - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
    - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".
- \* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remained closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.
- \*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.
3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
    - a. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.d above;
    - b. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;

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

- c. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "a"- "b"); and
- d. the total rolling 12-month VOC emissions for all cleanup materials employed, in tons, i.e., the sum of "a" or "c" for VOC emissions from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

- 4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
- 5. The permittee shall keep the following records on all materials employed in this emissions unit:
  - a. the identification of the chemical compound and its physical state; and

- b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

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

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.41 pound per hour and the actual hourly OC emissions for each such day;
  - b. an identification of each day during which the average VOC emissions from the emission unit exceeded 0.17 pound per hour and the actual average hourly VOC emissions; and
  - c. any photochemically reactive material is employed and the actual OC and VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and

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

- d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitation:  
0.41 pound per hour (daily average) of OC emissions and 1.79 tons per year.  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
0.17 pound per hour (daily average) of VOC emissions and 0.72 ton per rolling 12-month period.  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

Ameri  
PTI A

Emissions Unit ID: **P013**

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

**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>
P013 - Smallware Finishing Station 3. This operation uses cleaning solvent rags for wipe cleaning of parts.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.41 pound per hour (daily average) and 1.79 tons per year of OC emissions.  0.17 pound per hour (daily average) and 0.72 ton per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	See Section A.2.a below.
	OAC rule 3745-31-05(C)	See Sections A.2.b and A.2.c below.

**2. Additional Terms and Conditions**

- 2.a This emissions unit shall not employ photochemically reactive materials as defined in OAC rule 3745-21-01(1)(5).
- 2.b During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.c** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.b above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each cleanup material employed;
  - b. the number of gallons or pounds of each cleanup material employed;
  - c. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - d. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "b" x "c" for each cleanup material applied;

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

- e. the total number of hours the emissions unit was in operation, i.e., hours/day; and
  - f. the average hourly OC and VOC emission rate for all cleanup materials employed, in pounds per hour, i.e., "d" / "e" for each pollutant.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".
- \* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.
- \*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.
3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
- a. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.d above;
  - b. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly

total OC and/or VOC emissions, in pounds per month;

- c. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "a"- "b"); and
- d. the total rolling 12-month VOC emissions for all cleanup materials employed, in tons, i.e., the sum of "a" or "c" for VOC emissions from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

- 4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
- 5. The permittee shall keep the following records on all materials employed in this emissions unit:

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

- a. the identification of the chemical compound and its physical state; and
- b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.41 pound per hour and the actual hourly OC emissions for each such day;
  - b. an identification of each day during which the average VOC emissions from the emission unit exceeded 0.17 pound per hour and the actual average hourly VOC emissions; and
  - c. any photochemically reactive material is employed and the actual OC and VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and

- d. 15.0 tons of total aggregate HAPs.
- 4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

- 1. Emission Limitation:  
0.41 pound per hour (daily average) of OC emissions and 1.79 tons per year.

**American Standard Inc**  
**PTI Application: 02 10111**  
**Issued**

**Facility ID: 0215090011**

Emissions Unit ID: **P013**

Applicable Compliance Method:

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

2. Emission Limitation:

0.17 pound per hour (daily average) of VOC emissions and 0.72 ton per rolling 12-month period.

Applicable Compliance Method:

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

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
P014 - Smallware Lavy Assembly Area. This is an adhesive application area with exhaust hoods venting inside.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.41 pound per hour (daily average) and 1.81 tons per year of OC emissions.  0.28 pound per hour (daily average) and 1.24 tons per rolling 12-month period of VOC emissions.  0.03 pound per hour (daily average) and 0.11 ton per rolling 12-month period of methyl ethyl ketone (MEK) emissions.
	OAC rule 3745-21-07(G)	See section A.2.a below.
	OAC rule 3745-31-05(C)	See Sections A.2.b and A.2.c below.

**2. Additional Terms and Conditions**

- 2.a This emissions unit shall not employ photochemically reactive materials as defined in OAC rule 3745-21-01(1)(5).
- 2.b During the first 12 months of operation following the issuance of this permit, the permittee

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

shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.c** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.b above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;

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

- d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the MEK content of each process material employed, in pounds per gallon or in weight percent;
  - f. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - g. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - h. the daily MEK emissions from all process materials employed containing MEK, in pounds per day, i.e., the sum of "b" x "e" for each process material employed;
  - i. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "f" for each cleanup material applied;
  - j. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - k. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("g" + "i")/ "j" for each pollutant; and
  - l. the average hourly MEK emission rate for all process materials employed, in pounds per hour, i.e. "h" / "j" for each pollutant.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.g above;
  - b. the monthly total MEK emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds per month, from Section C.1.h above;
  - c. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.i above;
  - d. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - e. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d"); and
  - f. the total rolling 12-month VOC and MEK emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions and the sum of "b" for process MEK emissions from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

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

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
  - a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.41 pound per hour and the actual hourly OC emissions for each such day;

- b. an identification of each day during which the average VOC emissions from the emission unit exceeded 0.28 pound per hour and the actual average hourly VOC emissions;
  - c. an identification of each day during which the average MEK emissions from the emission unit exceeded 0.03 pound per hour and the actual average hourly MEK emissions;
  - d. any photochemically reactive material is employed and the actual OC, VOC and MEK emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

## E. Testing Requirements

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

1. Emission Limitation:  
0.41 pound per hour (daily average) of OC emissions and 1.81 tons per year.  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
  
2. Emission Limitation:  
0.28 pound per hour (daily average) of VOC emissions and 1.24 tons per rolling 12-month period.  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
  
3. Emission Limitation:  
0.03 pound per hour (daily average) of MEK emissions and 0.11 ton per rolling 12-month period.  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

Issued: To be entered upon final issuance

**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>	
P015 - Final Cleaning and Grinding vented to dust collector AM-11. This operation uses hand-held grinders and cleaning solvent rags for grinding and wipe cleaning of parts.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G) OAC rule 3745-31-05(C)
	OAC rule 3745-17-07	
	OAC rule 3745-17-11	

Applicable Emissions  
Limitations/Control Measures

The total emissions for this emissions unit shall not exceed the following limits:

0.03 pound per hour (daily average) and 0.12 ton per year of particulate emissions.

0.41 pound per hour (daily average) and 1.79 tons per year of OC emissions.

0.17 pound per hour (daily average) and 0.72 ton per rolling 12-month period of VOC emissions.

Visible particulate emissions shall not exceed 10% opacity as a six-minute average.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See section A.2.a below.

See Sections A.2.b and A.2.c below.

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** This emissions unit shall not employ photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5).
- 2.b** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:
- i. 6.46 tons of VOC;
  - ii. 0.83 ton of styrene;
  - iii. 0.42 ton of methyl ethyl ketone; and
  - iv. 1.25 tons of total aggregate HAPs.
- 2.c** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.b above, are less than or equal to the following:
- i. 77.48 tons of VOC;
  - ii. 9.95 tons of styrene;
  - iii. 5.00 tons of methyl ethyl ketone; and
  - iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

1. The permittee shall operate the dust collector (AM-11) whenever this emissions unit is in operation.
2. The pressure drop across each of the dust collector AM-11 shall be maintained within the range of 3 to 6 inches of water while the emissions unit is in operation.

**Issued: To be entered upon final issuance****C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each cleanup material employed;
  - b. the number of gallons or pounds of each cleanup material employed;
  - c. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - d. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "b" x "c" for each cleanup material applied;
  - e. the total number of hours the emissions unit was in operation, i.e., hours/day; and
  - f. the average hourly OC and VOC emission rate for all cleanup materials employed, in pounds per hour, i.e., "d" / "e" for each pollutant.
  
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
  - a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the

credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.d above;
  - b. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - c. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "a"- "b"); and
  - d. the total rolling 12-month VOC emissions for all cleanup materials employed, in tons, i.e., the sum of "a" or "c" for VOC emissions from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and

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

- d. the rolling 12-month total HAPs emissions to include:
  - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
  - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
  - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall maintain daily records that document any time periods when the dust collector was not in service while the emissions unit was in operation.
6. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each of the dust collector (AM-11) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each of the dust collectors on a daily basis.
7. The permittee shall keep the following records on all materials employed in this emissions unit:
  - a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the dust collectors did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions

- unit exceeded 0.41 pound per hour and the actual average hourly OC emissions for each such day;
- b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.17 pound per hour and the actual average hourly VOC emissions for each such day; and
  - c. an identification of each day during which any photochemically reactive material is employed, and the actual OC emissions for each such day.
4. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
- a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
5. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
- a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
6. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

## E. Testing Requirements

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

1. Emission Limitation:  
0.03 pound per hour and 0.12 ton per year of particulate emissions (total from dust collector AM-11)

## Applicable Compliance Method:

If required by the Ohio EPA, compliance with the allowable particulate emission limit shall be determined in accordance with U.S. EPA Reference Methods 1 through 5 of 40 CFR Part 60, Appendix A.

The annual limit is based on the allowable hourly emission rate (0.03 lb/hr) multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown for the annual limitation.

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

2. Emission Limitation:  
0.41 pound per hour (daily average) and 1.79 tons per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
3. Emission Limitation:  
0.17 pound per hour (daily average) and 0.72 ton per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
4. Emission Limitation:  
  
10% opacity, as a 6-minute average  
  
Applicable Compliance Method:  
  
If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1); or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

Issued: To be entered upon final issuance

**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>
P016 - Tubs Department Glue Station. This operation includes adhesive application tools	OAC rule 3745-31-05(A)(3)	<p>The total emissions for this emissions unit shall not exceed the following limits:</p> <p>0.39 pound per hour (daily average) and 1.69 tons per year of OC emissions.</p> <p>0.21 pound per hour (daily average) and 0.94 ton per rolling 12-month period of VOC emissions.</p> <p>0.01 pound per hour (daily average) and 0.03 ton per rolling 12-month period of methyl ethyl ketone (MEK) emissions.</p>
	OAC rule 3745-21-07(G)	See Section A.2.a below.
	OAC rule 3745-31-05(C)	See Sections A.2.b and A.2.c below.

**2. Additional Terms and Conditions**

- 2.a** This emissions unit shall not employ photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5).
- 2.b** During the first 12 months of operation following the issuance of this permit, the permittee

Emissions Unit ID: P016

shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.c** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.b above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

## **B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;

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

- d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the MEK content of each process material employed, in pounds per gallon or in weight percent;
  - f. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - g. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - h. the daily MEK emissions from all process materials employed containing MEK, in pounds per day, i.e., the sum of "b" x "e" for each process material employed;
  - i. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "f" for each cleanup material applied;
  - j. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - k. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("g" + "i")/ "j" for each pollutant; and
  - l. the average hourly MEK emission rate for all process materials employed, in pounds per hour, i.e. "h" / "j" for each pollutant.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.g above;
  - b. the monthly total MEK emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds per month, from Section C.1.h above;
  - c. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.i above;
  - d. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - e. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d"); and
  - f. the total rolling 12-month VOC, and MEK emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions and the sum of "b" for process MEK emissions from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

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

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
  - a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.39 pound per hour and the actual average hourly OC emissions for each

such day;

- b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.21 pound per hour and the actual average hourly VOC emissions for each such day;
  - c. an identification of each day during which the average MEK emissions from the emissions unit exceeded 0.01 pound per hour and the actual average hourly MEK emissions for each such day; and
  - d. an identification of each day during which any photochemically reactive material is employed, and the actual OC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:

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

- a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
- a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitation:  
0.39 pound per hour (daily average) and 1.69 tons per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
0.21 pound per hour (daily average) and 0.94 ton per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
3. Emission Limitation:  
0.01 pound per hour (daily average) and 0.03 ton per rolling 12-month period of MEK emissions

**Ameri  
PTI A**

Emissions Unit ID: **P016**

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

Applicable Compliance Method:

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

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

Issued: To be entered upon final issuance

**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>
R005 - Tubs Department Enamel Ground Coat Line vented to 3 dust collectors (ET-03, ET-04 and ET-05). This operation includes a spray booth, drying oven, curing furnace, and spotter spray booth.	<p>OAC rule 3745-31-05(A)(3)</p> <p>OAC rule 3745-17-07</p> <p>OAC rule 3745-17-11</p> <p>OAC rule 3745-31-05(C)</p>

**Ameri  
PTI A**

Emissions Unit ID: **R005**

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

Applicable Emissions  
Limitations/Control Measures

The total emissions for this emissions unit shall not exceed the following limits:

Process Operations

2.01 pound per hour and 8.80 tons per year of particulate emissions from dust collectors ET-03, ET-04 and ET-05.

Natural Gas Combustion

0.03 pound per hour and 0.14 ton per year of particulate emissions.

0.19 pound per hour and 0.82 ton per year of OC emissions.

0.09 pound per hour and 0.41 ton per year of VOC emissions.

1.70 pound per hour and 7.45 tons per year of NO<sub>x</sub> emissions.

1.43 pound per hour and 6.25 tons per year of CO emissions.

0.01 lb/hr and 0.04 ton per year of SO<sub>2</sub> emissions.

Visible particulate emissions shall not exceed 10% opacity as a six-minute average.

The emission limitation specified by

this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See Sections A.2.a and A.2.b below.

## 2. Additional Terms and Conditions

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

## B. Operational Restrictions

1. The permittee shall operate the dust collectors (ET-03, ET-04, and ET-05) whenever this emissions unit is in operation.
2. The pressure drop across each of the dust collectors (ET-03 and ET-04) shall be maintained within the following ranges while the emissions unit is in operation:  
ET-03: 1.5 to 4 inches of water  
ET-04: 2 to 4 inches of water
3. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas

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

are permitted at the potential usage of natural gas in all of the drying ovens contained in this permit.

4. The panel filter at ET-05 shall be changed weekly.

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

1. The permittee shall maintain daily records that document any time periods when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each of the dust collectors, ET-03 and ET-04, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each of the dust collectors on a daily basis.
3. The permittee shall maintain a log for the dust collector identified as ET-05 and shall record each date the panel filter, ET-05, is replaced.
4. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.
5. At the end of each month the permittee shall collect, calculate, and record the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023. Two tons of VOC emissions shall be added to these rolling 12-month emissions record, to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020.
6. At the end of each year the permittee shall collect and record the total tons of frit coatings applied in this emissions unit, to be used in the annual demonstration of compliance with the particulate emissions limit from overspray, by applying the annual tons of frit coating employed in the calculation of the estimated emissions contained in Section E.2.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify (a) each day when the dust collectors were not in service while the emissions unit was in operation and (b) any week when the panel filter ET-05 was not replaced.

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the dust collectors did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.
4. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
5. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
6. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.
7. The permittee shall submit any calculated exceedance of the limitation(s) on particulate emissions from overspray from the frit and non-OC/VOC coatings applied in emission units K001, R005, R009, R019, and R020, as determined in the annual calculation required in Section E.2 of this

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

permit. This report shall be included in the 4th quarter exceedance report if it is determined an exceedance has occurred.

**E. Testing Requirements**

1. Emission Limitation:  
2.01 pounds per hour of particulate emissions (total from dust collectors ET-03, ET-04, and ET-05)

## Applicable Compliance Method:

This limit represents the estimated controlled potential emissions of this emissions unit, calculated as follows:

## Primary booth

$(145 \text{ tubs/hr}) \times (5.2 \text{ lbs coat/tub}) \times (100\%-30\%TE) \times (25\% \text{ to filter}^*) \times (100\%-99.5\% \text{ control for ET-03 and ET-04 and ET-05}) = 0.66 \text{ lbs/hr}$

## Spotter booth

$(22 \text{ lbs/hr}) \times (100\%-30\%TE) \times (25\% \text{ to filter}^*) \times (100\%-65\% \text{ control for ET-05}) = 1.35 \text{ lbs/hr}$

Total= primary booth + spotter booth  
=  $0.66 + 1.35 = 2.01 \text{ lbs/hr}$

If required by the Ohio EPA, compliance with the allowable particulate emission limit shall be determined in accordance with U.S. EPA Reference Methods 1 through 5 of 40 CFR Part 60, Appendix A.

\* it is estimated that a minimum of 75% of the overspray is collected in the reclaim trough

2. Emission Limitation:  
8.80 tons per year of particulate emissions (total from dust collectors ET-03, ET-04, and ET-05)

## Applicable Compliance Method:

The annual limit is based on the allowable hourly emission rate (2.01 lb/hr) multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. In order to demonstrate compliance with the annual particulate emissions limits from frit coatings, the following calculation shall be performed at the end of each year:

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

$$PE = (FC \times 70\% \text{ overspray} \times 25\% \text{ to filter} \times 1\% \text{ lost from filter})$$

where:

PE = total estimated particulate emissions from overspray, in tons of PE per year

FC = total annual frit coating usage in this emissions unit, in tons per year

3. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.03 pound per hour of particulate emissions
  - 0.19 pound per hour of OC emissions
  - 0.09 pound per hour of VOC emissions
  - 1.70 pound per hour of NO<sub>x</sub> emissions
  - 1.43 pound per hour of CO emissions
  - 0.01 pound per hour of SO<sub>2</sub> emissions

Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3 dated 7/98) by the maximum rated capacity of the oven and furnace.

4. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.14 ton per year of particulate emissions
  - 0.82 ton per year of OC emissions
  - 0.41 ton per year of VOC emissions
  - 7.45 tons per year of NO<sub>x</sub> emissions
  - 6.25 tons per year of CO emissions
  - 0.04 ton per year of SO<sub>2</sub> emissions

Applicable Compliance Method:

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

5. Emission Limitation:

10% opacity, as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in

**American Standard Inc**  
**PTI Application: 02-18111**  
**Issued**

**Facility ID: 0215090011**

Emissions Unit ID: **R005**

accordance with Method 9 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1); or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-056 issued on November 4, 1980. This emissions unit includes the curing furnace previously identified as P003 and placed on registration status on January 31, 1977. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
R008 - FRP Lamination Line 1 vented to the Polyad control system. This operation includes an FRP resin coating booth with permanent total enclosure, a transition area, and curing oven.	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-21-07(G)
	OAC rule 3745-31-05(C)

**Ameri  
PTI A**

Emissions Unit ID: **R008**

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

<p style="text-align: center;"><u>Applicable Emissions Limitations/Control Measures</u></p> <p>The total emissions for emissions units R008 and R022 together shall not exceed the following limits which include resin usage and cleanup operations:</p> <p>6.30 pounds per hour (daily average) and 20.1 tons per year of OC emissions.</p> <p>4.07 pounds per hour (daily average) and 10.3 tons per rolling 12-month period of VOC emissions.</p> <p>3.99 pounds per hour (daily average) and 9.95 tons per rolling 12-month period of styrene emissions.</p> <p>This facility shall maintain a VOC (styrene) capture efficiency of 100% by weight and a control efficiency (i.e., destruction or removal efficiency) which is at least 87% by weight.</p>	<p>0.016 pound per hour and 0.07 ton per year of VOC emissions.</p> <p>0.29 pound per hour and 1.26 tons per year of NO<sub>x</sub> emissions.</p> <p>0.24 pound per hour and 1.05 tons per year of CO emissions.</p> <p>0.002 pound per hour and 0.008 ton per year of SO<sub>2</sub> emissions.</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), with 87% control.</p> <p>See Sections A.2.a and A.2.b below.</p>
<p><u>Natural Gas Combustion from R008 and R022 together</u></p> <p>0.005 pound per hour and 0.02 ton per year of particulate emissions.</p> <p>0.03 pound per hour and 0.14 ton per year of OC emissions.</p>	

## 2. Additional Terms and Conditions

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

## B. Operational Restrictions

1. The Polyad Preconcentrator and thermal oxidizer control systems shall be used while this emissions unit is in operation.
2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
3. This emissions unit shall be totally enclosed such that all emissions are captured for venting to the

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

Polyad control system. Compliance with the following criteria, as specified by USEPA Method 204, shall be met by the permittee:

- a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each VOC emitting point unless otherwise specified by the Director;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity of air through all the NDO's shall be at least 3,600 m/hr (200 fpm); or the differential pressure between the inside and outside of the enclosure shall not be less than 0.007 inch of water;
  - d. the direction of air flow through all NDO's shall be into the enclosure;
  - e. all access doors and windows whose areas are not included in section (b) and are not included in the calculations or monitoring in section (c) shall be closed during routine operation of the process; and
  - f. all styrene emissions from this emissions unit must be captured and vented to the Polyad control system.
4. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas are permitted at the potential usage of natural gas for emission units R008 and R022.

**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 oxidizer 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.

The permittee shall collect and record the following information for each day:

- a. all 3-hour blocks of time (i.e., 12am to 3am; 3am to 6am, etc.) during which the average combustion temperature within the thermal oxidizer, 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 the emissions unit was in compliance; and

Emissions Unit ID: R008

- b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record and maintain the following information on a daily basis:

- a. the difference in pressure between the permanent total enclosure and the surrounding area(s); and
  - b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
3. The permittee shall collect and record the following information on a daily basis for each material employed in emissions units R008 and R022 combined:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the styrene content of each process material employed, in pounds per gallon or in weight percent;
  - f. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - g. the daily OC and VOC process emissions from R008 and R022, in pounds per day, i.e., the sum of "b" x "d" (for OC and VOC) for each process material employed;
  - h. the daily uncontrolled styrene emissions from R008 and R022, in pounds per day, i.e., the sum of "b" x "e" for the styrene in each process material employed;
  - i. the daily OC and/or VOC emissions from all cleanup materials applied in R008 and R022,

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

- in pounds per day, i.e., the sum of "c" x "f" for each cleanup material applied;
- j. the daily controlled styrene emissions for all process materials employed, in pounds per day, i.e. the uncontrolled emissions from "h" x (100% - control efficiency\*);
  - k. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - l. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("g" + "i") / "k"; and
  - m. the average hourly controlled styrene emission rate for all materials employed, in pounds per hour, i.e. "j" / "k".

\* the control efficiency shall be adjusted to the percent control established during the most recent emissions test that demonstrated the emissions unit to be in compliance and 87% shall be used for the purposes of record keeping until such testing is completed.

- 4. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
  - a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds or tons per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the

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

recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

5. The permittee shall collect and record the following information on a monthly basis for emissions units R008 and R022 combined:
  - a. the monthly total OC and VOC emissions from all process materials employed in R008 and R022, i.e., the sum of the daily emissions, in pounds or tons of each pollutant per month, from Section C.3.g above;
  - b. the monthly total controlled styrene emissions from all process materials employed in R008 and R022, i.e., the sum of the daily emissions, in pounds or tons per month, from Section C.3.j above;
  - c. the monthly total OC and/or VOC emissions for all cleanup materials employed in R008 and R022, i.e., the sum of the daily emissions prior to any recovery credit, in pounds or tons of OC and/or VOC per month, from Section C.3.i above;
  - d. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.4.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds or tons per month;
  - e. if a credit for recovered materials is used\*, the adjusted monthly total OC and VOC emissions from cleanup materials, in pounds or tons per month (i.e., "c"- "d"); and
  - f. the total rolling 12-month VOC and controlled styrene emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions and the sum of "b" for process styrene emissions, from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

6. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and

Emissions Unit ID: R008

- curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
- b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
7. The permit to install for emissions units R008 and R022 was evaluated based on the actual materials applied and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):
- Pollutant: Styrene
- TLV (mg/m<sup>3</sup>): 85.2 mg/m<sup>3</sup>
- Maximum Hourly Emission Rate (lbs/hr): 3.99 lbs/hr (R008 + R022)
- Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 279 ug/m<sup>3</sup>
- MAGLC (ug/m<sup>3</sup>): 2,029 ug/m<sup>3</sup>
8. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air

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

"Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
9. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
10. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.

#### D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was either not maintained at the required differential pressure or average facial velocity, through each NDO.
3. The permittee shall submit deviation (excursion) reports which identify each day during which the average OC emissions from the emissions unit exceeded 6.30 pounds per hour and the actual OC emissions.
4. The permittee shall submit deviation (excursion) reports which identify each day during which the average VOC emissions from the emissions unit exceeded 4.07 pounds per hour and the actual VOC emissions.
5. The permittee shall submit deviation (excursion) reports which identify each day during which the average styrene emissions from the emissions unit exceeded 3.99 pounds per hour and the actual styrene emissions.
6. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
7. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:

- a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
8. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.
  9. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

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

1. Emission Limitations:  
4.07 pounds VOC/hr from R008 and R022 together  
100% by weight capture efficiency  
87% by weight control efficiency  
  
Applicable Compliance Method:  
U.S. EPA Reference Methods 1 through 4, 18, 25 or 25A of 40 CFR Part 60, Appendix A and Methods 204 through 204F of 40 CFR Part 51, Appendix M.
2. 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 the date this permit is issued.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for OC, VOC and styrene emissions, and the capture efficiency and control efficiency limitations for VOC (styrene) emissions.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18, 25 or 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for emissions, are specified below. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

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

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.

- d. The test(s) shall be conducted while the emissions units associated with the Polyad control system are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. 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.)

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, Northeast 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, Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northeast 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, Northeast 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, Northeast District Office.

3. Emission Limitation:  
6.30 pounds per hour (daily average) of OC emissions from R008 and R022 together

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3 and the

**American Standard Inc**  
**PTI Application: 02 10111**  
**Issued**

**Facility ID: 0215090011**

**Emissions Unit ID: R008**

testing requirements specified above.

4. Emission Limitation:  
20.1 tons per year of OC emissions from R008 and R022 together

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3

5. Emission Limitation:  
4.07 pounds per hour (daily average) of VOC emissions from R008 and R022 together

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

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3 and the testing requirements specified above.

6. Emission Limitation:  
10.3 tons per rolling 12-month period of VOC emissions from R008 and R022 together

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3.

7. Emission Limitation:  
3.99 pounds per hour (daily average) of styrene emissions from R008 and R022 together

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3 and the testing requirements specified above.

8. Emission Limitation:  
9.95 tons per rolling 12-month period of styrene emissions from R008 and R022 together:

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3.

9. Emission Limitation from R008 and R022 together (from natural gas combustion from drying oven and thermal oxidizer):

0.005 pound per hour of particulate emissions

0.03 pound per hour of OC emissions

0.016 pound per hour of VOC emissions

0.29 pound per hour of NO<sub>x</sub> emissions

0.24 pound per hour of CO emissions

0.002 pound per hour of SO<sub>2</sub> emissions

Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3) by the maximum rated capacity of the oven and furnace.

10. Emission Limitation from R008 and R022 together (from natural gas combustion from drying oven and thermal oxidizer):

0.02 ton per year of particulate emissions

0.14 ton per year of OC emissions

88

**Ameri  
PTI A**

**Issued: To be entered upon final issuance**  
0.07 ton per year of VOC emissions

Emissions Unit ID: **R008**

**Ameri  
PTI A**

Emissions Unit ID: **R008**

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

1.26 tons per year of NO<sub>x</sub> emissions  
1.05 tons per year of CO emissions  
0.008 ton per year of SO<sub>2</sub> emissions

**Applicable Compliance Method:**

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for emissions unit R008 contained in Permit to Install number 17-439, issued on November 5, 1986; and the requirements for emissions unit P008 (R008's oven) in Permit to Install number 17-1493, issued on October 30, 1996. The following terms and conditions are federally enforceable requirements: A, B, C (except C.7, C.8, and C.9), D, E, and F.

Ameri  
PTI A

Emissions Unit ID: **R009**

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

**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>
R009 - Tubs Department Americast I Primer Booth. This operation includes a water-based primer spray booth and a curing oven.	OAC rule 3745-31-05(A)(3)  OAC rule 3745-17-07  OAC rule 3745-17-10  OAC rule 3745-31-05(C)

Applicable Emissions  
Limitations/Control Measures

The total emissions for this emissions unit shall not exceed the following limits:

Process Operation

0.042 pound per hour and 0.18 ton per year of particulate emissions.

Natural Gas Combustion

0.001 pound per hour and 0.01 ton per year of particulate emissions.

0.01 pound per hour and 0.02 ton per year of OC emissions.

0.003 pound per hour and 0.01 ton per year of VOC emissions.

0.05 pound per hour and 0.22 ton per year of NO<sub>x</sub> emissions.

0.04 pound per hour and 0.18 ton per year of CO emissions.

0.0003 pound per hour and 0.001 ton per year for SO<sub>2</sub>.

Visible particulate emissions shall not exceed 10% opacity as a six-minute average.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule

3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See Sections A.2.a and A.2.b below.

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

1. The permittee shall operate the dust filters whenever this emissions unit is in operation.
2. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas are permitted at the potential usage of natural gas in all of the drying ovens contained in this permit.

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

1. The permittee shall maintain daily records that document any time periods when the dust

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

collectors were not in service while the emissions unit was in operation.

2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.
3. At the end of each month the permittee shall collect, calculate, and record the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023. Two tons of VOC emissions shall be added to these rolling 12-month emissions record, to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020.
4. At the end of each year the permittee shall collect and record the total tons of non-OC/VOC coatings applied in emission unit R009, to be used in the annual demonstration of compliance with the particulate emissions limit from overspray, by applying the annual tons of the non-OC/VOC coating employed in the calculation of the estimated emissions contained in Section E.2.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when the dust filters were not in service while the emissions unit was in operation.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.
3. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.

4. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
5. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.
6. The permittee shall submit any calculated exceedance of the limitation(s) on particulate emissions from overspray from the frit and non-OC/VOC coatings applied in emission units K001, R005, R009, R019, and R020, as determined in the annual calculation required in Section E.2 of this permit. This report shall be included in the 4th quarter exceedance report if it is determined an exceedance has occurred.

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

1. Emission Limitation:  
0.042 pound per hour of particulate emissions (total from Americast I filter)

**Applicable Compliance Method:**

This limit represents the estimated controlled potential emissions of this emissions unit, calculated as follows:

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

$$(20 \text{ lbs coat/hr}) \times (100\% - 70\% \text{TE}) \times (100\% - 99.3\% \text{ capture and control for fabric filter}) = 0.042 \text{ lbs/hr}$$

If required by the Ohio EPA, compliance with the allowable particulate emission limit shall be determined in accordance with U.S. EPA Reference Methods 1 through 5 of 40 CFR Part 60, Appendix A.

2. Emission Limitation:  
0.18 ton per year of particulate emissions (total from Americast I filter)

## Applicable Compliance Method:

The annual limit is based on the allowable hourly emission rate (0.04 lb/hr) multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. In order to demonstrate compliance with the annual particulate emissions limits from non-OC/VOC coatings, the following calculation shall be performed at the end of each year:

$$PE = (FC \times 70\% \text{ overspray} \times 25\% \text{ to filter} \times 1\% \text{ lost from filter})$$

where:

PE = total estimated particulate emissions from overspray, in tons of PE per year

FC = total annual coating usage in this emissions unit, in tons per year

3. Emission Limitation (from natural gas combustion from drying oven):  
0.001 pound per hour of particulate emissions  
0.01 pound per hour of OC emissions  
0.003 pound per hour of VOC emissions  
0.05 pound per hour of NO<sub>x</sub> emissions  
0.04 pound per hour of CO emissions  
0.0003 pound per hour of SO<sub>2</sub> emissions

## Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3) by the maximum rated capacity of the oven and furnace.

4. Emission Limitation (from natural gas combustion from drying oven):  
0.01 ton per year of particulate emissions  
0.02 ton per year of OC emissions  
0.01 ton per year of VOC emissions  
0.22 ton per year of NO<sub>x</sub> emissions

96

**Ameri  
PTI A**

Emissions Unit ID: **R009**

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

0.18 ton per year of CO emissions

0.001 ton per year of SO<sub>2</sub> emissions

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

Applicable Compliance Method:

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

## 5. Emission Limitation:

10% opacity, as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1); or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1313 issued on March 15, 1995. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

**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>
R012 - Americast I System 1 Clamps 1 and 2.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.24 pound per hour (daily average) and 1.07 tons per year of OC emissions.  0.24 pound per hour (daily average) and 1.07 tons per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	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 3745-31-05(C)	See Sections A.2.a and A.2.b below.

**2. Additional Terms and Conditions**

- 2.a During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

99

**Ameri  
PTI A**

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

Emissions Unit ID: **R012**

- i. 6.46 tons of VOC;

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

- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;

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

- f. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - g. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "e" for each cleanup material applied;
  - h. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - i. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("f" + "g")/ "h" for each pollutant; and
  - j. the amount of polyol and MDI, urethane resin, used in this emissions unit, in pounds per day.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.f above;
  - b. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.g above;
  - c. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - d. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d");
  - e. the total rolling 12-month VOC emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions from the current and previous 11 months; and
  - f. the monthly MDI emissions, estimated using the calculation of emissions from the Alliance for the Polyurethanes Industry "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry (1999)", and substituting the variables for the average process temperature in degrees K and the monthly volume of displaced air (ft<sup>3</sup>/month).

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;

- b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
- a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

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

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.24 pound per hour and the actual average hourly OC emissions for each such day; and
  - b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.24 pound per hour and the actual average hourly VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;

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

- b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:

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

- a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitation:  
0.24 pound per hour (daily average) and 1.07 tons per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
0.24 pound per hour (daily average) and 1.07 tons per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1072 issued on September 2, 1992. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
R013 - Americast I System 2 Clamps 3 and 4.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.24 pound per hour (daily average) and 1.07 tons per year of OC emissions.  0.24 pound per hour (daily average) and 1.07 tons per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	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 3745-31-05(C)	See Sections A.2.a and A.2.b below.

**2. Additional Terms and Conditions**

- 2.a During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

**American Standard Inc**  
**PTI Application: 02 10111**  
**Issued**

**Facility ID: 0215090011**

**Emissions Unit ID: R013**

- i. 6.46 tons of VOC;

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

- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;

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

- f. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - g. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "e" for each cleanup material applied;
  - h. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - i. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("f" + "g")/ "h" for each pollutant; and
  - j. the amount of polyol and MDI, urethane resin, used in this emissions unit, in pounds per day.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.f above;
  - b. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.g above;
  - c. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - d. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d");
  - e. the total rolling 12-month VOC emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions from the current and previous 11 months; and
  - f. the monthly MDI emissions, estimated using the calculation of emissions from the Alliance for the Polyurethanes Industry "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry (1999)", and substituting the variables for the average process temperature in degrees K and the monthly volume of displaced air (ft<sup>3</sup>/month).

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;

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

- b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
- a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.24 pound per hour and the actual average hourly OC emissions for each such day; and
  - b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.24 pound per hour and the actual average hourly VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;

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

- b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:

**American Standard Inc**  
**PTI Application: 02-18111**  
**Issued**

**Facility ID: 0215090011**

**Emissions Unit ID: R013**

- a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitation:  
0.24 pound per hour (daily average) and 1.07 tons per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
0.24 pound per hour (daily average) and 1.07 tons per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1072 issued on September 2, 1992. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
R014 - Americast II System 3 Clamps 5 and 6.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.28 pound per hour (daily average) and 1.21 tons per year of OC emissions.  0.28 pound per hour (daily average) and 1.21 tons per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	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 3745-31-05(C)	See Sections A.2.a and A.2.b below.

**2. Additional Terms and Conditions**

- 2.a During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

115

Ameri

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: **R014**

- i. 6.46 tons of VOC;

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

- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;

- f. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - g. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "e" for each cleanup material applied;
  - h. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - i. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("f" + "g")/ "h" for each pollutant; and
  - j. the amount of polyol and MDI, urethane resin, used in this emissions unit, in pounds per day.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

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

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.f above;
  - b. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.g above;
  - c. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - d. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d");
  - e. the total rolling 12-month VOC emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions from the current and previous 11 months; and
  - f. the monthly MDI emissions, estimated using the calculation of emissions from the Alliance for the Polyurethanes Industry "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry (1999)", and substituting the variables for the average process temperature in degrees K and the monthly volume of displaced air (ft<sup>3</sup>/month).
- \* The credit for recovered materials shall be applied during the month the materials are shipped off-site.
4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;

- b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
- a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

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

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.28 pound per hour and the actual average hourly OC emissions for each such day; and
  - b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.28 pound per hour and the actual average hourly VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;

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

- b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitation:  
0.28 pound per hour (daily average) and 1.21 tons per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
0.28 pound per hour (daily average) and 1.21 tons per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1072 issued on September 2, 1992. The

121

**Ameri**

**PTI A**

Emissions Unit ID: **R014**

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

following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
R015 - Americast II System 4 Clamps 7 and 9.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.28 pound per hour (daily average) and 1.21 tons per year of OC emissions.  0.28 pound per hour (daily average) and 1.21 tons per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	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 3745-31-05(C)	See Sections A.2.a and A.2.b below.

**2. Additional Terms and Conditions**

- 2.a During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

123

**American Standard Inc**  
**PTI Application: 02 10111**  
**Issued**

**Facility ID: 0215090011**

**Emissions Unit ID: R015**

- i. 6.46 tons of VOC;

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

- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None.

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;

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

- f. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - g. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "e" for each cleanup material applied;
  - h. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - i. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("f" + "g")/ "h" for each pollutant; and
  - j. the amount of polyol and MDI, urethane resin, used in this emissions unit, in pounds per day.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.f above;
  - b. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.g above;
  - c. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - d. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d");
  - e. the total rolling 12-month VOC emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions from the current and previous 11 months; and
  - f. the monthly MDI emissions, estimated using the calculation of emissions from the Alliance for the Polyurethanes Industry "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry (1999)", and substituting the variables for the average process temperature in degrees K and the monthly volume of displaced air (ft<sup>3</sup>/month).

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;

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

- b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
- a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.28 pound per hour and the actual average hourly OC emissions for each such day; and
  - b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.28 pound per hour and the actual average hourly VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;

- b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

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

1. Emission Limitation:  
0.28 pound per hour (daily average) and 1.21 tons per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
0.28 pound per hour (daily average) and 1.21 tons per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

#### **F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1072 issued on September 2, 1992.

129

**Ameri**

**PTI A**

Emissions Unit ID: **R015**

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

Please note PTI 17-1072 incorrectly identifies R015 as Clamp #7 and #8. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
R018 - Tool Making Operation. This operation is a polyurethane process for making acrylic bathtub tools (fixtures), and includes a spray booth and drying oven.	<p>OAC rule 3745-31-05(A)(3)</p> <p>OAC rule 3745-17-07</p> <p>OAC rule 3745-17-10</p> <p>OAC rule 3745-21-07(G)</p> <p>OAC rule 3745-31-05(C)</p>

**Ameri  
PTI A**

Emissions Unit ID: **R018**

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

Applicable Emissions Limitations/Control Measures	Visible particulate emissions shall not exceed 10% opacity as a six-minute average.
The total emissions for this emissions unit shall not exceed the following limits:	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
<u>Process Operations</u>	
0.05 pound per hour (daily average) and 0.20 ton per year of OC emissions.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
0.05 pound per hour (daily average) and 0.20 ton per rolling 12-month period of VOC emissions.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
<u>Natural Gas Combustion</u>	
0.0003 pound per hour and 0.001 ton per year of particulate emissions.	See Sections A.2.a and A.2.b below.
0.002 pound per hour and 0.01 ton per year of OC emissions.	
0.001 pound per hour and 0.004 ton per year of VOC emissions.	
0.02 pound per hour and 0.07 ton per year of NO <sub>x</sub> emissions.	
0.01 pound per hour and 0.06 ton per year of CO emissions.	
0.0001 pound per hour and 0.0004 ton per year of SO <sub>2</sub> emissions.	

## 2. Additional Terms and Conditions

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

## B. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas are permitted at the potential usage of natural gas in all of the drying ovens contained in this permit.

## C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:

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

- a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each primer employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each primer coat employed, in pounds per gallon or in weight percent;
  - e. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - f. the daily OC and VOC emissions from all primer coating employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - g. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "e" for each cleanup material applied;
  - h. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - i. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("f" + "g")/ "h" for each pollutant.; and
  - j. the amount of polyol and MDI, urethane resin, used in this emissions unit, in pounds per day.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

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

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from primer coating employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.f above;
  - b. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.g above;
  - c. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - d. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d");
  - e. the total rolling 12-month VOC emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions from the current and previous 11 months; and
  - f. the monthly MDI emissions, estimated using the calculation of emissions from the Alliance for the Polyurethanes Industry "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry (1999)", and substituting the variables for the average process temperature in degrees K and the monthly volume of displaced air (ft<sup>3</sup>/month).
- \* The credit for recovered materials shall be applied during the month the materials are shipped off-site.
4. At the end of each month the permittee shall collect, calculate, and record the following rolling

12-month emissions:

- a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
  - b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.

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

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.05 pound per hour and the actual average OC emissions for each such day; and
  - b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.05 pound per hour and the actual average VOC emissions for each such day;

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

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.
3. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
4. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
5. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitation:  
0.05 pound per hour (daily average) of VOC emissions and 0.20 ton per year period.

Applicable Compliance Method:

Compliance shall be based on upon the record keeping requirements specified in C.1.

2. Emissions Limitation:  
0.05 pound per hour (daily average) of OC emissions and 0.20 ton per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based on upon the record keeping requirements specified in C.1.

3. Emission Limitation (from natural gas combustion from drying oven):  
0.0003 pound per hour of particulate emissions  
0.002 pound per hour of OC emissions  
0.001 pound per hour of VOC emissions  
0.02 pound per hour of NO<sub>x</sub> emissions  
0.01 pound per hour of CO emissions  
0.0004 pound per hour of SO<sub>2</sub> emissions

Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3) by the maximum rated capacity of the oven and furnace.

4. Emission Limitation (from natural gas combustion from drying oven):  
0.001 ton per year particulate emissions  
0.01 ton per year of OC emissions  
0.004 ton per year of VOC emissions  
0.07 ton per year of NO<sub>x</sub> emissions  
0.06 ton per year of CO emissions  
0.0004 ton per year of SO<sub>2</sub> emissions

Applicable Compliance Method:

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

5. Emission Limitation:  
  
10% opacity, as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in

**Ameri  
PTI A**

Emissions Unit ID: **R018**

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

accordance with Method 9 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1); or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

**F. Miscellaneous Requirements**

1. The requirements of this Permit-to-Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1327 issued on December 20, 1994. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

**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>
R019 - Smallware Department Enamel Ground Coat Line vented to 1 dust collector (ES-07). This operation includes a spray booth, drying oven, and curing furnace.	<p>OAC rule 3745-31-05(A)(3)</p> <p>OAC rule 3745-17-07</p> <p>OAC rule 3745-17-11</p> <p>OAC rule 3745-31-05(C)</p>

**Ameri  
PTI A**

Emissions Unit ID: **R019**

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

<u>Applicable Emissions Limitations/Control Measures</u>	emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
The total emissions for this emissions unit shall not exceed the following limits:	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
<u>Process Operations</u>	
0.47 pound per hour and 2.07 tons per year of particulate emissions from dust collector ES-07.	See Sections A.2.a and A.2.b below.
<u>Natural Gas Combustion</u>	
0.01 pound per hour and 0.05 ton per year of particulate emissions.	
0.06 pound per hour and 0.27 ton per year of OC emissions.	
0.03 pound per hour and 0.13 ton per year of VOC emissions.	
0.56 pound per hour and 2.43 tons per year of NO <sub>x</sub> emissions.	
0.47 pound per hour and 2.04 tons per year of CO emissions.	
0.0035 pound per hour and 0.012 ton per year of SO <sub>2</sub> emissions.	
Visible particulate emissions shall not exceed 10% opacity as a six-minute average.	
The emission limitation specified by this rule is less stringent than the	

## 2. Additional Terms and Conditions

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

## B. Operational Restrictions

1. The permittee shall operate the dust collector (ES-07) whenever this emissions unit is in operation.
2. The pressure drop across the dust collector (ES-07) shall be maintained within the range of 3 to 6.5 inches of water while the emissions unit is in operation.
3. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas are permitted at the potential usage of natural gas in all of the drying ovens contained in this permit.

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

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

1. The permittee shall maintain daily records that document any time periods when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the dust collector (ES-07) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the dust collector on a daily basis.
3. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.
4. At the end of each month the permittee shall collect, calculate, and record the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023. Two tons of VOC emissions shall be added to these rolling 12-month emissions record, to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020.
5. At the end of each year the permittee shall collect and record the total tons of frit coatings applied in this emissions unit, to be used in the annual demonstration of compliance with the particulate emissions limit from overspray, by applying the annual tons of frit coating employed in the calculation of the estimated emissions contained in Section E.2.

#### D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the dust collectors did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.
4. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
5. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
6. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

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

7. The permittee shall submit any calculated exceedance of the limitation(s) on particulate emissions from overspray from the frit and non-OC/VOC coatings applied in emission units K001, R005, R009, R019, and R020, as determined in the annual calculation required in Section E.2 of this permit. This report shall be included in the 4th quarter exceedance report if it is determined an exceedance has occurred.

**E. Testing Requirements**

1. Emission Limitation:  
0.47 pound per hour of particulate emissions (total from dust collector ES-07)

## Applicable Compliance Method:

This limit represents the estimated controlled potential emissions of this emissions unit, calculated as follows:

$$(90 \text{ parts/hr}) \times (3.0 \text{ lbs coat/part}) \times (100\% - 30\% \text{TE}) \times (25\% \text{ to filter}^*) \times (100\% - 99.0\% \text{ control for ES-07}) = 0.47 \text{ lbs/hr}$$

If required by the Ohio EPA, compliance with the allowable particulate emission limit shall be determined in accordance with U.S. EPA Reference Methods 1 through 5 of 40 CFR Part 60, Appendix A.

\* it is estimated that a minimum of 75% of the overspray is collected in the reclaim trough

2. Emission Limitation:  
2.07 tons per year of particulate emissions (total from dust collector ES-07)

## Applicable Compliance Method:

The annual limit is based on the allowable hourly emission rate (0.47 lb/hr) multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. In order to demonstrate compliance with the annual particulate emissions limits from frit coatings, the following calculation shall be performed at the end of each year:

$$PE = (FC \times 70\% \text{ overspray} \times 25\% \text{ to filter} \times 1\% \text{ lost from filter})$$

where:

PE = total estimated particulate emissions from overspray, in tons of PE per year  
FC = total annual frit coating usage in this emissions unit, in tons per year

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

3. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.01 pound per hour of particulate emissions
  - 0.06 pound per hour of OC emissions
  - 0.03 pound per hour of VOC emissions
  - 0.56 pound per hour of NO<sub>x</sub> emissions
  - 0.47 pound per hour of CO emissions
  - 0.0035 pound per hour SO<sub>2</sub> emissions

## Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3, dated 7/98) by the maximum rated capacity of the oven and furnace.

4. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.05 ton per year of particulate emissions
  - 0.27 ton per year of OC emissions
  - 0.13 ton per year of VOC emissions
  - 2.43 tons per year of NO<sub>x</sub> emissions
  - 2.04 tons per year of CO emissions
  - 0.012 ton per year SO<sub>2</sub> emissions

## Applicable Compliance Method:

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

5. Emission Limitation:
  - 10% opacity, as a 6-minute average

## Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1); or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this

**American Standard Inc**  
**PTI Application: 02 10111**  
**Issued**

**Facility ID: 0215090011**

Emissions Unit ID: **R019**

emissions unit contained in Permit to Install number 17-1485 issued on October 30, 1996. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

Ameri  
PTI A

Emissions Unit ID: **R020**

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

**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>
R020 - Tubs Department Finish Coat Line vented to 2 dust collectors (ET-01 and ET-02). This operation includes a finish spray booth, Stan Sure spray booth, drying oven, and curing furnace.	<p>OAC rule 3745-31-05(A)(3)</p> <p>OAC rule 3745-17-07</p> <p>OAC rule 3745-17-11</p> <p>OAC rule 3745-31-05(C)</p>

**Ameri  
PTI A**

Emissions Unit ID: **R020**

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

Applicable Emissions  
Limitations/Control Measures

The total emissions for this emissions unit shall not exceed the following limits:

Process Operations

0.61 pound per hour and 2.67 tons per year of particulate emissions from dust collectors ET-01 and ET-02.

Natural Gas Combustion

0.02 pound per hour and 0.10 ton per year of particulate emissions.

0.12 pound per hour and 0.54 ton per year of OC emissions.

0.06 pound per hour and 0.27 ton per year of VOC emissions.

1.13 pounds per hour and 4.95 tons per year of NO<sub>x</sub> emissions.

0.95 pound per hour and 4.16 tons per year of CO emissions.

0.01 pound per hour and 0.03 ton per year of SO<sub>2</sub> emissions.

Visible particulate emissions shall not exceed 10% opacity as a six-minute average.

The emission limitation specified by this rule is less stringent than the emission limitation established

pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See Sections A.2.a and A.2.b below.

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

1. The permittee shall operate the dust collectors (ET-01 and ET-02) whenever this emissions unit is in operation.
2. The pressure drop across the dust collectors (ET-01 and ET-02) shall be maintained within the range of 2.5 to 6 inches of water while the emissions unit is in operation.
3. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas are permitted at the potential usage of natural gas in all of the drying ovens contained in this permit.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records that document any time periods when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each of the dust collectors (ET-01 and ET-02) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each of the dust collectors on a daily basis.
3. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.
4. At the end of each month the permittee shall collect, calculate, and record the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023. Two tons of VOC emissions shall be added to these rolling 12-month emissions record, to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020.
5. At the end of each year the permittee shall collect and record the total tons of frit coatings applied in this emissions unit, to be used in the annual demonstration of compliance with the particulate emissions limit from overspray, by applying the annual tons of frit coating employed in the calculation of the estimated emissions contained in Section E.2.

**Issued: To be entered upon final issuance****D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when the dust collectors were not in service while the emissions unit was in operation.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the dust collectors did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.
4. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
5. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
6. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

7. The permittee shall submit any calculated exceedance of the limitation(s) on particulate emissions from overspray from the frit and non-OC/VOC coatings applied in emission units K001, R005, R009, R019, and R020, as determined in the annual calculation required in Section E.2 of this permit. This report shall be included in the 4th quarter exceedance report if it is determined an exceedance has occurred.

## E. Testing Requirements

1. Emission Limitation:  
0.61 pound per hour of particulate emissions (total from dust collectors ET-01 and ET-02)

Applicable Compliance Method:

This limit represents the estimated controlled potential emissions of this emissions unit, calculated as follows:

$$(145 \text{ tubs/hr}) \times (4.0 \text{ lbs coat/tub}) \times (100\% - 30\% \text{TE}) \times (25\% \text{ to filter}^*) \times (100\% - 99.5\% \text{ control for ET-01}) = 0.51 \text{ lbs/hr}$$

$$(145 \text{ tubs/hr}) \times (0.2 \text{ lbs coat/tub}) \times (100\% - 30\% \text{TE}) \times (100\% - 99.5\% \text{ control for ET-02}) = 0.10 \text{ lbs/hr}$$

If required by the Ohio EPA, compliance with the allowable particulate emission limit shall be determined in accordance with U.S. EPA Reference Methods 1 through 5 of 40 CFR Part 60, Appendix A.

\* it is estimated that a minimum of 75% of the overspray is collected in the reclaim trough

2. Emission Limitation:  
2.67 tons per year of particulate emissions (total from dust collectors ET-01 and ET-02)

Applicable Compliance Method:

The annual limit is based on the allowable hourly emission rate (0.61 lb/hr) multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. In order to demonstrate compliance with the annual particulate emissions limits from frit coatings, the following calculation shall be performed at the end of each year:

$$PE = (FC \times 70\% \text{ overspray} \times 25\% \text{ to filter} \times 1\% \text{ lost from filter})$$

where:

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

PE = total estimated particulate emissions from overspray, in tons of PE per year

FC = total annual frit coating usage in this emissions unit, in tons per year

3. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.02 pound per hour of particulate emissions
  - 0.12 pound per hour of OC emissions
  - 0.06 pound per hour of VOC emissions

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

- 1.13 pound per hour of NO<sub>x</sub> emissions
- 0.95 pound per hour of CO emissions
- 0.01 pound per hour of SO<sub>2</sub> emissions

## Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3 dated 7/98) by the maximum rated capacity of the oven and furnace.

4. Emission Limitation (from natural gas combustion from drying oven and furnace):
  - 0.10 ton per year period of particulate emissions
  - 0.54 ton per year of OC emissions
  - 0.27 ton per year of VOC emissions
  - 4.95 tons per year of NO<sub>x</sub> emissions
  - 4.16 tons per year of CO emissions
  - 0.03 ton per year of SO<sub>2</sub> emissions

## Applicable Compliance Method:

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

5. Emission Limitation:

10% opacity, as a 6-minute average

## Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, using the methods and procedures specified in OAC rule 3745-17-03(B)(1); or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 17-1493 issued on October 30, 1996. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.

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

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

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	<u>Applicable Rules/Requirements</u>
R022 - FRP Lamination Line 2 vented to the Polyad control system. This operation includes a FRP resin coating booth, transition area, and a curing oven.	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-21-07(G)
	OAC rule 3745-31-05(C)

**Ameri  
PTI A**

Emissions Unit ID: **R022**

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

<u>Applicable Emissions Limitations/Control Measures</u>	
The total emissions for emissions units R008 and R022 together shall not exceed the following limits which include resin usage and cleanup operations:	0.29 pound per hour and 1.26 tons per year of NO <sub>x</sub> emissions.
6.30 pounds per hour (daily average) and 20.1 tons per year of OC emissions.	0.24 pound per hour and 1.05 tons per year of CO emissions.
4.07 pounds per hour (daily average) and 10.3 tons per rolling 12-month period of VOC emissions.	0.002 pound per hour and 0.008 ton per year of SO <sub>2</sub> emissions.
3.99 pounds per hour (daily average) and 9.95 tons per rolling 12-month period of styrene emissions.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
This facility shall maintain a capture efficiency of 100% by weight and a styrene control efficiency (i.e., destruction or removal efficiency) which is at least 87% by weight.	See Sections A.2.a and A.2.b below.
<u>Natural Gas Combustion for R008 and R022 together</u>	
0.005 pound per hour and 0.02 ton per year of particulate emissions.	
0.03 pound per hour and 0.14 ton per year of OC emissions.	
0.016 pound per hour and 0.07 ton per year of VOC emissions.	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

**2.a** During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

- i. 6.46 tons of VOC;
- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

1. The Polyad Preconcentrator and thermal oxidizer control systems shall be used while this emissions unit is in operation.
2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
3. This emissions unit shall be totally enclosed such that all emissions are captured for venting to the

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

Polyad control system. Compliance with the following criteria, as specified by USEPA Method 204, shall be met by the permittee:

- a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each VOC emitting point unless otherwise specified by the Director;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity of air through all the NDO's shall be at least 3,600 m/hr (200 fpm) or the differential pressure between the inside and outside of the enclosure shall not be less than 0.007 inch of water;
  - d. the direction of air flow through all NDO's shall be into the enclosure; and
  - e. all access doors and windows whose areas are not included in section (b) and are not included in the calculations or monitoring in section (c) shall be closed during routine operation of the process.
  - f. all styrene emissions from this emissions unit must be captured and vented to the Polyad control system.
4. The permittee shall burn only natural gas in this emissions unit. The emissions from natural gas are permitted at the potential usage of natural gas for emission units R008 and R022.

**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 oxidizer 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.

The permittee shall collect and record the following information for each day:

- a. all 3-hour blocks of time (i.e., 12am to 3am; 3am to 6am, etc.) during which the average combustion temperature within the thermal oxidizer, 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 the emissions unit was in compliance; and

- b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record and maintain the following information on a daily basis:

- a. the difference in pressure between the permanent total enclosure and the surrounding area(s); and
  - b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
3. The permittee shall collect and record the following information on a daily basis for each material employed in emissions units R008 and R022 combined:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the styrene content of each process material employed, in pounds per gallon or in weight percent;
  - f. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;
  - g. the daily OC and VOC process emissions from R008 and R022, in pounds per day, i.e., the sum of "b" x "d" (for OC and VOC) for each process material employed;
  - h. the daily uncontrolled styrene emissions from R008 and R022, in pounds per day, i.e., the sum of "b" x "e" for the styrene in each process material employed;
  - i. the daily OC and/or VOC emissions from all cleanup materials applied in R008 and R022,

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

- in pounds per day, i.e., the sum of "c" x "f" for each cleanup material applied;
- j. the daily controlled styrene emissions for all process materials employed, in pounds per day, i.e. the uncontrolled emissions from "h" x (100% - control efficiency\*);
  - k. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - l. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("g" + "i") / "k"; and
  - m. the average hourly controlled styrene emission rate for all materials employed, in pounds per hour, i.e. "j" / "k".

\* the control efficiency shall be adjusted to the percent control established during the most recent emissions test that demonstrated the emissions unit to be in compliance and 87% shall be used for the purposes of record keeping until such testing is completed.

- 4. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
  - a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds or tons per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the

recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

5. The permittee shall collect and record the following information on a monthly basis for emissions units R008 and R022 combined:
  - a. the monthly total OC and VOC emissions from all process materials employed in R008 and R022, i.e., the sum of the daily emissions, in pounds or tons of each pollutant per month, from Section C.3.g above;
  - b. the monthly total controlled styrene emissions from all process materials employed in R008 and R022, i.e., the sum of the daily emissions, in pounds or tons per month, from Section C.3.j above;
  - c. the monthly total OC and/or VOC emissions for all cleanup materials employed in R008 and R022, i.e., the sum of the daily emissions prior to any recovery credit, in pounds or tons of OC and/or VOC per month, from Section C.3.i above;
  - d. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.4.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds or tons per month;
  - e. if a credit for recovered materials is used\*, the adjusted monthly total OC and VOC emissions from cleanup materials, in pounds or tons per month (i.e., "c"- "d"); and
  - f. the total rolling 12-month VOC and controlled styrene emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions and the sum of "b" for process styrene emissions, from the current and previous 11 months.

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

6. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and

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

- curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;
- b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
7. The permit to install for emissions units R008 and R022 was evaluated based on the actual materials applied and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m<sup>3</sup>): 85.2 mg/m<sup>3</sup>

Maximum Hourly Emission Rate (lbs/hr): 3.99 lbs/hr (R008 + R022)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 279 ug/m<sup>3</sup>

MAGLC (ug/m<sup>3</sup>): 2,029 ug/m<sup>3</sup>

8. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air

Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
9. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
10. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of the other fuel burned in this emissions unit.

#### D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was either not maintained at the required differential pressure or average facial velocity, through each NDO.
3. The permittee shall submit deviation (excursion) reports which identify each day during which the average OC emissions from the emissions unit exceeded 6.30 pounds per hour and the actual OC emissions.
4. The permittee shall submit deviation (excursion) reports which identify each day during which the average VOC emissions from the emissions unit exceeded 4.07 pounds per hour and the actual VOC emissions.
5. The permittee shall submit deviation (excursion) reports which identify each day during which the average styrene emissions from the emissions unit exceeded 3.99 pounds per hour and the actual styrene emissions.
6. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;
  - b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
7. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:

165

**Ameri  
PTI A**

Emissions Unit ID: **R022**

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

- a. 77.48 tons of VOC;
- b. 9.95 tons of styrene;

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

- c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
8. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. The reports shall include the type and quantity of fuel used.
  9. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitations:  
4.07 pounds VOC/hr from R008 and R022 together  
100% by weight capture efficiency  
87% by weight control efficiency

## Applicable Compliance Method:

U.S. EPA Reference Methods 1 through 4, 18, 25 or 25A of 40 CFR Part 60, Appendix A and Methods 204 through 204F of 40 CFR Part 51, Appendix M.

2. 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 the date this permit is issued.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for OC, VOC and styrene emissions, and the capture efficiency and control efficiency limitations for VOC (styrene) emissions.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 18, 25 or 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for emissions, are specified below. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. 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

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

total concentration, and on a consideration of the potential presence of interfering gases.

- d. The test(s) shall be conducted while the emissions units associated with the Polyad control system are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. 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.)

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, Northeast 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, Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northeast 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, Northeast 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, Northeast District Office.

3. Emission Limitation:  
6.30 pounds per hour (daily average) of OC emissions from R008 and R022 together

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3 and the testing requirements specified above.

4. Emission Limitation:  
20.1 tons per year of OC emissions from R008 and R022 together

168

**American Standard Inc**  
**PTI Application: 02 10111**  
**Issued**

**Facility ID: 0215090011**

**Emissions Unit ID: R022**

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.3

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

5. Emission Limitation:  
4.07 pounds per hour (daily average) of VOC emissions from R008 and R022 together  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.3 and the testing requirements specified above.
6. Emission Limitation:  
10.3 tons per rolling 12-month period of VOC emissions from R008 and R022 together  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.3.
7. Emission Limitation:  
3.99 pounds per hour (daily average) of styrene emissions from R008 and R022 together  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.3 and the testing requirements specified above.
8. Emission Limitation:  
9.95 tons per rolling 12-month period of styrene emissions from R008 and R022 together:  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.3.
9. Emission Limitation from R008 and R022 together (from natural gas combustion from drying oven and thermal oxidizer):  
0.005 pound per hour of particulate emissions  
0.03 pound per hour of OC emissions  
0.016 pound per hour of VOC emissions  
0.29 pound per hour of NO<sub>x</sub> emissions  
0.24 pound per hour of CO emissions  
0.002 pound per hour of SO<sub>2</sub> emissions.  
  
Applicable Compliance Method:  
Compliance with the hourly emission limitations from natural gas combustion shall be demonstrated by multiplying the AP-42 emission factor (Section 1.4, Tables 1.4-1 through 1.4-3) by the maximum rated capacity of the oven and furnace.
10. Emission Limitation from R008 and R022 together (from natural gas combustion from drying

**American Standard Inc**  
**PTI Application: 02-18111**  
**Issued**

**Facility ID: 0215090011**

**Emissions Unit ID: R022**

oven and thermal oxidizer):  
0.02 ton per year of particulate emissions  
0.14 ton per year of OC emissions  
0.07 ton per year of VOC emissions  
1.26 tons per year of NO<sub>x</sub> emissions  
1.05 tons per year of CO emissions  
0.008 ton per year of SO<sub>2</sub> emissions

**Applicable Compliance Method:**

The annual limits are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown for the annual limitations.

**F. Miscellaneous Requirements**

1. The requirements of this Permit to Install (02-18111) shall supersede the requirements for this emissions unit contained in Permit to Install number 02-1950 issued on December 6, 2001. The following terms and conditions are federally enforceable requirements: A, B, C (except C.7, C.8, and C.9), D, E, and F.

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

**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>
R023 - Americast I Admiral System Clamp 8.	OAC rule 3745-31-05(A)(3)	The total emissions for this emissions unit shall not exceed the following limits:  0.12 pound per hour (daily average) and 0.53 ton per year of OC emissions.  0.12 pound per hour (daily average) and 0.53 ton per rolling 12-month period of VOC emissions.
	OAC rule 3745-21-07(G)	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 3745-31-05(C)	See Sections A.2.a and A.2.b below.

**2. Additional Terms and Conditions**

- 2.a During the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit (emission units: K001, P010, P011, P012, P013, P014, P015, P016, R005, R008, R009, R012, R013, R014, R015, R018, R019, R020, R022, and R023) such that the monthly total of emissions are no greater than the following:

172

Ameri

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: **R023**

- i. 6.46 tons of VOC;

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

- ii. 0.83 ton of styrene;
- iii. 0.42 ton of methyl ethyl ketone; and
- iv. 1.25 tons of total aggregate HAPs.

**2.b** After the first 12 months of operation following the issuance of this permit, the permittee shall operate this emissions unit in combination with all other emissions units contained in this permit such that the total rolling 12-month emissions from all 20 emission units contained in this permit, referenced in Section A.2.a above, are less than or equal to the following:

- i. 77.48 tons of VOC;
- ii. 9.95 tons of styrene;
- iii. 5.00 tons of methyl ethyl ketone; and
- iv. 15.0 tons of total aggregate HAPs.

**B. Operational Restrictions**

None

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

1. The permittee shall collect and record the following information on a daily basis for each material employed in this emissions unit:
  - a. the company identification for each process and cleanup material employed;
  - b. the number of gallons or pounds of each process material employed;
  - c. the number of gallons or pounds of each cleanup material employed;
  - d. the OC and VOC content of each process material employed, in pounds per gallon or in weight percent;
  - e. the OC and/or VOC content of each cleanup material employed, in pounds per gallon or in weight percent;

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

- f. the daily OC and VOC emissions from all process materials employed, in pounds per day, i.e., the sum of "b" x "d" for each process material;
  - g. the daily OC and/or VOC emissions from all cleanup materials employed, in pounds per day, i.e., the sum of "c" x "e" for each cleanup material applied;
  - h. the total number of hours the emissions unit was in operation, i.e., hours/day;
  - i. the average hourly OC and VOC emission rate for all materials employed, in pounds per hour, i.e. ("f" + "g")/ "h" for each pollutant; and
  - j. the amount of polyol and MDI, urethane resin, used in this emissions unit, in pounds per day.
2. If a credit for recovered cleanup materials is used in the calculation of the 12-month rolling emissions, the permittee shall maintain the following records for the recovered materials and the recovery drum(s)/tank(s)/containers:
- a. the date the materials from the recovery drum(s)/tank(s)/containers were shipped off site;
  - b. the number of gallons or weight\* of the recovered cleanup materials shipped off site;
  - c. the minimum OC and/or VOC\*\* content of the cleanup materials collected in the recovery drum(s)/tank(s)/containers, in pounds per gallon or percent by weight; and
  - d. the total OC and/or VOC emissions from recovered materials to be credited to the total OC and/or VOC emissions from all cleanup materials employed, in pounds per the month shipped, i.e., "b" x "c".

\* The weight or gallons of recovered cleanup materials shall be recorded at the time it is shipped offsite; and shall not include the weight of the drum/tank/container, which shall remain closed/sealed at all times except during material additions and/or preparation for offsite recovery or disposal.

\*\* If anything other than the lowest OC and VOC content material is used in calculating the credit for the recovered materials, records of the identification and weight or volume of the materials added to the recovery drum/tank/container shall be maintained at the time each material is added. The OC/VOC content shall be calculated from the proportions of materials added to the recovery container; and these records shall be made available to any representative of the Ohio EPA upon request.

3. The permittee shall collect and record the following information on a monthly basis for this emissions unit:
  - a. the monthly total OC and VOC emissions from all process materials employed, i.e., the sum of the daily emissions, in pounds of each pollutant per month, from Section C.1.f above;
  - b. the monthly total OC and/or VOC emissions from all cleanup materials employed, i.e., the sum of the daily emissions prior to any recovery credit, in pounds per month, from Section C.1.g above;
  - c. if a credit for recovered materials is used\*, the total OC and/or VOC emissions from recovered cleanup materials (from Section C.2.d above) to be credited against the monthly total OC and/or VOC emissions, in pounds per month;
  - d. if a credit for recovered materials is used\*, the adjusted monthly total OC and/or VOC emissions from cleanup materials, in pounds per month (i.e., "c"- "d");
  - e. the total rolling 12-month VOC emissions for all materials employed, in tons, i.e., the sum of "a" plus "c" or "e" for VOC emissions from the current and previous 11 months; and
  - f. the monthly MDI emissions, estimated using the calculation of emissions from the Alliance for the Polyurethanes Industry "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry (1999)", and substituting the variables for the average process temperature in degrees K and the monthly volume of displaced air (ft<sup>3</sup>/month).

\* The credit for recovered materials shall be applied during the month the materials are shipped off-site.

4. At the end of each month the permittee shall collect, calculate, and record the following rolling 12-month emissions:
  - a. the rolling 12-month VOC emissions from all of the non-frit and/or VOC-containing coating operations contained in this permit, including emission units: P010, P011, P012, P013, P014, P015, P016, R008, R012, R013, R014, R015, R018, R022, and R023; and with the addition of two tons of VOC emissions, added to represent the potential annual VOC emissions from the combustion of natural gas in all of the drying ovens, curing furnaces, and the thermal oxidizer contained in this permit, including the drying ovens and curing furnaces for the frit and non-OC/VOC coatings applied in emissions units K001, R005, R009, R019, and R020;

- b. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
  - c. the rolling 12-month styrene emissions from emission units R008 and R022; and
  - d. the rolling 12-month total HAPs emissions to include:
    - i. the rolling 12-month MEK emissions from emission units P010, P014, and P016;
    - ii. the rolling 12-month styrene emissions from emission units R008 and R022;
    - iii. the rolling 12-month emissions of MDI from emission units R012, R013, R014, R015, R018, and R023; and
    - iv. any other HAP(s) documented in the product data for any process material employed, and calculated as the emissions for a rolling 12-month period.
5. The permittee shall keep the following records on all materials employed in this emissions unit:
- a. the identification of the chemical compound and its physical state; and
  - b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

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

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average OC emissions from the emissions unit exceeded 0.12 pound per hour and the actual average hourly OC emissions for each such day; and
  - b. an identification of each day during which the average VOC emissions from the emissions unit exceeded 0.12 pound per hour and the actual average hourly VOC emissions for each such day.
2. During the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any month during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 6.46 tons of VOC;

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

- b. 0.83 ton of styrene;
  - c. 0.42 ton of methyl ethyl ketone; and
  - d. 1.25 tons of total aggregate HAPs.
3. After the first 12 months following the issuance of this permit, the permittee shall submit quarterly deviation (excursion) reports which identify any rolling 12-month period during which the sum of the emissions from all 20 emission units contained in this permit exceed any of the following limitations:
  - a. 77.48 tons of VOC;
  - b. 9.95 tons of styrene;
  - c. 5.00 tons of methyl ethyl ketone; and
  - d. 15.0 tons of total aggregate HAPs.
4. All deviation reports shall be submitted quarterly as required in the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Emission Limitation:  
0.12 pound per hour (daily average) and 0.53 ton per year of OC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.
2. Emission Limitation:  
0.12 pound per hour (daily average) and 0.53 ton per rolling 12-month period of VOC emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the record keeping requirements specified in Section C.1.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable requirements: A, B, C, D, E, and F.