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Facility Name: **Armstrong World Industries**

Application Number: **01-7426**

Date: **August 19, 1998**

### **GENERAL PERMIT CONDITIONS**

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

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

#### **NOTICE OF INSPECTION**

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

#### **CONSTRUCTION OF NEW SOURCES**

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

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as

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an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

### **PERMIT TO INSTALL FEE**

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

### **PUBLIC DISCLOSURE**

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

### **APPLICABILITY**

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

### **BEST AVAILABLE TECHNOLOGY**

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

### **PERMIT TO OPERATE APPLICATION**

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule

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3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

### **SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION**

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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| <u>Ohio<br/>EPA<br/>Source<br/>Number</u> | <u>Source<br/>Identification<br/>Number</u> | <u>BAT<br/>Determination</u> | <u>Applicable Federal<br/>&amp; OAC Rules</u> | <u>Permit Allowable Mass<br/>Emissions and/or<br/>Control/Usage<br/>Requirements</u> |
|---|---|------------------------------|---|--|
|---|---|------------------------------|---|--|

AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Armstrong World Industries** located in **Franklin** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

3745-17-11

| <u>Ohio<br/>EPA<br/>Source<br/>Number</u> | <u>Source<br/>Identification<br/>Description</u> | <u>BAT<br/>Determination</u>  | <u>Applicable<br/>Federal &amp;<br/>OAC Rules</u> |
|---|--|---|---|
| R001                                      | Line 1 paint booth                               | Use of exhaust filter with a minimum control efficiency of 99.9% for control of particulates. Use of an air spray gun with a minimum transfer efficiency of 50%. Compliance with permitted limits and applicable rules and regulations. | 3745-31-05<br>3745-21-07 (G) (9) (c)              |

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| <u>Ohio EPA Source Number</u>                                     | <u>Source Identification Number</u>  | <u>BAT Determination</u>  | <u>Applicable Federal &amp; OAC Rules</u> | <u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u> |
|---|--|---|---|--|
|   | usage shall not exceed 41,666 gallons. Yearly coating usage shall not exceed 500,000 gallons. 0.9 lbs per hour particulate emissions                           |   |   |  |
| Permit Allowable Mass Emissions and/or Control/Usage Requirements | 3.3 lbs of VOC/hr 5 tons VOC/hr from coating VOC content of coating shall not exceed 0.02 lbs VOC per gal excluding water and exempt solvents. Monthly coating | BAT established by this permit is more stringent than the limit established by this rule. |   |  |

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#### SUMMARY

#### TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

| <u>Pollutant</u>          | <u>Tons/Year</u> |
|---------------------------|------------------|
| Particulate matter        | 1.36             |
| Volatile organic compound | 5.0              |

#### WASTE DISPOSAL

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

#### MAINTENANCE OF EQUIPMENT

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

#### MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Central District Office, 3232 Alum Creek Drive, Columbus, Ohio 43207-3417.**

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

#### **AIR POLLUTION NUISANCES PROHIBITED**

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

#### **CONSTRUCTION COMPLIANCE CERTIFICATION**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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

##### A. Operational Restrictions

1. The permittee shall ensure that all exhaust filters are in place and operating correctly at all times that emission unit R001 is in use.
2. All coating operations causing air emissions, including operations outside of the spray booth, shall occur only when the exhaust fans of the spray booth are operating.

##### B. Record keeping Requirements for Emission Unit R001

1. The permittee shall collect and maintain daily records which list the following information for the purpose of determining annual VOC emissions from source **R001**:

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- a. the name and identification number of each coating employed;
- b. the volume, in gallons, of each coating employed;
- c. the total volume, in gallons, of all the coatings employed;
- d. the VOC content of each coating, as applied, in pounds per gallon; and,
- e. the total VOC emissions in pounds per day from all coatings used in the emission source **R001**.

These records, as well as any supporting coating analyses and computations, shall be retained in the company's files for a period of not less than three years, and shall be made available for review to the Director of the Ohio EPA, or to any authorized representative, upon request.

2. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five (5) 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 the permit. Such records may be maintained in computerized form.

C. Reporting Requirements for Emission Unit R001.

1. The permittee shall notify the Director (Ohio EPA Central District Office) in writing of any monthly record showing that the coating line employs more than the applicable maximum monthly limit. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA Central District Office) within 45 days after the exceedance occurs.
2. The permittee shall also submit annual reports to the Central District Office of the Ohio EPA which

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summarize the total VOC emissions from the emission unit R001 for the previous calendar year. These reports shall be submitted by January 31 of each year.

3. The permittee shall submit required reports in the following manner:
  - a. reports of any required monitoring and/or record keeping information shall be submitted to the Ohio EPA Central District Office; and
  - b. 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 record keeping 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 Ohio EPA Central District Office. 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.)

D. Compliance Determination for Emission Unit **R001**.

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
3.3 lbs VOC/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum amount of coating used in an hour (165 gal/hr) with the maximum VOC content of the

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coating (0.02 lbs/gal) to obtain VOC emissions in pounds per hour.

- b. Emission Limitation:  
5.0 tons VOC per year from coating usage in R001

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum amount of coating used in a year (500,000 gal/yr) with the maximum VOC content of the coating (0.02 lbs/gal) and divide by 2,000 lbs per ton to get the VOC emissions in tons per year.

- c. Emission Limitation:  
0.02 lbs VOC/gallon excluding water and exempt solvents for coating material.

Applicable Compliance Method:

OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

- d. Emission Limitation:  
0.9 lb particulate emissions/hour

Applicable Compliance Method:

Use of filters during all periods of spray booth operation. To determine the actual worst case emissions rate for particulate matter from emission source R001 **the following** equation shall be used:

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$E = \text{maximum coating solids usage rate}$   
(pounds/hr) \* (1-TE) \* (1-CE)

Where:

E = particulate matter emissions rate (lbs/hr)

TE = transfer efficiency of painting equipment in decimal form (use 0.50), transfer efficiency is the ratio of the amount of coating solid deposited on the coated part to the amount of coating solids used

CE = control efficiency of the control equipment in decimal form (Use 99.9% for filters)