

DRAFT/PROPOSED CAAPP PERMIT  
November 8, 2012

*Attention: Guy M. Rule, EHS Manager*

Armstrong World Industries, Inc.  
1401 North Hobbie Avenue  
Kankakee, Illinois 60901

State of Illinois

# CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

*Source:*

Armstrong World Industries, Inc.  
1401 North Hobbie Avenue  
Kankakee, Illinois 60901

I.D. No.: 091804AAD  
Permit No.: 95120109

*Permitting Authority:*

Illinois Environmental Protection Agency  
Bureau of Air, Permit Section  
217/785-1705

**CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT**

Type of Application: Renewal  
Purpose of Application: Renew Existing CAAPP Permit for 5 Years

ID No.: 091804AAD  
Permit No.: 95120109  
Statement of Basis No.: 95120109-2012/10

Date Application Received: August 4, 2006  
Date Issued: TBD

Expiration Date: TBD  
Renewal Submittal Date: 9 Months Prior to Expiration Date

Source Name: Armstrong World Industries, Inc.  
Address: 1401 North Hobbie Avenue  
City: Kankakee  
County: Kankakee  
ZIP Code: 60901

This permit is hereby granted to the above-designated source authorizing operation in accordance with this CAAPP permit, pursuant to the above referenced application. This source is subject to the conditions contained herein. For further information on the source see Section 1 and for further discussion on the effectiveness of this permit see Condition 2.3(g).

If you have any questions concerning this permit, please contact Anatoly Belogorsky at 217/785-1705.

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

ECB:MTR:AB:jws

cc: IEPA, Permit Section  
IEPA, FOS, Region 1

| <u>Section</u>      | <b>Table of Contents</b>                                     | <u>Page</u> |
|---------------------|--|-------------|
| <b>1</b>            | <b>Source Information</b>                                    | <b>3</b>    |
|                     | 1.1 Addresses  |             |
|                     | 1.2 Contacts   |             |
|                     | 1.3 Single Source  |             |
| <b>2</b>            | <b>General Permit Requirements</b>                           | <b>4</b>    |
|                     | 2.1 Prohibitions   |             |
|                     | 2.2 Emergency Provisions                                     |             |
|                     | 2.3 General Provisions                                       |             |
|                     | 2.4 Testing  |             |
|                     | 2.5 Recordkeeping  |             |
|                     | 2.6 Certification  |             |
|                     | 2.7 Permit Shield  |             |
|                     | 2.8 Title I Conditions                                       |             |
|                     | 2.9 Reopening and Revising Permit                            |             |
|                     | 2.10 Emissions Trading Programs                              |             |
|                     | 2.11 Permit Renewal  |             |
|                     | 2.12 Permanent Shutdown                                      |             |
|                     | 2.13 Startup, Shutdown, and Malfunction                      |             |
| <b>3</b>            | <b>Source Requirements</b>                                   | <b>12</b>   |
|                     | 3.1 Applicable Requirements                                  |             |
|                     | 3.2 Applicable Plans and Programs                            |             |
|                     | 3.3 Title I Requirements                                     |             |
|                     | 3.4 Synthetic Minor Limits                                   |             |
|                     | 3.5 Reporting Requirements                                   |             |
| <b>4</b>            | <b>Emission Unit Requirements</b>                            | <b>16</b>   |
|                     | 4.1 Vinyl Floor Tiles Production Lines                       |             |
|                     | 4.2 Press-N-Place Systems                                    |             |
|                     | 4.3 Material Preparation and Conveying Systems               |             |
|                     | 4.4 Boilers  |             |
|                     | 4.5 Air Make-up Units  |             |
| <b>5</b>            | <b>Additional Title I Requirements</b>                       | <b>32</b>   |
| <b>6</b>            | <b>Insignificant Activities Requirements</b>                 | <b>33</b>   |
|                     | 6.1 Insignificant Activities Subject to Specific Regulations |             |
|                     | 6.2 Insignificant Activities in 35 IAC 201.210(a)            |             |
|                     | 6.3 Insignificant Activities in 35 IAC 201.210(b)            |             |
|                     | 6.4 Applicable Requirements                                  |             |
|                     | 6.5 Compliance Method  |             |
|                     | 6.6 Notification Requirements for Insignificant Activities   |             |
| <b>7</b>            | <b>Other Requirements</b>                                    | <b>36</b>   |
|                     | 7.1 Testing  |             |
|                     | 7.2 PM Process Weight Rate Requirements                      |             |
|                     | 7.3 40 CFR Part 63 Subpart A Requirements                    |             |
|                     | 7.4 Compliance Assurance Monitoring (CAM) Requirements       |             |
| <b>8</b>            | <b>State Only Requirements</b>                               | <b>44</b>   |
|                     | 8.1 Permitted Emissions for Fees                             |             |
| <b>Attachment 1</b> | <b>List of Emission Units at This Source</b>                 | <b>45</b>   |
| <b>Attachment 2</b> | <b>Acronyms and Abbreviations</b>                            | <b>46</b>   |
| <b>Attachment 3</b> | <b>Contact and Reporting Addresses</b>                       | <b>48</b>   |
| <b>Attachment 4</b> | <b>Example Certification by a Responsible Official</b>       | <b>49</b>   |

**Section 1 - Source Information**

**1. Addresses**

Source

Armstrong World Industries, Inc.  
1401 North Hobbie Avenue  
Kankakee, Illinois 60901

Owner

Armstrong World Industries, Inc.  
1401 North Hobbie Avenue  
Kankakee, Illinois 60901

Operator

Armstrong World Industries, Inc.  
1401 North Hobbie Avenue  
Kankakee, Illinois 60901

Permittee

The Owner and Operator of the source as identified in this table.

**2. Contacts**

Certified Officials

The source shall submit an Administrative Permit Amendment for any change in the Certified Officials, pursuant to Section 39.5(13) of the Act.

|                             | <i>Name</i>  | <i>Title</i>            |
|-----------------------------|--|-------------------------|
| <i>Responsible Official</i> | Todd Carlson   | Assistant Plant Manager |
| <i>Delegated Authority</i>  | No other individuals have been authorized by the IEPA. | N/A                     |

Other Contacts

|                          | <i>Name</i> | <i>Phone No.</i> | <i>Email</i>         |
|--------------------------|-------------|------------------|----------------------|
| <i>Source Contact</i>    | Guy M. Rule | 815/939-5401     | GMRule@armstrong.com |
| <i>Technical Contact</i> | Guy M. Rule | 815/939-5401     | GMRule@armstrong.com |
| <i>Correspondence</i>    | Guy M. Rule | 815/939-5401     | GMRule@armstrong.com |
| <i>Billing</i>           | Guy M. Rule | 815/939-5401     | GMRule@armstrong.com |

**3. Single Source**

The source identified in Condition 1.1 above shall be defined to include all the following additional source(s):

| <i>I.D. No.</i> | <i>Permit No.</i> | <i>Single Source Name and Address</i> |
|-----------------|-------------------|---------------------------------------|
| N/A             | N/A               | N/A                                   |

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

## Section 2 - General Permit Requirements

### 1. Prohibitions

- a. It shall be unlawful for any person to violate any terms or conditions of this permit issued under Section 39.5 of the Act, to operate the CAAPP source except in compliance with this permit issued by the IEPA under Section 39.5 of the Act or to violate any other applicable requirements. All terms and conditions of this permit issued under Section 39.5 of the Act are enforceable by USEPA and citizens under the Clean Air Act, except those, if any, that are specifically designated as not being federally enforceable in this permit pursuant to Section 39.5(7)(m) of the Act. [Section 39.5(6)(a) of the Act]
- b. After the applicable CAAPP permit or renewal application submittal date, as specified in Section 39.5(5) of the Act, the source shall not operate this CAAPP source without a CAAPP permit unless the complete CAAPP permit or renewal application for such source has been timely submitted to the IEPA. [Section 39.5(6)(b) of the Act]
- c. No Owner or Operator of the CAAPP source shall cause or threaten or allow the continued operation of an emission source during malfunction or breakdown of the emission source or related air pollution control equipment if such operation would cause a violation of the standards or limitations applicable to the source, unless this CAAPP permit granted to the source provides for such operation consistent with the Act and applicable Illinois Pollution Control Board regulations. [Section 39.5(6)(c) of the Act]
- d. Pursuant to Section 39.5(7)(g) of the Act, emissions from the source are not allowed to exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder, consistent with Section 39.5(17) of the Act and applicable requirements, if any.

### 2. Emergency Provisions

Pursuant to Section 39.5(7)(k) of the Act, the Owner or Operator of the CAAPP source may provide an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations under this CAAPP permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

- a.
  - i. An emergency occurred and the source can identify the cause(s) of the emergency.
  - ii. The source was at the time being properly operated.
  - iii. The source submitted notice of the emergency to the IEPA within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
  - iv. During the period of the emergency the source took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or requirements in this permit.
- b. For purposes of Section 39.5(7)(k) of the Act, "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, such as an act of God, that requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operation error.
- c. In any enforcement proceeding, the source seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or

Armstrong World Industries, Inc.  
 I.D. No.: 091804AAD  
 Permit No.: 95120109

Date Received: 08/04/06  
 Date Issued:

upset provision contained in any applicable requirement. This provision does not relieve the source of any reporting obligations under existing federal or state laws or regulations.

### **3. General Provisions**

#### **a. Duty to Comply**

The source must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [Section 39.5(7)(o)(i) of the Act]

#### **b. Need to Halt or Reduce Activity is not a Defense**

It shall not be a defense for the source in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Section 39.5(7)(o)(ii) of the Act]

#### **c. Duty to Maintain Equipment**

The source shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements. [Section 39.5(7)(a) of the Act]

#### **d. Disposal Operations**

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under. [Section 39.5(7)(a) of the Act]

#### **e. Duty to Pay Fees**

- i. The source must pay fees to the IEPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto. [Section 39.5(7)(o)(vi) of the Act]
- ii. The IEPA shall assess annual fees based on the allowable emissions of all regulated air pollutants, except for those regulated air pollutants excluded in Section 39.5(18)(f) of the Act and insignificant activities in Section 6, at the source during the term of this permit. The amount of such fee shall be based on the information supplied by the applicant in its complete CAAPP permit application. [Section 39.5(18)(a)(ii)(A) of the Act]
- iii. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois EPA, P.O. Box 19276, Springfield, IL, 62794-9276. Include on the check: ID #, Permit #, and "CAAPP Operating Permit Fees". [Section 39.5(18)(e) of the Act]

#### **f. Obligation to Allow IEPA Surveillance**

Pursuant to Sections 4(a), 39.5(7)(a), and 39.5(7)(p)(ii) of the Act, inspection and entry requirements that necessitate that, upon presentation of credentials and other documents as may be required by law and in accordance with constitutional limitations, the source shall allow the IEPA, or an authorized representative to perform the following:

- i. Enter upon the source's premises where the emission unit(s) are located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

- ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
- iv. Sample or monitor any substances or parameters at any location at reasonable times:
  - A. As authorized by the Clean Air Act or the Act, at reasonable times, for the purposes of assuring compliance with this CAAPP permit or applicable requirements; or
  - B. As otherwise authorized by the Act.
- v. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

**g. Effect of Permit**

- i. Pursuant to Section 39.5(7)(j)(iv) of the Act, nothing in this CAAPP permit shall alter or affect the following:
  - A. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section.
  - B. The liability of the Owner or Operator of the source for any violation of applicable requirements prior to or at the time of permit issuance.
  - C. The applicable requirements of the acid rain program consistent with Section 408(a) of the Clean Air Act.
  - D. The ability of USEPA to obtain information from the source pursuant to Section 114 (inspections, monitoring, and entry) of the Clean Air Act.
- ii. Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Sections 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. [35 IAC 201.122 and Section 39.5(7)(a) of the Act]

**h. Severability Clause**

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, other portions of this permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the source shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force. [Section 39.5(7)(i) of the Act]

**4. Testing**

- a. Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

any tests conducted as required by this permit or as the result of a request by the IEPA shall be submitted as specified in Condition 7.1 of this permit. [35 IAC Part 201 Subpart J and Section 39.5(7)(a) of the Act]

- b. Pursuant to Section 4(b) of the Act and 35 IAC 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
  - i. Testing by Owner or Operator: The IEPA may require the Owner or Operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the IEPA, at such reasonable times as may be specified by the IEPA and at the expense of the Owner or Operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The IEPA shall have the right to observe all aspects of such tests.
  - ii. Testing by the IEPA: The IEPA shall have the right to conduct such tests at any time at its own expense. Upon request of the IEPA, the Owner or Operator of the emission source or air pollution control equipment shall provide, without charge to the IEPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

**5. Recordkeeping**

**a. Control Equipment Maintenance Records**

Pursuant to Section 39.5(7)(b) of the Act, a maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates maintenance was performed and the nature of preventative maintenance activities.

**b. Retention of Records**

- i. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [Section 39.5(7)(e)(ii) of the Act]
- ii. Pursuant to Section 39.5(7)(a) of the Act, other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a different period is specified by a particular permit provision.

**c. Availability of Records**

- i. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall retrieve and provide paper copies, or as electronic media, any records retained in an electronic format (e.g., computer) in response to an IEPA or USEPA request during the course of a source inspection.
- ii. Pursuant to Section 39.5(7)(a) of the Act, upon written request by the IEPA for copies of records or reports required to be kept by this permit, the Permittee shall promptly submit a copy of such material to the IEPA. For this purpose, material shall be submitted to the IEPA within 30 days unless additional time is provided by the IEPA or the Permittee believes that the volume and nature of

requested material would make this overly burdensome, in which case, the Permittee shall respond within 30 days with the explanation and a schedule for submittal of the requested material. (See also Condition 2.9(d))

## 6. Certification

### a. Compliance Certification

- i. Pursuant to Section 39.5(7)(p)(v)(C) of the Act, the source shall submit annual compliance certifications by May 1 unless a different date is specified by an applicable requirement or by a particular permit condition. The annual compliance certifications shall include the following:
  - A. The identification of each term or condition of this permit that is the basis of the certification.
  - B. The compliance status.
  - C. Whether compliance was continuous or intermittent.
  - D. The method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- ii. Pursuant to Section 39.5(7)(p)(v)(D) of the Act, all compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the IEPA Compliance Section. Addresses are included in Attachment 3.
- iii. Pursuant to Section 39.5(7)(p)(i) of the Act, all compliance reports required to be submitted shall include a certification in accordance with Condition 2.6(b).

### b. Certification by a Responsible Official

Any document (including reports) required to be submitted by this permit shall contain a certification by the responsible official of the source that meets the requirements of Section 39.5(5) of the Act and applicable regulations. [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included in Attachment 4 of this permit.

## 7. Permit Shield

- a. Pursuant to Section 39.5(7)(j) of the Act, except as provided in Condition 2.7(b) below, the source has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the IEPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit. This permit shield does not extend to applicable requirements which are promulgated after \_\_\_\_\_ (date USEPA notice started), unless this permit has been modified to reflect such new requirements.
- b. Pursuant to Section 39.5(7)(j) of the Act, this permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

- c. Pursuant to Section 39.5(7)(a) of the Act, the issuance of this permit by the IEPA does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any currently pending or future legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the IEPA or the USEPA may have against the applicant including, but not limited to, any enforcement action authorized pursuant to the provision of applicable federal and state law.

## 8. Title I Conditions

Pursuant to Sections 39(a), 39(f), and 39.5(7)(a) of the Act, as generally identified below, this CAAPP permit may contain certain conditions that relate to requirements arising from the construction or modification of emission units at this source. These requirements derive from permitting programs authorized under Title I of the Clean Air Act (CAA) and regulations thereunder, and Title X of the Illinois Environmental Protection Act (Act) and regulations implementing the same. Such requirements, including the New Source Review programs for both major (i.e., PSD and nonattainment areas) and minor sources, are implemented by the IEPA.

- a. This permit may contain conditions that reflect requirements originally established in construction permits previously issued for this source. These conditions include requirements from preconstruction permits issued pursuant to regulations approved or promulgated by USEPA under Title I of the CAA, as well as requirements contained within construction permits issued pursuant to state law authority under Title X of the Act. Accordingly, all such conditions are incorporated into this CAAPP permit by virtue of being either an "applicable Clean Air Act requirement" or an "applicable requirement" in accordance with Section 39.5 of the Act. These conditions are identifiable herein by a designation to their origin of authority.
- b. This permit may contain conditions that reflect necessary revisions to requirements established for this source in preconstruction permits previously issued under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIR".
- i. Revisions to original Title I permit conditions are incorporated into this permit through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.
- ii. Revised Title I permit conditions shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.
- c. This permit may contain conditions that reflect new requirements for this source that would ordinarily derive from a preconstruction permit established under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIN".
- i. The incorporation of new Title I requirements into this CAAPP permit is authorized through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.
- ii. Any Title I conditions that are newly incorporated shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

## 9. Reopening and Revising Permit

### a. Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the source for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Section 39.5(7)(o)(iii) of the Act]

### b. Reopening and Revision

Pursuant to Section 39.5(15)(a) of the Act, this permit must be reopened and revised if any of the following occur:

- i. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- ii. Additional requirements become applicable to the source for acid deposition under the acid rain program;
- iii. The IEPA or USEPA determines that this permit contains a material mistake or that an inaccurate statement was made in establishing the emission standards or limitations, or other terms or conditions of this permit; or
- iv. The IEPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

### c. Inaccurate Application

Pursuant to Sections 39.5(5)(e) and (i) of the Act, the IEPA has issued this permit based upon the information submitted by the source in the permit application referenced on page 1 of this permit. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation or reopening of this CAAPP under Section 39.5(15) of the Act.

### d. Duty to Provide Information

The source shall furnish to the IEPA, within a reasonable time specified by the IEPA any information that the IEPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the source shall also furnish to the IEPA copies of records required to be kept by this permit. [Section 39.5(7)(o)(v) of the Act]

## 10. Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement. [Section 39.5(7)(o)(vii) of the Act]

## 11. Permit Renewal

- a. Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of the most recent issued CAAPP permit will remain in effect until the issuance of a renewal permit. [Sections 39.5(5)(1) and (o) of the Act]

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

- b. For purposes of permit renewal, a timely application is one that is submitted no less than 9 months prior to the date of permit expiration. [Section 39.5(5)(n) of the Act]

**12. Permanent Shutdown**

Pursuant to Section 39.5(7)(a) of the Act, this permit only covers emission units and control equipment while physically present at the source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

**13. Startup, Shutdown, and Malfunction**

Pursuant to Section 39.5(7)(a) of the Act, in the event of an action to enforce the terms or conditions of this permit, this permit does not prohibit a Permittee from invoking any affirmative defense that is provided by the applicable law or rule.

## Section 3 - Source Requirements

### 1. Applicable Requirements

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

#### a. Fugitive Particulate Matter

- i. Pursuant to 35 IAC 212.301 and 35 IAC 212.314, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source unless the wind speed is greater than 25 mph.
- ii. Compliance Method (Fugitive Particulate Matter)

Upon request by the IEPA, the Permittee shall conduct observations at the property line of the source for visible emissions of fugitive particulate matter from the source to address compliance with 35 IAC 212.301. For this purpose, daily observations shall be conducted for a week for particular area(s) of concern at the source, as specified in the request, observations shall begin either within one day or three days of receipt of a written request from the IEPA, depending, respectively, upon whether observations will be conducted by employees of the Permittee or a third-party observer hired by the Permittee to conduct observations on its behalf. The Permittee shall keep records for these observations, including identity of the observer, the date and time of observations, the location(s) from which observations were made, and duration of any fugitive emissions event(s).

#### b. Ozone Depleting Substances

Pursuant to 40 CFR 82.150(b), the Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- i. Pursuant to 40 CFR 82.156, persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices.
- ii. Pursuant to 40 CFR 82.158, equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment.
- iii. Pursuant to 40 CFR 82.161, persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program.
- iv. Pursuant to 40 CFR 82 Subpart B, any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner shall comply with 40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.
- v. Pursuant to 40 CFR 82.166, all persons shall comply with the reporting and recordkeeping requirements of 40 CFR 82.166.

#### c. Asbestos Demolition and Renovation

- i. Asbestos Fees. Pursuant to Section 9.13(a) of the Act, for any site for which the Owner or Operator must file an original 10-day notice of intent to renovate or

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

demolish pursuant to Condition 3.1(c)(ii) below and 40 CFR 61.145(b), the owner or operator shall pay to the IEPA with the filing of each 10-day notice a fee of \$150.

- ii. Pursuant to 40 CFR 61 Subpart M, Standard of Asbestos, prior to any demolition or renovation at this facility, the Permittee shall fulfill notification requirements of 40 CFR 61.145(b).
- iii. Pursuant to 40 CFR 61.145(c), during demolition or renovation, the Permittee shall comply with the procedures for asbestos emission control established by 40 CFR 61.145(c).

**d. NESHAP Standards (40 CFR 63 Subpart DDDDD)**

Pursuant to 40 CFR 63.7495(b), no later than March 21, 2014, the source must:

- i. Meet the applicable general provisions of 40 CFR 63 Subpart A. See Condition 7.3 (a).
- ii. Have a one-time energy assessment performed at the source as specified in 40 CFR 63 Subpart DDDDD Table 3 Condition 3, pursuant to 40 CFR 63.7500(a)(1).

**e. Future Emission Standards**

Pursuant to Section 39.5(15)(a) of the Act, this source shall comply with any new or revised applicable future standards of 40 CFR 60, 61, 62, or 63; or 35 IAC Subtitle B after the date issued of this permit. The Permittee shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 2.6(a). This permit may also have to be revised or reopened to address such new regulations in accordance to Condition 2.9.

**2. Applicable Plans and Programs**

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

**a. Fugitive PM Operating Program**

Should this source become subject to 35 IAC 212.302, the Permittee shall prepare and operate under a Fugitive PM Operating Program consistent with 35 IAC 212.310 and submitted to the IEPA for its review. The Fugitive PM Operating Program shall be designed to significantly reduce fugitive particulate matter emissions, pursuant to 35 IAC 212.309(a). Any future Fugitive PM Operating Program made by the Permittee during the permit term is automatically incorporated by reference provided the Fugitive PM Operating Program is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the Fugitive PM Operating Program. In the event that the IEPA notifies the Permittee of a deficiency with any Fugitive PM Operating Program, the Permittee shall be required to revise and resubmit the Fugitive PM Operating Program within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

**b. PM<sub>10</sub> Contingency Measure Plan**

Should this source become subject to 35 IAC 212.700, then the Permittee shall prepare and operate under a PM<sub>10</sub> Contingency Measure Plan reflecting the PM<sub>10</sub> emission reductions as set forth in 35 IAC 212.701 and 212.703. The Permittee shall, within 90 days after the date this source becomes subject to 35 IAC 212.700, submit a request to modify this CAAPP permit in order to include a new, appropriate PM<sub>10</sub> Contingency Measure Plan.

Armstrong World Industries, Inc.  
 I.D. No.: 091804AAD  
 Permit No.: 95120109

Date Received: 08/04/06  
 Date Issued:

**c. Episode Action Plan**

Should this source become subject to 35 IAC 244.142, the Permittee shall prepare, submit, and operate under an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures and submitted to the IEPA for its review. The Episode Action Plan shall contain the information specified in 35 IAC 244.144. The Permittee shall immediately implement the appropriate steps described in this Episode Action Plan should an air pollution alert or emergency be declared. Any future Episode Action Plan made by the Permittee during the permit term is automatically incorporated by reference provided the Episode Action Plan is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the Episode Action Plan. In the event that the IEPA notifies the Permittee of a deficiency with any Episode Action Plan, the Permittee shall be required to revise and resubmit the Episode Action Plan within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

**d. Risk Management Plan (RMP)**

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the Permittee shall submit a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or submit a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan, as part of the annual compliance certification required by Condition 2.6(a). This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(2)(i) and (ii).

**3. Title I Requirements**

As of the date of issuance of this permit, there are no source-wide Title I requirements that need to be included in this Condition.

**4. Synthetic Minor Limits**

As of the date of issuance of this permit, there are no source-wide synthetic minor limits that need to be included in this Condition.

**5. Reporting Requirements**

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. Prompt Reporting**

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows:
  - I. Requirements in Condition 3.1(a)(i) and 3.1(d).
  - II. Requirements in Condition 3.2(c).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

- A. Date and time of the deviation.
  - B. Emission unit(s) and/or operation involved.
  - C. The duration of the event.
  - D. Probable cause of the deviation.
  - E. Corrective actions or preventative measures taken.
- iv. All deviation reports required in this Permit shall be identified, summarized, and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

**b. Semiannual Reporting**

- i. Pursuant to Section 39.5(7)(f)(i) of the Act, the Permittee shall submit Semiannual Monitoring Reports to the IEPA, Air Compliance Section, summarizing required monitoring as part of the Compliance Methods in this Permit submitted every six months as follows, unless more frequent reporting is required in other parts of this permit.

| <u>Monitoring Period</u> | <u>Report Due Date</u> |
|--------------------------|------------------------|
| January through June     | July 31                |
| July through December    | January 31             |

- ii. The Semiannual Monitoring Report must be certified by a Responsible Official consistent with Condition 2.6(b).

**c. Annual Emissions Reporting**

Pursuant to 35 IAC Part 254, the Source shall submit an Annual Emission Report due by May 1 of the year following the calendar year in which the emissions took place. All records and calculations upon which the verified and reported data are based must be retained by the source.

**Section 4 - Emission Unit Requirements**

**4.1 Vinyl Floor Tiles Production Lines**

**1. Emission Units and Operations**

| <i>Emission Units</i>   | <i>Pollutants Being Regulated</i> | <i>Original Construction Date</i> | <i>Modification/ Reconstruction Date</i> | <i>Air Pollution Control Devices or Measures</i> | <i>Monitoring Devices</i> |
|---|-----------------------------------|-----------------------------------|--|--|---------------------------|
| Commercial floor tile production Line No. 1 (EU-1)                | PM, VOM                           | Pre-1972                          | None                                     | Baghouses  | None                      |
| Commercial floor tile production Line No. 5 (EU-13)               | PM, VOM                           | 1995                              | 2004                                     | Baghouses  | None                      |
| Residential floor tile production Line No. 2 (EU-2)               | PM, VOM                           | Pre-1972                          | None                                     | Baghouses  | None                      |
| Residential floor tile production Line No. 3 (EU-4)               | PM, VOM                           | Pre-1972                          | None                                     | Baghouses  | None                      |
| Residential floor tile production Line No. 6 (EU-20)              | PM, VOM                           | 2005                              | None                                     | Baghouses  | None                      |
| Vinyl floor tile accent chips production Mottle Line No. 2 (EU-3) | PM, VOM                           | Pre-1972                          | 2005                                     | Baghouses  | None                      |

**2. Applicable Requirements**

For the emission units in Condition 4.1(1) above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. Opacity Requirements**

A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.

**ii. Compliance Method (Opacity Requirements)**

A. Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall perform quarterly inspections of each baghouse to ensure its integrity. As part of the inspections, the Permittee shall perform observations for visible emissions by Method 22. If visible emissions are observed, the Permittee shall take corrective action within 4 hours to return the status of the operations to no visible emissions or observations of opacity by Method 9 shall be conducted within one week. For the purpose of this condition, returning the status of operations to no visible emissions does not include, for any activity, temporary idling or the lack of operations.

B. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep records of visible emissions observations, inspections and opacity testing.

**b. i. Particulate Matter Requirements (PM)**

A. Pursuant to 35 IAC 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972,

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

at a source or premises, to exceed the allowable emission rates specified in 35 IAC 212.321(c) (See also Section 7.2(a)).

- B. Pursuant to 35 IAC 212.322(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or premises, to exceed the allowable emission rates specified in 35 IAC 212.322(c) (See also Section 7.2(a)).
  - C. Pursuant to Construction Permit #04080072, PM/PM<sub>10</sub> emissions from Line #5 (EU13) shall not exceed 0.45 lb/ton of dry materials used and 17.00 tons/yr. [T1]
  - D. Pursuant to Construction Permit #05080074, PM emissions from Mottle Line #2 (EU3) shall not exceed 4.95 lb/hour and 17.43 tons/yr. [T1]
  - E. Pursuant to Construction Permit #05080005, PM/PM<sub>10</sub> emissions from Line #1 (EU1) shall not exceed 0.45 lb/ton and 24.44 tons/yr. [T1]
  - F. Pursuant to Construction Permit #05010031, PM/PM<sub>10</sub> emissions from the edge finishing machine of Line #6 (EU20) shall not exceed 0.42 tons/month and 2.5 tons/yr. [T1]
- ii. Compliance Method (PM Requirements)

Monitoring

- A. Pursuant to Construction Permits #04080072, #05080005, #05080074, and #05010031, compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- B. Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall perform quarterly inspections of each baghouse to ensure its integrity.

Testing

- C. Pursuant to Section 39.5(7)(a) and (d) of the Act, within 36 months after issuance of this permit, the Permittee shall conduct a stack test for measuring filterable PM emissions from the baghouses by using Methods 5 or 5D for verifying compliance with PM emission limits identified for the lines as presented in Condition 4.1(2)(b)(i)(B), (C), (E), (F) and (G).

Recordkeeping

- D. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep the following records for verifying PM emissions:
  - I. Records of baghouse inspections, with the dates, time and names of the individuals performed these inspections, any deficiencies discovered and proper maintenance performed.
  - II. Most recent results of PM stack tests performed.
  - III. Monthly and annual PM/PM<sub>10</sub> emissions (tons/mo and tons/yr), with supporting calculations.
  - IV. Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the lines are subject to 40 CFR Part 64.

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

The Permittee shall comply with the monitoring requirements of the CAM Plan described in Condition 7.4 and Table 7.4.1, pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. At all times, the Owner or Operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, pursuant to 40 CFR 64.7(a) and (b).

c. i. Volatile Organic Material Requirements (VOM)

- A. Pursuant to 35 IAC 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except for the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material.
- B. Pursuant to Construction Permit #04080072, VOM emissions from Line #5 (EU 13) shall not exceed 6.0 tons/month and 35.17 tons/yr. [T1]
- C. Pursuant to Construction Permit #04080072, total usage of VOM containing materials (wax and plasticizer) on the Line #5 (EU 13) shall not exceed 525 tons/month and 3150 tons/year. [T1]
- D. Pursuant to Construction Permit #05080074, VOM emissions from Mottle Line #2 (EU3) shall not exceed 3.0 ton/month and 18.61 tons/yr. [T1]
- E. Pursuant to Construction Permit #05080005, VOM emissions from Line #1 (EU1) shall not exceed 10.0 tons/month and 60.45 tons/yr. [T1]
- F. Pursuant to Construction Permit #05080005, total usage of VOM containing materials (wax and plasticizer) on the Line #1 (EU1) shall not exceed 2,000 tons/month and 12,400 tons/year. [T1]

ii. Compliance Method (VOM Requirements)

Monitoring

- A. Pursuant to Construction Permits #04080072, #05080005 and #05080074, compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

Testing

- B. Pursuant to Section 39.5(7)(a) and (d) of the Act, within 36 months after issuance of this permit, the Permittee shall conduct a stack test for measuring VOM emissions from the baghouses by using Methods 25 or 25A for verifying compliance with VOM emission limits identified for the lines as presented in Condition 4.1(2)(c)(i)(A), (B), (D), and (E).

Recordkeeping

- C. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep the following records for verifying VOM emissions:
  - I. Most recent results of VOM stack tests performed.
  - II. VOM containing material usage (tons/mo and tons/yr) separately for Lines #1 and #5.

- III. Hourly, monthly and annual VOM emissions (tons/mo and tons/yr), with supporting calculations.
- IV. Records of hours of operation of each line based on the 30-day monthly average.

d. i. **Operational and Production Requirements**

- A. Pursuant to Construction Permit #04080072, total dry material usage for Line #5 (EU 13) shall not exceed 12,600 tons/month and 75,600 tons/year. [T1]
- B. Pursuant to Construction Permit #05080074, total batch material usage for the Mottle Line #2 (EU3) shall not exceed 13,476 tons/month and 80,855 tons/year. [T1]
- C. Pursuant to Construction Permit #05080005, total dry material usage for Line #1 (EU1) shall not exceed 18,000 tons/month and 108,680 tons/year.

ii. **Compliance Method (Operational and Production Requirements)**

Monitoring

- A. Pursuant to Construction Permits #04080072, #05080005 and #05080074, compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 months total).

Recordkeeping

- B. Pursuant to Section 39.5(7)(b) of the Act and Construction Permits #04080072, #05080005, and #05080074, the Permittee shall keep the following records:
  - I. Monthly and annual records of total dry material usage on Line #5 (EU 13), tons/month and tons/year.
  - II. Monthly and annual records of total batch material usage on Mottle Line #2 (EU3), tons/month and tons/year.
  - III. Monthly and annual records of total dry material usage on Line #1 (EU 1), tons/month and tons/year.

**3. Non-Applicability Determinations**

- a. For VOM emissions, the lines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because they do not use an add-on control device to achieve compliance with an emission limitation(s) for VOM.

**4. Other Requirements**

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

**5. Reporting Requirements**

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. **Prompt Reporting**

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

- I. Requirements in Conditions 4.1(2)(a)(i), 4.1(2)(b)(i), 4.1(2)(c)(i), and 4.1(2)(d)(i).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
  - A. Date and time of the deviation.
  - B. Emission unit(s) and/or operation involved.
  - C. The duration of the event.
  - D. Probable cause of the deviation.
  - E. Corrective actions or preventative measures taken.

4.2 Place-N-Press Systems

**1. Emission Units and Operations**

| <i>Emission Units</i>                    | <i>Pollutants Being Regulated</i> | <i>Original Construction Date</i> | <i>Modification/ Reconstruction Date</i> | <i>Air Pollution Control Devices or Measures</i> | <i>Monitoring Devices</i> |
|--|-----------------------------------|-----------------------------------|--|--|---------------------------|
| Place-N-Press for Lines #2 and #3 (EU-6) | PM, VOM                           | 1981                              | N/A                                      | Electrostatic Precipitator                       | None                      |
| Place-N-Press for Line #2 (EU-12)        | PM, VOM                           | 2003                              | N/A                                      | None   | None                      |

**2. Applicable Requirements**

For the emission units in Condition 4.2(1) above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. Opacity Requirements**

A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.

**ii. Compliance Method (Opacity Requirements)**

A. Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall perform quarterly inspections of electrostatic precipitator. As part of the inspections, the Permittee shall perform observations for visible emissions by Method 22. If visible emissions are observed, the Permittee shall take corrective action within 4 hours to return the status of the operations to no visible emissions or observations of opacity by Method 9 shall be conducted within one week. For the purpose of this condition, returning the status of operations to no visible emissions does not include, for any activity, temporary idling or the lack of operations.

B. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep records of visible emissions observations, inspections and opacity testing.

**b. i. Particulate Matter Requirements (PM)**

A. Pursuant to 35 IAC 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, to exceed the allowable emission rates specified in 35 IAC 212.321(c) (See also Section 7.2(a)).

B. Pursuant to Construction Permit #03100004, PM emissions from Place-N-Press Line #2 (EU12) shall not exceed 0.1 lb/hour and 0.44 tons/yr. [T1]

**ii. Compliance Method (PM Requirements)**

**Monitoring**

A. Pursuant to Section 39.5(7)(b), compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

B. Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall perform quarterly inspections of electrostatic precipitator (ESP). As part of the

inspections, the Permittee shall perform observations for visible emissions by Method 22 (see Condition 4.2(2)(a)(ii) for detailed description).

- C. Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall perform quarterly inspections of the equipment that is important to the performance of the total capture system. This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). Repair of any defect or deficiency in the capture system shall be done before the next scheduled inspection.

Recordkeeping

- D. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep the following records for verifying PM emissions:
- I. Records of ESP and capture system inspections, with the dates, time and names of the individuals performed these inspections, any deficiencies discovered and proper maintenance performed.
  - II. Monthly production or material throughput of each line (tons/month).
  - III. Monthly and annual PM emissions (tons/mo and tons/yr), with supporting calculations, for each line.

c. i. Volatile Organic Material Requirements (VOM)

- A. Pursuant to 35 IAC 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except for the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material.
- B. Pursuant to Construction Permit #05010031, VOM emissions from PNP adhesive applicator and top coaters of Line #6 (EU 20) shall not exceed the following limits: 0.16 tons/month and 1.0 tons/yr; and 0.84 tons/month and 5.0 tons/year, respectively. [T1]

ii. Compliance Method (VOM Requirements)

Monitoring

- A. Pursuant to Construction Permit #05010031, compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

Recordkeeping

- B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep the following records:
- I. Amount of adhesives, coatings and clean-up solvents applied each line on the monthly and annual basis (tons/mo and tons/yr).
  - II. Wt.% percent of VOM in each adhesive, coating and clean-up solvent applied.
  - III. Hourly, monthly and annual VOM emissions (tons/mo and tons/yr), with supporting calculations.

IV. Records of hours of operation of each line based on the 30-day monthly average.

**3. Non-Applicability Determinations**

- a. Pursuant to the definition of "vinyl coating" in 35 IAC 211.7070, the systems are not subject to 35 IAC 215.204(f) because no rolled substrates are used during adhesive/wax application.
- b. Pursuant to 40 CFR 60.581(a), "resilient floor coverings" processed by the systems are specifically excluded from the definition of "flexible vinyl and urethane coating and printing" and, as a result, from applicability of 40 CFR 60 Subpart FFF.
- c. Pursuant to the definition of "coating operation" in 40 CFR 60.741(a), the systems are not subject to 40 CFR 60 Subpart VVV because no continuous web is used during adhesive/wax application.
- d. The systems are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because for the VOM emissions an add-on control device is not used to achieve compliance with an emission limitation or standard. PM emissions before control do not achieve a major source threshold level, therefore 40 CFR Part 64 is not applicable.

**4. Other Requirements**

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

**5. Reporting Requirements**

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. Prompt Reporting**

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
  - I. Requirements in Condition 4.2(2)(a)(i), 4.2(2)(b)(i), and 4.2(2)(c)(i).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
  - A. Date and time of the deviation.
  - B. Emission unit(s) and/or operation involved.
  - C. The duration of the event.
  - D. Probable cause of the deviation.
  - E. Corrective actions or preventative measures taken.

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

### 4.3 Material Preparation and Conveying Systems

**1. Emission Units and Operations**

| <i>Emission Units</i>                                   | <i>Pollutants Being Regulated</i> | <i>Original Construction Date</i> | <i>Modification/ Reconstruction Date</i> | <i>Air Pollution Control Devices or Measures</i> | <i>Monitoring Devices</i> |
|---|-----------------------------------|-----------------------------------|--|--|---------------------------|
| Grinding and Goods-in-Progress for Mottle Line #2 (EU8) | PM                                | Pre-1972;<br>1995;<br>1996;       | N/A                                      | Baghouses  | None                      |
| Bulk Material Receiving (EU9)                           | PM                                | Pre-1972;<br>1995;<br>1996;       | N/A                                      | Baghouses  | None                      |
| Vinyl Conveying System for Line #5 (EU14)               | PM                                | Pre-1972;<br>1995;<br>1996;       | N/A                                      | Baghouses  | None                      |
| Limestone Conveying System for Line #5 (EU15)           | PM                                | Pre-1972;<br>1995;<br>1996;       | N/A                                      | Baghouses  | None                      |
| Blended Chip Conveying System for Line #5 (EU16)        | PM                                | Pre-1972;<br>1995;<br>1996;       | N/A                                      | Baghouses  | None                      |

**2. Applicable Requirements**

For the emission units in Condition 4.3(1) above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. Opacity Requirements**

A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.

**ii. Compliance Method (Opacity Requirements)**

- A. Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall perform quarterly inspections of each baghouse. As part of the inspections, the Permittee shall perform observations for visible emissions by Method 22. If visible emissions are observed, the Permittee shall take corrective action within 4 hours to return the status of the operations to no visible emissions or observations of opacity by Method 9 shall be conducted within one week. For the purpose of this condition, returning the status of operations to no visible emissions does not include, for any activity, temporary idling or the lack of operations.
- B. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep records of visible emissions observations, inspections and opacity testing.

**b. i. Particulate Matter Requirements (PM)**

- A. Pursuant to 35 IAC 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, to exceed the allowable emission rates specified in 35 IAC 212.321(c) (See also Section 7.2(a)).
- B. Pursuant to 35 IAC 212.322(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

emission of particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or premises, to exceed the allowable emission rates specified in 35 IAC 212.322(c) (See also Section 7.2(a)).

- C. Pursuant to Permit #95120251, PM emissions from Limestone Conveying System for Line #5 (EU15) shall not exceed 3.0 tons/mo and 18.0 tons/yr. [T1]
- D. Pursuant to Permit #95120251, PM emissions from Vinyl Conveying System for Line #5 (EU14) shall not exceed 1.5 tons/mo and 8.5 tons/yr. [T1]

ii. Compliance Method (PM Requirements)

Monitoring

- A. Pursuant to Permit #95120251, compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- B. Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall perform quarterly inspections of each baghouse. As part of the inspections, the Permittee shall perform observations for visible emissions by Method 22. If visible emissions are observed, the Permittee shall take corrective action within 4 hours to return the status of the operations to no visible emissions or observations of opacity by Method 9 shall be conducted within one week. For the purpose of this condition, returning the status of operations to no visible emissions does not include, for any activity, temporary idling or the lack of operations.

Testing

- C. Pursuant to Section 39.5(7)(a) and (d) of the Act, within 36 months after issuance of this permit, the Permittee shall conduct a stack test for measuring filterable PM emissions from the baghouses by using Methods 5 or 5D for verifying compliance with PM emission limits identified for the lines as presented in Condition 4.3(2)(b)(i)(C) and (D).

Recordkeeping

- D. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep the following records for verifying PM emissions:
  - I. Records of baghouse inspections, with the dates, time and names of the individuals performed these inspections, any deficiencies discovered and proper maintenance performed.
  - II. Most recent results of PM stack tests performed.
  - III. Monthly and annual PM emissions (tons/mo and tons/yr), with supporting calculations.
  - IV. Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the lines are subject to 40 CFR Part 64. The Permittee shall comply with the monitoring requirements of the CAM Plan described in Condition 7.4 and Table 7.4.1, pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. At all times, the Owner or Operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, pursuant to 40 CFR 64.7(a) and (b).

**3. Non-Applicability Determinations**

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

**4. Other Requirements**

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

**5. Reporting Requirements**

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. Prompt Reporting**

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
  - I. Requirements in Condition 4.3(2)(a)(i) and 4.3(2)(b)(i).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
  - A. Date and time of the deviation.
  - B. Emission unit(s) and/or operation involved.
  - C. The duration of the event.
  - D. Probable cause of the deviation.
  - E. Corrective actions or preventative measures taken.

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

4.4 Boilers

**1. Emission Units and Operations**

| <i>Emission Units</i>                                 | <i>Pollutants Being Regulated</i> | <i>Original Construction Date</i> | <i>Modification/ Reconstruction Date</i> | <i>Air Pollution Control Devices or Measures</i> | <i>Monitoring Devices</i> |
|---|-----------------------------------|-----------------------------------|--|--|---------------------------|
| Natural Gas-Fired Boiler 1 (heat input 42.5 mmBtu/hr) | CO                                | 1947                              | N/A                                      | None   | None                      |
| Natural Gas-Fired Boiler 2 (heat input 14.6 mmBtu/hr) | CO                                | 1969                              | N/A                                      | None   | None                      |

**2. Applicable Requirements**

For the emission units in Condition 4.4(1) above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. Opacity Requirements**

A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.

ii. Compliance Method (Opacity Requirements)

A. Pursuant to Section 39.5(7)(p) of the Act, the Permittee shall conduct annual visible emissions observations of each individual stack(s) by using Method 22. If opacity is observed, the Permittee shall conduct opacity testing by using Method 9 within one week.

B. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep records of visible emissions observations and opacity testing.

**b. i. Carbon Monoxide Requirements (CO)**

A. Pursuant to 35 IAC 216.121, the emissions of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air.

ii. Compliance Method (CO Requirements)

See Condition 4.4(2)(c)

**c. i. Work Practice Requirements**

A. Pursuant to 40 CFR 63.7540(a)(10), the Permittee shall comply with the following tune-up requirements for each boiler and conduct such tune-ups annually:

I. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown, but each burner shall be inspected at least once every 36 months).

II. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

- III. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.
- IV. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.
- V. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).

ii. Compliance Method (Work Practice Requirements)

- A. Pursuant to 40 CFR 63.7540(a)(10), the Permittee shall keep the following records:
  - I. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up;
  - II. A description of any corrective actions taken as a part of the combustion adjustment; and
  - III. The type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

**3. Non-Applicability Determinations**

- a. Pursuant to 35 IAC 215.303, boilers are not subject to 35 IAC 215.301, because the fuel combustion emission units not being subject to 35 IAC 215.301.
- b. Pursuant to 40 CFR 60.40c(a), the boilers not being subject to 40 CFR 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, because the boilers were constructed prior to June 9, 1989.
- c. The boilers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the boilers not use an add-on control device to achieve compliance with an emission limitation or standard.

**4. Other Requirements**

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

**5. Reporting Requirements**

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. Prompt Reporting**

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

- I. Requirements in Conditions 4.4(2)(a)(i), 4.4(2)(b)(i), and 4.4(2)(c)(i).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
  - A. Date and time of the deviation.
  - B. Emission unit(s) and/or operation involved.
  - C. The duration of the event.
  - D. Probable cause of the deviation.
  - E. Corrective actions or preventative measures taken.

**b. Federal Reporting**

- i. The Permittee shall submit the annual compliance reports, pursuant to 40 CFR 63.7550(b), as part of the annual compliance certification required by Condition 2.6(a) of this permit.
- ii. The annual compliance reports shall contain the information required by 40 CFR 63.7550(c)(1) through (13).
- iii. Pursuant to 40 CFR 63.7550(f), any deviation from the work practice requirements shall be included into the semiannual monitoring reports required by Condition 3.5(b) of this permit.

4.5 Air Make-Up Units

**1. Emission Units and Operations**

| <i>Emission Units</i>  | <i>Pollutants Being Regulated</i> | <i>Original Construction Date</i> | <i>Modification/ Reconstruction Date</i> | <i>Air Pollution Control Devices or Measures</i> | <i>Monitoring Devices</i> |
|--|-----------------------------------|-----------------------------------|--|--|---------------------------|
| Natural Gas-fired Units (total 12) with individual heat input in the range of 3.17 mmBtu/hr to 6.00 mmBtu/hr | None                              | N/A                               | N/A                                      | None   | None                      |

**2. Applicable Requirements**

For the emission units in Condition 4.5(1) above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

a. **Opacity Requirements**

A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.

ii. **Compliance Method (Opacity Requirements)**

A. Pursuant to Section 39.5(7)(p) of the Act, the Permittee shall conduct annual visible emissions observations of each individual stack(s) by using Method 22. If opacity is observed, the Permittee shall conduct opacity testing by using Method 9 within one week.

B. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall keep records of visible emissions observations and opacity testing.

**3. Non-Applicability Determinations**

- a. Air make-up units are not subject to 35 IAC 216.121, because these units are "fuel combustion emission" as defined in 25 IAC 211.2470.
- b. Air make-up units are not subject to requirements of 40 CFR 63 Subpart DDDDD, because these units are not process heaters as defined in 40 CFR 63.7575.
- c. Air make-up units are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the units do not use an add-on control device to achieve compliance with an emission limitation or standard.

**4. Other Requirements**

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

**5. Reporting Requirements**

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. **Prompt Reporting**

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

- I. Requirements in Condition 4.5(2)(a)(i).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
  - A. Date and time of the deviation.
  - B. Emission unit(s) and/or operation involved.
  - C. The duration of the event.
  - D. Probable cause of the deviation.
  - E. Corrective actions or preventative measures taken.

**Section 5 - Additional Title I Requirements**

This Section is reserved for Title I requirements not specified in Sections 3 or 4. As of the date of issuance of this permit, there are no Title I requirements that need to be separately addressed in this Section.

## Section 6 - Insignificant Activities Requirements

### 1. Insignificant Activities Subject to Specific Regulations

Pursuant to 35 IAC 201.210 and 201.211, the following activities at the source constitute insignificant activities. Pursuant to Sections 9.1(d) and 39.5(6)(a) of the Act, the insignificant activities are subject to specific standards promulgated pursuant to Sections 111, 112, 165, or 173 of the Clean Air Act. The Permittee shall comply with the following applicable requirements:

| <i>Insignificant Activity</i>   | <i>Number of Units</i> | <i>Insignificant Activity Category</i> |
|---|------------------------|--|
| Fuel combustion emission units as further detailed in 35 IAC 201.210(a)(4). | 22                     | 35 IAC 201.210(a)(4)                   |

#### a. Applicable Requirements

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements in addition to the applicable requirements in Condition 6.4:

#### i. National Emission Standards for Hazardous Air Pollutants (NESHAP)

- A. The Permittee shall comply with annual tune-up requirements established in 40 CFR Part 63 Subpart DDDDD, pursuant to 40 CFR 63.7540(a)(10).
- B. The Permittee shall comply with General Provisions of 40 CFR Part 63, Subpart A.

### 2. Insignificant Activities in 35 IAC 201.210(a)

In addition to any insignificant activities identified in Condition 6.1, the following additional activities at the source constitute insignificant activities pursuant to 35 IAC 201.210 and 201.211:

| <i>Insignificant Activity</i>   | <i>Number of Units</i> | <i>Insignificant Activity Category</i> |
|---|------------------------|--|
| Copolymer supersack unloading station   | 1                      | 35 IAC 201.210(a)(2) or (a)(3)         |
| Plasticizer blend storage tanks   | 2                      | 35 IAC 201.210(a)(2) or (a)(3)         |
| Direct combustion units used for comfort heating as further detailed in 35 IAC 201.210(a)(4). | 13                     | 35 IAC 201.210(a)(4)                   |

### 3. Insignificant Activities in 35 IAC 201.210(b)

Pursuant to 35 IAC 201.210, the source has identified insignificant activities as listed in 35 IAC 201.210(b)(1) through (28) as being present at the source. The source is not required to individually list the activities.

### 4. Applicable Requirements

Insignificant activities in Conditions 6.1 and 6.2 are subject to the following general regulatory limits notwithstanding status as insignificant activities. The Permittee shall comply with the following requirements, as applicable:

- a. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 IAC 212.122, except as provided in 35 IAC 212.123(b).
- b. Pursuant to 35 IAC 212.321 or 212.322 (see Conditions 7.2(a) and (b)), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

period from any process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceed the allowable emission rates specified 35 IAC 212.321 or 212.322 and 35 IAC Part 266.

- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2,000 ppm, except as provided in 35 IAC Part 214.
- d. Pursuant to 35 IAC 215.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gal, unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the IEPA according to 35 IAC Part 201 or unless such tank is a pressure tank as described in 35 IAC 215.121(a) or is fitted with a recovery system as described in 35 IAC 215.121(b)(2). Exception as provided in 35 IAC 215.122(c): If no odor nuisance exists the limitations of 35 IAC 215.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70°F.

**5. Compliance Method**

Pursuant to Section 39.5(7)(b) of the Act, the source shall maintain records of the following items for the insignificant activities in Conditions 6.1 and 6.2:

- a. List of all insignificant activities, including insignificant activities added as specified in Condition 6.6, the categories the insignificant activities fall under, and supporting calculations as needed.
- b. Potential to emit emission calculations before any air pollution control device for each insignificant activity.

**6. Notification Requirements for Insignificant Activities**

The source shall notify the IEPA accordingly to the addition of insignificant activities:

**a. Notification 7 Days in Advance**

- i. Pursuant to 35 IAC 201.212(b), 35 IAC 201.146(kkk), and Sections 39.5(12)(a) and (b) of the Act; for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(1) and 201.211 and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. A construction permit is not required. Addresses are included in Attachment 3. The notification shall include the following pursuant to 35 IAC 201.211(b):
  - A. A description of the emission unit including the function and expected operating schedule of the unit.
  - B. A description of any air pollution control equipment or control measures associated with the emission unit.
  - C. The emissions of regulated air pollutants in lbs/hr and tons/yr.
  - D. The means by which emissions were determined or estimated.
  - E. The estimated number of such emission units at the source.
  - F. Other information upon which the applicant relies to support treatment of such emission unit as an insignificant activity.
- ii. Pursuant to 35 IAC 201.212(b), 35 IAC 201.146(kkk), and Sections 39.5(12)(a) and (b) of the Act; for the addition of an insignificant activity that would be

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

categorized under 35 IAC 201.210(a)(2) through 201.210(a)(18) and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. A construction permit is not required. Addresses are included in Attachment 3.

- iii. Pursuant to Sections 39.5(12)(a)(i)(b) and 39.5(12)(b)(iii) of the Act, the permit shield described in Section 39.5(7)(j) of the Act (see Condition 2.7) shall not apply to any change made in Condition 6.6(a) above.

**b. Notification Required at Renewal**

Pursuant to 35 IAC 201.212(a) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a) and is currently identified in Conditions 6.1 or 6.2, a notification is not required until the renewal of this permit. A construction permit is not required.

**c. Notification Not Required**

Pursuant to 35 IAC 201.212(c) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(b) as describe in Condition 6.3, a notification is not required. A construction permit is not required.

## Section 7 - Other Requirements

### 1. Testing

- a. Pursuant to Section 39.5(7)(a) of the Act, a written test protocol shall be submitted at least sixty (60) days prior to the actual date of testing, unless it is required otherwise in applicable state or federal statutes. The IEPA may at the discretion of the Compliance Section Manager (or designee) accept protocol less than 60 days prior to testing provided it does not interfere with the IEPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. The protocol shall be submitted to the IEPA, Compliance Section and IEPA, Stack Test Specialist for its review. Addresses are included in Attachment 3. This protocol shall describe the specific procedures for testing, including as a minimum:
- i. The name and identification of the emission unit(s) being tested.
  - ii. Purpose of the test, i.e., permit condition requirement, IEPA or USEPA requesting test.
  - iii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - iv. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
  - v. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
  - vi. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. Include if emission tests averaging of 35 IAC 283 will be used.
  - vii. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.
  - viii. Any proposed use of an alternative test method, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.
  - ix. Sampling of materials, QA/QC procedures, inspections, etc.
- b. The IEPA, Compliance Section shall be notified prior to these tests to enable the IEPA to observe these tests pursuant to Section 39.7(a) of the Act as follows:
- i. Notification of the expected date of testing shall be submitted in writing a minimum of thirty (30) days prior to the expected test date, unless it is required otherwise in applicable state or federal statutes.
  - ii. Notification of the actual date and expected time of testing shall be submitted in writing a minimum of five (5) working days prior to the actual date of the test. The IEPA may at its discretion of the Compliance Section Manager (or designee) accept notifications with shorter advance notice provided such notifications will not interfere with the IEPA's ability to observe testing.
- c. Copies of the Final Report(s) for these tests shall be submitted to the IEPA, Compliance Section within fourteen (14) days after the test results are compiled and finalized but

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

no later than ninety (90) days after completion of the test, unless it is required otherwise in applicable state or federal statutes or the IEPA may at the discretion of the Compliance Section Manager (or designee) an alternative date is agreed upon in advance pursuant to Section 39.7(a) of the Act. The Final Report shall include as a minimum:

- i. General information including emission unit(s) tested.
  - ii. A summary of results.
  - iii. Discussion of conditions during each test run (malfunction/breakdown, startup/shutdown, abnormal processing, etc.).
  - iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - v. Detailed description of test conditions, including:
    - A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption.
    - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
    - C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.
  - vi. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
  - vii. An explanation of any discrepancies among individual tests or anomalous data.
  - viii. Results of the sampling of materials, QA/QC procedures, inspections, etc.
  - ix. Discussion of whether protocol was followed and description of any changes to the protocol if any occurred.
  - x. Demonstration of compliance showing whether test results are in compliance with applicable state or federal statutes.
- d. Copies of all test reports and other test related documentation shall be kept on site as required by Condition 2.5(b) pursuant to Section 39.5(7)(e)(ii) of the Act.

**2. PM Process Weight Rate Requirements**

**a. New Process Emission Units - 35 IAC 212.321**

New Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972. [35 IAC 212.321]

- i. No person shall cause or allow the emission of PM into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of PM from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). See Condition 7.2(a)(iii) below. [35 IAC 212.321(a)]
- ii. Interpolated and extrapolated values of the data in 35 IAC 212.321(c) shall be determined by using the equation: [35 IAC 212.321(b)]

$$E = A(P)^B$$

Where:

P = Process weight rate (T/hr)  
E = Allowable emission rate (lbs/hr)

A. Process weight rates of less than 450 T/hr:

A = 2.54  
B = 0.53

B. Process weight rates greater than or equal to 450 T/hr:

A = 24.8  
B = 0.16

iii. Limits for New Process Emission Units [35 IAC 212.321(c)]:

| <u>P</u><br>(T/hr) | <u>E</u><br>(lbs/hr) | <u>P</u><br>(T/hr) | <u>E</u><br>(lbs/hr) |
|--------------------|----------------------|--------------------|----------------------|
| 0.05               | 0.55                 | 25.00              | 14.00                |
| 0.10               | 0.77                 | 30.00              | 15.60                |
| 0.20               | 1.10                 | 35.00              | 17.00                |
| 0.30               | 1.35                 | 40.00              | 18.20                |
| 0.40               | 1.58                 | 45.00              | 19.20                |
| 0.50               | 1.75                 | 50.00              | 20.50                |
| 0.75               | 2.40                 | 100.00             | 29.50                |
| 1.00               | 2.60                 | 150.00             | 37.00                |
| 2.00               | 3.70                 | 200.00             | 43.00                |
| 3.00               | 4.60                 | 250.00             | 48.50                |
| 4.00               | 5.35                 | 300.00             | 53.00                |
| 5.00               | 6.00                 | 350.00             | 58.00                |
| 10.00              | 8.70                 | 400.00             | 62.00                |
| 15.00              | 10.80                | 450.00             | 66.00                |
| 20.00              | 12.50                | 500.00             | 67.00                |

**b. Existing Process Emission Units - 35 IAC 212.322**

Existing Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972. [35 IAC 212.322]

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

Section 7 - Other Requirements  
7.2 - PM Process Weight Rate Requirements

- i. No person shall cause or allow the emission of PM into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of PM from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.322(c)). See Condition 7.2(b)(iii) below. [35 IAC 212.322(a)]
- ii. Interpolated and extrapolated values of the data in 35 IAC 212.322(c) shall be determined by using the equation: [35 IAC 212.322(b)]

$$E = C + A(P)^B$$

Where:

P = Process weight rate (T/hr)  
E = Allowable emission rate (lbs/hr)

A. Process weight rates of less than 450 T/hr:

A = 4.10  
B = 0.67  
C = 0

B. Process weight rates greater than or equal to 450 T/hr:

A = 55.0  
B = 0.11  
C = -40.0

iii. Limits for Existing Process Emission Units [35 IAC 212.322(c)]:

| <u>P</u><br><u>(T/hr)</u> | <u>E</u><br><u>(lbs/hr)</u> | <u>P</u><br><u>(T/hr)</u> | <u>E</u><br><u>(lbs/hr)</u> |
|---------------------------|-----------------------------|---------------------------|-----------------------------|
| 0.05                      | 0.55                        | 25.00                     | 35.40                       |
| 0.10                      | 0.87                        | 30.00                     | 40.00                       |
| 0.2                       | 1.40                        | 35.00                     | 41.30                       |
| 0.30                      | 1.83                        | 40.00                     | 42.50                       |
| 0.40                      | 2.22                        | 45.00                     | 43.60                       |
| 0.50                      | 2.58                        | 50.00                     | 44.60                       |
| 0.75                      | 3.38                        | 100.00                    | 51.20                       |
| 1.00                      | 4.10                        | 150.00                    | 55.40                       |
| 2.00                      | 6.52                        | 200.00                    | 58.60                       |
| 3.00                      | 8.56                        | 250.00                    | 61.00                       |
| 4.00                      | 10.40                       | 300.00                    | 63.10                       |
| 5.00                      | 12.00                       | 350.00                    | 64.90                       |
| 10.00                     | 19.20                       | 400.00                    | 66.20                       |
| 15.00                     | 25.20                       | 450.00                    | 67.70                       |
| 20.00                     | 30.50                       | 500.00                    | 69.00                       |

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

**3. 40 CFR 63 Subpart A Requirements (NESHAP)**

**a. 40 CFR 63 Subpart A and DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters**

Pursuant to 40 CFR 63 Subparts A and DDDDD, the Permittee shall comply with the following applicable General Provisions as indicated:

| <i>General<br/>Provision<br/>Citation</i> | <i>General<br/>Provision<br/>Applicable?</i> | <i>Subject of Citation</i>   | <i>Explanation (if required)</i>               |
|---|--|--|--|
| 40 CFR 63.1                               | Yes  | General Applicability of the General Provisions                            |  |
| 40 CFR 63.2                               | Yes  | Definitions  |  |
| 40 CFR 63.3                               | Yes  | Units and Abbreviations  |  |
| 40 CFR 63.4                               | Yes  | Prohibited Activities and Circumvention                                    |  |
| 40 CFR 63.5                               | Yes  | Preconstruction Review and Notification Requirements                       |  |
| 40 CFR 63.6                               | Yes  | Compliance with Standards and Maintenance Requirements                     |  |
| 40 CFR 63.7                               | Yes  | Performance Testing Requirements   |  |
| 40 CFR 63.8                               | Yes  | Monitoring Requirements  |  |
| 40 CFR 63.9                               | Yes  | Notification Requirements  |  |
| 40 CFR 63.10                              | Yes  | Recordkeeping and Reporting Requirements                                   | Except 40 CFR 63.10(e) Excess Emission Reports |
| 40 CFR 63.11                              | No   | Flares   |  |
| 40 CFR 63.12                              | Yes  | State Authority and Delegations  |  |
| 40 CFR 63.13                              | Yes  | Addresses of State Air Pollution Control Agencies and EPA Regional Offices |  |
| 40 CFR 63.14                              | Yes  | Incorporations by Reference  |  |
| 40 CFR 63.15                              | Yes  | Availability of Information and Confidentiality                            |  |

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

**4. Compliance Assurance Monitoring (CAM) Requirements**

**a. CAM Provisions**

i. Proper Maintenance

Pursuant to 40 CFR 64.7(b), at all times, the source shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

ii. Continued Operation

Pursuant to 40 CFR 64.7(c), except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the source shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit (PSEU) is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The source shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

iii. Response to Excursions or Exceedances

A. Pursuant to 40 CFR 64.7(d)(1), upon detecting an excursion or exceedance, the source shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

B. Pursuant to 40 CFR 64.7(d)(2), determination of whether the source has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device.

**b. Monitoring - Monitoring**

Pursuant to 40 CFR 64.7(a), the source shall comply with the monitoring requirements of the CAM Plans as described in 7.4(e) below, pursuant to 40 CFR Part 64 as submitted in the source's CAM plan application.

**c. Monitoring - Recordkeeping**

Pursuant to 40 CFR 64.9(b)(1), the source shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information related to the monitoring requirements established for CAM.

**d. Monitoring - Reporting**

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the source shall submit the following reporting requirements:

**i. Semiannual Reporting**

As part of the required Semiannual Monitoring Reports, the source shall submit a CAM report including the following at a minimum:

- A. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken pursuant to 40 CFR 64.6(c)(3) and 64.9(a)(2)(i).
- B. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks pursuant to 40 CFR 64.6(c)(3) and 64.9(a)(2)(ii).

**e. CAM Plans**

The following tables contain the CAM Plans in this CAAPP permit:

| Table | Emission Unit Section | PSEU Designation | Pollutant |
|-------|-----------------------|------------------|-----------|
| 7.4.1 | 4.1, 4.3              | Each Baghouse    | PM        |

**Table 7.4.1 - CAM Plan**

|   |  |  |
|---|--|--|
| Emission Unit Section:  | 4.1, 4.3   |  |
| PSEU Designation:   | Each Baghouse  |  |
| Pollutant:  | PM   |  |
| Indicators:   | #1) Visible Emissions Observation  | #2) Baghouse Inspection  |
| <b>General Criteria</b>   |  |  |
| The Monitoring Approach Used to Measure the Indicators:                                       | Daily check on visible emissions   | Baghouse inspections upon discovery of visible emissions                               |
| The Indicator Range Which Provides a Reasonable Assurance of Compliance:                      | Absence of visible emissions   | Absence of visible emissions   |
| Quality Improvement Plan (QIP) Threshold Levels:  | 13 of 250 days of presence of visible emissions (or 5% of production days)             | 13 of 250 days of presence of visible emissions (or 5% of production days)             |
| <b>Performance Criteria</b>   |  |  |
| The Specifications for Obtaining Representative Data:   | Observations of visible emissions from each baghouse exhaust stack by using Method 22  | Observations of visible emissions from each baghouse exhaust stack by using Method 22  |
| Verification Procedures to Confirm the Operational Status of the Monitoring:                  | Manual monitoring by using employee instructions to ensure consistent data acquisition | Manual monitoring by using employee instructions to ensure consistent data acquisition |
| Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data: | Manual monitoring assured through written procedures and training                      | Inspections conducted per written manufacturer's recommendations                       |
| The Monitoring Frequency:   | One manual reading per 24-hour production period                                       | Immediate inspection per occurrence of visible emissions                               |
| The Data Collection Procedures That Will Be Used:   | Manual entry of reading into log sheet   | Manual entry of reading into log sheet   |
| The Data Averaging Period For Determining Whether an Excursion or Exceedance Has Occurred:    | Single daily reading compared to indicator value                                       | Control device equipment compared to normal or proper equipment operation              |

## Section 8 - State Only Requirements

### 1. Permitted Emissions for Fees

The annual emissions from the source for purposes of "Duties to Pay Fees" of Condition 2.3(e), not considering insignificant activities as addressed by Section 6, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. The Permittee shall maintain records with supporting calculations of how the annual emissions for fee purposes were calculated. This Condition is set for the purpose of establishing fees and is not federally enforceable. See Section 39.5(18) of the Act.

| <i>Pollutant</i>               |                    | <i>Tons/Year</i> |
|--------------------------------|--------------------|------------------|
| Volatile Organic Material      | (VOM)              | 169.22           |
| Sulfur Dioxide                 | (SO <sub>2</sub> ) | 0.31             |
| Particulate Matter             | (PM)               | 182.34           |
| Nitrogen Oxides                | (NO <sub>x</sub> ) | 59.86            |
| HAP, not included in VOM or PM | (HAP)              | ----             |
| Total                          |                    | 411.73           |

Armstrong World Industries, Inc.  
 I.D. No.: 091804AAD  
 Permit No.: 95120109

Date Received: 08/04/06  
 Date Issued:

## Attachment 1 - List of Emission Units at This Source

| <i>Section</i> | <i>Emission Units</i>                         | <i>Description</i>                               |
|----------------|---|--|
| 4.1            | Vinyl Floor Tiles<br>Production Lines         | Residential and commercial floor tile production |
| 4.2            | Press-N-Place Systems                         | Coating and adhesive application on tile surface |
| 4.3            | Material Preparation<br>and Conveying Systems | Conveyance/receiving of raw materials            |
| 4.4            | Boilers                                       | Steam production for source's needs              |
| 4.5            | Air Make-up Units                             | Comfort heating                                  |

## Attachment 2 - Acronyms and Abbreviations

|                  |  |
|------------------|--|
| acfm             | Actual cubic feet per minute   |
| ACMA             | Alternative Compliance Market Account  |
| Act              | Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]   |
| AP-42            | Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 |
| ATU              | Allotment trading unit   |
| BACT             | Best Available Control Technology  |
| BAT              | Best Available Technology  |
| BTU              | British Thermal Units  |
| CAA              | Clean Air Act [42 U.S.C. Section 7401 et seq.]   |
| CAAPP            | Clean Air Act Permit Program   |
| CAIR             | Clean Air Interstate Rule  |
| CAM              | Compliance Assurance Monitoring  |
| CEMS             | Continuous Emission Monitoring System  |
| CFR              | Code of Federal Regulations  |
| CISWI            | Commercial Industrial Solid Waste Incinerator  |
| CO               | Carbon monoxide  |
| CO <sub>2</sub>  | Carbon dioxide   |
| COMS             | Continuous Opacity Monitoring System   |
| CPMS             | Continuous Parameter Monitoring System   |
| dscf             | Dry standard cubic foot  |
| dscm             | Dry standard cubic meter   |
| EAF              | Electric arc furnace   |
| ERMS             | Emissions Reduction Market System  |
| °F               | Degrees Fahrenheit   |
| GHG              | Green house gas  |
| gr               | Grains   |
| HAP              | Hazardous air pollutant  |
| Hg               | Mercury  |
| HMIWI            | Hospital medical infectious waste incinerator  |
| HP               | Horsepower   |
| hr               | Hour   |
| H <sub>2</sub> S | Hydrogen sulfide   |
| I.D. No.         | Identification number of source, assigned by IEPA  |
| IAC              | Illinois Administrative Code   |
| ILCS             | Illinois Compiled Statutes   |
| IEPA             | Illinois Environmental Protection Agency   |
| KW               | Kilowatts  |
| LAER             | Lowest Achievable Emission Rate  |
| lb               | Pound  |

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

|                   |  |
|-------------------|--|
| m                 | Meter  |
| MACT              | Maximum Achievable Control Technology  |
| mm                | Million  |
| mon               | Month  |
| MSDS              | Material Safety Data Sheet   |
| MSSCAM            | Major Stationary Sources Construction and Modification (Non-attainment New Source Review)  |
| MW                | Megawatts  |
| NESHAP            | National Emission Standards for Hazardous Air Pollutants   |
| NO <sub>x</sub>   | Nitrogen oxides  |
| NSPS              | New Source Performance Standards   |
| NSR               | New Source Review  |
| PM                | Particulate matter   |
| PM <sub>10</sub>  | Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods  |
| PM <sub>2.5</sub> | Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods |
| ppm               | Parts per million  |
| ppmv              | Parts per million by volume  |
| PSD               | Prevention of Significant Deterioration  |
| PSEU              | Pollutant-Specific Emission Unit   |
| psia              | Pounds per square inch absolute  |
| PTE               | Potential to emit  |
| RACT              | Reasonable Available Control Technology  |
| RMP               | Risk Management Plan   |
| scf               | Standard cubic feet  |
| SCR               | Selective catalytic reduction  |
| SIP               | State Implementation Plan  |
| SO <sub>2</sub>   | Sulfur dioxide   |
| T1                | Title I - identifies Title I conditions that have been carried over from an existing permit  |
| T1N               | Title I New - identifies Title I conditions that are being established in this permit  |
| T1R               | Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit      |
| USEPA             | United States Environmental Protection Agency  |
| VOM               | Volatile organic material  |

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued:

Attachment 3 - Contact and Reporting Addresses

|   |   |
|---|---|
| <p style="text-align: center;">IEPA<br/>Compliance Section</p> <p style="text-align: center;">IEPA<br/>Stack Test Specialist</p> <p style="text-align: center;">IEPA<br/>Air Quality Planning Section</p> <p style="text-align: center;">IEPA<br/>Air Regional Field Operations<br/>Regional Office #1</p> <p style="text-align: center;">IEPA<br/>Permit Section</p> | <p>Illinois EPA, Bureau of Air<br/>Compliance &amp; Enforcement Section (MC 40)<br/>1021 North Grand Avenue East<br/>P.O. Box 19276<br/>Springfield, Illinois 62794-9276</p> <p>Phone No.: 217/782-2113</p> <p>Illinois EPA, Bureau of Air<br/>Compliance Section<br/>Source Monitoring - Third Floor<br/>9511 Harrison Street<br/>Des Plaines, Illinois 60016</p> <p>Phone No.: 847/294-4000</p> <p>Illinois EPA, Bureau of Air<br/>Air Quality Planning Section (MC 39)<br/>1021 North Grand Avenue East<br/>P.O. Box 19276<br/>Springfield, Illinois 62794-9276</p> <p>Phone No.: 217/782-2113</p> <p>Illinois EPA, Bureau of Air<br/>Regional Office #1<br/>9511 Harrison Street<br/>Des Plaines, Illinois 60016</p> <p>Phone No.: 847/294-4000</p> <p>Illinois EPA, Bureau of Air<br/>Permit Section (MC 11)<br/>1021 North Grand Avenue East<br/>P.O. Box 19506<br/>Springfield, Illinois 62794-9506</p> <p>Phone No.: 217/785-1705</p> |
| <p style="text-align: center;">USEPA<br/>Region 5 - Air Branch</p>  | <p>USEPA (AR - 17J)<br/>Air and Radiation Division<br/>77 West Jackson Boulevard<br/>Chicago, Illinois 60604</p> <p>Phone No.: 312/353-2000</p>   |

**Attachment 4 - Example Certification by a Responsible Official**

| <b>SIGNATURE BLOCK</b>  |                    |
|---|--------------------|
| NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE DEEMED AS INCOMPLETE.  |                    |
| I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE. ANY PERSON WHO KNOWINGLY MAKES A FALSE, FICTITIOUS, OR FRAUDULENT MATERIAL STATEMENT, ORALLY OR IN WRITING, TO THE ILLINOIS EPA COMMITS A CLASS 4 FELONY. A SECOND OR SUBSEQUENT OFFENSE AFTER CONVICTION IS A CLASS 3 FELONY. (415 ILCS 5/44(H)) |                    |
| AUTHORIZED SIGNATURE:   |                    |
| BY: _____   | _____              |
| AUTHORIZED SIGNATURE  | TITLE OF SIGNATORY |
| _____   | _____/_____/_____  |
| TYPED OR PRINTED NAME OF SIGNATORY  | DATE               |

Armstrong World Industries, Inc.  
I.D. No.: 091804AAD  
Permit No.: 95120109

Date Received: 08/04/06  
Date Issued: