

# **MINOR SOURCE OPERATING PERMIT OFFICE OF AIR MANAGEMENT**

**Applied Industrial Materials Corporation  
133 Franklin Street  
Aurora, Indiana 47001**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

|   |                |
|---|----------------|
| Operation Permit No.: MSOP 029-11447-00023                              |                |
| Issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Management | Issuance Date: |

## TABLE OF CONTENTS

### A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]
- A.2 Emission Units and Pollution Control Equipment Summary

### B GENERAL CONSTRUCTION CONDITIONS

- B.1 Permit No Defense [IC 13]
- B.2 Definitions
- B.3 Effective Date of the Permit [IC 13-15-5-3]
- B.4 Modification to Permit [326 IAC 2]

### C SOURCE OPERATION CONDITIONS

- C.1 PSD Minor Source Status [326 IAC 2-2]
- C.2 Preventive Maintenance Plan [326 IAC 1-6-3]
- C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]
- C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]
- C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]
- C.6 Permit Revocation [326 IAC 2-1-9]
- C.7 Opacity [326 IAC 5-1]
- C.8 Fugitive Dust Emissions [326 IAC 6-4]
- C.9 Fugitive Dust Emissions [326 IAC 6-5]
- C.10 Stack Height [326 IAC 1-7]
- C.11 Performance Testing [326 IAC 3-6]
- C.12 Compliance Monitoring [326 IAC 2-1.1-11]
- C.13 Maintenance of Monitoring Equipment [IC 13-14-1-13]
- C.14 Monitoring Methods [326 IAC 3]
- C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test

#### Record Keeping and Reporting Requirements

- C.17 Malfunctions Report [326 IAC 1-6-2]
- C.18 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-3]
- C.19 General Record Keeping Requirements [326 IAC 2-6.1-2]
- C.20 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]
- C.21 Annual Notification [326 IAC 2-6.1-5(a)(5)]

### D.1 EMISSIONS UNIT OPERATION CONDITIONS:

#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

- D.1.1 Particulate Matter (PM)
- D.1.2 Nonapplicability of NSPS Subpart OOO
- D.1.3 PM<sub>10</sub> Emission Limit
- D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

#### Compliance Determination Requirements [326 IAC 2-1.1-11]

- D.1.5 Testing Requirements [325 IAC 2-1.1-11]
- D.1.6 Particulate Matter (PM)

#### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.1.7 Visible Emissions Notations
- D.1.8 Parametric Monitoring
- D.1.9 Baghouse Inspections
- D.1.10 Broken Bag or Failure Detection

- D.1.11 Cyclone Inspections
- D.1.12 Cyclone Failure

- Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**
- D.1.13 Record Keeping Requirements

**Malfunction Report**  
**Annual Report**  
**Semi-Annual Report**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a custom blended metallurgical processing source, which only colors and packages.

Authorized Individual: Dennis Wheeland  
Source Address: 133 Franklin Street, Aurora, Indiana 47001  
Mailing Address: P. O. Box 340, Aurora, Indiana 47001  
Phone Number: 812-926-3399  
SIC Code: 3295  
County Location: Dearborn  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, under PSD;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) Five (5) storage bins (#1 - #5), collectively known as Unit 1, installed in 1990, each equipped with a baghouse for particulate matter control, exhausted to stacks S1a through S1e, capacity: 20 tons of aggregate per hour total.
- (b) One (1) natural gas-fired rotary dryer, known as Unit 2, installed in 1990, equipped with a baghouse and cyclone for particulate matter control, exhausted to stack S2, rated at 5.0 million British thermal units per hour, capacity: 10 tons of aggregate per hour.
- (c) One (1) material transfer and conveying area, known as Unit 3, capacity: 20 tons of aggregate per hour, consisting of:
  - (1) Three (3) product storage bins (#9, #10 and #12), each equipped with a baghouse, exhausted to stacks S3a through S3c.
  - (2) One (1) Briquette bin (#13), installed in July 1999, equipped with a baghouse, exhausted to stack S3d, capacity: 18.0 tons of aggregate.
  - (3) One (1) mixer, equipped with a baghouse, exhausted to stack S3e.
  - (4) One (1) load out bin (#11), equipped with a baghouse, exhausted to stack S3f.
- (d) One (1) natural gas-fired heater, known as H3, installed in 1997, exhausted to stack S4, rated at 0.10 million British thermal units per hour.

- (e) Two (2) natural gas-fired heaters, known as H1 and H2, installed in 1992, exhausted to general ventilation rated at 0.15 and 0.175 million British thermal units per hour, respectively.

**SECTION B GENERAL CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

**B.1 Permit No Defense [IC 13]**

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

**B.2 Definitions**

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

**B.3 Effective Date of the Permit [IC13-15-5-3]**

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

**B.4 Modification to Permit [326 IAC 2]**

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

**SECTION C SOURCE OPERATION CONDITIONS**

Entire Source

**C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]**

- (a) The total source potential to emit after controls of any criteria pollutant is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 10 tons per year of any single hazardous air pollutant, twenty-five tons per year of any combination of hazardous air pollutants, or 100 tons per year of any other regulated pollutant from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAM prior to making the change.
- (c) Any change or modification which may increase potential to emit after controls to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

**C.2 Preventive Maintenance Plan [326 IAC 1-6-3]**

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM,. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

**C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]**

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

#### C.4 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.  
[326 IAC 2-7-6(6)]

#### C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:



- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.9 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 6, 2000. The plan consists of:

- (a) All travel surfaces within the plant are paved,
- (b) All bulk materials that have the potential to create fugitive dust are stored within three-sided buildings or under tarps on paved pads; and
- (c) All road surfaces are swept on an as needed basis.

C.10 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

## Testing Requirements

### C.11 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

## Compliance Monitoring Requirements

### C.12 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

### C.13 Maintenance of Monitoring Equipment [IC 13-14-1-13]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

### C.14 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the

provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
- (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
    - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or

- (4) The process has already returned to operating within “normal” parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test**

---

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

**Record Keeping and Reporting Requirements**

**C.17 Malfunctions Report [326 IAC 1-6-2]**

---

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.18 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;

- (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.20 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) A malfunction as described in 326 IAC 1-6-2; or

- (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
- (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.21 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:  
  
Compliance Data Section, Office of Air Management  
Indiana Department of Environmental Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015
- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) Five (5) storage bins (#1 - #5), collectively known as Unit 1, installed in 1990, each equipped with a baghouse for particulate matter control, exhausted to stacks S1a through S1e, capacity: 20 tons of aggregate per hour total.
- (b) One (1) natural gas-fired rotary dryer, known as Unit 2, installed in 1990, equipped with a baghouse and cyclone for particulate matter control, exhausted to stack S2, rated at 5.0 million British thermal units per hour, capacity: 10 tons of aggregate per hour.
- (c) One (1) material transfer and conveying area, known as Unit 3, capacity: 20 tons of aggregate per hour, consisting of:
  - (1) Three (3) product storage bins (#9, #10 and #12), each equipped with a baghouse, exhausted to stacks S3a through S3c.
  - (2) One (1) Briquette bin (#13), installed in July 1999, equipped with a baghouse, exhausted to stack S3d, capacity: 18.0 tons of aggregate.
  - (3) One (1) mixer, equipped with a baghouse, exhausted to stack S3e.
  - (4) One (1) load out bin (#11), equipped with a baghouse, exhausted to stack S3f.
- (d) One (1) natural gas-fired heater, known as H3, installed in 1997, exhausted to stack S4, rated at 0.10 million British thermal units per hour.
- (e) Two (2) natural gas-fired heaters, known as H1 and H2, installed in 1992, exhausted to general ventilation rated at 0.15 and 0.175 million British thermal units per hour, respectively.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from Unit 2 shall not exceed 19.2 pounds per hour when operating at a process weight rate of 20,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from Unit 1 stacks S1a through S1e and Unit 3 stacks S3a through S3f shall not exceed 30.5 pounds per hour, each, when operating at a process weight rate of 40,000 pounds per hour, each.



The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

#### D.1.2 Nonapplicability of NSPS Subpart OOO

This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.670, Subpart OOO), because as per the definition of Nonmetallic Mineral Processing facility, the processing of nonmetallic minerals must include crushing or grinding.

In the revisions to Subpart OOO, published in the June 9, 1997 Federal Register on page 31354, the comments section specifically clarifies that EPA did not intend to regulate stand-alone screening operations at plants that have no crushers. Plants that do not employ crushing or grinding, by definition, are not considered nonmetallic mineral processing plants and thus are not subject to Subpart OOO.

Therefore, since this source only colors and packages aggregate, NSPS Subpart OOO is not applicable to this source.

#### D.1.3 PM<sub>10</sub> Emission Limit

- (a) The PM<sub>10</sub> emission rate from Unit 3 shall not exceed 16.0 pounds per hour. This emission limit is equivalent to an emission factor of 0.800 pounds of PM<sub>10</sub> per ton of material handled, before control, at a process weight rate of 20 tons per hour.
- (b) This PM<sub>10</sub> emission limit for Unit 3 will insure that the potential PM<sub>10</sub> emissions from the entire source will not exceed one hundred (100) tons per year.

#### D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions unit and its control device.

### Compliance Determination Requirements [326 IAC 2-1.1-11]

#### D.1.5 Testing Requirements [326 IAC 2-1.1-11]

- (a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM testing on the Unit 2 stack exhaust, S2, because the potential to emit PM is greater than 40% of the source's total potential to emit PM. The testing shall utilize Methods 5 or 17 (40 CFR 60, Appendix A), or other methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance.
- (b) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM<sub>10</sub> testing on the Unit 3 stack exhausts, S3a through S3f, to confirm the PM<sub>10</sub> emission factor. The PM<sub>10</sub> emission factor is based on the PM emission factor of 2.2 pounds per ton of sand handled (AP-42) multiplied by 24%, which was obtained from the particle size distribution for uncontrolled emissions of PM with a diameter less than 10.0 Fm (AP-42 Table 11/25-8). The testing shall utilize Methods 201 or 201A and 202 (40 CFR 51, Appendix M) or other methods as approved by the Commissioner. PM<sub>10</sub> includes filterable

and condensible PM<sub>10</sub>. This testing does not have to be repeated, if the emission factor is determined to be 0.798 pounds of PM<sub>10</sub> per ton of sand handled or less. This emission factor, combined with the emission factors from the rest of the source, will insure that PM<sub>10</sub> emissions are less than 100 tons per year. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance.

- (c) The Permittee is not required to test the Unit 1 stacks by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limits specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.1.6 Particulate Matter (PM)

- (a) The baghouses for PM control shall be in operation and control emissions from Unit 1 and Unit 3 at all times that talc processing, conveying and mixing processes are in operation.
- (b) The baghouse and cyclone for PM control shall be in operation and control emissions from Unit 2 at all times that the rotary dryer is in operation.

### **Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

#### D.1.7 Visible Emissions Notations

- (a) Daily visible emission notations of the Unit 1, Unit 2 and Unit 3 stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### D.1.8 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across baghouses S1a through S1e used in conjunction with the storage bins, at least once weekly when the process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses S1a through S1e shall be maintained within the range of 2.0 and 3.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall

be calibrated at least once every six (6) months.

- (b) The Permittee shall record the total static pressure drop across baghouse S2 used in conjunction with the rotary dryer, at least once weekly when the drying process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse S2 shall be maintained within the range of 3.0 and 4.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

- (c) The Permittee shall record the total static pressure drop across baghouses S3a through S3f used in conjunction with the transfer and conveying area, at least once weekly when the process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse S3 shall be maintained within the range of 2.0 and 3.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

#### D.1.9 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling Unit 1, Unit 2 and Unit 3 when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

#### D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

#### D.1.11 Cyclone Inspections

An inspection shall be performed each calendar quarter of the cyclones controlling Unit 2 when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

**D.1.12 Cyclone Failure Detection**

---

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

**Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

**D.1.13 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.1.6, the Permittee shall maintain records of daily visible emission notations of Unit 1, Unit 2 and Unit 3 stack exhausts.
- (b) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the dates the vents are redirected.
- (c) To document compliance with Condition D.1.10, the Permittee shall maintain records of the results of the inspections required under Condition D.1.10 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**Indiana Department of Environmental Management**  
**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR MANAGEMENT**  
**FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES ?\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_, 100 TONS/YEAR CARBON MONOXIDE ?\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: Applied Industrial Materials Corporation    PHONE NO. : 812 - 926 - 3399  
LOCATION: (CITY AND COUNTY) Aurora / Dearborn  
PERMIT NO. 029-11447    AFS PLANT ID: 029-00023    AFS POINT ID: \_\_\_\_\_    INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_\_/\_\_\_\_\_/20\_\_\_\_    \_\_\_\_\_    AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_\_/\_\_\_\_\_/20\_\_\_\_    \_\_\_\_\_    AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\* **Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

---

---

---

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

|                      |   |
|----------------------|---|
| <b>Company Name:</b> | <b>Applied Industrial Materials Corporation</b> |
| <b>Address:</b>      | <b>133 Franklin Street</b>                      |
| <b>City:</b>         | <b>Aurora, Indiana 47001</b>                    |
| <b>Phone #:</b>      | <b>812-926-3399</b>                             |
| <b>MSOP #:</b>       | <b>029-11447-00023</b>                          |

I hereby certify that Applied Industrial Materials Corporation is

- still in operation.
- no longer in operation.

I hereby certify that Applied Industrial Materials Corporation is

- in compliance with the requirements of MSOP **029-11447-00023**.
- not in compliance with the requirements of MSOP **029-11447-00023**.

|                                       |                            |
|---------------------------------------|----------------------------|
| <b>Authorized Individual (typed):</b> | <b>Mr. Dennis Wheeland</b> |
| <b>Title:</b>                         |                            |
| <b>Signature:</b>                     |                            |
| <b>Date:</b>                          |                            |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

|                       |
|-----------------------|
| <b>Noncompliance:</b> |
|                       |
|                       |
|                       |
|                       |
|                       |

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR MANAGEMENT  
 COMPLIANCE DATA SECTION**

**MINOR SOURCE OPERATING PERMIT  
 SEMI-ANNUAL COMPLIANCE MONITORING REPORT**

Source Name: Applied Industrial Materials Corporation  
 Source Address: 133 Franklin Street, Aurora, Indiana 47001  
 Mailing Address: P.O. Box 340 Aurora, Indiana 47001  
 MSOP Permit No.: 029-11447-00023

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted semi-annually. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

**9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.**

**9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.**

| Compliance Monitoring Requirement<br>(e.g. Permit Condition D.1.3) | Number of Deviations | Date of each Deviation |
|--|----------------------|------------------------|
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |

Form Completed By: \_\_\_\_\_  
 Title/Position: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for New Construction and Operation

|                                 |   |
|---------------------------------|---|
| <b>Source Name:</b>             | <b>Applied Industrial Materials Corporation</b>   |
| <b>Source Location:</b>         | <b>133 Franklin Street, Aurora, Indiana 47001</b> |
| <b>County:</b>                  | <b>133 Franklin Street, Aurora, Indiana 47001</b> |
| <b>Construction Permit No.:</b> | <b>MSOP 029-11447-00023</b>                       |
| <b>SIC Code:</b>                | <b>3295</b>                                       |
| <b>Permit Reviewer:</b>         | <b>Paula M. Miano/MES</b>                         |

On January 18, 2000, the Office of Air Management (OAM) had a notice published in the Journal Press, Lawrenceburg, Indiana, stating that Applied Industrial Materials Corporation had applied for a construction permit to construct and operate a custom blended metallurgical processing source with control. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On February 14, 2000, several residents of Aurora, submitted comments on the proposed construction permit. The comments and corresponding responses are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

#### **Comment 1:**

As residents who were living in the area before the above named company, we are definitely concerned about the quality of our air, another concern is noise pollution—and the effects on one's health. We are senior citizens, as are many residents of the area. We currently, are under care for health problems including: heart disease, breathing problems, high blood pressure, and diabetes. Also, we have had eye surgeries – Jim Sr. this year, – and Christina last year (1999), – all of which we feel, could be affected by the quality of air in the area. Hogan Creek lies an estimated distance of less than 500 feet from Franklin St. – and is parallel to the street. Therefore, we feel the fish and other wildlife which may live in the creek or in the bottomland behind our property, are also affected by negative air quality.

Also we understand, that AIMCOR has purchased a lot on the same side of the street as, and near our property on Franklin St. which, we believe may contain some of their material dumped there and still remains, in piles, at this site. (This is on the opposite side of the street as AIMCOR is.)

Also, a few years ago, much sandy material was dumped along the embankment, – behind some residences (on this side of the street). The properties later experienced extensive damage to them by slippage. One res. had damage to the extent that the house was torn down — and the occupants (a family with young children, relocated to another area). Another residence, nearby that res., had a back room which was pulling apart from the rest of the house. The house was vacant a few years, then was obtained by new owners, who tore the room off and built a porch in its place. After much repairing of this porch due to sinking etc., the owners sold the property and relocated to another area. We understand the current owners have also done some construction (trying to stabilize this porch.) These properties are located on the same side of Franklin St. as Hogan Creek is located. Also, we would like you to be aware of Fugitive Dust on our motor vehicles in this area. For example, a black truck – in our yard – is at times, covered with whitish fugitive dust, (as well as others.)

We depend on IDEM (OAM) to enforce IAC codes and rules which apply to – and help in the control

of fugitive dust and the air quality issues affected by the application of a permit request by AIMCOR.

Residents: James and Christina Sechrest, Mary Henry, Martha Farrell, Charles Boggs, Irene Spaulding, Mary Jo King, James XXX, Robert and Wallace Hall, Sandy and Donald Lowe, Anthony and Angela Rigacci, T. J. Rigacci, Jeremy Harding, Ray Cornett, Cecil and Mary Bradley, Terry Day, Kenneth and Paula McClanahan, X, XXXX, Sunshine Martin, Jimmy Sebastian, Brenda and David Davie, James Sechrest, Jr., Tiffaney Cutshare, XXX, Jr., Joyce and XXX Hill, Dina McDaniel, Beth Russell, Bin XXX, Harry Tibbs, Sr., Dana and Ken Hull, Jeanie XXX, XXXXX, Donald Lowe.

**Comment 2:**

We have no idea of what that disgusting place at 133 Franklin St., is or what it does (makes life miserable for us) or what they want to do. We cannot keep our cars clean, windows washed or have windows open in the summer with out dusting every five minutes. Sometimes it looks like a white dust storm up the street.

The trucks are a big nuisance as well as the truck drivers going too fast and no clue of where they are going. You should pray every night and morning for the residents that live on the same street. What about health consequences: It just proves that big business and money takes preference over hard working and honest tax paying Americans.

You should send someone down instead of taking the easy way out and printing an article in the paper that very few saw.

Residents: Chester and Freda Sharp, Bob and Jean Grizzell, Candy and Bernie Tibbeths, Virginia Walwing, Tracey and Michelle Woodruff, Ray & Debbie Bryant, Jennifer Largent.

**Comment 3:**

I have lived on 202 Forest Ave. for 2 years, I could not sit on my porch due to your dust or stuff all over it. I could not even keep it clean. Car, clothing on line, as a matter of fact, nothing! I bought the house next door last March with a screened in porch thinking it would make a difference but that didn't help either. I even called the police one time because it so gritty and dusty you could see it. This happens a lot. They leave it uncovered. I don't want you running this 24 hours a day. The people in this area could not stand it. The older couple, Brandons, that I bought this trailer from had lived here since 1985. They moved because it bothered his lungs. How do you know 5 - 10 years down the road how this will affect the people. What about the children? I am a nurse and I have worked at Dearborn County Hospital 30 years. I need to live here because when I am on-call for emergency surgery I need to be there in 15 - 20 minutes. I can't afford to live anywhere else and I really don't want to. There is a petition circling the area now. I am going to sign it.

Resident: Peggy Marten

**Response to Comments 1 through 3:**

The OAM thanks the residents of Aurora, Indiana for their comments regarding Applied Industrial Materials Corporation. This Minor Source Operating Permit contains conditions that will ensure that Applied Industrial Materials Corporation remains in compliance with all applicable State and Federal air regulations. The source was contacted regarding your complaints of fugitive particulate matter (PM) emissions. The consultant for the source stated that all roads servicing the site are paved and material storage occurs in enclosed storage bins or in bunkers enclosed on three (3) sides. These measures should help to reduce fugitive emissions of PM from this site. The following condition has been added to Section C of the permit to minimize fugitive dust emissions from this source:

**C.9 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]**

**Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 6, 2000. The plan consists of:**

- (a) All travel surfaces within the plant are paved,**
- (b) All bulk materials that have the potential to create fugitive dust are stored within three-sided buildings or under tarps on paved pads; and**
- (c) All road surfaces are swept on an as needed basis.**

The remaining conditions in Section C have been renumbered accordingly.

The IDEM inspector assigned to this source is Warren Greiling. Mr. Greiling can be contacted at 317 232-8419 if you suspect that Applied Industrial Materials Corporation is out of compliance with any of the applicable regulations. IDEM generates a schedule that determines when the inspector will visit the source. Inspector visits are unannounced. There will be enforcement actions if Applied Industrial Materials Corporation is found to be in violation of any conditions in this Minor Source Operating Permit.

While the proposed air permit does not address noise or water issues Laurie Gates, 317-232-8670, of the Office of Water Management can address your concerns about drainage and water quality.

On March 3, 2000, David R Jordan of ERM, consultant for the applicant, submitted comments on the proposed construction permit. The comments and corresponding responses are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

**Comment 1:**

Section A – This Section includes a description of operations at the Aurora facility, including a description of Unit 1 and Unit 3. Both Unit 1 and Unit 3 are described as units with multiple pieces of equipment that exhaust to a single discharge point. In reality, both Unit 1 and Unit 3 include multiple discharge points that were grouped together in the permit application since they represented similar emission units. Unit 1 includes multiple storage bins, each of which have individual discharge points. Unit 3 includes product storage bins with individual discharge points, a mixer with an individual discharge point, and a weigh hopper with an individual discharge point. While this grouping is consistent with the manner in which emission factors are characterized (for example, Unit 3 represents emissions from handling and shipping, with emission factor characterized in terms of pounds of particulate matter per ton of material handled), it does not accurately describe each discharge point. Although AIMCOR does not believe that it is necessary for the permit to carry this degree of detail regarding each discharge point, if considered necessary by IDEM, AIMCOR will provide additional detail on each exhaust.

**Response 1:**

The application forms for this permit indicated that there were single control devices for Units 1 and 3. Since it is now being stated that there are multiple control devices for these two (2) emission units Conditions A.2, D.1.1, D.1.4, D.1.6, D.1.7, and D.1.12 are revised as follows. This revision does not change any of the emission calculations for these emission units since the emissions were calculated for the entire throughput of each emission unit.

The stacks identified for Units 1 and 3 in Condition A.2 (a) and (c) are for the baghouses that control

the particulate matter (PM) emissions from these operations. These are the emission points for the controlled PM emissions from these emission units. The following changes have been made:

#### A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) **Five (5) ~~Seven (7)~~ storage bins (#1 - #5)**, collectively known as Unit 1, installed in 1990, **each** equipped with a baghouse for particulate matter control, exhausted to stacks **S1a through S1e**, capacity: 20 tons of aggregate per hour **total**.
- (b) One (1) natural gas-fired rotary dryer, known as Unit 2, installed in 1990, equipped with a baghouse and cyclone for particulate matter control, exhausted to stack S2, rated at 5.0 million British thermal units per hour, capacity: 10 tons of aggregate per hour.
- (c) **One (1) material transfer and conveying area, known as Unit 3, capacity: 20 tons of aggregate per hour, consisting of:**
  - ~~One (1) material transfer and conveying area, known as Unit 3, installed in 1990, equipped with a baghouse for particulate matter control, exhausted to stack S3, capacity: 20 tons of aggregate per hour.~~
  - (1)(e) **Three (3) ~~One (1)~~ product storage bins (#9, #10 and #12)**, added to Unit 1, installed in December 1998, **each equipped with a baghouse**, exhausted to stacks **S3a through S3c** capacity: ~~28.0 tons of aggregate~~.
  - (2)(f) One (1) **Briquette storage bin (#13)**, added to Unit 1, installed in July 1999, **equipped with a baghouse**, exhausted to stack **S3d**, capacity: 18.0 tons of aggregate.
  - (3) **One (1) mixer, equipped with a baghouse, exhausted to stack S3e.**
  - (4) **One (1) load out bin (#11), equipped with a baghouse, exhausted to stack S3f.**
- (d)(g) One (1) natural gas-fired heater, known as H3, installed in 1997, exhausted to stack S4, rated at 0.10 million British thermal units per hour.
- (e)(d) Two (2) natural gas-fired heaters, known as H1 and H2, installed in 1992, exhausted to general ventilation rated at 0.15 and 0.175 million British thermal units per hour, respectively.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) **Five (5) ~~Seven (7)~~ storage bins (#1 - #5)**, collectively known as Unit 1, installed in 1990, **each** equipped with a baghouse for particulate matter control, exhausted to stacks **S1a through S1e**, capacity: 20 tons of aggregate per hour **total**.
- (b) One (1) natural gas-fired rotary dryer, known as Unit 2, installed in 1990, equipped with a baghouse and cyclone for particulate matter control, exhausted to stack S2, rated at 5.0 million British thermal units per hour, capacity: 10 tons of aggregate per hour.
- (c) **One (1) material transfer and conveying area, known as Unit 3, capacity: 20 tons of aggregate per hour, consisting of:**
- ~~One (1) material transfer and conveying area, known as Unit 3, installed in 1990, equipped with a baghouse for particulate matter control, exhausted to stack S3, capacity: 20 tons of aggregate per hour.~~
- (1)(e) **Three (3) ~~One (1)~~ product storage bins (#9, #10 and #12)**, added to Unit 1, installed in December 1998, **each equipped with a baghouse**, exhausted to stacks **S3a through S3c** capacity: 28.0 tons of aggregate.
- (2)(f) One (1) **Briquette storage bin (#13)**, added to Unit 1, installed in July 1999, **equipped with a baghouse**, exhausted to stack **S3d**, capacity: 18.0 tons of aggregate.
- (3) **One (1) mixer, equipped with a baghouse, exhausted to stack S3e.**
- (4) **One (1) load out bin (#11), equipped with a baghouse, exhausted to stack S3f.**
- (d)(g) One (1) natural gas-fired heater, known as H3, installed in 1997, exhausted to stack S4, rated at 0.10 million British thermal units per hour.
- (e)(d) Two (2) natural gas-fired heaters, known as H1 and H2, installed in 1992, exhausted to general ventilation rated at 0.15 and 0.175 million British thermal units per hour, respectively.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from Unit 1 **stacks S1a through S1e** and Unit 3 **stacks S3a through S3f** shall not exceed 30.5 pounds per hour, each, when operating at a process weight rate of 40,000 pounds per hour, each.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and}$$

P = process weight rate in tons per hour.

#### D.1.4 Testing Requirements [326 IAC 2-1.1-11]

- (b) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM<sub>10</sub> testing on the Unit 3 stack exhausts, **S3a through S3f**, to confirm the PM<sub>10</sub> emission factor. The PM<sub>10</sub> emission factor is based on the PM emission factor of 2.2 pounds per ton of sand handled (AP-42) multiplied by 24%, which was obtained from the particle size distribution for uncontrolled emissions of PM with a diameter less than 10.0 Fm (AP-42 Table 11/25-8). The testing shall utilize Methods 201 or 201A and 202 (40 CFR 51, Appendix M) or other methods as approved by the Commissioner. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. This testing does not have to be repeated, if the emission factor is determined to be 0.798 pounds of PM<sub>10</sub> per ton of sand handled or less. This emission factor, combined with the emission factors from the rest of the source, will insure that PM<sub>10</sub> emissions are less than 100 tons per year. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance.
- (c) The Permittee is not required to test **the Unit 1 stacks** by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM and PM<sub>10</sub> limits specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.1.6 Visible Emissions Notations

- (a) Daily visible emission notations of the Unit 1, Unit 2 and Unit 3 stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

#### D.1.7 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across baghouses **S1a through S1e** used in conjunction with the storage bins, at least once weekly when the process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses **S1a through S1e** shall be maintained within the range of 2.0 and 3.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

- (c) The Permittee shall record the total static pressure drop across baghouses **S3a through S3f** used in conjunction with the transfer and conveying area, at least once weekly when the process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse S3 shall be maintained within the range of 2.0 and 3.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

**D.1.12 Record Keeping Requirements**

- (a) To document compliance with Condition D.1.6, the Permittee shall maintain records of daily visible emission notations of Unit 1, Unit 2 and Unit 3 stack exhausts.

**Comment 2:**

Section B – This Section is titled “General Construction Conditions.” AIMCOR is confused by this title, which implies that these conditions relate to a construction permit rather than an operating permit. The wording of these conditions, in fact, appears to be that of a Construction Permit rather than an operating permit (for example, Condition B.1 begins “This permit to construct...”). AIMCOR believes that it has secured all necessary Construction Permits in the past, which is reflected in the Technical Support Document for the permit. AIMCOR believes that the standard language used in this Section should be revised to reflect the fact that this permit is an operating permit only.

**Response 2:**

Section B of the permit has been revised as follows to reflect the fact that there is no construction associated with this approval. Since the permit is for existing permitted emission units and existing unpermitted units, these conditions were directed to the unpermitted and already operating units.

**SECTION B** GENERAL CONSTRUCTION CONDITIONS  
THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

**B.1 Permit No Defense [IC 13]**

This permit to ~~construct~~ **operate** does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

~~B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]~~

~~Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.~~

~~B.5 Modification to Permit [326 IAC 2]~~

~~Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).~~

**B.4 Modification to Permit [326 IAC 2]**

**All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).**

~~B.6 Minor Source Operating Permit [326 IAC 2-6.1]~~

~~This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:~~

- ~~(a) — The attached Affidavit of Construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section.~~
  - ~~(1) — If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.~~
  - ~~(2) — If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.~~
- ~~(b) — If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.~~
- ~~(c) — Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.~~
- ~~(d) — The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).~~
- ~~(e) — Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.~~

**Comment 3:**

Section D.1 – AIMCOR has similar concerns with the Emission Unit Description contained in the introduction to Section D.1 as described in Comment #1 above.

**Response 3:**

See Response 1

**Comment 4:**

Condition D.1.4(a) – This condition requires a PM and PM-10 test on Unit 2 “because the potential to emit PM and PM-10 is greater than 40% of the source’s total potential to emit PM and PM-10.” AIMCOR has two concerns regarding this provision. First, AIMCOR does not understand the rationale for the test as stated in the permit. AIMCOR understood that stack test requirements were established in permits due solely to a unit’s actual or potential emissions, independent of the relationship of this figure to the total potential to emit for the entire source. AIMCOR’s second concern



relates to the requirement to perform a PM-10 stack test. The permit, as written, contains no emission limitations for PM-10. Based on this fact, there appears to be no cause to request that a PM<sub>10</sub> test be performed.

**Response 4:**

PM stack testing has been required for Unit 2 pursuant to IDEM's policy on stack testing and has not been deleted. However, the requirement to test Unit 2 for PM<sub>10</sub> has been deleted since the PM<sub>10</sub> emission factor for this unit is not in question and there are no applicable PM<sub>10</sub> emission limits for this unit. Therefore Condition D.1.4 (a) has been revised as follows:

**D.1.4 Testing Requirements [326 IAC 2-1.1-11]**

(a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM<sub>10</sub> testing on the Unit 2 stack exhaust, S2, because the potential to emit PM and PM<sub>10</sub> is greater than 40% of the source's total potential to emit PM and PM<sub>10</sub>. The testing shall utilize Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM<sub>10</sub>, or other methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. ~~PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>.~~ In addition to these requirements, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance.

**Comment 5:**

Condition D.1.4(b) – This condition establishes a stack testing requirement for the Unit 3 exhaust to verify the PM<sub>10</sub> emission factor. The PM-10 emission factor utilized for this emission point by AIMCOR is based upon the most applicable emission estimate provided in AP-42 for this process. IDEM guidance has provided that the use of AP-42 emission factors is acceptable for the purpose of characterizing emissions without the need for a stack test. AIMCOR does not believe that IDEM has challenged the appropriateness of this emission factor for this operation. Based upon this, AIMCOR does not believe that the requirement for a PM-10 stack test on Unit 3 is warranted.

**Response 5:**

The PM<sub>10</sub> stack testing for Unit 3 is necessary to insure that the potential PM<sub>10</sub> emissions from the entire source do not exceed 100 tons per year which would make this source major pursuant to Part 70 of the 1990 Amendments to the Clean Air Act. While the PM emission factor and the particle size distribution, that resulted in the stated PM<sub>10</sub> emission factor for Unit 3, were taken from AP-42 these factors need to be verified at this particular emission unit. The PM emission factor of 2.2 pounds per ton was taken from AP-42 for lime manufacturing while the size distribution factor was taken from the AP-42 section on clay processing. Therefore no changes are required in the stack testing requirements of Condition D.1.4(b).

**Comment 6:**

Condition D.1.4(c) – This condition notes that no stack testing is required for Unit 1, but that such testing might be required in the future to verify “compliance with the PM and PM-10 limit specified in Condition D.1.1...” Condition D.1.1 established a PM emission limit pursuant to Indiana Rule 326 IAC 6-3, however this Rule does not create a PM-10 limitation. AIMCOR requests that this condition be clarified to reference only PM limits established in Condition D.1.1.

**Response 6:**

Condition D.1.4(c) has been revised as follows to clarify that future testing may be required to verify compliance with the PM limits contained in Condition D.1.1:

**D.1.4 Testing Requirements [326 IAC 2-1.1-11]**

(c) The Permittee is not required to test **the** Unit 1 **stacks** by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM and ~~PM<sub>10</sub>~~ limits specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**Comment 7:**

Condition D.1.6 – This condition establishes a requirement to perform “daily visible emission notations of the Unit 1, Unit 2, and Unit 3 stack exhaust.” As noted above, AIMCOR wishes to clarify that references to Unit 1 and Unit 3 refer to multiple stacks, several of which are bin vents on storage silos. AIMCOR does not believe that the requirement to perform daily visible emission notations was intended for exhaust streams as small as bin vent filters. On an individual basis, these exhausts each have low potential and actual emission rates. AIMCOR requests that this requirement be reevaluated in light of this fact.

**Response 7:**

Condition D.1.6 has been revised to reflect the fact that Unit 1 and Unit 3 contain multiple emission points (see response 1). Daily visible emissions notations are necessary to ensure that the particulate matter control devices are operating properly and that the requirements of 326 IAC 5-1-2 are being met.

**Comment 8:**

Condition D.1.7 – This condition requires that weekly static pressure drop readings be made across “baghouse S1, baghouse S2, and baghouse S3.” As noted above, references to “baghouse S1” and “baghouse S3” relate to multiple dust collectors for each unit. AIMCOR requests that this condition be reevaluated for the reasons outlined in Comment #7 above.

**Response 8:**

See response 1.

**Comment 9:**

Condition D.1.11 – This condition describes the procedures to follow in the event of a cyclone failure, and indicates that operation may continue only if “the Permittee satisfies the requirements of the Emergency provisions of this permit (Section B – Emergency Provisions).” Section B does not contain any “emergency provisions.” AIMCOR believes that such provisions are applicable only to Title V sources. AIMCOR suggests that this condition be reworded to reference the Malfunction Provisions of Condition C.16.

**Response 9:**

Conditions D.1.9 and D.1.11 have been revised due to the fact that Section B of the permit does not

contain any emergency provisions: The Malfunction Condition C.16, renumbered C.17, does not allow for the continued operation of emission units given the failure of a control device. Therefore the following changes have been made:

#### D.1.9 Broken or Failed Bag Detection

---

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. ~~Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).~~
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. ~~Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).~~

#### D.1.11 Cyclone Failure Detection

---

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. ~~Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).~~

#### Comment 10:

Forms – As attachments to the permit, several forms are provided for AIMCOR to utilize in satisfying the requirements of its Minor Source Operating Permit. This includes one form (page 24 of 24) that is titled “Part 70 Operating Permit, Semi-Annual Compliance Monitoring Report.” AIMCOR is not aware of any semi-annual reporting requirements in its permit, and believes that this form was included by mistake. AIMCOR would appreciate clarification of this issue.

#### Response 10:

The Semi-Annual Compliance Monitoring Report was incorrectly titled “Part 70 Operating Permit” and will be changed to “Minor Source Operating Permit”. Condition C.19 which is now Condition C.20 references the semi-annual reporting required by permit. The following changes have been made:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION

~~PART 70 OPERATING PERMIT~~  
**MINOR SOURCE OPERATING PERMIT**  
SEMI-ANNUAL COMPLIANCE MONITORING REPORT

Source Name: Applied Industrial Materials Corporation  
Source Address: 133 Franklin Street, Aurora, Indiana 47001  
Mailing Address: P.O. Box 340 Aurora, Indiana 47001  
MSOP Permit No.: 029-11447-00023

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted semi-annually. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. ~~This form can be supplemented by attaching the Emergency/Deviation Occurrence Report.~~ If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

| Compliance Monitoring Requirement<br>(e.g. Permit Condition D.1.3) | Number of Deviations | Date of each Deviation |
|--|----------------------|------------------------|
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |
|  |                      |                        |

Form Completed By: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

Upon further review, the OAM has decided to make the following changes to the Minor Source Operating Permit: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

1. Condition A.1 has been revised to clarify the source description as follows:

**A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]**

The Permittee owns and operates a custom **blending and packaging** metallurgical processing source.

Authorized Individual: Dennis Wheeland  
Source Address: 133 Franklin Street, Aurora, Indiana 47001  
Mailing Address: P. O. Box 340, Aurora, Indiana 47001  
Phone Number: 812-926-3399  
SIC Code: 3295  
County Location: Dearborn  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, under PSD;  
Minor Source, Section 112 of the Clean Air Act

2. Condition C.1 has been reordered to note that the Part 70 threshold level would be reached before the PSD thresholds as follows:

**C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]**

(a) The total source potential to emit after controls of any criteria pollutant is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 10 tons per year of any single hazardous air pollutant, twenty-five tons per year of any combination of hazardous air pollutants, or 100 tons per year of any other regulated pollutant from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAM prior to making the change.

(c) Any change or modification which may increase potential to emit after controls to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

3. Condition D.1.3 has been added to insure that the potential PM<sub>10</sub> emissions from the entire source do not exceed one hundred (100) tons per year and therefore the source is not considered a major source under Part 70 Permit Program, 326 IAC 2-7. The new condition is as follows and the remaining conditions in Section D.1 have been renumbered.

**D.1.3 PM<sub>10</sub> Emission Limit**

(a) **The PM<sub>10</sub> emission rate from Unit 3 shall not exceed 16.0 pounds per hour. This emission limit is equivalent to an emission factor of 0.800 pounds of PM<sub>10</sub> per ton of material handled, before control, at a process weight rate of 20 tons per hour.**

(b) **This PM<sub>10</sub> emission limit for Unit 3 will insure that the potential PM<sub>10</sub> emissions from the entire source will not exceed one hundred (100) tons per year.**

## **Indiana Department of Environmental Management Office of Air Management**

### **Technical Support Document (TSD) for a Minor Source Operating Permit**

#### **Source Background and Description**

**Source Name:** Applied Industrial Materials Corporation  
**Source Location:** 133 Franklin Street, Aurora, Indiana 47001  
**County:** Dearborn  
**SIC Code:** 3295  
**Operation Permit No.:** MSOP 029-11447-00023  
**Permit Reviewer:** Paula M. Miano/MES

The Office of Air Management (OAM) has reviewed an application from Applied Industrial Materials Corporation relating to the operation of a custom blended metallurgical processing source.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Seven (7) storage bins, collectively known as Unit 1, installed in 1990, equipped with a baghouse for particulate matter control, exhausted to stack S1, capacity: 20 tons of aggregate per hour.
- (b) One (1) natural gas-fired rotary dryer, known as Unit 2, installed in 1990, equipped with a baghouse and cyclone for particulate matter control, exhausted to stack S2, rated at 5.0 million British thermal units per hour, capacity: 10 tons of aggregate per hour.
- (c) One (1) material transfer and conveying area, known as Unit 3, installed in 1990, equipped with a baghouse for particulate matter control, exhausted to stack S3, capacity: 20 tons of aggregate per hour.
- (d) Two (2) natural gas-fired heaters, known as H1 and H2, installed in 1992, exhausted to general ventilation rated at 0.15 and 0.175 million British thermal units per hour, respectively.

#### **Unpermitted Emission Units and Pollution Control Equipment**

The source also consists of the following unpermitted facilities/units:

- (e) One (1) storage bin, added to Unit 1, installed in December 1998, exhausted to stack S1, capacity: 28.0 tons of aggregate.
- (f) One (1) storage bin, added to Unit 1, installed in July 1999, exhausted to stack S1, capacity: 18.0 tons of aggregate.

- (g) One (1) natural gas-fired heater, known as H3, installed in 1997, exhausted to stack S4, rated at 0.10 million British thermal units per hour.

The above equipment did not require a construction permit because it did not increase the plant capacity or increase the potential emissions based on total plant throughput.

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) PC (15) 1718, issued on November 7, 1988;
- (b) PC (15) 1839, issued on May 7, 1990, and
- (c) CP 029-3834-00023, issued on August 16, 1994.

All conditions from previous approvals were incorporated into this permit except the following:

- (a) CP 029-3834-00023, issued on August 16, 1994.

#### Condition #4

That the entire Aimcor materials processing plant including the above described facilities and the olivine aggregate processing facilities shall comply with 326 IAC 12, Subpart 000 (40 CFR 60.670 through 60.676, (New Source Performance Standards (NSPS) for non-metallic mineral processing plants, copy enclosed). This condition shall insure that the requirements of 326 IAC 5-1 and 6-1 are satisfied.

- (a) Particulate matter (PM) emissions to the atmosphere from any capture system shall be limited to 0.05 grams per dry standard cubic meter (g/dscm) or seven percent (7%) opacity, pursuant to that rule.
- (b) That if any transfer point on a conveyor belt or any other affected facility is enclosed by a building, it must comply with the emission limits in paragraphs (a), (b), and (c) of section 60.672. Otherwise, comply with section (e)(1) and (2) which essentially states that no visible fugitive emissions are acceptable, except from a vent. Emissions from vents are limited to 0.05 g/dscm or 7% opacity pursuant to that rule.
- (b) The following sections of Condition #7
  - (a) These tests shall be performed to determine compliance with the NSPS of 0.05 g/dscm according to 326 IAC 12, Appendix A using EPA test methods as described in Subpart 000 (40 CFR 60.675, copy enclosed).
  - (b) All other capture systems emitting PM to the atmosphere shall be visually inspected, at the time of stack testing, to determine compliance with the NSPS of 7% opacity.
- (c) Condition #8

That pursuant to 326 IAC Subpart 000, a log of information necessary to document compliance with Operation Conditions 4 and 5 shall be maintained. These records shall be kept for at least the past 24 month period and made available upon request to the Office of Air

Management. A summary of the results of compliance tests for NSPS shall be submitted to:

Air Compliance Section  
Office of Air Management  
Department of Environmental Management  
P.O. Box 6015  
Indianapolis, Indiana 46206

Within 30 days after the end of the quarter being reported. These reports shall include:

- (a) the results of all performance tests required to determine compliance,
- (b) The rated capacity of packaging equipment in tons per hour,
- (c) The total surface area of the top screening facilities,
- (d) The conveyor belt width, and
- (e) The storage bin rated capacities in tons.

Reason not incorporated:

In the revisions to Subpart OOO, published in the June 9, 1997 Federal Register on page 31354, the comments section specifically clarifies that EPA did not intend to regulate stand-alone screening operations at plants that have no crushers. Plants that do not employ crushing or grinding, by definition, are not considered nonmetallic mineral processing plants and thus are not subject to Subpart OOO.

Therefore, since this source does not have any grinding or crushing operations, NSPS Subpart OOO is not applicable to this source.

### **Air Pollution Control Justification as an Integral Part of the Process**

The company has submitted the following justification such that the baghouse and cyclone on Unit 2, be considered as an integral part of the drying process:

The primary purpose of the cyclone and baghouse on the rotary dryer is to remove fines from the process material before the material reaches the burner end of the dryer so that the fines are not overheated. Removing the fines is essential to providing a product with the physical and chemical characteristics demanded by the customers. Thus the primary purpose of this equipment is not to control air pollution.

IDEM, OAM has evaluated the justifications and agreed that the baghouse and cyclone will be considered as an integral part of the drying process. Therefore, the permitting level will be determined using the potential to emit after the baghouse and cyclone. Operating conditions in the proposed permit will specify that this baghouse and cyclone shall operate at all times when the drying process is in operation.



### Stack Summary

| Stack ID | Operation        | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (EF) |
|----------|------------------|---------------|-----------------|------------------|------------------|
| S1       | Storage Bins     | 45.0          | 1.0             | 500              | Ambient          |
| S2       | Rotary Dryer     | 32.0          | 1.67            | 8000             | 240              |
| S3       | Conveying/Mixing | 40.0          | 1.0             | 500              | Ambient          |
| S4       | Combustion       | 14.0          | 0.333           | unknown          | unknown          |

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 13, 1999, with additional information received on November 19, December 21, 1999 and January 4, 2000.

### Emission Calculations

See Appendix A pages 1 through 3 of 3 of this document for detailed emissions calculations.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

| Pollutant        | Potential To Emit (tons/year) |
|------------------|-------------------------------|
| PM               | 283                           |
| PM <sub>10</sub> | 76.2                          |
| SO <sub>2</sub>  | 0.014                         |
| VOC              | 0.131                         |
| CO               | 2.00                          |
| NO <sub>x</sub>  | 2.38                          |

| <b>HAPs</b>     | <b>Potential To Emit<br/>(tons/year)</b> |
|-----------------|--|
| Benzene         | 0.00005                                  |
| Dichlorobenzene | 0.00003                                  |
| Formaldehyde    | 0.002                                    |
| Hexane          | 0.043                                    |
| Toluene         | 0.00008                                  |
| Lead            | 0.00001                                  |
| Cadmium         | 0.00003                                  |
| Chromium        | 0.00003                                  |
| Manganese       | 0.000009                                 |
| Nickel          | 0.00005                                  |
| <b>TOTAL</b>    | <b>0.045</b>                             |

- (a) The potential to emit (as defined in 326 IAC 2-1) of PM and PM<sub>10</sub> are equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.
- (b) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 1996, OAM emission data.

| <b>Pollutant</b> | <b>Actual Emissions<br/>(tons/year)</b> |
|------------------|---|
| PM               | 1.51                                    |
| PM <sub>10</sub> | 2.62                                    |
| SO <sub>2</sub>  | 0.002                                   |
| VOC              | 0.021                                   |
| CO               | 0.084                                   |
| NO <sub>x</sub>  | 0.400                                   |
| HAP              | n/a                                     |

**Limited Potential to Emit**

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

| Process/facility       | Limited Potential to Emit<br>(tons/year) |                  |                 |              |             |                 |              |
|------------------------|--|------------------|-----------------|--------------|-------------|-----------------|--------------|
|                        | PM                                       | PM <sub>10</sub> | SO <sub>2</sub> | VOC          | CO          | NO <sub>x</sub> | HAPS         |
| Unit 1                 | 0.613                                    | 0.228            | 0.00            | 0.00         | 0.00        | 0.00            | 0.00         |
| Unit 2                 | 28.5                                     | 7.18             | 0.013           | 0.120        | 1.84        | 2.19            | 0.041        |
| Unit 3                 | 1.93                                     | 0.463            | 0.00            | 0.00         | 0.00        | 0.00            | 0.00         |
| Heaters                | 0.004                                    | 0.014            | 0.001           | 0.011        | 0.160       | 0.190           | 0.004        |
| <b>Total Emissions</b> | <b>31.1</b>                              | <b>7.88</b>      | <b>0.014</b>    | <b>0.131</b> | <b>2.00</b> | <b>2.38</b>     | <b>0.045</b> |

**County Attainment Status**

The source is located in Dearborn County.

| Pollutant        | Status     |
|------------------|------------|
| PM <sub>10</sub> | attainment |
| SO <sub>2</sub>  | attainment |
| NO <sub>2</sub>  | attainment |
| Ozone            | attainment |
| CO               | attainment |
| Lead             | attainment |

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Dearborn County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Dearborn County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

**Source Status**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

| <b>Pollutant</b> | <b>Emissions<br/>(ton/yr)</b> |
|------------------|-------------------------------|
| PM               | 31.1                          |
| PM <sub>10</sub> | 7.88                          |
| SO <sub>2</sub>  | 0.014                         |
| VOC              | 0.131                         |
| CO               | 2.00                          |
| NO <sub>x</sub>  | 2.38                          |

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on calculations of the PSD definition potential emissions for the existing permitted emission units.

### Part 70 Permit Determination

#### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit, MSOP 029-11447-00023, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPS is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

### Federal Rule Applicability

- (a) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.670, Subpart OOO, because as per the definition of Nonmetallic Mineral Processing facility, the processing of nonmetallic minerals must include crushing or grinding.

In the revisions to Subpart OOO, published in the June 9, 1997 Federal Register on page 31354, the comments section specifically clarifies that EPA did not intend to regulate stand-alone screening operations at plants that have no crushers. Plants that do not employ crushing or grinding, by definition, are not considered nonmetallic mineral processing plants and thus are not subject to Subpart OOO.

Therefore, since this source only colors and packages aggregate, NSPS Subpart OOO is not applicable to this source.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

### **State Rule Applicability - Entire Source**

#### 326 IAC 2-6 (Emission Reporting)

This source is located in Dearborn County and the potential to emit VOC and NO<sub>x</sub> pollutant is less than ten (10) tons per year. The source's potential to emit PM<sub>10</sub> is less than one-hundred (100) tons per year including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment.

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions) the Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

### **State Rule Applicability - Individual Facilities**

#### 326 IAC 2-1.1-11 (Compliance Requirements)

- (a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM<sub>10</sub> testing on the Unit 2 stack exhaust, S2, because the potential to emit PM and PM<sub>10</sub> is greater than 40% of the source's total potential to emit PM and PM<sub>10</sub>. The testing shall utilize Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM<sub>10</sub>, or other methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>.
- (b) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM<sub>10</sub> testing on the Unit 3 stack exhaust, S3, to confirm the PM<sub>10</sub> emission factor. The PM<sub>10</sub> emission factor of 0.528 pounds of PM<sub>10</sub> per ton of sand handled used to calculate the controlled potential emissions is based on the PM emission factor of 2.2 pounds of PM per ton of sand handled (AP-42) multiplied by 24%, which was obtained from the particle size distribution for uncontrolled emissions of PM with a diameter less than 10.0

Fm (AP-42 Table 11/25-8). The testing shall utilize Methods 201 or 201A and 202 (40 CFR 51, Appendix M) or other methods as approved by the Commissioner.  $PM_{10}$  includes filterable and condensable  $PM_{10}$ . This testing does not have to be repeated, if the emission factor is determined to be 0.798 pounds of  $PM_{10}$  per ton of sand handled or less. This emission factor, combined with the emission factors from the rest of the source, will insure that  $PM_{10}$  emissions are less than 100 tons per year.

### 326 IAC 6-3-2 (Process Operations)

- (a) The allowable particulate matter (PM) emission rate from Unit 2 shall not exceed 19.2 pounds per hour, when operating at a process weight rate of 10.0 tons per hour. The allowable PM emission rate is calculated with the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The cyclone and baghouse shall be in operation at all times Unit 2 is in operation, in order to comply with this limit.

- (b) The allowable particulate matter (PM) emission rate from Unit 1 and Unit 3 shall not exceed 30.5 pounds per hour, each, when operating at a process weight rate of 20.0 tons per hour each. The allowable PM emission rate is calculated with the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The baghouses shall be in operation at all times Unit 1 and Unit 3 are in operation, in order to comply with these limits.

### Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations page 3 of 3 of Appendix A for detailed air toxic calculations.

### Conclusion

The operation of this custom blended metallurgical processing source shall be subject to the conditions of the attached proposed New Source Construction and Minor Source Operating Permit 029-11447-00023.

Company Name: Applied Industrial Materials Corporation  
 Address City IN Zip: 133 Franklin Street, Aurora, Indiana 47001  
 MSOP: 029-11447  
 Plt ID: 029-00023  
 Reviewer: Paula M. Miano  
 Date: October 13, 1999

**Unit 1 (Storage Bins)**

|  |              |         |                  |
|--|--------------|---------|------------------|
| Process                                    | <b>Total</b> |         |                  |
| Talc Processing                            | Throughput   |         |                  |
| SCC# 3-05-089-85                           | tons/hr      |         |                  |
| US EPA Fire 6.2                            |              | 20.00   | PM Control 99.0% |
| Emission Factors lbs/ton sand handled      | PM           | PM10    | Allowable PM     |
| Percentage of Emissions                    | 100.00%      | 100.00% | 326 IAC 6-3-2    |
| Potential Emissions lbs/hr                 | 14.0         | 5.2     | 30.5             |
| Potential Emissions tons/yr                | 61.3         | 22.8    |                  |
| Potential Emissions after Controls tons/yr | 0.613        | 0.228   |                  |

**Unit 2**

|  |                   |         |                  |
|--|-------------------|---------|------------------|
| Process                                    | <b>Throughput</b> |         |                  |
| Rotary Dryer                               | tons/hr           |         |                  |
| SCC 3-05-043-30                            | 10.00             |         | PM Control 99.0% |
| US EPA Fire 6.2                            |                   |         |                  |
| Emission Factors lbs/ton sand handled      | PM                | PM10    | Allowable PM     |
| Percentage of Emissions                    | 100.00%           | 100.00% | 326 IAC 6-3-2    |
| Potential Emissions lbs/hr                 | 650.00            | 160.00  | 19.2             |
| Potential Emissions tons/yr                | 2847.0            | 700.80  |                  |
| Potential Emissions after Controls tons/yr | 28.5              | 7.01    |                  |
| <b>CONTROLS ARE INTEGRAL TO PROCESS</b>    |                   |         |                  |

**Unit 3**

|  |              |         |                  |
|--|--------------|---------|------------------|
| Process                                    | <b>Total</b> |         |                  |
| Conveying and Mixing                       | Throughput   |         |                  |
| SCC# 3-05-016-15                           | tons/hr      |         |                  |
| US EPA Fire 6.2 / AP-42                    |              | 20.00   | PM Control 99.0% |
| Emission Factors lbs/ton sand handled      | PM           | PM10*   | Allowable PM     |
| Percentage of Emissions                    | 100.00%      | 100.00% | 326 IAC 6-3-2    |
| Potential Emissions lbs/hr                 | 44.0         | 10.6    | 30.5             |
| Potential Emissions tons/yr                | 193          | 46.3    |                  |
| Potential Emissions after Controls tons/yr | 1.93         | 0.463   |                  |

\*PM10 emission factor: PM emission factor \* Particle size distribution for uncontrolled cumulative % (24%) diameter less than 10.0 um(AP-42 Table 11.25-8).

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**Small Industrial Boiler**

**Company Name: Applied Industrial Materials Corporation**  
**Address City IN Zip: 133 Franklin Street, Aurora, Indiana 47001**  
**MSOP: 029-11447**  
**Plt ID: 029-00023**  
**Reviewer: Paula M. Miano**  
**Date: October 13, 1999**

One (1) rotary dryer rated at 5.0 MMBtu/hr  
 Three (3) units rated at 0.15, 0.175 and 0.10 MMBtu/hr

|                                 |                                 |
|---------------------------------|---------------------------------|
| Heat Input Capacity<br>MMBtu/hr | Potential Throughput<br>MMCF/yr |
|---------------------------------|---------------------------------|

|       |
|-------|
| 5.425 |
|-------|

47.5

|                               | Pollutant |       |       |                      |       |      |
|-------------------------------|-----------|-------|-------|----------------------|-------|------|
|                               | PM*       | PM10* | SO2   | NOx                  | VOC   | CO   |
| Emission Factor in lb/MMCF    | 1.9       | 7.6   | 0.6   | 100.0<br>**see below | 5.5   | 84.0 |
| Potential Emission in tons/yr | 0.045     | 0.181 | 0.014 | 2.38                 | 0.131 | 2.00 |

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.



**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**Small Industrial Boiler**

**HAPs Emissions**

**Company Name: Applied Industrial Materials Corporation**

**Address City IN Zip: 133 Franklin Street, Aurora, Indiana 47001**

**CP: 029-11447**

**Plt ID: 029-00023**

**Reviewer: Paula M. Miano**

**Date: October 13, 1999**

HAPs - Organics

|                               | Benzene   | Dichlorobenzene | Formaldehyde | Hexane    | Toluene   |
|-------------------------------|-----------|-----------------|--------------|-----------|-----------|
| Emission Factor in lb/MMcf    | 2.1E-03   | 1.2E-03         | 7.5E-02      | 1.8E+00   | 3.4E-03   |
| Potential Emission in tons/yr | 4.990E-05 | 2.851E-05       | 1.782E-03    | 4.277E-02 | 8.079E-05 |

HAPs - Metals

|                               | Lead      | Cadmium   | Chromium  | Manganese | Nickel    |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|
| Emission Factor in lb/MMcf    | 5.0E-04   | 1.1E-03   | 1.4E-03   | 3.8E-04   | 2.1E-03   |
| Potential Emission in tons/yr | 1.188E-05 | 2.614E-05 | 3.327E-05 | 9.029E-06 | 4.990E-05 |

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.