



**Thomas M. McDermott, Jr.**  
Mayor

**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**CITY OF HAMMOND**

RONALD L. NOVAK  
Director

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)**

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

and

**Hammond Department of Environmental Management  
-Air Pollution Control Division-**

**Resco Products, Inc.  
5501 Kennedy Avenue  
Hammond, Indiana 46323**

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provision of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; and denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17

Operation Permit No.: F089-21631-00222	
Issued by: Original signed by:	Issuance Date: April 5, 2006
Ronald L. Novak, Director Hammond Department of Environmental Management	Expiration Date: April 5, 2011

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- D.3.3 Particulate Matter less than 10 microns in diameter (PM10)

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- D.6.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.6.3 Particulate Matter less than 10 microns in diameter (PM10)

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Hammond Department of Environmental Management (HDEM). 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 2-8-3(b)]

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The Permittee owns and operates a Refractory Products Manufacturing facility.

Authorized individual: Robert L. Williamson, Plant Manager  
Source Address: 5501 Kennedy Avenue, Hammond, Indiana 46323  
Mailing Address: P. O. Box 2128, Hammond, Indiana 46323  
SIC Code: 3297 – Refractory Products

Source Location Status: Lake County  
Nonattainment for PM<sub>2.5</sub>  
Attainment for SO<sub>2</sub>  
Nonattainment for ozone under the 8-hour standard  
Nonattainment for ozone under the 1-hour standard  
Attainment for all other criteria pollutants

Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under Emission Offset Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

#### **Magnesite Processing**

Magnesite Unloading and Crushing (D-1), identified as PD-1, constructed in 1971, with a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-1.

Magnesite Handling & Storage (D-2), identified as PD-2, constructed in 1993, with a maximum rate of 12 tons per hour, using a baghouse as control, and exhausting to stack D-2.

Magnesite Classifying & Milling - East (D-8), identified as PD-8, constructed in 1956, with a maximum rate of 25 tons per hour, using a baghouse as control, and exhausting to stack D-8.

Material Screening & Milling – West (D-11), identified as PD-11, constructed in 1992, with a maximum rate of 12 tons per hour, using a baghouse as control, and exhausting to stack D-11.

Material Screening & Milling – West (D-13), identified as PD-13, constructed in 1956, with a maximum rate of 16 tons per hour, using a baghouse as control, and exhausting to stack D-13.

Batts Crushing & Screening (D-9), identified as PD-9, constructed in 1956, with a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-9.

### **Mixing Department**

DEV-22 Mixer (D-4), identified as PD-4, constructed in 1996, with a maximum rate of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-4.

RV-15 Mixer #3 (D-12D), identified as PD-12D, constructed in 1993, with a maximum rate of 4.25 tons per hour, using a baghouse as control, and exhausting to stack D-12D.

DE-18 Flat Mixer (D-14), identified as PD-14, constructed in 1993, with a maximum rate of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-14.

RV-15 Mixers #1 and #2 (D-21), identified as PD-12B, constructed in 1984, and PD-12C, constructed in 1988, each with a maximum rate of 4.25 tons per hour, using separate baghouses as control, and exhausting to a common stack D-21.

### **Batching Department**

Material Receiving Vessel Vent (D-12E), identified as PD-12E, constructed in 1993, with a maximum rate of 18 tons per hour, using a baghouse as control, and exhausting to stack D-12E.

Graphite Transport (D-19), identified as PD-19, constructed in 1993, with a maximum rate of 6 tons per hour, using a baghouse as control, and exhausting to stack D-19.

Minor Additive Transport (D-20), identified as PD-20, constructed in 1993, with a maximum rate of 0.75 tons per hour, using a baghouse as control, and exhausting to stack D-20.

Batch Station Transport (D-22), identified as PD-22, constructed in 1996, with a maximum rate of 14 tons per hour, using a baghouse as control, and exhausting to stack D-22.

### **Pressing Department**

Resin Bond Batch (D-12A), identified as PD-12A, constructed in 1996, with a maximum rate of 10.9 tons per hour, using a baghouse as control, and exhausting to stack D-12A.

### **Drying Department**

Basic Dryer (S-8), identified as PS-8, constructed in 1957, with a maximum drying rate of 4.1 tons per hour and natural gas heat input rate of 13.5 million Btu/hr, exhausting to stack S-8.

Rotary Dryer (D-10), identified as PD-10, constructed in 1957, with a maximum drying rate of 20 tons per hour and natural gas heat input rate of 3.5 million Btu/hr, using a baghouse as control, and exhausting to stack D-10.

### **Montco Line**

The Montco Line (S-30), identified as PS-30, constructed in 2001, with a maximum rate of 10 tons per hour, using a jet pulse cartridge dust collector as control, and exhausting to stack S-30.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (c) Combustion source flame safety purging on startup.
- (d) VOC and HAP vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (e) Refractory storage not requiring air pollution control equipment.
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Any operation using aqueous solutions containing less than 1% by weight of VOC excluding HAPs.
- (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (i) Paved and unpaved roads and parking lots with public access.
- (j) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles from the source where air emissions from those activities would not be associated with any production process.
- (k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (l) Emergency gasoline generators not exceeding 110 horsepower.
- (m) Stationary fire pumps.
- (n) Purge double block and bleed valves.
- (o) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).
- (p) A laboratory as defined in 326 IAC 2-7-1(21)(D).

A.4 FESOP Applicability [326 IAC 2-8-2]

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Hammond Department of Environmental Management (HDEM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted
- by this permit.
- (b) All previous registrations and permits are superseded by this permit.

## **SECTION B                      GENERAL CONDITIONS**

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

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Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### **B.2      Definitions [326 IAC 2-8-1]**

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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, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### **B.3      Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]**

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This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### **B.4      Enforceability [326 IAC 2-8-6]**

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- (a)      Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, HDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
  
- (b)      Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by HDEM.

### **B.5      Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### **B.6      Severability [326 IAC 2-8-4(4)]**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.7      Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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This permit does not convey any property rights of any sort, or any exclusive privilege.

### **B.8      Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

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- (a)      The Permittee shall furnish to IDEM, OAQ and HDEM within a reasonable time, any information that IDEM, OAQ and HDEM may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ and HDEM copies of records required to be kept by this permit.
  
- (b)      For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 when furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and HDEM may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

- (b) The annual compliance certification report 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, OAQ and HDEM on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;

- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ and HDEM may require to determine the compliance status of the source.

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(1).

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs), within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (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; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ and HDEM upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and HDEM. IDEM, OAQ and HDEM may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.13 Emergency Provisions [326 IAC 2-8-12]

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and HDEM within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

IDEM:

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

and

HDEM

Telephone No.: 219-853-6306  
Facsimile No.: 219-853-6343

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ and HDEM may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ and HDEM by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- (h) Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ or HDEM determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ or HDEM to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ or HDEM at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM,

OAQ or HDEM may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.16 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and HDEM and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, IN 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) 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, OAQ and HDEM on or before the date it is due.
- (2) If IDEM, OAQ and HDEM 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.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ and HDEM takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and HDEM any additional information identified as needed to process the application.

**B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

Any such application shall be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ and HDEM in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) **Emission Trades** [326 IAC 2-8-15(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios** [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.19 Permit Revision Requirement** [326 IAC 2-8-11.1]

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.20 Inspection and Entry** [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]

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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, OAQ, HDEM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)] [326 IAC 2-8-5] [62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit volatile organic compounds (VOCs) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
  - (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM) and volatile organic compounds (VOCs), shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;
  - (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
  - (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-3 (Emission Offset), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above-specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 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 twenty percent (20%) 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]**

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The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

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The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

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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).

**C.6 Fugitive Dust Emissions [326 IAC 6.8-10-3]**

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The Permittee shall be in violation of 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), if the opacity of fugitive particulate emissions exceeds ten percent (10%).

**C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

**Testing Requirements [326 IAC 2-8-4(3)]**

**C.8 Performance Testing [326 IAC 3-6]**

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(a) 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, OAQ.

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 Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and HDEM not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and HDEM if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

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

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

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(1).

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

#### **C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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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, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

#### **C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale

such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

### **Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]**

#### **C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]**

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

#### **C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records;
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (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 response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ and HDEM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (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, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

C.16 Annual Emission Inventory [Hammond Ordinance No. 7102]

The Permittee shall submit an annual emission inventory containing the production information necessary to determine compliance and confirm the source classification and permit level. The emission inventory must be received by April 15<sup>th</sup> of each year. The submittal should cover the twelve (12) consecutive month time period starting January 1 and ending December 31. This is a local requirement only. The emission inventory must be submitted to:

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue - Room 304  
Hammond, Indiana 46320

This inventory does require a signed certification sheet by a company representative.

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit 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 physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or HDEM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or HDEM within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period.

The Quarterly Deviation and 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 Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

and

Hammond Department of Environmental Management  
Air Pollution Control Division  
5925 Calumet Avenue - Room 304  
Hammond, Indiana 46320

- (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, OAQ and HDEM on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

### **Stratospheric Ozone Protection**

#### **C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

**SECTION D.1 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]:**

**Magnesite Processing**

Magnesite Unloading and Crushing (D-1), identified as PD-1, constructed in 1971, with a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-1.

Magnesite Handling & Storage (D-2), identified as PD-2, constructed in 1993, with a maximum rate of 12 tons per hour, using a baghouse as control, and exhausting to stack D-2.

Magnesite Classifying & Milling - East (D-8), identified as PD-8, constructed in 1956, with a maximum rate of 25 tons per hour, using a baghouse as control, and exhausting to stack D-8.

Material Screening & Milling - West (D-11), identified as PD-11, constructed in 1992, with a maximum rate of 12 tons per hour, using a baghouse as control, and exhausting to stack D-11.

Material Screening & Milling - West (D-13), identified as PD-13, constructed in 1956, with a maximum rate of 16 tons per hour, using a baghouse as control, and exhausting to stack D-13.

Batts Crushing & Screening (D-9), identified as PD-9, constructed in 1956, with a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-9.

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.1.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2-16]**

Pursuant to 326 IAC 6.8-2-16 (Lake County: PM10 emission requirements), the PM10 emissions from the Magnesite Processing emission units shall not exceed the rates in the following table. These limitations will ensure that the source total PM10 emissions are below 100 tons per year. Therefore, the Part 70 Permit Program requirements in 326 IAC 2-7 do not apply.

Process/emission unit (ID)	PM <sub>10</sub> Emission Limit (lbs/Ton)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Magnesite Processing</b>		
Magnesite Unload and Crush (D-1)	0.017	0.58
Magnesite Handling & Storage (D-2)	0.012	0.41
Magnesite Classify & Mill - East (D-8)	0.051	1.28
Material Screen & Mill – West (D-11)	0.020	0.41
Material Screen & Mill – West (D-13)	0.044	0.70
Batts Crushing & Screening (D-9)	0.024	0.49

**D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

## Compliance Determination Requirements

### D.1.3 Particulate Matter less than 10 microns in diameter (PM10)

---

- (a) In order to comply with D.1.1, the baghouse dust collectors for PM10 control shall be in operation and control emissions from the Magnesite Processing emission units at all times that the process units are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed and before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

## Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

### D.1.4 Visible Emissions Notations

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- (a) Visible emission notations of the Magnesite Processing stack exhausts shall be performed once per day 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

### D.1.5 Parametric Monitoring

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- (a) The Permittee shall record the pressure drop across each baghouse used in conjunction with the Magnesite Processing Department at least once per day when the processes are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and HDEM, and shall be calibrated at least once every six (6) months.

#### D.1.6 Broken or Failed Bag Detection

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- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line or emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.1.7 Record Keeping Requirements

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- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of the visible emission notations of the Magnesite Processing stack exhausts.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records of the Magnesite Processing baghouse pressure drop readings.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.2 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]: Mixing Department**

DEV-22 Mixer (D-4), identified as PD-4, constructed in 1996, with a maximum rate of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-4.

RV-15 Mixer #3 (D-12D), identified as PD-12D, constructed in 1993, with a maximum rate of 4.25 tons per hour, using a baghouse as control, and exhausting to stack D-12D.

DE-18 Flat Mixer (D-14), identified as PD-14, constructed in 1993, with a maximum rate of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-14.

RV-15 Mixers #1 and #2 (D-21), identified as PD-12B, constructed in 1984, and PD-12C, constructed in 1988, each with a maximum rate of 4.25 tons per hour, using separate baghouses as control, and exhausting to a common stack D-21.

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.2.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2-16]**

Pursuant to 326 IAC 6.8-2-16 (Lake County: PM10 emission requirements), the PM10 emissions from the Mixing Department emission units shall not exceed the rates in the following table. These limitations will ensure that the source total PM10 emissions are below 100 tons per year. Therefore, the Part 70 Permit Program requirements in 326 IAC 2-7 do not apply.

Process/emission unit (ID)	PM <sub>10</sub> Emission Limit (lbs/Ton)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Mixing Department</b>		
DEV-22 Mixer (D-4)	0.033	0.230
RV-15 Mixer #3 (D-12D)	0.054	0.153
DE-18 Flat Mixer (D-14)	0.017	0.230
RV-15 Mixers #1 and #2 (D-21)	0.054	0.307

**D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

**Compliance Determination Requirements**

**D.2.3 Particulate Matter less than 10 microns in diameter (PM10)**

- (a) In order to comply with D.2.1, the baghouse dust collectors for PM10 control shall be in operation and control emissions from the Mixing Department emission units at all times that the process units are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed and before the failed

units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **D.2.4 Visible Emissions Notations**

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- (a) Visible emission notations of the Mixing Department stack exhausts shall be performed once per day 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### **D.2.5 Parametric Monitoring**

---

- (a) The Permittee shall record the pressure drop across each baghouse used in conjunction with the Mixing Department at least once per day when the processes are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and HDEM, and shall be calibrated at least once every six (6) months.

#### **D.2.6 Broken or Failed Bag Detection**

---

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or

replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line or emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

### **D.2.7 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of the visible emission notations of the Mixing Department stack exhausts.
- (b) To document compliance with Condition D.2.5, the Permittee shall maintain records of the Mixing Department baghouse pressure drop readings.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.3 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]:**

**Batching Department**

Material Receiving Vessel Vent (D-12E), identified as PD-12E, constructed in 1993, with a maximum rate of 18 tons per hour, using a baghouse as control, and exhausting to stack D-12E.

Graphite Transport (D-19), identified as PD-19, constructed in 1993, with a maximum rate of 6 tons per hour, using a baghouse as control, and exhausting to stack D-19.

Minor Additive Transport (D-20), identified as PD-20, constructed in 1993, with a maximum rate of 0.75 tons per hour, using a baghouse as control, and exhausting to stack D-20.

Batch Station Transport (D-22), identified as PD-22, constructed in 1996, with a maximum rate of 14 tons per hour, using a baghouse as control, and exhausting to stack D-22.

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.3.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 2-8-4] [Hammond Environmental Ordinance 7102]

Pursuant to 326 IAC 2-8-4 and the Hammond Environmental Ordinance 7102, the PM10 emissions from the Batching Department emission units shall not exceed the rates in the following table. These limitations will require controls and will ensure that the source total PM10 emissions are below 100 tons per year. Therefore, the Part 70 Permit Program requirements in 326 IAC 2-7 do not apply.

Process/emission unit (ID)	PM <sub>10</sub> Emission Limit (lbs/Ton)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Batching Department</b>		
Material Receiving Vessel Vent (D-12E)	0.0011	0.0198
Graphite Transport (D-19)	0.0011	0.0066
Minor Additive Transport (D-20)	0.0011	0.0008
Batch Station Transport (D-22)	0.0011	0.0154

D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

**Compliance Determination Requirements**

D.3.3 Particulate Matter less than 10 microns in diameter (PM10)

- (a) In order to comply with D.3.1, the baghouse dust collectors for PM10 control shall be in operation and control emissions from the Batching Department emission units at all times that the process units are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed and before the failed

units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **D.3.4 Visible Emissions Notations**

---

- (a) Visible emission notations of the Batching Department stack exhausts shall be performed once per day 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### **D.3.5 Parametric Monitoring**

---

- (a) The Permittee shall record the pressure drop across each baghouse used in conjunction with the Batching Department at least once per day when the processes are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and HDEM, and shall be calibrated at least once every six (6) months.

#### **D.3.6 Broken or Failed Bag Detection**

---

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or

replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line or emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.3.7 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records of the visible emission notations of the Batching Department stack exhausts.
- (b) To document compliance with Condition D.3.5, the Permittee shall maintain records of the Batching Department baghouse total static pressure drop readings.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.4 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]:** **Pressing Department**

Resin Bond Batch (D-12A), identified as PD-12A, constructed in 1996, with a maximum rate of 10.9 tons per hour, using a baghouse as control, and exhausting to stack D-12A.

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.4.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2-16]**

Pursuant to 326 IAC 6.8-2-16 (Lake County: PM10 emission requirements), the PM10 emissions from the Resin Bond Batch stack D-12A, shall not exceed the rate in the following table. This limitation will ensure that the source total PM10 emissions are below 100 tons per year. Therefore, the Part 70 Permit Program requirements in 326 IAC 2-7 do not apply.

Process/emission unit (ID)	PM <sub>10</sub> Emission Limit (lbs/Ton)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Pressing Department</b>		
Resin Bond Batch (D-12A)	0.25	0.93
(previously stacks D-14, D-15, and D-16)*		

HDEM modification permit #404, issued 12/14/93, combined the limits of D-14, D-15, and D-16 when replaced by D-12A.

**D.4.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

**Compliance Determination Requirements**

**D.4.3 Testing Requirements [326 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

During the period between 30 and 36 months after issuance of this FESOP, in order to demonstrate compliance with Condition D.4.1, the Permittee shall perform PM10 testing on the Resin Bond Batch stack (D-12A) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.

**D.4.4 Particulate Matter less than 10 microns in diameter (PM10)**

- (a) In order to comply with D.4.1, the dust collector for PM10 control shall be in operation and control emissions from the Resin Bond Batch process at all times that the process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed and before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

## **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

### **D.4.5 Visible Emissions Notations**

---

- (a) Visible emission notations of the Resin Bond Batch stack exhaust shall be performed once per day 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

### **D.4.6 Parametric Monitoring**

---

- (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the Resin Bond Batch process at least once per day when the processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and HDEM, and shall be calibrated at least once every six (6) months.

### **D.4.7 Broken or Failed Bag Detection**

---

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line or emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

### **D.4.8 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.4.5, the Permittee shall maintain records of the visible emission notations of the Resin Bond Batch process stack exhaust.
- (b) To document compliance with Condition D.4.6, the Permittee shall maintain records of the Resin Bond Batch baghouse total static pressure drop readings.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.5 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]:** **Drying Department**

Basic Dryer (S-8), identified as PS-8, constructed in 1957, with a maximum drying rate of 4.1 tons per hour and natural gas heat input rate of 13.5 million Btu/hr, exhausting to stack S-8.

Rotary Dryer (D-10), identified as PD-10, constructed in 1957, with a maximum drying rate of 20 tons per hour and natural gas heat input rate of 3.5 million Btu/hr, using a baghouse as control, and exhausting to stack D-10.

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.5.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2-16]**

Pursuant to 326 IAC 6.8-2-16 (Lake County: PM10 emission requirements), the PM10 emissions from the Drying Department emission units, shall not exceed the rates in the following table. This limitation will ensure that the source total PM10 emissions are below 100 tons per year. Therefore, the Part 70 Permit Program requirements in 326 IAC 2-7 do not apply.

Process/emission unit (ID)	PM <sub>10</sub> Emission Limit (lbs/Ton)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Drying Department</b>		
Basic Dryer (S-8)	0.916	3.02
Rotary Dryer (D-10)	0.032	0.64

**D.5.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

**Compliance Determination Requirements**

**D.5.3 Testing Requirements [326 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

During the period between 30 and 36 months after issuance of this FESOP, in order to demonstrate compliance with Condition D.5.1, the Permittee shall perform PM10 testing on the Basic Dryer stack (S-8) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.

**D.5.4 Particulate Matter less than 10 microns in diameter (PM10)**

- (a) In order to comply with D.5.1, the dust collector for PM10 control shall be in operation and control emissions from the Rotary Dryer at all times that the process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed and before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of

the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **D.5.5 Visible Emissions Notations**

---

- (a) Visible emission notations of the Drying Department stack exhausts shall be performed once per day 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### **D.5.6 Parametric Monitoring**

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- (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the Rotary Dryer at least once per day when the process is in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and HDEM, and shall be calibrated at least once every six (6) months.

#### **D.5.7 Broken or Failed Bag Detection**

---

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the

processing of the material in the line or emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

### **D.5.8 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.5.5, the Permittee shall maintain records of the visible emission notations of the Dryer Department stack exhausts.
- (b) To document compliance with Condition D.5.6, the Permittee shall maintain records of the Rotary Dryer baghouse total static pressure drop readings.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.6 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: **Montco Line**

The Montco Line (S-30), identified as PS-30, constructed in 2001, with a maximum rate of 10 tons per hour, using a jet pulse cartridge dust collector as control, and exhausting to stack S-30.

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

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.6.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 2-8-4] [Hammond Environmental Ordinance 7102]

Pursuant to 326 IAC 2-8-4 and the Hammond Environmental Ordinance 7102, the combined PM10 emissions from the Montco Line pre-batch, mixing, and packaging units shall not exceed the rate in the following table. This limitation will require controls and will ensure that the source total PM10 emissions are below 100 tons per year. Therefore, the Part 70 Permit Program requirements in 326 IAC 2-7 do not apply.

Process/emission unit (ID)	PM <sub>10</sub> Emission Limit (lbs/Ton)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Montco Line</b>		
The Montco Line (S-30)	0.0802	0.802

#### D.6.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

### Compliance Determination Requirements

#### D.6.3 Particulate Matter less than 10 microns in diameter (PM10)

- (a) In order to comply with D.6.1, the baghouse dust collector for PM10 control shall be in operation and control emissions from the Montco Line units at all times that the process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed and before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

## **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

### **D.6.4 Visible Emissions Notations**

---

- (a) Visible emission notations of the Montco Line stack exhaust shall be performed once per day 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

### **D.6.5 Parametric Monitoring**

---

- (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the Montco Line at least once per day when the process is in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and HDEM, and shall be calibrated at least once every six (6) months.

### **D.6.6 Broken or Failed Bag Detection**

---

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line or emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

### **D.6.7 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.6.4, the Permittee shall maintain records of the visible emission notations of the Montco Line stack exhaust.
- (b) To document compliance with Condition D.6.5, the Permittee shall maintain records of the Montco Line dust collector total static pressure drop readings.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
-Air Pollution Control Division-**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: **RESCO Products, Inc.**  
Source Address: 5501 Kennedy Avenue, Hammond, Indiana 46323  
Mailing Address: same  
FESOP No.: **F089-21631-00222**

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
Indianapolis, Indiana 46204  
Phone: 317-233-5674  
Fax: 317-233-5967**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
-AIR POLLUTION CONTROL DIVISION-  
5925 Calumet Avenue – Room 304  
Hammond, Indiana 46320  
Phone: 219-853-6306  
Fax: 219-853-6343**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: **RESCO Products, Inc.**  
Source Address: 5501 Kennedy Avenue, Hammond, Indiana 46323  
Mailing Address: same  
FESOP No.: **F089-21631-00222**

**This form consists of 2 pages**

**Page 1 of 2**

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

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

A certification is not required for this report.

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

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
-AIR POLLUTION CONTROL DIVISION-**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: **RESCO Products, Inc.**  
Source Address: 5501 Kennedy Avenue, Hammond, Indiana 46323  
Mailing Address: same  
FESOP No.: **F089-21631-00222**

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

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

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

and

**Hammond Department of Environmental Management  
-Air Pollution Control Division-**

Addendum to the Technical Support Document for a Transition from a Part 70  
Operating Permit to a Federally Enforceable State Operating Permit (FESOP)

Source Name: Resco Products, Inc.  
Source Location: 5501 Kennedy Avenue, Hammond, Indiana  
County: Lake  
SIC Code: 3297 - Refractory Products  
Operation Permit No.: F089-21631-00222  
Permit Reviewer: Ronald Holder, HDEM

On February 21, 2006, the Hammond Department of Environmental Management (HDEM) had a notice published in the Hammond Times, Hammond, Indiana, stating that Resco Products, Inc. had applied for a transition from a Part 70 Operating Permit to a Federally Enforceable State Operating Permit (FESOP) to operate a refractory products manufacturing facility. The notice also stated that HDEM proposed to issue the FESOP for this operation 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.

Upon further review, the HDEM has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

On page 5 of 48, at the end of the Table of Contents, the **Emergency Occurrence Form** has been changed to **Report** to be consistent with the permit and the word **Form** has been removed from the **Quarterly Deviation and Compliance Monitoring Report Form** as follows:

<b>Emergency Occurrence <del>Form</del> Report .....</b>	<b>45</b>
<b>Quarterly Deviation and Compliance Monitoring Report <del>Form</del> .....</b>	<b>47</b>

On page 6 of 48, in Section A, the Source Location Status for SO<sub>2</sub> has been corrected as follows:

~~Nonattainment~~ **Attainment** for SO<sub>2</sub>

On page 12 of 48, in Condition B.11, Annual Compliance Certification, B.11(c)(5), a comma has been inserted after the word facts and the word "**as**" has been added between the words permit, and IDEM.

- (5) Such other facts, as specified in Sections D of this permit, **as** IDEM, OAQ and HDEM may require to determine the compliance status of the source.

On page 28 of 48, in the title **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]** the word **Requirement** has been corrected to **Requirements**.

**On page 31 of 48,** in the title **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]** the word **Requirement** has been corrected to **Requirements**.

**On page 32 of 48,** in SECTION D.3, the rule cite [Hammond Environmental Ordinance 7102] has been added to the end of the title line of section D.3.1.

**On page 34 of 48,** in the title **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]** the word **Requirement** has been corrected to **Requirements**.

**On page 36 of 48,** in Condition D.4.6 Parametric Monitoring, section (a), the phrase “pressure drop across a baghouse is outside” has been corrected to “pressure drop across a **the** baghouse is outside”.

**On page 37 of 48,** in the title **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]** the word **Requirement** has been corrected to **Requirements**.

**On page 38 of 48,** in SECTION D.5, in the Facility Description Box, the word “a” has been removed from the Rotary Dryer (D-10) description to be consistent with the Basic Dryer (S-8) description directly above.

.....with a maximum drying rate of 20 tons per hour and a natural gas heat input rate of .....

**On page 40 of 48,** in the title **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]** the word **Requirement** has been corrected to **Requirements**.

**On page 41 of 48,** in SECTION D.6, the rule cite [Hammond Environmental Ordinance 7102] has been added to the end of the title line of section D.6.1.

**On page 43 of 48,** in the title **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]** the word **Requirement** has been corrected to **Requirements**.

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

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

and

**Hammond Department of Environmental Management  
Air Pollution Control Division**

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP)

**Source Background and Description**

<b>Source Name:</b>	<b>RESCO Products, Inc.</b>
<b>Source Location:</b>	<b>5501 Kennedy Avenue, Hammond, IN 46323</b>
<b>County:</b>	<b>Lake</b>
<b>SIC Code:</b>	<b>3297 - Refractory Products</b>
<b>Operation Permit No.:</b>	<b>F089-21631-00222</b>
<b>Operation Permit Issuance Date:</b>	
<b>Permit Reviewer:</b>	<b>Ronald Holder - HDEM</b>

The Hammond Department of Environmental Management (HDEM) has reviewed an application from RESCO Products, Inc. to transition from a Part 70 permit to a federally enforceable state operating permit (FESOP). RESCO operates a Refractory Products Manufacturing facility.

**Permitted Emission Units and Pollution Control Equipment**

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

**Magnesite Processing**

Magnesite Unloading and Crushing (D-1), identified as PD-1, constructed in 1971, with a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-1.

Magnesite Handling & Storage (D-2), identified as PD-2, constructed in 1993, with a maximum rate of 12 tons per hour, using a baghouse as control, and exhausting to stack D-2.

Magnesite Classifying & Milling - East (D-8), identified as PD-8, constructed in 1956, with a maximum rate of 25 tons per hour, using a baghouse as control, and exhausting to stack D-8.

Material Screening & Milling – West (D-11), identified as PD-11, constructed in 1992, with a maximum rate of 12 tons per hour, using a baghouse as control, and exhausting to stack D-11.

Material Screening & Milling – West (D-13), identified as PD-13, constructed in 1956, with a maximum rate of 16 tons per hour, using a baghouse as control, and exhausting to stack D-13.

Batts Crushing & Screening (D-9), identified as PD-9, constructed in 1956, with a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-9.

### **Mixing Department**

DEV-22 Mixer (D-4), identified as PD-4, constructed in 1996, with a maximum rate of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-4.

RV-15 Mixer #3 (D-12D), identified as PD-12D, constructed in 1993, with a maximum rate of 4.25 tons per hour, using a baghouse as control, and exhausting to stack D-12D.

DE-18 Flat Mixer (D-14), identified as PD-14, constructed in 1993, with a maximum rate of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-14.

RV-15 Mixers #1 and #2 (D-21), identified as PD-12B, constructed in 1984, and PD-12C, constructed in 1988, each with a maximum rate of 4.25 tons per hour, using separate baghouses as control, and exhausting to a common stack D-21.

### **Batching Department**

Material Receiving Vessel Vent (D-12E), identified as PD-12E, constructed in 1993, with a maximum rate of 18 tons per hour, using a baghouse as control, and exhausting to stack D-12E.

Graphite Transport (D-19), identified as PD-19, constructed in 1993, with a maximum rate of 6 tons per hour, using a baghouse as control, and exhausting to stack D-19.

Minor Additive Transport (D-20), identified as PD-20, constructed in 1993, with a maximum rate of 0.75 tons per hour, using a baghouse as control, and exhausting to stack D-20.

Batch Station Transport (D-22), identified as PD-22, constructed in 1996, with a maximum rate of 14 tons per hour, using a baghouse as control, and exhausting to stack D-22.

### **Pressing Department**

Resin Bond Batch (D-12A), identified as PD-12A, constructed in 1996, with a maximum rate of 10.9 tons per hour, using a baghouse as control, and exhausting to stack D-12A.

### **Drying Department**

Basic Dryer (S-8), identified as PS-8, constructed in 1957, with a maximum drying rate of 4.1 tons per hour and natural gas heat input rate of 13.5 million Btu/hr, exhausting to stack S-8.

Rotary Dryer (D-10), identified as PD-10, constructed in 1957, with a maximum drying rate of 20 tons per hour and natural gas heat input rate of 3.5 million Btu/hr, using a baghouse as control, and exhausting to stack D-10.

### **Montco Line**

The Montco Line (S-30), identified as PS-30, constructed in 2001, with a maximum rate of 10 tons per hour, using a jet pulse cartridge dust collector as control, and exhausting to stack S-30.

## Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

### Insignificant Activities (not specifically regulated)

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (c) Combustion source flame safety purging on startup.
- (d) VOC and HAP vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (e) Refractory storage not requiring air pollution control equipment.
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Any operation using aqueous solutions containing less than 1% by weight of VOC excluding HAPs.
- (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (i) Paved and unpaved roads and parking lots with public access.
- (j) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles from the source where air emissions from those activities would not be associated with any production process.
- (k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (l) Emergency gasoline generators not exceeding 110 horsepower.
- (m) Stationary fire pumps.
- (n) Purge double block and bleed valves.
- (o) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).
- (p) A laboratory as defined in 326 IAC 2-7-1(21)(D).

### Existing Approvals

The source has been operating under the previous Part 70 permit **T089-7791-00222** issued on October 23, 2001, with an expiration date October 23, 2006, and the following amendments and revisions:

- (a) Administrative Amendment 089-15662-00222 issued on June 3, 2002.
- (b) Administrative Amendment 089-17915-00222 issued on August 11, 2002.
- (c) Administrative Amendment 089-19338-00222 issued on June 29, 2004.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous permits are superseded by this permit.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the transition from a Part 70 permit to a FESOP 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 administratively complete application, pursuant to 326 2-7-22, to transition from a Part 70 permit to a FESOP, for the purposes of this review, was received on August 23, 2005. Additional information was received on August 26, 2005.

### Emission Calculations

See Appendix A of this document for detailed emission calculations (fifteen (15) pages).

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous Part 70 permit.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	> 100
PM-10	> 100
SO <sub>2</sub>	< 25
VOC	< 25
CO	< 100
NO <sub>x</sub>	< 25

HAPs	Unrestricted Potential Emissions (tons/yr)
Phenol	< 1
Formaldehyde	< 1
Chromium Compounds	0.0
Lead	< 1
Total	< 1

**Potential to Emit (federally enforceable particulate control equipment under current Part 70 permit)**

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/yr)
PM	30.7
PM-10	44.8*
SO <sub>2</sub>	12.1
VOC	16.9
CO	27.7
NO <sub>x</sub>	13.6

\*Total of PM10 Sip limits

HAPs	Potential to Emit (tons/yr)
Phenol	< 1
Formaldehyde	< 1
Chromium Compounds	0.0
Lead	< 1
Total	< 1

The potential to emit (as defined in 326 IAC 2-7-1(29)) of particulate matter less than ten (10) microns in diameter (PM10) is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.

**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.

### Potential to Emit After Issuance

The source has opted to transition from a Part 70 permit (Title V) to a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP (or if previously required in a Part 70 permit) and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original Part 70 permit.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
<b>Magnesite Processing</b>							
Magnesite Unload and Crush (D-1)	3.80	2.54	-	-	-	-	-
Magnesite Handling & Storage (D-2)	0.08	1.80	-	-	-	-	-
Magnesite Classify & Mill - East (D-8)	1.58	5.61	-	-	-	-	-
Material Screen & Mill – West (D-11)	0.0008	1.80	-	-	-	-	-
Material Screen & Mill – West (D-13)	1.14	3.07	-	-	-	-	-
Batts Crushing & Screening (D-9)	3.93	2.15	-	-	-	-	-
<b>Mixing Department</b>							
DEV-22 Mixer (D-4)	0.055	1.01	-	-	-	-	-
RV-15 Mixer #3 (D-12D)	0.037	0.67	-	-	-	-	-
DE-18 Flat Mixer (D-14)	0.055	1.01	-	-	-	-	-
RV-15 Mixers #1 and #2 (D-21)	0.074	1.34	-	-	-	-	-
<b>Batching Department</b>							
Material Receiving Vessel Vent (D-12E)	0.001	0.087	-	-	-	-	-
Graphite Transport (D-19)	0.0004	0.029	-	-	-	-	-
Minor Additive Transport (D-20)	0.0001	0.004	-	-	-	-	-
Batch Station Transport (D-22)	0.0009	0.068	-	-	-	-	-
<b>Pressing Department</b>							
Resin Bond Batch (D-12A)	1.36	4.07	-	-	-	-	-
<b>Drying Department</b>							
Basic Dryer (S-8)	17.68	13.23	12.07	14.19	26.42	12.08	neg
Rotary Dryer (D-10)	0.76	2.80	0.01	2.71	1.26	1.50	neg
<b>Montco Line</b>							
The Montco Line (S-30)	0.050	3.51	-	-	-	-	-
<b>Total Emissions</b>	<b>30.69</b>	<b>44.78</b>	<b>12.08</b>	<b>16.90</b>	<b>27.68</b>	<b>13.59</b>	<b>neg</b>

The potential to emit (PTE) of particulate matter less than ten (10) microns in diameter (PM10) is the total of the allowable (federally enforceable) SIP limits pursuant to 326 IAC 6.8-2-16. In order to meet those SIP limits, the control equipment is required to be in operation at all times the associated process equipment is in operation. Therefore, the potential to emit (PTE) of particulate matter (PM) is the potential after control because the federally enforceable control equipment for PM10 also controls the PM.

### County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM <sub>10</sub>	Attainment
PM <sub>2.5</sub>	Nonattainment
SO <sub>2</sub>	Primary Nonattainment
NO <sub>2</sub>	Unclassifiable/Attainment
Ozone	Moderate Nonattainment under the 8-hr standard
Ozone	Severe Nonattainment under the 1-hr standard
CO	Unclassifiable/Attainment
Lead	Attainment

- (a) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Lake County as non-attainment for PM<sub>2.5</sub>. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of non-attainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM<sub>10</sub> emissions as surrogate for PM<sub>2.5</sub> emissions pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe non-attainment for ozone under the 1-hr standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.
- (c) Lake County has been classified as non-attainment for PM<sub>2.5</sub>, and SO<sub>2</sub>. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.
- (d) Lake County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

### Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Total controlled or otherwise limited emissions at this source:

Pollutant	Emissions (tons/yr)
PM	30.69
PM-10	44.78
SO <sub>2</sub>	12.08
VOC	16.90
CO	27.68
NO <sub>x</sub>	13.59
Single HAP	< 1
Combination HAPs	< 1

This existing source is not a major stationary source because the particulate matter (PM) and the particulate matter less than ten (10) microns in diameter (PM10) are both limited to less than 100 tons per year, and it is not in one of the 28 listed source categories. The source will be issued a FESOP because the total source emissions are limited to below the Title V threshold levels.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) The source is not subject to 40 CFR Part 60.67 Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants because the source is not involved in the processing of nonmetallic minerals as defined in 40 CFR Part 60.671, Definitions.
- (c) The source is not subject to 40 CFR Part 60.38 Subpart LL, Standards of Performance for Metallic Mineral Processing Plants because the source is not involved in the processing of metallic minerals as defined in 40 CFR Part 60.381, Definitions.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.
- (e) The source is not subject to 40 CFR 63.9780, Subpart SSSSS, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Refractory Products Manufacturing because it is not a major source of hazardous air pollutants (HAP).

### **State Rule Applicability – Entire Source**

#### **326 IAC 1-5-2 (Emergency Reduction Plans)**

RESCO submitted an Emergency Reduction Plan (ERP) in February 1991. The ERP was verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans). However, RESCO's potential to emit will now be limited by the FESOP to less than the applicability thresholds of this rule. Therefore, 326 IAC 1-5-2 no longer applies to this source.

#### **326 IAC 1-6-3 (Preventive Maintenance Plan)**

RESCO submitted a Preventive Maintenance Plan (PMP) on October 2, 1997. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

#### **326 IAC 2-2 (Prevention of Significant Deterioration, PSD)**

This source is not a major source for the purposes of PSD because it does not have the potential to emit two hundred and fifty (250) tons per year or more of a regulated pollutant for which Lake County is attainment or un-classifiable. There have not been any major modifications with increases of emissions significant enough to trigger applicability to this rule.

#### **326 IAC 2-3 (Emission Offset)**

- (a) This source is not a major source for the purposes of Emission Offset because the potential to emit of volatile organic compounds (VOC) is less than twenty-five (25) tons per year in an area classified as severe non-attainment for ozone (Lake County). There have not been any major modifications with increases of emissions significant enough to trigger applicability to this rule.
- (b) Lake County has been designated as non-attainment for PM<sub>2.5</sub> in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM<sub>2.5</sub> Non-attainment Areas" authored by Steve Page,

Director of OAQPS, until EPA promulgates the PM<sub>2.5</sub> major NSR regulations, states should assume that a major stationary source's PM<sub>10</sub> emissions represent PM<sub>2.5</sub> emissions. IDEM will use the PM<sub>10</sub> non-attainment major NSR program as a surrogate to address the requirements of non-attainment major NSR for the PM<sub>2.5</sub> NAAQS. A major source in a non-attainment area is a source that emits or has the potential to emit 100 tpy of any regulated pollutant. RESCO Products' potential to emit of PM<sub>10</sub> is limited to less than 100 tpy. Therefore, assuming that PM<sub>10</sub> emissions represent PM<sub>2.5</sub> emissions, 326 IAC 2-3 does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)(HAPs)

RESCO Products was constructed before July 1997 and is not a major source of hazardous air pollutants, therefore, this rule for new sources of hazardous air pollutants, does not apply.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-7-22, RESCO has met the conditions to transition from a Part 70 permit to a federally enforceable state operating permit (FESOP); therefore, it will no longer be subject to 326 IAC 2-6 (Emission Reporting).

However, pursuant to the Hammond Ordinance No. 7102, the source will be required to submit an annual emission inventory containing the production information necessary to determine compliance and confirm the source classification and permit level. The emission inventory must be received by April 15<sup>th</sup> of each year. The submittal should cover the twelve (12) consecutive month time period starting January 1 and ending December 31. This is a local requirement only.

326 IAC 2-8 (Federally Enforceable State Operating Permit Program)

Pursuant to 326 IAC 2-7-22, RESCO has accepted the federally enforceable PM<sub>10</sub> limits in 326 IAC 6.8-2-16. This limits the potential to emit to below the major thresholds and allows the source to make the transition from a Part 70 permit to a federally enforceable state operating permit (FESOP).

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 the permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 8-7 (Specific VOC Reduction Requirement for Lake, Porter, Clark, and Floyd Counties)

RESCO is not subject to 326 IAC 8-7 (Specific VOC Reduction Requirement for Lake, Porter, Clark, and Floyd Counties), because the individual and combined VOC potential to emit is less than the applicability threshold of twenty-five (25) tons per year.

**State Rule Applicability – Individual Facilities**

326 IAC 6.8-2-16 (Lake County: PM<sub>10</sub> emission requirements)(RESCO Products, Inc.)

Pursuant to 326 IAC 6.8-2-16, the PM<sub>10</sub> emissions from the following units at RESCO Products shall not exceed the pounds per ton and pounds per hour emission rates listed below:

Process/emission unit (ID)	PM <sub>10</sub> Emission Limit (lbs/Ton)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Magnesite Processing</b>		
Magnesite Unload and Crush (D-1)	0.017	0.58
Magnesite Handling & Storage (D-2)	0.012	0.41
Magnesite Classify & Mill - East (D-8)	0.051	1.28
Material Screen & Mill – West (D-11)	0.020	0.41
Material Screen & Mill – West (D-13)	0.044	0.70
Batts Crushing & Screening (D-9)	0.024	0.49
<b>Mixing Department</b>		
DEV-22 Mixer (D-4)	0.033	0.23
RV-15 Mixer #3 (D-12D)	0.054	0.153
DE-18 Flat Mixer (D-14)	0.017	0.23
RV-15 Mixers #1 and #2 (D-21)	0.054	0.307
<b>Pressing Department</b>		
Resin Bond Batch (D-12A)	0.25	0.93
<b>Drying Department</b>		
Basic Dryer (S-8)	0.916	3.02
Rotary Dryer (D-10)	0.032	0.64

In order to comply with these limits, the PM10 control devices will be required to be in operation at all times the associated process equipment is in operation.

326 IAC 2-8-4 (Permit Content) and Hammond Environmental Ordinance 7102

The Batching Department emission units (D-12E, D-19, D-20, and D-22) and Montco Line (S-30) are not included in the above table because they do not have specific SIP limits listed in 326 IAC 6.8-2-16. The potential emissions of these units are insignificant (less than five (5) tons per year) and will be limited by the Hammond Environmental Ordinance 7102 which incorporates as a minimum the standards found in Title 326 of the Indiana Administrative Code. The Hammond Ordinance 7102 will limit these items to the emissions after control pursuant to 326 IAC 2-8-4, which in this case requires limitations and standards that limit the sources ability to emit any pollutants in such quantities that could exceed the thresholds required for a FESOP permit.

326 IAC 6.8-8 (Lake County: Continuous Compliance Plan)

Pursuant to 326 IAC 6.8-8 (Lake County: Continuous Compliance Plan), the Permittee shall submit to IDEM-OAQ and HDEM, and maintain at the source a copy of the Continuous Compliance Plan (CCP). The Permittee shall perform the inspections, monitoring, and record keeping requirements therein or according to the Permittee’s approved CCP. RESCO submitted a CCP in October 1996. The CCP has been verified to contain the elements required in the rule.

**Testing Requirements**

The PM10 emissions from the regulated emission units below were calculated as follows (see Appendix A calculations):

$$\text{PM}_{10} \text{ Emissions (lbs/hr)} = \text{Maximum Design Rate (MDR)} \times \text{Emission Factor (EF)} \times (1 - \text{Control Efficiency (CE)})$$

Process/emission unit (ID)	PM <sub>10</sub> Emissions Calculated (lbs/hr)	PM <sub>10</sub> Emission Limit (lbs/hr)
<b>Magnesite Processing</b>		
Magnesite Unload and Crush (D-1)	0.070	0.580
Magnesite Handling & Storage (D-2)	0.006	0.410
Magnesite Classify & Mill - East (D-8)	0.029	1.280
Material Screen & Mill – West (D-11)	0.001	0.410
Material Screen & Mill – West (D-13)	0.021	0.700
Batts Crushing & Screening (D-9)	0.079	0.490
<b>Mixing Department</b>		
DEV-22 Mixer (D-4)	0.006	0.230
RV-15 Mixer #3 (D-12D)	0.008	0.153
DE-18 Flat Mixer (D-14)	0.006	0.230
RV-15 Mixers #1 and #2 (D-21)	0.054	0.307
<b>Pressing Department</b>		
Resin Bond Batch (D-12A)	<b>0.310</b>	0.930
<b>Drying Department</b>		
Basic Dryer (S-8)	<b>3.667*</b>	3.020
Rotary Dryer (D-10)	0.054	0.640

Basic Dryer (S-8) has new emission factors (from FIRES Version 6.25) that were established after the SIP limit was created. The new PM10 emission factors predict non-compliance with the rule. A stack test will be required.

Resin Bond Batch (D-12A) has a required control device and the potential to emit (PTE) before control is greater than 40% of the total plant PTE (see Appendix A). A stack test will be required.

The remaining items have calculated PM10 emissions after control that are significantly less than their respective PM10 emission limitations. Stack testing will not be required.

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section

D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

#### Visible Emissions Notations

- (a) Visible emission notations of all dust collector stack exhausts shall be performed once per day during normal daylight operations when the units are in operation. 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### Parametric Monitoring

- (a) The Permittee shall record the pressure drop across each baghouse used in conjunction with each process at least once per day when the process is in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

#### Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line or emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

These monitoring conditions are necessary because the dust collectors for the various refractory processes must operate properly to ensure compliance with 326 IAC 6.8-2-16 (Lake County: PM10 emission requirements) (RESCO Products, Inc.) and 326 IAC 2-8 (Federally Enforceable State Operating Permit Program).

## **Conclusion**

The operation of this Refractory Products Manufacturing facility shall be subject to the conditions of the **FESOP 089-21631-00222**.

**REVISED EMISSION FACTORS and Calculations for Request to Transition from TV to FESOP**

**RESCO PRODUCTS, INC.**  
5501 KENNEDY AVENUE  
HAMMOND, IN 46323

PLANT ID NO: 089-00222  
REC'D DATE: 8/26/05  
CALC DATE: 9/12/05

CALCULATIONS BY: Ronald Holder

YEAR OF DATA: **2004**

Corrections of emission factors from AP 42 and stack test information.

Demonstration that existing federally enforceable SIP limits make the potential for the source less than 100 TPY.

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**P3; S1: Recycle "Bats" Processing (D-9) (Screening Operation)**

MDR (T/hr): 20  
YEARLY PROD (T/yr): 1,579

STACK ID (DIAM:HEIGHT): 2' : 45'  
FLOWRATE (ACFM): 9,525  
Ts(°F): 77

CNTRL DEV: Baghouse, D-9 (99.5% CE)

PERMITTED OPERATING HRS: **8760** hr/yr

stack test - 9/12/89

POLLUTANT	EF(LB/T)	CE (%)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.3	0.9949	6.00	144.00	26.28	0.031	0.134	0.0004	0	0	0.237	0.0012
PM10	0.072	0.9934	1.44	34.56	6.31	0.010	0.042	0.0001	See Below	See Below	0.057	0.0004
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**P3; S2: Recycle "Bats" Processing (D-9) (Crushing Operation)**

MDR (T/hr): 20  
YEARLY PROD (T/yr): 1,579

STACK ID (DIAM:HEIGHT): 2' : 45'  
FLOWRATE (ACFM): 9,525  
Ts(°F): 77

CNTRL DEV: Baghouse, D-9 (99.5% CE)

PERMITTED OPERATING HRS: **8760** hr/yr

POLLUTANT	EF(LB/T)	CE (%)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	8.5	0.9949	170.00	4,080.00	744.60	0.867	3.797	0.0108	0	0	6.711	0.0342
PM10	0.53	0.9934	10.60	254.40	46.43	0.070	0.306	0.0009	See Below	See Below	0.418	0.0028
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**Sub-Totals for Bats Crushing**

POLLUTANT	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	176.00	4,224.00	770.88	0.898	3.931	0.0111	0	0	6.948	0.0354
PM10	12.04	288.96	52.74	<b>0.079</b>	0.348	0.0010	<b>0.490</b>	<b>2.15</b>	0.475	0.0031
SOx	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	N/A	0	0	0	0

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**P4; S1:** **Material Screening & Milling - West (Storage) (D-11)**

MDR (T/hr): 12  
 YEARLY PROD (T/yr): 7,626

STACK ID (DIAM:HEIGHT): 1.5' : 97'  
 FLOWRATE (ACFM): 3,800  
 Ts(°F): 77

CNTRL DEV: Baghouse, D-11 (99.5% CE) PERMITTED OPERATING HRS: **8760** hr/yr

POLLUTANT	EF(LB/T)	CE (%)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.04	0.86	0.16	0.0002	0.0008	0.0000	0	0	0.011	0.00006
PM10	0.0011	0.9934	0.013	0.32	0.06	<b>0.0001</b>	0.0004	0.0000	<b>0.410</b>	<b>1.80</b>	0.004	0.00003
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

326 IAC 6.8 - 2 - 16

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**P6; S1:** **DE-18 Flat Mixer (D-14) (Mixer #4)**

MDR (T/hr): 11.2  
 YEARLY PROD (T/yr): 498

STACK ID (DIAM:HEIGHT): 0.83' : 22'  
 FLOWRATE (ACFM): 1,500  
 Ts(°F): 77

CNTRL DEV: Baghouse, D-14 (99.5% CE) PERMITTED OPERATING HRS: **8760** hr/yr

POLLUTANT	EF(LB/T)	CE (%)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.22	0.9949	2.46	59.14	10.79	0.013	0.055	0.0010	0	0.0	0.055	0.0003
PM10	0.078	0.9934	0.874	20.97	3.83	<b>0.006</b>	0.025	0.0005	<b>0.230</b>	<b>1.007</b>	0.019	0.0001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

326 IAC 6.8 - 2 - 16

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**P10; S1:** **MAG Classify & Milling- East (D-8)**  
**(Grinding)**

MDR (T/hr): 8.3  
YEARLY PROD (T/yr): 15,253

STACK ID (DIAM:HEIGHT): 2' : 65'  
FLOWRATE (ACFM): 16,600  
Ts(°F): 77

CNTRL DEV: Baghouse; D-8 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-02			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	8.5	0.9949	70.55	1693.20	309.01	0.360	1.576	0.0026	0	0	64.83	0.33
PM10	0.53	0.9934	4.40	105.58	19.27	0.029	0.127	0.0002	See Below	See Below	4.04	0.03
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**P10; S2:** **MAG Classify & Milling- East (D-8)**  
**(Storage)**

MDR (T/hr): 25  
YEARLY PROD (T/yr): 15,253

STACK ID (DIAM:HEIGHT): 2' : 65'  
FLOWRATE (ACFM): 16,600  
Ts(°F): 77

CNTRL DEV: Baghouse; D-8 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.08	1.80	0.33	0.0004	0.0017	0.0000	0	0	0.023	0.0001
PM10	0.0011	0.9934	0.03	0.66	0.12	0.0002	0.0008	0.0000	See Below	See Below	0.008	0.0001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**P10; S3:** **MAG Classify & Milling- East (D-8)**  
**(Screening)**

MDR (T/hr): 25  
YEARLY PROD (T/yr): 15,253

STACK ID (DIAM:HEIGHT): 2' : 65'  
FLOWRATE (ACFM): 16,600  
Ts(°F): 77

CNTRL DEV: Baghouse; D-8 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.08	1.80	0.33	0.0004	0.0017	0.0000	0	0	0.023	0.0001
PM10	0.0011	0.9935	0.03	0.66	0.12	0.0002	0.0008	0.0000	See Below	See Below	0.008	0.0001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

Sub-Totals for MAG Classify & Milling - East (D-8)

POLLUTANT	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	70.70	1,696.80	309.67	0.361	1.579	0.0026	0	0	64.87	0.33
PM10	4.45	106.90	19.51	<b>0.029</b>	0.129	0.0002	<b>1.280</b>	<b>5.61</b>	4.06	0.03
SOx	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	N/A	0	0	0	0

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**P11; S1:** Rotary Dryer (D-10)  
(Material Drying)

MDR (T/hr): 20  
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 45'  
FLOWRATE (ACFM): 7,420  
Ts(°F): 250

CNTRL DEV: Baghouse; D-10 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-01			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	1.7	0.9949	34.00	816.00	148.92	0.17	0.76	0.0037	0	0	0.00	0.00
PM10	0.41	0.9934	8.20	196.80	35.92	0.05	0.24	0.0011	See Below	See Below	0.00	0.00
SOx	0	0	0.00	0.00	0.00	0.00	0.00	N/A	0	0	0	0
NOx	0	0	0.00	0.00	0.00	0.00	0.00	N/A	0	0	0	0
VOC	0.03	0	0.60	14.40	2.63	0.60	2.63	N/A	0	0	0.00	0.00
CO	0	0	0.00	0.00	0.00	0.00	0.00	N/A	0	0	0	0
LEAD	0	0	0.00	0.00	0.00	0.00	0.00	N/A	0	0	0	0

**P11; S2:** Rotary Dryer (D-10)  
(In Process Fuel Use - NG)

MDC (mmBtu/hr): 3.5  
MDR (mmcf/hr): 0.0034

HEAT CONTENT (Btu/cft): 1,020  
QTY BURNED (mmcf/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 45'  
FLOWRATE (ACFM): 7,420  
Ts(°F): 250

CNTRL DEV: Baghouse; D-10 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 1-05-001-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(lbs/mmcf)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	7.6	0.9949	0.03	0.63	0.11	0.000	0.001	0.0000	0	0	0.000	0.000
PM10	7.6	0.9934	0.03	0.63	0.11	0.000	0.001	0.0000	See Below	See Below	0.000	0.000
SOx	0.6	0	0.00	0.05	0.01	0.002	0.009	N/A	0	0	0.000	0.000
NOx	100	0	0.34	8.24	1.50	0.343	1.503	N/A	0	0	0.000	0.000
VOC	5.5	0	0.02	0.45	0.08	0.019	0.083	N/A	0	0	0.000	0.000
CO	84	0	0.29	6.92	1.26	0.288	1.262	N/A	0	0	0.000	0.000
LEAD	0.0005	0	0.00	0.00	0.00	0.000	0.000	N/A	0	0	0.000	0.000

**Sub-Totals for Rotary Dryer**

POLLUTANT	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)					
PM	34.03	816.63	149.03	0.17	0.76	0.0037	0	0	0.000	0.000
PM10	8.23	197.43	36.03	<b>0.054</b>	0.24	0.0011	<b>0.640</b>	<b>2.80</b>	0.000	0.000
SOx	0.00	0.05	0.01	0.00	0.01	N/A	0	0	0.000	0.000
NOx	0.34	8.24	1.50	0.34	1.50	N/A	0	0	0.000	0.000
VOC	0.62	14.85	2.71	0.62	2.71	N/A	0	0	0.000	0.000
CO	0.29	6.92	1.26	0.29	1.26	N/A	0	0	0.000	0.000
LEAD	0.00	0.00	0.00	0.00	0.000	N/A	0	0	0.000	0.000

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**P14; S1:** **Basic Dryer (S-8)**  
**(Brick Manufacturing Curing)**

MDR (T/hr): 4.1  
YEARLY PROD (T/yr): 19,379

STACK ID (DIAM:HEIGHT): 4' : 25'  
FLOWRATE (ACFM): 23,754  
Ts(°F): 110

Air Analysis, Inc.  
Stack Testing 2/18/04 and 3/4/05  
for Phenol/Formaldehyde and VOC

CNTRL DEV: None

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-11			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.96	0	3.94	94.46	17.24	3.94	17.24	0.0208	0	0	9.30	9.30
PM10	0.87	0	3.57	85.61	15.62	3.57	15.62	0.0188	See Below	See Below	8.43	8.43
SOx	0.67	0	2.75	65.93	12.03	2.75	12.03	N/A	0	0	6.49	6.49
NOx	0.35	0	1.44	34.44	6.29	1.44	6.29	N/A	0	0	3.39	3.39
VOC	0.79	0	3.24	77.74	14.19	3.24	14.19	N/A	0	0	7.65	7.65
CO	1.2	0	4.92	118.08	21.55	4.92	21.55	N/A	0	0	11.63	11.63
LEAD	0.00015	0	0.001	0.015	0.003	0.001	0.003	N/A	0	0	0.0015	0.0015

\*\*\*updated EF from new FIRE (computer) 4/16/02 --km

**P14; S3:** **Basic Dryer (S-8)**  
**(In Process Fuel Use - NG)**

MDC (mmBtu/hr): 13.5  
MDR (mmcf/hr): 0.0132

HEAT CONTENT (Btu/cft): 1,020  
QTY BURNED (mmcf/yr): 12.40

STACK ID (DIAM:HEIGHT): 4' : 25'  
FLOWRATE (ACFM): 23,754  
Ts(°F): 110

CNTRL DEV: None

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 1-05-001-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(lbs/mmcf)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	7.6	0	0.10	2.41	0.44	0.10	0.44	0.0005	0	0	0.047	0.047
PM10	7.6	0	0.10	2.41	0.44	0.10	0.44	0.0005	See Below	See Below	0.047	0.047
SOx	0.6	0	0.01	0.19	0.03	0.01	0.03	N/A	0	0	0.004	0.004
NOx	100	0	1.32	31.76	5.80	1.32	5.80	N/A	0	0	0.620	0.620
VOC	0	0	0.00	0.00	0.00	0.00	0.00	N/A	0	0	0.000	0.000
CO	84	0	1.11	26.68	4.87	1.11	4.87	N/A	0	0	0.521	0.521
LEAD	0.0005	0	0.0000	0.0002	0.0000	0.0000	0.0000	N/A	0	0	0.000	0.000

VOC EF included in 0.79 above from stack testing.

**Sub-Totals for Basic Dryer**

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS		
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)						
Phenol < 10 tpy												
Formaldehyde < 10 tpy												
Total HAPs < 25 tpy												
VOC:												
< 25 tpy for Basic Dryer (S-8)												
and < 25 tpy for entire source.												
Air Analysis, Inc. Stack Testing 2/18/04 and 3/4/05 Phenol/Formaldehyde and VOC.	Phenol	0.0007	0.0031	0.0007	0.0031	0.0031	0.001	0.003	0	0	12.15	12.15
	Formaldehyde	0.0006	0.0026	0.0006	0.0026	0.0026	0.001	0.003	0	0	0.0015	0.0015

new EF for PM10 established after SIP limit was published.  
**326 IAC 6.8 - 2 - 16**

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**P15; S1:** **MAT Screening and Handling-West (Grinding) (D-13)**

MDR (T/hr): 6  
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 72'  
FLOWRATE (ACFM): 11,500  
Ts(°F): 77

CNTRL DEV: Baghouse; D-13 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-02			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	8.5	0.9949	51.00	1224.00	223.38	0.26	1.14	0.0027	0	0	0.0000	0.0000
PM10	0.53	0.9934	3.18	76.32	13.93	0.02	0.09	0.0002	See Below	See Below	0.0000	0.0000
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**P15; S2:** **MAT Screening and Handling-West (Storage) (D-13)**

MDR (T/hr): 16  
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 72'  
FLOWRATE (ACFM): 11,500  
Ts(°F): 77

CNTRL DEV: Baghouse D-13 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.05	1.15	0.21	0.0002	0.0011	0.0000	0	0	0.0000	0.0000
PM10	0.0011	0.9934	0.02	0.42	0.08	0.0001	0.0005	0.0000	See Below	See Below	0.0000	0.0000
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**P15; S3:** **MAT Screening and Handling-West (Screening) (D-13)**

MDR (T/hr): 16  
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 72'  
FLOWRATE (ACFM): 11,500  
Ts(°F): 77

CNTRL DEV: Baghouse D-13 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.05	1.15	0.21	0.0002	0.0011	0.0000	0	0	0.0000	0.0000
PM10	0.0011	0.9934	0.02	0.42	0.08	0.0001	0.0005	0.0000	See Below	See Below	0.0000	0.0000
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

Sub-Totals for MAT Screening & Handling-West (D-13)

POLLUTANT	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	51.10	1,226.30	223.80	0.261	1.141	0.0027	0	0	0.0000	0.0000
PM10	3.22	77.16	14.08	<b>0.021</b>	0.093	0.0002	<b>0.700</b>	<b>3.066</b>	0.0000	0.0000
SOx	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	N/A	0	0	0	0

326 IAC 6.8 - 2 - 16

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**P20; S1:** **DEV-22 Mixer (D-4)**  
**(Mixer #5)**

MDR (T/hr): 11.2  
YEARLY PROD (T/yr): 498

STACK ID (DIAM:HEIGHT): 1' : 40'  
FLOWRATE (ACFM): 1,200  
Ts(°F): 77

CNTRL DEV: Baghouse

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-011-09			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.22	0.9949	2.46	59.14	10.79	0.013	0.055	0.0012	0	0	0.055	0.0003
PM10	0.078	0.9934	0.874	20.97	3.83	<b>0.006</b>	0.025	0.0006	<b>0.230</b>	<b>1.01</b>	0.019	0.0001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**326 IAC 6.8 - 2 - 16**

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**P23; S1:** **RV-15 Mixers #1 & #2**  
**IDs D-12B and D-12C**

Stack D-21

MDR (T/hr): 8.5  
YEARLY PROD (T/yr): 18,752

STACK ID (DIAM:HEIGHT): 1' : 30'  
FLOWRATE (ACFM): 1,600  
Ts(°F): 77

CNTRL DEV: Baghouse

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-012-23			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.392	0.9949	3.33	79.97	14.59	0.017	0.074	0.0013	0	0	3.68	0.019
PM10	0.303	0.9934	2.576	61.81	11.28	<b>0.017</b>	0.074	0.0013	<b>0.307</b>	<b>1.34</b>	2.84	0.019
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**326 IAC 6.8 - 2 - 16**

D-7 - 0.460 lbs/hr.

Stack Test in 9/92 revealed a maximum actual emissions of 0.002 lbs PM/ton of material processed in a mixer.

EF = (0.002 lbs /ton) / (1-0.9934) = 0.303 lbs/ton.

EF = (0.002 lbs /ton) / (1-0.9949) = 0.392 lbs/ton.

PM10 = PM unless otherwise demonstrated.

In 1993, D-7 is eliminated and D-12D, D-12B, & D-12C are installed.

D-12B & D-12C are 2/3rds of D-7 = 0.307 lbs/hr.

D-12D is 1/3rd of D-7 = 0.153 lbs/hr.

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**P25; S1:** **MAG Unloading & Crushing (D-1)**

MDR (T/hr): 20  
YEARLY PROD (T/yr): 15,253

STACK ID (DIAM:HEIGHT): 3' : 35'  
FLOWRATE (ACFM): 16,600  
Ts(°F): 77

CNTRL DEV: Baghouse; D-1 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-02			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	8.5	0.9949	170.0	4,080.0	744.6	0.867	3.797	0.0062	0	0	64.83	0.33
PM10	0.53	0.9934	10.60	254.4	46.4	<b>0.070</b>	0.306	0.0005	<b>0.580</b>	<b>2.54</b>	4.04	0.03
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**326 IAC 6.8 - 2 - 16**

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**P26; S1:** **Mag Material Handle & Storage**  
**(Material Screening) (D-2)**

MDR (T/hr): 12  
YEARLY PROD (T/yr): 15,253

STACK ID (DIAM:HEIGHT): 1' : 97'  
FLOWRATE (ACFM): 4,100  
Ts(°F): 77

CNTRL DEV: Baghouse; D-2 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-21			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.3	0.9949	3.60	86.40	15.77	0.018	0.080	0.0005	0	0	2.288	0.0117
PM10	0.072	0.9934	0.86	20.74	3.78	0.006	0.025	0.0002	See Below	See Below	0.549	0.0036
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**P26; S2:** **Mag Material Handle & Storage**  
**(Material Storage) (D-2)**

MDR (T/hr): 12  
YEARLY PROD (T/yr): 15,253

STACK ID (DIAM:HEIGHT): 1' : 97'  
FLOWRATE (ACFM): 4,100  
Ts(°F): 77

CNTRL DEV: Baghouse; D-2 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.04	0.86	0.16	0.0002	0.0008	0.0000	0	0	0.023	0.0001
PM10	0.0011	0.9934	0.01	0.32	0.06	0.0001	0.0004	0.0000	See Below	See Below	0.008	0.0001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**Sub-Totals for MAG Mat Handling & Storage (D-2)**

POLLUTANT	BEFORE CONTROLS			AFTER CONTROLS			ALLOWABLE		COMPANY ACTUAL	
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
PM	3.64	87.26	15.93	0.0185	0.0812	0.0005	0	0	2.31	0.012
PM10	0.877	21.05	3.84	<b>0.0058</b>	0.0254	0.0002	<b>0.410</b>	<b>1.80</b>	0.56	0.004
SOx	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	N/A	0	0	0	0

326 IAC 6.8 - 2 - 16

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**P27; S1:** **Resin Bond Batch (D-12A)**  
**(Batching/Material Transfer)**

MDR (T/hr): 10.9  
YEARLY PROD (T/yr): 19,976

STACK ID (DIAM:HEIGHT): 3' : 35'  
FLOWRATE (ACFM): 20,000  
Ts(°F): 77

CNTRL DEV: Baghouse; D-12A (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	5.6	0.9949	60.78	1,458.82	266.24	0.310	1.36	0.0018	0	0	55.70	0.28
PM10	4.3	0.9934	46.97	1,127.27	205.73	<b>0.310</b>	1.36	0.0018	<b>0.930</b>	<b>4.07</b>	43.04	0.28
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**326 IAC 6.8 - 2 - 16** (D-14 + D-15 + D-16)

**NOTES:**

- The MDR for this process is limited by the presses which operate at 10.9 tons per hour (Stack Test 11/13/98).
- EF - emission factor (5.6 LB/T) is back-calculated from test results. (PM measured 0.31 lbs/hr).

See review dated 10/18/93: Mod. To Mag-Carb Material Handling and Pressing. D-14, D-15, & D-16 dust collectors were replaced with D-12A and limits for each DC were combined and applied to D-12A.  
D-14: 0.086 lbs/ton; 0.170 lbs/hr  
D-15: 0.067 lbs/ton; 0.500 lbs/hr  
D-16: 0.097 lbs/ton; 0.260 lbs/hr  
Therefore limit for D-12A is 0.930 lbs/hr

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**P28; S1:** **Material Receiving Vessel Vent (D-12E)**  
**(Material Transfer)**

MDR (T/hr): 18  
YEARLY PROD (T/yr): 6,887

STACK ID (DIAM:HEIGHT): 1' : 40'  
FLOWRATE (ACFM): 300  
Ts(°F): 77

CNTRL DEV: Baghouse; D-12E (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.054	1.296	0.237	0.0003	0.0012	0.0001	0	0	0.010	0.0001
PM10	0.0011	0.9934	0.0198	0.475	0.087	<b>0.0001</b>	0.0006	0.0001	<b>0.0198</b>	<b>0.087</b>	0.004	0.0000
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

**Hammond Environmental Ordinance 7102**  
**326 IAC 2-8-4.**

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P29; S1: **Graphite Transport (D-19)**

MDR (T/hr): 6  
 YEARLY PROD (T/yr): 1,645

STACK ID (DIAM:HEIGHT): 1' : 76'  
 FLOWRATE (ACFM): 600  
 Ts(°F): 80

CNTRL DEV: Baghouse D-19 (CE 99.5 %)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.018	0.432	0.079	0.0001	0.0004	0.0000	0	0	0.0025	0.00001
PM10	0.0011	0.9934	0.0066	0.158	0.029	<b>0.00004</b>	0.0002	0.0000	<b>0.0066</b>	<b>0.029</b>	0.0009	0.00001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

Hammond Environmental Ordinance 7102 (99% CE)  
 326 IAC 2-8-4.

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P30; S1: **Minor Additive Transport (D-20)**

MDR (T/hr): 0.75  
 YEARLY PROD (T/yr): 1,005

STACK ID (DIAM:HEIGHT): 1' : 20'  
 FLOWRATE (ACFM): 3  
 Ts(°F): 77

CNTRL DEV: Baghouse; D-20 (CE 99.5 %)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.0023	0.0540	0.0099	0.0000	0.0001	0.0005	0	0	0.0015	0.00001
PM10	0.0011	0.9934	0.0008	0.0198	0.0036	<b>0.00001</b>	0.0000	0.0002	<b>0.0008</b>	<b>0.004</b>	0.0006	0.00000
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

Hammond Environmental Ordinance 7102 (99% CE)  
 326 IAC 2-8-4.

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P31; S1: **RV-15 Mixer #3 (D-12D)**

MDR (T/hr): 4.25  
 YEARLY PROD (T/yr): 498

STACK ID (DIAM:HEIGHT): 1' : 50'  
 FLOWRATE (ACFM): 800  
 Ts(°F): 77

CNTRL DEV: Baghouse; D-12D (CE 99.5 %)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-012-23			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.392	0.9949	1.67	39.98	7.30	0.008	0.037	0.0013	0	0	0.0976	0.0005
PM10	0.303	0.9934	1.29	30.91	5.64	<b>0.008</b>	0.037	0.0013	<b>0.153</b>	<b>0.670</b>	0.0754	0.0005
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

Stack Test in 9/92 revealed a maximum actual emissions of 0.002 lbs PM/ton of material processed in a mixer.

EF = (0.002 lbs /ton) / (1-0.9934) = 0.303 lbs/ton.

EF = (0.002 lbs /ton) / (1-0.9949) = 0.392 lbs/ton.

PM10 = PM unless otherwise demonstrated.

326 IAC 6.8 - 2 - 16 D-7 - 0.460 lbs/hr.

In 1993, D-7 is eliminated and D-12D, D-12B, & D-12C are installed.

D-12D is 1/3rd of D-7 = 0.153 lbs/hr.

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**P32; S1:** **Batch Station Transport (D-22)**

MDR (T/hr): 14  
YEARLY PROD (T/yr): 0

STACK ID (DIAM:HEIGHT): 2' : 50'  
FLOWRATE (ACFM): 9  
Ts(°F): 77

CNTRL DEV: Baghouse; D-22 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.0420	1.0080	0.1840	0.0002	0.0009	0.0028	0	0	0.0000	0.0000
PM10	0.0011	0.9934	0.0154	0.3696	0.0675	<b>0.0001</b>	0.0004	0.0013	<b>0.0154</b>	<b>0.0675</b>	0.0000	0.0000
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
LEAD	0	0	0	0	0	0	0	N/A	0	0	0	0

Hammond Environmental Ordinance 7102  
326 IAC 2-8-4.

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**S35: Montco Line S-30**  
**Pre-Batch**

MDR (T/hr): 10  
YEARLY PROD (T/yr): 1799

STACK ID (DIAM:HEIGHT): (1.0': 32')  
FLOWRATE (ACFM): 6980  
Ts(°F): 68

CNTRL DEV: Dust Collector

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.030	0.720	0.131	0.0002	0.001	0.0000	0	0	0.003	0.00001
PM10	0.0011	0.9934	0.011	0.264	0.048	0.0001	0.000	0.0000	See Below	See Below	0.001	0.00001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
Pb	0	0	0	0	0	0	0	N/A	0	0	0	0

**S35: Montco Line S-30**  
**Mixing**

MDR (T/hr): 10  
YEARLY PROD (T/yr): 1799

STACK ID (DIAM:HEIGHT): (1.0': 32')  
FLOWRATE (ACFM): 6980  
Ts(°F): 68

CNTRL DEV: Dust Collector

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-011-09			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.22	0.9949	2.200	52.800	9.636	0.011	0.049	0.0002	0	0	0.198	0.001
PM10	0.078	0.9934	0.780	18.720	3.416	0.005	0.023	0.0001	See Below	See Below	0.070	0.000
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
Pb	0	0	0	0	0	0	0	N/A	0	0	0	0

**S35: Montco Line S-30 Packaging**

MDR (T/hr): 10  
 YEARLY PROD (T/yr): 1799

STACK ID (DIAM:HEIGHT): (1.0': 32')  
 FLOWRATE (ACFM): 6980  
 Ts(°F): 68

CNTRL DEV: Dust Collector

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-020-06			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0.003	0.9949	0.030	0.720	0.131	0.000	0.001	0.0000	0	0	0.003	0.00001
PM10	0.0011	0.9934	0.011	0.264	0.048	0.000	0.000	0.0000	See Below	See Below	0.001	0.00001
SOx	0	0	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	0	0	N/A	0	0	0	0
Pb	0	0	0	0	0	0	0	N/A	0	0	0	0

**Sub-Totals for Montco Line (S-30)**

POLLUTANT	BEFORE CONTROLS			AFTER CONTROLS			ALLOWABLE		COMPANY ACTUAL	
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
PM	2.260	54.240	9.899	0.012	0.050	0.0002	0	0	0.203	0.001
PM10	0.802	19.248	3.513	<b>0.005</b>	0.023	0.0001	<b>0.802</b>	<b>3.513</b>	0.072	0.000
SOx	0	0	0	0	0	N/A	0	0	0	0
NOx	0	0	0	0	0	N/A	0	0	0	0
VOC	0	0	0	0	0	N/A	0	0	0	0
CO	0	0	0	0	0	N/A	0	0	0	0
Pb	0	0	0	0	0	N/A	0	0	0	0

Hammond Environmental Ordinance 7102  
 326 IAC 2-8-4.

**TOTAL PLANT EMISSIONS**

POLLUTANT	COMPANY POTENTIAL		COMPANY ACTUAL (2004)	
	BEFORE CONTROLS	AFTER CONTROLS	BEFORE CONTROLS	AFTER CONTROLS
PM	2,551.86	<b>30.69</b>	208.11	10.36
<b>PM10</b>	422.75	<b>18.77</b>	63.69	8.84
SOx	12.08	<b>12.08</b>	6.50	6.50
NOx	13.59	<b>13.59</b>	4.01	4.01
VOC	16.90	<b>16.90</b>	7.65	7.65
CO	27.68	<b>27.68</b>	12.15	12.15
LEAD	0.003	<b>0.003</b>	0.001	0.001

**Total PM10 Allowable SIP Limit      44.78 tpy**

Each regulated pollutant after control is < 100 tpy and VOC < 25 tpy.

The individual PM10 potentials after control comply with the federally enforceable SIP limits and the total is less than the major threshold.

326 IAC 2-7-22 - Federally enforceable limits meet the conditions for issuance of a FESOP and make the control equipment federally enforceable.

Phenol < 10 tpy Formaldehyde < 10 tpy Total HAPs < 25 tpy VOC: < 25 tpy for Basic Dryer (S-8) and < 25 tpy for entire source.
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40 CFR 63, Subpart SSSSS,  
 NESHAP for Refractory Products Mfg.  
 effective April, 2006, does not apply.  
 Phenol and Formaldehyde < 10 and no Chromium at Resco, Inc.