



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

TO: Interested Parties / Applicant  
DATE: September 26, 2006  
RE: U.S. Aggregates, Inc.( Waverly Plant 2) / 109-22328-05283  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot 03/23/06



*Mitchell E. Daniels, Jr.*  
 Governor

*Thomas W. Easterly*  
 Commissioner

100 North Senate Avenue  
 Indianapolis, Indiana 46204-2251  
 (317) 232-8603  
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**NEW SOURCE CONSTRUCTION PERMIT and  
 SPECIFIC SOURCE OPERATING AGREEMENT (SSOA)  
 OFFICE OF AIR QUALITY**

**U.S. Aggregates, Inc. (Waverly Plant 2)  
 7201 East Centenary Road  
 Mooresville, Indiana 46158**

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

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: SSOA 109-22328-05283	
Original signed by:  Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 26, 2006  Expiration Date: September 26, 2011

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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). The information describing the source contained in Conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

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The Permittee owns and operates a stationary sand and gravel processing plant.

Authorized Individual:	Vice President, Operations
Source Address:	7201 East Centenary Road, Mooreville, Indiana 46158
Mailing Address:	5400 West 86 <sup>th</sup> Street, Indianapolis, Indiana 46268
General Source Phone:	317-875-4670
SIC Code:	1442
County Location:	Morgan
Source Location Status:	Nonattainment area for Ozone under 8-hour standard and for PM <sub>2.5</sub> Attainment area for all other criteria pollutants
Source Status:	Source Specific Operating Agreement Minor Source, under PSD and Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

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

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

One (1) sand and gravel processing operation, capacity: 400 tons of wet sand and gravel per hour and consisting of the following:

- (a) One (1) grizzly hopper, identified as GH-1, capacity: 400 tons of wet sand and gravel per hour.
- (b) One (1) primary jaw crusher, identified as CR-1, capacity: 25 tons of wet sand and gravel per hour.
- (c) One (1) secondary crusher, identified as CR-2, capacity: 150 tons of wet sand and gravel per hour.
- (d) One (1) tertiary roll crusher, identified as CR-3, capacity: 50 tons of wet sand and gravel per hour.
- (e) One (1) conveyance system, consisting of fifteen (15) conveyors, identified as CO-1 through CO-15, capacity: 400 tons of wet sand and gravel per hour, total.
- (f) One (1) dry vibrating scalper screen, identified as SS-1, capacity: 400 tons of wet sand and gravel per hour.
- (g) One (1) descanding vibrating wash screen, identified as SS-2, capacity: 375 tons of wet sand and gravel per hour.
- (h) One (1) sizing wash screen, identified as SS-3, capacity: 150 tons of sand and gravel per hour.

- (i) Four (4) stockpiles, identified as SP-1 through SP-4, capacity: 25,000 tons of sand or gravel each.
- (j) One (1) stockpile, identified as SP-5, capacity: 1,000 tons of sand or gravel.
- (k) One (1) diesel fuel storage tank for mobile equipment, identified as T-1, storage capacity: 10,000 gallons.

A.3 SSOA Applicability [326 IAC 2-9-1]

This stationary source, otherwise required to have a Minor Source Operating Permit as described in 326 IAC 2-6.1, has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Source Specific Operating Agreement (SSOA).

## **SECTION B GENERAL CONDITIONS**

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

### **B.1 Definitions**

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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 2-1.1-1 shall prevail.

### **B.2 Effective Date of the Permit [IC13-15-5-3]**

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

### **B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]**

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This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

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

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

### **B.5 Modification to Permit [326 IAC 2]**

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

### **B.6 Source Specific Operating Agreement Program [326 IAC 2-9]**

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This document shall also become a source specific operating agreement pursuant to 326 IAC 2-9-1 when, prior to start of operation of the aggregate nonmetallic mineral processing plant, the following requirements are met.

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
  - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (2) If actual construction of the emission units differs from the construction proposed

in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-9 and an Operation Permit Validation Letter is issued.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

#### B.7 Phase Construction Time Frame

Pursuant to 326 IAC 2-1.1-9(5) (Revocation of Permits), the IDEM may revoke this permit to construct if the construction of aggregate nonmetallic mineral processing plant has not begun within eighteen (18) months from the effective date of this permit or if during the construction of aggregate nonmetallic mineral processing plant, work is suspended for a continuous period of one (1) year or more.

The OAQ may extend such time upon satisfactory showing that an extension, formally requested by the Permittee is justified.

#### B.8 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.670 - 60.676 Subpart OOO, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) Commencement of construction date (no later than 30 days after such date);
- (b) Actual start-up date (within 15 days after such date); and
- (c) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

The application and enforcement of these standards have been delegated to the IDEM, OAQ. The requirements of 40 CFR Part 60 are also federally enforceable.

#### B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than January 30 of each year to:

Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; 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 46204-2251

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP 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 an "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.11 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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 46204-2251

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

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

**B.12 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2] [IC 13-30-3-1]**

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

- (a) Enter upon the Permittee's premises where a permitted 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 this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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.13 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]**

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

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

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

**B.14 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) 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.15 Credible Evidence [326 IAC 1-1-6]**

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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

### C.1 Source Status [326 IAC 2-9]

- (a) The requirements of Option 2 under 326 IAC 2-9-7 are applicable to this SSOA.
- (b) Pursuant to 326 IAC 2-9-1(g), the source may apply for up to four (4) different SSOAs contained in 326 IAC 2-9.

### C.2 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

### C.3 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

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

### C.4 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### C.5 Fugitive Dust Emissions [326 IAC 6-4] [326 IAC 2-9-7]

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 Particulate Matter Emission Limitations [326 IAC 6-5]

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Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 6, 2005. A map of the plant is included as Attachment A of this document. The plan consists of the following:

- (a) Applying water to stockpiles and unpaved roads on an "as-needed" basis;
- (b) Using wet processing in screening and sizing operations at all times when those processes are in operation;
- (c) Using water spray bars on sizing screens and secondary crushers at all times when those processes are in operation; and
- (d) Using water slurry for separating clay and silt from sand and gravel stone at all times when those processes are in operation.

In addition, prior to commencing operation, the Permittee shall pave the area from the scale house to the plant exit that truck traffic will use. After the plant commences operation, the Permittee shall clean this paved area using a sweeper or other means on an "as needed" basis to control dust.

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

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

## Testing Requirements

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

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- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, 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 46204-2251

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 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 not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, 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**

#### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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

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

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- (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, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit 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 re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

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

### **Record Keeping and Reporting Requirements**

#### **C.13 Malfunctions Report [326 IAC 1-6-2]**

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

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management

(IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (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 makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) 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 46205-2251
- (b) 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, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

## SECTION D.1 EMISSIONS UNITS OPERATION CONDITIONS

### Emissions Unit Description: Sand and Gravel Processing Plant

One (1) sand and gravel processing operation, capacity: 400 tons of wet sand and gravel per hour and consisting of the following:

- (a) One (1) grizzly hopper, identified as GH-1, capacity: 400 tons of wet sand and gravel per hour.
- (b) One (1) primary jaw crusher, identified as CR-1, capacity: 25 tons of wet sand and gravel per hour.
- (c) One (1) secondary crusher, identified as CR-2, capacity: 150 tons of wet sand and gravel per hour.
- (d) One (1) tertiary roll crusher, identified as CR-3, capacity: 50 tons of wet sand and gravel per hour.
- (e) One (1) conveyance system, consisting fifteen (15) conveyors, identified as CO-1 through CO-15, capacity: 400 tons of wet sand and gravel per hour, total.
- (f) One (1) dry vibrating scalper screen, identified as SS-1, capacity: 400 tons of wet sand and gravel per hour.
- (g) One (1) descanding vibrating wash screen, identified as SS-2, capacity: 375 tons of wet sand and gravel per hour.
- (h) One (1) sizing wash screen, identified as SS-3, capacity: 150 tons of sand and gravel per hour.
- (i) Four (4) stockpiles, identified as SP-1 through SP-4, capacity: 25,000 tons of sand or gravel each.
- (j) One (1) stockpile, identified as SP-5, capacity: 1,000 tons of sand or gravel.

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

### Emission Limitations and Standards

#### D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the sand and gravel processing plant except when otherwise specified in 40 CFR 60 Subpart OOO.

#### D.1.2 Annual Throughput [326 IAC 2-9-7(b)(2)]

Pursuant to 326 IAC 2-9-7(b)(2), the source annual throughput shall be less than one million (1,000,000) tons per year and shall not emit particulate matter in excess of or equal to twenty-five (25) tons per year, excluding fugitive particulate emissions.

#### D.1.3 Number of Facilities [326 IAC 2-9-7(b)(2)]

Pursuant to 326 IAC 2-9-7(b)(2) (Sand and gravel plants), the source shall utilize at most nine (9) crushers, seventeen (17) screens, and one (1) conveying operation.

D.1.4 Opacity [326 IAC 2-9-7] [326 IAC 12] [40 CFR 60.670, Subpart OOO]

Pursuant to 326 IAC 2-9-7 (Sand and gravel processing plants) and New Source Performance Standards, 326 IAC 12 (40 CFR 60.670, Subpart OOO) "Standards of Performance for Non-metallic Mineral Processing Plants" the following standards shall apply to this plant:

- (a) The visible emissions from the screening and conveying operation shall not exceed an average of ten percent (10%) opacity in twenty-four (24) consecutive readings in a six (6) minute period. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.
- (b) The visible emissions from the crushing operation shall not exceed an average of fifteen percent (15%) opacity in twenty-four (24) consecutive readings in a six (6) minute period. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.
- (c) These limits shall also satisfy the requirements of 326 IAC 5-1 (Opacity Limitations).

D.1.5 Opacity [326 IAC 2-9-7]

Pursuant to 326 IAC 2-9-7 (Sand and gravel processing plants), the fugitive particulate matter (PM) emissions of this source shall be controlled by applying water on all storage piles and unpaved roadways on an as needed basis, such that the following visible emission conditions are met:

- (a) The visible emissions from any storage pile shall not exceed twenty percent (20%) in twenty-four (24) consecutive readings in a six (6) minute period. This limitation shall not apply during periods when application of control measures are ineffective or unreasonable due to sustained high wind speeds. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.
- (b) The visible emissions from unpaved roadways shall not exceed an average instantaneous opacity of twenty percent (20%). Average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
  - (1) The first reading shall be taken at the time of emission generation.
  - (2) The second reading shall be taken five (5) seconds after the first.
  - (3) The third reading shall be taken five (5) seconds after the second reading, or ten (10) seconds after the first reading.
- (c) The three (3) readings will be taken approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.

D.1.6 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(3) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from this sand and gravel processing plant may exceed the pound per hour limitation calculated by the following equation, provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per one thousand (1,000) pounds of gases:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

### **Compliance Determination Requirements**

#### **D.1.7 Dust Suppression for Crushing, Screening and Conveying Operations [326 IAC 2-9-7]**

Pursuant to 326 IAC 2-9-7 (Sand and gravel processing plants), the crushing, screening and conveying operations shall use a wet process or continuous wet suppressions to comply with Conditions D.1.4(a) and (b).

#### **D.1.8 Particulate [326 IAC 2-9-7]**

Pursuant to 326 IAC 2-9-7 (Sand and gravel processing plants), all equipment that generate particulate and any associated control devices shall be operated and maintained at all times of plant operation, in such a manner, as to meet all of the requirements of this Source Specific Operating Agreement

#### **D.1.9 Testing Requirements [326 IAC 3-6] [326 IAC 2-1.1-11] [40 CFR 60.675, Subpart OOO]**

Within 60 days of achieving maximum production or 180 days after initial start-up of the aggregate nonmetallic mineral processing plant, whichever comes first, to demonstrate compliance with Conditions D.1.4(a) and (b), the Permittee shall perform opacity testing for each crusher, conveyor, and screen, utilizing the test methods and procedures listed in 40 CFR 60.675, Subpart OOO. Testing shall be conducted in accordance with Section C - Performance Testing.

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

#### **D.1.10 Record Keeping Requirements [326 IAC 2-9-7]**

The Permittee shall keep annual throughput records of the crushed stone operation at the site on a calendar year basis. These records shall be maintained for a minimum period of five (5) years, and made available upon request of the Office of Air Quality (OAQ).

#### **D.1.11 Annual Notification [326 IAC 2-9-7]**

The Permittee shall provide an annual notice to the commissioner, stating that the source is in operation, and certifying that its operations are in compliance with the requirements of this Source Specific Operating Agreement. The above annual notice will be submitted to:

Compliance Data Section  
Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

no later than January 30 of each year, with the annual notice being submitted in the format attached to the operating agreement.

#### **D.1.12 Reporting Requirements [326 IAC 2-9-7]**

Any exceedance of any requirement contained in this operating agreement shall be reported, in writing, within one (1) week of its occurrence. Said report shall include information on the actions taken to correct the exceedance, including measures to reduce emissions, in order to comply with the established limits. If an exceedance is the result of a malfunction, then the provisions of 326 IAC 1-6 apply.

<b>Source Specific Operating Agreement Annual Notification</b>
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This form should be used to comply with the notification requirements under 326 IAC 2-9.

<b>Company Name:</b>	<b>U.S. Aggregates, Inc. (Waverly Plant 2)</b>
<b>Address:</b>	<b>7201 East Centenary Road</b>
<b>City:</b>	<b>Mooreville, Indiana 46158</b>
<b>Contact Person:</b>	<b>Douglas A. Lozier</b>
<b>Phone #:</b>	<b>317-875-4670</b>
<b>SSOA #:</b>	<b>S 109-22328-05283</b>

I hereby certify that U.S. Aggregates, Inc. (Waverly Plant 2) is still in operation and is in compliance with the requirements of Source Specific Operating Agreement (SSOA) S 109-22328-05283.

<b>Name (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

Mail to: Permit Administration & Development Section  
Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

U.S. Aggregates, Inc.  
5400 West 86<sup>th</sup> Street  
Indianapolis, Indiana 46268

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, in the state of \_\_\_\_\_, and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for U.S. Aggregates, Inc. (Waverly Plant 2).  
(Title) (Company Name)
3. By virtue of my position with U.S. Aggregates, Inc. (Waverly Plant 2), I have personal knowledge of the  
(Company Name)  
representations contained in this affidavit and am authorized to make these representations on behalf of  
U.S. Aggregates, Inc. (Waverly Plant 2).  
(Company Name)
4. I hereby certify that U.S. Aggregates, Inc. (Waverly Plant 2), located at 7201 East Centenary Road, Mooresville, Indiana 46158, completed construction of the sand and gravel processing plant on \_\_\_\_\_ in conformity with the requirements and intent of the Construction Permit application received by the Office of Air Quality on December 6, 2005 and as permitted pursuant to **No. S 109-22328, Plant ID No. 109-05283** issued on \_\_\_\_\_.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of  
Indiana on this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (typed or printed)

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for a New Source Construction and a Source Specific Operating Agreement

**Source Name:** U.S. Aggregates, Inc. (Waverly Plant 2)  
**Source Location:** 7201 East Centenary Road, Mooresville, Indiana 46158  
**County:** Morgan  
**Operation Permit No.:** S 109-22328-05283  
**SIC Code:** 1442  
**Permit Reviewer:** CarrieAnn Paukowits

On January 28, 2006, the Office of Air Quality (OAQ) had a notice published in the Martinsville Daily Reporter, Martinsville, Indiana, stating that U.S. Aggregates, Inc. (Waverly Plant 2) had applied for a construction permit and operating agreement to construct and operate a stationary sand and gravel processing plant. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 29, 2006, the Office of Air Quality had a notice published in the Martinsville Daily Reporter, Martinsville, Indiana, stating that a public hearing would be held to receive comments from citizens. On April 26, 2006, a public hearing was held at the Mooresville Public Library in Mooresville, Indiana. Doug Wagner was the hearing officer and a transcript was made of the hearing. Comments were heard from over twenty (20) different residents of Mooresville.

Comments from the hearing have been summarized and are addressed below:

#### **Comment Topic 1, Definition of particulate matter emissions:**

Citizens asked IDEM, OAQ to explain what is meant by particulate matter, PM<sub>10</sub> and PM<sub>2.5</sub> emissions and the effect of these pollutants. Citizens asked if air particulates include diesel emissions.

#### **Response to Comment Topic 1:**

Particulate matter is one of six criteria pollutants addressed by the federal Clean Air Act. These pollutants have been identified as being particularly harmful to humans and the environment. Particulate matter, or PM, is the term for particles found in the air, including dust, dirt, soot, smoke, and liquid droplets. Some particles are large or dark enough to be seen as soot or smoke. Others are so small that individually they can only be detected with an electron microscope. The United States Environmental Protection Agency (EPA) categorizes particulate matter in two categories. The first category is "fine particles", referred to as PM<sub>2.5</sub>, that are 2.5 microns or less in diameter. The second category is "coarse particles", referred to as PM<sub>10</sub>, that are between 2.5 and 10 microns in diameter. In comparison, a human hair is about 70 microns in diameter.

Particulate matter comes from many different sources including industrial and residential combustion activities and vehicle exhaust, so its composition varies widely. Some particles are emitted directly into the air from cars, trucks, buses, factories, constructions sites, tilled fields, unpaved roads, stone crushing, and wood burning. Other particles are formed in the air from the chemical change of gases. They are indirectly formed when gases from burning fuels react with sunlight and water vapor. These gases come from fuel combustion in motor vehicles, diesel engines, at power plants, and in other industrial processes.

**Comment Topic 2, The health effects of particulate matter:**

Citizens asked about the health effects of particulate matter. They noted that there are people in the area with medical conditions, such as heart conditions, allergies and asthma that may be affected by the dust and other pollutants from the proposed plant.

**Response to Comment Topic 2:**

Exposure to particulate matter pollution can affect both the lungs and the heart. Particulate matter pollution includes coarse particles (such as those found near roadways and dusty industries), which have diameters between 2.5 and 10 micrometers; and “fine particles” (such as those found in smoke and haze), which are 2.5 micrometers in diameter or less.

Particulate matter pollution, especially fine particles, contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked elevated levels of particulate matter pollution exposure to a variety of problems, including:

- increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing;
- decreased lung function;
- aggravated asthma;
- development of chronic bronchitis;
- irregular heartbeat;
- nonfatal heart attacks; and
- premature death in people with heart or lung disease.

Individuals with heart or lung diseases, children and older adults are the most likely to be affected by particulate matter pollution. However, even healthy individuals may experience temporary symptoms from exposure to elevated levels of particulate matter pollution. IDEM, OAQ monitors the level of particulate matter and ozone in the air. IDEM, OAQ’s Smog Watch website <http://www.in.gov/apps/idem/smog/> forecasts the expected level air quality, based on expected levels of air pollutant. The Smog Watch forecast information is also available by telephone, toll free at 1-800-631-2871.

EPA’s website at <http://www.epa.gov/air/urbanair/6poll.html> provides detailed information about the health effects of six common air pollutants, including particulate matter, and why these six pollutants are regulated. Current information on the air quality in your area, including particulate matter levels, as well as additional information on the health effects of different levels of air pollution, can be found at the <http://www.airnow.gov/> website.

National Ambient Air Quality Standards (NAAQS) have been developed by EPA for six pollutants, including particulate matter. The NAAQS are set at a level that is safe for human health. As set out in the response below, IDEM, OAQ does not expect the proposed U.S. Aggregates plant to cause levels of particulate matter pollution that would exceed the particulate matter NAAQS.

**Comment Topic 3, Determining the acceptable level of air pollution:**

Citizens asked IDEM, OAQ how it determines the acceptable level of air pollution from the proposed U.S. Aggregates plant. Citizens asked if there is an ambient air pollution monitor in Morgan County. Citizens expressed concern over the effect of the combined emissions of all the sand and gravel plants and other commercial operations that emit particulate matter in the same area as the proposed plant.

### Response to Comment Topic 3:

The federal Clean Air Act requires the United States Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. Particulate matter is one of the six criteria pollutants. The EPA sets these standards at levels that protect human health, which is why the NAAQS are often referred to as the federal health standards for outdoor air. The primary NAAQS limit for all criteria pollutants is set low enough to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. A secondary standard is also set to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The primary and secondary standards for particulate matter are the same. Particulate matter is classified by particle size. PM<sub>10</sub> particles have a diameter of 10 microns or less. PM<sub>2.5</sub> particles have a diameter of 2.5 microns or less. The NAAQS for PM<sub>2.5</sub> is fairly new and has not been fully implemented by the EPA. The EPA recommends that state air pollution control agencies use the PM<sub>10</sub> analyses as a surrogate for PM<sub>2.5</sub> emissions until final requirements have been established at the federal level.

The NAAQS for PM10 are set out in the table below.

<b>National Ambient Air Quality Standards for Particle Pollution</b>			
<b>Pollutant</b>	<b>Primary Stds.</b>	<b>Averaging Times</b>	<b>Secondary Stds.</b>
Particulate Matter (PM <sub>10</sub> )	50 µg/m <sup>3</sup>	Annual <sup>2</sup> (Arith. Mean)	Same as Primary
Particulate Matter (PM <sub>10</sub> )	150 µg/m <sup>3</sup>	24-hour <sup>1</sup>	Same as Primary

Units of measure for the standards are micrograms per cubic meter of air (µg/m<sup>3</sup>).

Footnotes:

1 - Not to be exceeded more than once per year.

2 - To attain this standard, the 3-year average of the weighted annual mean PM10 concentration at each monitor within an area must not exceed 50 µg/m<sup>3</sup>.

More information about the NAAQS for particulate matter is available at <http://www.epa.gov/air/particlepollution/standards.html> on EPA's website. The complete table of the NAAQS for all criteria pollutants can be found at the <http://www.epa.gov/air/criteria.html> website.

IDEM, OAQ, uses air pollution monitoring data and computer modeling software to determine if the emissions from a proposed plant will cause or contribute to a violation of the NAAQS. IDEM, OAQ performed a computer modeling analysis of the expected emissions of particulate matter from the proposed U.S. Aggregates plant. The modeling analysis incorporated the predicted emissions from the proposed plant, as set out in the emission calculations that are attached as appendices of this Addendum to the Technical Support Document. The modeling analysis also used meteorological data from the Morgan County area, including wind speed and direction, to determine the maximum expected particulate matter concentrations in the air around the proposed plant.

The modeling results were then added to a level of preexisting, or background, pollution. IDEM, OAQ monitors air quality using forty-one (41) air monitoring stations strategically located in twenty-seven (27) Indiana counties. A map of all the air pollution monitors is available at the <http://www.in.gov/idem/programs/air/smog/o3monitors.html> website. IDEM, OAQ operates an ozone monitor in Morgan County. However, there is no particulate matter monitor in Morgan County and therefore no data on the exact levels of existing particulate matter pollution. IDEM, OAQ used the ambient particulate matter pollution data from the monitoring station located on the eastside of Indianapolis as the background level. The Indianapolis eastside monitoring data was chosen because it has the highest recorded levels of particulate matter pollution in Indiana.

The emission modeling and background data were combined and then compared to the NAAQS for particulate matter. The combined results show that the particulate emissions from the proposed U.S. Aggregates plant will be well below the corresponding particulate matter NAAQS. The highest annual

level of particulate matter result is 33.9 micrograms per cubic meter (ug/m<sup>3</sup>). This result is lower than the annual NAAQS of 50 ug/m<sup>3</sup>. This annual result is composed of 5.7 ug/m<sup>3</sup> from modeling the affect of emissions from the proposed plant, added to the highest annual background level of 28.2 ug/m<sup>3</sup> (from the Indianapolis eastside air monitoring data). The highest 24 hour result is 88.9 ug/m<sup>3</sup>. This result is also lower than the 24 hour NAAQS level of 150 ug/m<sup>3</sup>. The 24 hour result is composed of 33.9 ug/m<sup>3</sup> from the modeling analysis added to the highest 24 hour background level of 55 ug/m<sup>3</sup>. The particulate matter modeling shows that the ambient particulate matter levels outside the proposed plant will be highest at the fence line and drop off significantly as the distance from the plant's boundary increases. As an illustration, IDEM, OAQ superimposed a grid of the 24 hour modeling results from the proposed plant's emissions, without adding the background level, onto an aerial photograph showing the proposed plant's location. This illustration is attached in Appendix A of this Addendum to the Technical Support Document. The decreasing particulate matter levels indicate that there will be little additional increase in ambient particulate matter levels caused by the emissions from nearby sand and gravel plants and other nearby sources of particulate pollution. These other sources are too far away to contribute in any significant way to the predicted ambient particulate matter levels. The affect of the nearby sources is more than taken into account by using the Indianapolis eastside particulate matter background data.

**Comment Topic 4, Consideration of the emissions from all emission points, dust control:**

Citizens expressed concern that IDEM, OAQ was not considering emissions from the trucks that will be driving on the proposed site, dust emissions from uncovered or partially covered dump trucks, poorly monitored crushers, out-of-compliance operations, piles of sand and gravel and the spreading of sand and gravel at the site. Citizens noted that truck traffic inside the plant raises dust unless the plant is required to put down asphalt or concrete roadways, and that truck traffic inside the plant will emit diesel exhaust. Citizens asked that the plant be required to water the piles of rock and sand to control dust. Citizens expressed concern that mud from truck tires would fall onto local roadways, dry, and create more dust.

**Response to Comment Topic 4:**

IDEM, OAQ has calculated the expected particulate matter emissions generated by wind erosion of the storage piles, trucks using the haul road through the proposed plant, truck loading and unloading, and the crushing, screening and conveying of the sand and gravel. The levels of particulate matter emissions are set out in the emission calculations that are attached as Appendix B to this Addendum to the Technical Support Document. The emissions from truck diesel engines are not calculated because truck engines are regulated directly by the United States Environmental Protection Agency as mobile sources.

U.S. Aggregates is required to control fugitive dust emissions according to the fugitive dust control plan submitted on December 6, 2005. The plan consists of applying water to stockpiles and unpaved roads on an "as-needed" basis. Prior to commencing plant operations, U.S. Aggregates will pave the portion of the haul road that truck traffic will use from the scale house to the plant exit. After the plant commences operation, U.S. Aggregates will clean this paved area using a sweeper or other means on an "as needed" basis to control dust. U.S. Aggregates is also required to use a wet process or continuous wet suppressions on its crushing, screening and conveying operations.

**Comment Topic 5, Details of the source's equipment, processes and hours of operation:**

Citizens asked if IDEM, OAQ knew the details about the plants operations, its equipment and hours of operation. Citizens noted that the facility description box in part D of the permit states that the list of equipment is descriptive information and does not constitute enforceable conditions. Citizens are concerned that IDEM, OAQ will not know how much processing will be done, what machinery will be on the plant site, how many trucks will be used, and how many hours per day the plant will be in operation.

#### **Response to Comment Topic 5:**

IDEM, OAQ, is permitting the U.S. Aggregates sand and gravel plant under the provisions of the Source Specific Operating Agreement Program, as set out in 326 Indiana Administrative Code (IAC) 2-9-7. 326 IAC 2-9-7(b)(2) limits the amount of equipment that may be located at the plant site. The equipment limit is, at most, nine crushers, twenty screens, and a conveying system. The plant also has an overall limit on the amount of material that may be processed through the plant in any calendar year. This throughput limit is less than one million tons per year. IDEM, OAQ, based its calculations of the expected emissions from the plant using this throughput limit of one million tons per year. U.S. Aggregates must keep records at the plant site to show that it is in compliance with the annual throughput limit. The permit does not limit the amount of hours per day that the plant may be in operation or the number of trucks that will drive in and out of the plant site.

#### **Comment Topic 6, Morgan County's Nonattainment Status:**

Citizens commented that Morgan County's air quality is already below the standard for particulate matter less than 2.5 microns (PM<sub>2.5</sub>) set by the United States Environmental Protection Agency (EPA). Citizens are concerned that the dust and small particulate matter emissions created by the gravel plant and diesel emissions from the gravel trucks will add to the air quality problem. Citizens stated that Morgan County has been recommended for nonattainment of the 8-hour ozone standard according to the [www.transact.org](http://www.transact.org) website.

#### **Response to Comment Topic 6:**

The EPA has designated Hamilton, Hendricks, Morgan, Johnson and Marion Counties as nonattainment of the National Ambient Air Quality Standard for particulate matter. EPA has grouped all of these counties together, based mainly on commuter patterns. IDEM did recommend to EPA that Hamilton, Hendricks, Johnson and Morgan counties be designated in attainment for the particulate matter National Ambient Air Quality Standard (NAAQS). Several factors supported this recommendation. The only monitored violations of the particulate matter NAAQS have occurred in Marion County. Stationary air pollution sources within Marion County account for over half of the direct PM<sub>2.5</sub> emissions from Central Indiana. Data from ambient air monitors within Marion County have shown that the levels of PM<sub>2.5</sub> are highest in the core of the Indianapolis urban area and much lower in the suburban areas of the county. The air pollution monitoring station closest to Morgan County, located on Mann Road in the southwest corner of Marion County, consistently registers values lower than the particulate matter NAAQS. IDEM feels that only counties with monitored air pollution levels greater than the particulate matter NAAQS should be classified as in nonattainment. There is no evidence that the particulate matter levels in Morgan County are greater than the levels set by the NAAQS.

Morgan County is also designated as nonattainment of the NAAQS for ozone, also known as the 8 hour ozone standard. Under certain conditions, oxides of nitrogen (NOx) can react with volatile organic compounds (VOCs) in the presence of sunlight to produce ground level ozone. Ozone can damage lung tissue and reduce lung function. The U.S. Aggregates plant will not have any emissions of NOx. The proposed plant's potential emissions of VOCs are 0.004 ton per year, a small amount. The plant will have very little actual effect on the ozone levels in Morgan County.

The nonattainment designations for Morgan County do not prohibit IDEM, OAQ from issuing permits to new sources of air pollution. IDEM, OAQ works in two main areas to improve air quality in non-attainment areas. First, new major sources of air pollution have tighter emission control requirements and requirements for them to obtain emissions reductions somewhere else in the same area. The U.S. Aggregates proposed plant is not a major source of air pollution. Second, using the state rule-making process, the Indiana Air Pollution Control Board uses air emission information to identify major sources of air pollution that need to reduce their emissions to bring the area into attainment. These reductions could also take into account transportation measures, as well as controls on existing sources of air pollution.

**Comment Topic 7, Control of air pollution:**

Citizens expressed concern over how U.S. Aggregates will control the air pollution emissions from the proposed sand and gravel plant. Citizens felt that self monitoring does not work, that the source will not tell IDEM, OAQ when a violation occurs and IDEM, OAQ will not know whether it is in compliance with its permit.

**Response to Comment Topic 7:**

U.S. Aggregates must use a wet process or continuous wet suppressions operating the crushing, screening and conveying equipment. Within 60 days after achieving maximum production or within 180 days after the initial start-up of the plant, whichever comes first, U.S. Aggregates must demonstrate that its equipment is in compliance with the opacity limits by testing for each crusher, conveyor, and screen. This testing will be reviewed by IDEM, OAQ. Each year U.S. Aggregates must send a certification to IDEM, OAQ stating whether it is in compliance. Falsification of any required record or report is a criminal offense.

Copies of the quarterly reports, the stack test results, and the inspection reports can be obtained by contacting IDEM, OAQ's Compliance Branch at 1-800-452-6027 ext. 3-0178.

**Comment Topic 8, Request that U.S. Aggregates do ambient air monitoring:**

Citizens asked IDEM, OAQ to require U.S. Aggregates to monitor the level of air pollutants in the air around the plant after it begins operation.

**Response to Comment Topic 8:**

IDEM, OAQ does not have the authority to require U.S. Aggregates to install ambient monitoring equipment. The air pollution modeling performed for this source, as discussed above, showed that the expected ambient air quality levels will comply with National Ambient Air Quality Standards. IDEM, OAQ believes that the compliance determination, testing and record keeping requirements in the permit are sufficient to ensure that the plant will operate properly, control its emissions and comply with all applicable emission limits.

**Comment Topic 9, Notice to the public about IDEM, OAQ permitting activities:**

Citizens stated that they did not receive notice about the U.S. Aggregates draft permit or the public hearing.

**Response to Comment Topic 9:**

On January 26, 2006, IDEM, OAQ notified the Morgan County Commissioners, the Mooresville Town Council, and fifteen area residents that U.S. Aggregates had applied for a permit and that IDEM, OAQ had created a draft permit and related documents. This notice also provided information on how the public could review the draft permit and other documentation at the Mooresville Public Library. The notice gave instructions on how citizens could contact IDEM, OAQ, comment on the draft and make a request for a public hearing. On January 28, 2006, the IDEM, OAQ published a public notice in The Martinsville Reporter, Morgan County, Indiana, giving the same information as the mailed notice.

IDEM, OAQ received many comments, including requests for a public hearing. IDEM, OAQ added the name and address of every person who commented to the mailing list for this source. On March 24, 2006, IDEM, OAQ notified the Morgan County Commissioners, the Mooresville Town Council, and thirty-two area residents that a public hearing would be held regarding the draft permit on April 26, 2006 at the Mooresville Public Library. On March 29, 2006, IDEM, OAQ published a public notice in The Martinsville Reporter, Morgan County, Indiana, giving the same information as the mailed notice.

**Comment Topic 10, Future expansion of the U.S. Aggregates plant:**

Citizens asked about the process that U.S. Aggregates would have to take to expand at this site at some point in the future. Citizens asked how they would be notified and have a chance to ask for a hearing. Citizens asked how many requests for expansions at existing plants do IDEM, OAQ turn down. One citizen was concerned that the site would eventually become a landfill once it is under the control of U.S. Aggregates.

**Response to Comment Topic 10:**

U.S. Aggregates would not be able to increase the amount of throughput of material without a permit approval from IDEM, OAQ. U.S. Aggregates would have to first file an application for a permit modification. Within ten days after filing the application, U.S. Aggregates would have to file a copy with the local library. When IDEM, OAQ receives an application, it sends a notice of the application to local government officials such as the head of the county commissioners and the mayor. IDEM, OAQ maintains lists of persons interested in new permitting activities for each specific source and each county name. When IDEM, OAQ has a draft permit ready for public notice, it sends a notice to all persons on the mailing list for that source and on the list for that county.

Any interested person can have his/her name added to a list to receive notices of all IDEM, OAQ public notices and final permit decisions regarding this plant, all the air pollution sources in Morgan County, and all sources in the state. Citizens may sign up for IDEM, OAQ's mailing lists, by calling IDEM at (317) 233-3861 or by sending an e-mail to [OAQLIST@dem.state.in.us](mailto:OAQLIST@dem.state.in.us), a specific e-mail address just for mailing lists.

To apply to convert the site to a landfill, U.S. Aggregates would have to apply for a landfill permit from IDEM's Office of Land Quality. Applicants for a landfill must notify residents in a radius of several miles from the proposed site. IDEM, OLQ does not maintain a mailing list for solid waste landfills by county. IDEM, OLQ does maintain a mailing list for hazardous waste landfills by county. Citizens may sign up for the hazardous waste landfill list by sending an e-mail to Glynda Oakes at [goakes@idem.in.gov](mailto:goakes@idem.in.gov) or calling Ms. Oakes at (317) 233-1052 or toll free at (800) 451-6027, extension 3-1052.

**Comment Topic 11, Plant inspections:**

Citizens asked who inspects the sources in their area, how often inspections are done and whether the United States Environmental Protection Agency (EPA) does inspections. Citizens asked how to find out if a complaint to IDEM, OAQ resulted in an inspection. Citizens asked how they could document and report air quality violations. Citizens stated that one IDEM, OAQ inspector can not adequately monitor all the sources of air pollution in this area.

**Response to Comment Topic 11:**

Anyone observing an air pollution violation at the plant should contact IDEM, OAQ's inspector, Jim Thorpe at (317) 233-6867 or toll-free at (800) 451-6027, extension 3-6867. If you leave a voice mail message for Mr. Thorpe, please state the time you noticed the violation, how long it lasted, a description of the violation and where you were when you noticed it. If you feel comfortable stating your name and telephone number, please also give that information. IDEM, OAQ will investigate your complaint as soon as possible.

IDEM, OAQ conducts a number of compliance activities associated with SSOA level sources. These activities include unannounced inspections, surveillance, review of periodic reports submitted by the permittee, and response to complaints. Inspections of SSOA sources are prioritized along with other major sources of air emissions to ensure compliance with the air pollution control rules and the various levels of operating permits. Full inspections of a source include observation of processes, air

pollution control equipment and emissions from the plant, review of compliance monitoring by the source, and review of the plant's required records. Inspectors also conduct off-site surveillance of plant emissions to determine if there are any violations of opacity or fugitive dust rules.

IDEM, OAQ has a sufficient number of inspectors to conduct periodic inspections of all air pollution sources in Indiana and is able to respond to complaints as we receive them.

Copies of all IDEM inspection reports are available through:

IDEM's Centralized File Room  
Indiana Government Center North, Room 1201  
100 North Senate Avenue  
Indianapolis, IN 46204  
Phone: (317) 234-0965 Fax (317) 232-8659

Copies of air pollution warning letters, violations, and referrals to IDEM's Office of Enforcement are available by contacting Victoria Wiley in IDEM, OAQ's Compliance Branch, (317) 233-5676 or toll free at (800) 451-6027, extension 3-5676.

**Comment Topic 12, Enforcement:**

Citizens asked what steps IDEM, OAQ would take if a violation were discovered. Citizens asked if they could take action on their own.

**Response to Comment Topic 12:**

When IDEM, OAQ discovers a violation at a source, it notifies the source of the finding and ensures that the violation is corrected. Generally, companies are allowed to continue to operate provided they take timely action to correct the violation. Additionally, IDEM uses its authority to pursue administrative enforcement for serious environmental problems to bring companies back into compliance with the law. IDEM considers several factors in pursuing enforcement cases including the magnitude of the violation, the potential harm to human health and the environment, the economic benefit gained by the violator by not complying, and the violator's efforts to achieve compliance. IDEM has statutory authority to fine sources up to a maximum of \$25,000 per day for each violation.

Enforcement of air pollution control laws in Indiana is done by IDEM and the EPA. However, pursuant to Indiana statute, Indiana Code (IC) 13-30-1-1 et seq., any citizen may, after filing a proper notice and complying with other requirements, bring a lawsuit against a violator if IDEM and the Indiana Attorney General have not taken any civil or administrative enforcement action.

**Comment Topic 13, Number of Gravel Pits in the area:**

Several citizens commented that there are enough gravel plants in this area. Citizens feel there should be a limit on the number of such plants in a given geographical area. Citizens noted that previous plants were inactive or abandoned. Citizens asked about the effect of Indiana Code (IC) section 36-7-4-1103(b).

**Response to Comment Topic 13:**

Local governmental subunits are charged with regulating land use. This regulation is done by zoning and construction regulations. IDEM, OAQ has no authority to limit the number of air pollution sources in any geographical area. The cited statute, Indiana Code (IC) 36-7-4-1103(b), involves zoning and planning issues. This section does not give IDEM, OAQ any authority to take any zoning or planning actions.

**Comment Topic 14, Noise, increased truck traffic, road wear, accidents, and damage from flying debris, light pollution:**

Citizens are concerned about noise from the increased truck traffic that would interfere with their enjoyment of being outdoors. Citizens are concerned that the proposed plant will lower the value of their homes and properties, that the plant will be unsightly, that existing views of country pastures and cornfields will be ruined, and that the plant will become abandoned.

Citizens stated that the area roads are not wide enough, durable enough and lack sufficient traffic controls for the amount of truck traffic and size of trucks that will travel to and from the plant. Citizens are concerned about an increase in traffic accidents and fatalities, as well as loose debris from the trucks damaging other vehicles and debris piling up at intersections. Citizens are also concerned about light pollution from the plant's security lights. Citizens are concerned about the potential for loss of life of unguarded swimmers in the water filled pits. Citizens feel that the plant is being built to supply materials for the extensions of interstate 69, which may not be built in this area.

**Response to Comment Topic 14:**

IDEM, OAQ recognizes that all these concerns are important to those who expressed them; however, they do not have a direct impact on how IDEM, OAQ reviews and makes decisions on air permit applications. IDEM, OAQ advises residents to contact their local or county officials regarding traffic, light pollution, and swim safety issues. IDEM, OAQ's permit review by law cannot address issues for which it does not have direct regulatory authority. The route of the proposed Interstate 69 extension and whether the proposed plant will supply materials for that project is outside of IDEM, OAQ's regulatory authority.

**Comment Topic 15, Effect on Water Tables, Rain Water Flow and River Pollution:**

Citizens are concerned that the proposed plant will affect the well water supplies, water table levels, ground water, flooding and that pollutants from the proposed plant will contaminate the water in the adjacent White River.

**Response to Comment Topic 15:**

Indiana Code (IC) 14-25-4 protects owners of most small-capacity water wells from significant ground water withdrawal facilities. If a well no longer furnishes its normal supply of water and if that well is being affected by a nearby high-capacity ground water user, the well user may submit a written complaint to the Director, Indiana Department of Natural Resources, 402 W. Washington Street, Room W256, Indianapolis, Indiana 46204. Questions about IC 14-25-4 should be addressed to the DNR Division of Water at 317-232-4160, toll free 877-928-3755, or at [water\\_inquiry@dnr.IN.gov](mailto:water_inquiry@dnr.IN.gov) for electronic mail.

The DNR Division of Water also has jurisdiction in Indiana's floodways for most development activities. Typical examples of floodway projects subject to DNR review and approval are fills, excavations, bridges, utilities, and non-residential structures. Contact the DNR Division of Water at 317-232-4160, toll free 877-928-3755, or at [water\\_inquiry@dnr.IN.gov](mailto:water_inquiry@dnr.IN.gov) for electronic mail.

Any leakage, dumping, drainage, seepage or discharge of any petroleum, hazardous substance or objectionable substance onto or into the ground or surface waters should be immediately reported to IDEM's Office of Emergency Response, by telephone, at 1-888-233-7745 (for callers outside of area code 317) or 233-7745 for callers inside area code 317. This spill reporting number is answered 24 hours a day, every day.

**Comment Topic 16, Past Actions, Stability of U.S. Aggregates:**

A citizen stated that according to the Environmental Working Group, U.S. Aggregates Crawfordsville plant was listed as a high priority violator of the Clean Air Act (CAA) and was not inspected in the fiscal year 1998 - 1999 (<http://www.ewg.org/reports/primesuspects/airtables/air3.html>). The citizen is concerned U.S. Aggregates has apparently violated CAA standards and that the United States Environmental Protection Agency is not inspecting all possible polluters. Another citizen is concerned about the stability of U.S. Aggregates, due to a securities lawsuit in California and U.S. Aggregates reorganization under Chapter 11 of the federal bankruptcy code in 2002.

**Response to Comment Topic 16:**

IDEM, OAQ has no authority to deny an air pollution control permit to U.S. Aggregates, or any other company, based on past compliance issues, past civil actions or bankruptcy reorganization. IDEM, OAQ has not taken any air pollution enforcement action against U.S. Aggregates in the past ten years. IDEM does not have any pending air pollution enforcement actions against U.S. Aggregates. Region 5 of the United States Environmental Protection Agency has no pending enforcement actions against U.S. Aggregates. Information about Region 5's enforcement activities can be found at <http://www.epa.gov/region5/air/enforce/> on the internet. Region 5 inspects very few Indiana facilities. Almost all Indiana air pollution inspections are done by IDEM, OAQ inspectors.

**Comment Topic 17, Making Indiana a cleaner, healthier place to live:**

Citizens stated that the IDEM logo reads "We make Indiana a cleaner, healthier place to live.", yet the proposed plant will release significant amounts of pollution into the air.

**Response to Comment Topic 17:**

IDEM, OAQ does make Indiana a cleaner, healthier place to live. In the years since IDEM was created, in 1986, the air quality across the state has improved greatly. This improvement has come as a result of federal and state air quality planning efforts. Air pollution permits play just one part of those efforts. Air pollution permits allow industry to increase emissions due to economic growth and new plants, but only to the extent allowed by law.

**Comment Topic 18, Mosquito Control:**

Citizens expressed concern that water ponding in and around the proposed facility would increase the number of mosquitoes in the area.

**Response to Comment Topic 18:**

Mosquito control is a primary function of county health departments. IDEM, OAQ has no authority to regulate mosquito control.

**Comment Topic 19, Protection of wildlife:**

Citizens expressed concern about the preservation of wildlife in the area, such as bald eagles, foxes, coyotes, other birds and wildlife.

**Response to Comment Topic 19:**

Preservation of wildlife is a function of the Indiana Department of Natural Resources. IDEM, OAQ has no authority to regulate in this area. Questions regarding preservation and protection of Indiana wildlife can be addressed to:

Indiana Department of Natural Resources  
Division of Fish and Wildlife  
402 W. Washington St. W273  
Indianapolis, IN 46204  
(317) 232-4080

**Comment Topic 20, Other required permits:**

Citizens asked what other permits the source is supposed to receive before it begins to operate.

**Response to Comment Topic 20:**

IDEM, OAQ is not aware of what other permits are required for the U.S. Aggregates plant.

In addition, the following residents of Mooresville, Indiana submitted comments on the proposed construction permit and operating agreement. All of these comments were addressed during the public hearing. The summary of the comments and corresponding responses are as follows (The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.):

**Comment A:**

**Homeowners of the Valley Heights and Summer Ridge subdivisions on April 26, 2006:**

We the homeowners of the homes in Valley Heights and Summer Ridge subdivisions are opposed to the development of more gravel pits in the area of 144 and Mann Rd. U.S. Aggregates has a gravel pit on Mann Rd. that is sitting practically idle. It's not being mined at this time. We believe they should finish this one before they start another in this area. Mr. Davee is starting to dig and mine the ground north of the U.S. Aggregates operation at this time also. Please no more pits.

**Response A:**

See the response to Comment Topic 13.

**Comment B:**

**Claudia Parker on February 27, 2006**

I strongly oppose the opening of the proposed gravel pit by U.S. Aggregates at the State Road 144 and Centenary Road in Mooresville. Morgan County's air quality is already below the standard prescribed by the EPA. There are already 7 pits within a 5 mile radius and at any given time there is dust flying either from the pits or the trucks that haul on the road. There is no way one IDEM inspector can monitor the pits like they should be monitored. There also is lack of enforcement for other issues that should be done by Morgan County. This pit would only bring in more dirt, dust and the diesel fumes. Plus traffic at that intersection is a continual flow with no stop light, and the intersection is at the bottom of a hill. Centenary Road is not wide enough to continue to handle all the traffic this would create, plus the wear that is created. It doesn't make any difference how well they keep the dust under control, you still can't open your windows, the furnace and air conditioning unit is compromised, dust and grit settles on anything that is left outside and the diesel smoke settles on your home and is almost impossible to get off. Because I live next to a gravel pit, (not by choice) my husband was unable to enjoy our place last year due to the pit next to us. He was a heart patient and the activity at the pit and the trucks that went by made caused him to become totally home bound. I would have to take him away in order for him to be outside.

**Response B:**

Please see the response to Comment Topic 6 for information on Morgan County's attainment status, the response to Comment Topic 13 for concerns about the number of gravel pits, the response to Comment Topic 14 for increased traffic concerns, the response to Comment Topic 12 for information on enforcement, and the response to Comment Topic 4, for concerns about fugitive dust control.

**Comment C:**

**James A. Swails and Cecelia S. Swails on February 27, 2006:**

We are requesting a public hearing discussing the Air Quality issues of a sand and gravel processing plant located at 7201 East Centenary Road, Mooresville, Indiana.

Currently, there are at least five processing plants within a five mile radius of our home. We do NOT want another processing plant near us. We feel the physical and emotional well being of the residents in our area is affected by these plants.

**Response C:**

Please see the response to Comment Topic 13 for concerns about the number of gravel pits in the area. As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document.

**Comment D:**

**Bob and Sandy Miller on February 27, 2006:**

We believe there should be a public hearing so that we can voice our opinions and concerns about their sand and gravel pit to be opened at the intersection of Centenary and Watson Roads.

**Response D:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document.

**Comment E:**

**Olie and Norma Bulger on February 27, 2006:**

We are against the gravel pit. We are concerned about noise and dust. We recently built a new home, minutes from that intersection, and would be greatly inconvenienced by this gravel pit. The creation of another gravel pit in the area would cause us to not be able to enjoy being outdoors because of dust and noise. The annoying sounds from the trucks is reason enough to stay inside. We should not lose the enjoyment of our property because of this.

Traffic is a huge concern here. We see numerous accidents at this intersection, including a fatality. The condition of the roads will be compromised. In the last few years that we have been property owners in the area, Morgan County has improved the roads and we hate to think what the constant moving of huge dump trucks would do. There is gravel sand and rocks flying out of these trucks causing damage to vehicles.

**Response E:**

Please see the response to Comment Topic 4 for concerns about dust, the response to Comment Topic 7 about air pollution control, and response to Comment Topic 14, which addresses noise and traffic concerns.

**Comment F:**

**Lisa Prosser on February 27, 2006:**

There is great concern about another gravel pit operation in our area due to the fact that there is already a great deal of dump truck travel on Centenary Road in addition to the fact the water tables are being taxed and many other issues.

**Response F:**

Please see the response to Comment Topic 14 for concerns about increased truck traffic and the response to Comment Topic 15, which addresses concerns about the effect on water tables.

**Comment G:**

**Mr. and Mrs. Clayton on Arthur on February 27, 2006:**

We strongly oppose this permit. They (U.S. Aggregates) have tried once before to put this gravel pit in, but there was so much opposition they cancelled (obviously merely postponed) their intentions. It is our belief that the gravel pit would most definitely lower the standard and value of our homes and properties. Whenever, they are put right up against housing it causes an awful mess for the homeowners. Dust and dirt and noise are prevalent, not to mention the unsightliness. If you want a good example of this just go two miles up Mann Road and look at that mess! We are hoping to build on our property which is located at the intersection of Centenary Road and Watson Road, Mooresville. How would we ever be able to get fund for what we want to build when they would see the location? What at present is a nice country pasture overlooking the cornfields will become ugly to live beside. Why not put them in open fields that do not have close housing?

We strongly feel that we are entitled to a public hearing on this matter.

**Response G:**

See the responses to Comment Topics 4 and 7 for concerns about dust and particulate control and the response to Comment Topic 14, which addresses increased truck traffic and property value. As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document.

**Comment H:**

**Jennifer L. Burns on February 27, 2006 and April 26, 2006:**

***On February 27, 2006:***

I would like to request a hearing. We have always been concerned with air quality in this area as we have a daughter with asthma. She is doing quite well now, but I would hate for that to change. There are a number of gravel pits in the area and not only are we concerned with air quality, but the noise, the truck traffic versus the size and types of roads are also concerns. There are several pits that seem to have failed economically. It's always a lovely sight for the ground to be torn up, piles of dirt and sand made, top soil removed and sold so crops can no longer grow there, and then left for the

weeds to overtake.

**On April 26, 2006:**

There are many concerns that we as neighbors and taxpayers have concerning the development of another gravel pit in this area which include increase truck traffic, light pollution from security lights, lack of a noise minimization plan, lack of a reclamation plan, lack of a ground water and river water protection plan, stability of the company, devaluation of property, and air pollution.

As of 2005, there were 126 counties in the U.S. recommended for nonattainment of the 8-hour ozone standard. Of the 126, Indiana had 14 counties including Morgan, Hendricks, Johnson, Hancock, Shelby and Greene ([www.transact.org](http://www.transact.org)). Obviously, a problem already exists in this area. The EPA as of April 5, 2006 listed Morgan County as nonattainment for particulate matter less than 2.5 microns (PM<sub>2.5</sub>). Wouldn't additional trucks with their diesel fuel and the dust and small particulate matter disturbed by mining just add to the problem?

I have a concern with what is contained within in their (U.S. Aggregates') draft. On page 16 under Emissions Unit Description there is a list describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions." Therefore, I don't know how much processing, how much machinery, how many trucks, and how many hours per day they will be in operation.

I have questions about this company in and its past. According to the Environmental Working Group, U.S. Aggregates Crawfordsville plant was listed as a high priority violator of the Clean Air Act and was not inspected in the fiscal year 1998 - 1999 (<http://www.ewg.org/reports/primesuspects/airtables/air3.html>). This causes concern on two fronts. One, U.S. Aggregates has apparently violated CAA standards. Two, the EPA is not inspecting all possible polluters. The federal budget continually is reduced so that the governmental agencies cannot possibly keep tabs on all businesses. So if this permit is approved and U.S. Aggregates violates current pollution standards, who is going to regulate them, fine them or revoke their permit? If you look around this area, you will find failed gravel pits. What do you do with land that's been stripped of topsoil and left with big holes? I'm sure part of their argument for a new pit is the future demand of I-69, but no one knows if, when and where this interstate will be built since now there's talk of it following SR67 instead of SR37.

I am concerned about the stability of this company. If my research is correct and this is the same company, U.S. Aggregates, Inc. was involved in a securities lawsuit in CA based upon the overstatement of profit. It is just now being settled with claims due earlier this month. In 2002, U.S. Aggregates reorganized under Chapter 11 bankruptcy laws. One of their business units is Heritage Environmental which operates landfills. One of my fears, perhaps undue, is this land eventually being a landfill once it is under the control of U.S. Aggregates.

**Response H:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topic 2 for concerns about the health effects of particulate matter, the response to Comment Topic 3 for information on determining the acceptable level of air pollutions, the response to Comment Topic 6 for an evaluation of Morgan County's attainment status, the response to Comment Topic 11 for information on plant inspections, and the response to comment topic 10, which addresses landfills.

**Comment I:**

**Phillip R. Wright on February 25, 2006:**

I would ask that your department hold public meetings in regard to this matter. Your IDEM logo states "We make Indiana a cleaner, healthier place to live." However, your preliminary findings indicate a significant amount of matter that can be released in the air in our community. This seems to warrant public input.

**Response I:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document.

**Comment J:**

**Mike Nichols on February 24, 2006:**

I am submitting my concerns as to the need for this new gravel pit. There are already several in this area and the pollution from the pits themselves and the hazards from the gravel trucks make this a very nasty and dangerous area.

When the weather is very dry, the roadways are covered with dust and debris from the trucks. The intersections in the surrounding area are filled with large pieces of gravel from trucks that have been improperly loaded and spill gravel as they turn corners. During these hot, dry days dust from the trucks and the mounds of sand and gravel are blown over the countryside when the slightest wind blows.

The gravel truck traffic has become increasingly dangerous. The gravel trucks pull out in front of traffic that is moving at highway speeds and then take an extremely long time to get up to highway speeds. Motorists have to slam on their brakes to keep from colliding with the trucks.

I have many more concerns and request that a public hearing be held and that members of the public be informed so that we may all voice our opinions on this matter.

**Response J:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topic 13, which addresses the number of gravel pits in the area, the response to Comment Topics 4 and 14, which address dust control, traffic and damage from flying debris.

**Comment K:**

**Alvin Barnes on February 24, 2006:**

I am writing to you in hopes of receiving a public hearing on permit # S 109-22328-05283.

In our area alone, we have eight or more gravel pits that we are able to see from our streets now. These gravel pits are an eye sore to our community. Let alone the fatalities we have had on State Road 144 at Kitchen and Centenary Roads.

I would love for you to take a drive up and down our roads during the week-day so you yourself can observe how fast these dump trucks, concrete trucks and many other heavy duty commercial vehicles drive on our roadways. These gravel pits are not only an eye sore but also they bring a lot of nuisance such as the speeding vehicles, the hand gestures from drivers because of you doing the speed limit etc.

This is our community and we should have a right to voice our opinions on what we would like to see in our neighborhoods. Please have a public hearing so everyone has a right to voice their opinion.

**Response K:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topic 13, which addresses the number of gravel pits in the area, and the response to Comment Topic 14, which addresses traffic and damage from flying debris.

**Comment L:**

**Loretta R. Robinson on February 22, 2006:**

I would like to address at a public hearing regarding the US Aggregates, Inc. (Waverly Plant 2) in Morgan County S109-22328-05283 the real-world effects on the environment listed below from the proposed.

- (a) Dust and diesel fumes generated on the haul road to and from the plant.  

It is common that trucks enter and leave dozens of times each day from gravel pits.
- (b) Fugitive dust blowing from
  - (1) The uncovered or partially covered dump trucks.
  - (2) poorly monitored crushers and out-of-compliance operations.
  - (3) Piles of sand and gravel at the site.
  - (4) The spreading of sand and gravel at the site.
- (c) Increased traffic (highways)  

With a concomitant increase of air pollution from more vehicles and disturbed land.
- (d) Increased air pollution from sand and gravel mines after they are abandoned and until natural re-vegetation stabilizes the surface soil.

Another major environmental impact of my concern is the groundwater. Because mines are required to wash some materials and control dust on site, mines use water to perform these tasks. This water is capture generally in settling ponds. Mosquito control in this area of Morgan County is already an issue.

One final impact concern is the "public nuisance" effect. Gravel Pits sometimes operate at night and make enough noise to disturb neighbors as far as a mile away. The combination of bright lights to aid night operations, loud noises from crushers and screen plants, and chronic dust emissions creates a public nuisance for those of us unfortunate enough to live near such operations.

Also, several abandoned or inactive sand and gravel, aggregate, and other mines are scattered across the state. As I see, few of these mines have been formally reclaimed. To really better manage the environmental problems from the effects of aggregate, stone, and industrial mineral mines in Morgan County why not control the development. Deny operating permits to new operations if inactive or abandoned mines could be re-opened to provide the same resource.

**Response L:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topics 4 and 14, which address dust control, traffic and damage from flying debris. The response to Comment Topic 15 addresses concerns about the effect on water tables, rain water flow and river pollution.

**Comment M:**

**Martha Payton on February 21, 2006:**

I don't feel that we should be subject to all the dust and the mud on the roads that these pits cause.

**Response M:**

Please see the response to Comment Topic 4 for concerns about dust control.

**Comment N:**

**James Cahill on February 20, 2006**

I am formally requesting that a public hearing be conducted to review the air permit being requested by U.S. Aggregates at the proposed location of Centenary Rd. and Watson Rd. in Morgan County - Mooresville, Indiana. We are vigorously opposed to any operation of that type to be open or approved at this location or anywhere close to this location. One only needs to look less than two (2) miles to the north and you can clearly see how U.S. Aggregates has raped the land and turned it into an eyesore. I have worked too hard to have my property values destroyed by this company or any like them.

**Response N:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document.

**Comment O:**

**Nita L. Lawless and Robert D. Davis on February 14, 2006:**

We do not approve of the said (Waverly Plant 2) gravel pit by the U.S. Aggregates, Inc., and we are requesting a public hearing.

Due to there are 8 or more gravel pits currently in the surrounding area. They are polluting the air and scaring the face of our land. If there is something that should be done, these gravel pits should be spaced apart and or some eliminated, to assure and maintain a better quality of air for the families in this area. At the proposed location there are several families in this area, and this will affect our quality of living and breathing. The visual of the site of a gravel pit, the noise and dust will take away from our beautiful and peaceful homes. The existing gravel pits are a very unappealing site to view, it

is sad that they are not blocked from view, as they are required to be.

Due to truck traffic now with the existing gravel pits, there will be more dust and they will destroy our roads even more. Also, Centenary Road is not wide enough for these trucks to share with our families, possibly yours, and young teenagers drivers. These trucks drive too fast up and down Centenary Road. There is enough loss of life due to accidents on State Road 144 and Centenary Road. Not only the dust what about the excess of fuel consumption by these trucks, isn't that more carbon oxide fumes? Also, loss of life due to unguarded swimmers is another effect that a gravel pit can have.

It will damage our property value and many other families' property value in the area. And to the point of damaging that our properties would ever have potential homebuyers. Therefore we would never recoup our investments in our homes and land. This is very disturbing.

Has any one taken a drive on Centenary Road, and viewed Bill & Dixie Miller's Red Log Cabin? Just south of 144 on Centenary Road. It is beautifully landscaped with their colorful bicycles and flowers. They are heartbroken the thought of living across from a gravel pit. As Dixie was telling me about their home she said: "No one is going to be able to tell that we have a Red Log Cabin, anymore". This log cabin was build by their grandparents in 1848, this should be considered as a piece of Morgan County History. We and many other home owners will have a bird's eye view of this unappealing site, for our homes sit up on a higher level overlooking the area of this proposed gravel pit.

I have talked to several families that have lived in this area for 7, 18 to 40 years. They have memories of their homes, land, and families growing up here, and now they can retire, but retire to what if this gravel pit goes in? Some have dreams of bring up their children here too. And my fiancé Bob and I had a dream of a peaceful place in the country. This gravel pit, with the noise, dust, the hours that this company will keep, will destroy what we have worked so very hard to purchase, and it will take away from our quality of life.

There is the need to preserve the wildlife in this area. There are Bald Eagles nesting in this area, foxes, coyotes and many other birds and wildlife. Who will be their voice?

I would appreciate it, if you would consider this gravel pit as if it were going in next to your own home. Honestly, how would you feel about it then? Please do not approve this application from U.S. Aggregates Inc., and live up to your claim of making Indiana a cleaner, healthier place to live.

**Response O:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topic 13 for concerns about the number of gravel pits in the area, the response to Comment Topic 14 for concerns about the traffic and noise, and the response to Comment Topic 19 for concerns about the protection of wildlife.

**Comment P:**

**Kean MacOwan on February 14, 2006:**

Our family lives at 7124 East Centenary Road, Mooresville, IN. We are concerned about IDEM giving U.S. Aggregates an air permit for sand and gravel processing facility at 7201 East Centenary Road. The reasons for our concerns include air pollutants from the plant, air pollutants from an increase in large displacement diesel engines (Trucks), noise pollution from the proposed plant and associated equipment.

Within a 1 mile radius of our house we have 4 sand and gravel processing plants. Centenary Road as you aware already has one active plant, the particulate matter in the summer from this plant is outrageous (Yes, they do water their roads around the plant, but they don't water the piles of rock and sand)

While we don't want to stand in the way of progress, we feel as a family we already have too many neighbors that mine of sand and gravel. We ask that you deny the Air Permit # 22328 for U.S. Aggregates. (Waverly Plant #2)

**Response P:**

Please see the response to Comment Topic 13 for concerns about the number of gravel pits in the area and the responses to Comment Topics 4 and 7 for a discussion of dust and particulate control.

**Comment Q:**

**William J. Miller on February 14, 2006:**

I would like to have it documented that I am requesting a public hearing for S 109-22328-05283.

As a neighbor (next to the proposed location) and a local resident of Mooresville for the past 50 years, I would like to express my interest and concerns regarding another sand and gravel operating in our community. I am very much concerned about the air quality that this plant will produce on a daily basis and how this may affect my health and property.

Due to the high volume of trucks already traveling down Centenary Road from the sand and gravel operations, I am concerned that this may make the conditions deteriorate faster than they already are. These trucks already run from 6:00 A.M. to 6:00 P.M. and the noise and dust they produce are more than the neighbors can handle now. Truck Traffic - fumes, noise, and fugitive dust

There is also an environmental concern for the eagles that are around this property (White River) and the impact this sand and gravel operation may have on their environment.

Again, I would like to request a hearing to voice our comments and concerns with the Indiana Department of Environmental Management.

**Response Q:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topic 14, which addresses traffic concerns, and the response to Comment Topic 19 for information on protecting wildlife.

**Comment R:**

**Richard E. Geiger and Carlone K. Geiger on February 13, 2006:**

We are against approval of the proposed gravel pit because of the following reasons:

1. Our home and business is at 6857 East Watson Road, not 1/3 of a mile up a steep hill from the proposed pit on Centenary Road. We would be looking directly down into the pit even if a raised earthen barrier and trees were placed around the perimeter of the pit.
2. The pit will generate a tremendous amount of noise, dust, dirt and lights, significantly lowering our standard of living and damaging our property value.

3. The pit will greatly increase traffic of heavy dump trucks, resulting in more broken windshields, increased congestion and more traffic delays and accidents on the already hazardous Centenary Road and equally hazardous intersection of Centenary Road, Mann Road, State Road 144 East and West and Old State Road 144 West. There have already been too many traffic injuries and fatalities within one mile of the intersection of these roads in the 20 years we have lived here without making the matter much worse by adding this traffic from the gravel pit.
4. The construction of the gravel pit may well alter the water table, affecting our lakes, streams, our water supplies and especially our wells.
5. Under State Code IC 36-7-4-1103(b), a gravel pit can do nothing that will affect the quality of life in the adjacent areas. Obviously, this pit would affect our view, our breathing, noise levels, tranquility, property values, safety, and water supplies, the very things that we cherish most by living in this area.
6. Should this permit be granted against our wishes we will demand that all relevant State and County agencies enforce State Cod IC 36-7-4-1103(b). We will be watching for the slightest of infractions.

We are for the above stated reasons asking for a public hearing regarding the granting of the permit for this gravel pit.

**Response R:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topic 4 for dust control concerns, the response to Comment Topic 14 for traffic, light pollution, and flying debris concerns, and the response to Comment Topic 15 for information on water quality concerns.

**Comment S:**

**Thom Bullock on February 13, 2006:**

My concerns about the gravel pit are as follows:

(a) Environmental:

- (1) Dust - gravel pits are notorious for creating dust in the air.
- (2) Noise - the equipment used in these operations is VERY noisy and can be heard for miles. Since my house is directly across the road from this proposed gravel pit, noise is a large issue.
- (3) There is also a pair of bald eagles that live in this area. My concern is that these eagles will move on to another area. It is VERY interesting to watch these animals.

(b) Safety:

There will be additional gravel trucks traveling on Centenary Road. We currently have 2 gravel pits already in operation on this road and another one will simply increase the truck traffic which is already NOT very safe. They travel at high speeds and do not stay within their lanes. At some time there WILL be a bad accident.

(c) Property Value:

If this gravel pit goes in to this area, the value of my property and others will be diminished.

**Response S:**

Please see the responses to Comment Topics 4 and 7 for dust and particulate control concerns, the response to Comment Topic 14 for concerns about noise and traffic, and the response to Comment Topic 19 for information on protecting wildlife.

**Comment T:**

**James G. Rawls on February 9, 2006:**

Not only am I and area residents concerned about the air pollution from dust generated by this operation, we are also worried about noise pollution, hours of operation, and changes in the natural flow of rain water and river water flow in nearby White River.

One of the newer existing gravel pits on State Road 144 is presently contributing to air pollution, not only from within their boundaries, but on State Road 144 by trucks leaving the site with mud on their tires and dripping muddy water from the truck beds. This then, in turn, dries and is subsequently blown up from the road surface by heavy truck traffic that, at times, blocks the view of following traffic.

In this area, there are approximately ten (10) gravel pit operations within a 2-mile radius of this proposed site. We certainly do not need another gravel pit!

In addition to the above concerns, there is the issue of tri-axle and semi tractor-trailer traffic on a narrow 2-lane road that was never designed for this type of heavy traffic which is already taking its toll on this road that has been repaved within the last two years.

Last, but not least, is the large affect an operation of this type will have on surrounding property values along Centenary Road and nearby properties.

I fully realize that most of my comments do not fall under the realm of IDEM but need to be considered before permitting operation of another gravel pit in this area.

In closing, I am requesting that a public hearing be held to address U.S. Aggregates' permit application.

**Response T:**

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the responses to Comment Topics 4 and 7, which address dust and particulate control, the response to Comment Topic 13 for concerns about the number of gravel pits in the area, the response to Comment Topic 14 for concerns about traffic and noise pollution, and the response to Comment Topic 5 for information on the hours of operation according to the permit.

**Comment U:**

**Tony Ray on February 7, 2006:**

I live directly across the street from the proposed site and I have major concerns about the additional air pollution that another gravel mining operation will cause. We currently have at least 5 operating

mines within 2-3 mile radius. I fear that a new mining operation in such a concentrated area, even if they did their best to minimize the pollution, would create conditions that would be harmful to my family.

My primary concern is for my two young daughters. My oldest daughter (8 years old) already has problems with airborne allergies and is on medicine to help control her symptoms. I would hate the thought that my daughter couldn't go outside and play anymore because another gravel pit was allowed to operate in an area where we already have so many operating.

To make this scenario worse, what if the new U.S. Aggregates operation is ran as bad as the one they have just two miles north? From what I can tell, that facility doesn't have the equipment to keep everything saturated in order to keep the dust and pollutants to a minimum. In addition all of their roads within the facility are all dirt, so additional pollution is created by the vehicles and equipment used.

I know that your office is primarily concerned with the air pollution that may result from the new mine, but I have concerns of other types of pollution that this new gravel pit may cause. The proposed site of this new operation is in a field that is adjacent to the White River. This entire field is prone to flooding. When that mining operation gets flooded, all of the pollutants from the mine and equipment will be forced down the river. Causing the already damaged river is get even worst.

I am also concerned about the noise level and traffic hazard that potentially will come from this new operation. My house is located well above the level of any erosion and sound barrier wall that will be constructed. So, there will be nothing obstructing my property from the operation of the mine. In addition, the road and intersection that these gravel trucks will be using has already proven to be an area of high fatality accidents. By adding more of these massive gravel trucks to this area, only increases the likelihood more people are going to die on this road.

I would like to request that a public hearing be scheduled so that I can present my concerns in person.

#### Response U:

As indicated on page 1 of this document, a public hearing was held on April 26, 2006, in response to your comment and the comments of other citizens. All topics brought up during that hearing are addressed in this document. Please see the response to Comment Topic 2 for the health effects of particulate matter, the responses to Comment Topics 4 and 7 for concerns about dust and particulate control, and the response to Comment Topic 14 for concerns about noise pollution and truck traffic.

Upon further review, the OAQ has decided to make the following additional changes to the construction permit and operating agreement: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

#### Change 1:

An annual operating permit fee is not required for a source specific operating agreement that is issued in accordance with 326 IAC 2-9-7(b). Therefore, Condition B.6(d) has been deleted as follows:

#### B.6 Source Specific Operating Agreement Program [326 IAC 2-9]

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~~(d) — The operating agreement will be subject to an annual operating permit fee of \$800 pursuant to 326 IAC 2-9-8(b)(3) (Crushed Stone Processing Plants).~~

**Change 2:**

The IDEM, OAQ address has been corrected in Condition B.10, as follows:

100 North Senate Avenue, P.O. Box 6045  
Indianapolis, Indiana 46204-2251

**Change 3:**

Upon further review, IDEM has decided to remove (d) concerning nonroad engines from B.11, Permit Revision. 40 CFR 89, Appendix A specifically indicates that states are not precluded from regulating the use and operation of nonroad engines, such as regulations on hours of usage, daily mass emission limits, or sulfur limits on fuel; nor are permits regulating such operations precluded, once the engine is no longer new.

**B.11** Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

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~~(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.~~

**Change 4:**

In response to many public comments and to better reflect the fugitive dust control plan submitted by the applicant, Condition C.6 has been revised. The site map is now included as Permit Attachment A. Changes to Condition C.6 are as follows:

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

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Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 6, 2005. **A map of the plant is included as Attachment A of this document.** The plan consists of **the following:**

- (a) ~~applying~~ **Applying** water to stockpiles and unpaved roads on an “as-needed” basis;
- (b) **Using wet processing in screening and sizing operations at all times when those processes are in operation;**
- (c) **Using water spray bars on sizing screens and secondary crushers at all times when those processes are in operation; and**
- (d) **Using water slurry for separating clay and silt from sand and gravel stone at all times when those processes are in operation.**

**In addition, prior to commencing operation, the Permittee shall pave the area from the scale house to the plant exit that truck traffic will use. After the plant commences operation, the Permittee shall clean this paved area using a sweeper or other means on an “as needed” basis to control dust.**

**Change 5:**

The following paragraph has been added to the cover page of the permit, Condition B.1 has been removed, and the remainder of Section B has been re-numbered accordingly:

**This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22**

**through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.**

**B.1 — Permit No Defense [IC 13]**

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

**Change 6:**

Because this is a new, proposed source, the following Condition has been added to the permit:

**B.4 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]**

**This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:**

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.**
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.**
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.**

**Change 7:**

Condition B.9, Annual Notification, has been updated as follows:

**B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

- (a) An Annual annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.**
- ~~(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.~~
- (e)(b) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 4 **January 30** of each year to:**

Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- ~~(d)~~(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

**Change 8:**

The requirements of Condition C.8, Performance Testing, have been clarified as follows:

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

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- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, 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 46204-2251

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 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 not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, 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.

Indiana Department of Environmental Management  
Office of Air Quality

Appendix A to the  
Addendum to the Technical Support Document

Aerial Photograph

Source Name: U.S. Aggregates, Inc. (Waverly Plant 2)  
Source Location: 7201 East Centenary Road, Mooresville, Indiana 46158  
County: Morgan  
Operation Permit No.: S 109-22328-05283  
SIC Code: 1442  
Permit Reviewer: CarrieAnn Paukowits



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

Technical Support Document (TSD) for a New Source Construction and  
Source Specific Operating Agreement (SSOA)

**Source Background and Description**

**Source Name:** U.S. Aggregates, Inc. (Waverly Plant 2)  
**Source Location:** 7201 East Centenary Road, Mooresville, Indiana 46158  
**County:** Morgan  
**SIC Code:** 1442  
**Operation Permit No.:** S 109-22328-05283  
**Permit Reviewer:** Michael S. Schaffer

The Office of Air Quality (OAQ) has reviewed an application from U.S. Aggregates, Inc. (Waverly Plant 2) relating to the construction and operation of a stationary sand and gravel processing plant.

**Emission Units and Pollution Control Equipment**

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

One (1) sand and gravel processing operation, capacity: 400 tons of wet sand and gravel per hour and consisting of the following:

- (a) One (1) grizzly hopper, identified as GH-1, capacity: 400 tons of wet sand and gravel per hour.
- (b) One (1) primary jaw crusher, identified as CR-1, capacity: 25 tons of wet sand and gravel per hour.
- (c) One (1) secondary crusher, identified as CR-2, capacity: 150 tons of wet sand and gravel per hour.
- (d) One (1) tertiary roll crusher, identified as CR-3, capacity: 50 tons of wet sand and gravel per hour.
- (e) One (1) conveyance system, consisting of fifteen (15) conveyors, identified as CO-1 through CO-15, capacity: 400 tons of wet sand and gravel per hour, total.
- (f) One (1) dry vibrating scalper screen, identified as SS-1, capacity: 400 tons of wet sand and gravel per hour.
- (g) One (1) descanding vibrating wash screen, identified as SS-2, capacity: 375 tons of wet sand and gravel per hour.
- (h) One (1) sizing wash screen, identified as SS-3, capacity: 150 tons of sand and gravel per hour.
- (i) Four (4) stockpiles, identified as SP-1 through SP-4, capacity: 25,000 tons of sand or gravel each.
- (j) One (1) stockpile, identified as SP-5, capacity: 1,000 tons of sand or gravel.
- (k) One (1) diesel fuel storage tank for mobile equipment, identified as T-1, storage capacity: 10,000 gallons.

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

There are no permitted facilities operating at this source during this review process.

## **Existing Approvals**

The source has no existing approvals.

## **Source Definition**

This U.S. Aggregates, Inc. owns two (2) sand and gravel processing plants, in Mooresville, Indiana:

(a) Waverly Plant 1 is located at 10351 N. Mann Road, Mooresville, Indiana 46158; and

(b) Waverly Plant 2 is located at 7201 East Centenary Road, Mooresville, Indiana 46158

The two (2) plants are not located on contiguous properties, are approximately three (3) miles apart, and there is no product transfer between the two (2) plants. Although the plants have the same SIC codes and are owned by one (1) company, they will be considered as two (2) separate sources.

A separate SSOA (S 109-22328-05283) will be issued to Waverly Plant 2. Waverly Plant 1 is currently operating under S 109-12086-00052, issued on April 14, 2000.

## **Enforcement Issue**

There are no enforcement actions pending.

## **Stack Summary**

There are no stacks associated with the emission units that comprise this source.

## **Recommendation**

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

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

An application for the purposes of this review was received on December 6, 2005.

## **Emission Calculations**

See Pages 1 through 4 of 4 in Appendix A of this document for detailed emission calculations.

Note: The calculations for the diesel storage tank, identified as T-1, that were submitted by the applicant have been verified and found to be accurate and correct. Based on source's Tanks v. 4.0 output, the potential to emit from the diesel storage tank is 0.004 tons of VOC per year.

**Potential to Emit of the Source Before Controls**

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.”

<b>Pollutant</b>	<b>Potential to Emit (tons/yr)</b>
PM	131
PM <sub>10</sub>	56.1
SO <sub>2</sub>	-
VOC	0.004
CO	-
NO <sub>x</sub>	-

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM<sub>10</sub> is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) **Fugitive Emissions**  
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) emissions are not counted toward determination of PSD and Emission Offset applicability. Note NSPS Subpart OOO was not effective until August 31, 1983.

**County Attainment Status**

The source is located in Morgan County.

<b>Pollutant</b>	<b>Status</b>
PM <sub>2.5</sub>	Nonattainment
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Morgan County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements of 326 IAC 2-3, Emission Offset. See the State Rule Applicability - Entire Source section of this document.
- (b) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Morgan County as nonattainment for PM<sub>2.5</sub>. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment 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 a surrogate for PM<sub>2.5</sub> emissions pursuant to the Nonattainment New Source Review requirements. See the State Rule Applicability for the source section.
- (c) Morgan County has been classified as attainment or unclassifiable in Indiana for PM<sub>10</sub>, SO<sub>2</sub>, CO, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.

### Source Status

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

Pollutant	Emissions (tons/yr)
PM	Less Than 25
PM <sub>10</sub>	Less Than 25
SO <sub>2</sub>	-
VOC	Less Than 100
CO	-
NO <sub>x</sub>	-
Single HAP	-
Combination HAPs	-

- (a) This new source is **not** a major stationary source because PM (excluding fugitives) will not emitted at a rate of 250 tons per year or greater. Therefore, pursuant to 326 IAC 2-2, the Prevention of Significant Deterioration (PSD) requirements do not apply.
- (b) This new source is **not** a major stationary source because PM<sub>10</sub> (excluding fugitives) which is a surrogate for PM<sub>2.5</sub>, will not emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- (c) The PM and PM<sub>10</sub> emissions (excluding fugitives) will be limited to less than twenty (25) tons per year by virtue of operating under a Specific Source Operating Agreement (SSOA) pursuant to 326 IAC 2-9-7(b)(2).

## Part 70 Permit Determination

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

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one-hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) the combination of HAPs is less than twenty-five (25) tons per year.

This is the first air approval issued to this source.

## Federal Rule Applicability

- (a) The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the aggregate nonmetallic mineral processing plant except when otherwise specified in 40 CFR 60 Subpart OOO.
- (b) The proposed sand and gravel processing plant is subject to the New Source Performance Standard 326 IAC 12, 40 CFR 60.670 through 60.676, Subpart OOO. This rule requires the particulate emissions from:
  - (1) the crushing operations to be limited to fifteen percent (15%) opacity or less, and
  - (2) the screening and conveying operations to be limited to ten percent (10%) or less.
- (c) The proposed diesel storage tank, identified as T-1, is not subject to the requirements of 326 IAC 12, 40 CFR 60, Subpart Kb because the tank has a storage capacity that is less than 75 cubic meters (19,812.9 gallons).
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.

## State Rule Applicability – Entire Source

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

By virtue of operating under a Specific Source Operating Permit (SSOA) pursuant to 326 IAC 2-9-7(b)(2), the potential to emit PM from the entire source excluding fugitive emissions will be less than two hundred fifty (250) tons per year. Since this new source is located in Morgan County and it is not one of the twenty-eight (28) source categories listed under 326 IAC 2-2, the requirements of 326 IAC 2-2, PSD are not applicable.

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

By virtue of operating under a Specific Source Operating Permit (SSOA) pursuant to 326 IAC 2-9-7(b)(2), the potential to emit PM<sub>10</sub> as surrogate for PM<sub>2.5</sub> from the entire source excluding fugitive emissions will be less one hundred (100) tons per year. Since this new source is located in Morgan County and it is not one of the twenty-eight (28) source categories listed under 326 IAC 2-3, the requirements of 326 IAC 2-3, Emission Offset are not applicable.

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

This new source will not be subject to the requirements of 326 IAC 2-6 (Emission Reporting), because it will be operating under a Specific Source Operating Agree pursuant to 326 IAC 2-9-7, which limits this source to under Part 70 thresholds.

### 326 IAC 2-6.1 (Minor Source Operating Permit (MSOP))

Pursuant to 326 IAC 2-9-1(b), a source issued a Source Specific Operating Agreement (SSOA) under 326 IAC 2-9 is not subject to the requirements of 326 IAC 2-6.1 unless otherwise required by federal, state, or local law. In accordance with 326 IAC 2-9-1, until the source is issued the operating agreement, this new source is subject to the Minor Source Operating Permit (MSOP) requirements because the unrestricted potential to emit (PTE) of at least one of the criteria pollutants is greater than or equal to twenty-five (25) tons per year, but less than one hundred (100) tons per year.

This new source has concurrently applied on December 6, 2005 for a Source Specific Operating Agreement (SSOA) under Option 2 of 326 IAC 2-9-7(b). Since this new source is not exempt from the construction permit requirements under 326 IAC 2-1.1-3, pursuant to 326 IAC 2-9-7(b)(2), construction permit requirements will be included in the issued SSOA for this source.

### 326 IAC 2-9-7 (Sand and Gravel Processing Plants)

The facilities and processes of this source shall be granted a Source Specific Operating Agreement (SSOA) under Option 2 of 326 IAC 2-9-7(b) provided that:

- (a) The sand and gravel operation shall have no more than nine (9) crushers, twenty (20) screens, and one (1) conveying operation.
- (b) The sand and gravel operation annual throughput shall be less than one million (1,000,000) tons per year.
- (c) This source does not emit particulate matter in excess of or equal to twenty-five (25) tons per year excluding fugitive emissions.
- (d) The Permittee shall keep annual throughput records of the sand and gravel operation at the site on a calendar year basis. These records shall be maintained for a minimum period of five (5) years, and made available upon request of the Office of Air Quality (OAQ).
- (e) Wet process or continuous wet suppression shall be used.
- (f) All equipment that generate particulate matter (PM) emissions and any associated control devices shall be operated and maintained at all times of plant operation, in such a manner, as to meet all of the requirements of this Source Specific Operating Agreement.
- (g) The visible emissions from the screening and conveying operation will not exceed an average of ten percent (10%) opacity in twenty-four (24) consecutive readings in a six (6) minute period. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.
- (h) The visible emissions from the crushing operation shall not exceed an average of fifteen percent (15%) opacity in twenty-four (24) consecutive readings in a six (6) minute period. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.

- (i) The fugitive particulate matter (PM) emissions of this source shall be controlled by applying water on all storage piles and unpaved roadways on an as needed basis, such that the following visible emission conditions are met:
- (1) The visible emissions from any storage pile shall not exceed twenty percent (20%) in twenty-four (24) consecutive readings in a six (6) minute period. This limitation shall not apply during periods when application of control measures are ineffective or unreasonable due to sustained high wind speeds. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.
  - (2) The visible emissions from unpaved roadways shall not exceed an average instantaneous opacity of twenty percent (20%). Average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
    - (A) The first reading shall be taken at the time of emission generation.
    - (B) The second reading shall be taken five (5) seconds after the first.
    - (C) The third reading shall be taken five (5) seconds after the second reading, or ten (10) seconds after the first reading.
  - (3) The three (3) readings will be taken approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.
- (j) The fugitive particulate emissions at the sand and gravel operation shall not escape beyond the property lines or boundaries of the source property, right of way, or easement on which the source is located pursuant to 326 IAC 6-4.
- (k) The Permittee shall provide an annual notice to the commissioner, stating that the source is in operation, and certifying that its operations are in compliance with the requirements of this Source Specific Operating Agreement. The annual notice shall be submitted to:
- Compliance Data Section  
Office of Air Quality  
100 North Senate Avenue  
Indianapolis, IN 46204-2251
- no later than January 30 of each year, with the annual notice being submitted in the format attached to the operating agreement.
- (l) Any exceedance of any requirement contained in this operating agreement shall be reported, in writing, within one (1) week of its occurrence. Said report shall include information on the actions taken to correct the exceedance, including measures to reduce emissions, in order to comply with the established limits. If an exceedance is the result of a malfunction, then the provisions of 326 IAC 1-6 apply.

- (m) Pursuant to 326 IAC 2-9-1(i), the Permittee is hereby notified that obtaining a SSOA under Option 2 of 326 IAC 2-9-7(b), does not relieve the Permittee of the responsibility to comply with the provisions of any applicable federal, state, or local rules, or any New Source Performance Standards (NSPS), 40 CFR Part 60, or National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61. In addition, the requirements of the rules will be included in this SSOA in order to satisfy all construction permit requirements.

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

The opacity limitations and requirements in 326 IAC 2-9-7 and 40 CFR 60 Subpart OOO will also satisfy the requirements of 326 IAC 5-1 (Opacity Limitations).

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

This rule requires that the source not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

#### 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations)

Pursuant to 326 IAC 6-5-1(b), a fugitive dust plan is required to be submitted since this source is a new source of fugitive particulate matter. The source submitted a plan on December 6, 2005. The plan consists of applying water to stockpiles and unpaved roads on an "as-needed" basis.

### **State Rule Applicability – Individual Facilities**

#### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2(e)(3) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from this sand and gravel processing plant may exceed the pound per hour limitation calculated by the following equation, provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per one thousand (1,000) pounds of gases:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

Pursuant to 326 IAC 8-4-3(a), the diesel storage tank, identified as T-1, is not subject to requirements of 326 IAC 8-4-3 because storage capacity of the tank is less than 39,000 gallons.

### **Testing Requirements**

Within 60 days of achieving maximum production or 180 days after initial start-up of the sand and gravel processing plant, whichever comes first, the Permittee shall perform opacity testing for each crusher, conveyor, and screen utilizing methods approved by the Commissioner.

This source will be required in the opacity tests to use the test methods and procedures listed in 40 CFR 60.675 in order to demonstrate compliance with 40 CFR 60, Subpart OOO and 326 IAC 2-9-7.

## **Conclusion**

The construction and operation of this sand and gravel processing plant shall be subject to the conditions of the New Source Construction and Specific Source Operating Permit 109-22328-05283.

**Appendix B: Annual Potential to Emit Calculations  
Sand Processing**

**Company Name:** U.S. Aggregates, Inc. (Waverly Plant 2)  
**Address City IN Zip:** 7201 East Centenary Road, Mooresville, IN 46158  
**Permit Number:** S 109-22328-05283  
**Plant ID:** 109-05283  
**Reviewer:** CarrieAnn Paukowitz  
**Application Date:** December 6, 2005

\*\* emissions before controls \*\*

		(PM)				
Storage					0.016 tons/yr	AP-42 Ch.11.2.3 (Fourth edition, no update)
Transporting					59.2 tons/yr	AP-42 Ch.13.2.2 (12/2003)
Loading & Unloading	1,000,000 ton/yr x	0.0040 lb/ton	/ 2000 lb/ton =		2.02 tons/yr	AP-42 Ch.13.2.4 (Fifth edition, 1/95) calculated
Crushing (primary)	1,000,000 ton/yr x	0.0007 lb/ton	/ 2000 lb/ton =		0.35 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Crushing (secondary)*	1,000,000 ton/yr x	0.00504 lb/ton	/ 2000 lb/ton =		2.52 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Crushing (tertiary)*	1,000,000 ton/yr x	0.00504 lb/ton	/ 2000 lb/ton =		2.52 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Screening*	1,000,000 ton/yr x	0.0315 lb/ton	/ 2000 lb/ton =		15.75 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Conveyor Transfer*	1,000,000 ton/yr x	0.00294 lb/ton	/ 2000 lb/ton =		1.47 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
<b>Total emissions before controls:</b>					<b>83.8 tons/yr</b>	

\*PM10 emission factors are calculated by dividing the PM emission factors by 2.1 (approximately 47.5% of the PM factors).

\*\* emissions after controls \*\*

		(PM)			
Storage	0.016 tons/yr x	10% emitted after controls =		0.002 tons/yr	
Transporting	59.2 tons/yr x	50% emitted after controls =		29.6 tons/yr	
Loading & Unloading	2.02 tons/yr x	100% emitted after controls =		2.02 tons/yr	
Crushing (primary)	0.350 tons/yr x	10% emitted after controls =		0.035 tons/yr	
Crushing (secondary)	2.52 tons/yr x	10% emitted after controls =		0.252 tons/yr	
Crushing (tertiary)	2.52 tons/yr x	10% emitted after controls =		0.252 tons/yr	
Screening	15.8 tons/yr x	10% emitted after controls =		1.58 tons/yr	
Conveying	1.5 tons/yr x	10% emitted after controls =		0.147 tons/yr	
<b>Total emissions after controls:</b>					<b>33.9 tons/yr</b>

\*\* emissions before controls \*\*

		(PM-10)				
Storage					0.007 tons/yr	AP-42 Ch.11.2.3 (Fourth edition, no update)
Transporting					18.1 tons/yr	AP-42 Ch.13.2.2 (12/2003)
Loading & Unloading	1,000,000 ton/hr x	0.0040 lb/ton	/ 2000 lb/ton =		2.02 tons/yr	AP-42 Ch.13.2.4 (Fifth edition, 1/95) calculated
Crushing (primary)	1,000,000 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton =		0.35 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Crushing (secondary)*	1,000,000 ton/hr x	0.0024 lb/ton	/ 2000 lb/ton =		1.20 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Crushing (tertiary)*	1,000,000 ton/hr x	0.0024 lb/ton	/ 2000 lb/ton =		1.20 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Screening*	1,000,000 ton/hr x	0.015 lb/ton	/ 2000 lb/ton =		7.50 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Conveyor Transfer*	1,000,000 ton/hr x	0.0014 lb/ton	/ 2000 lb/ton =		0.70 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
<b>Total emissions before controls:</b>					<b>31.1 tons/yr</b>	

\*PM emission factors are calculated by multiplying the PM emission factors by 2.1.

\*\* emissions after controls \*\*

		(PM-10)			
Storage	0.007 tons/yr x	10% emitted after controls =		0.0007 tons/yr	
Transporting	18.1 tons/yr x	50% emitted after controls =		9.06 tons/yr	
Loading & Unloading	2.02 tons/yr x	100% emitted after controls =		2.02 tons/yr	
Crushing (primary)	0.350 tons/yr x	10% emitted after controls =		0.035 tons/yr	
Crushing (secondary)	1.20 tons/yr x	10% emitted after controls =		0.120 tons/yr	
Crushing (tertiary)	1.20 tons/yr x	10% emitted after controls =		0.120 tons/yr	
Screening	7.5 tons/yr x	10% emitted after controls =		0.75 tons/yr	
Conveying	0.70 tons/yr x	10% emitted after controls =		0.070 tons/yr	
<b>Total emissions after controls:</b>					<b>12.2 tons/yr</b>

**\*\* fugitive vs. nonfugitive \*\***  
**(PM)**

Storage	0.016 tons/yr x	10% emitted after controls =	0.002 tons/yr
Transporting	59.19 tons/yr x	50% emitted after controls =	29.6 tons/yr
Loading / Unloading	2.02 tons/yr x	100% emitted after controls =	2.02 tons/yr
Total fugitive emissions:			31.6 tons/yr

Crushing (primary)	0.350 tons/yr x	10% emitted after controls =	0.035 tons/yr
Crushing (secondary)	2.52 tons/yr x	10% emitted after controls =	0.252 tons/yr
Crushing (tertiary)	2.52 tons/yr x	10% emitted after controls =	0.252 tons/yr
Screening	15.8 tons/yr x	10% emitted after controls =	1.58 tons/yr
Conveying:	1.47 tons/yr x	10% emitted after controls =	0.147 tons/yr
Total nonfugitive emissions:			2.26 tons/yr

**\*\* fugitive vs. nonfugitive \*\***  
**(PM-10)**

Storage	0.007 tons/yr x	10% emitted after controls =	0.001 tons/yr
Transporting	18.1 tons/yr x	50% emitted after controls =	9.06 tons/yr
Loading / Unloading	2.02 tons/yr x	100% emitted after controls =	2.02 tons/yr
Total fugitive emissions:			11.1 tons/yr

Crushing (primary)	0.350 tons/yr x	10% emitted after controls =	0.035 tons/yr
Crushing (secondary)	1.20 tons/yr x	10% emitted after controls =	0.120 tons/yr
Crushing (tertiary)	1.200 tons/yr x	10% emitted after controls =	0.120 tons/yr
Screening	7.5 tons/yr x	10% emitted after controls =	0.75 tons/yr
Conveying:	0.70 tons/yr x	10% emitted after controls =	0.070 tons/yr
Total nonfugitive emissions:			1.10 tons/yr

**\*\* storage \*\***

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$

$$= 7.72 \text{ lb/acre/day}$$

- where s = 4 % silt content of material
- p = 125 days of rain greater than or equal to 0.01 inches
- f = 25 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = E_f \cdot sc \cdot (1 \text{ cuft}/100 \text{ ton}) / (43560 \text{ sqft}/\text{acre}) / (25 \text{ ft}) \cdot (365 \text{ day}/\text{yr})$$

$$\text{PM} = 0.016 \text{ tons/yr} / 2.1 = 0.007 = \text{PM-10}$$

where sc = 600 tons storage capacity

**\*\* unpaved roads \*\***

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

$$\begin{aligned}
 & 20 \text{ trip/hr} \times \\
 & 0.1 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8760 \text{ hr/yr} = \qquad \qquad \qquad 35040 \text{ miles per year}
 \end{aligned}$$

**PM**

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.9}] \cdot [(W/3)^b] \\
 &= 5.14 \text{ lb/mile}
 \end{aligned}$$

where k = 4.9 (particle size multiplier for PM-30 or TSP) (k=1.5 for PM-10)  
 s = 4 mean % silt content of unpaved roads  
 b = 0.45 Constant for PM-10 and PM-30 or TSP  
 W = 30 tons average vehicle weight  
 M = 0.4 surface material moisture content, % (default is 0.2 for dry)

$$E = \frac{5.14 \text{ lb/mi} \times 35040 \text{ mi/yr}}{2000 \text{ lb/ton}} = 90.0 \text{ tons/yr}$$

Taking natural mitigation due to precipitation into consideration:

$$E_{ext} = E \cdot [(365-p)/365] = 59.2 \text{ tons/yr}$$

where p = 125 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

**PM-10**

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.9}] \cdot [(W/3)^b] \\
 &= 1.57 \text{ lb/mile}
 \end{aligned}$$

where k = 1.5 (particle size multiplier for PM) (k=4.9 for PM-30 or TSP)  
 s = 4 mean % silt content of unpaved roads  
 b = 0.45 Constant for PM-10 and PM-30 or TSP  
 W = 30 tons average vehicle weight  
 M = 0.4 surface material moisture content, % (default is 0.2 for dry)

$$E = \frac{1.57 \text{ lb/mi} \times 35040 \text{ mi/yr}}{2000 \text{ lb/ton}} = 27.6 \text{ tons/yr}$$

Taking natural mitigation due to precipitation into consideration:

$$E_{ext} = E \cdot [(365-p)/365] = 18.1 \text{ tons/yr}$$

where p = 125 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

The following calculations determine the amount of emissions created by truck loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 13.2.4 (Fifth edition, 1/95).

**PM**

$$E_f = k \cdot (0.0032) \cdot (U/5)^{1.3} / (M/2)^{1.4}$$
$$= 0.0040 \text{ lb/ton}$$

where k = 0.74 (particle size multiplier)  
U = 9.6 mile/hr mean wind speed  
M = 2.5 % material moisture content

**PM-10**

$$E_f = k \cdot (0.0032) \cdot (U/5)^{1.3} / (M/2)^{1.4}$$
$$= 0.0019 \text{ lb/ton}$$

where k = 0.35 (particle size multiplier)  
U = 9.6 mile/hr mean wind speed  
M = 2.5 % material moisture content