



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: December 6, 2006
RE: U S Gypsum Company / 089-23532-00333
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 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-7-3 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) 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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
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Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
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Mr. Ron Schenck
United States Gypsum Company
301 Riley Road
East Chicago, IN 46312

December 6, 2006

Re: **089-23532-00333**
First Minor Permit Modification to
Part 70 No.: **T 089-7532-00333**

Dear Mr. Schenck:

United States Gypsum Company was issued Part 70 Operating Permit **T 089-7532-00333** on July 6, 1999 for a gypsum wallboard and gypsum products manufacturing plant, located at 301 Riley Road, East Chicago, Indiana 46312. A letter requesting changes to this permit was received on August 3, 2006. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of a bag dump system for the joint treatment process, and a replacement pneumatic conveying vacuum control device for the wet mixing process, both found in Section D.5 of the Part 70 Operating Permit.

The changes in the Part 70 Operating Permit are documented in the Technical Support Document. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Patrick Brennan, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251, at 631-691-3395 ext. 21 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

PTB/MES
Attachments

cc: File - Lake County
Lake County Health Department
Northwest Regional Office
Air Compliance Section Inspector - Rick Massoels
Compliance Branch
Administrative and Development Section
Technical Support and Modeling - Michele Boner



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**PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY**

**United States Gypsum Company
301 Riley Road
East Chicago, Indiana 46312**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 089-7532-00333	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: July 6, 1999 Expiration Date: July 6, 2004

- 1st Significant Permit Modification No. 089-11767-00333 Issuance Date: November 13, 2002
- 2nd Significant Permit Modification No. 089-16805-00333 Issuance Date: March 14, 2003
- 3rd Significant Permit Modification No. 089-18554-00333 Issuance Date: May 12, 2004
- 1st Administrative Amendment No. 089-19720-00333 Issuance Date: September 3, 2004
- 2nd Administrative Amendment No. 089-19361-00333 Issuance Date: August 30, 2004
- 3rd Administrative Amendment No. 089-21947-00333 Issuance Date: November 17, 2005
- 4th Significant Permit Modification No. 089-19551-00333 Issuance Date: January 19, 2006
- 5th Significant Permit Modification No. 089-21728-00333 Issuance Date: March 3, 2006

First Minor Permit Modification No.: MPM 089-23532-00333	Sections Affected: A.1, A.2, B.13, D.5
Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: December 6, 2006

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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 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary gypsum wallboard and gypsum products manufacturing plant.

Responsible Official: Plant Manager
Source Address: 301 Riley Road, East Chicago, Indiana 46312
Mailing Address: 301 Riley Road, East Chicago, Indiana 46312
SIC Code: 3275
County Location: Lake
County Status: Nonattainment for PM_{2.5} and ozone under the 8-hr standard
Attainment area for all other criteria pollutants
Source Status: Part 70 Permit Program
Major Source under Emission Offset Rules and Nonattainment NSR

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

Raw material handling and storage, consisting of the following equipment:

- (a) One (1) pneumatic rail car unloading facility, with a maximum throughput of 24,000 pounds per hour, used for limestone, hydrocal, and mica, with particulate matter emissions controlled by each individual baghouse identified as JBH-11, JBH-12 and JBH-13, and exhausting through each respective stack identified as J-11, J-12 and J-13 respectively.
- (b) One (1) pneumatic truck unloading facility, with a maximum throughput of 22,000 pounds per hour, used for perlite, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.
- (c) One (1) limestone storage silo, with a maximum capacity of 330 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-11, and exhausting through one (1) stack, identified as J-11.
- (d) One (1) hydrocal storage silo, with a maximum capacity of 140 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-12, and exhausting through one (1) stack, identified as J-12.
- (e) One (1) mica storage silo, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-13, and exhausting through one (1) stack, identified as J-13.
- (f) One (1) perlite storage silo, with a maximum capacity of 250 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through

- (m) One (1) mixing screw conveyor, with a maximum throughput of 60 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (n) One (1) natural gas-fired gauging water heater, with a heat input capacity of 3.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-19.
- (o) One (1) wet mixer, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (p) One (1) wet zone kiln natural gas-fired burner, with a heat input capacity of 67 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (q) One (1) dry zone kiln natural gas-fired burner, with a heat input capacity of 67 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (r) One (1) wet end seal natural gas-fired burner, with a heat input capacity of 2.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (s) One (1) dry end seal natural gas-fired burner, with a heat input capacity of 2.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (t) One (1) wallboard drying kiln, with a maximum throughput of 78,000 square feet of wallboard per hour, and exhausting through one (1) main stack, identified as B-20.
- (u) One (1) end saw, with a maximum throughput of 78,000 square feet of wallboard per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.
- (v) One (1) waste reclaim shredder, with a maximum throughput of 50 tons per hour, with particulate matter controlled by two (2) baghouses, identified as WRBH-1 and WRBH-2, and exhausting through two (2) stacks, identified as WR-1 and WR-2, respectively.
- (w) One (1) existing cut-back saw, with particulate matter controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.

A joint treatment process, consisting of the following equipment:

- (a) A pneumatic conveying system from the bulk storage silos to the scale hoppers, with particulate matter emissions controlled by three (3) baghouses, identified as JBH-11, JBH-12 and JBH-13, and exhausting through three (3) stacks, identified as J-11, J-12 and J-13, respectively.
- (b) Four (4) scale hoppers, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (c) A ready-mix line, consisting of the following equipment:
 - (1) Two (2) holding hoppers, each with a maximum throughput of 5 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as JBH-1 and JBH-2, and each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.

- (2) One (1) dry additives conveying system, with a maximum throughput of 1,176 pounds per hour, with particulate matter controlled by one (1) baghouse, identified as JBH-3, and exhausting through one (1) stack, identified as J-3.
 - (3) Two (2) wet mixers, each with a maximum throughput of 7.25 tons per hour, with particulate matter emissions controlled by one (1) pneumatic conveying vacuum control, identified as JVH-20, and exhausting inside the building.
- (d) A dry joint compound line, consisting of the following equipment:
- (1) One (1) reclaim screw conveyor, with a maximum throughput of 1,184 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
 - (2) One (1) dry joint mixer, with a maximum throughput of 5,678 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
 - (3) One (1) packing machine, with a maximum throughput of 5,100 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-14, and exhausting inside the building through stack J-14.
- (e) A dry texture paint line, consisting of the following equipment:
- (1) One (1) dry additives conveying system, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JVH-8, and exhausting through one (1) stack, identified as J-8.
 - (2) One (1) reclaim screw conveyor, with maximum throughput of 502 pounds per hour, and a polystyrene screw conveyor, with a maximum capacity of 75 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
 - (3) One (1) dry texture paint mixer, with a maximum throughput of 4,650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
 - (4) One (1) packing machine, with a maximum throughput of 4,650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
 - (5) One (1) dry additive conveying system, with a maximum throughput of 400 pounds per hour, with particulate emissions controlled by one (1) vacuum receiver, identified as JVH-6, and exhausting through one (1) stack, identified as J-6.
- (f) A bag dump system serving the ready-mix, dry joint compound and dry texture paint lines, consisting of the following equipment:
- (1) One (1) bag and tote dispensing system, identified as BTD1, with a maximum throughput of 2,166 pounds of dry additives per hour, approved for construction in 2006, controlled by one (1) dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.

- (2) One (1) weighing and batching system, identified as WB1, with a maximum throughput of 2,166 pounds of dry additives per hour, approved for construction in 2006, controlled by two (2) dry cartridge filter dust collectors identified as JBH-18 and JBH-19, exhausting inside the building.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (c) One (1) landplaster baler, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (d) A polypropylene bag grinding process, consisting of the following equipment:
 - (1) A bag storage and conveying system, with two (2) bins and two (2) screw conveyors, with negligible emissions, and exhausting inside the building.
 - (2) Two (2) polypropylene bags grinding machines, each with a maximum throughput of 20 pounds per hour, with particulate matter emissions controlled by partial enclosure, and exhausted to the ground polypropylene bins.
 - (3) Three (3) ground polypropylene bins with screens, with a combined maximum capacity of 360 cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
 - (4) One (1) weigh feeder, with a maximum throughput of 47 pounds per hour, with particulate matter emissions uncontrolled, and exhausting inside the building.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

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

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ.

B.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

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

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

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

A joint treatment process, consisting of the following equipment:

- (a) A pneumatic conveying system from the bulk storage silos to the scale hoppers, with particulate matter emissions controlled by three (3) baghouses, identified as JBH-11, JBH-12 and JBH-13, and exhausting through three (3) stacks, identified as J-11, J-12 and J-13, respectively.
- (b) Four (4) scale hoppers, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (c) A ready-mix line, consisting of the following equipment:
 - (1) Two (2) holding hoppers, each with a maximum throughput of 5 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as JBH-1 and JBH-2, and each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
 - (2) One (1) dry additives conveying system, with a maximum throughput of 1,176 pounds per hour, with particulate matter controlled by one (1) baghouse, identified as JBH-3, and exhausting through one (1) stack, identified as J-3.
 - (3) Two (2) wet mixers, each with a maximum throughput of 7.25 tons per hour, with particulate matter emissions controlled by one (1) pneumatic conveying vacuum control, identified as JVH-20, and exhausting inside the building.
- (d) A dry joint compound line, consisting of the following equipment:
 - (1) One (1) reclaim screw conveyor, with a maximum throughput of 1,184 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
 - (2) One (1) dry joint mixer, with a maximum throughput of 5,678 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
 - (3) One (1) packing machine, with a maximum throughput of 5,100 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-14, and exhausting inside the building through stack J-14.
- (e) A dry texture paint line, consisting of the following equipment:
 - (1) One (1) dry additives conveying system, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JVH-8, and exhausting through one (1) stack, identified as J-8.
 - (2) One (1) reclaim screw conveyor, with maximum throughput of 502 pounds per hour, and a polystyrene screw conveyor, with a maximum capacity of 75 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.

Facility Description [326 IAC 2-7-5(15)]

A dry texture paint line, consisting of the following equipment (cont'd):

- (3) One (1) dry texture paint mixer, with a maximum throughput of 4,650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
 - (4) One (1) packing machine, with a maximum throughput of 4,650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
 - (5) One (1) dry additive conveying system, with a maximum throughput of 400 pounds per hour, with particulate emissions controlled by one (1) vacuum receiver, identified as JVH-6, and exhausting through one (1) stack, identified as J-6.
- (f) A bag dump system serving the ready-mix, dry joint compound and dry texture paint lines, consisting of the following equipment:
- (1) One (1) bag and tote dispensing system, identified as BTD1, with a maximum throughput of 2,166 pounds of dry additives per hour, approved for construction in 2006, controlled by one (1) dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.
 - (2) One (1) weighing and batching system, identified as WB1, with a maximum throughput of 2,166 pounds of dry additives per hour, approved for construction in 2006, controlled by two (2) dry cartridge filter dust collectors identified as JBH-18 and JBH-19, exhausting inside the building.

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Lake County PM₁₀ Emission Requirements [326 IAC 6.8-2-37]

Pursuant to 326 IAC 6.8-2-37 (Lake County PM₁₀ Emission Requirements), the PM₁₀ emissions from the dry treatment process facilities shall be limited as follows:

- (a) PM₁₀ emissions from the ready mix hoppers exhausting to stacks J-1, J-2 and J-3 shall each not exceed 0.017 pounds per ton and 0.100 pounds per hour.
- (b) PM₁₀ emissions from the dry texture paint mixer and packing machine exhausting to stack J-4 shall not exceed 0.020 grains per dry standard cubic foot and 0.190 pounds per hour.
- (c) PM₁₀ emissions from the dry texture paint conveying system exhausting to stack J-6 shall not exceed 0.010 grains per dry standard cubic foot and 0.030 pounds per hour.
- (d) PM₁₀ emissions from the dry joint mixing and conveying exhausting to stack J-7 shall not exceed 0.020 grains per dry standard cubic foot and 0.340 pounds per hour.
- (e) PM₁₀ emissions from the dry additives conveying system exhausting to stack J-8 shall not exceed 0.010 grains per dry standard cubic foot and 0.020 pounds per hour.

- (f) PM₁₀ emissions from each stack serving the pneumatic conveying system, stacks J-11, J-12 and J-13, shall not exceed 0.015 grains per dry standard cubic foot and 0.019 pounds per hour.

D.5.2 Particulate Matter Limitations For Lake County [326 IAC 6.8]

Pursuant to 326 IAC 6.8 (Particulate Matter Limitations for Lake County):

- (a) PM emissions from the packing machine exhausting to stack J-14, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (b) PM emissions from the bag and tote dispensing system, exhausting through a dry cartridge filter dust collector identified as JBH-17, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (c) PM emissions from the weighing and batching system, exhausting through dry cartridge filter dust collectors identified as JBH-18 and JBH-19, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (d) PM emissions from the two (2) wet mixers, exhausting through a pneumatic conveying vacuum control system identified as JVH-20, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.5.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee shall perform compliance testing for PM₁₀ from the ready mix hopper #1 exhausting to stack J-1 within 12 months after issuance of this permit. The tests shall be performed in accordance with Section C - Performance Testing.

D.5.5 Particulate Matter (PM)

- (a) Pursuant to OP 45-07-93-0516, OP 45-07-93-0517 and OP 45-07-93-0518, issued on December 19, 1989, the baghouses for PM control shall be in operation at all times when the associated facilities are in operation.
- (b) The dust collectors for PM control shall be in operation at all times when emission units BTD1 and WB1 are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.6 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts J-1, J-2, J-3, J-4, J-6, J-7, J-8, J-11, J-12, J-13 and J-14 shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.5.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the joint treatment processes, at least once per shift when the associated facilities are in operation when venting directly to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 0.5 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

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

D.5.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the joint treatment processes. All defective bags shall be replaced.

D.5.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

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

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.10 Record Keeping Requirements

- (a) To document compliance with Condition D.5.6, the Permittee shall maintain records of visible emission notations of the stack exhausts J-1, J-2, J-3, J-4, J-6, J-7, J-8, J-11, J-12, J-13 and J-14 once per shift.
- (b) To document compliance with Condition D.5.7, the Permittee shall maintain the following:
 - (1) Records of the following operational parameters taken once per shift during normal operation when venting directly to the atmosphere:

- (A) Inlet and outlet differential static pressure; and
- (B) Cleaning cycle: frequency and differential pressure.
- (2) Documentation of all response steps implemented, per event.
- (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
- (4) Quality Assurance/Quality Control (QA/QC) procedures.
- (5) Operator standard operating procedures (SOP).
- (6) Manufacturer's specifications or its equivalent.
- (7) Equipment "troubleshooting" contingency plan.
- (8) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.5.8, the Permittee shall maintain records of the results of the inspections required under Condition D.5.8.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: United States Gypsum Company
Source Address: 301 Riley Road, East Chicago, Indiana 46312
Mailing Address: 301 Riley Road, East Chicago, Indiana 46312
Part 70 Permit No.: T 089-7532-00333

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2	
<input checked="" type="radio"/>	1. This is an emergency as defined in 326 IAC 2-7-1(12) C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and C The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16
<input checked="" type="radio"/>	2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c) C The Permittee must submit notice in writing within ten (10) calendar days

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

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

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

Page 2 of 2

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

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70
Minor Source and Minor Permit Modification

Source Description and Location

Source Name:	United States Gypsum Company
Source Location:	301 Riley Road, East Chicago, Indiana 46312
County:	Lake
SIC Code:	3275
Operation Permit No.:	T 089-7532-00333
Operation Permit Issuance Date:	July 6, 1999
Minor Source Modification No.:	089-23461-00333
Minor Permit Modification No.:	089-23532-00333
Permit Reviewer:	Patrick Brennan/MES

Existing Approvals

The source was issued a Part 70 Operating Permit 089-7532-00333 on July 6, 1999. The source has since received the following approvals:

- (a) Significant Permit Modification No. 089-11767-00333 issued on November 13, 2002,
- (b) Significant Source Modification No. 089-16064-00333 issued on March 4, 2003,
- (c) Significant Permit Modification No. 089-16805-00333 issued on March 14, 2003,
- (d) Significant Source Modification No. 089-18553-00333 issued on April 27, 2004,
- (e) Significant Permit Modification No. 089-18554-00333 issued on May 12, 2004,
- (f) Administrative Amendment No. 089-19361-00333 issued on August 30, 2004,
- (g) Administrative Amendment No. 089-19720-00333 issued on September 3, 2004,
- (h) Minor Source Modification No. 089-19642-00333 issued on October 13, 2005,
- (i) Administrative Amendment No. 089-21947-00333 issued on November 17, 2005,
- (j) Significant Source Modification No. 089-21284-00333 issued on January 10, 2006,
- (k) Significant Permit Modification No. 089-19551-00333 issued on January 19, 2006, and
- (l) Significant Permit Modification No. 089-21728-00333 issued on March 3, 2006.

A Part 70 renewal application was submitted on August 13, 2003, and is under review.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM ₁₀	Attainment
PM _{2.5}	Nonattainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Moderate Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. VOC and NO_x emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been identified as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has identified Lake County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.
- (c) Lake County has been classified as attainment or unclassifiable in Indiana for PM₁₀, SO₂, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	66.8
PM ₁₀	70.3
SO ₂	0.939
VOC	9.37
CO	145
NO _x	124

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of two hundred and fifty (250) tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is a major stationary source, under Emission Offset (326 IAC 2-3), because a nonattainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more.
- (c) These emissions are based upon the limited potential to emit from the Part 70 Operating Permit for this source, T 089-7532-00333, issued on July 6, 1999, and subsequent emissions increases permitted under SSM 089-18553-00333, issued on April 27, 2004 and SSM 089-21284-00333, issued on January 10, 2006.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data for criteria pollutants and 2004 U.S. EPA Toxic Release Inventory (TRI) data for HAPs.

Pollutant	Actual Emissions (tons/year)
PM ₁₀	29.0
PM _{2.5}	12.0
SO ₂	0.0
VOC	3.0
CO	48.0
NO _x	58.0
HAP (lead)	0.038
HAP (mercury)	0.012

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by the United States Gypsum Company on August 3, 2006, relating to the reconfiguration of the bag dumps in the joint treatment process (Section D.5 of the Part 70 permit). The United States Gypsum Company was issued a Part 70 Operating Permit, T 089-7532-00333, on July 6, 1999.

The following is a list of the newly proposed emission units and pollution control devices:

A bag dump system serving the ready-mix, dry joint compound and dry texture paint lines, consisting of the following equipment:

- (1) One (1) bag and tote dispensing system, identified as BTD1, with a maximum throughput of 2,166 pounds of dry additives per hour, constructed in 2006, controlled by one (1) dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.
- (2) One (1) weighing and batching system, identified as WB1, with a maximum throughput of 2,166 pounds of dry additives per hour, constructed in 2006, controlled by two (2) dry cartridge filter dust collectors identified as JBH-18 and JBH-19, exhausting inside the building.

Note that while existing bag dumps will be removed from service, four (4) of the baghouses used to control them, JVH-1, JVH-2, JVH-3 and JVH-8, and their stacks, J-1, J-2, J-3 and J-8, will remain in service, either because they are shared with other processes or cannot be disconnected because they are part of an integrated system. Therefore, the emission limitations for these stacks required by 326 IAC 6-8 and 326 IAC 6.8-2-37 remain in the permit. The existing paint weigh station, and its associated baghouse identified as JVH-15, and the existing dry additives bag dump, and its associated baghouse identified as JBH-5, will be removed.

In addition, the applicant has proposed to install a replacement pneumatic conveying vacuum control device for the wet mixers. The modified emission unit is described as follows:

- (3) Two (2) wet mixers, each with a maximum throughput of 7.25 tons per hour, with particulate matter emissions controlled by one (1) pneumatic conveying vacuum control, identified as JVH-20, and exhausting inside the building.

Enforcement Issues

There are no pending enforcement actions.

Stack Summary

There are no new stacks associated with this modification. All processes exhaust inside the building.

Emission Calculations

See Appendix A of this document for the applicant supplied emissions calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission 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, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	6.64
PM ₁₀	6.64
SO ₂	-
VOC	-
CO	-
NO _x	-

This source modification is subject to 326 IAC 2-7-10.5 (d)(4)(A) because potential PM and PM₁₀ emissions are less than twenty-five (25) and greater than five (5) tons per year. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a minor permit modification pursuant to 326 IAC 2-7-12 (b)(1)(B), because the modification does not involve a significant change to existing monitoring, reporting of record keeping requirements in the Part 70 permit.

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 (source/permit) modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Bag Tote and Dispensing System BTD1	0.033	0.033	-	-	-	-	-
Weighing and Batching System WB1	0.033	0.033	-	-	-	-	-
Total for Modification	0.066	0.066	-	-	-	-	-
Significant Level	25	15	40	40	100	40	-

This modification to an existing major stationary source is not major because the emissions increase is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Lake County has been identified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM_{2.5} Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM_{2.5} major NSR regulations, states should assume that a major stationary source's PM₁₀ emissions represent PM_{2.5} emissions. IDEM will use the PM₁₀ nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM_{2.5} NAAQS. A significant emissions increase would be a net emissions increase or the potential of fifteen (15) tons per year or greater of PM₁₀.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

- (a) The one (1) bag tote and dispensing system BTD1 and the one (1) weighing and batching system WB1 are not subject to the requirements of the New Source Performance Standard for Nonmetallic Mineral Processing Plants, 40 CFR 60.670, Subpart OOO, because the processes do not involve crushing, grinding and screening operations, or conveying and storage operations associated with those activities.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this proposed modification.
- (c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) has a potential to emit before or after controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the applicability criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
BTD1	Cartridge Filter	N	3.32	0.033	100	N	N
WB1	Cartridge Filter	N	3.32	0.033	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)

Because the proposed modification is located in Lake County, 326 IAC 6.8 (Particulate Matter Limitations for Lake County) is applicable. Pursuant to 326 IAC 6.8-1-2(a), particulate emissions from the bag tote and dispensing system BTD1, exhausting from stack J-17, and the one (1) weighing and batching system WB1, exhausting from stacks J-18 and J-19, shall not exceed 0.03 grains per dry standard cubic foot (seven-hundredths (0.07) gram per dry standard cubic meter). The grain loading calculations shown on pages 1 and 2 of 2 of Appendix A to this document, verify that the bag tote and dispensing system BTD1, and the weighing and batching system WB1, can comply with this rule.

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

Pursuant to 326 IAC 6-3-1(c)(3), if a limit is established by 326 IAC 6-1, then the limitation established in 326 IAC 6-3 shall not apply. 326 IAC 6-1 has been replaced by 326 IAC 6.8, Particulate Matter Limitations for Lake County. Therefore, since the bag tote and dispensing system BTD1, and the weighing and batching system WB1 are subject to the requirements of 326 IAC 6.8-1-2(a), the requirements of 326 IAC 6-3-2 are not applicable.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance determination requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous

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

No compliance monitoring or stack testing are proposed for the bag tote and dispensing system BTD1 or the weighing and batching system WB1.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T 089-7532-00333. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

Change 1:

The following changes have been made to Section A.1 to update the Lake County attainment status:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary gypsum wallboard and gypsum products manufacturing plant.

Responsible Official:	Plant Manager
Source Address:	301 Riley Road, East Chicago, Indiana 46312
Mailing Address:	301 Riley Road, East Chicago, Indiana 46312
SIC Code:	3275
County Location:	Lake
County Status:	Nonattainment for PM _{2.5} SO₂ and ozone under 4-hr and the 8-hr standard standards
Source Status:	Attainment area for all other criteria pollutants Part 70 Permit Program Major Source, under PSD and Emission Offset Rules and Nonattainment NSR

Change 2:

The following changes have been made to Section A.2 due to this proposed modification:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

A joint treatment process, consisting of the following equipment:

- (a) A pneumatic conveying system from the bulk storage silos to the scale hoppers, with particulate matter emissions controlled by three (3) baghouses, identified as JBH-11, JBH-12 and JBH-13, and exhausting through three (3) stacks, identified as J-11, J-12 and J-13, respectively.
- (b) Four (4) scale hoppers, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (c) A ready-mix line, consisting of the following equipment:

- (1) Two (2) holding hoppers, each with a maximum throughput of 5 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as JBH-1 and JBH-2, and each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
 - ~~(2) One (1) dry additives bag dump, with a maximum throughput of 1176 pounds per hour, with particulate matter controlled by three (3) baghouses, identified as JBH-1, JBH-2 and JVH-3, and exhausting through three (3) stacks, identified as J-1, J-2 and J-3, respectively.~~
 - (2) (3) Two (2) wet mixers, each with a maximum throughput of 7.25 tons per hour, and exhausting inside the building. with particulate matter emissions controlled by one (1) pneumatic conveying vacuum control, identified as JVH-20, and exhausting inside the building.**
- (d) A dry joint compound line, consisting of the following equipment:
- ~~(1) One (1) dry additives bag dump, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JVH-8, and exhausting through one (1) stack, identified as J-8.~~
 - (1) (2) One (1) reclaim screw conveyor, with a maximum throughput of 1,184 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.**
 - (2) (3) One (1) dry joint mixer, with a maximum throughput of 5,678 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.**
 - (3) (4) One (1) packing machine, with a maximum throughput of 5,100 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-14, and exhausting inside the building through stack J-14.**
- (e) A dry texture paint line, consisting of the following equipment:
- ~~(1) One (1) dry additives bag dump, with a maximum throughput of 390 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-5, and exhausting through one (1) stack, identified as J-5.~~
 - (1) (2) One (1) reclaim screw conveyor, with maximum throughput of 502 pounds per hour, and a polystyrene screw conveyor, with a maximum capacity of 75 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.**
 - (2) (3) One (1) dry texture paint mixer, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.**
 - (3) (4) One (1) packing machine, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.**
 - ~~(5) One (1) dry paint weigh station, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through one (1) stack, identified as J-15 inside the building.~~

- (4) ~~(6)~~** One (1) dry additive conveying system, with a maximum throughput of 400 pounds per hour, with particulate emissions controlled by one (1) vacuum receiver, identified as JVH-6, and exhausting through one (1) stack, identified as J-6.

- (f) A bag dump system serving the ready-mix, dry joint compound and dry texture paint lines, consisting of the following equipment:**
 - (1) One (1) bag and tote dispensing system, identified as BTD1, with a maximum throughput of 2,166 pounds of dry additives per hour, constructed in 2006, controlled by one (1) dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.**

 - (2) One (1) weighing and batching system, identified as WB1, with a maximum throughput of 2,166 pounds of dry additives per hour, constructed in 2006, controlled by two (2) dry cartridge filter dust collectors identified as JBH-18 and JBH-19, exhausting inside the building.**

Change 3:

The following changes have been made to Section D.5 due to this proposed modification. Note that the pneumatic conveying system from the bulk storage silos is also listed in Section D.1. This operation utilizes stacks J-11, J-12 and J-13, which are limited by 326 IAC 6.8-2-37. The emission limitations from 326 IAC 6.8-2-37 are contained in Section D.1, but for completeness purposes they are also reiterated here in Condition D.5.1 (g).

Also note that while existing bag dumps (items (c)(2), (d)(1) and (e)(1)) will be removed from service, four (4) of the baghouses used to control them, JVH-1, JVH-2, JVH-3 and JVH-8, and their stacks, J-1, J-2, J-3 and J-8, will remain in service, either because they are shared with other processes or cannot be disconnected because they are part of an integrated system. Therefore, the emission limitations for these stacks required by 326 IAC 6-8 and 326 IAC 6.8-2-37 remain in the permit. The existing paint weigh station, and its associated baghouse identified as JVH-15, and the existing dry additives bag dump, and its associated baghouse identified as JBH-5, will be removed from service, and their associated emission limits and compliance monitoring requirements will be removed from the permit.

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

A joint treatment process, consisting of the following equipment:

- (a) A pneumatic conveying system from the bulk storage silos to the scale hoppers, with particulate matter emissions controlled by three (3) baghouses, identified as JBH-11, JBH-12 and JBH-13, and exhausting through three (3) stacks, identified as J-11, J-12 and J-13, respectively.
- (b) Four (4) scale hoppers, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (c) A ready-mix line, consisting of the following equipment:
 - (1) Two (2) holding hoppers, each with a maximum throughput of 5 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as JBH-1 and JBH-2, and each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
 - ~~(2) One (1) dry additives bag dump, with a maximum throughput of 1176 pounds per hour, with particulate matter controlled by three (3) baghouses, identified as JBH-1, JBH-2 and JVH-3, and exhausting through three (3) stacks, identified as J-1, J-2 and J-3, respectively.~~
 - (2) (3) Two (2) wet mixers, each with a maximum throughput of 7.25 tons per hour, and exhausting inside the building. with particulate matter emissions controlled by one (1) pneumatic conveying vacuum control, identified as JVH-20, and exhausting inside the building.**
- (d) A dry joint compound line, consisting of the following equipment:
 - ~~(1) One (1) dry additives bag dump, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JVH-8, and exhausting through one (1) stack, identified as J-8.~~
 - (1) (2) One (1) reclaim screw conveyor, with a maximum throughput of 1,184 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.**
 - (2) (3) One (1) dry joint mixer, with a maximum throughput of 5,678 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.**
 - (3) (4) One (1) packing machine, with a maximum throughput of 5,100 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-14, and exhausting inside the building through stack J-14.**
- (e) A dry texture paint line, consisting of the following equipment:
 - ~~(1) One (1) dry additives bag dump, with a maximum throughput of 390 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-5, and exhausting through one (1) stack, identified as J-5.~~
 - (1) (2) One (1) reclaim screw conveyor, with maximum throughput of 502 pounds per hour, and a**

	polystyrene screw conveyor, with a maximum capacity of 75 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
(2) (3)	One (1) dry texture paint mixer, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
(3) (4)	One (1) packing machine, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
(5)	One (1) dry paint weigh station, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through one (1) stack, identified as J-15 inside the building.
(4) (6)	One (1) dry additive conveying system, with a maximum throughput of 400 pounds per hour, with particulate emissions controlled by one (1) vacuum receiver, identified as JVH-6, and exhausting through one (1) stack, identified as J-6.
(f)	A bag dump system serving the ready-mix, dry joint compound and dry texture paint lines, consisting of the following equipment:
(1)	One (1) bag and tote dispensing system, identified as BTB1, with a maximum throughput of 2,166 pounds of dry additives per hour, constructed in 2006, controlled by one (1) dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.
(2)	One (1) weighing and batching system, identified as WB1, with a maximum throughput of 2,166 pounds of dry additives per hour, constructed in 2006, controlled by two (2) dry cartridge filter dust collectors identified as JBH-18 and JBH-19, exhausting inside the building.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)	

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Lake County PM₁₀ Emission Requirements [326 IAC 6.8-2-37 ~~6-4-10-4~~]

Pursuant to 326 IAC ~~6.8-2-37~~ 326 IAC ~~6-4-10-4~~ (Lake County PM₁₀ Emission Requirements), the PM₁₀ emissions from the dry treatment process facilities shall be limited as follows:

- (a) PM₁₀ emissions from the ready mix hoppers and bag dump exhausting to stacks J-1, J-2 and J-3 shall each not exceed 0.017 pounds per ton and 0.100 pounds per hour.
- (b) PM₁₀ emissions from the dry texture paint mixer and packing machine exhausting to stack J-4 shall not exceed 0.020 grains per dry standard cubic foot and 0.190 pounds per hour.
- ~~(c)~~ ~~PM₁₀ emissions from the dry texture paint bag dump exhausting to stack J-5 shall not exceed 0.010 grains per dry standard cubic foot and 0.100 pounds per hour.~~
- (c) ~~(d)~~ PM₁₀ emissions from the dry texture paint conveying exhausting to stack J-6 shall not exceed 0.010 grains per dry standard cubic foot and 0.030 pounds per hour.

- (d) ~~(e)~~ PM₁₀ emissions from the dry joint mixing and conveying exhausting to stack J-7 shall not exceed 0.020 grains per dry standard cubic foot and 0.340 pounds per hour.
- (e) ~~(f)~~ PM₁₀ emissions from the dry joint ~~process bag dump~~ exhausting to stack J-8 shall not exceed 0.010 grains per dry standard cubic foot and 0.020 pounds per hour.
- (f) **PM₁₀ emissions from each stack serving the pneumatic conveying system, stacks J-11, J-12 and J-13, shall not exceed 0.015 grains per dry standard cubic foot and 0.019 pounds per hour.**

D.5.2 ~~Nonattainment Area Particulate Matter~~ Limitations For Lake County [326 IAC 6.8 ~~6-1-2~~]

Pursuant to **326 IAC 6.8 (Particulate Matter Limitations for Lake County)** ~~326 IAC 6-1-2 (Nonattainment Area Particulate Matter Limitations):~~ the

- (a) PM emissions from the packing machine exhausting to stack J-14, ~~and the dry paint weigh station exhausting to stack J-15~~ shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (b) **PM emissions from the bag and tote dispensing system, exhausting through a dry cartridge filter dust collector identified as JBH-17, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).**
- (c) **PM emissions from the weighing and batching system, exhausting through dry cartridge filter dust collectors identified as JBH-18 and JBH-19, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).**
- (d) **PM emissions from the two (2) wet mixers, exhausting through a pneumatic conveying vacuum control system identified as JBH-20, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).**

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.5.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

- ~~(a)~~ The Permittee shall perform compliance testing for PM₁₀ from the ready mix hopper #1 exhausting to stack J-1 within 12 months after issuance of this permit. The tests shall be performed in accordance with Section C - Performance Testing.
- ~~(b)~~ ~~The Permittee is not required to test the ready mix hopper #2 or bag dump, the dry texture paint mixing, and packing bag dump or conveying, or the dry joint mixing and packing, or bag dump by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM and PM₁₀ limits specified in Conditions D.5.1 and D.5.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

D.5.5 Particulate Matter (PM)

- (a) Pursuant to OP 45-07-93-0516, OP 45-07-93-0517 and OP 45-07-93-0518, issued on December 19, 1989, the baghouses for PM control shall be in operation at all times when the associated facilities are in operation.
- (b) **The dust collectors for PM control shall be in operation at all times when emission units BTD1 and WB1 are in operation.**

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.6 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts J-1, J-2, J-3, J-4, ~~J-5~~, J-6, J-7, J-8, J-11, J-12, J-13 **and** J-14 ~~and J-15~~ shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.10 Record Keeping Requirements

- (a) To document compliance with Condition D.5.6, the Permittee shall maintain records of visible emission notations of the stack exhausts J-1, J-2, J-3, J-4, ~~J-5~~, J-6, J-7, J-8, J-11, J-12, J-13 **and** J-14 ~~and J-15~~ once per shift.

Change 3:

The phone and facsimile numbers for the OAQ, Compliance Section, have been updated in Condition B.13 and the Emergency Occurrence Report. This change is not related to the new construction, and will be shown only in the permit modification. The updates are as follows:

Telephone Number: 317-233-~~5674~~ **0178** (ask for Compliance Section)
Facsimile Number: 317-233-~~5967~~ **6865**

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 089-23461-00333 and Minor Permit Modification 089-23532-00333. The staff recommends to the Commissioner that the Part 70 Minor Source and Minor Permit Modifications be approved.

Appendix A: Applicant Supplied Emissions Calculations

Bag and Tote Dispensing System BT D1

Company Name: United States Gypsum Company
Address City IN Zip: 301 Riley Road, East Chicago, Indiana 46312
MSM Permit Number: 089-23461-00333
MPM Permit Number: 089-23532-00333
Reviewer: Patrick Brennan/MES
Application Date: August 3, 2006

Emission Factor equals 0.0035 lb per 1000 lbs processed with Fabric Filter Dust Collector													
PM10/PM = (Controlled)	<u>(2166 lb)</u> (hr)	X	<u>(0.0035 lb)</u> (1000 lb)	=	<u>(0.00758 lb)</u> (hr)	X	<u>(24 hr)</u> (day)	=	<u>(0.182 lb)</u> (day)	X <u>(365 day)</u> (yr)	X <u>(1 ton)</u> (2000 lb)	=	0.033 tons/yr
PM10/PM = (Uncontrolled)	<u>(0.00758 lb)</u> (hr)	X	<u>1.0</u> (100 - 99 % Ctrl)	=	<u>(0.7581 lb)</u> (hr)	X	<u>(24 hr)</u> (day)	=	<u>(18.19 lb)</u> (day)	X <u>(365 day)</u> (yr)	X <u>(1 ton)</u> (2000 lb)	=	3.32 tons/yr

326 IAC 6.8-1-2 Allowable																
<u>(0.03 gr)</u> (*scf)	X	<u>(2200 scf)</u> (min)	X	<u>(1 lb)</u> (7000 gr)	X	<u>(60 min)</u> (hr)	=	<u>(0.566 lb)</u> (hr)	X	<u>(24 hr)</u> (day)	=	<u>(13.58 lb)</u> (day)	X <u>(365 day)</u> (yr)	X <u>(1 ton)</u> (2000 lb)	=	2.48 tons/yr

* at ambient temps, dscf = scf

Calculated grain loading based on controlled PM/PM10 emissions														
<u>(0.033 tons)</u> (yr)	X	<u>(1 min)</u> (2200 scf)	X	<u>(7000 gr)</u> (1 lb)	X	<u>1 hr</u> (60 min)	X	<u>(1 day)</u> (24 hr)	X	<u>(1 yr)</u> (365 days)	X	<u>(2000 lb)</u> (1 ton)	=	0.0004 grains/dscf

The calculated grain loading of 0.0004 grains/dscf is less 0.03 grains/dscf.
 Pursuant to 326 IAC 6.8-1-2, the Bag Tote and Dispensing System BT D1 can comply with this rule.

Ready Mix Dry Additive Bag Dump Throughput =	1176	lb/hr
Dry Texture Paint Dry Additives Bag Dump Throughput =	390	lb/hr
Dry Additives Dry Joint Compound Bag Dump Throughput =	600	lb/hr
Total Dry Additives To Be Weighed / Batched =	2166	lb/hr

Dust Collector @ 99.0 % collection efficiency DC6 Dust Collector vents inside the building

*Emission Factor Taken From AP-42, Webfire SCC 30508985,
 Talc Final Product Storage Bin Loading due to Talc being representative of finest micron size processed

Appendix A: Applicant Supplied Emissions Calculations

Weighing and Batching System WB1

Company Name: United States Gypsum Company
 Address City IN Zip: 301 Riley Road, East Chicago, Indiana 46312
 MSM Permit Number: 089-23461-00333
 MPM Permit Number: 089-23532-00333
 Reviewer: Patrick Brennan/MES
 Application Date: August 3, 2006

Emission Factor equals 0.0035 lb per 1000 lbs processed with Fabric Filter Dust Collector															
PM10/PM = (Controlled)	<u>(2166 lb)</u> (hr)	X	<u>(0.0035 lb)</u> (1000 lb)	=	<u>(0.00758 lb)</u> (hr)	X	<u>(24 hr)</u> (day)	=	<u>(0.182 lb)</u> (day)	X	<u>(365 day)</u> (yr)	X	<u>(1 ton)</u> (2000 lb)	=	0.033 tons/yr
PM10/PM = (Uncontrolled)	<u>(0.00758 lb)</u> (hr)	X	<u>1.0</u> (100 - 99 % Ctrl)	=	<u>(0.7581 lb)</u> (hr)	X	<u>(24 hr)</u> (day)	=	<u>(18.19 lb)</u> (day)	X	<u>(365 day)</u> (yr)	X	<u>(1 ton)</u> (2000 lb)	=	3.32 tons/yr

326 IAC 6.8-1-2 Allowable																		
<u>(0.03 gr)</u> (*scf)	X	<u>(**900 scf)</u> (min)	X	<u>(1 lb)</u> (7000 gr)	X	<u>(60 min)</u> (hr)	=	<u>(0.231 lb)</u> (hr)	X	<u>(24 hr)</u> (day)	=	<u>(5.54 lb)</u> (day)	X	<u>(365 day)</u> (yr)	X	<u>(1 ton)</u> (2000 lb)	=	1.01 tons/yr

* at ambient temps, dscf = scf
 ** Two AR-10 dust collectors @ 450 cfm each

Calculated grain loading based on controlled PM/PM10 emissions														
<u>(0.033 tons)</u> (yr)	X	<u>(1 min)</u> (900 scf)	X	<u>(7000 gr)</u> (1 lb)	X	<u>1 hr)</u> (60 min)	X	<u>(1 day)</u> (24 hr)	X	<u>(1 yr)</u> (365 days)	X	<u>(2000 lb)</u> (1 ton)	=	0.001 grains/dscf

The calculated grain loading of 0.001 grains/dscf is less 0.03 grains/dscf.
 Pursuant to 326 IAC 6.8-1-2, the Weighing and Batching System WB1 can comply with this rule

Ready Mix Dry Additive Bag Dump Throughput =	1176	lb/hr
Dry Texture Paint Dry Additives Bag Dump Throughput =	390	lb/hr
Dry Additives Dry Joint Compound Bag Dump Throughput =	600	lb/hr
Total Dry Additives To Be Weighed / Batched =	2166	lb/hr

Dust Collector @ 99.0 % collection efficiency
 DC6 Dust Collector vents inside the building

*Emission Factor Taken From AP-42, Webfire SCC 30508985,
 Talc Final Product Storage Bin Loading due to Talc being representative of finest micron size processed