



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 12, 2009

RE: United States Gypsum Company / 089-17794-00333

FROM: Matthew Stuckey, Deputy Branch 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, 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 13-15-6-1(b) or IC 13-15-6-1(a) 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, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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 an initial Title V operating permit, permit renewal, 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 Protect Hoosiers and Our Environment.

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Indianapolis, Indiana 46204
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Part 70 Operating Permit Renewal 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.

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 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.

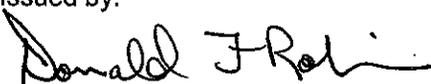
Operation Permit No.: 089-17794-00333	
Issued by:  Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: June 12, 2009 Expiration Date: June 12, 2014

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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)][326 IAC 2-7-1(22)]

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

Source Address:	301 Riley Road, East Chicago, IN 46312
Mailing Address:	301 Riley Road, East Chicago, IN 46312
General Source Phone Number:	(219)392-4664
SIC Code:	3275
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM _{2.5} standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD, Emission Offset and Nonattainment NSR Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, with a maximum capacity of 250 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.
- (g) One (1) enclosed rock shed, constructed in 1929, with a maximum capacity of 125,000 tons.
- (h) One (1) waste board material stockpile, permitted in 1988, identified as F-1, with particulate matter emissions exhausting directly to the atmosphere.

A landplaster production process, consisting of the following equipment:

- (a) One (1) dryer mill bin #1, constructed in 1988, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, exhausting and exhausting through one (1) stack, identified as M-8.
- (b) One (1) dryer mill bin #2, constructed in 1999, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, exhausting and exhausting through one (1) stack, identified as M-12.
- (c) One (1) dryer mill #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (d) One (1) natural gas-fired burner for the dryer mill #1, constructed in 1988, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-8.
- (e) One (1) screening station #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (f) One (1) dryer mill #2, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (g) One (1) natural gas-fired burner for the dryer mill #2, constructed in 1988, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-12.
- (h) One (1) mill HRA landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.
- (i) One (1) paper waste reclamation unit, constructed in 2007, with a maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

A stucco production process, consisting of the following equipment:

- (a) Two (2) kettle feed bins, known as kettle feed bin #1 and kettle feed bin #2, constructed in 1929, each with a maximum capacity of 60 tons, with particulate matter emissions

controlled by two (2) baghouses. Emissions from kettle feed bin #1 will be controlled by one (1) baghouse, known as MBH-25, and exhausting through one (1) stack, identified as M-25. Emissions from kettle feed bin #2 will be controlled by one (1) baghouse, known as MBH-27 and exhausting through one (1) stack, identified as M-27.

- (b) One (1) calcining kettle, known as calcining kettle #1A, constructed in 2006, with a maximum throughput of 11.5 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22A.
- (c) One (1) calcining kettle, known as calcining kettle #1B, constructed in 2007, with a maximum throughput of 12.0 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22B.
- (d) One (1) calcining kettle, known as calcining kettle #2, constructed in 1998, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (e) One (1) natural gas-fired burner for calcining kettle #1A, constructed in 2007, with a heat input capacity of 7.5 MMBtu per hour, and exhausting through one (1) stack, identified as M-22A.
- (f) One (1) natural gas-fired burner for calcining kettle #1B, constructed in 2006, with a heat input capacity of 7.5 million British thermal units per hour, and exhausting through one (1) stack, identified as M-22B.
- (g) Six (6) natural gas-fired burners for the calcining kettle #2, constructed in 1998, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-14.
- (h) One (1) kettle feed bin, known as kettle feed bin #3, constructed in 1929, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-28, and exhausting through one (1) stack, identified as M-28.
- (i) One (1) calcining kettle, known as calcining kettle #3, constructed in 1929, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) One (1) natural-gas fired burner for the calcining kettle #3, constructed in 1929, with a heat input capacity of 15 MMBtu per hour, and exhausting through one (1) stack, identified as M-6.
- (k) One (1) hot pit, known as hot pit #3, constructed in 1929, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-3, and exhausting through one (1) stack, identified as M-1.
- (l) Miscellaneous stucco handling equipment, constructed in 1998, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the stucco handling system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.

- (m) Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, constructed in 1929, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.
- (n) Stucco storage equipment, including one (1) #1 elevator and one (1) #27 screw, constructed in 1929, with a maximum capacity of seventy (70) tons per hour, and three (3) stucco storage bins, known as #4, #5 and #6, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-23, and exhausting through one (1) stack, identified as M-23.
- (o) One (1) stucco storage bin, constructed in 1999, with a maximum capacity of 50 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (p) A conveying system, constructed in 1988, consisting of belt and screw conveyors, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.

A gypsum wallboard manufacturing line, consisting of the following equipment:

- (a) One (1) stucco storage bin, constructed in 1999, with a maximum capacity of 1200 tons, with particulate matter controlled by one (1) bin vent, identified as BBH-11, and exhausting through one (1) stack, identified as B-11.
- (b) One (1) stucco surge bin with hopper, constructed in 1999, with a maximum capacity of 2 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (c) One (1) (HRA) landplaster feed bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter emissions controlled by one (1) bin vent, identified as BBH-12, and exhausting inside the building through one (1) stack, identified as B-12.
- (d) One (1) HRA mill additive bin (sugar), constructed in 1999, with a maximum capacity of 10 cubic feet, feeding the HRA ball mill, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (e) One (1) HRA ball mill, constructed in 1999, with a maximum throughput of 2400 pounds per hour, with particulate matter controlled by one (1) baghouse, identified as BBH-18, and exhausting inside the building through one (1) stack, identified as B-18.
- (f) One (1) HRA bin, constructed in 1999, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (g) One (1) additive refill bin (starch), constructed in 1999, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-16, and exhausting inside the building through one (1) stack, identified as B-16.
- (h) One (1) additive refill receiver (kaolinite), controlled by one (1) vacuum receiver, identified as BVH-17, constructed in 1999, and exhausting inside the building through one (1) stack, identified as B-17.

- (i) Two (2) additive bulk storage bins (starch and kaolinite), constructed in 1999, each with a maximum capacity of 75 tons, with particulate matter emissions controlled by two (2) separate baghouses, identified as BBH-14 (starch) and BBH-15 (kaolinite), and all exhausting to two (2) respective stacks, identified as B-14 and B-15.
- (j) One (1) additive surge bin (kaolinite), constructed in 1999, with a maximum capacity of 5 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-17, and exhausting through one (1) stack, identified as B-17.
- (k) One (1) glass fiber additive bin, constructed in 1999, with a maximum capacity of six (6) cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (l) One (1) paper fiber mill with cyclone separator, constructed in 1999, with a maximum throughput of 900 pounds 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.
- (m) One (1) mixing screw conveyor, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, with a maximum throughput of 90,000 square feet (1/2 inch equivalent) of wallboard per hour, and exhausting through one (1) main stack, identified as B-20.
- (u) One (1) end saw, constructed in 1999, with a maximum throughput of 90,000 square feet (1/2 inch equivalent) 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) wallboard shredder, constructed in 1999, 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 dunnage saw, constructed in 1999, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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 additive bag dump, constructed in 1977, 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.
 - (3) Two (2) wet mixers, constructed in 1997, each with a maximum throughput of 7.25 tons per hour, controlled by baghouses JBH-1 and JBH-2, each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
 - (4) One (1) Quick mixer, controlled by one (1) baghouse, identified as JVH-20.
 - (5) One (1) conveying system, controlled by one (1) baghouse, identified as JVH-3.
- (d) A dry joint compound line, consisting of the following equipment:
 - (1) One (1) dry joint additive bag dump, constructed in 1995, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-8, and exhausting through one (1) stack, identified as J-8.
 - (2) One (1) reclaim screw conveyor, constructed in 1995, 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.
 - (3) One (1) dry joint mixer, constructed in 1977, 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.
 - (4) One (1) packing machine, constructed in 1977, 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) reclaim screw conveyor, constructed in 1995, 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) One (1) dry texture paint mixer, constructed in 1977, 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) One (1) packing machine, constructed in 1977, 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.
 - (4) One (1) dry paint weigh station, constructed in 1977, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through one (1) stack, identified as J-15.
 - (5) One (1) dry additive conveying system, constructed in 1977, 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.
 - (6) One (1) additive bag dump, constructed in 1977, 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.
- (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, constructed in 2006, with a maximum throughput of 2,166 pounds of dry additives per hour, controlled by one dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.
 - (2) One (1) weighing and batching system identified as WB1, constructed in 2006, with a maximum throughput of 2,166 pounds of dry additives per hour, 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 has the following insignificant activities, as defined in 326 IAC 2-7-1(21).

- (a) Degreasing operation that does 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) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (e) 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).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

- (a) This permit, 089-17794-00333, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

B.5 Severability [326 IAC 2-7-5(5)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (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 PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 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.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a 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, and Northwest Regional Office 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
Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to 089-17794-00333 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.

- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) 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) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) 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 any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor 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.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

C.2 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

C.3 Fugitive Dust Emissions [326 IAC 6-4]

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

C.4 Fugitive Dust Emissions [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM10 emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on.

C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (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
MC 61-52 IGCN 1003
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 the "responsible official" 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 Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
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 "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 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.8 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on August 22, 2000.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (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 facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), the Permittee shall submit by July 1 an emission statement covering the previous calendar year as follows:
 - (1) starting in 2007 and every three (3) years thereafter, and
 - (2) any year not already required under (1) if the source emits volatile organic compounds or oxides of nitrogen into the ambient air at levels equal to or greater than twenty-five (25) tons during the previous calendar year.
- (b) The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The emission statement 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.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (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 within ninety (90) days of permit issuance or ninety (90) days of initial startup, whichever is later.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or

before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

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

- (a) One (1) pneumatic rail car unloading facility, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, with a maximum capacity of 250 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.
- (g) One (1) enclosed rock shed, constructed in 1929, with a maximum capacity of 125,000 tons.
- (h) One (1) waste board material stockpile, permitted in 1988, identified as F-1, with particulate matter emissions exhausting directly to the atmosphere.

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

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

D.1.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Limits (lbs/hr)
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.66
Hydrocal Railcar Pneumatic Conveying and Storage	0.66
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.66
Perlite Truck Pneumatic Conveying and Storage	0.22

Compliance with these limits in conjunction with the PSD minor limits for PM/PM10 in the other SECTION Ds shall render the requirements of 326 IAC 2-2, not applicable with respect to PM/PM10 emissions.

D.1.2 PM2.5 Nonattainment Major New Source Review (NSR) Minor Limits [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

Emission Units	PM2.5 Limits (lbs/hr)
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.24
Hydrocal Railcar Pneumatic Conveying and Storage	0.24
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.24
Perlite Truck Pneumatic Conveying and Storage	0.08

Compliance with these limits in conjunction with the nonattainment major New Source Review (NSR) minor limits for PM2.5 in the other SECTION Ds shall render the requirements of nonattainment major NSR, 326 IAC 2-1.1-5, not applicable with respect to PM2.5 emissions.

D.1.3 PM10 Emission Limitations for Lake County [326 IAC 6.8-2-37]

Pursuant to 326 IAC 6.8-2-37, the PM10 emissions from each stack J11, J12 and J13 serving the raw material conveying and storage shall be limited to 0.015 grain per dry standard cubic foot (gr/dscf) and 0.190 pound per hour (lb/hr).

D.1.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from pneumatic truck unloading and storage controlled by baghouse JBH-16 shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf).
- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), the opacity from baghouse JBH-16 associated with the pneumatic truck unloading and storage shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.1.5 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from one (1) pneumatic truck unloading facility and one (1) perlite storage silo exhausting to stack J-16 shall not exceed 0.03 gr/dscf.

D.1.6 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 this facility and any control devices.

Compliance Determination Requirements

D.1.7 Continuous Compliance Plan [326 IAC 6.8-8]

- (a) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant including the emissions units subject to 326 IAC 6.8-2-37 in accordance with the Continuous Compliance Plan (CCP). The Permittee shall submit the Continuous Compliance Plan (CCP) to IDEM within thirty (30) days of the issuance of this Part 70 Operating Permit Renewal 089-17794-00333 and maintain at the source a copy of this CCP. The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP to IDEM, OAQ, Compliance Branch within thirty (30) days of the update.
- (c) Pursuant to 326 IAC 6.8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit an update of the CCP is a violation of 326 IAC 6.8.

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

D.1.8 Visible Emissions Notations

- (a) Visible emission notations of the raw material handling and storage system baghouses stack exhaust (J11, J12, J13 and J16) shall be performed once per day during normal daylight raw material bin filling operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.1.9 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies

as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D.1.8, the Permittee shall maintain records of visible emission notations of the stack exhausts J11, J12, J13 and J16 once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

A landplaster production process, consisting of the following equipment:

- (a) One (1) dryer mill bin #1, constructed in 1988, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, exhausting and exhausting through one (1) stack, identified as M-8.
- (b) One (1) dryer mill bin #2, constructed in 1999, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, exhausting and exhausting through one (1) stack, identified as M-12.
- (c) One (1) dryer mill #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (d) One (1) natural gas-fired burner for the dryer mill #1, constructed in 1988, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-8.
- (e) One (1) screening station #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (f) One (1) dryer mill #2, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (g) One (1) natural gas-fired burner for the dryer mill #2, constructed in 1988, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-12.
- (h) One (1) mill HRA landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.
- (i) One (1) paper waste reclamation unit, constructed in 2007, with a maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

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

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

D.2.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Emission Limits (lbs/hr)
Dryer Mill #1 Process & screening station #1	9.61
Dryer Mill #2 Process	9.61
Mill HRA Landplaster bin	0.22
Paper Waste Reclamation	1.57

Compliance with these limits in conjunction with the PSD minor limits for PM/PM10 in the other SECTION Ds shall render the requirements of 326 IAC 2-2, not applicable with respect to PM/PM10 emissions.

D.2.2 PM2.5 Nonattainment Major New Source Review (NSR) Minor Limits [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

Emission Units	PM2.5 Emission Limits (lbs/hr)
Dryer Mill #1 Process & screening station #1	3.50
Dryer Mill #2 Process	3.50
Mill HRA Landplaster bin	0.08
Paper Waste Reclamation	0.57

Compliance with these limits in conjunction with the nonattainment major New Source Review (NSR) minor limits for PM2.5 in the other SECTION Ds shall render the requirements of nonattainment major NSR, 326 IAC 2-1.1-5, not applicable with respect to PM2.5 emissions.

D.2.3 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from each stack for the following emission units; dryer mill #1, exhausting to stack M-8, dryer mill #2, exhausting to stack M-12, one (1) mill HRA landplaster bin, exhausting to stack M-19 and one (1) paper waste reclamation unit, exhausting to stack WR-3 shall not exceed 0.03 gr/dscf.

D.2.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from dryer mill #1 process and screening station #1, controlled by baghouse MBH-8 and dryer mill #2 process controlled by baghouse MBH-12 each shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf).
- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), the opacity from baghouses MBH-8 and MBH-12 associated with the dryer mill #1 process and screening station #1 and dryer mill #2 process each shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.2.5 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 this facility and any control devices.

Compliance Determination Requirements

D.2.6 Particulate Control

The baghouses for particulate control shall be in operation at all times the dryer mill #1 process & screening station #1, dryer mill #2 process, mill HRA landplaster bin and paper waste reclamation system are in operation.

D.2.7 Continuous Compliance Plan [326 IAC 6.8-8]

- (a) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant including the emissions units subject to 326 IAC 6.8-2-37 in accordance with the Continuous Compliance Plan (CCP). The Permittee shall submit the Continuous Compliance Plan (CCP) to IDEM within thirty (30) days of the issuance of this Part 70 Operating Permit Renewal 089-17794-00333 and maintain at the source a copy of this CCP. The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy of any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP to IDEM, OAQ, Compliance Branch within thirty (30) days of the update.
- (c) Pursuant to 326 IAC 6.8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit an update of the CCP is a violation of 326 IAC 6.8.

D.2.8 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) No later than 180 days after the issuance of this Part 70 Operating Permit Renewal No. 089-17794-00333, in order to demonstrate compliance with Conditions D.2.1, D.2.3 and D.2.4 the Permittee shall perform PM testing on one (1) representative of the dryer mills (dryer mill #1 process & screening station #1, controlled by baghouse MBH-8 and dryer mill #2 process, controlled by baghouse MBH-12, utilizing methods as approved by the Commissioner.
- (b) In order to demonstrate compliance with Conditions D.2.2 and D.2.3, the Permittee shall perform PM 2.5 and PM10 testing on one (1) representative of the dryer mills (dryer mill #1 process & screening station #1, controlled by baghouse MBH-8 and dryer mill #2 process, controlled by baghouse MBH-12 within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner.

The PM, PM10 and PM2.5 testing shall be repeated once every five (5) years from the date of the most recent valid compliance demonstration. Testing of the dryer mills, shall be conducted such that every five years each of the dryer mills is alternately tested.

Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

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

D.2.9 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with dryer mill #1 process & screening station #1, dryer mill #2 process, mill HRA landplaster bin and paper waste reclamation system, at least once per day when the process is in operation. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.2.10 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the baghouses controlling the dryer mill #1 process & screening station #1, dryer mill #2 process, and paper waste reclamation:

(A) Monitoring Approach

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
I. Indicator	PM Concentration	Pressure Differential	Opacity	Bag Condition
Measurement Approach	U.S. EPA Method 5, for PM, U.S. EPA Methods 201 A, for PM10 filterable and 202, for PM10 condensable or other Methods approved by the Commissioner – for each baghouse	Monitor pressure differential across the baghouses once per day	Method 9 visual observations during stack test. Daily visible emission notations.	Visual inspection.
II. Indicator Range	Baghouses PM and PM10 emission limits in grain/dscf and pounds per hour	Baghouses pressure drop ranges	An excursion is defined as an opacity measurement exceeding 10% on a 6-minute average. Normal or abnormal.	An excursion is defined as failure to perform the quarterly inspection.
III. Performance Criteria				
A. Data Representativeness	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Procedures addressed in Method 9 Daily visible emission notations.	Baghouse inspected visually for bag leaks.
B. Verification of Operational Status	Fans amps and damper position.	Fans amps and damper position.	NA	NA
C. QA/QC Practices and Criteria	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Use of a certified visible emission observer.	Trained personnel perform inspections and maintenance.
D. Monitoring Frequency	Once every 5 years.	Once per day pressure drop reading	Once every 5 years for Method 9 Once daily for visible emission notations (when the emission	Quarterly

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
			unit is operating).	
IV. Data Collection Procedures	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Daily visible emissions notations are recorded on V.E. Form.	Results of inspections and maintenance activities performed are recorded in baghouse maintenance log.
Averaging Period	Average of 3 test runs each 1 hour long	Average of 3 test runs each 1 hour long	Six-minute average during stack test	NA
E. Record Keeping	Maintain for a period of 5 years the results of the tests	Maintain for a period of 5 years the pressure drop readings	Maintain for a period of 5 years the daily visible emissions notations	Maintain for a period of 5 years the results of the baghouses inspections and maintenance
F. Reporting	-	Number, duration, cause of any excursions or exceedances and the corrective actions taken	Number, duration, cause of any excursions or exceedances and the corrective actions taken	-
Frequency	-	Quarterly	Quarterly	-

D.2.11 Visible Emissions Notations

- (a) Visible emission notations of the dryer mill #1 process & screening station #1, dryer mill #2 process, mill HRA landplaster bin and paper waste reclamation system baghouses stack exhaust (M-8, M-12, M-19 and WR-3) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.2.12 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies

as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.2.13 Record Keeping Requirement

- (a) To document compliance with Condition D.2.11, the Permittee shall maintain records of visible emission notations of the stack exhausts M-8, M-12, M-19 and WR-3 once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.2.9, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.2.10, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the baghouses controlling the dryer mill #1 process & screening station #1, dryer mill #2 process and paper waste reclamation (if any are required).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

A stucco production process, consisting of the following equipment:

- (a) Two (2) kettle feed bins, known as kettle feed bin #1 and kettle feed bin #2, constructed in 1929, each with a maximum capacity of 60 tons, with particulate matter emissions controlled by two (2) baghouses. Emissions from kettle feed bin #1 will be controlled by one (1) baghouse, known as MBH-25, and exhausting through one (1) stack, identified as M-25. Emissions from kettle feed bin #2 will be controlled by one (1) baghouse, known as MBH-27 and exhausting through one (1) stack, identified as M-27.
- (b) One (1) calcining kettle, known as calcining kettle #1A, constructed in 2007, with a maximum throughput of 11.5 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22A.
- (c) One (1) calcining kettle, known as calcining kettle #1B, constructed in 2006, with a maximum throughput of 12.0 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22B.
- (d) One (1) calcining kettle, known as calcining kettle #2, constructed in 1998, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (e) One (1) natural gas-fired burner for calcining kettle #1A, constructed in 2006, with a heat input capacity of 7.5 MMBtu per hour, and exhausting through one (1) stack, identified as M-22A.
- (f) One (1) natural gas-fired burner for calcining kettle #1B, constructed in 2007, with a heat input capacity of 7.5 million British thermal units per hour, and exhausting through one (1) stack, identified as M-22B.
- (g) Six (6) natural gas-fired burners for the calcining kettle #2, constructed in 1998, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-14.
- (h) One (1) kettle feed bin, known as kettle feed bin #3, constructed in 1929, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-28, and exhausting through one (1) stack, identified as M-28.
- (i) One (1) calcining kettle, known as calcining kettle #3, constructed in 1929, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) One (1) natural-gas fired burner for the calcining kettle #3, constructed in 1929, with a heat input capacity of 15 MMBtu per hour, and exhausting through one (1) stack, identified as M-6.
- (k) One (1) hot pit, known as hot pit #3, constructed in 1929, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-3, and exhausting through one (1) stack, identified as M-1.
- (l) Miscellaneous stucco handling equipment, constructed in 1998, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the

	stucco handling system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
(m)	Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, constructed in 1929, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.
(n)	Stucco storage equipment, including one (1) #1 elevator and one (1) #27 screw, constructed in 1929, with a maximum capacity of seventy (70) tons per hour, and three (3) stucco storage bins, known as #4, #5 and #6, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-23, and exhausting through one (1) stack, identified as M-23.
(o)	One (1) stucco storage bin, constructed in 1999, with a maximum capacity of 50 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
(p)	A conveying system, constructed in 1988, consisting of belt and screw conveyors, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)	

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

D.3.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Emission Limits
Kettle feed bin #1	0.22
Kettle feed bin #2	1.31
Kettle feed bin #3	1.31
Calcining kettle #1A & #1B	0.88
Calcining kettle #2	2.62
Calcining kettle #3	3.93
Kettle #3 Hot pit	1.31
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.65
Stucco Handling #17 & #17A screw conveyors, belt conveyors & stucco storage bin	2.92
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	1.44

Compliance with these limits in conjunction with the PSD minor limits for PM/PM10 in the other SECTION Ds shall render the requirements of 326 IAC 2-2, not applicable with respect to PM/PM10 emissions.

D.3.2 PM2.5 Nonattainment Major New Source Review (NSR) Minor Limits [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

Emission Units	PM2.5 Emission Limits (lb/hr)
Kettle feed bin #1	0.08
Kettle feed bin #2	0.48
Kettle feed bin #3	0.48
Calcining kettle #1A & #1B	0.32
Calcining kettle #2	0.95
Calcining kettle #3	1.43
Kettle #3 Hot pit	0.48
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.24
Stucco Handling-#17 & #17A screw conveyors, belt conveyors & stucco storage bin	1.07
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	0.53

Compliance with these limits in conjunction with the nonattainment major New Source Review (NSR) limits for PM2.5 in the other SECTION Ds shall render the requirements of nonattainment major NSR, 326 IAC 2-1.1-5, not applicable with respect to PM2.5 emissions.

D.3.3 PM10 Emission Limitations for Lake County [326 IAC 6.8-2-37]

Pursuant to 326 IAC 6.8-2-37,

- (a) the PM10 emissions from stack M-1 serving baghouse MBH-1 controlling calcining kettle #3 and baghouse MBH-3 controlling hot pit #3 shall be limited to 0.012 grain per dry standard cubic foot (gr/dscf) and 3.210 pounds per hour (lb/hr).
- (b) the PM10 emissions from stack M-2 serving baghouse MBH-2 controlling one (1) stucco storage bin and conveying system shall be limited to 0.015 grain per dry standard cubic foot (gr/dscf) and 2.210 pounds per hour (lb/hr).

D.3.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the following material processing facilities shall each not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf):

Material Processing Facility	Control ID
Kettle feed bin #1	Baghouse MBH-25 (stack M-25)
Kettle feed bin #2	Baghouse MBH-27 (stack M-27)
Calcining kettles #1A and #1B	Baghouse MBH-22 (stack M-22A and stack M-22B respectively)
Calcining kettle #2	Baghouse MBH-16 (stack M-16)
Kettle feed bin #3	Baghouse MBH-28 (stack M-28)
Stucco storage equipment (#49 screw, #47 screw and three stucco storage bins, #1, #2 and #3),	Baghouse MBH-24 (stack M-23)

Material Processing Facility	Control ID
Stucco storage equipment (#1 elevator, #27 screw, and three (3) stucco storage bins, as #4, #5 and #6)	Baghouse MBH-23 (stack M-23)

- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), opacity from each of the control devices controlling the above material processing facilities shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.3.5 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from each stack for the following emission units; kettle feed bin #1, exhausting to stack M-25, kettle feed bin #2, exhausting to stack M-27, calcining kettles #1A and #1B, exhausting to stack M-22A, calcining kettle #2, exhausting to stack M-16 and kettle feed bin #3, exhausting to stack M-28 shall not exceed 0.03 gr/dscf.

D.3.6 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.3.7 Particulate Control

The baghouses for particulate control shall be in operation at all times the emission units involved in the stucco production are in operation.

D.3.8 Continuous Compliance Plan [326 IAC 6.8-8]

- (a) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant including the emissions units subject to 326 IAC 6.8-2-37 in accordance with the Continuous Compliance Plan (CCP). The Permittee shall submit the Continuous Compliance Plan (CCP) to IDEM within thirty (30) days of the issuance of this Part 70 Operating Permit Renewal 089-17794-00333 and maintain at the source a copy of this CCP. The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy of any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP to IDEM, OAQ, Compliance Branch within thirty (30) days of the update.
- (c) Pursuant to 326 IAC 6.8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit an update of the CCP is a violation of 326 IAC 6.8.

D.3.9 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) In order to demonstrate compliance with Conditions D.3.1 and D.3.5, the Permittee shall perform PM testing as follows on the emission units utilizing methods as approved by the Commissioner:
- (1) One (1) representative of the calcining kettles (calcining kettle #1A and #1B controlled by one baghouse MBH-22, calcining kettle #2 controlled by baghouse MBH-16 and calcining kettle #3 controlled by baghouse MBH-1) - Five (5) years from the most recent demonstration of compliance done on November 5, 2004 for the calcining kettle #1B.

- (b) In order to demonstrate compliance with Conditions D.3.1, D.3.2, D.3.3 and D.3.4, the Permittee shall perform PM 2.5 and PM10 testing within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted for the following emission units utilizing methods as approved by the Commissioner:
- (1) One (1) representative of the calcining kettles (calcining kettle #1A and #1B controlled by one baghouse MBH-22, calcining kettle #2 controlled by baghouse MBH-16 and calcining kettle #3 controlled by baghouse MBH-1).

The PM, PM10 and PM2.5 testing shall be repeated once every five (5) years from the date of the most recent valid compliance demonstration. Testing of the calcining kettles shall be conducted such that every five years each of these kettle feed bins and calcining kettles is alternately tested. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

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

D.3.10 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with kettle feed bins #2, #3, calcining kettles #1A, #1B, #2, #3, kettle 3 hot pit, stucco handling-#17 & #17A screw conveyors, belt conveyors & stucco storage bin, elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6, at least once per day when the process is in operation. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.3.11 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the baghouses controlling the kettle feed bin #2, kettle feed bin #3, calcining kettle #1A & #1B, calcining kettle #2, calcining kettle #3, kettle #3 hot pit, belt and screw conveying system, stucco screw conveyor #17 & 17A and stucco storage bin:

(A) Monitoring Approach

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
II. Indicator	PM Concentration	Pressure Differential	Opacity	Bag Condition
Measurement Approach	U.S. EPA Method 5, for PM, U.S. EPA Methods 201 A, for PM10 filterable and 202, for PM10 condensable or other Methods approved by the Commissioner – for each baghouse	Monitor pressure differential across the baghouses once per day	Method 9 visual observations during stack test. Daily visible emission notations.	Visual inspection.
II. Indicator Range	Baghouses PM and PM10 emission limits in grain/dscf and pounds per hour	Baghouses pressure drop ranges	An excursion is defined as an opacity measurement exceeding 10% on a 6-minute average. Normal or abnormal.	An excursion is defined as failure to perform the quarterly inspection.
III. Performance Criteria				
A. Data Representativeness	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Procedures addressed in Method 9 Daily visible emission notations.	Baghouse inspected visually for bag leaks.
B. Verification of Operational Status	Fans amps and damper position.	Fans amps and damper position.	NA	NA
C. QA/QC Practices and Criteria	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Use of a certified visible emission observer.	Trained personnel perform inspections and maintenance.
D. Monitoring Frequency	Once every 5 years.	Once per day pressure drop reading	Once every 5 years for Method 9 Once daily for visible emission notations (when the emission unit is operating).	Quarterly
IV. Data Collection Procedures	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Daily visible emissions notations are recorded on V.E. Form.	Results of inspections and maintenance activities performed are recorded in baghouse maintenance log.
Averaging Period	Average of 3 test runs each 1 hour long	Average of 3 test runs each 1 hour long	Six-minute average during stack test	NA
E. Record Keeping	Maintain for a period of 5 years the results of the tests	Maintain for a period of 5 years the pressure drop readings	Maintain for a period of 5 years the daily visible emissions notations	Maintain for a period of 5 years the results of the baghouses inspections and maintenance
F. Reporting	-	Number, duration, cause of any excursions or exceedances and the corrective actions taken	Number, duration, cause of any excursions or exceedances and the corrective actions taken	-
Frequency	-	Quarterly	Quarterly	-

D.3.12 Visible Emissions Notations

- (a) Visible emission notations of the kettle feed bins #2, #3, calcining kettles #1A, #1B, #2, #3, kettle 3 hot pit, stucco surge bin loading and conveying, elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6 baghouses stack exhaust (M-27, M-28, M-22A, M-22B, M-16, M-1, M-2 and M-23) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.3.13 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.3.14 Record Keeping Requirement

- (a) To document compliance with Condition D.3.12, the Permittee shall maintain records of visible emission notations of the stack exhausts (M-27, M-28, M-22A, M-22B, M-16, M-1, M-2 and M-23) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.3.10, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).

- (c) To document compliance with Condition D.3.11, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the baghouses controlling the kettle feed bin #2, kettle feed bin #3, calcining kettle #1A & #1B, calcining kettle #2, calcining kettle #3, kettle #3 hot pit, stucco handling-#17 & #17A screw conveyors, belt conveyors & stucco storage bin (if any are required).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

A gypsum wallboard manufacturing line, consisting of the following equipment:

- (a) One (1) stucco storage bin, constructed in 1999, with a maximum capacity of 1200 tons, with particulate matter controlled by one (1) bin vent, identified as BBH-11, and exhausting through one (1) stack, identified as B-11.
- (b) One (1) stucco surge bin with hopper, constructed in 1999, with a maximum capacity of 2 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (c) One (1) (HRA) landplaster feed bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter emissions controlled by one (1) bin vent, identified as BBH-12, and exhausting inside the building through one (1) stack, identified as B-12.
- (d) One (1) HRA mill additive bin (sugar), constructed in 1999, with a maximum capacity of 10 cubic feet, feeding the HRA ball mill, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (e) One (1) HRA ball mill, constructed in 1999, with a maximum throughput of 2400 pounds per hour, with particulate matter controlled by one (1) baghouse, identified as BBH-18, and exhausting inside the building through one (1) stack, identified as B-18.
- (f) One (1) HRA bin, constructed in 1999, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (g) One (1) additive refill bin (starch), constructed in 1999, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-16, and exhausting inside the building through one (1) stack, identified as B-16.
- (h) One (1) additive refill receiver (kaolinite), controlled by one (1) vacuum receiver, identified as BVH-17, constructed in 1999, and exhausting inside the building through one (1) stack, identified as B-17.
- (i) Two (2) additive bulk storage bins (starch and kaolinite), constructed in 1999, each with a maximum capacity of 75 tons, with particulate matter emissions controlled by two (2) separate baghouses, identified as BBH-14 (starch) and BBH-15 (kaolinite), and all exhausting to two (2) respective stacks, identified as B-14 and B-15.
- (j) One (1) additive surge bin (kaolinite), constructed in 1999, with a maximum capacity of 5 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-17, and exhausting through one (1) stack, identified as B-17.
- (k) One (1) glass fiber additive bin, constructed in 1999, with a maximum capacity of six (6) cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (l) One (1) paper fiber mill with cyclone separator, constructed in 1999, with a maximum throughput of 900 pounds 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.
- (m) One (1) mixing screw conveyor, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, with a maximum throughput of 90,000 square feet (1/2 inch equivalent) of wallboard per hour, and exhausting through one (1) main stack, identified as B-20.
 - (u) One (1) end saw, constructed in 1999, with a maximum throughput of 90,000 square feet (1/2 inch equivalent) 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) wallboard shredder, constructed in 1999, 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 dunnage saw, constructed in 1999, with particulate matter controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.
- (The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

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

D.4.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Emission Limits
Stucco storage bin	0.12
Landplaster feed bin	0.23
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	1.86
Starch Bulk Storage Bin	0.23
Clay (kaolinite) bin	0.19
Starch refill bin	0.14

Emission Units	PM/PM10 Emission Limits
Clay (kaolinite) feed bin & spare feeder	0.14
HRA ball mill, elevator, feed screw & sugar additive bin	0.29
End Saw & dunnage saw	4.20
Wallboard shredder	1.74

Compliance with these limits in conjunction with the PSD minor limits for PM/PM10 in the other SECTION Ds shall render the requirements of 326 IAC 2-2, not applicable with respect to PM/PM10 emissions.

D.4.2 PM2.5 Nonattainment Major New Source Review (NSR) Minor Limits [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

Emission Units	PM2.5 Emission Limits (lb/hr)
Stucco storage bin	0.04
Landplaster feed bin	0.08
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	0.69
Starch Bulk Storage Bin	0.08
Clay (kaolinite) bin	0.07
Starch refill bin	0.05
Clay (kaolinite) feed bin & spare feeder	0.05
HRA ball mill, elevator, feed screw & sugar additive bin	0.11
End Saw & dunnage saw	1.53
Wallboard shredder	0.64

Compliance with these limits in conjunction with the nonattainment major New Source Review (NSR) minor limits for PM2.5 in the other SECTION Ds shall render the requirements of nonattainment major NSR, 326 IAC 2-1.1-5, not applicable with respect to PM2.5 emissions.

D.4.3 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from each stack for the following emission units; one (1) stucco surge bin with hopper, exhausting through stack B-13, one (1) HRA ball mill exhausting inside the building through stack, B-18, one (1) additive refill bin (starch), controlled by one (1) baghouse, identified as BBH-16, and exhausting inside the building through stack B-16, two (2) additive bulk storage bins (starch and kaolinite), exhausting to two (2) respective stacks B-14 and B-15; one (1) additive surge bin (kaolinite), one (1) paper fiber mill, one (1) mixing screw conveyor and one (1) wet mixer, with particulate matter controlled by one (1) baghouse, exhausting through stack B-13, one (1) end saw, one cut-back saw, exhausting through stack B-25 one (1) waste reclaim shredder, exhausting through two (2) stacks WR-1 and WR-2 shall not exceed 0.03 gr/dscf.

D.4.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the following material processing facilities shall each not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf):

Material Processing Facility	Control ID
Stucco storage bin	Bin vent BBH -11 (stack B-11)
Stucco surge bin with hopper, HRA bin, paper fiber mill, mixing screw conveyor and wet mixer,	Baghouse BBH-13 (stack B-13)
HRA landplaster feed bin	Bin vent BBH-12 (stack B-12)
HRA mill additive bin (sugar)	No Control (exhaust inside the building)
HRA ball mill	Baghouse BBH-18 (stack B-18)
Additive refill bin (starch),	Baghouse BBH-16 (stack B-16)
Additive refill receiver (kaolinite),	Vacuum receiver BVH-17 (stack B-17)
Additive bulk storage bin (starch),	Baghouse BBH-14 (stack B-14)
Additive bulk storage bin (kaolinite)	Baghouse BBH-15 (stack B-15)
Additive surge bin (kaolinite),	Baghouse BBH-17(stack B-17)
Glass fiber additive bin	No control (exhaust inside the building)
Wallboard drying kiln	No control (stack B-20)
End saw	Baghouse BBH-25 (stack B-25)
Wallboard shredder	2 Baghouses WRBH-1 (stack WR-1) and WRBH-2 (stack WR-2)
Dunnage saw	Baghouse BBH-25 (stack B-25)

- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), opacity from each of the control devices controlling the above material processing facilities shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.4.5 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 this facility and any control devices.

Compliance Determination Requirements

D.4.6 Particulate Control

The baghouses for particulate control shall be in operation at all times the emission units involved in the stucco production are in operation.

D.4.7 Continuous Compliance Plan [326 IAC 6.8-8]

- (a) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant including the emissions units subject to 326 IAC 6.8-2-37 in accordance with the Continuous Compliance Plan (CCP). The Permittee shall submit the Continuous Compliance Plan (CCP) to IDEM within thirty (30) days of the issuance of this Part 70 Operating Permit Renewal 089-17794-00333 and maintain at the source a copy of this CCP. The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy of any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP to IDEM, OAQ, Compliance Branch within thirty (30) days of the update.

- (c) Pursuant to 326 IAC 6.8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit an update of the CCP is a violation of 326 IAC 6.8.

D.4.8 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) No later than 180 days after the issuance of this Part 70 Operating Permit Renewal No. 089-17794-00333, in order to demonstrate compliance with Conditions D.4.1 and D.4.3, the Permittee shall perform PM testing on the one (1) stucco surge bin, one (1) HRA bin, one (1) mixing screw conveyor, one (1) wet mixer, and one (1) paper fiber mill, controlled by one (1) baghouse BBH-13 and on one (1) end saw, and one (1) dunnage saw, controlled by baghouse BBH-25, using methods as approved by the Commissioner.
- (b) In order to demonstrate compliance with Conditions D.4.1, D.4.2 and D.4.4, the Permittee shall perform PM 2.5 and PM10 testing within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner:
- (1) One (1) stucco surge bin, one (1) HRA bin, one (1) mixing screw conveyor, one (1) wet mixer, and one (1) paper fiber mill controlled by one (1) baghouse BBH-13.
- (3) One (1) end saw and one (1) dunnage saw controlled by baghouse BBH-25,
- (c) The PM, PM10 and PM2.5 testing shall be repeated once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

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

D.4.9 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with one (1) stucco surge bin, one (1) additive refill bin (starch), two (2) additive bulk storage bins (starch and kaolinite), one (1) additive surge bin (kaolinite), one (1) paper fiber mill, one (1) mixing screw conveyor, one (1) wet mixer, one (1) end saw, one (1) cut-back saw and one (1) waste reclaim shredder at least once per day when the process is in operation. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.4.10 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the baghouses controlling the one (1) stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill, mixing screw conveyor and wet mixer, one (1) end saw, one (1) cut-back saw and one (1) waste reclaim shredder:

(A) Monitoring Approach

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
III. Indicator	PM Concentration	Pressure Differential	Opacity	Bag Condition
Measurement Approach	U.S. EPA Method 5, for PM, U.S. EPA Methods 201 A, for PM10 filterable and 202, for PM10 condensable or other Methods approved by the Commissioner – for each baghouse	Monitor pressure differential across the baghouses once per day	Method 9 visual observations during stack test. Daily visible emission notations.	Visual inspection.
II. Indicator Range	Baghouses PM and PM10 emission limits in grain/dscf and pounds per hour	Baghouses pressure drop ranges	An excursion is defined as an opacity measurement exceeding 10% on a 6-minute average. Normal or abnormal.	An excursion is defined as failure to perform the quarterly inspection.
III. Performance Criteria				
A. Data Representativeness	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Procedures addressed in Method 9 Daily visible emission notations.	Baghouse inspected visually for bag leaks.
B. Verification of Operational Status	Fans amps and damper position.	Fans amps and damper position.	NA	NA
C. QA/QC Practices and Criteria	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Use of a certified visible emission observer.	Trained personnel perform inspections and maintenance.
D. Monitoring Frequency	Once every 5 years.	Once per day pressure drop reading	Once every 5 years for Method 9 Once daily for visible emission notations (when the emission unit is operating).	Quarterly
IV. Data Collection Procedures	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Daily visible emissions notations are recorded on V.E. Form.	Results of inspections and maintenance activities performed are recorded in baghouse maintenance log.
Averaging Period	Average of 3 test runs each 1 hour long	Average of 3 test runs each 1 hour long	Six-minute average during stack test	NA
E. Record Keeping	Maintain for a period of 5 years the results of the tests	Maintain for a period of 5 years the pressure drop readings	Maintain for a period of 5 years the daily visible emissions notations	Maintain for a period of 5 years the results of the baghouses inspections and maintenance
F. Reporting	-	Number, duration, cause of any excursions or exceedances and the corrective actions taken	Number, duration, cause of any excursions or exceedances and the corrective actions taken	-
Frequency	-	Quarterly	Quarterly	-

D.4.11 Visible Emissions Notations

- (a) Visible emission notations of the one (1) stucco surge bin, one (1) additive refill bin (starch), two (2) additive bulk storage bins (starch and kaolinite), one (1) additive surge bin (kaolinite), one (1) paper fiber mill, one (1) mixing screw conveyor, one (1) wet mixer,

one (1) end saw, one (1) cut-back saw and one (1) wallboard shredder baghouses stack exhaust (B-13, B14, B15, B-16, WR-1 and WR-2) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.4.12 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.4.13 Record Keeping Requirement

- (a) To document compliance with Condition D.4.11, the Permittee shall maintain records of visible emission notations of the stack exhausts (B-13, B14, B15, B-16, WR-1 and WR-2) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.4.9, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.4.10, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to

excursions as required by the CAM for the baghouses controlling the one (1) stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill, mixing screw conveyor and wet mixer, one (1) end saw, one (1) dunnage saw and one (1) waste reclaim shredder (if any are required).

- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

A joint treatment process, consisting of the following equipment:

- (a) A pneumatic conveying system from the bulk storage silos to the scale hoppers, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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 additive bag dump, constructed in 1977, 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.
 - (3) Two (2) wet mixers, constructed in 1997, each with a maximum throughput of 7.25 tons per hour, controlled by baghouses JBH-1 and JBH-2, each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
 - (4) One (1) Quick mixer, controlled by one (1) baghouse, identified as JVH-20.
 - (5) One (1) conveying system, controlled by one (1) baghouse, identified as JBH-3.
- (d) A dry joint compound line, consisting of the following equipment:
 - (1) One (1) dry joint additive bag dump, constructed in 1995, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-8, and exhausting through one (1) stack, identified as J-8.
 - (2) One (1) reclaim screw conveyor, constructed in 1995, 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.
 - (3) One (1) dry joint mixer, constructed in 1977, 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.
 - (4) One (1) packing machine, constructed in 1977, 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) reclaim screw conveyor, constructed in 1995, 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) One (1) dry texture paint mixer, constructed in 1977, 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) One (1) packing machine, constructed in 1977, 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.
- (4) One (1) dry paint weigh station, constructed in 1977, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through one (1) stack, identified as J-15.
- (5) One (1) dry additive conveying system, constructed in 1977, 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.
- (6) One (1) additive bag dump, constructed in 1977, 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.

(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, constructed in 2006, with a maximum throughput of 2,166 pounds of dry additives per hour, controlled by one dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.
- (2) One (1) weighing and batching system identified as WB1, constructed in 2006, with a maximum throughput of 2,166 pounds of dry additives per hour, 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 emissions unit description box is descriptive information and does not constitute enforceable conditions.)

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

D.5.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Emission Limits (lb/hr)
Ready Mix Line	
Mixer #1 & holding hopper	0.29
Mixer #2 & holding hopper	0.29
Conveying	0.35
Quick Mixer	0.04
Dry Joint Compound Production Line	
Screw reclaim conveyor & dry joint mixer	0.88
Dry Texture Paint Production Line	
Dry additive conveying system	0.10
Dry texture Paint mixer, reclaim conveying, & packaging	0.51
Additive bag dump	0.70
Bag Dump Station	
Bag & Tote Dispensing System	0.88
Weighing & batching system side A	0.19
Weighing & batching system side B	0.19

Compliance with these limits in conjunction with the PSD minor limits for PM/PM10 in the other SECTION Ds shall render the requirements of 326 IAC 2-2, not applicable with respect to PM/PM10 emissions.

D.5.2 PM2.5 Nonattainment Major New Source Review (NSR) Minor Limits [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

Emission Units	PM2.5 Emission Limits (lb/hr)
Ready Mix Line	
Mixer #1 & holding hopper	0.11
Mixer #2 & holding hopper	0.11
Conveying	0.13
Quick Mixer	0.01
Dry Joint Compound Production Line	
Screw reclaim conveyor & dry joint mixer	0.32
Dry joint conveying	0.03
Dry Texture Paint Production Line	
Dry additive conveying system	0.04
Dry texture Paint mixer, reclaim conveying, & packaging	0.19
Bag Dump Station	
Bag & Tote Dispensing System	0.32
Weighing & batching system side A	0.07
Weighing & batching system side B	0.07

Compliance with these limits in conjunction with the other nonattainment major New Source Review (NSR) minor limits for PM/PM2.5 in the other SECTION Ds shall render the requirements of nonattainment major NSR, 326 IAC 2-1.1-5, not applicable with respect to PM2.5 emissions.

D.5.3 PM10 Emission Limitations for Lake County [326 IAC 6.8-2-37]

Pursuant to 326 IAC 6.8-2-37, the PM10 emissions from each stack serving the following emission units shall be limited as follows:

Emission Units	Emission Limit (grain/dscf)	Emission Limit (lbs/hr)
Wallboard manufacturing process		
Each stack serving ready mix process, stacks J1, J2, and J3	0.017	0.100
Dry texture paint process		
Mixing and packing, stack J4	0.020	0.190
Bag dumping, stack J5	0.010	0.100
Dry additive conveying, stack J6	0.010	0.030
Additive bag dumping, stack J8	0.010	0.340
Dry joint compound process		
Mixing and packing, stack J7	0.020	0.340

D.5.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

(a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the following material processing facilities shall each not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf):

Material Processing Facility	Control ID
Quick mixer	Baghouse JVH-20
Packing machine	Baghouse JVH-14(stack J-14)
Dry paint weigh station	Baghouse JVH-15 (stack B-15)
Bag and tote dispensing system	Dry cartridge filter dust collector JBH-17, exhausting inside the building
Weighing and Batching system	Dry cartridge filter dust collector JBH-18, exhausting inside the building

(b) Pursuant to 326 IAC 6.8-10-3(7)(A), opacity from each of the control devices controlling the above material processing facilities shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.5.5 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from one (1) dry paint weigh station, exhausting through stack J-15 shall not exceed 0.03 gr/dscf.

D.5.6 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.5.7 Particulate Control

The baghouses for particulate control shall be in operation at all times the emission units involved in the joint treatment process, dry joint compound production, dry texture paint production and bag dump system are in operation.

D.5.8 Continuous Compliance Plan [326 IAC 6.8-8]

- (a) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant including the emissions units subject to 326 IAC 6.8-2-37 in accordance with the Continuous Compliance Plan (CCP). The Permittee shall submit the Continuous Compliance Plan (CCP) to IDEM within thirty (30) days of the issuance of this Part 70 Operating Permit Renewal 089-17794-00333 and maintain at the source a copy of this CCP. The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP to IDEM, OAQ, Compliance Branch within thirty (30) days of the update.
- (c) Pursuant to 326 IAC 6.8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit an update of the CCP is a violation of 326 IAC 6.8.

D.5.9 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) No later than 180 days after the issuance of this Part 70 Operating Permit Renewal No. 089-17794-00333, in order to demonstrate compliance with Conditions D.5.1 and D.5.5, the Permittee shall perform PM testing on the one (1) screw reclaim conveyor, and one (1) dry joint mixer controlled by one (1) baghouse, JBH-7, utilizing methods as approved by the Commissioner.
- (b) In order to demonstrate compliance with Conditions D.5.1, D.5.2, D.5.3 and D.5.4, the Permittee shall perform PM 2.5 and PM10 testing on the one (1) screw reclaim conveyor and one (1) dry joint mixer controlled by one (1) baghouse, JBH-7, within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

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

D.5.10 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with the screw reclaim conveyor, dry joint mixer, dry joint packaging, bag and tote dispensing system at least once per day when the process is in operation. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.5.11 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the baghouses controlling the screw reclaim conveyor, dry joint mixer, dry joint packaging, bag and tote dispensing system:

(A) Monitoring Approach

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
IV. Indicator	PM Concentration	Pressure Differential	Opacity	Bag Condition
Measurement Approach	U.S. EPA Method 5, for PM, U.S. EPA Methods 201 A, for PM10 filterable and 202, for PM10 condensable or other Methods approved by the Commissioner – for each baghouse	Monitor pressure differential across the baghouses once per day	Method 9 visual observations during stack test. Daily visible emission notations.	Visual inspection.
II. Indicator Range	Baghouses PM and PM10 emission limits in grain/dscf and pounds per hour	Baghouses pressure drop ranges	An excursion is defined as an opacity measurement exceeding 10% on a 6-minute average. Normal or abnormal.	An excursion is defined as failure to perform the quarterly inspection.
III. Performance Criteria				
A. Data Representativeness	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Procedures addressed in Method 9 Daily visible emission notations.	Baghouse inspected visually for bag leaks.
B. Verification of Operational Status	Fans amps and damper position.	Fans amps and damper position.	NA	NA
C. QA/QC Practices and Criteria	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Use of a certified visible emission observer.	Trained personnel perform inspections and maintenance.
D. Monitoring Frequency	Once every 5 years.	Once per day pressure drop reading	Once every 5 years for Method 9 Once daily for visible emission notations (when the emission unit is operating).	Quarterly
IV. Data Collection Procedures	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Daily visible emissions notations are recorded on V.E. Form.	Results of inspections and maintenance activities performed are recorded in baghouse maintenance log.
Averaging Period	Average of 3 test runs each 1 hour long	Average of 3 test runs each 1 hour long	Six-minute average during stack test	NA
E. Record Keeping	Maintain for a period of 5 years the results of the tests	Maintain for a period of 5 years the pressure drop readings	Maintain for a period of 5 years the daily visible emissions notations	Maintain for a period of 5 years the results of the baghouses inspections and maintenance
F. Reporting	-	Number, duration, cause of any	Number, duration, cause of any	-

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
		excursions or exceedances and the corrective actions taken	excursions or exceedances and the corrective actions taken	
Frequency	-	Quarterly	Quarterly	-

D.5.12 Visible Emissions Notations

- (a) Visible emission notations of the screw reclaim conveyor, dry joint mixer, baghouses stack exhaust (J-7 and J-8) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.5.13 Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.5.14 Record Keeping Requirement

- (a) To document compliance with Condition D.5.12, the Permittee shall maintain records of visible emission notations of the stack exhausts (J-7 and J-8) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

- (b) To document compliance with Condition D.5.10, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.5.11, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the baghouses controlling the screw reclaim conveyor, dry joint mixer, dry joint packaging, bag and tote dispensing system (if any are required).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6

FACILITY OPERATION CONDITIONS

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

Insignificant activities:

- (a) Degreasing operation that does 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) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (e) 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.

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

D.6.1 Nonattainment Area Particulate Limitation [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the welding equipment, landplaster baler, and polypropylene bag grinding process shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator of the three (3) cold cleaner degreasers shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.6.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), the owner or operator of the two (2) cold cleaner degreasers shall:

- (a) Comply with the following control equipment requirements:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and threetenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirtyeight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption.
- (b) The degreasers must comply with the following operating requirements:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination Requirement

D.6.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test these facilities 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 limits specified in Conditions D.6.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

SECTION E.1 FACILITY OPERATION CONDITIONS

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

A stucco production process, consisting of the following equipment:

- (b) One (1) calcining kettle, known as calcining kettle #1A, constructed in 2007, with a maximum throughput of 11.5 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22A.
- (c) One (1) calcining kettle, known as calcining kettle #1B, constructed in 2006, with a maximum throughput of 12.0 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22B.
- (d) One (1) calcining kettle, known as calcining kettle #2, constructed in 1998, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.

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

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section E.1 except when otherwise specified in 40 CFR 60, Subpart UUU.
- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries [40 CFR Part 60, Subpart UUU] [326 IAC 12]

- (a) The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart UUU (New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries) (included as Attachment of this permit) which are incorporated by reference as 326 IAC 12:

40 CFR Part 60.730
40 CFR Part 60.731
40 CFR Part 60.732
40 CFR Part 60.734(a),(c)
40 CFR Part 60.735(a)
40 CFR Part 60.736(a), (b)(1)
40 CFR Part 60.737

SECTION E.2

FACILITY OPERATION CONDITIONS

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

A landplaster production process consisting of the following equipment:

- (a) One (1) dryer mill bin #1, constructed in 1988, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, exhausting and exhausting through one (1) stack, identified as M-8.
- (b) One (1) dryer mill bin #2, constructed in 1999, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, exhausting and exhausting through one (1) stack, identified as M-12.
- (c) One (1) dryer mill #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (e) One (1) screening station #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (f) One (1) dryer mill #2, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (h) One (1) mill HRA landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.
- (i) One (1) paper waste reclamation unit, constructed in 2007, with a maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

A stucco production process, consisting of the following equipment:

- (a) The miscellaneous stucco handling operations which includes one (1) #4 stucco elevator, two (2) screw conveyors (#17 and #17A),
- (b) Two (2) stucco storage bins,
- (c) Two (2) stucco surge bins,
- (d) One (1) (HRA) landplaster feed bin, one (1) HRA bin, one (1) HRA mill additive sugar bin, one (1) HRA ball mill, one (1) additive starch refill bin, one (1) additive vermiculite refill receiver, two (2) additive starch and kaolinite bulk storage bins, one additive kaolinite surge bin, glass fiber additive bin, one (1) paper fiber mill
- (e) One (1) wallboard mixing screw conveyor
- (f) One (1) dry joint compound reclaim screw conveyor
- (g) One (1) dry texture paint line reclaim screw conveyor
- (h) One (1) waste reclamation unit.

(i) The bag and tote dispensing system (BTD1), weighing and batching system (WB1).

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

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section E.2 except when otherwise specified in 40 CFR 60, Subpart OOO.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.1 New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12]

(a) The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants (included as Attachment of this permit) which are incorporated by reference as 326 IAC 12:

40 CFR Part 60.670(a)(1), (e), (f), Table -1
40 CFR Part 60.671
40 CFR Part 60.672(a), (b), (e)(1) and (2), (f), (g)
40 CFR Part 60.675
40 CFR Part 60.676(f), (h), (i), (j)

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: United States Gypsum Company
Source Address: 301 Riley Road, East Chicago, IN 46312
Mailing Address: 301 Riley Road, East Chicago, IN 46312
Part 70 Permit No.: 089-17794-00333

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: United States Gypsum Company
Source Address: 301 Riley Road, East Chicago, IN 46312
Mailing Address: 301 Riley Road, East Chicago, IN 46312
Part 70 Permit No.: 089-17794-00333

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

Page 2 of 2

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

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

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 PART 70 OPERATING PERMIT
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: United States Gypsum Company
 Source Address: 301 Riley Road, East Chicago, IN 46312
 Mailing Address: 301 Riley Road, East Chicago, IN 46312
 Part 70 Permit No.: 089-17794-00333

Months: _____ **to** _____ **Year:** _____

Page 1 of 2

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Attachment A

**Fugitive Particulate Matter Emission Control Plan
United States Gypsum Company
301 Riley Road
East Chicago, IN**

Fugitive Particulate Matter Emission Control Plan USG East Chicago, East Chicago, IN

- 1. Name and address of the source:**
 - a. United States Gypsum Company
301 Riley Rd
East Chicago, IN 46410

- 2. Name and address of the owner or operator responsible for the execution of the control plan:**
 - a. Same as above.

- 3. Identification of all processes, operation, and areas which have the potential to emit fugitive particulate matter:**
 - a. Shredded Waste Wallboard Material Handling
 - b. Synthetic Gypsum Unloading/ Hauling/ Material handling
 - c. Scrap Board Storage Area
 - d. Covered Gypsum Conveyor belts
 - e. Dust collector dust material handling
 - f. Paved plant roads
 - g. Unpaved access roads to adjacent property scrap wallboard storage area (non-routinely used for excess scrap wallboard staging prior to reclaim shredding)

- 4. A map of the source showing aggregate pile areas, access areas around the aggregate pile, unpaved roads, paved roads, parking lots and location of conveyor and transfer points, etc.:**
 - a. A map is included as an attachment

- 5. The number and mix of vehicular activity occurring on paved roads, unpaved roads, and parking lots:**
 - a. Over the road trucks deliver raw material and ship out finished product daily from the facility. The number of trucks varies from around 175 per week to a maximum of 700 per week and use paved roads. A front end loader operates primarily inside the gypsum shed and the paved area immediately outside of the shed. Forklifts operate primarily inside the plant buildings and occasionally drive on the paved areas outside of the plant buildings. Employees primarily travel the paved road from the front gate to the main employee parking lot and back.
 - b. In the event that the amount of scrap wall board generated by the plant exceeds the capacity of the wall board crusher, excess wall board is temporarily hauled and stored in an overflow storage area on the adjacent property. Haul trucks must drive over a short stretch of unpaved road to access the area, and the area itself is unpaved. The scrap wallboard is stacked on pallets and moved by forklift. This situation occurs non-routinely and infrequently, and would be the result of a production anomaly.
 - c. All areas and transport routes are shown in the attached drawing.

6. Type and quantity of material handled:

- a. Raw materials, other than synthetic gypsum, are brought into the facility by enclosed box, flat bed, dry bulk or liquid tanker tractor-trailers. Box trailers are unloaded at receiving docks, while bulk materials are either pumped into bulk tanks or pneumatically transferred into silos. Incoming and outgoing truck traffic would amount to a maximum of 10,000 vehicle miles traveled per year if the majority of material were delivered by truck
- b. Synthetic Gypsum is brought in by barge and by dump trailer and is placed in the rock shed. Barges are off-loaded onto enclosed conveyors, while trailers are dumped directly inside the rock shed. Once placed in the rock shed, gypsum is moved and loaded onto transfer conveyors for use in the wallboard manufacturing process by a front end loader and bridge crane. An average of 400,000 tons/year, and a maximum of 550,000 tons per year of synthetic gypsum is handled by the facility. There are three transfer points on the barge conveyor and up to four transfer points on the rock shed conveyor.
- c. Waste dust collector dust is collected in super sacks and handled by forklift. Shredded reclaim wallboard is deposited onto storage piles inside the rock shed.

7. Equipment used to maintain aggregate piles:

- a. A front end loader and material handler are used to handle synthetic gypsum. A forklift and front end loader are used to handle scrap and shredded wallboard. The area surrounding any dust collector bins and temporary storage piles or material handling areas are swept using a vacuum sweeper. Any dust spills are picked up using brooms and shovels.

8. A description of the measures to be implemented to control fugitive particulate matter emissions resulting from emission points identified in section 3:

- a. The conveyor belts use enclosed belts and transfer houses.
- b. The majority of the synthetic gypsum unloading is done inside the synthetic gypsum shed and synthetic gypsum contains 10% moisture.
- c. The paved roads and concrete pads surrounding the facility are cleaned with a vacuum sweeper as necessary to remove dust accumulations and control airborne dust.
- d. The waste board shredder has an enclosed design and an associated dust collection unit.
- e. The unpaved roads, when used, are watered as necessary to minimize dust.

9. A specification of the dust suppressant material, such as oil or chemical including estimated frequency of application rates and concentrations:

- a. The facility uses water on unpaved roads leading to the scrap wallboard storage area on an as needed basis to control dust.

10. A specification of the particulate matter collection equipment used as a fugitive particulate matter emission control measure:

- a. The facility does not utilize dust suppressant material.

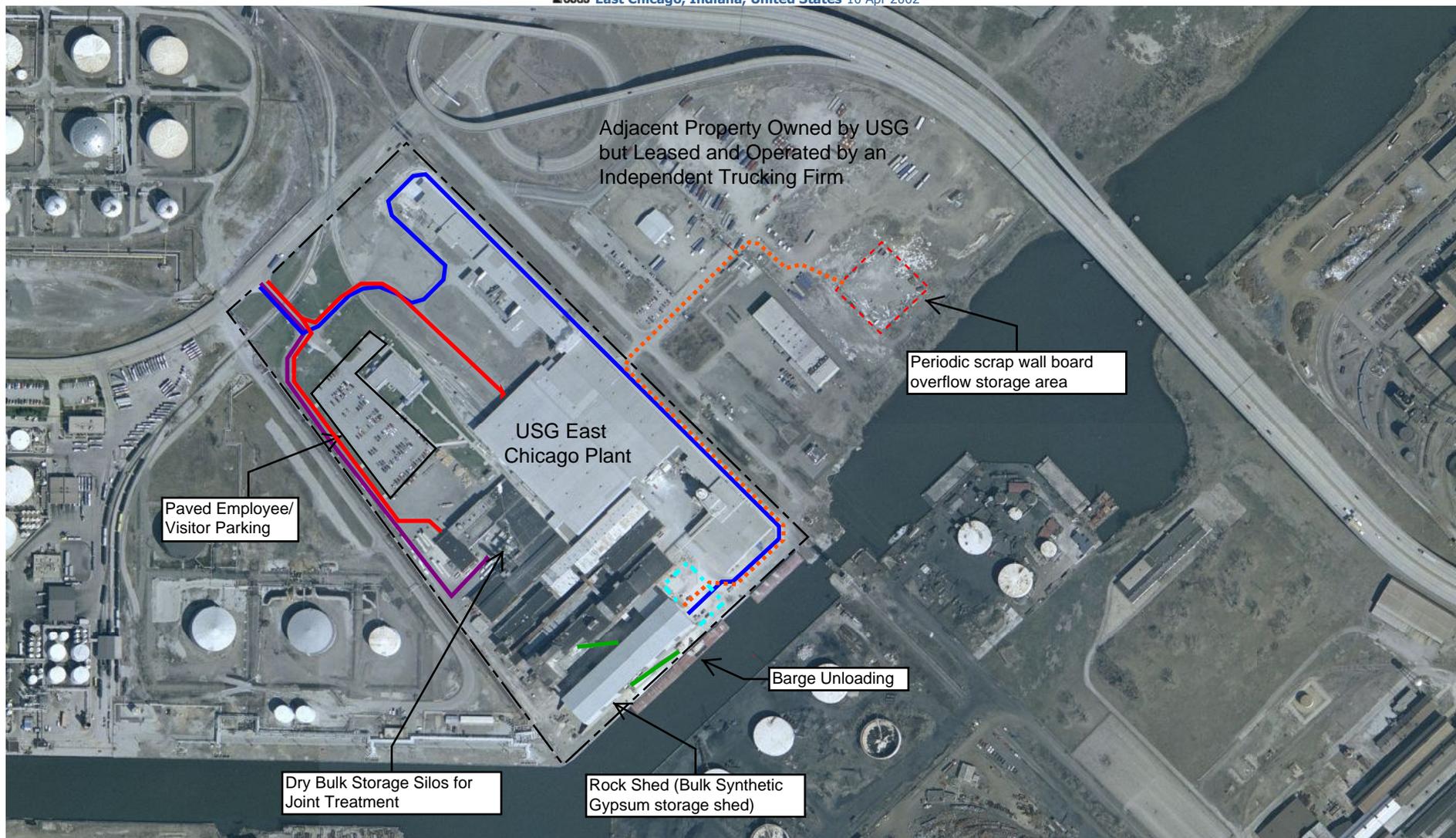
11. A schedule of compliance with the provisions of the control plan. Such schedule shall specify the amount of time the source requires to award any necessary contracts, commence and complete construction, installation, or modification of the fugitive particulate matter emission control measures:

- a.** The facility maintains a vacuum sweeper onsite at all times and uses the sweeper to remove any silt accumulations on the paved roads or the paved areas adjacent to the rock shed and dust collectors. Sweeping is conducted as necessary to minimize visible dust. There is a water truck available for use at the adjacent trucking facility and these roads are watered as necessary to minimize dust emissions.

12. Other relevant data:

- a.** The majority of the synthetic gypsum brought onsite has moisture content of 10% or greater. Dump trailers are covered to minimize spillage, and speed is limited on all plant roads.

USGS East Chicago, Indiana, United States 10 Apr 2002



0 100M 0 100yd

Image courtesy of the U.S. Geological Survey
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LEGEND

- Covered Belt Conveyors
- Truck Route to Bulk Storage Silos
- Truck Route to Rock Shed
- - - - Truck Route to Off-site Scrap Storage
- Truck Route to Shipping/ Recieving Docks
- - - - Front End Loader Work Area

Attachment B

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

[Browse Previous](#) | [Browse Next](#)

Subpart 000—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 74 FR 19309, Apr. 28, 2009, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in §60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more affected facilities to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crush or *Crushing* means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(1) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(2) Sand and Gravel.

(3) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(4) Rock Salt.

(5) Gypsum (natural or synthetic).

(6) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(7) Pumice.

(8) Gilsonite.

(9) Talc and Pyrophyllite.

(10) Boron, including Borax, Kernite, and Colemanite.

(11) Barite.

(12) Fluorospars.

(13) Feldspar.

(14) Diatomite.

(15) Perlite.

(16) Vermiculite.

(17) Mica.

(18) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Saturated material means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

Seasonal shut down means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) of nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: Trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet material processing operation(s) means any of the following:

- (1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or
- (2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

§ 60.672 Standard for particulate matter (PM).

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2

of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

(a) The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A–7). The Method 22 (40 CFR part 60, Appendix A–7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A–7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR part 60, Appendix A–7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A–7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g. , using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

(e) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A–7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of Table 6 to Subpart AAAAA of 40 CFR part 63.

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A–1 through A–7 of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the PM standards in §60.672(a) as follows:

(1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A–3 of this part or Method 17 of Appendix A–6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, Appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 of Appendix A–4 of this part and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A–4 of this part and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A–4 of this part, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart,

using Method 9 (40 CFR part 60, Appendix A–4), the duration of the Method 9 (40 CFR part 60, Appendix A–4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, Appendix A–4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A–4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A–4) performance test according to this section and §60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, Appendix A–7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in §60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, Appendix A–4) performance test according to this section and §60.11 to show compliance with the opacity limit in §60.672(e)(1).

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(i) No more than three emission points may be read concurrently.

(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of Appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, Appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A-1 of this part [*i.e.*, velocity head <1.3 mm H₂O (0.05 in. H₂O)] and referred to in EPA Method 5 of Appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (*e.g.*, from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$v_e = \frac{Q_f}{A_e} \quad (\text{Eq. 1})$$

Where:

V_e = average building vent velocity (feet per minute);

Q_f = average fan flow rate (cubic feet per minute); and

A_e = area of building vent and measurement location (square feet).

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

(g) For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in §60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b)(1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to §60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(3) The owner or operator of each affected facility demonstrating compliance according to §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by §63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in §60.672(b) and the emission test requirements of §60.11.

(h) The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b).

Table 1 to Subpart 000—Exceptions to Applicability of Subpart A to Subpart 000

Table 1 to Subpart 000—Exceptions to Applicability of Subpart A to Subpart 000

Subpart A reference	Applies to subpart 000	Explanation
60.4, Address	Yes	Except in §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675(c)), Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

Table 2 to Subpart 000—Stack Emission Limits for Affected Facilities With Capture Systems

Table 2 to Subpart 000—Stack Emission Limits for Affected Facilities With Capture Systems

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) ^a	7 percent for dry control devices ^b	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e).

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) ^a	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e); and
			Monitoring of baghouses according to §60.674(c), (d), or (e) and §60.676(b).

^aExceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

^bThe stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

Table 3 to Subpart OOO—Fugitive Emission Limits

Table 3 to Subpart OOO—Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or	10 percent opacity	15 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart.

<p style="text-align: center;">For * * *</p>	<p style="text-align: center;">The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *</p>	<p style="text-align: center;">The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *</p>	<p style="text-align: center;">The owner or operator must demonstrate compliance with these limits by conducting * * *</p>
<p>reconstruction after August 31, 1983 but before April 22, 2008</p>			
<p>Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008</p>	<p>7 percent opacity</p>	<p>12 percent opacity</p>	<p>An initial performance test according to §60.11 of this part and §60.675 of this subpart; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and</p>
			<p>A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b) are exempt from this 5-year repeat testing requirement.</p>

Attachment C

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries

Source: 57 FR 44503, Sept. 28, 1992, unless otherwise noted.

§ 60.730 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in §60.731, "Mineral processing plant").

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

§ 60.731 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Calciner means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities.

Dryer means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

Installed in series means a calciner and dryer installed such that the exhaust gases from one flow through the other and then the combined exhaust gases are discharged to the atmosphere.

Mineral processing plant means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

§ 60.732 Standards for particulate matter.

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance

test required by §60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

[57 FR 44503, Sept. 28, 1992, as amended at 65 FR 61778, Oct. 17, 2000]

§ 60.733 Reconstruction.

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

§ 60.734 Monitoring of emissions and operations.

(a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

(b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

§ 60.735 Recordkeeping and reporting requirements.

(a) Records of the measurements required in §60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with §60.732 shall determine and record once each day, from the recordings of the monitoring devices in §60.734(d), an arithmetic average over a 2-

hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by §60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in §60.735(b) that is less than 90 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in §60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

§ 60.736 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of §60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §60.735(c).

§ 60.737 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a
Part 70 Operating Permit Renewal

Source Name:	United States Gypsum Company
Source Location:	301 Riley Road, East Chicago, Indiana 46312
County:	Lake
SIC Code:	3275
Part 70 Operating Permit No.:	089-17794-00333
Permit Reviewer:	Aida De Guzman

On March 10, 2009, the Office of Air Quality (OAQ) had a notice published in The Times, Munster, Indiana and The Gary Post Tribune, Merrillville, Indiana stating that United States Gypsum Company applied for a Part 70 Operating Permit Renewal. This permit will allow United States Gypsum Company to continue operating its stationary gypsum wallboard and gypsum products manufacturing plant. The notice also stated that OAQ proposed to issue this permit renewal 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.

Additions are **bolded** and deletions are ~~struck through~~ as results of the following comments made to the draft permit.

On April 8, 2009, the Permittee made the following comments to the draft permit:

Comments 1: Page 7 of 73, A.2(h), under landplaster production - One (1) mill landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.

This emission unit should be described to read as "One (1) mill **HRA** landplaster bin.....". Please edit corresponding Section D and TSD.

Comment 2: Page 7 of 73, A.2(i), Landplaster Production - One (1) waste reclamation unit, constructed in 2007, with maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

The emission unit should be described to read as "One (1) **paper** waste reclamation unit, ...". Please edit the corresponding Section D and TSD.

Comment 3: Page 11 of 73, A.2(w), Gypsum Wallboard Manufacturing Line - One (1) existing cut back saw, constructed in 1999, with particulate matter controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.

The description should read "One (1) existing **dunnage** ~~cut back~~ saw, constructed in 1999". Please edit the corresponding Section D and TSD.

Comment 4: Page 12 of 73, A.2(d)(5), Dry Joint Compound Line - One (1) additive bag dump, constructed in 1977, 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.

This emission unit is misplaced in the dry joint compound line. This bag dump resides in the dry texture paint line. Please relocate this emission unit under the dry texture paint line. Please edit the corresponding Section D and TSD.

Comment 5: Page 12 of 73, A.2(f), Bag Dump System - A bag dump system serving the ready mix dry joint compound and dry texture paint lines, consisting of the following equipment:

The description should read "A bag dump system serving the ready mix, dry joint compound, and dry texture paint lines, consisting of". The description is missing commas to separate the names of the emission units. Please edit the corresponding Section D and TSD.

Responses 1 - 5: Section A.2(d)(5), (f), (h), (i), (w) and Sections D.2(h) and (i), D.4(w), D.5(d)(5) descriptive information have been corrected.

Conditions D.5.1 and D.5.3 have been corrected as well since the additive bag dump has been moved to the dry texture paint line:

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

A landplaster production process, consisting of the following equipment:

- (h) One (1) mill **HRA** landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.
- (i) One (1) **paper** waste reclamation unit, constructed in 2007, with a maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

A gypsum wallboard manufacturing line, consisting of the following equipment:

- (w) One (1) existing ~~cut-back~~ **dunnage** saw, constructed in 1999, 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:

- (d) A dry joint compound line, consisting of the following equipment:

- ~~(5) One (1) additive bag dump, constructed in 1977, 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.~~

- (e) A dry texture paint line, consisting of the following equipment:

(6) One (1) additive bag dump, constructed in 1977, 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.

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

D.5.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits
 [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Emission Limits (lb/hr)
Ready Mix Line	
Mixer #1 & holding hopper	0.29
Mixer #2 & holding hopper	0.29
Conveying	0.35
Quick Mixer	0.04
Dry Joint Compound Production Line	
Screw reclaim conveyor & dry joint mixer	0.88
Dry joint additive bag dump	0.70
Dry Texture Paint Production Line	
Dry additive conveying system	0.10
Dry texture Paint mixer, reclaim conveying, & packaging	0.51
Additive bag dump	0.70
Bag Dump Station	
Bag & Tote Dispensing System	0.88
Weighing & batching system side A	0.19
Weighing & batching system side B	0.19

D.5.3 PM10 Emission Limitations for Lake County [326 IAC 6.8-2-37]

Pursuant to 326 IAC 6.8-2-37, the PM10 emissions from each stack serving the following emission units shall be limited as follows:

Emission Units	Emission Limit (grain/dscf)	Emission Limit (lbs/hr)
Wallboard manufacturing process		
Each stack serving ready mix process, stacks J1, J2, and J3	0.017	0.100
Dry texture paint process		
Mixing and packing, stack J4	0.020	0.190
Bag dumping, stack J5	0.010	0.100
Dry additive conveying, stack J6	0.010	0.030
Additive bag dumping, stack J8	0.010	0.340
Dry joint compound process		
Mixing and packing, stack J7	0.020	0.340
Additive bag dumping, stack J8	0.010	0.340

Comment 6: Page 33 of 73, Section D.1, 326 IAC 6.8-10-3(7)(A), Particulate Matter Emissions Limitations - This PM₁₀ rule applies to "material processing facilities", which USG is classified as according to the definition in 6.8-10-2(12). It reads, "Material processing facilities means the equipment, or the combination of different types of equipment, used to process material for use in the plant or for commercial sale. Equipment includes initial crusher, screen, grinder, mixer, dryer, belt conveyor, bucket elevator, bagging operation, storage bin, and truck or railroad car loading station".

The rule requires, "The PM₁₀ stack emissions from a material processing facility shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot and ten percent (10%) opacity." For all PM₁₀ emitting units not specifically limited in 326 IAC 6.8-2-37, this rule is applicable. Please adjust the TSD as well.

Response 6: IDEM agrees that 326 IAC 6.8-10-3(7)(A), applies to any material processing facility which limits the PM10 emissions to 0.022 grain/dry standard cubic foot and ten percent (10%) opacity. Material processing facilities means the equipment, or the combination of different types of equipment, used to process material for use in the plant or for commercial sale". Equipment includes initial crusher, screen, grinder, mixer, dryer, belt conveyor, bucket elevator, bagging operation, storage bin, and truck or railroad car loading station. Therefore, the following conditions have been added in the permit. Subsequent conditions have been re-numbered accordingly:

D.1.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from pneumatic truck unloading and storage controlled by baghouse JBH-16 shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf).
- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), the opacity from baghouse JBH-16 associated with the pneumatic truck unloading and storage shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.2.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from dryer mill #1 process and screening station #1, controlled by baghouse MBH-8 and dryer mill #2 process controlled by baghouse MBH-12 each shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf).
- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), the opacity from baghouses MBH-8 and MBH-12 associated with the dryer mill #1 process and screening station #1 and dryer mill #2 process each shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.3.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the following material processing facilities shall each not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf):

Material Processing Facility	Control ID
Kettle feed bin #1	Baghouse MBH-25 (stack M-25)
Kettle feed bin #2	Baghouse MBH-27 (stack M-27)
Calcining kettles #1A and #1B	Baghouse MBH-22 (stack M-22A and stack M-22B respectively)
Calcining kettle #2	Baghouse MBH-16 (stack M-16)
Kettle feed bin #3	Baghouse MBH-28 (stack M-28)
Stucco storage equipment (#49 screw, #47 screw and three stucco storage bins, #1, #2 and #3),	Baghouse MBH-24 (stack M-23)
Stucco storage equipment (#1 elevator, #27 screw, and three (3) stucco storage bins, as #4, #5 and #6)	Baghouse MBH-23 (stack M-23)

- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), opacity from each of the control devices controlling the above material processing facilities shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.4.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the following material processing facilities shall each not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf):

Material Processing Facility	Control ID
Stucco storage bin	Bin vent BBH -11 (stack B-11)
Stucco surge bin with hopper, HRA bin, paper fiber mill, mixing screw conveyor and wet mixer,	Baghouse BBH-13 (stack B-13)
HRA landplaster feed bin	Bin vent BBH-12 (stack B-12)
HRA mill additive bin (sugar)	No Control (exhaust inside the building)
HRA ball mill	Baghouse BBH-18 (stack B-18)
Additive refill bin (starch),	Baghouse BBH-16 (stack B-16)
Additive refill receiver (kaolinite),	Vacuum receiver BVH-17 (stack B-17)
Additive bulk storage bin (starch),	Baghouse BBH-14 (stack B-14)
Additive surge bin (kaolinite),	Baghouse BBH-17(stack B-17)

Material Processing Facility	Control ID
Glass fiber additive bin	No control (exhaust inside the building)
Wallboard drying kiln	No control (stack B-20)
End saw	Baghouse BBH-25 (stack B-25)
Wallboard shredder	2 Baghouses WRBH-1 (stack WR-1) and WRBH-2 (stack WR-2)
Dunnage saw	Baghouse BBH-25 (stack B-25)

- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), opacity from each of the control devices controlling the above material processing facilities shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

D.5.4 Particulate Emission Less Than Ten Microns (PM10) Limitations [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM10 emissions from the following material processing facilities shall each not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot (gr/dscf):

Material Processing Facility	Control ID
Quick mixer	Baghouse JVH-20
Packing machine	Baghouse JVH-14(stack J-14)
Dry paint weigh station	Baghouse JVH-15 (stack B-15)
Bag and tote dispensing system	Dry cartridge filter dust collector JBH-17, exhausting inside the building
Weighing and Batching system	Dry cartridge filter dust collector JBH-18, exhausting inside the building

- (b) Pursuant to 326 IAC 6.8-10-3(7)(A), opacity from each of the control devices controlling the above material processing facilities shall not exceed 10%. Compliance with this opacity limit shall be determined using EPA Method 9.

Comment 7: Page 33 of 73, Condition D.1.1, PM/PM10 Emissions PSD Minor Limits Table Emission Units: Kaolinite Truck Pneumatic Conveying and Storage

Description should read, "**Perlite** Kaolinite Truck Pneumatic Conveying and Storage"

Response 7: Condition D.1.1 has been revised as follows:

D.1.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Limits (lbs/hr)
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.66
Hydrocal Railcar Pneumatic Conveying and Storage	0.66
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.66
Perlite Kaolinite Truck Pneumatic Conveying and Storage	0.22

Comment 8: Page 37 of 73, Condition D.1.2, PM2.5 Nonattainment Major NSR Minor Limits Table
Emission Units: Kaolinite Truck Pneumatic Conveying and Storage

Description should read, "**Perlite Kaolinite** Truck Pneumatic Conveying and Storage.

Response 8: Condition D.1.2 has been revised as follows:

D.1.2 PM2.5 Nonattainment Major New Source Review (NSR) Minor Limits [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

Emission Units	PM2.5 Limits (lbs/hr)
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.24
Hydrocal Railcar Pneumatic Conveying and Storage	0.24
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.24
Perlite Kaolinite Truck Pneumatic Conveying and Storage	0.08

Comment 9: Page 37 of 73, D.2 Section, 326 IAC 6.8-10-3(7)(A), Particulate Matter Emissions Limitations

This same rule that applies to the D.1 Section also applies to the D.2 Section for all PM₁₀ emitting units not specifically limited in 326 IAC 6.8-2-37.

Response 9: See Response 6 for the changes related to this comment.

Comment 10: Page 39 of 73, D.2.9(A), CAM Monitoring Approach Table Indicator No.3, Opacity, Indicator Range. "An excursion is defined as an opacity measurement exceeding 3% on a 6-minute average".

Description should read, "An excursion is defined as an opacity measurement exceeding **10%** ~~3%~~ on a 6-minute average". Please edit the TSD as well.

Response 10: The CAM required in Conditions D.2.9, D.3.10, D.4.9 and D.5.10, now D.2.10, D.3.11, D.4.10 and D.5.11 has been corrected for a typographical error in opacity from 3% to 10%:

TSD - The TSD will not be changed to preserve its original information. This addendum has documented the change made to the CAM part of the TSD.

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
I. Indicator	PM Concentration	Pressure Differential	Opacity	Bag Condition

II. Indicator Range	Baghouses PM and PM10 emission limits in grain/dscf and pounds per hour	Baghouses pressure drop ranges	An excursion is defined as an opacity measurement exceeding 3% 10% on a 6-minute average. Normal or abnormal.	An excursion is defined as failure to perform the quarterly inspection.

Comment 11: Page 44 of 73, D.3 Section, 326 IAC 6.8-10-3(7)(A), Particulate Matter Emissions Limitations

This same rule that applies to the D.1 Section also applies to the D.3 Section for all PM₁₀-emitting units not specifically limited in 326 IAC 6.8-2-37.

Response 11: See Response 6 for the changes related to this comment.

Comment 12: Page 46 of 73, D.3.10(A), CAM Monitoring Approach Table Indicator No.3, Opacity, Indicator Range. "An excursion is defined as an opacity measurement exceeding 3% on a 6-minute average".

Description should read, "An excursion is defined as an opacity measurement exceeding **10%** ~~3%~~ on a 6-minute average". Please edit the TSD as well.

Response 12: See Response 10 for the change related to this comment.

Comment 13: Page 51 of 73, D.4 Section, 326 IAC 6.8-10-3(7)(A), Particulate Matter Emissions Limitations

This same rule that applies to the D.1 Section also applies to the D.4 Section.

Response 13: See Response 6 for the changes related to this comment.

Comment 14: Page 53 of 73, D.4.7(a), Testing Requirements

Description should read, " ...one (1) end saw, and one (1) **dunnage cut-back** saw, controlled by "

Response 14: Condition D.4.7(a), D.4.8(a) has been revised as follows:

D.4.78 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) No later than 180 days after the issuance of this Part 70 Operating Permit Renewal No. 089-17794-00333, in order to demonstrate compliance with Conditions D.4.1 and D.4.3, the Permittee shall perform PM testing on the one (1) stucco surge bin, one (1) HRA bin, one (1) mixing screw conveyor, one (1) wet mixer, and one (1) paper fiber mill, controlled by one (1) baghouse BBH-13 and on one (1) end saw, and one (1) **dunnage cut-back** saw, controlled by baghouse BBH-25, using methods as approved by the Commissioner.

(e-b) In order to demonstrate compliance with Conditions D.4.1, ~~and D.4.2~~ **and D.4.4**, the Permittee shall perform PM 2.5 and PM10 testing within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner:

(1) One (1) stucco surge bin, one (1) HRA bin, one (1) mixing screw conveyor, one (1) wet mixer, and one (1) paper fiber mill controlled by one (1) baghouse BBH-13.

(~~3~~-2) One (1) end saw and one (1) **dunnage cut-back** saw controlled by baghouse BBH-25,

(d-c) The PM, PM10 and PM2.5 testing shall be repeated once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

Comment 15: Page 53 of 73, D.4.9(A), CAM Monitoring Approach Table Indicator No.3, Opacity, Indicator Range. "An excursion is defined as an opacity measurement exceeding 3% on a 6-minute average".

Description should read, "An excursion is defined as an opacity measurement exceeding **10%** ~~3%~~ on a 6-minute average". Please edit the TSD as well.

Response 15: See Response 10 for the change related to this comment

Comment 16: Page 59 of 73, D.5 Section, 326 IAC 6.8-10-3(7)(A), Particulate Matter Emissions Limitations.

This same rule that applies to the D.1 Section also applies to the D.5 Section for all PM₁₀-emitting units not specifically limited in 326 IAC 6.8-2-37.

Response 16: See Response 6 for the changes related to this comment.

Comment 17: Page 61 of 73, D.5.10(A), CAM Monitoring Approach Table Indicator No.3, Opacity, Indicator Range. "An excursion is defined as an opacity measurement exceeding 3% on a 6-minute average".

Description should read, "An excursion is defined as an opacity measurement exceeding **10%** ~~3%~~ on a 6-minute average". Please edit the TSD as well.

Response 17: See Response 10 for the change related to this comment.

Comment 18: – TSD, Page 10 & 11 of 34, Unrestricted Potential Emissions

The PM, PM10, & PM2.5 potential emissions totals are incorrect in the table due to an error in the original calculations tables for the Dryer Mills, Calcining Kettles, & Kiln Combustion that have been incorrectly carried over into the unrestricted potential emissions sheet. The PM emission totals should be different from the PM10 & 2.5 due to different emission factors in their respective calculation sheets. When carried over, the PM is equal to the PM10 and it shouldn't be. PM10 should be equal to the PM2.5. In total, the PM10 should never be less than PM2.5. Please update these totals respectively.

Response 18: Pages 1 through 3 of the spreadsheet PTE calculations have been revised and this addendum has documented the changes to the Unrestricted Potential Emissions and Controlled/Limited Potential to Emit Tables of the original TSD to reflect the revised spreadsheet PTE calculations. IDEM has also deleted the Screening Station #2 associated with the Landplaster Dryer Mill #2 since it is no longer at the plant.

Uncontrolled PTE (tons/year)				
Emission Units	PM/PM10	PM2.5	Single HAP	Combined HAPs
Landplaster Production				
Landplaster Dryer Mill #1 combustion emissions	0.20/0.70	0.70	0.16 (Hexane) 0.0066 (formaldehyde)	
Landplaster Dryer Mill #2 combustion emissions	0.20/0.70	0.70	0.16 (Hexane) 0.0066 (formaldehyde)	
Stucco Production Line Fuel Combustion				
Calcining Kettle #1	0.1/0.20	0.20	0.06 (Hexane) 0.0025 (formaldehyde)	
Calcining Kettle #1b	0.1/0.20	0.2	0.06 (Hexane) 0.0025 (formaldehyde)	
Calcining Kettle #2	0.25/1.0	1.0	0.24 (Hexane) 0.0099 (formaldehyde)	
Calcining Kettle #3	0.12/0.50	0.50	0.118 (Hexane) 0.005 (formaldehyde)	
Gypsum Wallboard Fuel Combustion				
Wet zone kiln burner	0.6/2.2	2.2	0.53 (Hexane) 0.0016 (formaldehyde)	
Dry zone kiln burner	0.6/2.2	2.2	0.53 (Hexane) 0.0016 (formaldehyde)	
Additional 139 MMBtu/hr (see notes spreadsheet Pg 12)			1.10 (Hexane) 3.4 (formaldehyde)	5.67
Wet end seal burner	0.0/0.1	0.1	0.0197 (Hexane) 0.00006 (formaldehyde)	
Dry end seal burner	0.0/0.1	0.1	0.0197 (Hexane)	

Uncontrolled PTE (tons/year)				
Emission Units	PM/PM10	PM2.5	Single HAP	Combined HAPs
			0.00006 (formaldehyde)	
Water heater	0.02/0.1	0.1	0.027 (Hexane) 0.000086 (formaldehyde)	
Paper heater	0.0/0.1	0.1	0.017 (Hexane) 0.000054 (formaldehyde)	
TOTAL UNCONTROLLED PTE	6632.63 PM 6636.4 6642.31 PM10	6642.31	3.04 (Hexane) 3.44 (formaldehyde)	3.23 7.8
Paved Roads	48.6 /9.48 50.16	9.48		
Conveyor (Transfer and Drops)	1.56/0.74 98.76	0.74		
TOTAL FUGITIVE UNCONTROLLED PTE	50.16 PM 10.22 PM10	10.22		

Controlled PTE (tons/year)				
Emission Units	PM/PM10	PM2.5	Single HAP	Combined HAPs
Landplaster Production				
Landplaster Dryer Mill #1 combustion emissions	0.20/0.70	0.70	0.16 (Hexane) 0.0066 (formaldehyde)	
Landplaster Dryer Mill #2 combustion emissions	0.20/0.70	0.70	0.16 (Hexane) 0.0066 (formaldehyde)	
Stucco Production Line Fuel Combustion				
Calcining Kettle #1	0.1/0.20	0.20	0.06 (Hexane) 0.0025 (formaldehyde)	
Calcining Kettle #1b	0.1/0.20	0.2	0.06 (Hexane) 0.0025 (formaldehyde)	
Calcining Kettle #2	0.25/1.0	1.0	0.24 (Hexane) 0.0099 (formaldehyde)	
Calcining Kettle #3	0.12/0.50	0.50	0.118 (Hexane) 0.005 (formaldehyde)	
Gypsum Wallboard Fuel Combustion				
Wet zone kiln burner	0.6/2.2	2.2	0.53 (Hexane) 0.0016 (formaldehyde)	
Dry zone kiln burner	0.6/2.2	2.2	0.53 (Hexane) 0.0016 (formaldehyde)	
Additional 139 MMBtu/hr (see notes spreadsheet Pg 12)			1.10 (Hexane) 3.4 (formaldehyde)	5.67
Wet end seal burner	0.0/0.1	0.1	0.0197 (Hexane) 0.00006 (formaldehyde)	
Dry end seal burner	0.0/0.1	0.1	0.0197 (Hexane) 0.00006 (formaldehyde)	
Water heater	0.02/0.1	0.1	0.027 (Hexane) 0.000086 (formaldehyde)	
Paper heater	0.0/0.1	0.1	0.017 (Hexane) 0.000054 (formaldehyde)	

Dry joint additive bag dump	0.9 0.09	0.09		

Controlled PTE (tons/year)				
Emission Units	PM/PM10	PM2.5	Single HAP	Combined HAPs
	0.09/0.09			
TOTAL CONTROLLED PTE	73.31 72.5 PM 74.89 79.99 PM10	79.99	3.04 (Hexane) 3.44 (formaldehyde)	3.23 7.8

Paved Roads	48.6 28.19/5.50	5.50		
Conveyor (Transfer and Drops)	50.16 1.56/0.42	0.42		
TOTAL FUGITIVE CONTROLLED PTE	98.76 29.75 PM 5.92 PM10	5.92		

LIMITED (PTE)				
Emission Units	PM/PM10	PM2.5	Single HAP	Combined HAPs
Landplaster Production				
Landplaster Dryer Mill #1 combustion emissions	0.20/ 0.70	0.70	0.16 (Hexane) 0.0066 (formaldehyde)	
Landplaster Dryer Mill #2 combustion emissions	0.20/ 0.70	0.70	0.16 (Hexane) 0.0066 (formaldehyde)	
Stucco Production Line Fuel Combustion				
Calcining Kettle #1	0.1/ 0.20	0.20	0.06 (Hexane) 0.0025 (formaldehyde)	
Calcining Kettle #1b	0.1/ 0.20	0.2	0.06 (Hexane) 0.0025 (formaldehyde)	
Calcining Kettle #2	0.25/ 1	1	0.24 (Hexane) 0.0099 (formaldehyde)	
Calcining Kettle #3	0.12/ 0.50	0.50	0.118 (Hexane) 0.005 (formaldehyde)	
Gypsum Wallboard Fuel Combustion				
Wet zone kiln burner	0.6/ 2.2	2.2	0.53 (Hexane) 0.0016 (formaldehyde)	
Dry zone kiln burner	0.6/ 2.2	2.2	0.53 (Hexane) 0.0016 (formaldehyde)	
Additional 139 MMBtu/hr (see notes spreadsheet Pg 12)			1.10 (Hexane) 3.4 (formaldehyde)	5.67
Wet end seal burner	0.0/ 0.1	0.1	0.0197 (Hexane) 0.00006 (formaldehyde)	
Dry end seal burner	0.0/ 0.1	0.1	0.0197 (Hexane) 0.00006 (formaldehyde)	
Water heater	0.02/ 0.1	0.1	0.027 (Hexane) 0.000086 (formaldehyde)	
Paper heater	0.0/ 0.1	0.1	0.017 (Hexane) 0.000054 (formaldehyde)	
TOTAL LIMITED PTE	237.4 234.3 PM 243.01 PM10	95.07	3.04 (Hexane) 3.44 (formaldehyde)	3.23 7.8

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	Potential Tp Emit (tons/year)
PM	6,634.82
PM ₁₀	6,636.406 6,642.31
PM _{2.5}	6,642.31
SO ₂	0.60
VOC	22.54
CO	149.10
NO _x	87.00

HAPs	Potential To Emit (tons/year)
Hexane	3.04
Ethylene Glycol	0.15
Benzene	0.00167
Dichlorobenzene	0.00096
Formaldehyde	0.036 3.44
Toluene	0.0027
Lead	0.000398
Cadmium	0.00088
Chromium	0.0011
Manganese	0.00026
Nickel	0.00144
Worst Single HAP	3.04 (Hexane) 3.44 (Formaldehyde)
Total Combined HAPs	3.23 7.8

CONTROLLED/LIMITED POTENTIAL TO EMIT (tons/year)						
Emission Units	NOx	CO	PM/PM10	PM2.5	SO2	VOC
Joint Treatment						
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	2.87	1.05	0.00	0.00
Hydrocal Railcar Pneumatic Conveying and Storage	0.00	0.00	2.87	1.05	0.00	0.00
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	2.87	1.05	0.00	0.00
Kaolinite Perlite Truck Pneumatic Conveying and Storage	0.00	0.00	0.96	0.35	0.00	0.00
Landplaster Production						
Landplaster Dryer Mill #1 combustion emissions	8.80	7.40	0.20/0.70	0.70	0.10	0.50
Landplaster Dryer Mill #2 combustion emissions	8.80	7.40	0.20/0.70	0.70	0.10	0.50
Dryer Mill #1 Process & screening station #1	0.00	0.00	42.08	15.33	0.00	0.00
Dryer Mill #2 Process & screening station #2	0.00	0.00	42.08	15.33	0.00	0.00
Mill HRA Landplaster bin	0.00	0.00	0.95	0.35	0.00	0.00
Paper Waste Reclamation	0.00	0.00	6.89	2.51	0.00	0.00
Stucco Production Line						
Kettle feed bin #1	0.00	0.00	0.95	0.35	0.00	0.00
Kettle feed bin #2	0.00	0.00	5.74	2.09	0.00	0.00
Kettle feed bin #3	0.00	0.00	5.74	2.09	0.00	0.00
Calcining kettle #1A & #1b	0.00	0.00	3.84	1.4	0.00	0.00
Calcining kettle #2	0.00	0.00	11.48	4.18	0.00	0.00
Calcining kettle #3	0.00	0.00	17.22	6.27	0.00	0.00
Kettle #3 Hot pit	0.00	0.00	5.74	2.09	0.00	0.00
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.00	0.00	2.85	1.04	0.00	0.00
Stucco Surge Bin Loading and Conveying	0.00	0.00	12.80	4.67	0.00	0.00
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	0.00	0.00	6.32	2.30	0.00	0.00
Stucco Production Line Fuel Combustion						
Calcining Kettle #1A	3.30	2.80	0.1/0.2	0.2	0.00	0.20

CONTROLLED/LIMITED POTENTIAL TO EMIT (tons/year)						
Emission Units	NOx	CO	PM/PM10	PM2.5	SO2	VOC
Calcining Kettle #1b	3.30	2.80	0.1/0.2	0.2	0.00	0.20
Calcining Kettle #2	13.10	11.00	0.25/1.0	1.0	0.00	0.70
Calcining Kettle #3	6.60	5.50	0.12/0.5	0.5	0.00	0.40
Gypsum Wallboard Production Line						
Stucco storage bin	0.00	0.00	0.51	0.19	0.00	0.00
Landplaster feed bin	0.00	0.00	1.02	0.37	0.00	0.00
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	0.00	0.00	8.15	3.03	0.00	0.00
Starch Bulk Storage Bin	0.00	0.00	1.02	0.37	0.00	0.00
Clay (kaolinite) bin	0.00	0.00	0.82	0.30	0.00	0.00
Starch refill bin	0.00	0.00	0.61	0.22	0.00	0.00
Clay (kaolinite) feed bin & spare feeder	0.00	0.00	0.61	0.22	0.00	0.00
HRA ball mill, elevator, feed screw & sugar additive bin	0.00	0.00	1.29	0.47	0.00	0.00
End Saw & cut-back dunnage saw	0.00	0.00	18.38	6.69	0.00	0.00
Wallboard shredder	0.00	0.00	7.64	2.78	0.00	0.00
Kiln drying process	0.00	0.00	1.18	2.76	0.00	17.33
Gypsum Wallboard Fuel Combustion						
Wet zone kiln burner	14.7	24.7	0.6/2.2	2.2	0.2	1.60
Dry zone kiln burner	14.7	24.7	0.6/2.2	2.2	0.2	1.60
Wet end seal burner	1.1	0.9	0/0.1	0.1	0	0.10
Additional 139 MMBtu/hr (see notes spreadsheet Page 12)	0	49.9	0	0	0	0
Dry end seal burner	1.1	0.9	0/0.1	0.1	0.00	0.10
Water heater	1.5	1.3	0.02/0.1	0.1	0.00	0.10
Paper heater	1.00	0.8	0/0.1	0.1	0.00	0.10
Ready Mix Line						
Mixer #1 & holding hopper	0.00	0	1.29	0.47	0.00	0.00
Mixer #2 & holding hopper	0.00	0.00	1.29	0.47	0.00	0.00
Conveying	0.00	0.00	1.53	0.56	0.00	0.00
Quick Mixer	0.00	0.00	0.17	0.06	0.00	0.00

CONTROLLED/LIMITED POTENTIAL TO EMIT (tons/year)						
Emission Units	NOx	CO	PM/PM10	PM2.5	SO2	VOC
Dry Joint Compound Production Line						
Screw reclaim conveyor & dry joint mixer	0	0.00	3.84	1.40	0.00	0
Dry joint additive bag dump	0.00	0.00	3.06	0.11	0.00	0
Dry Texture Paint Production Line						
Dry additive conveying system	0.00	0.00	0.44	0.16	0.00	0
Dry texture Paint mixer, reclaim conveying, & packaging	0.00	0.00	2.24	0.82	0.00	0
Additive bag dump	0.00	0.00	3.06	0.11	0.00	0
Bag Dump Station						
Bag & Tote Dispensing System	0.00	0.00	3.84	1.40	0.00	0
Weighing & batching system side A	0.00	0.00	0.85	0.31	0.00	0
Weighing & batching system side B	0.00	0.00	0.85	0.31	0	0
Adhesives and Inks	0.	0	0	0	0	1.07
TOTAL LIMITED PTE	78.00	90.20 140.1	241.2 237.1 PM 243.01 PM10	95.07	0.60	22.54
PSD and Emission Offset Threshold Levels	250	250	250	100	250	25

(d)

Fugitive Emissions

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, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are **not** counted toward the determination of PSD and Emission Offset applicability.

Comment 19: TSD, Page 11 of 34, Unrestricted Potential Emissions

The formaldehyde potential emissions (primarily from the kiln) are not included individually, in the single HAP column, nor included in the total HAPs on this page. Formaldehyde is the highest single HAP. Please edit these totals to reflect these emissions.

Response 19: See Response 18 for the changes related to this comment.

Comment 20: TSD, Page 14 of 34, Controlled /Limited PTE.

The third line is listed as Kaolinite Truck Pneumatic Conveying and Storage. It is a Perlite Truck Pneumatic Conveying and Storage unit. Please edit this description in the table.

Response 20: See Response 18 for the changes related to this comment.

Comment 21: TSD, Page 16 of 34, Controlled /Limited PTE

The Carbon Monoxide (CO) Total Limited PTE is not summed correctly. The correct total is 140.1 tons/year as per the draft calculations. Please edit these totals to accurately reflect this.

Response 21: This typographical error has been corrected. See Response 18 for the change related to this comment.

Comment 22: TSD, Page 16 of 34(d), Permit Level Determination–PSD or Emission Offset

Regarding fugitive emissions, as per 2-7-1(22)(B), the major stationary source definition states, "...as defined in Section 302 of the CAA, that directly emits or has the potential to emit, one hundred (100) tons per year or more of any regulated air pollutant (including any major source of fugitive emissions of any such pollutant, as determined by the U.S. EPA by rule). The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of Section 302(j) of the CAA, unless the source belongs to one (1) of the following categories of stationary sources:

Description should read "on August 7, 1980, therefore fugitive emissions are **not** counted toward the determination...". Please edit the calculation notes on page 1, 2, & 20 of TSD Appendix A to reflect this.

Response 22: All the documents (including calculation pages 1, 2, and 20) in the draft permit, except the TSD are correct in stating that "the fugitive emissions are **not** counted toward the PSD and Part 70 applicability.....". The word "not" has been inadvertently deleted in the TSD. Please see Response 18 for the change related to this comment.

Comment 23: TSD, Page 22 of 34, State Rule Applicability Table
Emission Units: Kaolinite Truck Pneumatic Conveying and Storage

Description should read, "**Perlite Kaolinite** Truck Pneumatic Conveying and Storage. Please edit this description.

Response 23: **TSD** - The change to this part of the TSD has been documented here as follows:

State Rule Applicability - Entire Source

(a) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset):

Emission Units	PM/PM10 Emissions Limit (lb/hr)	PM2.5 Emissions Limit lb/hr
Joint Treatment		

Kaolinite Perlite Truck Pneumatic Conveying and Storage	0.22	0.08
Landplaster Production		
End Saw & cut-back dunnage saw	4.20	1.53

Comment 24: Page 24 of 34, TSD, State Rule Applicability, 326 IAC 6.8-10-3(7)(A), Particulate Matter Emissions Limitations

This rule was excluded from the permit and TSD. Please note applicability in the TSD.

Response 24: See Response 6 related to this comment.

Comment 25: Page 1 of 20, TSD, Appendix A

The PM, PM10, & PM2.5 potential emissions totals are incorrect. The Dryer Mills, Calcining Kettles, & Kiln Combustion calculations have been incorrectly carried over into the unrestricted potential emissions sheet. The PM emission totals should be different from the PM10 & 2.5 due to different emission factors in their respective calculation sheets. When carried over, the PM is equal to the PM10 and it shouldn't be. PM10 should be equal to the PM2.5. In total, the PM10 should never be less than PM2.5. Please update these totals respectively.

Response 25: See Response 18 for the changes related to this comment.

Comment 26: Page 1 of 20, TSD, Appendix A

The formaldehyde potential emissions (primarily from the kiln) are not included in the single HAP column nor included in the total HAPs on this page. Formaldehyde is the highest single HAP for the source. Please edit these totals to reflect these emissions.

Response 26: See Response 18 for the changes related to this comment.

Comment 27: Page 1 of 20, TSD, Appendix A

The fugitive conveying particulate emissions are incorrect, the uncontrolled PM PTE is 1.56 tons/year and the uncontrolled PM10/2.5 PTE is 0.74 tons/year. The corresponding uncontrolled fugitive emission totals are also incorrect. The PM total fugitive uncontrolled PTE is 50.16 tons/year and the PM10/2.5 total fugitive uncontrolled PTE is 10.22

tons/year.

Response 27: See Response 18 for the changes related to this comment.

Comment 28: – Page 2 of 20, TSD, Appendix A

The PM, PM10, & PM2.5 controlled emissions from Dryer Mills, Calcining Kettles, & Kiln Combustion have been incorrectly carried over into this sheet. The PM emission totals are different from the PM10 & PM2.5 due to different emission factors in their respective calculation sheets. When carried over, the PM is equal to the PM10 and it shouldn't be. PM10 should be equal to the PM2.5. In total, the PM10 should never be less than PM2.5. Please update these totals respectively.

Response 28: See Response 18 for changes related to this comment.

Comment 29: Page 2 of 20, TSD, Appendix A

The particulate controlled emissions from Dry Joint Additives Bag Dump have been incorrectly carried over into this sheet. When carried over from its respective calculation sheet, the PM, PM10, & PM2.5 should equal 0.09 tons per year. Please update these totals respectively.

Response 29: See Response 18 for the changes related to this comment.

IDEM has deleted the screening station #2 in the permit since it is no longer at the plant.

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

D.2.1 PM/PM10 Emissions Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following limits:

Emission Units	PM/PM10 Emission Limits (lbs/hr)
Dryer Mill #1 Process & screening station #1	9.61
Dryer Mill #2 Process & screening station #2	9.61
Mill HRA Landplaster bin	0.22
Paper Waste Reclamation	1.57

Compliance with these limits in conjunction with the PSD minor limits for PM/PM10 in the other SECTION Ds shall render the requirements of 326 IAC 2-2, not applicable with respect to PM/PM10 emissions.

D.2.2 PM2.5 Nonattainment Major New Source Review (NSR) Minor Limits [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

Emission Units	PM2.5 Emission Limits (lbs/hr)
Dryer Mill #1 Process & screening station #1	3.50
Dryer Mill #2 Process & screening station #2	3.50
Mill HRA Landplaster bin	0.08
Paper Waste Reclamation	0.57

Compliance Determination Requirements

D.2.5 6 Particulate Control

The baghouses for particulate control shall be in operation at all times the dryer mill #1 process & screening station #1, dryer mill #2 process & screening station #2, mill HRA landplaster bin and paper waste reclamation system are in operation.

D.2.7 8 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) No later than 180 days after the issuance of this Part 70 Operating Permit Renewal No. 089-17794-00333, in order to demonstrate compliance with Conditions D.2.1, ~~and D.2.3~~ **and D.2.4**, the Permittee shall perform PM testing on one (1) representative of the dryer mills ~~and screening stations~~ (dryer mill #1 process & screening station #1, controlled by baghouse MBH-8 and dryer mill #2 process & screening station #2, controlled by baghouse MBH-12, utilizing methods as approved by the Commissioner.
- (b) In order to demonstrate compliance with Conditions D.2.2 and D.2.3, the Permittee shall perform PM 2.5 and PM10 testing on one (1) representative of the dryer mills ~~and screening stations~~ (dryer mill #1 process & screening station #1, controlled by baghouse MBH-8 and dryer mill #2 process & screening station #2, controlled by baghouse MBH-12 within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner.

The PM, PM10 and PM2.5 testing shall be repeated once every five (5) years from the date of the most recent valid compliance demonstration. Testing of the dryer mills, ~~screening stations~~ shall be conducted such that every five years each of the dryer mills ~~and screening stations~~ is alternately tested.

Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

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

D.2.8 9 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with dryer mill #1 process & screening station #1, dryer mill #2 process & screening station #2, mill HRA landplaster bin and paper waste reclamation system, at least once per day when the process is in operation. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.2.9 10 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the baghouses controlling the dryer mill #1 process & screening station #1, dryer mill #2 process & screening station #2, and paper waste reclamation:

D.2.10 11 Visible Emissions Notations

- (a) Visible emission notations of the dryer mill #1 process & screening station #1, dryer mill #2 process & screening station #2, mill HRA landplaster bin and paper waste reclamation system baghouses stack exhaust (M-8, M-12, M-19 and WR-3) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

D.2.12 13 Record Keeping Requirement

- (a) To document compliance with Condition D.2.10-11, the Permittee shall maintain records of visible emission notations of the stack exhausts M-8, M-12, M-19 and WR-3 once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.2.8 9, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.2.9-10, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the baghouses controlling the dryer mill #1 process & screening station #1, dryer mill #2 process & screening station #2, and paper waste reclamation (if any are

required).

- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

IDEM has revised the following conditions to reference the added Conditions D.3.4, D.4.4 and D.5.4, required under 326 IAC 6.8-10-3:

D.3.8 9 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) In order to demonstrate compliance with Conditions D.3.1 and D.3.45, the Permittee shall perform PM testing as follows on the emission units utilizing methods as approved by the Commissioner:
- (1) One (1) representative of the calcining kettles (calcining kettle #1A and #1B controlled by one baghouse MBH-22, calcining kettle #2 controlled by baghouse MBH-16 and calcining kettle #3 controlled by baghouse MBH-1) - Five (5) years from the most recent demonstration of compliance done on November 5, 2004 for the calcining kettle #1B.
- (b) In order to demonstrate compliance with Conditions D.3.1, D.3.2, and D.3.3 and **D.3.4**, the Permittee shall perform PM 2.5 and PM10 testing within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted for the following emission units utilizing methods as approved by the Commissioner:

D.3.14 Record Keeping Requirement

- (a) To document compliance with Condition D.3.44**12**, the Permittee shall maintain records of visible emission notations of the stack exhausts (M-27, M-28, M-22A, M-22B, M-16, M-1, M-2 and M-23) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.3.9 **10**, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.3.40 **11**, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the baghouses controlling the kettle feed bin #2, kettle feed bin #3, calcining kettle #1A & #1B, calcining kettle #2, calcining kettle #3, kettle #3 hot pit, stucco handling-#17 & #17A screw conveyors, belt conveyors & stucco storage bin (if any are required).

D.4.7 8 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (b) In order to demonstrate compliance with Conditions D.4.1, and D.4.2 and **D.4.4**, the Permittee shall perform PM 2.5 and PM10 testing within 180 days of

publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner:

D.4.13 Record Keeping Requirement

- (a) To document compliance with Condition ~~D.4.40-11~~, the Permittee shall maintain records of visible emission notations of the stack exhausts (B-13, B14, B15, B-16, WR-1 and WR-2) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition ~~D.4.8-9~~, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition ~~D.4.9~~ **10**, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the baghouses controlling the one (1) stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill, mixing screw conveyor and wet mixer, one (1) end saw, one (1) **dunnage cut-back** saw and one (1) waste reclaim shredder (if any are required).

D.5.89 Testing Requirements [326 IAC 2-7-6(1), (6)]

- (a) No later than 180 days after the issuance of this Part 70 Operating Permit Renewal No. 089-17794-00333, in order to demonstrate compliance with Conditions D.5.1 and ~~D.5.4-5~~, the Permittee shall perform PM testing on the one (1) screw reclaim conveyor, and one (1) dry joint mixer controlled by one (1) baghouse, JBH-7, utilizing methods as approved by the Commissioner.
- (b) In order to demonstrate compliance with Conditions D.5.1, D.5.2, ~~and D.5.3 and D.5.4~~, the Permittee shall perform PM 2.5 and PM10 testing on the one (1) screw reclaim conveyor and one (1) dry joint mixer controlled by one (1) baghouse, JBH-7, within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

D.5.13 14 Record Keeping Requirement

- (a) To document compliance with Condition ~~D.5.44~~ **12**, the Permittee shall maintain records of visible emission notations of the stack exhausts (J-7 and J-8) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

- (b) To document compliance with Condition D.5.9**10**, the Permittee shall maintain once per day records of the pressure drop during normal operation and the reason for the lack of pressure drop notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.5.4**0 11**, the Permittee shall maintain records of baghouse inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the baghouses controlling the screw reclaim conveyor, dry joint mixer, dry joint packaging, bag and tote dispensing system (if any are required).

Upon further review IDEM, OAQ has added the landplaster emission units that are subject to 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants).

Landplaster is a finely ground gypsum, used as a fertilizer and as a corrective for soil with excess sodium and potassium. Since gypsum is one of the nonmetallic mineral subject to 40 CFR Part 60, Subpart OOO the emission units involved in the landplaster production are subject to this NSPS as well. Therefore, Section E.2 has been revised to include the landplaster emission units.

SECTION E.2 FACILITY OPERATION CONDITIONS

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

A landplaster production process consisting of the following equipment:

- (a) One (1) dryer mill bin #1, constructed in 1988, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, exhausting and exhausting through one (1) stack, identified as M-8.
- (b) One (1) dryer mill bin #2, constructed in 1999, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, exhausting and exhausting through one (1) stack, identified as M-12.
- (c) One (1) dryer mill #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (e) One (1) screening station #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (f) One (1) dryer mill #2, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (h) One (1) mill HRA landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.
- (i) One (1) paper waste reclamation unit, constructed in 2007, with a maximum

capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

A stucco production process, consisting of the following equipment:

(a) The miscellaneous stucco handling operations which includes one (1) #4 stucco elevator, two (2) screw conveyors (#17 and #17A),

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

Technical Support Document -

IDEM, OAQ prefers not to change the original TSD in order to preserve the original information from the issued permit. This TSD Addendum is part of the TSD, it has documented the changes made to the permit and the TSD:

Permitted Emission Units and Pollution Control Equipment

A landplaster production process, consisting of the following equipment:

- (h) One (1) mill **HRA** landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.
- (i) One (1) **paper** waste reclamation unit, constructed in 2007, with a maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

A gypsum wallboard manufacturing line, consisting of the following equipment:

- (w) One (1) existing ~~cut-back~~ **dunnage** saw, constructed in 1999, 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:

- (d) A dry joint compound line, consisting of the following equipment:

- ~~(5) One (1) additive bag dump, constructed in 1977, 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.~~
- (e) A dry texture paint line, consisting of the following equipment:
 - (6) **One (1) additive bag dump, constructed in 1977, 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.

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

Federal Rule Applicability

- (2) 326 IAC 12, 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmettalic Mineral Processing Plants). This standard applies to each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station in fixed or portable nonmetallic mineral processing plants that commences construction, reconstruction, or modification after August 31, 1983.

The following emissions units are subject to 326 IAC 12, 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmettalic Mineral Processing Plants) because they are among the listed emission units subject to the rule and they were constructed after the applicability date of August 31, 1980:

- (H) One (1) **paper** waste reclamation unit.
- (I) The bag and tote dispensing system (BTD1), weighing and batching system (WB1).
- (J) **One (1) landplaster dryer mill bin #1, constructed in 1988, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, exhausting and exhausting through one (1) stack, identified as M-8.**
- (K) **One (1) dryer mill bin #2, constructed in 1999, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, exhausting and exhausting through one (1) stack, identified as M-12.**
- (L) **One (1) dryer mill #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.**
- (M) **One (1) screening station #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.**
- (N) **One (1) dryer mill #2, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as**

MBH-12, and exhausting through one (1) stack, identified as M-12.

- (O) One (1) mill HRA landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.**
- (P) One (1) paper waste reclamation unit, constructed in 2007, with a maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.**

Nonapplicable portions of the NSPS will not be included in the permit. The following requirements shall apply to the above emission units:

- 40 CFR Part 60.670(a)(1), (e), (f), Table -1
- 40 CFR Part 60.671
- 40 CFR Part 60.672(a), (b), (e)(1) and (2), (f), (g)
- 40 CFR Part 60.675
- 40 CFR Part 60.676(f), (h), (i), (j)

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

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	United States Gypsum Company
Source Location:	301 Riley Road, East Chicago, Indiana 46312
County:	Lake
SIC Code:	3275
Permit Renewal No.:	089-17794-00333
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from United States Gypsum Company relating to the operation of a stationary gypsum wallboard and gypsum products manufacturing plant.

History

On August 4, 2003, United States Gypsum Company submitted an application to the IDEM, OAQ requesting to renew its operating permit. United States Gypsum Company was issued an initial Part 70 Operating Permit (089-7532-00333) on July 6, 1999.

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) pneumatic rail car unloading facility, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, with a maximum capacity of 250 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.

- (g) One (1) enclosed rock shed, constructed in 1929, with a maximum capacity of 125,000 tons.
- (h) One (1) waste board material stockpile, permitted in 1988, identified as F-1, with particulate matter emissions exhausting directly to the atmosphere.

A landplaster production process, consisting of the following equipment:

- (a) One (1) dryer mill bin #1, constructed in 1988, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, exhausting and exhausting through one (1) stack, identified as M-8.
- (b) One (1) dryer mill bin #2, constructed in 1999, with a maximum capacity of 60 tons and a throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, exhausting and exhausting through one (1) stack, identified as M-12.
- (c) One (1) dryer mill #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (d) One (1) natural gas-fired burner for the dryer mill #1, constructed in 1988, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-8.
- (e) One (1) screening station #1, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (f) One (1) dryer mill #2, constructed in 1988, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (g) One (1) natural gas-fired burner for the dryer mill #2, constructed in 1988, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-12.
- (h) One (1) mill landplaster bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one (1) stack, identified as M-19.
- (i) One (1) waste reclamation unit, constructed in 2007, with a maximum capacity of 5.0 tons per hour, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through one (1) stack, identified as WR-3.

A stucco production process, consisting of the following equipment:

- (a) Two (2) kettle feed bins, known as kettle feed bin #1 and kettle feed bin #2, constructed in 1929, each with a maximum capacity of 60 tons, with particulate matter emissions controlled by two (2) baghouses. Emissions from kettle feed bin #1 will be controlled by one (1) baghouse, known as MBH-25, and exhausting through one (1) stack, identified as M-25. Emissions from kettle feed bin #2 will be controlled by one (1) baghouse, known as MBH-27 and exhausting through one (1) stack, identified as M-27.

- (b) One (1) calcining kettle, known as calcining kettle #1A, constructed in 2006, with a maximum throughput of 11.5 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22A.
- (c) One (1) calcining kettle, known as calcining kettle #1B, constructed in 2007, with a maximum throughput of 12.0 tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22B.
- (d) One (1) calcining kettle, known as calcining kettle #2, constructed in 1998, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (e) One (1) natural gas-fired burner for calcining kettle #1, constructed in 2007, with a heat input capacity of 7.5 MMBtu per hour, and exhausting through one (1) stack, identified as M-22A.
- (f) One (1) natural gas-fired burner for calcining kettle #1B, constructed in 2006, with a heat input capacity of 7.5 million British thermal units per hour, and exhausting through one (1) stack, identified as M-22B.
- (g) Six (6) natural gas-fired burners for the calcining kettle #2, constructed in 1998, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-14.
- (h) One (1) kettle feed bin, known as kettle feed bin #3, constructed in 1929, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-28, and exhausting through one (1) stack, identified as M-28.
- (i) One (1) calcining kettle, known as calcining kettle #3, constructed in 1929, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) One (1) natural-gas fired burner for the calcining kettle #3, constructed in 1929, with a heat input capacity of 15 MMBtu per hour, and exhausting through one (1) stack, identified as M-6.
- (k) One (1) hot pit, known as hot pit #3, constructed in 1929, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-3, and exhausting through one (1) stack, identified as M-1.
- (l) Miscellaneous stucco handling equipment, constructed in 1998, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the stucco handling system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (m) Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, constructed in 1929, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with

particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.

- (n) Stucco storage equipment, including one (1) #1 elevator and one (1) #27 screw, constructed in 1929, with a maximum capacity of seventy (70) tons per hour, and three (3) stucco storage bins, known as #4, #5 and #6, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-23, and exhausting through one (1) stack, identified as M-23.
- (o) One (1) stucco storage bin, constructed in 1999, with a maximum capacity of 50 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (p) A conveying system, constructed in 1988, consisting of belt and screw conveyors, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.

A gypsum wallboard manufacturing line, consisting of the following equipment:

- (a) One (1) stucco storage bin, constructed in 1999, with a maximum capacity of 1200 tons, with particulate matter controlled by one (1) bin vent, identified as BBH-11, and exhausting through one (1) stack, identified as B-11.
- (b) One (1) stucco surge bin with hopper, constructed in 1999, with a maximum capacity of 2 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (c) One (1) (HRA) landplaster feed bin, constructed in 1999, with a maximum capacity of 20 tons, with particulate matter emissions controlled by one (1) bin vent, identified as BBH-12, and exhausting inside the building through one (1) stack, identified as B-12.
- (d) One (1) HRA mill additive bin (sugar), constructed in 1999, with a maximum capacity of 10 cubic feet, feeding the HRA ball mill, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (e) One (1) HRA ball mill, constructed in 1999, with a maximum throughput of 2400 pounds per hour, with particulate matter controlled by one (1) baghouse, identified as BBH-18, and exhausting inside the building through one (1) stack, identified as B-18.
- (f) One (1) HRA bin, constructed in 1999, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (g) One (1) additive refill bin (starch), constructed in 1999, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-16, and exhausting inside the building through one (1) stack, identified as B-16.
- (h) One (1) additive refill receiver (kaolinite), controlled by one (1) vacuum receiver, identified as BVH-17, constructed in 1999, and exhausting inside the building through one (1) stack, identified as B-17.
- (i) Two (2) additive bulk storage bins (starch and kaolinite), constructed in 1999, each with a maximum capacity of 75 tons, with particulate matter emissions controlled by two (2)

separate baghouses, identified as BBH-14 (starch) and BBH-15 (kaolinite), and all exhausting to two (2) respective stacks, identified as B-14 and B-15.

- (j) One (1) additive surge bin (kaolinite), constructed in 1999, with a maximum capacity of 5 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-17, and exhausting through one (1) stack, identified as B-17.
- (k) One (1) glass fiber additive bin, constructed in 1999, with a maximum capacity of six (6) cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (l) One (1) paper fiber mill with cyclone separator, constructed in 1999, with a maximum throughput of 900 pounds 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.
- (m) One (1) mixing screw conveyor, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, 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, constructed in 1999, with a maximum throughput of 90,000 square feet (1/2 inch equivalent) of wallboard per hour, and exhausting through one (1) main stack, identified as B-20.
- (u) One (1) end saw, constructed in 1999, with a maximum throughput of 90,000 square feet (1/2 inch equivalent) 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) wallboard shredder, constructed in 1999, 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, constructed in 1999, 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, constructed in 1977, 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, constructed in 1977, 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, constructed in 1977, 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 additive bag dump, constructed in 1977, 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.
 - (3) Two (2) wet mixers, constructed in 1997, each with a maximum throughput of 7.25 tons per hour, controlled by baghouses JBH-1 and JBH-2, each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
 - (4) One (1) Quick mixer, controlled by baghouse, identified as JVH-20.
 - (5) One (1) conveying system, controlled by baghouse, identified as JVH-3.
- (d) A dry joint compound line, consisting of the following equipment:
 - (1) One (1) dry joint additive bag dump constructed in 1995, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-8, and exhausting through one (1) stack, identified as J-8.
 - (2) One (1) reclaim screw conveyor, constructed in 1995, 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.
 - (3) One (1) dry joint mixer, constructed in 1977, 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.
 - (4) One (1) packing machine, constructed in 1977, 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.
 - (5) One (1) additive bag dump, constructed in 1977, 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.

- (e) A dry texture paint line, consisting of the following equipment:
- (1) One (1) reclaim screw conveyor, constructed in 1995, 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) One (1) dry texture paint mixer, constructed in 1977, 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) One (1) packing machine, constructed in 1977, 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.
 - (4) One (1) dry paint weigh station, constructed in 1977, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through one (1) stack, identified as J-15.
 - (5) One (1) dry additive conveying system, constructed in 1977, 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, constructed in 2006, with a maximum throughput of 2,166 pounds of dry additives per hour, controlled by one dry cartridge filter dust collector, identified as JBH-17, exhausting inside the building.
 - (2) One (1) weighing and batching system identified as WB1, constructed in 2006, with a maximum throughput of 2,166 pounds of dry additives per hour, controlled by two (2) dry cartridge filter dust collectors, identified as JBH-18 and JBH-19, exhausting inside the building.

Permitted Insignificant Activities

- (a) Degreasing operation that does 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) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

- (e) 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.

Existing Approvals

Since the issuance of the Part 70 Operating Permit No. 089-7532-0033) on July 6, 1999, the source has constructed or has been operating under the following approvals as well:

- (a) First Significant Permit Modification No. 089-11767-00333, issued on November 13, 2002;
- (b) Second Significant Permit Modification No. 089-16805-00333, issued on March 14, 2003;
- (c) Review Request No. 089-16949-00333, issued on August 14, 2003;
- (d) Review Request No. 089-17817-00333, issued on August 14, 2003;
- (e) Review Request No. 089-18043-00333, issued on September 12, 2003;
- (f) Third Significant Permit Modification No. 089-18554-00333, issued on May 12, 2004;
- (g) First Administrative Amendment No. 089-19720-00033, issued on September 3, 2004;
- (h) Second Administrative Amendment No. 089-19361-00033, issued on August 30, 2004;
- (i) Third Administrative Amendment No. 089-21947-00033, issued on November 7, 2005;
- (j) Fourth Significant Permit Modification No. 089-21728-00333, issued on March 3, 2006; and
- (k) Fifth Significant Permit Modification No. 089-19551-00333, issued on 19, 2006.

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

- (a) All Section B and Section C conditions have been revised in this Part 70 Operating Permit Renewal to reflect the most updated version.
- (b) All Conditions in SECTION Ds have been revised to reflect the new minor PSD and Emission Offset status of the source.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O ₃	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

(1) One-hour ozone standard:

On December 22, 2006, the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for nonattainment new source review. See the State Rule Applicability for the source section.

(2) 8-hour ozone standard:

VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

- (b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. 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 New Source Review Rule for PM2.5 promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
- (c) Lake County has been classified as attainment or unclassifiable for all other criteria pollutants. 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 in 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.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	Potential Tp Emit (tons/year)
PM	6,634.82
PM ₁₀	6,636.40
PM _{2.5}	6,642.31
SO ₂	0.60
VOC	22.54
CO	149.10
NO _x	87.00

HAPs	Potential To Emit (tons/year)
Hexane	3.04
Ethylene Glycol	0.15
Benzene	0.00167
Dichlorobenzene	0.00096
Formaldehyde	0.036
Toluene	0.0027
Lead	0.000398
Cadmium	0.00088
Chromium	0.0011
Manganese	0.00026
Nickel	0.00144
Worst Single HAP	3.04 (Hexane)
Total Combined HAPs	3.23

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

Since this type of operation is not one of the twenty-eight (28) listed source categories, fugitive emissions are not counted toward the determination of Part 70 applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2007 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	33.0
PM ₁₀	33.0
PM _{2.5}	33.0
SO ₂	0.0
VOC	3.0
CO	46.0
NO _x	55.0

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Source Status

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

Pollutant	Emissions (tons/year)
PM	233
PM ₁₀	233
PM _{2.5}	233
SO ₂	20.6
VOC	96.2
CO	1,202
NO _x	4,807
Total HAPs	1.91

- (a) This existing source is a major stationary source under 326 IAC 2-2 (PSD), because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.
- (b) This existing source is a major stationary source under 326 IAC 2-1.1-5, nonattainment major New Source Review (NSR) rules, because VOC, a nonattainment regulated pollutant is emitted at a rate of twenty-five (25) tons per year or more.
- (c) This existing source is a major stationary source, under nonattainment NSR rules (326 IAC 2-1.1-5) since PM10 (a surrogate for PM2.5) is emitted at a rate of 100 tons per year or more.
- (d) This determination was based on issued Minor Source Modification No. 089-19642-00333, issued on October 13, 2005 and Significant Permit Modification No. 089-19551-00333, issued on January 19, 2006.
- (e) Fugitive Emissions
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, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions were not counted toward the determination of PSD and Emission Offset applicability.

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

HAPs	Potential To Emit (tons/year)
Hexane	1.6
Ethylene Glycol	0.17
Benzene	0.00167
Dichlorobenzene	0.00096
Formaldehyde	0.780
Toluene	0.0027
Lead	0.000398
Cadmium	0.00088
Chromium	0.0011
Manganese	0.00026
Nickel	0.00144
Worst Single HAP	1.6 (Hexane)
Total Combined HAPs	2.50

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

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 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

The source is an existing major source under 326 IAC 2-2, Prevention of Significant Deterioration (PSD) and 326 IAC 2-3, Emissions Offset as referenced in the **Source Status** table. However, the source has requested limits on its PTE to become a minor source for PSD and Emission Offset as reflected in this table.

CONTROLLED/LIMITED POTENTIAL TO EMIT (tons/year)						
Emission Units	NOx	CO	PM/PM10	PM2.5	SO2	VOC
Joint Treatment						
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	2.87	1.05	0.00	0.00

CONTROLLED/LIMITED POTENTIAL TO EMIT (tons/year)						
Emission Units	NOx	CO	PM/PM10	PM2.5	SO2	VOC
Hydrocal Railcar Pneumatic Conveying and Storage	0.00	0.00	2.87	1.05	0.00	0.00
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	2.87	1.05	0.00	0.00
Kaolinite Truck Pneumatic Conveying and Storage	0.00	0.00	0.96	0.35	0.00	0.00
Landplaster Production						
Landplaster Dryer Mill #1 combustion emissions	8.80	7.40	0.20	0.70	0.10	0.50
Landplaster Dryer Mill #2 combustion emissions	8.80	7.40	0.20	0.70	0.10	0.50
Dryer Mill #1 Process & screening station #1	0.00	0.00	42.08	15.33	0.00	0.00
Dryer Mill #2 Process & screening station #2	0.00	0.00	42.08	15.33	0.00	0.00
Mill Landplaster bin	0.00	0.00	0.95	0.35	0.00	0.00
Waste Reclamation	0.00	0.00	6.89	2.51	0.00	0.00
Stucco Production Line						
Kettle feed bin #1	0.00	0.00	0.95	0.35	0.00	0.00
Kettle feed bin #2	0.00	0.00	5.74	2.09	0.00	0.00
Kettle feed bin #3	0.00	0.00	5.74	2.09	0.00	0.00
Calcining kettle #1A & #1b	0.00	0.00	3.84	1.4	0.00	0.00
Calcining kettle #2	0.00	0.00	11.48	4.18	0.00	0.00
Calcining kettle #3	0.00	0.00	17.22	6.27	0.00	0.00
Kettle #3 Hot pit	0.00	0.00	5.74	2.09	0.00	0.00
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.00	0.00	2.85	1.04	0.00	0.00
Stucco Surge Bin Loading and Conveying	0.00	0.00	12.80	4.67	0.00	0.00
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	0.00	0.00	6.32	2.30	0.00	0.00
Stucco Production Line Fuel Combustion						
Calcining Kettle #1A	3.30	2.80	0.1	0.2	0.00	0.20
Calcining Kettle #1b	3.30	2.80	0.1	0.2	0.00	0.20
Calcining Kettle #2	13.10	11.00	0.25	1	0.00	0.70
Calcining Kettle #3	6.60	5.50	0.12	0.5	0.00	0.40
Gypsum Wallboard Production Line						
Stucco storage bin	0.00	0.00	0.51	0.19	0.00	0.00
Landplaster feed bin	0.00	0.00	1.02	0.37	0.00	0.00

CONTROLLED/LIMITED POTENTIAL TO EMIT (tons/year)						
Emission Units	NOx	CO	PM/PM10	PM2.5	SO2	VOC
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	0.00	0.00	8.15	3.03	0.00	0.00
Starch Bulk Storage Bin	0.00	0.00	1.02	0.37	0.00	0.00
Clay (kaolinite) bin	0.00	0.00	0.82	0.30	0.00	0.00
Starch refill bin	0.00	0.00	0.61	0.22	0.00	0.00
Clay (kaolinite) feed bin & spare feeder	0.00	0.00	0.61	0.22	0.00	0.00
HRA ball mill, elevator, feed screw & sugar additive bin	0.00	0.00	1.29	0.47	0.00	0.00
End Saw & cut-back saw	0.00	0.00	18.38	6.69	0.00	0.00
Wallboard shredder	0.00	0.00	7.64	2.78	0.00	0.00
Kiln drying process	0.00	0.00	1.18	2.76	0.00	17.33
Gypsum Wallboard Fuel Combustion						
Wet zone kiln burner	14.7	24.7	0.6	2.2	0.2	1.60
Dry zone kiln burner	14.7	24.7	0.6	2.2	0.2	1.60
Wet end seal burner	1.1	0.9	0	0.1	0	0.10
Additional 139 MMBtu/hr (see notes spreadsheet Page 12)	0	49.9	0	0	0	0
Dry end seal burner	1.1	0.9	0	0.1	0.00	0.10
Water heater	1.5	1.3	0.02	0.1	0.00	0.10
Paper heater	1.00	0.8	0	0.1	0.00	0.10
Ready Mix Line						
Mixer #1 & holding hopper	0.00	0	1.29	0.47	0.00	0.00
Mixer #2 & holding hopper	0.00	0.00	1.29	0.47	0.00	0.00
Conveying	0.00	0.00	1.53	0.56	0.00	0.00
Quick Mixer	0.00	0.00	0.17	0.06	0.00	0.00
Dry Joint Compound Production Line						
Screw reclaim conveyor & dry joint mixer	0	0.00	3.84	1.40	0.00	0
Dry joint additive bag dump	0.00	0.00	3.06	0.11	0.00	0
Dry Texture Paint Production Line						
Dry additive conveying system	0.00	0.00	0.44	0.16	0.00	0
Dry texture Paint mixer, reclaim conveying, & packaging	0.00	0.00	2.24	0.82	0.00	0
Bag Dump Station						
Bag & Tote Dispensing System	0.00	0.00	3.84	1.40	0.00	0
Weighing & batching system side A	0.00	0.00	0.85	0.31	0.00	0

CONTROLLED/LIMITED POTENTIAL TO EMIT (tons/year)						
Emission Units	NOx	CO	PM/PM10	PM2.5	SO2	VOC
Weighing & batching system side B	0.00	0.00	0.85	0.31	0	0
Adhesives and Inks	0.	0	0	0	0	1.07
TOTAL LIMITED PTE	78.00	90.20	241.2	95.07	0.60	22.54
PSD and Emission Offset Threshold Levels	250	250	250	100	250	25

Note: Lake County is in attainment area for PM10 with a major threshold of 250 tons/yr. Lake County is in basic nonattainment area for PM2.5, with a major threshold of 100 tons/yr.

- (a) The source is a minor source for PSD because no attainment pollutant is emitted at a rate of 250 tons per year or more and the source is not in one of the 28 listed source categories.
- (b) The source is not a major source under nonattainment major NSR review, 326 IAC 2-1.1-5 because VOC and PM2.5 both nonattainment pollutants are not emitted at a rate of 25 tons per year or more and 100 tons per year or more, respectively.
- (c) The source is not a major source under Emission Offset, 326 IAC 2-3 because VOC a nonattainment pollutant is not emitted at a rate of 100 tons per year or more.
- (d) Fugitive Emissions
 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, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

See additional discussion in State Rule Applicability

Since the existing source status has changed from a major source to a minor source, all the PTE limits in previous issued source modifications have been removed since they are no longer valid.

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60)
- (1) 326 IAC 12, 40 CFR Part 60, Subpart UUU (Standards of Performance for Calciners and Dryers in the Mineral Industries). This standard applies to these facilities that commence construction, modification, or reconstruction after April 23, 1986.
- (A) The calcining kettle #3 is not subject to 326 IAC 12, 40 CFR Part 60, Subpart UUU because it was constructed in 1929, which is prior to the applicability date of April 23, 1986.
- (B) The dryer mills #1 and #2 are not subject to 326 IAC 12, 40 CFR Part 60, Subpart UUU because equipment that grinds and also dries the process material are not subject to this rule.
- (C) The following emissions units are subject to 326 IAC 12, 40 CFR Part 60, Subpart UUU (Standards of Performance for Calciners and Dryers in Mineral Industries):
- (1) Three (3) calcining kettles (#1, #1B and #2)
- Nonapplicable portions of the NSPS will not be included in the permit. The following requirements shall apply to the above emission units:
- 40 CFR Part 60.730
40 CFR Part 60.731
40 CFR Part 60.732
40 CFR Part 60.734(a),(c)
40 CFR Part 60.735(a)
40 CFR Part 60.736(a), (b)(1)
40 CFR Part 60.737
- (2) 326 IAC 12, 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants). This standard applies to each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station in fixed or portable nonmetallic mineral processing plants that commences construction, reconstruction, or modification after August 31, 1983.
- (A) The limestone, hydrocal, mica and perlite storage silos are not subject to 326 IAC 12, 40 CFR Part 60, Subpart OOO because they were constructed in 1977, which is prior to the applicability date of August 31, 1983.
- (B) The three kettle feed bins #1, #2 and #3 are not subject to 326 IAC 12, 40 CFR Part 60, Subpart OOO because they were constructed in 1929, which is prior to the applicability date of August 31, 1983.
- (C) The six (6) stucco storage bins (#1, #2, #3, #4, #5 and #6), one (1) elevator (#1), and three (3) screw conveyors (#27, #47 and #49) are not subject to 326 IAC 12, 40 CFR Part 60, Subpart OOO because they were constructed in 1929, which is prior to the applicability date of August 31, 1983.

- (D) One (1) dry joint compound packing machine and one (1) dry texture paint line packing machine and one (1) dry texture paint additive conveying system are not subject to 326 IAC 12, 40 CFR Part 60, Subpart OOO because these units were all constructed in 1977, which is prior to the applicability date of August 31, 1983.

The following emissions units are subject to 326 IAC 12, 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) because they are among the listed emission units subject to the rule and they were constructed after the applicability date of August 31, 1980:

- (A) The miscellaneous stucco handling operations which includes one (1) #4 stucco elevator, two (2) screw conveyors (#17 and #17A), two (2) stucco storage bins, two (2) stucco surge bins
- (B) One (1) stucco storage bin
- (C) One (1) stucco surge bin with hopper
- (D) One (1) (HRA) landplaster feed bin, one (1) HRA bin, one (1) HRA mill additive sugar bin, one (1) HRA ball mill, one (1) additive starch refill bin, one (1) additive vermiculite refill receiver, two (2) additive starch and kaolinite bulk storage bins, one additive kaolinite surge bin, glass fiber additive bin, one (1) paper fiber mill
- (E) One (1) wallboard mixing screw conveyor
- (F) One (1) dry joint compound reclaim screw conveyor
- (G) One (1) dry texture paint line reclaim screw conveyor
- (H) One (1) waste reclamation unit.
- (I) The bag and tote dispensing system (BTD1), weighing and batching system (WB1).

Nonapplicable portions of the NSPS will not be included in the permit. The following requirements shall apply to the above emission units:

40 CFR Part 60.670(a)(1), (e), (f), Table -1
40 CFR Part 60.671
40 CFR Part 60.672(a), (b), (e)(1) and (2), (f), (g),
40 CFR Part 60.675
40 CFR Part 60.676(f), (h), (i), (j)

- (3) There are no other NSPS standards that are applicable to this existing source.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63)
- (1) 40 CR Part 63, Subpart T- National Emission Standards for Halogenated Solvent Cleaning.

The degreasing operation, an insignificant activity is not subject to 40 CR Part 63, Subpart T, because it does not use any halogenated solvent containing methylene

chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.

- (2) There are no other NESHAP standards that are applicable to this existing area source.
- (c) Pursuant to 40 CFR 64, 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 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 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/Limited PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Landplaster Conveying/Handling (Stucco screw conveyor #17, #17A and stucco storage bin)	Baghouse (MBH-2)	Y	377.31 PM 377.31 PM10	3.77 PM 3.77 PM10	100	Y	N
Landplaster dryer mill #1 and screening station #1	Baghouse (MBH-8)	Y	1,238.91 PM 1,238.91 PM10	12.39 PM 12.39 PM10	100	Y	N
Landplaster dryer mill #2 and screening station #2	Baghouse (MBH-12)	Y	1,238.91 PM 1,238.91 PM10	12.39 PM 12.39 PM10	100	Y	N
Waste reclamation	Baghouse (DCWR-3)	Y	202.73	2.03	100	Y	N
Stucco kettle feed bin #2	Baghouse (MBH-27)	Y	168.94 PM 168.94 PM10	1.69 PM 1.69 PM10	100	Y	N
Stucco kettle feed bin #3	Baghouse (MBH-28)	Y	168.94 PM 168.94 PM10	1.69 PM 1.69 PM10	100	Y	N
Stucco calcining #1 and #1b	Baghouse (MBH-22)	Y	112.63 PM 112.63 PM10	1.13 PM 1.13 PM10	100	Y	N
Stucco calcining #2	Baghouse (MBH-16)	Y	337.89 PM 337.89 PM10	3.38 PM 3.38 PM10	100	Y	N

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled/Limited PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Stucco calcining #3	Baghouse (MBH-1)	Y	506.83 PM 506.83 PM10	5.07 PM 5.07 PM10	100	Y	N
Stucco kettle #3 hot pit	Baghouse (MBH-3)	Y	168.94 PM 168.94 PM10	1.69 PM 1.69 PM10	100	Y	N
Stucco Handling - #3 elevator, #17 and #17A screw conveyors, belt conveyors and stucco storage bin	Baghouse (MBH-2)	Y	377.31 PM 377.31 PM10	3.77 PM 3.77 PM10	100	Y	N
Stucco elevator #1, screw conveyor #27 and stucco storage bins #4, #5 and #6	Baghouse (MBH-23)	Y	185.84 PM 185.84 PM10	1.86 PM 1.86 PM10	100	Y	N
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill, mixing screw conveyor and wet mixer	Baghouse (BBH-13)	Y	240.3 PM 240.3 PM10	2.40 PM 2.40 PM10	100	Y	N
End saw and cut back saw	Baghouse (BBH-25)	Y	540.6 PM 540.6 PM10	5.41 PM 5.41 PM10	100	Y	N
Waste wallboard reclaim shredder	Baghouses BWRBH-1 and WRBH-2	Y	225.3 PM 225.3 PM10	2.25 PM 2.25 Pm10	100	Y	N
Screw reclaim conveyor and dry joint mixer	Baghouse (JBH-7)	Y	112.63 PM 112.63 PM10	1.13 PM 1.13 PM10	100	Y	N
Dry joint packaging	Baghouse (JBH-14)	Y	112.63 PM 112.63 PM10	1.13 PM 1.13 PM10	100	Y	N
Bag and tote dispensing system	Baghouse (JBH-17)	Y	112.60 PM 112.60 PM10	1.13 PM 1.13 PM10	100	Y	N

- (1) The above emission units in the table are subject to CAM, because PM and PM10 are each emitted before the control at a rate which exceeds the major source threshold.

All the above emission units are not large units for PM and PM10 because each pollutant post control emissions are below the major source threshold.

The CAM for the above units is as follows:

- (A) Monitoring Approach

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
I. Indicator	PM Concentration	Pressure Differential	Opacity	Bag Condition
Measurement Approach	U.S. EPA Method 5, for PM, U.S. EPA Methods 201 A, for PM10 filterable and 202, for PM10 condensable or other Methods approved by the Commissioner – for each baghouse	Monitor pressure differential across the baghouses once per day	Method 9 visual observations during stack test. Daily visible emission notations.	Visual inspection.
II. Indicator Range	Baghouses PM and PM10 emission limits in grain/dscf and pounds per hour	Baghouses pressure drop ranges	An excursion is defined as an opacity measurement exceeding 3% on a 6-minute average. Normal or abnormal.	An excursion is defined as failure to perform the quarterly inspection.
III. Performance Criteria				
A. Data Representativeness	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Procedures addressed in Method 9 Daily visible emission notations.	Baghouse inspected visually for bag leaks.
B. Verification of Operational Status	Fans amps and damper position.	Fans amps and damper position.	NA	NA
C. QA/QC Practices and Criteria	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Use of a certified visible emission observer.	Trained personnel perform inspections and maintenance.
D. Monitoring Frequency	Once every 5 years.	Once per day pressure drop reading	Once every 5 years for Method 9 Once daily for visible emission notations (when the emission unit is operating).	Quarterly
IV. Data Collection Procedures	U.S. EPA Method 5, for PM or other Methods approved by the Commissioner	Stack test using U.S. EPA Methods or other Methods approved by the Commissioner	Daily visible emissions notations are recorded on V.E. Form.	Results of inspections and maintenance activities performed are recorded in baghouse maintenance log.
Averaging Period	Average of 3 test runs each 1 hour long	Average of 3 test runs each 1 hour long	Six-minute average during stack test	NA
E. Record Keeping	Maintain for a period of 5 years the results of the tests	Maintain for a period of 5 years the pressure drop readings	Maintain for a period of 5 years the daily visible emissions notations	Maintain for a period of 5 years the results of the baghouses inspections and maintenance
F. Reporting	-	Number, duration, cause of any excursions or exceedances and the corrective actions taken	Number, duration, cause of any excursions or exceedances and the corrective actions taken	-
Frequency	-	Quarterly	Quarterly	-

State Rule Applicability - Entire Source

- (a) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset):

The source is an existing major under 326 IAC 2-2, PSD, and 326 IAC 2-3, Emission Offset. However, the source is requesting limits to their sourcewide PTEs in order to become a minor PSD and Emission Offset source.

Since the source has never been through PSD and Emission Offset review, the "Once in Always in" policy does not apply to the source. Therefore, the source's PTE has been limited as follows:

Emission Units	PM/PM10 Emissions Limit (lb/hr)	PM2.5 Emissions Limit lb/hr
Joint Treatment		
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.66	0.24
Hydrocal Railcar Pneumatic Conveying and Storage	0.66	0.24
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.66	0.24
Kaolinite Truck Pneumatic Conveying and Storage	0.22	0.08
Landplaster Production		
Dryer Mill #1 Process & screening station #1	9.61	3.50
Dryer Mill #2 Process & screening station #2	9.61	3.50
Mill Landplaster bin	0.22	0.08
Waste Reclamation	1.57	0.57
Stucco Production Line		
Kettle feed bin #1	0.22	0.08
Kettle feed bin #2	1.31	0.48
Kettle feed bin #3	1.31	0.48
Calcining kettle #1A & #1b	0.88	0.32
Calcining kettle #2	2.62	0.95
Calcining kettle #3	3.93	1.43
Kettle #3 Hot pit	1.31	0.48
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.65	0.24
Stucco Surge Bin Loading and Conveying	2.92	1.07
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	1.44	0.53
Gypsum Wallboard Production Line		
Stucco storage bin	0.12	0.04
Landplaster feed bin	0.23	0.08
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	1.86	0.69
Starch Bulk Storage Bin	0.23	0.08
Clay (kaolinite) bin	0.19	0.07
Starch refill bin	0.14	0.05
Clay (kaolinite) feed bin & spare feeder	0.14	0.05

Emission Units	PM/PM10 Emissions Limit (lb/hr)	PM2.5 Emissions Limit lb/hr
HRA ball mill, elevator, feed screw & sugar additive bin	0.29	0.11
End Saw & cut-back saw	4.20	1.53
Wallboard shredder	1.74	0.64
Ready Mix Line		
Mixer #1 & holding hopper	0.29	0.11
Mixer #2 & holding hopper	0.29	0.11
Conveying	0.35	0.13
Quick Mixer	0.04	0.01
Dry Joint Compound Production Line		
Screw reclaim conveyor & dry joint mixer	0.88	0.32
Dry joint conveying	0.70	0.03
Dry Texture Paint Production Line		
Dry additive conveying system	0.10	0.04
Dry texture Paint mixer, reclaim conveying, & packaging	0.51	0.19
Bag Dump Station		
Bag & Tote Dispensing System	0.88	0.32
Weighing & batching system side A	0.19	0.07
Weighing & batching system side B	0.19	0.07

(b) 326 IAC 2-6 (Emission Reporting):

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), the Permittee shall submit by July 1 an emission statement covering the previous calendar year as follows:

- (1) starting in 2007 and every three (3) years thereafter, and
- (2) any year not already required under (1) if the source emits volatile organic compounds or oxides of nitrogen into the ambient air at levels equal to or greater than twenty-five (25) tons during the previous calendar year.

The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
 Technical Support and Modeling Section, Office of Air Quality
 100 North Senate Avenue
 MC 61-50 IGCN 1003
 Indianapolis, Indiana 46204-2251

The emission statement 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) 326 IAC 5-1 (Opacity Limitations)

326 IAC 5-1 is not applicable to the source because the source is subject to 326 IAC 6.8-10.3.

State Rule Applicability – Individual Facilities

(a) 326 IAC 6.8-2 (PM10 Emissions Requirements in Lake County)

The following emissions units at United States Gypsum Company are specifically limited in 326 IAC 6.8-2-37 as follows:

Source	Emission Limit (grain/dscf)	Emission Limit (lbs/hr)
Raw material handling		
Each stack serving raw material conveying and storage, stacks J11, J12, and J13	0.015	0.190
Rock Handling Process		
Drying, grinding, and calcining, stack M1	0.012	3.210
Stucco elevating and conveying, stack M2	0.015	2.210
Wallboard manufacturing process		
Each stack serving ready mix process, stacks J1, J2, and J3	0.017	0.100
Dry texture paint process		
Mixing and packing, stack J4	0.020	0.190
Bag dumping, stack J5	0.010	0.100
Dry additive conveying, stack J6	0.010	0.030
Dry joint compound process		
Mixing and packing, stack J7	0.020	0.340
Additive bag dumping, stack J8	0.010	0.340

(b) 326 IAC 6.8-8 (Continuous Compliance Plan)

- (1) Pursuant to 326 IAC 6.8-8-1, the Permittee shall operate all emission units at the plant including the emissions units subject to 326 IAC 6.8-2-37 in accordance with the Continuous Compliance Plan (CCP). The Permittee shall submit to IDEM and maintain at the source a copy of the Continuous Compliance Plan (CCP). The CCP shall include the recording, inspection and maintenance in accordance with the information in 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (2) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP to IDEM, OAQ within thirty (30) days of the update.
- (3) Pursuant to 326 IAC 6.8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit update to a CCP is a violation of 326 IAC 6.8.

- (c) 326 IAC 6.8-10-3 (Particulate Emission Limitation)
- (1) Pursuant to 326 IAC 6.8-10 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:
- (2) Paved roads and Parking Lots.
- (A) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%). The 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:
- (i) The first shall be taken at the time of emission generation.
- (ii) The second shall be taken five (5) seconds later.
- (iii) The third shall be taken five (5) seconds later or ten (10) seconds after the first.
- The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.
- (B) The Permittee shall implement the control measures specified by 326 IAC 6.8-10-4 within twenty-four (24) hours after notification by the IDEM, OAQ or U.S.EPA of violating the average instantaneous opacity limit. A violation of the instantaneous average opacity limit is a violation of 326 IAC 6.8-10.
- (C) When requested by the department or the U.S. EPA, after an exceedance of the opacity limit is observed by a representative of either agency, the source shall initiate a compliance check with the surface silt loading limit. The department may require a revision of the control plan under subsection 326 IAC 6.8-10-4, if the test shows an exceedance of the surface silt loading limit.
- (3) Material Transfer Limits.
- (A) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). The average instantaneous opacity shall consist of the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) batch loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume.
- (B) Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%) three (3) minute average. This includes material transfer to the initial hopper of a material processing facility as defined in 326 IAC 6.8-10-2 or material transfer for transportation within or outside the source property.

Compliance with any operation lasting less than three (3) minutes shall be determined as an average of consecutive operations recorded at fifteen (15) second intervals for the duration of the operation.

(4) Inplant Transportation of Material by Truck or Rail

There shall be a zero (0) percent frequency of visible emission observations of a material during the in plant transportation of material by truck or rail at any time. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with the in plant transportation requirement. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22, except that the observation shall be taken at approximately right angles to the prevailing wind from the leeward side of the truck or railroad car.

- (A) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot and ten percent (10%) opacity. Compliance with the concentration standard shall be determined by 40 CFR 60, Appendix A, Method 5 or 17, and with the opacity standard by 40 CFR 60, Appendix A, Method 9.
- (B) Dust Handling Equipment. The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%). Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 9.

(5) Material processing facilities shall be subject to the following limits:

- (A) The PM₁₀ stack emissions from a material processing facility shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot and ten percent (10%) opacity. Compliance with the concentration limitation shall be determined using the test methods found in 326 IAC 6.8-4. Compliance with the opacity limitation shall be determined by 40 CFR 60, Appendix A, Method 9*.
- (B) The opacity of fugitive particulate emissions from a material processing facility, except crusher at which a capture system is not used, shall not exceed ten percent (10%). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9*.
- (C) There shall be a zero percent (0%) frequency of visible emission observations from a building enclosing all or a part of the material processing equipment except from a vent in the building. Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 22*.
- (D) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard

(d) 326 IAC 6.8-1-2 (Particulate Emission Limitations)

The following emission units are subject to 326 IAC 6.8-1, because the source has particulate matter (PM) potential to emit of 100 tons per year or more and these emission units are not regulated under 326 IAC 6.8-2-37:

- (1) One (1) pneumatic truck unloading facility, with particulate matter emissions

- controlled by one (1) baghouse, identified as JBH-16, and exhausting through stack, identified as J-16.
- (2) One (1) perlite storage silo, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through stack, identified as J-16.
 - (3) One (1) dryer mill #1 and one (1) screening station #1, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through stack, identified as M-8.
 - (4) One (1) dryer mill #2 and one (1) screening station #2, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through stack, identified as M-12.
 - (5) One (1) mill landplaster bin, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through stack, identified as M-19.
 - (6) One (1) waste reclamation unit, with particulate emissions controlled by one (1) cyclone and one (1) baghouse dust collector, identified as DC WR-3, exhausting through stack, identified as WR-3.
 - (7) One (1) kettle feed bin #1, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-25, and exhausting through stack, identified as M-25.
 - (8) One (1) kettle feed bin #2, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-27, and exhausting through stack, identified as M-27.
 - (9) Two (2) calcining kettles, known as #1 and #1B, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through stack, identified as M-22A.
 - (10) One (1) calcining kettle, known as calcining kettle #2, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through stack, identified as M-16.
 - (11) One (1) kettle feed bin, known as kettle feed bin #3, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-28, and exhausting through stack, identified as M-28.
 - (12) One (1) stucco storage bin, with particulate matter controlled by one (1) bin vent, identified as BBH-11, and exhausting through stack, identified as B-11.
 - (13) One (1) stucco surge bin with hopper, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through stack, identified as B-13.
 - (14) One (1) HRA ball mill, with particulate matter controlled by one (1) baghouse, identified as BBH-18, and exhausting inside the building through stack, identified as B-18.
 - (15) One (1) additive refill bin (starch), with particulate matter controlled by one (1) baghouse, identified as BBH-16, and exhausting inside the building through stack, identified as B-16.

- (16) Two (2) additive bulk storage bins (starch and kaolinite), constructed in 1999, each with a maximum capacity of 75 tons, with particulate matter emissions controlled by two (2) separate baghouses, identified as BBH-14 (starch) and BBH-15 (kaolinite), and all exhausting to two (2) respective stacks, identified as B-14 and B-15.
- (17) One (1) additive surge bin (kaolinite), one (1) paper fiber mill with cyclone separator, one (1) mixing screw conveyor and one (1) wet mixer, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (18) One (1) HRA bin, constructed in 1999, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (19) One (1) paper fiber mill with cyclone separator, constructed in 1999, with a maximum throughput of 900 pounds 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.
- (20) One (1) mixing screw conveyor, constructed in 1999, 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.
- (21) One (1) wet mixer, constructed in 1999, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (22) One (1) end saw, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-25, and exhausting through stack, identified as B-25.
- (23) One (1) wallboard shredder, 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
- (24) One (1) cut-back saw, with particulate matter controlled by one (1) baghouse, identified as BBH-25, and exhausting through stack, identified as B-25.
- (25) One (1) dry paint weigh station, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through stack, identified as J-15.

Pursuant to 326 IAC 6.8-1-2(a), the PM emissions from these above emission units controlled by baghouses shall not exceed 0.03 grain per dry standard cubic feet (gr/dscf).

- (e) 326 IAC 5-1-2 Opacity Limitations
This rule is not applicable to the source because it is subject to the opacity limit in 326 IAC 6.8-10.

(f) 326 IAC 6-2 (Particulate Matter Emissions Limit for Sources of Indirect Heating)

The one (1) 3.5 MMBtu/hr water heater constructed in 1999 is not subject to 326 IAC 6-2, which mandates a PM limits of 0.60 pound per MMBtu (lb/MMBtu), because the limit in 326 IAC 6.8-1-2 is more stringent than 326 IAC 6-2.

326 IAC 6-2 limit:

$0.60 \text{ lb/MMBtu} * 3.5 \text{ MMBtu/hr} * \text{hr}/60 \text{ min} * 7000 \text{ gr/lb} * \text{min}/475 \text{ dscf} = 0.52 \text{ gr/dscf}$, which is less stringent than 0.03 gr/dscf.

Pursuant 326 IAC 6.8-1-2 the one (1) 3.5 MMBtu/hr water heater shall not discharge to the atmosphere any gases which contain particulate matter in excess of 0.03 grains per dry standard cubic foot (gr/dscf) of exhaust air.

Since the water heater is an insignificant activity no stack test will be required to demonstrate compliance with the 0.03 grain/dscf, instead it will demonstrate compliance with this limit through the used of only natural gas.

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

Pursuant to 326 IAC 6-3-1(c)(3), the source is not subject to 326 IAC 6-3, because it is subject to 326 IAC 6.8.

(h) 326 IAC 8-1-6 (General Reduction Requirements)

(1) The kiln drying is not subject to 326 IAC 8-1-6, because the potential VOC emission is less than 25 tons/year.

(2) The adhesive application is not subject to 326 IAC 8-1-6, because the potential VOC emission is well below 25 tons/year.

(i) 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaners Operation and Control)

Insignificant activities - The two (2) degreasers without a remote reservoirs were constructed in 2004, which is after July 1, 1990. Therefore they are subject to 326 IAC 8-3-2 and 326 IAC 8-3-5.

326 IAC 8-3 requires the following:

- (1) Equip the cleaner with a cover;
- (2) Equip the cleaner with a facility for draining cleaned parts;
- (3) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (5) Provide a permanent, conspicuous label summarizing the operation requirements;
- (6) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) requires the following:

- (1) The degreaser must comply with the following control equipment requirements:
 - (A) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (i) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (ii) The solvent is agitated; or
 - (iii) The solvent is heated.
 - (B) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (C) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (D) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (E) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and threetenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirtyeight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (i) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (ii) A water cover when solvent used is insoluble in, and heavier than, water.
 - (iii) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption.
- (2) The degreaser must comply with the following operating requirements:
 - (A) Close the cover whenever articles are not being handled in the degreaser.
 - (B) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (C) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

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.

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

- (a) CAM for emission units listed on page 19 under 40 CFR 64 of the **Federal Rule Applicability** section;
- (b) Stack testing of the baghouses;
- (c) Monitoring and recording of the pressure drop on all the baghouses;
- (d) Record keeping and quarterly reporting of the wallboard dried by the kiln;
- (e) Visible emission notations of the stack exhausts.

Table I, shows the emission units at the plant that have been stack tested. Table II, shows the stack test results from other US Gypsum facilities nationwide, which are well below the PM emission limits required for similar emissions units at the East Chicago Plant. Based on this information, one (1) emission unit for every similar emission groups at the East Chicago Plant will be alternately stack tested every five years. All waste reclamation systems and stucco storage bins will not be stack tested based on the test results for these emission units.

Table I - Stack Testing Done at United States Gypsum Company, East Chicago Plant

Emission Units	Compliance Test Date	Tests Results	PM Emissions Limit in the Proposed TV 089-17794-00333)
SECTION D.2			
Waste Reclaim Shredder (WR-3)	November 9, 2007	PM - 0.000 gr/dscf Opacity - 0%	PM - 0.03 gr/dscf Opacity - 10%
SECTION D.3			
Kettle feed bin #1	November 5, 2004	PM - 0.002 gr/dscf Opacity - 0%	PM - 0.03 gr/dscf Opacity - 10%
Calcining kettle #1B	November 5, 2004 - (Failed test)	0.08 gr/dscf (failed due to leak test. Leak in the probe) Opacity - 2.28%	PM - 0.03 gr/dscf Opacity - 10%
	May 4, 2005 - (Failed test)	Failed -same leak test	
	September 28, 2005 - (Passed test)	0.002 gr/dscf Opacity - 0.10%	
Stucco storage bin M-2	April 12, 2007	0.0003 gr/dscf	0.03 gr/dscf

Waste Reclaim Shredder, WR-3 is a paper shredder for chewed up paper wallboard, while Waste Reclaim Shredder WR-1 and WR-2 are rejected wallboard shredders.

Table II - Comparison Tests

USG Plant Location	Comparison Tests From Similar USG Facilities	Stack Testing Date	PM Testing Results (gr/dscf)	Proposed US Gypsum TV 089-17794-00333	
				Emission Unit	PM Emissions Limit (gr/dscf)
Jacksonville FL.	Rock Dryer, East Baghouse	August 2001	0.0033		
Jacksonville FL.	Rock Dryer, West Baghouse	August 2001	0.0034		
Jacksonville FL.	Stucco Elevator, Screen and Additive Screws, # 3	August 2006	0.0024		
Plaster City CA	Stucco Storage Bin DC - #17	November 2000	0.0017	Section D.3: Stucco storage bins #4, #5, #6, and conveying system	0.015
Plaster City CA	Stucco Additive DC - #24	November 2000	0.0033		
Plaster City CA	Stucco Handling DC #1 Line	February 2008	0.0005		
Plaster City CA	Board Stucco Air Conveying Dust Collector	February 2008	0.0005		
Plaster City CA	HRA Landplaster Bin DC - #18	June 2002	0.0001		
Plaster City CA	Ball Mill LP Receiving DC #1 Line	February 2008	0.0007		
Jacksonville FL.	End Saw DC - No. 3 Board Plant	August 2006	0.0037		
Rainier OR.	End Saw DC - EU 30	June 2001	< 0.000011	Section D.4: end saw, cut-back-saw	0.03
Plaster City CA	End Saw DC - #30	November 2000	0.004		
Rainier OR.	Dunnage System DC - EU31	June 2001	0.000034		
Plaster City CA	Dunnage System DC - #31	November 2000	0.0022		
Aliquippa, PA	Kettle DC	March 2001	0.0008		
Jacksonville FL.	#1 MBR Kettle DC	February 2002	0.0021	Section D.3: Calcining kettle #3 and hot pit	0.012
Jacksonville FL.	#4 MBR Kettle DC	February 2002	0.003	Calcining kettle #1B (0.002 gr/dscf test result)	0.03
Plaster City CA	#5 MBR Kettle DC	August 1994	0.0072		
Plaster City CA	#6 MBR Kettle DC	August 1994	0.0014		

USG Plant Location	Comparison Tests From Similar USG Facilities	Stack Testing Date	PM Testing Results (gr/dscf)	Proposed US Gypsum TV 089-17794-00333	
				Emission Unit	PM Emissions Limit (gr/dscf)
Rainier OR.	Williams Mill Dust Collector - EU13	August 2004	0.0027		
Plaster City CA	Raymond Mill #4	August 1994	0.0015		
Fort Dodge, IO	Dryer Mill #59	August 2006	0.001	Section D.2: Dryer mills #1 and screening station #1 Dryer mills #2 and #2 and screening station #2	0.03 each
Aliquippa, PA	Dryer Mill	March 2001	0.0014		
Norfolk, VA	Calcining HM #1 - U124	June 2008	0.0009		
Norfolk, VA	Calcining HM #2 - U125	June 2008	0.0028		
Norfolk, VA	Calcining HM Feed Bin DC	June 2008	0.0024		
Plaster City CA	Kettle DC #6	May 2008	0.0070		

These requirements are necessary to render 326 IAC 2-2 (PSD), 326 IAC 2-1.1-5 (major nonattainment NSR) and 326 IAC 2-3 (Emission Offset) not applicable and to meet the limits in 326 IAC 6.8.

Conclusion and Recommendation

The operation of this source shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 089-17794-00333. The staff recommend to the Commissioner that this Part 70 Operating Permit Renewal be approved.

Emission Units	Uncontrolled PTE (tons/year)							
	NOx	CO	PM/PM10	PM2.5	SO2	VOC	Single HAP	Combined HAPs
Joint Treatment								
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	0.845	0.845	0.00	0.00	0.00	0.00
Hydraulic Railcar Pneumatic Conveying and Storage	0.00	0.00	0.845	0.845	0.00	0.00	0.00	0.00
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	0.845	0.845	0.00	0.00	0.00	0.00
Petite Truck Pneumatic Conveying and Storage	0.00	0.00	0.282	0.282	0.00	0.00	0.00	0.00
Landplaster Production								
Landplaster Dryer Mill #1 combustion emissions	8.80	7.40	0.2/70	0.70	0.10	0.50	0.16 (Hexane)	0.165
Landplaster Dryer Mill #2 combustion emissions	8.80	7.40	0.2/70	0.70	0.10	0.50	0.16 (Hexane)	0.165
Dryer Mill #1 Process & screening station #1	0.00	0.00	1238.91	1238.91	0.00	0.00	0.00	0.00
Dryer Mill #2 Process	0.00	0.00	1238.91	1238.91	0.00	0.00	0.00	0.00
Mill HRA Landplaster bin	0.00	0.00	28.16	28.16	0.00	0.00	0.00	0.00
Paper Waste Reclamation	0.00	0.00	202.73	202.73	0.00	0.00	0.00	0.00
Stucco Production Line								
Kettle feed bin #1	0.00	0.00	28.16	28.16	0.00	0.00	0.00	0.00
Kettle feed bin #2	0.00	0.00	168.94	168.94	0.00	0.00	0.00	0.00
Kettle feed bin #3	0.00	0.00	168.94	168.94	0.00	0.00	0.00	0.00
Calcining kettle #1 & #1b	0.00	0.00	112.63	112.63	0.00	0.00	0.00	0.00
Calcining kettle #2	0.00	0.00	337.89	337.89	0.00	0.00	0.00	0.00
Calcining kettle #3	0.00	0.00	506.83	506.83	0.00	0.00	0.00	0.00
Kettle #3 Hot pit	0.00	0.00	168.94	168.94	0.00	0.00	0.00	0.00
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.00	0.00	84.47	84.47	0.00	0.00	0.00	0.00
Stucco Handling -#17 & #17A screw conveyors, belt conveyors & stucco storage bin	0.00	0.00	377.31	377.31	0.00	0.00	0.00	0.00
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	0.00	0.00	185.84	185.84	0.00	0.00	0.00	0.00
Stucco Production Line Fuel Combustion								
Calcining Kettle #1	3.30	2.80	0.1/0.2	0.2	0.00	0.20	0.06 (Hexane)	0.063
Calcining Kettle #1b	3.30	2.80	0.1/0.2	0.2	0.00	0.20	0.06 (Hexane)	0.063
Calcining Kettle #2	13.10	11.00	0.25/1.0	1	0.00	0.70	0.24 (Hexane)	0.25
Calcining Kettle #3	6.60	5.50	0.12/0.5	0.5	0.00	0.40	0.118 (Hexane)	0.12
Gypsum Wallboard Production Line								
Stucco storage bin	0.00	0.00	15.00	15.00	0.00	0.00	0.00	0.00
Landplaster feed bin	0.00	0.00	30.00	30.00	0.00	0.00	0.00	0.00
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	0.00	0.00	240.30	240.30	0.00	0.00	0.00	0.00
Starch Bulk Storage Bin	0.00	0.00	30.00	30.00	0.00	0.00	0.00	0.00
Clay (kaolinite) bin	0.00	0.00	24.00	24.00	0.00	0.00	0.00	0.00
Starch refill bin	0.00	0.00	18.00	18.00	0.00	0.00	0.00	0.00
Clay (kaolinite) feed bin & spare feed	0.00	0.00	18.00	18.00	0.00	0.00	0.00	0.00
HRA ball mill, elevator, feed screw & sugar additive bin	0.00	0.00	37.50	37.50	0.00	0.00	0.00	0.00
End Saw & damage saw	0.00	0.00	540.60	540.60	0.00	0.00	0.00	0.00
Waste reclaim shredder	0.00	0.00	225.30	225.30	0.00	0.00	0.00	0.00
Kiln drying process	0.00	0.00	1.18/2.76	2.76	0.00	15.37	0.00	0.00
Gypsum Wallboard Fuel Combustion								
Wet zone kiln burner	14.7	24.7	0.6/2.2	2.2	0.2	1.60	0.53 (Hexane)	0.53
Dry zone kiln burner	14.7	24.7	0.6/2.2	2.2	0.2	1.60	0.53 (Hexane)	0.53
Additional 139 MMBtu/hr (see notes spreadsheet Pg. 12)	0	49.9	0	0	0	0.00	1.10 (Hexane)	1.1
Wet end seal burner	1.1	0.9	0/0.1	0.1	0	0.10	0.0197 (Hexane)	0.020
Dry end seal burner	1.1	0.9	0/0.1	0.1	0.00	0.10	0.0197 (Hexane)	0.020
Water heater	1.5	1.3	0.02/0.1	0.1	0.00	0.10	0.027 (Hexane)	0.028
Paper heater	1.00	0.8	0/0.1	0.1	0.00	0.10	0.017 (Hexane)	0.017
Ready Mix Line								
Mixer #1 & holding hopper	0.00	0	37.5	37.5	0.00	0.00	0.00	0
Mixer #2 & holding hopper	0.00	0.00	37.5	37.5	0.00	0.00	0.00	0
Conveying	0.00	0.00	45.1	45.1	0.00	0.00	0.00	0
Quick Mixer	0.00	0.00	5	5	0.00	0.00	0.00	0
Dry Joint Compound Production Line								
Screw reclaim conveyor & dry joint mixer	0	0.00	112.63	112.63	0.00	0	0	0
Dry Joint Packaging (J-14)	9.00	9.00	112.63	112.63	0.00	0	0	0
Dry Texture Paint Production Line								
Dry additive conveying system	0.00	0.00	13.1	13.1	0.00	0	0	0
Dry texture Paint mixer, reclaim conveying, & packaging	0.00	0.00	65.9	65.9	0.00	0	0	0
Additive bag dump	0.00	0.00	8.71	8.71	0.00	0	0	0
Bag Dump Station								
Bag & Tote Dispensing System	0.00	0.00	112.6	112.6	0.00	0	0	0
Weighing & batching system side A	0.00	0.00	25.3	25.3	0.00	0	0	0
Weighing & batching system side B	0.00	0.00	25.3	25.3	0	0	0	0
Adhesives and inks	0.00	0.00	0	0	0	1.07	0.15	0.15
TOTAL UNCONTROLLED PTE	87.00	149.10	6632.63	6642.31	0.60	22.54	3.04	3.23
6642.31 PM10								
Uncontrolled FUGITIVE EMISSIONS (tons/year)								
Paved Roads	0	0	48.6/9.48	9.48	0	0	0	0
Conveyor (Transfer and Drops)	0	0	1.56/0.74	0.74	0	0	0	0
TOTAL FUGITIVE UNCONTROLLED PTE	0	0	50.16 PM	10.22	0	0	0	0
10.22 PM10								

Note:
 The source is not in 1 of the 28 listed sources. Therefore, fugitive emissions are not counted toward Part 70 Applicability.

Fugitive emissions from USG are not counted towards Part 70 and PSD applicability since USG is not in one of the 28 listed source categories and the source is not subject to Section 111 (NSPS) standard and Section 112 (NESHAP) standards with promulgation date before August 7, 1980. The two NSPS standards that apply to USG are Subpart UUU and Subpart OOO that were promulgated after August 7, 1980.

Emission Units	Controlled PTE (tons/year)							
	NOx	CO	PMPM10	PM2.5	SO2	VOC	Single HAP	Combined HAPs
Joint Treatment								
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	0.845	0.845	0.00	0.00	0.00	0.00
Hydrocal Railcar Pneumatic Conveying and Storage	0.00	0.00	0.845	0.845	0.00	0.00	0.00	0.00
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	0.845	0.845	0.00	0.00	0.00	0.00
Kaolinite Truck Pneumatic Conveying and Storage	0.00	0.00	0.282	0.282	0.00	0.00	0.00	0.00
Landplaster Production								
Landplaster Dryer Mill #1 combustion emissions	8.80	7.40	0.2/0.70	0.70	0.10	0.50	0.16 (Hexane)	0.165
Landplaster Dryer Mill #2 combustion emissions	8.80	7.40	0.2/0.7	0.70	0.10	0.50	0.16 (Hexane)	0.165
Dryer Mill #1 Process & screening station #1	0.00	0.00	12.39	12.39	0.00	0.00	0.00	0.00
Dryer Mill #2 Process	0.00	0.00	12.39	12.39	0.00	0.00	0.00	0.00
Mill HRA Landplaster bin	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.00
Paper Waste Reclamation	0.00	0.00	2.03	2.03	0.00	0.00	0.00	0.00
Stucco Production Line								
Kettle feed bin #1	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.00
Kettle feed bin #2	0.00	0.00	1.69	1.69	0.00	0.00	0.00	0.00
Kettle feed bin #3	0.00	0.00	1.69	1.69	0.00	0.00	0.00	0.00
Calcining kettle #1 & #1b	0.00	0.00	1.13	1.13	0.00	0.00	0.00	0.00
Calcining kettle #2	0.00	0.00	3.38	3.38	0.00	0.00	0.00	0.00
Calcining kettle #3	0.00	0.00	5.07	5.07	0.00	0.00	0.00	0.00
Kettle #3 Hot pit	0.00	0.00	1.69	1.69	0.00	0.00	0.00	0.00
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.00	0.00	0.84	0.84	0.00	0.00	0.00	0.00
Stucco Handling -#17 & #17A screw conveyors, belt conveyors & stucco storage bin	0.00	0.00	3.77	3.77	0.00	0.00	0.00	0.00
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	0.00	0.00	1.86	1.86	0.00	0.00	0.00	0.00
Stucco Production Line Fuel Combustion								
Calcining Kettle #1	3.30	2.80	0.1/0.2	0.2	0.00	0.20	0.06 (Hexane)	0.063
Calcining Kettle #1b	3.30	2.80	0.1/0.2	0.2	0.00	0.20	0.06 (Hexane)	0.063
Calcining Kettle #2	13.10	11.00	0.25/1	1	0.00	0.70	0.24 (Hexane)	0.25
Calcining Kettle #3	6.60	5.50	0.12/0.5	0.5	0.00	0.40	0.118 (Hexane)	0.12
Gypsum Wallboard Production Line								
Stucco storage bin	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.00
Landplaster feed bin	0.00	0.00	0.30	0.30	0.00	0.00	0.00	0.00
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	0.00	0.00	2.40	2.40	0.00	0.00	0.00	0.00
Starch Bulk Storage Bin	0.00	0.00	0.30	0.30	0.00	0.00	0.00	0.00
Clay (kaolinite) bin	0.00	0.00	0.24	0.24	0.00	0.00	0.00	0.00
Starch mill bin	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.00
Clay (kaolinite) feed bin & spare feeds	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.00
HRA ball mill, elevator, feed screw & sugar additive bin	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.00
End Saw & dunnage saw	0.00	0.00	5.41	5.41	0.00	0.00	0.00	0.00
Waste reclaim shredder	0.00	0.00	2.25	2.25	0.00	0.00	0.00	0.00
Kiln drying process	0.00	0.00	1.18/2.76	2.76	0.00	15.37	0.00	0.00
Gypsum Wallboard Fuel Combustion								
Wet zone kiln burner	14.7	24.7	0.6/2.2	2.2	0.2	1.60	0.53 (Hexane)	0.53
Dry zone kiln burner	14.7	24.7	0.6/2.2	2.2	0.2	1.60	0.53 (Hexane)	0.53
Additional 139 MMbtu/hr (see notes in spreadsheet pg. 12)	0	49.9	0	0	0	0.00	1.10 (Hexane)	1.1
Wet end seal burner	1.1	0.9	0/0.1	0.1	0	0.10	0.0197 (Hexane)	0.02
Dry end seal burner	1.1	0.9	0/0.1	0.1	0.00	0.10	0.0197 (Hexane)	0.02
Water heater	1.5	1.3	0.02/0.1	0.1	0.00	0.10	0.027 (Hexane)	0.028
Paper heater	1.00	0.8	0/0.1	0.1	0.00	0.10	0.017 (Hexane)	0.017
Ready Mix Line								
Mixer #1 & holding hopper	0.00	0	0.38	0.38	0.00	0.00	0.00	0
Mixer #2 & holding hopper	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0
Conveying	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0
Quick Mixer	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0
Dry Joint Compound Production Line								
Screw reclaim conveyor & dry joint mixer	0	0.00	1.13	1.13	0.00	0	0	0
Dry Joint Packaging (J-14)	0.00	0.00	1.13	1.13	0.00	0	0	0
Dry Texture Paint Production Line								
Dry additive conveying system	0.00	0.00	0.13	0.13	0.00	0	0	0
Dry texture Paint mixer, reclaim conveying, & packaging	0.00	0.00	0.66	0.66	0.00	0	0	0
Additive bag dump	0.00	0.00	0.09	0.09	0.00	0	0	0
Bag Dump Station								
Bag & Tote Dispensing System	0.00	0.00	1.13	1.13	0.00	0	0	0
Weighing & batching system side A	0.00	0.00	0.25	0.25	0.00	0	0	0
Weighing & batching system side B	0.00	0.00	0.25	0.25	0	0	0	0
Adhesives and links	0.00	0.00	0	0	0	1.07	0.15	0.15
TOTAL CONTROLLED PTE	78.00	140.10	72.50	79.99	0.60	22.54	=	3.23
74.89 PM10								
Uncontrolled FUGITIVE EMISSIONS (tons/year)								
Paved Roads	0	0	28.19/5.5	5.5	0	0	0	0
Conveyor (Transfer and Drops)	0	0	1.56/0.42	0.42	0	0	0	0
TOTAL FUGITIVE UNCONTROLLED PTE	0	0	29.75 PM	5.92	0	0	0	0
5.92 PM10								

Note:
 The source is not in 1 of the 28 listed sources. Therefore, fugitive emissions are not counted toward Part 70 Applicability.

Fugitive emissions from USG are not counted towards Part 70 and PSD applicability since USG is not in one of the 28 listed source categories, and the source is not subject to Section 111 (NSPS) standard and Section 112 (NESHAP) standards with promulgation date before August 7, 1980. The two NSPS standards that apply to USG are Subpart UUU and Subpart OOO that were promulgated after August 7, 1980.

Emission Units	LIMITED PTE									
	Nox (ton/yr)	CO (ton/yr)	PM/PM10 (ton/yr)	PM/PM10 (lb/hr)	PM2.5 (ton/yr)	PM2.5 (lb/hr)	SO2 (ton/yr)	VOC (ton/yr)	Single HAP (ton/yr)	Combined HAPs (ton/yr)
Joint Treatment										
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	2.87	0.66	1.05	0.24	0.00	0.00	0.00	0.00
Hydrocal Railcar Pneumatic Conveying and Storage	0.00	0.00	2.87	0.66	1.05	0.24	0.00	0.00	0.00	0.00
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	0.00	0.00	2.87	0.66	1.05	0.24	0.00	0.00	0.00	0.00
Kaolinite Truck Pneumatic Conveying and Storage	0.00	0.00	0.96	0.22	0.35	0.08	0.00	0.00	0.00	0.00
Landplaster Production										
Landplaster Dryer Mill #1 combustion emissions	8.80	7.40	0.2/0.7		0.70		0.10	0.50	0.16 (Hexane)	0.165
Landplaster Dryer Mill #2 combustion emissions	8.80	7.40	0.2/0.7		0.70		0.10	0.50	0.16 (Hexane)	0.165
Dryer Mill #1 Process & screening station #1	0.00	0.00	42.08	9.61	15.33	3.50	0.00	0.00	0.00	0.00
Dryer Mill #2 Process	0.00	0.00	42.08	9.61	15.33	3.50	0.00	0.00	0.00	0.00
Mill Landplaster bin	0.00	0.00	0.95	0.22	0.35	0.08	0.00	0.00	0.00	0.00
Waste Reclamation	0.00	0.00	6.89	1.57	2.51	0.57	0.00	0.00	0.00	0.00
Stucco Production Line										
Kettle feed bin #1	0.00	0.00	0.95	0.22	0.35	0.08	0.00	0.00	0.00	0.00
Kettle feed bin #2	0.00	0.00	5.74	1.31	2.09	0.48	0.00	0.00	0.00	0.00
Kettle feed bin #3	0.00	0.00	5.74	1.31	2.09	0.48	0.00	0.00	0.00	0.00
Calcining kettle #1 & #1b	0.00	0.00	3.84	0.88	1.40	0.32	0.00	0.00	0.00	0.00
Calcining kettle #2	0.00	0.00	11.48	2.62	4.18	0.95	0.00	0.00	0.00	0.00
Calcining kettle #3	0.00	0.00	17.22	3.93	6.27	1.43	0.00	0.00	0.00	0.00
Kettle #3 Hot pit	0.00	0.00	5.74	1.31	2.09	0.48	0.00	0.00	0.00	0.00
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	0.00	0.00	2.85	0.65	1.04	0.24	0.00	0.00	0.00	0.00
Stucco Handling -#17 & #17A screw conveyors, belt conveyors & stucco storage bin	0.00	0.00	12.80	2.92	4.67	1.07	0.00	0.00	0.00	0.00
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	0.00	0.00	6.32	1.44	2.30	0.53	0.00	0.00	0.00	0.00
Stucco Production Line Fuel Combustion										
Calcining Kettle #1	3.30	2.80	0.1/0.2		0.2		0.00	0.20	0.06 (Hexane)	0.063
Calcining Kettle #1b	3.30	2.80	0.1/0.2		0.2		0.00	0.20	0.06 (Hexane)	0.063
Calcining Kettle #2	13.10	11.00	0.25/1		1		0.00	0.70	0.24 (Hexane)	0.25
Calcining Kettle #3	6.60	5.50	0.12/0.5		0.5		0.00	0.40	0.118 (Hexane)	0.12
Gypsum Wallboard Production Line										
Stucco storage bin	0.00	0.00	0.51	0.12	0.19	0.04	0.00	0.00	0.00	0.00
Landplaster feed bin	0.00	0.00	1.02	0.23	0.37	0.08	0.00	0.00	0.00	0.00
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	0.00	0.00	8.15	1.86	3.03	0.69	0.00	0.00	0.00	0.00
Starch Bulk Storage Bin	0.00	0.00	1.02	0.23	0.37	0.08	0.00	0.00	0.00	0.00
Clay (kaolinite) bin	0.00	0.00	0.82	0.19	0.30	0.07	0.00	0.00	0.00	0.00
Starch refill bin	0.00	0.00	0.61	0.14	0.22	0.05	0.00	0.00	0.00	0.00
Clay (kaolinite) feed bin & spare feeders	0.00	0.00	0.61	0.14	0.22	0.05	0.00	0.00	0.00	0.00
HRA ball mill, elevator, feed screw & sugar additive bin	0.00	0.00	1.29	0.29	0.47	0.11	0.00	0.00	0.00	0.00
End Saw & cut-back saw	0.00	0.00	18.38	4.20	6.69	1.53	0.00	0.00	0.00	0.00
Wallboard shredder	0.00	0.00	7.64	1.74	2.78	0.64	0.00	0.00	0.00	0.00
Kiln drying process	0.00	0.00	1.18	0.27/0.63	2.76	0.63	0.00	15.37	0.00	0.00
Gypsum Wallboard Fuel Combustion										
Wet zone kiln burner	14.7	24.7	0.6/2.2		2.2		0.2	1.60	0.53 (Hexane)	0.53
Dry zone kiln burner	14.7	24.7	0.6/2.2		2.2		0.2	1.60	0.53 (Hexane)	0.53
Additional 139 MMBtu/hr (see notes spreadsheet pg. 12)	0	49.9	0		0		0	0.00	1.1 (Hexane)	1.1
Wet end seal burner	1.1	0.9	0/0.1		0.1		0	0.10	0.0197 (Hexane)	0.02
Dry end seal burner	1.1	0.9	0/0.1		0.1		0.00	0.10	0.0197 (Hexane)	0.02
Water heater	1.5	1.3	0.02/0.1		0.1		0.00	0.10	0.027 (Hexane)	0.028
Paper heater	1.00	0.8	0/0.1		0.1		0.00	0.10	0.017 (Hexane)	0.017
Ready Mix Line										
Mixer #1 & holding hopper	0.00	0	1.29	0.29	0.47	0.11	0.00	0.00	0.00	0
Mixer #2 & holding hopper	0.00	0.00	1.29	0.29	0.47	0.11	0.00	0.00	0.00	0
Conveying	0.00	0.00	1.53	0.35	0.56	0.13	0.00	0.00	0.00	0
Quick Mixer	0.00	0.00	0.17	0.04	0.06	0.01	0.00	0.00	0.00	0
Dry Joint Compound Production Line										
Screw reclaim conveyor & dry joint mixer	0	0.00	3.84	0.88	1.40	0.32	0.00	0	0	0
Dry Texture Paint Production Line										
Dry additive conveying system	0.00	0.00	0.44	0.10	0.16	0.04	0.00	0	0	0
Dry texture Paint mixer, reclaim conveying, & packaging	0.00	0.00	2.24	0.51	0.82	0.19	0.00	0	0	0
Additive bag dump	0.00	0.00	0.31	0.07	0.11	0.03	0.00	0	0	0
Bag Dump Station										
Bag & Tote Dispensing System	0.00	0.00	3.84	0.88	1.40	0.32	0.00	0	0	0
Weighing & batching system side A	0.00	0.00	0.85	0.19	0.31	0.07	0.00	0	0	0
Weighing & batching system side B	0.00	0.00	0.85	0.19	0.31	0.07	0	0	0	0
Adesives and Inks	0.00	0.00	0	0	0	0	0	1.07	0.15	0.15
TOTAL LIMITED PTE	78.00	140.10	237.1		95.07		0.60	22.54	1.96	3.23

243.01 PM10

Methodology:

Individual PM Limit, tons/yr = Emission unit's controlled PTE, tons/yr * limit, 249 tons/yr/sourcwide controlled PTE

Raw Material Handling and Storage

Operation	Control ID	Air Flow Rate (dscfm)	outlet Grain Loading (gr/dscf)	PM/PM10/PM2.5 Controlled/Uncontrolled Emissions (tons/yr)
Limestone Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	Baghouse (JBH-11)	1500.00	0.015	0.845
Hydrocal Railcar Pneumatic Conveying and Storage	Baghouse (JBH-12)	1500.00	0.015	0.845
Mica Railcar Pneumatic Conveying and Storage & pneumatic conveying from bulk storage silos	Baghouse (JBH-13)	1500.00	0.015	0.845
Perlite Truck Pneumatic Conveying and Storage	Baghouse (JBH-16)	500	0.015	0.282
TOTAL				2.82

Note: Limestone, hydrocal, perlite and mica are dry ingredients in powder form and are pneumatically conveyed to each respective storage bin.

In pneumatic conveying, the material is transferred via air pressure to the baghouse separator mounted upon the storage bin, which then drop the material into the storage bin. The baghouse is necessary to separate the air from the material being conveyed and the conveying system will not work without the baghouse. Therefore, the PTE is determined after the baghouse.

Methodology:

Controlled/Uncontrolled Emissions, ton/yr = Air flow rate, acfm * outlet grain loading, gr/acf * 60 min/hr * 8760 hrs/yr * lb/7000 gr * ton/2000 lbs

**Appendix A: Emissions Calculations
Landplaster Production Line**

**Company Name: United States Gypsum Company
Address City IN Zip: 301 Riley Rd, East Chicago, IN 46312
TV Renewal No.: 089-17794
Plant No.: 089-00333
Reviewer: Aida De Guzman
Date Application Received: 8/4/2003**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

20.0	Dryer Mill #1
20.0	Dryer Mill #2

175.2
175.2

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
PTE for Dryer Mill #1 (tons/yr)	0.2	0.7	0.1	8.8	0.5	7.4
PTE for Dryer Mill #2 (tons/yr)	0.2	0.7	0.1	8.8	0.5	7.4
TOTAL PTE (tons/yr)	0.4	1.4	0.2	17.6	1.0	14.8

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

**Appendix A: Emissions Calculations
Landplaster Production Line**

**Company Name: United States Gypsum Company
Address City IN Zip: 301 Riley Rd, East Chicago, IN 46312
TV Renewal No.: 089-17794
Plant No.: 089-00333
Reviewer: Aida De Guzman
Date Application Received: 8/4/2003**

20.0	Dryer Mill #1	175.2
20.0	Dryer Mill #2	175.2

HAPs - Organics						
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Combined HAPs
PTE for Dryer Mill #1 (tons/yr)	1.840E-04	1.051E-04	6.570E-03	1.577E-01	2.978E-04	1.648E-01
PTE for Dryer Mill #2 (tons/yr)	1.840E-04	1.051E-04	6.570E-03	1.577E-01	2.978E-04	1.648E-01
Total PTE (tons/yr)	3.679E-04	2.102E-04	1.314E-02	3.154E-01	5.957E-04	

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Combined HAPs
PTE for Dryer Mill #1 (tons/yr)	4.380E-05	9.636E-05	1.226E-04	3.329E-05	1.840E-04	4.800E-04
PTE for Dryer Mill #2 (tons/yr)	4.380E-05	9.636E-05	1.226E-04	3.329E-05	1.840E-04	4.800E-04
Total PTE (tons/yr)	8.760E-05	1.927E-04	2.453E-04	6.658E-05	3.679E-04	

Methodology is the same as page 5.

Worst Single HAP (Hexane)	3.154E-01
Combined HAPs	3.306E-01

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

Landplaster / Mill

Operation	Control ID	Handling Rate (tons/hour)	Air Flow Rate (dscfm)	Outlet Grain Loading (gr/dscf)	Control Efficiency	PM/PM10/PM2.5 Controlled PTE (tons/yr)	PM/PM10/PM2.5 Uncontrolled PTE (tons/yr)
Dryer Mill #1 & screening station #1	Baghouse (MBH-8)	70	22,000	0.015	99.0%	12.39	1238.91
Dryer Mill #2	Baghouse (MBH-12)	70	22,000	0.015	99.0%	12.39	1238.91
Mill HRA landplaster bin	Baghouse (MBH-19)	70	500	0.015	99.0%	0.28	28.16
Paper Waste Reclamation	Baghouse (DCWR-3)	70	3600	0.015	99.0%	2.03	202.73
TOTAL PTE (tons/year)						27.09	2708.72

Note: Landplaster is a finely ground gypsum used for soil conditioner.

Methodology:

Controlled Emissions, ton/yr = air flow rate, acfm * outlet grain loading, acf * 60 min/hr * 8760 hrs/yr * lb/7000 grains * ton/2000 lbs

Uncontrolled Emissions, tons/yr = Uncontrolled Emissions, tons/yr * (1/1-control Efficiency)

Stucco Production Operations:					PM/PM10/PM2.5	
Operation	Control ID	Air Flow Rate (dscfm)	Outlet Grain Loading (gr/dscf)	Control Efficiency	Controlled Emissions (tons/yr)	Uncontrolled Emissions (tons/yr)
Kettle feed bin #1	Baghouse (MBH-25)	500	0.015	99.00%	0.28	28.16
Kettle feed bin #2	Baghouse (MBH-27)	3000	0.015	99.00%	1.69	168.94
Kettle feed bin #3	Baghouse (MBH-28)	3000	0.015	99.00%	1.69	168.94
Calcining kettle #1 & #1b	Baghouse (MBH-22)	2000	0.015	99.00%	1.13	112.63
Calcining kettle #2	Baghouse (MBH-16)	6000	0.015	99.00%	3.38	337.89
Calcining Kettle #3	Baghouse (MBH-1)	9000	0.015	99.00%	5.07	506.83
Kettle #3 Hot pit	Baghouse (MBH-3)	3000	0.015	99.00%	1.69	168.94
Storage Screw Conveyors #47 & #49, & stucco storage bins #1, #2 and #3	Baghouse (MBH-24)	1500	0.015	99.00%	0.84	84.47
Stucco Handling - #3 elevator, #17 and #17A screw conveyors, belt conveyors and stucco storage bin	Baghouse (MBH-2)	6700	0.015	99.00%	3.77	377.31
Elevator #1 screw conveyor #27, & stucco storage bins #4, #5 and #6	Baghouse (MBH-23)	3300	0.015	99.00%	1.86	185.84
Total					21.40	2139.94

Methodology:

Controlled Emissions, ton/yr = air flow rate, acfm * outlet grain loading, acf * 60 min/hr * 8760 hrs/yr * lb/7000 grains * ton/2000 lbs

Uncontrolled Emissions, tons/yr = Controlled Emissions, tons/yr / (1-control efficiency)

United States Gypsum Company
East Chicago, Indiana
Permit Reviewer: Aida De Guzman

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Part 70 Operating Permit Renewal No. 089-17794-00333

**Appendix A: Emissions Calculations
Stucco Production Line**

Company Name: United States Gypsum Company
Address City IN Zip: 301 Riley Rd, East Chicago, IN 46312
TV Renewal No.: 089-17794
Plant No.: 089-00333
Reviewer: Aida De Guzman
Date Application Received: 8/4/2003

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

7.5	Kettle #1A
7.5	Kettle #1B
30.0	Kettle #2 burners 6 each 5 MMBtu/hr
15	Kettle #3

65.7
65.7
262.8
131.4

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
PTE for Calcining Kettle #1A (tons/yr)	0.1	0.2	0.0	3.3	0.2	2.8
PTE for Calcining Kettle #1B (tons/yr)	0.1	0.2	0.0	3.3	0.2	2.8
PTE for Calcining Kettle #2 (tons/yr)	0.25	1.0	0.0	13.1	0.7	11.0
PTE for Calcining Kettle #3 (tons/yr)	0.12	0.5	0.0	6.6	0.4	5.5
TOTAL PTE (tons/yr)	0.4	1.5	0.0	19.7	1.1	16.6

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

**Appendix A: Emissions Calculations
Landplaster Production Line**

**Company Name: United States Gypsum Company
Address City IN Zip: 301 Riley Rd, East Chicago, IN 46312
TV Renewal No.: 089-17794
Plant No.: 089-00333
Reviewer: Aida De Guzman
Date Application Received: 8/4/2003**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

7.5	Kettle #1
7.5	Kettle #1B
30.0	Kettle #2 burners 6 each 5 MMBtu/hr
15	Kettle #3

65.7
65.7
262.8
131.4

Emission Factor in lb/MMcf	HAPs - Organics					Combined HAPs
	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	
PTE for Calcining Kettle #1 (tons/yr)	6.899E-05	3.942E-05	2.464E-03	5.913E-02	1.117E-04	6.181E-02
PTE for Calcining Kettle #1B (tons/yr)	6.899E-05	3.942E-05	2.464E-03	5.913E-02	1.117E-04	6.181E-02
PTE for Calcining Kettle #2 (tons/yr)	2.759E-04	1.577E-04	9.855E-03	2.365E-01	4.468E-04	2.473E-01
PTE for Calcining Kettle #3 (tons/yr)	1.380E-04	7.884E-05	4.928E-03	1.183E-01	2.234E-04	1.236E-01
Total PTE (tons/yr)	1.380E-04	7.884E-05	1.971E-02	1.183E-01	2.234E-04	1.236E-01

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
PTE for Calcining Kettle #1 (tons/yr)	1.643E-05	3.614E-05	4.599E-05	1.248E-05	6.899E-05
PTE for Calcining Kettle #1B (tons/yr)	1.643E-05	3.614E-05	4.599E-05	1.248E-05	6.899E-05
PTE for Calcining Kettle #2 (tons/yr)	6.570E-05	1.445E-04	1.840E-04	4.993E-05	2.759E-04
PTE for Calcining Kettle #3 (tons/yr)	3.285E-05	7.227E-05	9.198E-05	2.497E-05	1.380E-04
Total PTE (tons/yr)	3.285E-05	7.227E-05	9.198E-05	2.497E-05	1.380E-04

Methodology is the same as page 9.

Worst Single HAP (Hexane)	1.183E-01
Combined HAPs	1.388E-01

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

Gypsum Wallboard Production Operations:					PM/PM10/PM2.5	
Operation	Control ID	Air Flow Rate (dscfm)	Outlet Grain Loading (gr/dscf)	Control Efficiency	Controlled Emissions (tons/yr)	Uncontrolled Emissions (tons/yr)
Stucco storage bin	Vent Filter (BBH-11)	500	0.008	99.00%	0.15	15.0
Landplaster feed bin	Baghouse (BBH-12)	1000	0.008	99.00%	0.30	30.0
Stucco surge bin, HRA bin, kaolinite surge bin, paper fiber mill & mixing screw conveyor	Baghouse (BBH-13)	8000	0.008	99.00%	2.40	240.3
Starch Bulk Storage Bin	Baghouse (BBH-14)	1000	0.008	99.00%	0.30	30.0
Clay (kaolinite) bin	Baghouse (BBH-15)	800	0.008	99.00%	0.24	24.0
Starch refill bin	Baghouse (BBH-16)	600	0.008	99.00%	0.18	18.0
Clay (kaolinite) feed bin & spare feeder	Vacuum receiver (BVH-17)	600	0.008	99.00%	0.18	18.0
HRA ball mill, elevator, feed screw & sugar additive bin	Baghouse (BBH-18)	1000	0.010	99.00%	0.38	37.5
End Saw & dunnage saw	Baghouse (BBH-25)	18000	0.008	99.00%	5.41	540.6
Waste reclaim shredder	WRBH-1 & WRBH- 2	6000	0.010	99.00%	2.25	225.3
Total					11.79	1178.85

Methodology:

Controlled Emissions, ton/yr = air flow rate, acfm * outlet grain loading, acf * 60 min/hr * 8760 hrs/yr * lb/7000 grains

Uncontrolled Emissions, tons/yr = Uncontrolled Emissions, tons/yr / (1-control Efficiency)

Throughput	90,000	sq ft/hour	
Kiln Drying Process	PM	PM10	VOC
Emission Factor	0.003 lb/1000sq ft	0.007 lb/1000sq ft	0.039b/1000sq ft
PTE (tons/yr)	1.18	2.76	15.37

Note: Kiln process emission was based on a (Compliance Data Section (CDS) certified stack test done on May 28-29, 2008.

Methodology:

Emission, tons/yr = throughput, sq ft/hr * Ef, lb/1000 sq ft* 8760 hrs/yr* ton/2000

**Appendix A: Emissions Calculations
Gypsum Wallboard Production Line**

**Company Name: United States Gypsum Company
Address City IN Zip: 301 Riley Rd, East Chicago, IN 46312
TV Renewal No.: 089-17794
Plant No.: 089-00333
Reviewer: Aida De Guzman
Date Application Received: 8/4/2003**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

67.0	Wet zone kiln burner
67.0	Dry zone kiln burner
2.5	Wet end seal burner
2.5	Dry end seal burner
3.5	Water heater
2.2	Paper heater
*139	Alloted heat input to calculate additional CO emissions as a trade off to using low NOx burners for the kiln

586.9
586.9
21.9
21.9
30.7
19.3
1217.6

Note:
The Kiln has low NOx burners.
Kiln Process emissions -see Gypsum Wallboard emissions spreadsheet

82	lb MMCF CO EF
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Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 50.0 **see below	5.5	84.0
PTE for wet zone kiln burner (tons/yr)	0.6	2.2	0.2	14.7	1.6	24.7
PTE for wet zone kiln burner (tons/yr)	0.6	2.2	0.2	14.7	1.6	24.7
PTE for wet end seal burner (tons/yr)	0.0	0.1	0.0	1.1	0.1	0.9
PTE for dry end seal burner (tons/yr)	0.0	0.1	0.0	1.1	0.1	0.9
PTE for water heater (tons/yr)	0.02	0.1	0.0	1.5	0.1	1.3
PTE for paper heater (tons/yr)	0.00	0.1	0.0	1.0	0.1	0.8
CO Emissions from the additional *139 heat input						49.9
TOTAL PTE (tons/yr)	1.2	4.7	0.4	33.1	3.4	52.4

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

**Appendix A: Emissions Calculations
Gypsum Wallboard Fuel Combustion**

**Company Name: United States Gypsum Company
Address City IN Zip: 301 Riley Rd, East Chicago, IN 46312
TV Renewal No.: 089-17794
Plant No.: 089-00333
Reviewer: Aida De Guzman
Date Application Received: 8/4/2003**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

67.0	Wet zone kiln burner
67.0	Dry zone kiln burner
2.5	Wet end seal burner
2.5	Dry end seal burner
3.5	Water heater
2.2	Paper heater
139	Additional heat input

586.9
586.9
21.9
21.9
30.7
19.3
1217.64

Emission Factor in lb/MMcf	HAPs - Organics					Combined HAPs
	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 5.6E-03	Hexane 1.8E+00	Toluene 3.4E-03	
PTE for wet zone kiln burner (tons/yr)	6.163E-04	3.522E-04	1.643E-03	5.282E-01	9.978E-04	5.334E-01
PTE for wet zone kiln burner (tons/yr)	6.163E-04	3.522E-04	1.643E-03	5.282E-01	9.978E-04	5.334E-01
PTE for wet end seal burner (tons/yr)	2.300E-05	1.314E-05	6.132E-05	1.971E-02	3.723E-05	1.990E-02
PTE for dry end seal burner (tons/yr)	2.300E-05	1.314E-05	6.132E-05	1.971E-02	3.723E-05	1.990E-02
PTE for water heater (tons/yr)	2.024E-05	1.840E-05	8.585E-05	2.759E-02	5.212E-05	2.785E-02
PTE for paper heater (tons/yr)	2.024E-05	1.156E-05	5.396E-05	1.734E-02	3.276E-05	1.752E-02
PTE for additional 139 MMBtu/hr (kiln process)	1.279E-03	7.306E-04	3.409E+00	1.096E+00	2.070E-03	4.513E+00
Total PTE (tons/yr)	1.299E-03	7.490E-04	3.413E+00	1.123E+00	2.122E-03	5.665E+00

Emission Factor in lb/MMcf	HAPs - Metals					
	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	
PTE for wet zone kiln burner (tons/yr)	1.467E-04	3.228E-04	4.108E-04	1.115E-04	6.163E-04	1.608E-03
PTE for wet zone kiln burner (tons/yr)	1.467E-04	3.228E-04	4.108E-04	1.115E-04	6.163E-04	1.608E-03
PTE for wet end seal burner (tons/yr)	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05	6.001E-05
PTE for dry end seal burner (tons/yr)	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05	6.001E-05
PTE for water heater (tons/yr)	7.665E-06	1.686E-05	2.146E-05	5.825E-06	3.219E-05	8.401E-05
PTE for paper heater (tons/yr)	4.818E-06	1.060E-05	1.349E-05	3.662E-06	2.024E-05	5.281E-05
PTE for additional 139 MMBtu/hr (kiln process)	3.044E-04	6.697E-04	8.523E-04	2.314E-04	1.279E-03	3.336E-03
Total PTE (tons/yr)	3.121E-04	6.866E-04	8.738E-04	2.372E-04	1.311E-03	6.809E-03

Methodology is the same as page 12.

Worst Single HAP (Hexane)	3.413E+00
Combined HAPs	5.672E+00

Note: Kiln process Formaldehyde emission was based on a (Compliance Data Section (CDS) certified stack test done on May 28-29, 2008.
The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Ready Mix Line					PM/PM10/PM2.5	
Operation	Control ID	Air Flow Rate (dscfm)	Outlet Grain Loading (gr/dscf)	Control Efficiency	Controlled Emissions (tons/yr)	Uncontrolled Emissions (tons/yr)
Mixer #1 & holding hopper	Baghouse (JBH-1)	2000	0.005	99.00%	0.38	37.5
Mixer #2 & holding hopper	Baghouse (JBH-2)	2000	0.005	99.00%	0.38	37.5
Conveying	Dust Collector (JVH-3)	1000	0.012	99.00%	0.45	45.1
Quick mixer	Dust Collector (JVH-20)	89	0.015	99.00%	0.05	5.0
Total					1.25	125.15

Methodology:

Controlled Emissions, tons/yr = air flow rate, acfm * outlet grain loading, gr/acf * 60 min/hr * 8760 hr/yr * ton/2000 lbs * lb/7000 grains

Uncontrolled Emissions, tons/yr = controlled emissions, tons/yr / (1-control efficiency)

Dry Joint Compound Production Line:					PM/PM10/PM2.5	
Operation	Control ID	Air Flow Rate (dscfm)	Outlet Grain Loading (gr/dscf)	Control Efficiency	Controlled Emissions (tons/yr)	Uncontrolled Emissions (tons/yr)
Screw reclaim conveyor & dry joint mixer	Baghouse (JBH-7)	2000	0.015	99.00%	1.13	112.63
Dry joint packaging	Baghouse (JBH-14)	2000	0.015	99.00%	1.13	112.63
Total					2.25	225.26

Methodology:

Controlled Emissions, ton/yr = air flow rate, acfm * outlet grain loading, acf * 60 min/hr * 8760 hrs/yr * lb/7000 grains * ton/2000 lbs

Uncontrolled Emissions, tons/yr = Controlled Emissions, tons/yr * (1/1-control Efficiency)

Dry Texture Paint Production Line:					PM/PM10/PM2.5	
Operation	Control ID	Air Flow Rate (dscfm)	Grain Loading (gr/dscf)	Control Efficiency	Controlled Emissions (tons/yr)	Uncontrolled Emissions (tons/yr)
Dry additive conveying system	Vacuum receiver (JVH-6)	1040	0.003365	99.00%	0.13	13.1
Dry texture Paint mixer, reclaim conveying, & packaging	baghouse (JBH-4)	1170	0.02	99.00%	0.66	65.9
Additive bag dump	Baghouse (JBH-8)	800	0.0029	99.00%	0.09	8.71
Total					0.88	87.74

Methodology:

Controlled Emissions, ton/yr = air flow rate, acfm * outlet grain loading, acf * 60 min/hr * 8760 hrs/yr * lb/7000 grains * ton/2000 lbs

Uncontrolled Emissions, tons/yr = Controlled Emissions, tons/yr / (1-control Efficiency)

Bag Dump Station					PM/PM10/PM2.5	
Operation	Control ID	Air Flow Rate (dscfm)	Outlet Grain Loading (gr/dscf)	Control Efficiency	Controlled Emissions (tons/yr)	Uncontrolled Emissions (tons/yr)
Bag & Tote Dispensing System	Baghouse (JBH-17)	2000	0.015	99.00%	1.13	112.6
Weighing & batching system side A	Baghouse (JBH-18)	450	0.015	99.00%	0.25	25.3
Weighing & batching system side B	Baghouse (JBH-19)	450	0.015	99.00%	0.25	25.3
Total					1.63	163.31

Methodology:

Controlled Emissions, tons/yr = air flow rate, acfm * outlet grain loading, gr/acf * 60 min/hr * 8760 hr/yr * ton/2000 lbs * lb/7000 grains

Controlled Emissions, tons/yr = Controlled / (1-control efficiency)

Adhesives and Inks PTE

Material	Usage Rate (lb/year)	VOC %	VOC Adhesives lb/hr*	PTE VOC from Adhesives tons/yr
Bundling (End Tape)	438,000	0.02%	0.02	0.04
Paper Edge	600,000	0.10%	0.12	0.30
Total VOC from Adhesives				0.34

Material	Usage rate (gal/year)	VOC (lb/gallon)	VOC INK lb/hr*	PTE VOC from Inks tons/yr
Ink - Diagraph	630	2	0.25	0.63
Ink - Kiwi	30	6.95	0.04	0.10
Total VOC from Inks				0.73

*All usage rates have been based off of 2007 plant usage rates.
 The potential VOC emissions for both operations are < 15 lb/day and are insignificant activities.

Material	Usage Rate (gal/year)	Ethylene Glycol (lb/gallon)	HAP INK Ethylene Glycol lb/hr*	HAP Ink Emissions tons/yr
Ink - Diagraph	630	0.425	0.05	0.13
Ink - Kiwi	30	1.125	0.01	0.02
Worst Case HAP/Total HAPs From Inks				0.15

Methodology:
 VOC PTE, (tons/yr) = Usage rate, lb/yr * percent VOC, % * ton/2000 lbs
 HAP PTE, (tons/yr) = Usage rate, gal/yr * lb/gal HAP * ton/2000 lbs

FUGITIVE EMISSIONS - PAVED ROADWAYS

Fugitive emissions will result from the operation of material delivery vehicles on paved roadways at the plant. The emissions estimates from paved roads are presented below based on emissions factors from U.S. EPA AP-42, Section 13.2.1, dated 12/2003, and estimated facility operating data.

Tractor Trailer trucks are used for deliveries of raw material, synthetic gypsum, and finished product. Below is a summary of estimated operating data for this equipment. The operating data reflects maximum expected totals on an annual basis.

Equipment	Vehicle Weight, W (tons)	Miles per Trip (miles/trip)	No. of Trips per Year (trips/yr)	Miles Traveled, VMT (miles/yr)
Loaded trucks inbound/outbound	37.5	0.273	36,700	10,019
Unloaded trucks inbound/outbound	12.5	0.273	36,700	10,019

Estimated Emissions:

$$E = (k (sL/2)^{0.65} \times (W/3)^{1.5} - C) \times (1 - P/4N); \quad (\text{Eqs. 1 and 2), 13.2.1.3 of AP-42}$$

E = PM emission factor, lb/VMT

k = particle size multiplier based on Table 13.2-1.1 (use 0.016 lb/VMT for PM₁₀ and 0.082 lb/VMT for PM)

sL = road surface silt loading, g/m² based on Table 13.2.1-4 (use 8.2 g/m² for quarries)

W = average vehicle weight (including loaded material), tons

C = emission factor for 1980's vehicle fleet exhaust, brake wear, and tire wear, in units of lb/VMT based on Table 13.2.1-2 (0.00047 lb/VMT for both PM₁₀ and total PM).

P = number of "wet" days with at least 0.01 inch of precipitation (use 150 days per year for site location, Figure 13.2.1-2)

N = number of days in averaging period (365 for annual)

E = Emission Factor (lb/VMT)	
PM ₁₀	PM
1.59	8.14
0.31	1.57

Equipment	Fugitive Emissions					
	lbs/yr (uncontrolled)		tons/yr (uncontrolled basis)		tons/yr (58% controlled basis) ⁽¹⁾	
	PM ₁₀	PM	PM ₁₀	PM	PM ₁₀	PM
Loaded trucks inbound/outbound	15,901.07	81,510.40	7.95	40.76	4.61	23.64
Unloaded trucks inbound/outbound	3,056.75	15,683.27	1.53	7.84	0.89	4.55
Total Fugitive Emissions	18,957.82	97,193.67	9.48	48.60	5.50	28.19

Fugitive Conveyor Emissions (Transfer and Drops included)

Fugitive emissions will result from the operation of conveyor belts transferring gypsum from barges and/or trucks into the rock shed. The worst case scenario would be when gypsum is offloaded from barge traffic with 3 outdoor transfer points. Inside the rock shed, the number of transfer points would be up to 4, including the loading hopper that begins the gypsum mill processing operation. The emissions estimated are based on emission factors from U.S. EPA AP-42, Section 13.2.4, dated January 1995 and estimated maximum facility operating data.

Estimated Emissions (EF) Equation

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

k = Particle size multiplier = 0.74 for TSP
 0.35 for PM-10
 U = mean wind speed, mph = 8.98 Nat. Weather Service Office, Chicago
 M = material moisture content, % = 8

Material Transfer Emission Factor = 7.28E-04 lb PM/ton Gypsum/point
 3.44E-04 lb PM-10/ton Gypsum/point

PM/PM-10 Emissions Calculation

	Transfer Description	Max Gypsum Rate	Max Gypsum Rate	Max Transfer Points	Potential Uncontrolled PM Emissions	Potential Uncontrolled PM-10 Emissions	Control Method	Control Efficiency ¹	Potential Controlled PM Emission	Potential Controlled PM-10 Emission
		ton/hr	ton/yr		ton/yr	ton/yr		ton/yr	%	ton/yr
	Transfer from Barge/Truck to Rock Shed	70.00	613,200	3	0.670	0.317	None	0%	0.67	0.32
	Transfers inside Rock Shed to Loading Hopper	70.00	613,200	4	0.893	0.422	Enclosure	0%	0.89	0.42
TOTAL		Uncontrolled Potential Emissions			1.562	0.739	Controlled Potential Emissions		1.56	0.74

Equation 1 = AP-42 Chapter 13.2.4 for Aggregate Handling and Storage Piles. USG believes this equation to be the generally accepted method used in the industry for gypsum drops and movement. Addition of gypsum material by conveyor is an example of a drop operation. USG believes this equation is appropriate to cover all emissions associated with moving the material onto or off of the conveyor belts. The use of this equation is conservative since the original equation is meant for material being dropped greater than 5 feet, while USG's drops on belt feeders are generally one foot or less.

Finally, the use of AP-42 Chapter 11.19.2 does not take into account the high moisture content of the gypsum and applying stone crushing factors to wet gypsum is not reasonable. Therefore, Section 13.2.4 will be used for estimating the conveyor emissions.

FUGITIVE SUMMARY EMISSIONS				
Emissions Unit	Uncontrolled PTE (tons/yr)		Controlled PTE (tons/yr)	
	PM	PM ₁₀	PM	PM ₁₀
Paved Roads	48.60	9.48	28.19	5.50
Conveyor Belts	1.56	0.74	1.56	0.42
Total Fugitive Emissions	50.16	10.22	29.75	5.92
Unpaved Roads	There will be no unpaved road vehicle traffic at the facility			

Note: Fugitive emissions from USG are not counted towards PSD applicability since USG is not in one of the 28 listed source categories, and the source is not subject to Section 111 (NSPS) standard and Section 112 (NESHAP) standards with promulgation date before August 7, 1980. The two NSPS standards that apply to USG are Subpart UUU and Subpart OOO that were promulgated after August 7, 1980.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Dave Cook
United States Gypsum Company
301 Riley Road
East Chicago, Indiana 46312

DATE: June 12, 2009

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Part 70
089-17794-00333

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07



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(317) 232-8603
Toll Free (800) 451-6027
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June 12, 2009

TO: East Chicago Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: United States Gypsum Company
Permit Number: 089-17794-00333

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07



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

TO: Interested Parties / Applicant

DATE: June 12, 2009

RE: United States Gypsum Company / 089-17794-00333

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
<http://www.in.gov/ai/appfiles/idem-caats/>

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Please Note: *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV.*

Enclosures
CD Memo.dot 11/14/08

Mail Code 61-53

IDEM Staff	LPOGOST 1/5/2009 Rieter Automotive North America, Inc. 089 - 17994 - 00013 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING	
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

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1		James Roark Rieter Automotive North America, Inc. 101 W. Oakley Avenue Lowell IN 46356-2206 (Source CAATS) Via confirmed delivery										
2		Gary - Hobart Water Corp 650 Madison St, P.O. Box M486 Gary IN 46401-0486 (Affected Party)										
3		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 (Health Department)										
4		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 (Affected Party)										
5		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 (Affected Party)										
6		Lowell Public Library 1505 East Commercial Lowell IN 46356 (Library)										
7		Lowell Town Council and Town Manager PO Box 157, 501 East Main Street Lowell IN 46356 (Local Official)										
8		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 (Affected Party)										
9		Ms. Carolyn Marsh Lake Michigan Calumet Advisory Council 1804 Oliver St Whiting IN 46394-1725 (Affected Party)										
10		Mark Coleman 9 Locust Place Ogden Dunes IN 46368 (Affected Party)										
11		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)										
12		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 (Affected Party)										
13		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 (Local Official)										
14		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)										
15		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 (Affected Party)										

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Mail Code 61-53

IDEM Staff	LPOGOST 1/5/2009 Rieter Automotive North America, Inc. 17994 (draft/final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Robert 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)										
2		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)										
3		Calumet Township Trustee 35 E 5th Avenue Gary IN 46402 (Affected Party)										
4		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 (Affected Party)										
5		Susan Grenzebach OCS Environmental 130 Lincoln Street, Suite. 1 Porter IN 46304 (Affected Party)										
6												
7												
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