INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: November 1, 2013

RE: United States Gypsum Company / 101-33565-00001

FROM: Matthew Stuckey, 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 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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Mr. Joel Belcher
U.S. Gypsum Company
12802 Deep Cut Lake Road
P.O. Box 1377
Shoals, IN 47581

November 1, 2013

Re: 101-33565-00001
Significant Permit Modification to
Part 70 Renewal No.: T101-17814-00001

Dear Mr. Belcher:

U.S. Gypsum Company was issued a Part 70 Operating Permit Renewal No. T101-17814-00001 on January 15, 2009 for a stationary gypsum mining operation and gypsum wallboard and plaster products manufacturing plant located at 12802 Deep Cut Lake Road, Shoals, Indiana 47581. An application requesting changes to this permit was received on August 21, 2013. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

For your convenience, the entire Part 70 Operating Permit Renewal as modified is attached.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Kristen Willoughby, of my staff, at 317-233-3031 or 1-800-451-6027, and ask for extension 3-3031.

Sincerely,

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit and Technical Support Document

JA/kw

cc: File - Martin County
Martin County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section
IDEM Southwest Regional Office

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Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

U.S. Gypsum Company
12802 Deep Cut Lake Road
Shoals, Indiana 47581

(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.: T101-17814-00001	
Issued by: Original Signed By: Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: January 15, 2009 Expiration Date: January 15, 2014

Administrative Amendment No. 101-27865-00001 issued on May 21, 2009
Significant Permit Modification No. 101-28228-00001 issued on December 14, 2009
Significant Permit Modification No. 101-30896-00001 issued on February 15, 2012
Significant Permit Moodification No. 101-31868-00001, issued on September 5, 2012

Significant Permit Modification No.: 101-33565-00001	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: November 1, 2013 Expiration Date: January 15, 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 mining operation and gypsum wallboard and plaster products manufacturing plant.

Source Address:	12802 Deep Cut Lake Road, Shoals, Indiana 47581
General Source Phone Number:	(812) 247-4115
SIC Code:	1499 and 3275
County Location:	Martin
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Greenhouse Gas (GHG) potential to emit (PTE) is equal to or more than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year Minor Source, under PSD 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:

(1) The following gypsum ore mining and storage facilities:

(a) One (1) primary crusher, constructed in 1955, with a maximum throughput of 250 tons per hour and a nominal throughput of 140 tons per hour due to downstream bottlenecking, with particulate matter emissions uncontrolled, and exhausting inside the mine.

(b) One (1) mine shaft conveyor, constructed in 1955, used to convey gypsum ore from the mine to the surface, with a maximum throughput of 250 tons per hour and a nominal throughput of 140 tons per hour due to downstream bottlenecking, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.

(c) One (1) secondary crusher, constructed in 1955, with a maximum throughput of 250 tons per hour and a nominal throughput of 140 tons per hour due to downstream bottlenecking, and with particulate matter emissions exhausting inside the crusher building.

(d) Two (2) ore storage silos and (1) #1 Rock Belt, constructed in 1955, each bin with a capacity of 500 tons, a maximum throughput on the #1 Rock Belt of 250 tons per hour and a nominal throughput of 100 tons per hour due to downstream bottlenecking, and with particulate matter emissions exhausting directly to the atmosphere.

(e) One (1) Stacker Belt, constructed in 1955, with a maximum throughput of 250 tons per hour and a nominal throughput of 40 tons per hour due to downstream bottlenecking, (1) Ore storage pile, with a storage area of 3.75 acres, with a semicircular partial enclosure, and with particulate matter emissions exhausting to the atmosphere.

(f) One (1) #2 Rock Belt, constructed in 1955, with a maximum throughput of 140 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

(2) The following bulk rock loading facilities:

(a) One (1) #3 Rock Belt, constructed in 1955, with a maximum throughput of 140 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

(b) One (1) rock ore screen, constructed in 1955, with a nominal throughput of 140 tons per hour, and with particulate matter emissions exhausting inside the building.

(c) One (1) crusher, constructed in 1955, with a maximum throughput of 110 tons per hour, and with particulate matter emissions exhausting inside the building.

(d) One (1) #4 Rock Belt, with a maximum throughput of 140 tons per hour, one (1) bulk rock storage silo, constructed in 1955, with a maximum capacity of 375 tons, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

(e) One (1) #5 Rock Belt, Cement Rock Loading, constructed in 1955, with a maximum throughput of 140 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

(3) The following rotary rock dryer facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 90 tons per hour, consisting of belt, screw, and bucket elevators, with a semicircular partial enclosure, and with particulate matter emissions exhausting to associated processes or inside the building.

(b) One (1) dryer feed bin, constructed in 1955, with a maximum capacity of 60 tons, with maximum throughput of 90 tons per hour, and with particulate matter emissions exhausting inside the building.

(c) One (1) natural gas or fuel oil-fired rotary rock dryer, constructed in 1955, with a heat input capacity of 14 million Btu per hour, with a maximum throughput of 90 tons per hour, with particulate matter emissions controlled by the Rock Dryer Dust Collector, identified as emission points 10, and exhausting to one (1) stack, identified as S-10.

(4) The following glass batch production facilities:

(a) A conveying system, constructed in 1966, consisting of screw conveyors, with a maximum throughput of 10 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting to associated processes or inside the building.

(b) One (1) screening operation, constructed in 1966, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Glass Batch System Dust Collector, identified as emission point 13, and exhausting to one (1) stack, identified as S-13.

(c) One (1) glass batch belt and storage bin, constructed in 1966, with a maximum throughput of 10 tons per hour, with a bin capacity of 85 tons, and with particulate matter emissions exhausting directly to the atmosphere.

(d) One Glass Batch Loading Station, constructed in 1966, with a maximum throughput of 10 tons per hour, with particulate matter emissions exhausting directly to the atmosphere.

(e) One (1) glass batch separator, constructed in 1966, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Glass Batch System Dust Collector, identified as emissions point 13, and exhausting to one (1) stack, identified as S-13.

(f) One (1) glass batch packing system, constructed in 1966 and modified in 2006, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Plaster Packing Dust Collector, identified as emissions point 30, and exhausting to one (1) stack, identified as S-30.

(g) One (1) glass batch airveyor receiving bin, constructed in 2006, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Mill Glass Batch Receiving Bin Dust Collector, identified as emission point 40, and exhausting to one (1) stack, identified as S-40. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(5) The following landplaster production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 80 tons per hour, consisting of screw conveyors, with particulate matter emissions controlled by two (2) baghouses, identified as the #1 / #2 Raymond Mill Dust Collector and the #3 / #4 Raymond Mill Dust Collector, also identified as emission points 11 and 12, and exhausting to two (2) stacks, identified as S-11 and S-12, respectively. Some portions of the conveyor system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) Raymond grinding mill, constructed in 1955, identified as Raymond Mill #1, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 / #2 Raymond Mill Dust Collector, identified as emissions point 11, and exhausting to one (1) stack, identified as S-11.

(c) One (1) Raymond Mill feed bin, constructed in 1955, identified as Raymond Feed Bin #1, with a maximum capacity of 150 tons, with a maximum throughput of 20 tons per hour, and with particulate matter emissions controlled by the #1 / #2 Raymond Mill Dust Collector, identified as emissions point 11, and exhausting to one (1) stack, identified as S-11.

(d) One (1) Raymond grinding mill, constructed in 1955, identified as Raymond Mill #2, with a nominal throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 / #2 Raymond Mill Dust Collector, identified as emissions point 11, and exhausting to one (1) stack, identified as S-11.

(e) One (1) Raymond Mill feed bin, constructed in 1955, identified as Raymond Feed Bin #2, with a maximum capacity of 150 tons, and with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(f) One (1) Raymond grinding mill, constructed in 1955, identified as Raymond Mill #3, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(g) One (1) Raymond Mill feed bin, constructed in 1955, identified as Raymond Feed Bin #3, with a maximum capacity of 150 tons, with a nominal throughput of 20 tons per hour, and with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(h) One (1) Raymond grinding mill, constructed in 1980, identified as Raymond Mill #4, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(i) One (1) Raymond Mill feed bin, constructed in 1980, identified as Raymond Feed Bin #4, with a maximum capacity of 150 tons, with a nominal throughput of 20 tons per hour, and with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(j) One (1) Board Plant HRA landplaster receiving bin, constructed in 1986, with a capacity of 5 tons, with a maximum throughput of 2 tons per hour, with particulate matter emissions controlled by the HRA L.P. Air Conveyor Receiver Dust Collector, identified as emissions point 36, and exhausting to one (1) stack, identified as S-36. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(6) The following stucco production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 101.7 tons/hr, consisting of screw conveyors, with a semicircular partial enclosure, and with particulate matter emissions exhausting to associated processes or inside the building.

(b) One (1) calcining kettle, identified as MBR Kettle #1, constructed in 1999, with a maximum throughput of 35.2 tons per hour, with particulate matter emissions controlled by the #1 Kettle Dust Collector, identified as emissions point 1, and exhausting to one (1) stack, identified as S-1. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an existing affected unit.

(c) One (1) kettle feed bin, identified as #1 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 35.2 tons per hour, with particulate matter emissions controlled by the #1 Kettle Dust Collector, identified as emission point 1, and exhausting to one (1) stack, identified as S-1.

(d) Three (3) natural gas or fuel oil-fired kettle burners, constructed in 1999, identified as #1 Kettle Burners, with a heat input capacity of 15 million Btu per hour, and exhausting to one (1) stack, identified as S-41. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an existing affected unit.

(e) One (1) hot pit, constructed in 1955 and modified in 1999, identified as Hot Pit #1, with a maximum throughput of 35.2 tons per hour, with particulate matter emissions controlled by the #1 Kettle Dust Collector, identified as emissions point 1, and exhausting to one (1) stack, identified as S-1.

(f) One (1) kettle feed bin, identified as #2 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 26 tons per hour, and with particulate matter emissions controlled by the #2 Kettle Dust Collector, identified as emissions point 2a, and exhausting to one (1) stack, identified as S-2a.

(g) One (1) calcining kettle, identified as Kettle #3, constructed in 1955, with a maximum throughput of 12 tons per hour, with particulate matter emissions controlled by #3 Kettle Dust Collector, identified as emissions point 3, and exhausting to one (1) stack, identified as S-3.

(h) One (1) kettle feed bin, identified as #3 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 12 tons per hour, with particulate matter emissions controlled by #3 Kettle Dust Collector, identified as emission point 3, and exhausting to one (1) stack, identified as S-3.

(i) One (1) natural gas or fuel oil-fired kettle burner, identified as #3 Kettle Burner, constructed in 1955, with a heat input capacity of 12 million Btu per hour, and exhausting to one (1) stack, identified as S-43.

(j) One (1) hot pit, identified as Hot Pit #3, constructed in 1955, with a maximum throughput of 12 tons per hour, with particulate matter emissions controlled by #3 Kettle Dust Collector, identified as emissions point 3, and exhausting to one (1) stack, identified as S-3.

(k) One (1) calcining kettle, identified as Kettle #4, constructed in 1955, with a maximum throughput of 15 tons per hour, with particulate matter emissions controlled by the #4 Kettle Dust Collector, identified as emissions point 4, and exhausting to one (1) stack, identified as S-4.

(l) One (1) kettle feed bin, identified as #4 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 15 tons per hour, with particulate matter emissions controlled by the #4 Kettle Dust Collector, identified as emissions point 4, and exhausting to one (1) stack, identified as S-4.

(m) Two (2) natural gas or fuel oil-fired kettle burners, identified as #4 Kettle Burners, constructed in 1955, with a combined heat input capacity of 15 million Btu per hour, and exhausting to one (1) stack, identified as S-44.

(n) One (1) hot pit, identified as Hot Pit #4, constructed in 1955, with a maximum throughput of 15 tons per hour, with particulate matter emissions controlled by the #4 Kettle Dust Collector, identified as emissions point 4, and exhausting to one (1) stack, identified as S-4.

(o) One (1) calcining kettle, identified as Kettle #5, constructed in 1986, with a maximum throughput of 27.5 tons per hour, with particulate matter emissions controlled by the #5 Kettle Dust Collector, identified as emissions point 5, and exhausting to one (1) stack, identified as S-5.

(p) One (1) Kettle Feed Bin, identified as #5 Kettle Feed Bin, constructed in 1986, with a maximum capacity of 125 tons, with a maximum throughput of 27.5 tons

per hour, with particulate matter emissions controlled by the #5 Conical Kettle LP Feed Bin Dust Collector, identified as emission point 35, and exhausting to one (1) stack, identified as S-35. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(q) One (1) natural gas or fuel oil-fired kettle burner, identified as #5 Kettle Burner, constructed in 1986, with a heat input capacity of 20 million Btu per hour, and exhausting to one (1) stack, identified as S-5.

(r) One (1) hot pit, identified as Hot Pit #5, constructed in 1986, with a maximum throughput of 27.5 tons per hour, with particulate matter emissions controlled by enclosure, and by the #5 Conical Kettle LP Feed Bin Dust Collector, identified as emissions point 5, and exhausting to one (1) stack, identified as S-5.

(s) One (1) calcining kettle, identified as HEK #2a, permitted in 2012, with a maximum throughput of 13 tons per hour, with particulate matter emissions controlled by the HEK #2a dust collector, identified as Emissions Point 2a, and exhausting to one (1) stack, identified as S-2a. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(t) One (1) natural-gas only fired kettle burner, permitted in 2012, identified as #2a HEK burner, with a heat input capacity of 7.5 million BTU per hour, and exhausting to one (1) stack, identified as S-2a. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(u) One (1) calcining kettle, identified as HEK #2b, permitted in 2012, with a maximum throughput of 13 tons per hour, with particulate matter emissions controlled by the HEK #2b dust collector, identified as Emissions Point 2b, and exhausting to one (1) stack, identified as S-2b. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(v) One (1) natural gas-fired kettle burner, permitted in 2012, identified as #2b HEK burner, with a heat input capacity of 7.5 million BTU per hour, and exhausting to one (1) stack, identified as S-2b. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(w) One (1) air slide, identified as HEK air slide, permitted in 2012, with a maximum throughput of 26 tons per hour, with particulate matter emissions controlled by the HEK air slide dust collector, identified as Emissions Point 64, and exhausting to one (1) stack, identified as S-68. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(7) The following plaster production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 9 tons per hour, consisting of screw and belt conveyors and bucket elevator, with particulate matter emissions controlled by three (3) baghouses, identified as the B-Belt Dust Collector (emissions point 17), the Tail End of D-Belt Dust Collector (emission point 25), and the Plaster Packing Dust Collector (emission point 30), and exhausting to three (3) stacks, identified as S-17, S-25 and S-30, respectively. Some portions of the conveyor system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) tube mill feed bin, constructed in 1955 and modified in 2001, with a maximum capacity of 60 tons, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Mill Stucco Surge Bin Dust

Collector, identified as emissions point 15, and exhausting to one (1) stack, identified as S-15. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(c) One (1) tube mill, constructed in 1955 and modified in 2001, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Tube Mill Dust Collector, identified as emissions point 14, and exhausting to one (1) stack, identified as S-14. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) Two (2) stucco storage bins, #0 North and #0 South Stucco Bins, constructed in 1955, each with a maximum capacity of 70 tons, each with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as the #0 North Stucco Storage Bin Dust Collector (emissions point 18), and the #0 South Stucco Storage Bin Dust Collector (emission point 19), and exhausting to two (2) stacks, identified as S-18 and S-19.

(e) One (1) stucco storage bin, #1 Stucco Bin, constructed in 1955, with a maximum capacity of 150 tons, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 Stucco Storage Bin Dust Collector, identified as emissions point 20, and exhausting to one (1) stack, identified as S-20.

(f) One (1) sand bulk loading bin, constructed in 1996, with a maximum capacity of 60 tons, with a nominal throughput of 12 tons per hour, with particulate matter emissions controlled by Bulk Sand Bin Vent Dust Collector, identified as emissions point 51, and each exhausting to one (1) stack, identified as S-55. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(g) One (1) lime bulk loading bin, constructed in 1996 and modified in 2004, with a maximum capacity of 60 tons, with a nominal throughput of 3.6 tons per hour, with particulate matter emissions controlled by the Bulk Lime Bin Vent Dust Collector, identified as emissions point 52, and exhausting to one (1) stack, identified as S-56.

(h) Two (2) perlite ore storage bins, constructed in 1956, each with a maximum capacity of 250 tons and a maximum throughput of 1.6 tons per hour, and with particulate matter emissions exhausting to the atmosphere.

(i) One (1) natural gas or fuel oil-fired perlite ore expander, constructed in 1956, with a maximum throughput of 1.6 tons per hour, and a maximum heat input capacity of 2.3 million Btu per hour, with particulate matter emissions controlled by two (2) cyclones, identified as the Perlite Expander Burner Cyclones (emission point 43), and exhausting to one (1) stack, identified as S-47.

(j) One (1) expanded perlite aggregate storage bin, with a maximum capacity of 24 tons, with a maximum throughput of 1.6 tons per hour, constructed in 1956, with particulate matter emissions controlled by the Perlite Dust Collector, identified as emissions point 29, and exhausting to one (1) stack, identified as S-29.

(k) Two (2) stucco bins, North and South Packing Stucco Storage Bins, constructed in 1955, each with a maximum capacity of 60 tons, with a maximum throughput of 27 tons per hour, with particulate matter controlled by two (2) baghouses,

identified as the North and South Packing Bin Dust Collectors, emission points 57 and 58, and exhausting to two (2) stacks, identified as S-61 and S-62.

(l) One (1) plaster mixer, constructed in 1955, with a maximum throughput of 27 tons per hour, with particulate matter emissions controlled by the Plaster Packing Dust Collector, identified as emissions point 30, and exhausting to one (1) stack, identified as S-30.

(m) One (1) plaster packer, constructed in 1955, with a maximum throughput of 27 tons per hour, with particulate matter emissions controlled by the Plaster Packing Dust Collector, identified as emissions point 30, and exhausting to one (1) stack, identified as S-30.

(8) The following stucco handling and storage facilities:

(a) A conveying system, constructed in 1955, consisting of belt and pneumatic conveyors, with a maximum throughput of 101.7 tons per hour, with particulate matter emissions controlled by five (5) baghouses, identified as the A-Belt Dust Collector (emissions point 16), the Head End of D-Belt Dust Collector (emission point 24), the Tail End of F Belt Dust Collector (emission point 28), the Stucco Air Conveyor Receiving Dust Collector (emission point 46), and the Stucco Air Conveyor Inlet Dust Collector (emission point 47), and exhausting to five (5) stacks, identified as S-16, S-24, S-28, S-50, and S-51, respectively. Some portions of the conveyor system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) Mill Surge bin, constructed in 1955, with a maximum throughput of 55 tons per hour, with particulate matter emissions controlled by the Mill Stucco Surge Bin Dust Collector, identified as emissions point 15, and exhausting to one (1) stack, identified as S-15.

(c) Two (2) stucco storage bins, #4, and #5 Stucco Storage Bins, constructed in 1955, each with a maximum capacity of 150 tons and a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as the #4 and #5 Stucco Storage Bin Dust Collectors (emissions points 22 and 23), and each exhausting to two (2) stacks, identified as S-22 and S-23, respectively.

(d) Two (2) stucco storage bins, identified as the #2 Board Stucco Bin and #3 Stucco Storage Bin, constructed in 1955, each with a maximum capacity of 150 tons and a maximum throughput of 30 tons per hour and 27.5 tons per hour, respectively, with particulate matter emissions controlled by the #2 / #3 Stucco Storage Bin Dust Collector, identified as emissions point 31, and exhausting to one (1) stack, identified as S-31.

(e) One (1) stucco storage bin, identified as the 1000 Ton Stucco Storage Bin, constructed in 1998, with a maximum capacity of 1000 tons and a maximum throughput of 27.5 tons, with particulate matter emissions controlled by the 1000 Ton Stucco Storage Bin Vent Dust Collector, identified as emissions point 53, and exhausting to one (1) stack, identified as S-57. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(9) The following #1 wallboard production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 40 tons per hour, consisting of screw and belt conveyors and airveyor and bucket

elevators, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50. Some portions of the conveying system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) stucco storage bin, constructed in 1955, with a maximum capacity of 40 tons and a maximum throughput of 25 tons per hour, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50.

(c) One (1) ball mill #1, constructed in 1998, with a maximum throughput of 1.8 tons per hour, with particulate matter emissions controlled by the Board Plant HRA Ball Mill Dust Collector, identified as emissions point 37, and exhausting to one (1) stack, identified as S-37. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) Five (5) dry additive feeders, constructed in 1955, with a maximum combined throughput of 4.5 tons per hour, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50. Some portions of the conveying system have a partial or total enclosure and exhaust to associated processes or inside the building.

(e) One (1) PST System, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 Board Line PST Belt Dust Collector, identified as emissions point 56, and exhausting to one (1) stack, identified as S-60 exhausting inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(f) One (1) paper fiber hammermill, constructed in 1955, with a maximum throughput of 0.12 tons per hour, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack identified as S-50.

(g) One (1) gypsum panel slurry mixer, constructed in 1955 and replaced in 2002, with a maximum throughput of 46.5 tons per hour less water and 80.81 tons per hour with water, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to (1) stack identified as S-50.

(h) One (1) forming belt, constructed in 1955, with a maximum throughput of 40,000 square feet per hour, and exhausting inside the building.

(i) One (1) natural gas-fired drying kiln, identified as #1 Board Kiln, constructed in 1955, identified as emissions point 41, with a heat input capacity of 55 million Btu per hour, and exhausting to one (1) stack, identified as S-45. No. 2 fuel oil will also be used as a supplemental fuel.

(j) One (1) end saw, constructed in 1955, with a maximum throughput of 40,000 square feed of board per hour, with particulate matter emissions controlled by the North Board Plant End Saw Dust Collector, identified as emissions point 33, and exhausting to one (1) stack, identified as S-33. During backup situations, particulate matter emissions are controlled by the South Board Plant End Saw

Dust Collector, identified as emissions point 34, and exhausting to one (1) stack, identified as S-34.

(k) One (1) gypsum lay-in panel (GLIP) operation, constructed in 1995 and modified in 2004, with a maximum throughput of 28,800 square feet per hour, with particulate matter emissions controlled by the G.L.I.P. Saw Dust Collector, identified as emissions point 55, and exhausting to one (1) stack, identified as S-59, and consisting of

(1) Two (2) gypsum lay-in-panel (GLIP) saws; and
(2) One (1) adhesive operation.

(10) The following #2 wallboard production facilities:

(a) A conveying system, constructed in 1964 with an airveyor added in 1995, with a maximum throughput of 60 tons per hour, consisting of screw and belt conveyors and bucket elevators and an air slide, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50. Some portions of the conveying system have a partial or total enclosure and exhaust to associated processes or inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(b) One (1) stucco storage silo, constructed in 1964, with a maximum capacity of 40 tons and a maximum throughput of 60 tons per hour, with particulate matter emissions controlled by the #2 Board Line Stucco Bin Dust Collector, identified as emissions point 32, and exhausting to one (1) stack, identified as S-32.

(c) One (1) HRA Airveyor and Receiving Bin, constructed in 1998, with a maximum throughput of 1.5 tons per hour, with particulate matter emissions controlled by the #2 Board Line HRA Receiving Bin Dust Collector, identified as emissions point 59, and exhausting to one (1) stack, identified as S-63. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) One (1) PST System, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #2 Board Line PST Dust Collector, identified as emissions point 27, and exhausting to one (1) stack, identified as S-27 exhausting inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(e) Five (5) dry additive feeders, constructed in 1964, with a combined maximum throughput of 4.5 tons per hour, with particulate matter emissions controlled by the #2 Board Line Stucco Bin Dust Collector, identified as emissions point 32, and exhausting to one (1) stack, identified as S-32.

(f) One (1) gypsum panel slurry mixer, constructed in 1964, with a maximum throughput of 64.5 tons per hour less water and 80.81 tons per hour with water, with particulate matter emissions controlled by the #2 Board Line Stucco Bin Dust Collector, identified as emissions point 32, and exhausting to one (1) stack identified as S-32.

(g) One (1) forming belt, constructed in 1964, with a maximum throughput of 72,000 square feet per hour, and exhausting inside the building.

(h) One (1) natural gas-fired drying kiln, identified as #2 Board Kiln, constructed in 1964, identified as emissions point 42, with a heat input capacity of 80 million Btu

per hour, and exhausting to one (1) stack, identified as S-46. No. 2 fuel oil will also be used as a supplemental fuel.

(i) One (1) end saw, constructed in 1964, with a maximum throughput of 72,000 square feet per hour, with particulate matter emissions controlled by the North Board Plant End Saw Dust Collector, identified as emissions point 33, and exhausting to one (1) stack, identified as S-33. During backup situations, particulate matter emissions are controlled by the South Board Plant End Saw Dust Collector, identified as emissions point 34, and exhausting to one (1) stack, identified as S-34.

(j) One (1) starch storage bin, approved in 2011 for construction, identified as emission point #60, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 64.

(k) One (1) starch refill bin, approved in 2011 for construction, identified as emission point #61, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 65.

(l) One (1) starch weight loss feeder, approved in 2011 for construction, identified as emission point #62, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 66.

(m) One (1) cerelose feeder, approved in 2011 for construction, identified as emission point #63, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 67.

(11) The Dunnage machine facilities:

(a) One (1) Dunnage machine with saws, constructed in 1996, with a maximum throughput of 2400 square feet per hour, with particulate matter emissions controlled by the Dunnage Machine Dust Collector, identified as emissions point 50, and exhausting to (1) stack, identified as S-54.

(12) The following synthetic gypsum and wallboard waste reclamation facilities:

(a) One (1) three (3) walled synthetic gypsum storage shed, constructed in 1998, with a maximum throughput of 50 tons per hour, with a capacity of 0.64 acres, and with particulate matter emissions exhausting directly to the atmosphere.

(b) One (1) synthetic gypsum/waste reclaim belt, constructed in 1998, with a maximum throughput of 50 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting inside the building or directly to the atmosphere. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(c) One (1) synthetic gypsum storage bin, constructed in 1995, with a capacity of 60 tons and a maximum throughput of 50 tons per hour, with particulate matter emissions controlled by moisture suppression, and exhausting inside the storage bin building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) One (1) natural gas or fuel oil-fired impact dryer mill, identified as the Williams Mill, constructed in 1995, with a maximum throughput of 50 tons per hour, with a heat input capacity of 30 million Btu per hour, with particulate matter emissions controlled by the Williams Mill for Synthetic Gypsum and Waste Reclaim Dust

Collector, identified as emissions point 49, and exhausting to one (1) stack, identified as S-53. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(e) One (1) vibrating screens system, constructed in 1995, with a maximum throughput of 50 tons per hour, with particulate matter emissions controlled by the Williams Mill for Synthetic Gypsum and Waste Reclaim Dust Collector, identified as emissions point 49, and exhausting to one (1) stack, identified as S-53. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(f) One (1) waste wallboard shredder, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions exhausting inside a partial enclosure.

(g) One (1) waste surge pile, constructed in 1995, with a nominal capacity of 5 tons per hour, with particulate matter emissions exhausting inside a partial enclosure.

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

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

(a) Combustion related activities, including the following:

(1) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels:

(A) Propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.

(B) Combustion source flame safety purging on startup.

(b) Fuel dispensing activities, including the following:

(1) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

(c) Routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(d) Water based activities, including the following:

(1) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume.

(e) Repair activities, including the following:

(1) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.

(2) Heat exchanger cleaning and repair.

(f) Conveyors as follows:

(1) Underground conveyors.

(g) Asbestos abatement projects regulated by 326 IAC 14-10.

(h) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:

(1) Catch tanks.

(i) Activities associated with emergencies, including the following:

(1) Stationary fire pump engines.

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, T101-17814-00001, 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. 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) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent 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. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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 prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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, or Southwest 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 and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

(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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.

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 T101-17814-00001 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 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.16 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, 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, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.18 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 or notice 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.19 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
Permit Administration and Support Section, 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 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.22 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.23 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.24 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 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

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

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

C.7 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. 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.8 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 that meets the requirements of 326 IAC 2-7-6(1) by a "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.9 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.10 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.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.12 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.13 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 shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

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

no later than ninety (90) days after the date of issuance of this permit.

The ERP does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) 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.14 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.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.16 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.17 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]

Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering 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 does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.18 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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.19 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 except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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.20 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 applicable standards for recycling and emissions reduction.

SECTION D.1FACILITY OPERATION CONDITIONS - Mining, Storage, and Bulk Rock Loading Facilities

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

(3) The following gypsum ore mining and storage facilities:

(g) One (1) primary crusher, constructed in 1955, with a maximum throughput of 250 tons per hour and a nominal throughput of 140 tons per hour due to downstream bottlenecking, with particulate matter emissions uncontrolled, and exhausting inside the mine.

(h) One (1) mine shaft conveyor, constructed in 1955, used to convey gypsum ore from the mine to the surface, with a maximum throughput of 250 tons per hour and a nominal throughput of 140 tons per hour due to downstream bottlenecking, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.

(i) One (1) secondary crusher, constructed in 1955, with a maximum throughput of 250 tons per hour and a nominal throughput of 140 tons per hour due to downstream bottlenecking, and with particulate matter emissions exhausting inside the crusher building.

(j) Two (2) ore storage silos and (1) #1 Rock Belt, constructed in 1955, each bin with a capacity of 500 tons, a maximum throughput on the #1 Rock Belt of 250 tons per hour and a nominal throughput of 100 tons per hour due to downstream bottlenecking, and with particulate matter emissions exhausting directly to the atmosphere.

(k) One (1) Stacker Belt, constructed in 1955, with a maximum throughput of 250 tons per hour and a nominal throughput of 40 tons per hour due to downstream bottlenecking, (1) Ore storage pile, with a storage area of 3.75 acres, with a semicircular partial enclosure, and with particulate matter emissions exhausting to the atmosphere.

(l) One (1) #2 Rock Belt, constructed in 1955, with a maximum throughput of 140 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

(4) The following bulk rock loading facilities:

(f) One (1) #3 Rock Belt, constructed in 1955, with a maximum throughput of 140 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

(g) One (1) rock ore screen, constructed in 1955, with a nominal throughput of 140 tons per hour, and with particulate matter emissions exhausting inside the building.

(h) One (1) crusher, constructed in 1955, with a maximum throughput of 110 tons per hour, and with particulate matter emissions exhausting inside the building.

(i) One (1) #4 Rock Belt, with a maximum throughput of 140 tons per hour, one (1) bulk rock storage silo, constructed in 1955, with a maximum capacity of 375 tons, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

(j) One (1) #5 Rock Belt, Cement Rock Loading, constructed in 1955, with a maximum throughput of 140 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting directly to the atmosphere.

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

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

D.1.1 PSD Minor Limit [326 IAC 2-2]

The Permittee shall comply with the following:

Emission Unit	PM/PM10/PM2.5 Limit (lbs/hr)
Primary Crusher	0.03

Compliance with the above limits, in conjunction with the limits in Condition D.2.1 and the potential to emit PM/PM10/PM2.5 from other emission units and insignificant activities at the source, shall limit the PM/PM10/PM2.5 emissions from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

D.1.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing process), the following limits shall apply:

Emission Unit	Process Weight Rate (ton/hr)	PM Limit (lbs/hr)
Primary Crusher	140	54.72
Mine Shaft Conveyor	140	54.72
Secondary Crusher	140	54.72
Rock Ore Screen	140	54.72
Crusher	110	52.24

The pounds per hour limitations were calculated with the following equation:

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight rate exceeds 200 tons per hour, the PM emissions may exceed the limit determined by the equation above, provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per one thousand (1,000) pounds of gases.

D.1.3 Preventative Maintenance Plan [326 IAC 2-7-5(13)]

A Preventative Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.1.4 Visible Emission Notations

(a) Daily visible emission notations of the exhausts from the enclosures for the crushers, screen, and mine shaft conveyor shall be performed during normal daylight 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.5 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1 and D.1.2, the Permittee shall maintain records of visible emission notations from the enclosures for the crushers, screen, and mine shaft conveyor exhaust 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) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 FACILITY OPERATION CONDITIONS - Rock Dryer, Glass Batch, Landplaster, Stucco, Plaster, Stucco Handling & Storage, #1 Wallboard, #2 Wallboard, Dunnage Machine, and Synthetic Gypsum & Wallboard Waste Reclamation Facilities

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

(3) The following rotary rock dryer facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 90 tons per hour, consisting of belt, screw, and bucket elevators, with a semicircular partial enclosure, and with particulate matter emissions exhausting to associated processes or inside the building.

(b) One (1) dryer feed bin, constructed in 1955, with a maximum capacity of 60 tons, with maximum throughput of 90 tons per hour, and with particulate matter emissions exhausting inside the building.

(c) One (1) natural gas or fuel oil-fired rotary rock dryer, constructed in 1955, with a heat input capacity of 14 million Btu per hour, with a maximum throughput of 90 tons per hour, with particulate matter emissions controlled by the Rock Dryer Dust Collector, identified as emission points 10, and exhausting to one (1) stack, identified as S-10.

(4) The following glass batch production facilities:

(a) A conveying system, constructed in 1966, consisting of screw conveyors, with a maximum throughput of 10 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting to associated processes or inside the building.

(b) One (1) screening operation, constructed in 1966, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Glass Batch System Dust Collector, identified as emission point 13, and exhausting to one (1) stack, identified as S-13.

(c) One (1) glass batch belt and storage bin, constructed in 1966, with a maximum throughput of 10 tons per hour, with a bin capacity of 85 tons, and with particulate matter emissions exhausting directly to the atmosphere.

(d) One Glass Batch Loading Station, constructed in 1966, with a maximum throughput of 10 tons per hour, with particulate matter emissions exhausting directly to the atmosphere.

(e) One (1) glass batch separator, constructed in 1966, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Glass Batch System Dust Collector, identified as emissions point 13, and exhausting to one (1) stack, identified as S-13.

(f) One (1) glass batch packing system, constructed in 1966 and modified in 2006, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Plaster Packing Dust Collector, identified as emissions point 30, and exhausting to one (1) stack, identified as S-30.

(g) One (1) glass batch airveyor receiving bin, constructed in 2006, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Mill Glass Batch Receiving Bin Dust Collector, identified as emission point 40, and exhausting to one (1) stack, identified as S-40. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(5) The following landplaster production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 80 tons per hour, consisting of screw conveyors, with particulate matter emissions controlled by two (2) baghouses, identified as the #1 / #2 Raymond Mill Dust Collector and the #3 / #4 Raymond Mill Dust Collector, also identified as emission points 11 and 12, and exhausting to two (2) stacks, identified as S-11 and S-12, respectively. Some portions of the conveyor system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) Raymond grinding mill, constructed in 1955, identified as Raymond Mill #1, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 / #2 Raymond Mill Dust Collector, identified as emissions point 11, and exhausting to one (1) stack, identified as S-11.

(c) One (1) Raymond Mill feed bin, constructed in 1955, identified as Raymond Feed Bin #1, with a maximum capacity of 150 tons, with a maximum throughput of 20 tons per hour, and with particulate matter emissions controlled by the #1 / #2 Raymond Mill Dust Collector, identified as emissions point 11, and exhausting to one (1) stack, identified as S-11.

(d) One (1) Raymond grinding mill, constructed in 1955, identified as Raymond Mill #2, with a nominal throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 / #2 Raymond Mill Dust Collector, identified as emissions point 11, and exhausting to one (1) stack, identified as S-11.

(e) One (1) Raymond Mill feed bin, constructed in 1955, identified as Raymond Feed Bin #2, with a maximum capacity of 150 tons, and with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(f) One (1) Raymond grinding mill, constructed in 1955, identified as Raymond Mill #3, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(g) One (1) Raymond Mill feed bin, constructed in 1955, identified as Raymond Feed Bin #3, with a maximum capacity of 150 tons, with a nominal throughput of 20 tons per hour, and with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(h) One (1) Raymond grinding mill, constructed in 1980, identified as Raymond Mill #4, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(i) One (1) Raymond Mill feed bin, constructed in 1980, identified as Raymond Feed Bin #4, with a maximum capacity of 150 tons, with a nominal throughput of 20 tons per hour, and with particulate matter emissions controlled by the #3 / #4 Raymond Mill Dust Collector, identified as emissions point 12, and exhausting to one (1) stack, identified as S-12.

(j) One (1) Board Plant HRA landplaster receiving bin, constructed in 1986, with a capacity of 5 tons, with a maximum throughput of 2 tons per hour, with particulate matter emissions controlled by the HRA L.P. Air Conveyor Receiver Dust Collector, identified as

emissions point 36, and exhausting to one (1) stack, identified as S-36. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(6) The following stucco production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 101.7 tons/hr, consisting of screw conveyors, with a semicircular partial enclosure, and with particulate matter emissions exhausting to associated processes or inside the building.

(b) One (1) calcining kettle, identified as MBR Kettle #1, constructed in 1999, with a maximum throughput of 35.2 tons per hour, with particulate matter emissions controlled by the #1 Kettle Dust Collector, identified as emissions point 1, and exhausting to one (1) stack, identified as S-1. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an existing affected unit.

(c) One (1) kettle feed bin, identified as #1 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 35.2 tons per hour, with particulate matter emissions controlled by the #1 Kettle Dust Collector, identified as emission point 1, and exhausting to one (1) stack, identified as S-1.

(d) Three (3) natural gas or fuel oil-fired kettle burners, constructed in 1999, identified as #1 Kettle Burners, with a heat input capacity of 15 million Btu per hour, and exhausting to one (1) stack, identified as S-41. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an existing affected unit.

(e) One (1) hot pit, constructed in 1955 and modified in 1999, identified as Hot Pit #1, with a maximum throughput of 35.2 tons per hour, with particulate matter emissions controlled by the #1 Kettle Dust Collector, identified as emissions point 1, and exhausting to one (1) stack, identified as S-1.

(f) One (1) kettle feed bin, identified as #2 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 26 tons per hour, and with particulate matter emissions controlled by the #2 Kettle Dust Collector, identified as emissions point 2a, and exhausting to one (1) stack, identified as S-2a.

(g) One (1) calcining kettle, identified as Kettle #3, constructed in 1955, with a maximum throughput of 12 tons per hour, with particulate matter emissions controlled by #3 Kettle Dust Collector, identified as emissions point 3, and exhausting to one (1) stack, identified as S-3.

(h) One (1) kettle feed bin, identified as #3 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 12 tons per hour, with particulate matter emissions controlled by #3 Kettle Dust Collector, identified as emission point 3, and exhausting to one (1) stack, identified as S-3.

(i) One (1) natural gas or fuel oil-fired kettle burner, identified as #3 Kettle Burner, constructed in 1955, with a heat input capacity of 12 million Btu per hour, and exhausting to one (1) stack, identified as S-43.

(j) One (1) hot pit, identified as Hot Pit #3, constructed in 1955, with a maximum throughput of 12 tons per hour, with particulate matter emissions controlled by #3 Kettle Dust Collector, identified as emission point 3, and exhausting to one (1) stack, identified as S-3.

(k) One (1) calcining kettle, identified as Kettle #4, constructed in 1955, with a maximum throughput of 15 tons per hour, with particulate matter emissions controlled by the #4

Kettle Dust Collector, identified as emissions point 4, and exhausting to one (1) stack, identified as S-4.

(l) One (1) kettle feed bin, identified as #4 Kettle Feed Bin, constructed in 1955, with a capacity of 60 tons, with a maximum throughput of 15 tons per hour, with particulate matter emissions controlled by the #4 Kettle Dust Collector, identified as emissions point 4, and exhausting to one (1) stack, identified as S-4.

(m) Two (2) natural gas or fuel oil-fired kettle burners, identified as #4 Kettle Burners, constructed in 1955, with a combined heat input capacity of 15 million Btu per hour, and exhausting to one (1) stack, identified as S-44.

(n) One (1) hot pit, identified as Hot Pit #4, constructed in 1955, with a maximum throughput of 15 tons per hour, with particulate matter emissions controlled by the #4 Kettle Dust Collector, identified as emissions point 4, and exhausting to one (1) stack, identified as S-4.

(o) One (1) calcining kettle, identified as Kettle #5, constructed in 1986, with a maximum throughput of 27.5 tons per hour, with particulate matter emissions controlled by the #5 Kettle Dust Collector, identified as emissions point 5, and exhausting to one (1) stack, identified as S-5.

(p) One (1) Kettle Feed Bin, identified as #5 Kettle Feed Bin, constructed in 1986, with a maximum capacity of 125 tons, with a maximum throughput of 27.5 tons per hour, with particulate matter emissions controlled by the #5 Conical Kettle LP Feed Bin Dust Collector, identified as emission point 35, and exhausting to one (1) stack, identified as S-35.

(q) One (1) natural gas or fuel oil-fired kettle burner, identified as #5 Kettle Burner, constructed in 1986, with a heat input capacity of 20 million Btu per hour, and exhausting to one (1) stack, identified as S-5.

(r) One (1) hot pit, identified as Hot Pit #5, constructed in 1986, with a maximum throughput of 27.5 tons per hour, with particulate matter emissions controlled by enclosure, and by the #5 Conical Kettle LP Feed Bin Dust Collector, identified as emissions point 5, and exhausting to one (1) stack, identified as S-5.

(s) One (1) calcining kettle, identified as HEK #2a, permitted in 2012, with a maximum throughput of 13 tons per hour, with particulate matter emissions controlled by the HEK #2a dust collector, identified as Emissions Point 2a, and exhausting to one (1) stack, identified as S-2a. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(t) One (1) natural-gas only fired kettle burner, permitted in 2012, identified as #2a HEK burner, with a heat input capacity of 7.5 million BTU per hour, and exhausting to one (1) stack, identified as S-2a. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(u) One (1) calcining kettle, identified as HEK #2b, permitted in 2012, with a maximum throughput of 13 tons per hour, with particulate matter emissions controlled by the HEK #2b dust collector, identified as Emissions Point 2b, and exhausting to one (1) stack, identified as S-2b. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(v) One (1) natural gas-fired kettle burner, permitted in 2012, identified as #2b HEK burner, with a heat input capacity of 7.5 million BTU per hour, and exhausting to one (1) stack,

identified as S-2b. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(w) One (1) air slide, identified as HEK air slide, permitted in 2012, with a maximum throughput of 26 tons per hour, with particulate matter emissions controlled by the HEK air slide dust collector, identified as Emissions Point 64, and exhausting to one (1) stack, identified as S-68. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(7) The following plaster production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 9 tons per hour, consisting of screw and belt conveyors and bucket elevator, with particulate matter emissions controlled by three (3) baghouses, identified as the B-Belt Dust Collector (emissions point 17), the Tail End of D-Belt Dust Collector (emission point 25), and the Plaster Packing Dust Collector (emission point 30), and exhausting to three (3) stacks, identified as S-17, S-25 and S-30, respectively. Some portions of the conveyor system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) tube mill feed bin, constructed in 1955 and modified in 2001, with a maximum capacity of 60 tons, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Mill Stucco Surge Bin Dust Collector, identified as emissions point 15, and exhausting to one (1) stack, identified as S-15. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(c) One (1) tube mill, constructed in 1955 and modified in 2001, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Tube Mill Dust Collector, identified as emissions point 14, and exhausting to one (1) stack, identified as S-14. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) Two (2) stucco storage bins, #0 North and #0 South Stucco Bins, constructed in 1955, each with a maximum capacity of 70 tons, each with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as the #0 North Stucco Storage Bin Dust Collector (emissions point 18), and the #0 South Stucco Storage Bin Dust Collector (emission point 19), and exhausting to two (2) stacks, identified as S-18 and S-19.

(e) One (1) stucco storage bin, #1 Stucco Bin, constructed in 1955, with a maximum capacity of 150 tons, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 Stucco Storage Bin Dust Collector, identified as emissions point 20, and exhausting to one (1) stack, identified as S-20.

(f) One (1) sand bulk loading bin, constructed in 1996, with a maximum capacity of 60 tons, with a nominal throughput of 12 tons per hour, with particulate matter emissions controlled by Bulk Sand Bin Vent Dust Collector, identified as emissions point 51, and each exhausting to one (1) stack, identified as S-55. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(g) One (1) lime bulk loading bin, constructed in 1996 and modified in 2004, with a maximum capacity of 60 tons, with a nominal throughput of 3.6 tons per hour, with particulate matter emissions controlled by the Bulk Lime Bin Vent Dust Collector, identified as emissions point 52, and exhausting to one (1) stack, identified as S-56. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(h) Two (2) perlite ore storage bins, constructed in 1956, each with a maximum capacity of 250 tons and a maximum throughput of 1.6 tons per hour, and with particulate matter emissions exhausting to the atmosphere.

(i) One (1) natural gas or fuel oil-fired perlite ore expander, constructed in 1956, with a maximum throughput of 1.6 tons per hour, and a maximum heat input capacity of 2.3 million Btu per hour, with particulate matter emissions controlled by two (2) cyclones, identified as the Perlite Expander Burner Cyclones (emission point 43), and exhausting to one (1) stack, identified as S-47.

(j) One (1) expanded perlite aggregate storage bin, with a maximum capacity of 24 tons, with a maximum throughput of 1.6 tons per hour, constructed in 1956, with particulate matter emissions controlled by the Perlite Dust Collector, identified as emissions point 29, and exhausting to one (1) stack, identified as S-29.

(k) Two (2) stucco bins, North and South Packing Stucco Storage Bins, constructed in 1955, each with a maximum capacity of 60 tons, with a maximum throughput of 27 tons per hour, with particulate matter controlled by two (2) baghouses, identified as the North and South Packing Bin Dust Collectors, emission points 57 and 58, and exhausting to two (2) stacks, identified as S-61 and S-62.

(l) One (1) plaster mixer, constructed in 1955, with a maximum throughput of 27 tons per hour, with particulate matter emissions controlled by the Plaster Packing Dust Collector, identified as emissions point 30, and exhausting to one (1) stack, identified as S-30.

(m) One (1) plaster packer, constructed in 1955, with a maximum throughput of 27 tons per hour, with particulate matter emissions controlled by the Plaster Packing Dust Collector, identified as emissions point 30, and exhausting to one (1) stack, identified as S-30.

(8) The following stucco handling and storage facilities:

(a) A conveying system, constructed in 1955, consisting of belt and pneumatic conveyors, with a maximum throughput of 101.7 tons per hour, with particulate matter emissions controlled by five (5) baghouses, identified as the A-Belt Dust Collector (emissions point 16), the Head End of D-Belt Dust Collector (emission point 24), the Tail End of F Belt Dust Collector (emission point 28), the Stucco Air Conveyor Receiving Dust Collector (emission point 46), and the Stucco Air Conveyor Inlet Dust Collector (emission point 47), and exhausting to five (5) stacks, identified as S-16, S-24, S-28, S-50, and S-51, respectively. Some portions of the conveyor system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) Mill Surge bin, constructed in 1955, with a maximum throughput of 55 tons per hour, with particulate matter emissions controlled by the Mill Stucco Surge Bin Dust Collector, identified as emissions point 15, and exhausting to one (1) stack, identified as S-15.

(c) Two (2) stucco storage bins, #4, and #5 Stucco Storage Bins, constructed in 1955, each with a maximum capacity of 150 tons and a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as the #4 and #5 Stucco Storage Bin Dust Collectors (emissions points 22 and 23), and each exhausting to two (2) stacks, identified as S-22 and S-23, respectively.

(d) Two (2) stucco storage bins, identified as the #2 Board Stucco Bin and #3 Stucco Storage Bin, constructed in 1955, each with a maximum capacity of 150 tons and a

maximum throughput of 30 tons per hour and 27.5 tons per hour, respectively, with particulate matter emissions controlled by the #2 / #3 Stucco Storage Bin Dust Collector, identified as emissions point 31, and exhausting to one (1) stack, identified as S-31.

(e) One (1) stucco storage bin, identified as the 1000 Ton Stucco Storage Bin, constructed in 1998, with a maximum capacity of 1000 tons and a maximum throughput of 27.5 tons, with particulate matter emissions controlled by the 1000 Ton Stucco Storage Bin Vent Dust Collector, identified as emissions point 53, and exhausting to one (1) stack, identified as S-57. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(9) The following #1 wallboard production facilities:

(a) A conveying system, constructed in 1955, with a maximum throughput of 40 tons per hour, consisting of screw and belt conveyors and airveyor and bucket elevators, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50. Some portions of the conveying system have a partial or total enclosure and exhaust to associated processes or inside the building.

(b) One (1) stucco storage bin, constructed in 1955, with a maximum capacity of 40 tons and a maximum throughput of 25 tons per hour, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50.

(c) One (1) ball mill #1, constructed in 1998, with a maximum throughput of 1.8 tons per hour, with particulate matter emissions controlled by the Board Plant HRA Ball Mill Dust Collector, identified as emissions point 37, and exhausting to one (1) stack, identified as S-37. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) Five (5) dry additive feeders, constructed in 1955, with a maximum combined throughput of 4.5 tons per hour, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50. Some portions of the conveying system have a partial or total enclosure and exhaust to associated processes or inside the building.

(e) One (1) PST System, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 Board Line PST Belt Dust Collector, identified as emissions point 56, and exhausting to one (1) stack, identified as S-60 exhausting inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(f) One (1) paper fiber hammermill, constructed in 1955, with a maximum throughput of 0.12 tons per hour, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack identified as S-50.

(g) One (1) gypsum panel slurry mixer, constructed in 1955 and replaced in 2002, with a maximum throughput of 46.5 tons per hour less water and 80.81 tons per hour with water, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to (1) stack identified as S-50.

(h) One (1) forming belt, constructed in 1955, with a maximum throughput of 40,000 square feet per hour, and exhausting inside the building.

(i) One (1) natural gas-fired drying kiln, identified as #1 Board Kiln, constructed in 1955, identified as emissions point 41, with a heat input capacity of 55 million Btu per hour, and exhausting to one (1) stack, identified as S-45. No. 2 fuel oil will also be used as a supplemental fuel.

(j) One (1) end saw, constructed in 1955, with a maximum throughput of 40,000 square feed of board per hour, with particulate matter emissions controlled by the North Board Plant End Saw Dust Collector, identified as emissions point 33, and exhausting to one (1) stack, identified as S-33. During backup situations, particulate matter emissions are controlled by the South Board Plant End Saw Dust Collector, identified as emissions point 34, and exhausting to one (1) stack, identified as S-34.

(k) One (1) gypsum lay-in panel (GLIP) operation, constructed in 1995 and modified in 2004, with a maximum throughput of 28,800 square feet per hour, with particulate matter emissions controlled by the G.L.I.P. Saw Dust Collector, identified as emissions point 55, and exhausting to one (1) stack, identified as S-59, and consisting of

(1) Two (2) gypsum lay-in-panel (GLIP) saws; and
(2) One (1) adhesive operation.

(10) The following #2 wallboard production facilities:

(a) A conveying system, constructed in 1964 with an airveyor added in 1995, with a maximum throughput of 60 tons per hour, consisting of screw and belt conveyors and bucket elevators and an air slide, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50. Some portions of the conveying system have a partial or total enclosure and exhaust to associated processes or inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(b) One (1) stucco storage silo, constructed in 1964, with a maximum capacity of 40 tons and a maximum throughput of 60 tons per hour, with particulate matter emissions controlled by the #2 Board Line Stucco Bin Dust Collector, identified as emissions point 32, and exhausting to one (1) stack, identified as S-32.

(c) One (1) HRA Airveyor and Receiving Bin, constructed in 1998, with a maximum throughput of 1.5 tons per hour, with particulate matter emissions controlled by the #2 Board Line HRA Receiving Bin Dust Collector, identified as emissions point 59, and exhausting to one (1) stack, identified as S-63. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) One (1) PST System, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #2 Board Line PST Dust Collector, identified as emissions point 27, and exhausting to one (1) stack, identified as S-27 exhausting inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(e) Five (5) dry additive feeders, constructed in 1964, with a combined maximum throughput of 4.5 tons per hour, with particulate matter emissions controlled by the #2 Board Line Stucco Bin Dust Collector, identified as emissions point 32, and exhausting to one (1) stack, identified as S-32.

(f) One (1) gypsum panel slurry mixer, constructed in 1964, with a maximum throughput of 64.5 tons per hour less water and 80.81 tons per hour with water, with particulate matter emissions controlled by the #2 Board Line Stucco Bin Dust Collector, identified as emissions point 32, and exhausting to one (1) stack identified as S-32.

(g) One (1) forming belt, constructed in 1964, with a maximum throughput of 72,000 square feet per hour, and exhausting inside the building.

(h) One (1) natural gas-fired drying kiln, identified as #2 Board Kiln, constructed in 1964, identified as emissions point 42, with a heat input capacity of 80 million Btu per hour, and exhausting to one (1) stack, identified as S-46. No. 2 fuel oil will also be used as a supplemental fuel.

(i) One (1) end saw, constructed in 1964, with a maximum throughput of 72,000 square feet per hour, with particulate matter emissions controlled by the North Board Plant End Saw Dust Collector, identified as emissions point 33, and exhausting to one (1) stack, identified as S-33. During backup situations, particulate matter emissions are controlled by the South Board Plant End Saw Dust Collector, identified as emissions point 34, and exhausting to one (1) stack, identified as S-34.

(j) One (1) starch storage bin, approved in 2011 for construction, identified as emission point #60, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 64.

(k) One (1) starch refill bin, approved in 2011 for construction, identified as emission point #61, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 65.

(l) One (1) starch weight loss feeder, approved in 2011 for construction, identified as emission point #62, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 66.

(m) One (1) cerelose feeder, approved in 2011 for construction, identified as emission point #63, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 67.

(11) The Dunnage machine facilities:

(a) One (1) Dunnage machine with saws, constructed in 1996, with a maximum throughput of 2400 square feet per hour, with particulate matter emissions controlled by the Dunnage Machine Dust Collector, identified as emissions point 50, and exhausting to (1) stack, identified as S-54.

(12) The following synthetic gypsum and wallboard waste reclamation facilities:

(a) One (1) three (3) walled synthetic gypsum storage shed, constructed in 1998, with a maximum throughput of 50 tons per hour, with a capacity of 0.64 acres, and with particulate matter emissions exhausting directly to the atmosphere.

(b) One (1) synthetic gypsum/waste reclaim belt, constructed in 1998, with a maximum throughput of 50 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting inside the building or directly to the atmosphere. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(c) One (1) synthetic gypsum storage bin, constructed in 1995, with a capacity of 60 tons and a maximum throughput of 50 tons per hour, with particulate matter emissions controlled by moisture suppression, and exhausting inside the storage bin building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) One (1) natural gas or fuel oil-fired impact dryer mill, identified as the Williams Mill, constructed in 1995, with a maximum throughput of 50 tons per hour, with a heat input capacity of 30 million Btu per hour, with particulate matter emissions controlled by the Williams Mill for Synthetic Gypsum and Waste Reclaim Dust Collector, identified as emissions point 49, and exhausting to one (1) stack, identified as S-53. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an existing affected unit.

(e) One (1) vibrating screens system, constructed in 1995, with a maximum throughput of 50 tons per hour, with particulate matter emissions controlled by the Williams Mill for Synthetic Gypsum and Waste Reclaim Dust Collector, identified as emissions point 49, and exhausting to one (1) stack, identified as S-53. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(f) One (1) waste wallboard shredder, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions exhausting inside a partial enclosure.

(g) One (1) waste surge pile, constructed in 1995, with a nominal capacity of 5 tons per hour, with particulate matter emissions exhausting inside a partial enclosure. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

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

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

D.2.1 PSD Minor Limits and HAP Minor Limit [326 IAC 2-2][326 IAC 20][40 CFR 63]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the Permittee shall comply with the following:

(a) PM/PM10/PM2.5 limits listed in the table below.

Unit ID	Control Device ID	Emission Point / Stack Number	PM/PM10/PM2.5 Emission Limit (lbs/hr)
MBR Kettle #1, #1 Kettle Feed Bin, & Hot Pit #1	#1 Kettle Dust Collector	1 / S-1	1.03
#2 Kettle Feed Bin, Kettle HEK #2a	HEK #2a Dust Collector	2a / S-2a	0.77
Kettle HEK #2b	HEK #2b Dust Collector	2b / S-2b	0.77
Kettle #3, #3 Kettle Feed Bin, & Hot Pit #3	#3 Kettle Dust Collector	3 / S-3	0.84
Kettle #4, #4 Kettle Feed Bin, &Hot Pit #4	#4 Kettle Dust Collector	4 / S-4	0.84
Kettle #5 & Hot Pit #5	#5 Kettle Dust Collector	5 / S-5	1.80
Rotary Rock Dryer	Rock Dryer Dust Collector	10 / S-10	2.57

Unit ID	Control Device ID	Emission Point / Stack Number	PM/PM10/PM2.5 Emission Limit (lbs/hr)
Landplaster Conveying System and #1 / #2 Raymond Mill & Raymond Mill Feed Bin #1	#1 / #2 Raymond Mill Dust Collector	11 / S-11	0.77
Landplaster Conveying System and #3 / #4 Raymond Mill & Raymond Mill Feed Bin #2 - #4	#3 / #4 Raymond Mill Dust Collector	12 / S-12	0.64
Glass Batch Screening Operation & Glass Batch Separator	Glass Batch System Dust Collector	13 / S-13	0.26
Tube Mill	Tube Mill Dust Collector	14 / S-14	0.51
Tube Mill Feed Bin & Mill Surge Bin	Mill Stucco Surge Bin Dust Collector	15 / S-15	0.32
Stucco Handling & Storage Facilities Conveying System	A-Belt Dust Collector	16 / S-16	0.04
Plaster Conveying System	B-Belt Dust Collector	17 / S-17	0.04
#0 North Stucco Bin	#0 North Stucco Bin Dust Collector	18 / S-18	0.04
#0 South Stucco Bin	#0 South Stucco Bin Dust Collector	19 / S-19	0.04
#1 Stucco Bin	#1 Stucco Bin Dust Collector	20 / S-20	0.04
#4 Stucco Storage Bin	#4 Stucco Storage Bin Dust Collector	22 / S-22	0.04
#5 Stucco Storage Bin	#5 Stucco Storage Bin Dust Collector	23 / S-23	0.04
Stucco Handling & Storage Facilities Conveying System	Head End of D-Belt Dust Collector	24 / S-24	0.04
Plaster Conveying System	D-Belt Dust Collector	25 / S-25	0.04
PST System	#2 Board Line PST Dust Collector	27 / S-27	0.06
Stucco Handling & Storage Facilities Conveying System	Tail End of F Belt Dust Collector	28 / S-28	0.32
Expanded Perlite Aggregate Storage Bin	Perlite Dust Collector	29 / S-29	0.39
Glass Batch Packing System, Plaster Conveying System, Plaster Mixer, & Plaster Packer	Plaster Packing Dust Collector	30 / S-30	1.16
#2 & #3 Stucco Storage Bins	#2/ #3 Stucco Storage Bin Dust Collectors	31 / S-31	0.39
Stucco Storage Silo, Dry Additive Feeders,	#2 Board Line Stucco Bin Dust Collector	32 / S-32	0.39

Unit ID	Control Device ID	Emission Point / Stack Number	PM/PM10/PM2.5 Emission Limit (lbs/hr)
& Gypsum Panel Slurry Mixer			
#1 Wallboard & #2 Wallboard End Saws	North and South Board Plant End Saw Dust Collectors	33 / S-33 & 34 / S-34	1.03
#5 Kettle Feed Bin	#5 Conical Kettle LP Feed Bin Dust Collector	35 / S-35	0.19
Board Plant HRA Landplaster Receiving Bin	HRA L.P. Air Conveyor Receiver Dust Collector	36 / S-36	0.19
Ball Mill #1	Board Plant HRA Ball Mill Dust Collector	37 / S-37	0.21
Glass Batch Airveyor Receiving Bin	Mill Glass Batch Receiving Bin Dust Collector	40 / S-40	0.21
Perlite Ore Expander	Perlite Expander Burner Cyclones	43 / S-47	1.68
Paper Fiber Hammermill, Stucco Handling and Storage Facilities Conveying System, #1 Wallboard Conveying System, Stucco Storage Bin, 5 Dry Additive Feeders, Gypsum Panel Slurry Mixer, & #2 Wallboard Conveying System	Stucco Air Conveyor Receiving Dust Collector	46 / S-50	0.64
Stucco Handling & Storage Facilities Conveying System	Stucco Air Conveyor Inlet Dust Collector	47 / S-51	0.10
Vibrating Screen System & Williams Mill	Williams Mill for Synthetic Gypsum and Waste Reclaim Dust Collector	49 / S-53	6.86
Dunnage Machine	Dunnage Machine Dust Collector	50 / S-54	0.69
Sand Bulk Loading Bin	Bulk Sand Bin Vent Dust Collector	51 / S-55	0.13
Lime Bulk Loading Bin	Bulk Lime Bin Vent Dust Collector	52 / S-56	0.10
1000 Ton Stucco Storage Bin	1000 Ton Stucco Storage Bin Vent Dust Collector	53 / S-57	1.3
G.L.I.P. Operation	G.L.I.P. Saw Dust Collector	55 / S-59	1.35
PST System	#1 Board Line PST Belt Dust Collector	56 / S-60	0.06
North Packing Stucco Storage Bin	North Packing Bin Dust Collector	57 / S-61	0.05
South Packing Stucco Storage bin	South Packing Bin Dust Collector	58 / S-62	0.05
HRA Airveyor and Receiving Bin	#2 Board Line HRA Receiving Bin Dust	59 / S-63	0.06

Unit ID	Control Device ID	Emission Point / Stack Number	PM/PM10/PM2.5 Emission Limit (lbs/hr)
	Collector		
Synthetic Gypsum Storage Bin	Moisture Suppression		0.66
starch storage bin	Dust Collectors	60 / 64	0.15
starch refill bin	Dust Collectors	60 / 65	0.08
starch weight loss feeder	Dust Collectors	62 / 66	0.08
cerelose feeder	Dust Collectors	63 / 67	0.08

(b) The plant wide fuel oil usage shall not exceed 3,000 kgal per 12 consecutive month period, with compliance determined at the end of each month. In addition, the fuel oil shall not exceed five-tenths (0.5%) sulfur content by weight.

(c) The PM/PM_{10}/$PM_{2.5}$, VOC and Formaldehyde limits for the #1 and #2 Board Kilns shall be as follows:

(1) Mold resistant additive usage in the #1 and #2 Board Kilns shall not exceed 2,700,000 pounds (with additive #1 usage limited to 2,250,000 pounds, and additive #2 usage limited to 450,000 pounds) per twelve (12) consecutive month period, each, with compliance determined at the end of each month. Glass mat usage in the #1 and #2 Board Kilns shall not exceed 2,400,000 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The total PM emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) The total PM10 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(4) The total PM2.5 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(5) The total VOC emissions from the #1 and #2 Board Kiln shall not exceed 86.85 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(6) The total Formaldehyde emissions from the #1 and #2 Board Kiln shall not exceed 7.35 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit Formaldehyde emissions to less than ten (10) tons per twelve (12) consecutive month period and render the requirements of 326 IAC 20 and 40 CFR 63 not applicable.

Compliance with the above limits, in conjunction with the limits in Condition D.1.1 and the potential to emit PM/PM_{10}/$PM_{2.5}$ from other emission units and insignificant activities at the source, shall limit the PM/PM_{10}/$PM_{2.5}$, VOC, and SO_2 emissions from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the Permittee shall comply with the PM limits, when operating at the associated process weight rates, as shown in the table below:

Process Area	Emission Unit	Emission Point / Stack Number	Process Weight Rate (ton/hr)	PM Limit (lbs/hr)
Rotary Rock Dryer Facilities	Rotary rock dryer	10 / S-10	90	50.23
Glass Batch Production Facilities	Conveying system		10	19.18
	Screening operation	13 / S-13	10	19.18
	Glass batch belt & storage bin		10	19.18
	Glass batch loading station		10	19.18
	Glass batch separator	13 / S-13	10	19.18
	Glass batch packing system	30 / S-30	10	19.18
	Glass batch airveyor receiving bin	40 / S-40	10	19.18
Landplaster Production Facilities	Conveying system	11 / S-11 & 12 / S-12	80	49.06
	Raymond mill #1	11 / S-11	20	30.51
	Raymond feed bin #1	11 / S-11	20	30.51
	Raymond mill #2	11 / S-11	20	30.51
	Raymond feed bin #2	12 / S-12	20	30.51
	Raymond mill #3	12 / S-12	20	30.51
	Raymond feed bin #3	12 / S-12	20	30.51
	Raymond mill #4	12 / S-12	20	30.51
	Raymond feed bin #4	12 / S-12	20	30.51
Stucco Production Facilities	Conveying system		101.7	51.45
	Kettle #1	1 / S-1	35.2	41.37
	Kettle feed bin #1	1 / S-1	35.2	41.37
	Hot pit #1	1 / S-1	35.2	41.37
	Kettle HEK #2a	2a / S-2a	13	22.86
	Kettle feed bin #2	2a/ S-2a	26	21.67
	Kettle HEK #2b	2b / S-2b	13	22.86
	Kettle #3	3 / S-3	12	21.67
	Kettle feed bin #3	3 / S-3	12	21.67
	Hot pit #3	3 / S-3	12	21.67
	Kettle #4	4 / S-4	15	25.16
	Kettle feed bin #4	4 / S-4	15	25.16
	Hot pit #4	4 / S-4	15	25.16

Process Area	Emission Unit	Emission Point / Stack Number	Process Weight Rate (ton/hr)	PM Limit (lbs/hr)
	Kettle #5	5 / S-5	27.5	37.77
	Kettle feed bin #5	35 / S-35	27.5	37.77
	Hot pit #5	5 / S-5	27.5	37.77
Plaster Production Facilities	Conveying system	17 / S-17, 25 / S-25, & 30 / S-30	9	17.87
	Tube mill feed bin	15 / S-15	10	19.18
	Tube mill	14 / S-14	10	19.18
	#0 North stucco storage bins	18 / S-18	20	30.51
	#0 South stucco storage bins	19 / S-19	20	30.51
	#1 Stucco storage bin	20 / S-20	20	30.51
	Sand bulk loading bin	51 / S-55	12	21.67
	Perlite ore expander	43 / S-47	1.6	5.62
	North plaster packing bin	57 / S-61	27	37.31
	South plaster packing bin	58 / S-62	27	37.31
	Plaster mixer	30 / S-30	27	37.31
	Plaster packer	30 / S-30	27	37.31
Stucco Handling & Storage Facilities	Conveying system	16 / S-16, 24 / S-24, 28 / S-28, 46 / S-50, & 47 / S-51	101.7	51.45
	Mill surge bin	15 / S-15	55	45.47
	#2 Stucco storage bin	31 / S-31	30	39.96
	#3 Stucco storage bin	31 / S-31	27.5	37.77
	#4 Stucco storage bin	22 / S-22	30	39.96
	#5 Stucco storage sin	23 / S-23	30	39.96
	1000 Ton stucco storage bin	53 / S-57	27.5	37.77
#1 Wallboard Production Facilities	Conveying system	46 / S-50	40	42.53
	Stucco storage bin	46 / S-50	25	35.43
	Ball Mill #1	37 / S-37	1.8	6.08
	Dry additive feeders	46 / S-50	4.5	11.23
	PST system	56 / S-60	20	30.51
	Paper fiber	46 / S-50	0.12	0.99

Process Area	Emission Unit	Emission Point / Stack Number	Process Weight Rate (ton/hr)	PM Limit (lbs/hr)
	hammermill			
	Gypsum panel slurry mixer	46 / S-50	80.81	49.16
	Kiln #1	41 / S-45	49.5	44.48
	End saw	33 / S-33 & 34 / S-34	46.5	43.90
	Gypsum lay-in panel (GLIP) saws	55 / S-59	46.5	43.90
#2 Wallboard Production Facilities	Conveying system	46 / S-50	60	46.29
	Stucco storage silo	32 / S-32	60	46.29
	PST system	27 / S-27	20	30.51
	Dry additive feeders	32 / S-32	4.5	11.23
	Gypsum panel slurry mixer	32 / S-32	80.81	49.16
	Kiln #2	42 / S-46	80.81	49.16
	End saw	33 / S-33 & 34 / S-34	64.5	43.9
Dunnage Machine Facilities	Dunnage Machine	50 / S-54	55	45.47
Synthetic Gypsum & Wallboard Waste Reclamation Facilities	Synthetic gypsum / waste reclaim belt	N/A	50	44.58
	Waste wallboard shredder	N/A	20	30.51
	Vibrating screens system	49 / S-53	50	44.58
	Williams Mill	49 / S-53	50	44.58
	Synthetic gypsum storage bin	N/A	50	44.58

The pounds per hour limitations were calculated with the following equations:

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

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

and

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

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

D.2.3 Sulfur Dioxide (SO2) [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO2 emissions from the #1 and #2 Wallboard kilns, calcining kettles #1 - #5, the rotary rock dryer, perlite expander, and the Williams Mill shall not exceed five-tenths (0.5) pound per million Btu heat input when combusting distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventative Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.1, the Permittee shall:

(a) For the purposes of PM, PM-10, and PM2.5 compliance stack testing, the units at this source are grouped as follows:

Group A:

Dust Collector	Units
#1/#2 Raymond Mill Dust Collector	#1 Raymond Mill
	#1 Raymond Mill Feed Bin
	#2 Raymond Mill
	Conveying System
#3/#4 Raymond Mill Dust Collector	#3 Raymond Mill
	#2 Raymond Mill Feed Bin
	#3 Raymond Mill Feed Bin
	#4 Raymond Mill
	#4 Raymond Mill Feed Bin
	Conveying System

Group B:

Dust Collector	Units
#1 Kettle Dust Collector	MBR Kettle #1
	#1 Kettle Feed Bin
	Hot Pit #1
#2 Kettle Dust Collector	#2 Kettle Feed Bin
#2a Kettle Dust Collector	Kettle HEK #2a
#2b Kettle Dust Collector	Kettle HEK #2b
#3 Kettle Dust Collector	Kettle #3
	#3 Kettle Feed Bin
	Hot Pit #3
#4 Kettle Dust Collector	Kettle #4
	#4 Kettle Feed Bin
	Hot Pit #4
#5 Kettle Dust Collector	Kettle #5
	Hot Pit #5
HEK Air Slide Dust Collector	HEK Air Slide

Group C:

Dust Collector	Units
North Board Plant End Saw Dust Collector	#1 Wallboard Line End Saw
	#2 Wallboard Line End Saw
South Board Plant End Saw Dust Collector	#1 Wallboard Line End Saw
	#2 Wallboard Line End Saw

(b) The Permittee shall perform PM and PM-10 testing on one (1) dust collector from each of Groups A, B, and C 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. This test shall be repeated at least once every five (5) years from the date of the prior valid compliance demonstration. The source will test the dust collector for which the longest period of time has passed since the last valid compliance test. The first complete PM/PM-10 testing of Group B shall not include #1 Kettle Dust Collector. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM-10 includes filterable and condensible PM.

(c) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM2.5 testing on one (1) dust collector from each of Groups A and B utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 3, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the dust collector for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

(d) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM2.5 testing on one (1) dust collector from each of Group C utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 2, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the dust collector for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

(e) Perform PM and PM-10 testing of the G.L.I.P. Saw Dust Collector 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. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM-10 includes filterable and condensable PM.

(f) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM2.5 testing on the G.L.I.P. Saw Dust Collector utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 2, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the board kiln for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

(g) In order to demonstrate compliance with the emission factors in Condition D.2.7, the Permittee shall perform PM and PM-10 testing of the #1 or #2 Board Kiln utilizing methods as approved by the Commissioner. The source will test the board kiln for which the longest period of time has passed since the last valid compliance test. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM-10 includes filterable and condensable PM.

(h) In order to demonstrate compliance with the emission factors in Condition D.2.7, the Permittee shall perform PM2.5 testing on the #1 or #2 Board Kiln utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 1, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the board kiln for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

D.2.6 Sulfur Dioxide (SO2)

Compliance with Condition D.2.1 and D.2.3 shall be determined using the following:

(a) Pursuant to 326 IAC 3-7-4 (Sulfur Dioxide Emissions and Sulfur Content), the Permittee shall demonstrate the fuel oil sulfur content does not exceed 0.5% by weight by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

D.2.7 Particulate Matter, VOC, and Formaldehyde

Compliance with Condition D.2.1(c) shall be determined using the following:

$ME_{X\ (ton/month)} = [(A1_{\ (lb/month)} * A1EF_{X\ (lb/lb)}) + (A2_{\ (lb/month)} * A2EF_{X\ (lb/lb)}) + (GM_{\ (lb/month)} * GMEF_{X\ (lb/lb)}) + ((KP\#1_{X\ (lb/day)} + KP\#2_{X\ (lb/day)}) * \text{days in month})] * 1\ ton / 2000\ lbs$

Where:
ME_X = Monthly Emissions of Pollutant X
A1 = Additive #1 Usage (lb/month)
$A1EF_X$ = Additive #1 Emission Factor for Pollutant X ($lb_X/lb_{additive\#1}$)
A2 = Additive #2 Usage (lb/month)
$A2EF_X$ = Additive #2 Emission Factor for Pollutant X ($lb_X/lb_{additive\#2}$)
GM = Glass Material Usage (lb/month)
$GMEF_X$ = Glass Material Emission Factor for Pollutant X ($lb_X/lb_{glassmaterial}$)
$KP\#1_X$ = Kiln #1 Process Emissions for Pollutant X (lb/day)
$KP\#2_X$ = Kiln #2 Process Emissions for Pollutant X (lb/day)

Where:
Additive #1 EF = The additive #1 pound per pound emission factor for each pollutant as follows: PM = 0.017 lb/lb, PM10 = 0.017 lb/lb, PM2.5 = 0.017 lb/lb, VOC = 0.024 lb/lb, Formaldehyde = 0.0023 lb/lb.
Additive #2 EF = The additive #2 pound per pound emission factor for each pollutant as follows: PM = 0.0 lb/lb, PM10 = 0.0 lb/lb, PM2.5 = 0.0 lb/lb, VOC = 0.15 lb/lb, Formaldehyde = 0.0 lb/lb.
Glass Material EF = The glass material pound per pound emission factor for each pollutant as follows: PM = 0.002 lb/lb, PM10 = 0.002 lb/lb, PM2.5 = 0.002 lb/lb, VOC = 0.005 lb/lb, Formaldehyde = 0.002 lb/lb.

KP#1 = The process emission rate (lb/day) as follows: PM = 29.04; PM10 = 29.04; PM2.5 = 29.04; VOC = 44.88; Formaldehyde = 5.28
KP#2 = The process emission rate (lb/day) as follows: PM = 42.24; PM10 = 42.24; PM2.5 = 42.24; VOC = 65.28; Formaldehyde = 7.68

D.2.8 Particulate Control (Baghouse)

(a) In order to comply with Conditions D.2.1 and D.2.2 the baghouses/dust collectors 1, 2a, 2b, HEK Air Slide, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 46, 47, 49, 50, 51, 53, 55, 56, 57, 58, 59, 60, 61, 62 and 63 for particulate control shall be in operation and control emissions at all times that the associated emissions units are in operation.

(b) In the event that bag/dust collector failure is observed in a multi-compartment bag/dust collector, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The

notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.9 Particulate Control (Cyclone)

In order to comply with Conditions D.2.1 and D.2.2, the cyclones 43 and 44 for particulate control shall be in operation and control emissions at all times that the associated emission units are in operation.

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

D.2.10 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the points 1, 2a, 2b, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 46, 47, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 63 and 64 stack exhausts shall be performed once per day during normal daylight 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.2.11 Parametric Monitoring (Baghouse) [40 CFR 64]

The Permittee shall record the pressure drop across each baghouse/dust collector used in conjunction with emission points 1, 2a, 2b, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 46, 47, 49, 50, 51, 53, 55, 56, 57, 58, 59, 60, 61, 63, and 64 at least once per day when the associated process is in operation. When for any one reading, the pressure drop across a baghouse/dust collector 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps 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 every six (6) months.

D.2.12 Broken or Failed Bag/dust collector Detection [40 CFR 64]

(a) For a single compartment baghouse/dust collector 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/dust collector 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 emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag/dust collector 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.

D.2.13 Cyclone Failure Detection [40 CFR 64]

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.2.14 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1(b), the Permittee shall maintain records of the plant wide fuel oil usage monthly.

(b) To document the compliance status with Condition D.2.1(c) and Condition D.2.7, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the emission limit established in D.2.1(c) and D.2.7.

(1) The PM, PM10, PM2.5, VOC, and formaldehyde emissions from the mold resistant additives in tons per month.

(2) The PM, PM10, PM2.5, VOC, and formaldehyde emissions from the Kiln #1 in tons per month.

(3) The PM, PM10, PM2.5, VOC, and formaldehyde emissions from the Kiln #2 in tons per month.

(4) The PM, PM10, PM2.5, VOC, and formaldehyde emission factors used to calculate the mold resistant additive, Kiln #1, and Kiln #2 emissions.

(5) The amount of each mold resistant additive and glass material used each month.

(c) To document the compliance status with Conditions D.2.1(b) and D.2.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the emission limit established in D.2.1(b) and D.2.3.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(d) To document the compliance status with Conditions D.2.10, the Permittee shall maintain a daily record of visible emission notations of the points 1, 2a, 2b, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 46, 47, 49, 50, 51, 52, 53, 55, 56, 57, 58 59, 60, 61, 62, 63 and 64 stack exhausts. 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).

(e) To document the compliance status with Condition D.2.11, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the points 1, 2a, 2b, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 46, 47, 49, 50, 51, 53, 55, 56, 57, 58 59, 60, 61, 63 and 64. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(f) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.2.14 Reporting Requirements

(a) A quarterly summary of the information to document the compliance status with Conditions D.2.1(b), D.2.1(c) and D.2.3 shall be submitted within thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.

(b) To document the compliance status with Condition D.2.3, the Permittee shall certify, on the form provided, that natural gas was fired in the #1 and #2 Wallboard kilns, calcining kettles #1 - #5, kettles HEK #2a and HEK #2b, the rotary rock dryer, perlite expander, and the Williams Mill, at all times during the report period. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during the report period. The form shall be submitted within thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.

SECTION E.1 FACILITY OPERATION CONDITIONS - New Source Performance Standards for Nonmetallic Mineral Processing [40 CFR 60, Subpart OOO]

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

(4) The following glass batch production facilities:

(f) One (1) glass batch airveyor receiving bin, constructed in 2006, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Mill Glass Batch Receiving Bin Dust Collector, identified as emission point 40, and exhausting to one (1) stack, identified as S-40. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(5) The following landplaster production facilities:

(j) One (1) Board Plant HRA landplaster receiving bin, constructed in 1986, with a capacity of 5 tons, with a maximum throughput of 2 tons per hour, with particulate matter emissions controlled by the HRA L.P. Air Conveyor Receiver Dust Collector, identified as emissions point 36, and exhausting to one (1) stack, identified as S-36. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(6) The following stucco production facilities:

(s) One (1) Kettle Feed Bin, identified as #5 Kettle Feed Bin, constructed in 1986, with a maximum capacity of 125 tons, with a maximum throughput of 27.5 tons per hour, with particulate matter emissions controlled by the #5 Conical Kettle LP Feed Bin Dust Collector, identified as emission point 35, and exhausting to one (1) stack, identified as S-35. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(7) The following plaster production facilities:

(b) One (1) tube mill feed bin, constructed in 1955 and modified in 2001, with a maximum capacity of 60 tons, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Mill Stucco Surge Bin Dust Collector, identified as emissions point 15, and exhausting to one (1) stack, identified as S-15. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(c) One (1) tube mill, constructed in 1955 and modified in 2001, with a maximum throughput of 10 tons per hour, with particulate matter emissions controlled by the Tube Mill Dust Collector, identified as emissions point 14, and exhausting to one (1) stack, identified as S-14. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(f) One (1) sand bulk loading bin, constructed in 1996, with a maximum capacity of 60 tons, with a nominal throughput of 12 tons per hour, with particulate matter emissions controlled by Bulk Sand Bin Vent Dust Collector, identified as emissions point 51, and each exhausting to one (1) stack, identified as S-55. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(8) The following stucco handling and storage facilities:

(e) One (1) stucco storage bin, identified as the 1000 Ton Stucco Storage Bin, constructed in 1998, with a maximum capacity of 1000 tons and a maximum throughput of 27.5 tons, with particulate matter emissions controlled by the 1000 Ton Stucco Storage Bin Vent

Dust Collector, identified as emissions point 53, and exhausting to one (1) stack, identified as S-57. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(9) The following #1 wallboard production facilities:

(c) One (1) ball mill #1, constructed in 1998, with a maximum throughput of 1.8 tons per hour, with particulate matter emissions controlled by the Board Plant HRA Ball Mill Dust Collector, identified as emissions point 37, and exhausting to one (1) stack, identified as S-37. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(e) One (1) PST System, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #1 Board Line PST Belt Dust Collector, identified as emissions point 56, and exhausting to one (1) stack, identified as S-60 exhausting inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(l) One (1) starch storage bin, approved in 2011 for construction, identified as emission point #60, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 64. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(m) One (1) starch refill bin, approved in 2011 for construction, identified as emission point #60, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 65. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(n) One (1) starch weight loss feeder, approved in 2011 for construction, identified as emission point #62, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 66. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(o) One (1) cerelose feeder, approved in 2011 for construction, identified as emission point #63, with a maximum throughput rate 0.75 tons/hr, controlled by dust collectors, exhausting through stack 67. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(10) The following #2 wallboard production facilities:

(a) A conveying system, constructed in 1964 with an airveyor added in 1995, with a maximum throughput of 60 tons per hour, consisting of screw and belt conveyors and bucket elevators and an air slide, with particulate matter emissions controlled by the Stucco Air Conveyor Receiving Dust Collector, identified as emissions point 46, and exhausting to one (1) stack, identified as S-50. Some portions of the conveying system have a partial or total enclosure and exhaust to associated processes or inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(c) One (1) HRA Airveyor and Receiving Bin, constructed in 1998, with a maximum throughput of 1.5 tons per hour, with particulate matter emissions controlled by the #2 Board Line HRA Receiving Bin Dust Collector, identified as emissions point 59, and exhausting to one (1) stack, identified as S-63. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) One (1) PST System, constructed in 1995, with a maximum throughput of 20 tons per hour, with particulate matter emissions controlled by the #2 Board Line PST Dust Collector, identified as emissions point 27, and exhausting to one (1) stack, identified as S-27 exhausting inside the building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(12) The following synthetic gypsum and wallboard waste reclamation facilities:

(b) One (1) synthetic gypsum/waste reclaim belt, constructed in 1998, with a maximum throughput of 50 tons per hour, with a semicircular partial enclosure, and with particulate matter emissions exhausting inside the building or directly to the atmosphere. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(c) One (1) synthetic gypsum storage bin, constructed in 1995, with a capacity of 60 tons and a maximum throughput of 50 tons per hour, with particulate matter emissions controlled by moisture suppression, and exhausting inside the storage bin building. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(d) One (1) natural gas or fuel oil-fired impact dryer mill, identified as the Williams Mill, constructed in 1995, with a maximum throughput of 50 tons per hour, with a heat input capacity of 30 million Btu per hour, with particulate matter emissions controlled by the Williams Mill for Synthetic Gypsum and Waste Reclaim Dust Collector, identified as emissions point 49, and exhausting to one (1) stack, identified as S-53. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

(e) One (1) vibrating screens system, constructed in 1995, with a maximum throughput of 50 tons per hour, with particulate matter emissions controlled by the Williams Mill for Synthetic Gypsum and Waste Reclaim Dust Collector, identified as emissions point 49, and exhausting to one (1) stack, identified as S-53. Under the NSPS 40 CFR 60 Subpart OOO, this unit is considered an existing affected unit.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

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

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the nonmetallic mineral processing operations except as otherwise specified in 40 CFR Part 60, Subpart OOO.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

E.1.2 New Source Performance Standard for Nonmetallic Mineral Processing Requirements [40 CFR Part 60, Subpart OOO]

Pursuant to 40 CFR Part 60, Subpart OOO, the Permittee shall comply with the provisions of the New Source Performance Standard for Nonmetallic Mineral Processing (included as Attachment A of this permit) as specified as follows:

(1) 40 CFR 60.670
(2) 40 CFR 60.671
(3) 40 CFR 60.672
(4) 40 CFR 60.673
(5) 40 CFR 60.675
(6) 40 CFR 60.676

SECTION E.2 FACILITY OPERATION CONDITIONS - New Source Performance Standards for Calciners and Dryers in Mineral Industries [40 CFR 60, Subpart UUU]

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

(6) The following stucco production facilities:

(b) One (1) calcining kettle, identified as MBR Kettle #1, constructed in 1999, with a maximum throughput of 35.2 tons per hour, with particulate matter emissions controlled by the #1 Kettle Dust Collector, identified as emissions point 1, and exhausting to one (1) stack, identified as S-1. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an existing affected unit.

(d) Three (3) natural gas or fuel oil-fired kettle burners, constructed in 1999, identified as #1 Kettle Burners, with a heat input capacity of 15 million Btu per hour, and exhausting to one (1) stack, identified as S-41. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an existing affected unit.

(s) One (1) calcining kettle, identified as HEK #2a, permitted in 2012, with a maximum throughput of 13 tons per hour, with particulate matter emissions controlled by the HEK #2a dust collector, identified as Emissions Point 2a, and exhausting to one (1) stack, identified as S-2a. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(u) One (1) calcining kettle, identified as HEK #2b, permitted in 2012, with a maximum throughput of 13 tons per hour, with particulate matter emissions controlled by the HEK #2b dust collector, identified as Emissions Point 2b, and exhausting to one (1) stack, identified as S-2b. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(v) One (1) natural gas-fired kettle burner, permitted in 2012, identified as #2b HEK burner, with a heat input capacity of 7.5 million BTU per hour, and exhausting to one (1) stack, identified as S-2b. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

(w) One (1) air slide, identified as HEK air slide, permitted in 2012, with a maximum throughput of 26 tons per hour, with particulate matter emissions controlled by the HEK air slide dust collector, identified as Emissions Point 64, and exhausting to one (1) stack, identified as S-68. Under the NSPS 40 CFR 60 Subpart UUU, this unit is considered an affected unit.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

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

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the nonmetallic mineral processing operations except as otherwise specified in 40 CFR Part 60, Subpart UUU.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

E.2.2 New Source Performance Standard for Calciners and Dryers in Mineral Industries Requirements [40 CFR Part 60, Subpart UUU]

Pursuant to 40 CFR Part 60, Subpart UUU, the Permittee shall comply with the provisions of the New Source Performance Standard for Calciners and Dryers in Mineral Industries (included as Attachment B of this permit) as specified as follows:

(1) 40 CFR 60.730
(2) 40 CFR 60.731
(3) 40 CFR 60.732
(4) 40 CFR 60.733
(5) 40 CFR 60.734
(6) 40 CFR 60.735
(7) 40 CFR 60.736
(8) 40 CFR 60.737

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

Source Name: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001

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 and Enforcement 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: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001

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 and Enforcement Branch

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001

□ Natural Gas Only □ Alternate Fuel burned From:_____ To:_____

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:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001
Facility: All combustion sources
Parameter: SO_2 (Usage Limit), Sulfur Content, and SO_2 Emissions
Limit: 3,000,000 gallons per 12 month period and 0.5% sulfur content; 0.5 lbs/MMBtu

QUARTER : YEAR:

Month	Fuel Oil Usage This Month (gallons)	Fuel Oil Usage Previous 11 Months (gallons)	Fuel Oil Usage 12 Month Total (gallons)	Sulfur Content (% by Wt.)	Sulfur Dioxide Emissions (lbs/MMBtu)

□ No deviation occurred in this quarter.

□ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001
Facility: # 1 Board Kiln and # 2 Board Kiln
Parameter: PM, PM10, PM2.5, VOC, and Formaldehyde Emissions
Limit: The total PM emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per twelve (12) consecutive month period.
The total PM10 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per twelve (12) consecutive month period.
The total PM2.5 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per twelve (12) consecutive month period.
The total VOC emissions from the #1 and #2 Board Kiln shall not exceed 86.85 tons per twelve (12) consecutive month period.
The total Formaldehyde emissions from the #1 and #2 Board Kiln shall not exceed 7.35 tons per twelve (12) consecutive month period.

POLLUTANT:_____ QUARTER: _____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001
Facility: # 1 Board Kiln and # 2 Board Kiln
Parameter: total mold resistant additive/additive #1/additive #2 usage
Limit: 2,700,000/2,250,000/450,000 pounds per twelve (12) consecutive month period

QUARTER: YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001
Facility: # 1 Board Kiln and # 2 Board Kiln
Parameter: glass mat usage
Limit: 2,400,000 pounds per twelve (12) consecutive month period

QUARTER: YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: U.S. Gypsum Company
Source Address: 12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.: T101-17814-00001

Months: _____ to _ Year: _____

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".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ 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
To Part 70 Operating Permit Renewal No. T101-17814-00001

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Part 60, Subpart OOO—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) Fluorospar.

(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 expediently 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 H_2O (0.05 in. H_2O)] 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.

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

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 OOO of Part 60—Exceptions to Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to subpart OOO	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 OOO of Part 60—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).
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).

[a] Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See § 60.672(d) through (f).

[b] The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

Table 3 to Subpart OOO of Part 60—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 reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart.
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	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
			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.

Attachment B
To Part 70 Operating Permit Renewal No. T101-17814-00001

[Downloaded from the eCFR on August 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

40 CFR 60, 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.

Attachment C
Fugitive Particulate Matter Emission Control Plan

1. **Name and address of the source:**
   - **a.** United States Gypsum Company
     12802 Deep Cut Lake Road
     Shoals, IN 47581

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.** Truck Loading
   - **b.** Conveyor Belts
   - **c.** Waste Wallboard Crushing/Hauling
   - **d.** Synthetic Gypsum Unloading/Hauling
   - **e.** Gypsum Storage Pile

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 load out daily from the facility. The number of trucks varies around 500/week and used paved roads. Employees travel the paved roads to the various employee parking lots located around the plant.

6. **Type and quantity of material handled:**
   - **a.** Crushed gypsum rock is handled at this facility both in the wallboard manufacturing process and sold to outside customers, approximately 600,000 tons is used. Synthetic Gypsum is handled at this facility in the wallboard manufacturing process, approximately 400,000 tons are used. Cull wallboard is recycled in the wallboard shredder.

7. **Equipment used to maintain aggregate piles:**
   - **a.** A front end loader is used to handle rock and synthetic gypsum. A forklift and front end loader are used to handle cull wallboard.

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 uses enclosed belts and transfer houses.
   - **b.** The synthetic gypsum unloading is done inside the synthetic gypsum shed and synthetic gypsum contains 10% moisture.
   - **c.** The paved roads are cleaned as necessary to control 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 cleans/sweeps roads on an as needed basis.

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.** If a dusting issue occurs, it will be addressed using the method specified in number 9 above.

12. Other relevant data:

- **a.** No other data.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	U.S. Gypsum Company
Source Location:	12802 Deep Cut Lake Road, Shoals, IN 47581
County:	Martin
SIC Code:	1499, 3275
Operation Permit No.:	T 101-17814-00001
Operation Permit Issuance Date:	January 15, 2009
Significant Source Modification No.:	101-33557-00001
Significant Permit Modification No.:	101-33565-00001
Permit Reviewer:	Kristen Willoughby

Existing Approvals

The source was issued Part 70 Operating Permit No. T101-17814-00001 on January 15, 2009. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Administrative Amendment	101-27865-00001	May 21, 2009
Significant Permit Modification	101-28228-00001	December 14, 2009
Significant Permit Modification	101-30896-00001	February 15, 2012
Significant Source Modification	101-31845-00001	August 21, 2012
Significant Permit Modification	101-31868-00001	September 5, 2012

County Attainment Status

The source is located in Martin County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Martin County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x

emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Martin County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5,}$ $SO_{2,}$ and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Martin County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status

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

Pollutant	**Emissions** (ton/yr)
PM	235.80
PM_{10}	242.21
$PM_{2.5}$	242.21
SO_2	107.17
VOC	107.22
CO	102.53
NO_X	143.02
GHGs as CO_2e	>100,000
Single HAP	<10
Total HAPs	<25

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant, excluding GHGs, is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1), and the source has not undertaken a physical change or change in the method of operation on or after July 1, 2011 that resulted in an emissions increase of seventy-five thousand (75,000) tpy CO_2e or more.

(b) These emissions (except GHG emission) are based upon the Technical Support Document for SPM 101-31868-00001. GHG emissions were recalculated as a part of this modification.

This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, 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).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by U.S. Gypsum Company on August 21, 2013, relating to using mold resistant additives in Board Kiln #2. Mold resistant additives are already permitted to be used on Board Kiln #1. U.S. Gypsum Company is not requesting to increase the total amount of additives used, only the flexibility to use the additives on either Board Kiln #1 or Board Kiln #2.

Enforcement Issues

IDEM is aware that mold resistant additives have been used on Board Kiln #2 prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

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

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

PTE Change of the Modified Process			
Pollutant	**PTE Before Modification** (ton/yr)	**PTE After Modification** (ton/yr)	**Increase from Modification** (ton/yr)
PM	7.71	29.23	21.53
PM_{10}	7.71	29.23	21.53
$PM_{2.5}$	7.71	29.23	21.53
SO_2	-	-	-
VOC	11.91	78.66	66.75
CO	-	-	-
NO_X	-	-	-
HAPs	1.40	6.39	4.99

This source modification is subject to 326 IAC 2-7-10.5(g), modifications with a potential to emit greater than twenty-five (25) tons per year of VOC. Additionally, the modification will be incorporated into the permit as a Significant Permit Modification under 326 IAC 2-7-11/326 IAC 2-7-12(d), because the modification does require a change to a case-by-case emission limitation and significant change to monitoring and record keeping.

Permit Level Determination – PSD

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 modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit After Issuance (ton/yr)							
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**VOC**	**CO**	**NO_X**	**GHGs**
#2 Board Kiln Before the Modification	7.71	7.71	7.71	-	11.91	-	-	-
#1 Board Kiln After the Modification	29.23	29.23	29.23	-	78.66	-	-	-
Total for the Modification	21.53	21.53	21.53	-	66.75	-	-	-
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO_2e

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the Permittee shall comply with the following:

(a) PM2.5 limits listed in the table below.

Unit ID	**Control Device ID**	**Emission Point / Stack Number**	**PM2.5 Emission Limit (lbs/hr)**
Primary Crusher	Exhaust Inside Mine	NA	0.03
MBR Kettle #1, #1 Kettle Feed Bin, & Hot Pit #1	#1 Kettle Dust Collector	1 / S-1	1.03
#2 Kettle Feed Bin, Kettle HEK #2a	HEK #2a Dust Collector	2a / S-2a	0.77
Kettle HEK #2b	HEK #2b Dust Collector	2b / S-2b	0.77
Kettle #3, #3 Kettle Feed Bin, & Hot Pit #3	#3 Kettle Dust Collector	3 / S-3	0.84
Kettle #4, #4 Kettle Feed Bin, &Hot Pit #4	#4 Kettle Dust Collector	4 / S-4	0.84
Kettle #5 & Hot Pit #5	#5 Kettle Dust Collector	5 / S-5	1.80
Rotary Rock Dryer	Rock Dryer Dust Collector	10 / S-10	2.57
Landplaster Conveying System and #1 / #2 Raymond Mill & Raymond Mill Feed Bin #1	#1 / #2 Raymond Mill Dust Collector	11 / S-11	0.77
Landplaster Conveying System and #3 / #4 Raymond Mill & Raymond Mill Feed Bin #2 - #4	#3 / #4 Raymond Mill Dust Collector	12 / S-12	0.64
Glass Batch Screening Operation & Glass Batch Separator	Glass Batch System Dust Collector	13 / S-13	0.26
Tube Mill	Tube Mill Dust Collector	14 / S-14	0.51

Unit ID	Control Device ID	Emission Point / Stack Number	PM2.5 Emission Limit (lbs/hr)
Tube Mill Feed Bin & Mill Surge Bin	Mill Stucco Surge Bin Dust Collector	15 / S-15	0.32
Stucco Handling & Storage Facilities Conveying System	A-Belt Dust Collector	16 / S-16	0.04
Plaster Conveying System	B-Belt Dust Collector	17 / S-17	0.04
#0 North Stucco Bin	#0 North Stucco Bin Dust Collector	18 / S-18	0.04
#0 South Stucco Bin	#0 South Stucco Bin Dust Collector	19 / S-19	0.04
#1 Stucco Bin	#1 Stucco Bin Dust Collector	20 / S-20	0.04
#4 Stucco Storage Bin	#4 Stucco Storage Bin Dust Collector	22 / S-22	0.04
#5 Stucco Storage Bin	#5 Stucco Storage Bin Dust Collector	23 / S-23	0.04
Stucco Handling & Storage Facilities Conveying System	Head End of D-Belt Dust Collector	24 / S-24	0.04
Plaster Conveying System	D-Belt Dust Collector	25 / S-25	0.04
PST System	#2 Board Line PST Dust Collector	27 / S-27	0.06
Stucco Handling & Storage Facilities Conveying System	Tail End of F Belt Dust Collector	28 / S-28	0.32
Expanded Perlite Aggregate Storage Bin	Perlite Dust Collector	29 / S-29	0.39
Glass Batch Packing System, Plaster Conveying System, Plaster Mixer, & Plaster Packer	Plaster Packing Dust Collector	30 / S-30	1.16
#2 & #3 Stucco Storage Bins	#2/ #3 Stucco Storage Bin Dust Collectors	31 / S-31	0.39
Stucco Storage Silo, Dry Additive Feeders, & Gypsum Panel Slurry Mixer	#2 Board Line Stucco Bin Dust Collector	32 / S-32	0.39
#1 Wallboard & #2 Wallboard End Saws	North and South Board Plant End Saw Dust Collectors	33 / S-33 & 34 / S-34	1.03
#5 Kettle Feed Bin	#5 Conical Kettle LP Feed Bin Dust Collector	35 / S-35	0.19
Board Plant HRA Landplaster Receiving Bin	HRA L.P. Air Conveyor Receiver Dust Collector	36 / S-36	0.19
Ball Mill #1	Board Plant HRA Ball Mill Dust Collector	37 / S-37	0.21
Glass Batch Airveyor Receiving Bin	Mill Glass Batch Receiving Bin Dust Collector	40 / S-40	0.21
Perlite Ore Expander	Perlite Expander Burner Cyclones	43 / S-47	1.68
Paper Fiber	Stucco Air Conveyor	46 / S-50	0.64

Unit ID	Control Device ID	Emission Point / Stack Number	PM2.5 Emission Limit (lbs/hr)
Hammermill, Stucco Handling and Storage Facilities Conveying System, #1 Wallboard Conveying System, Stucco Storage Bin, 5 Dry Additive Feeders, Gypsum Panel Slurry Mixer, & #2 Wallboard Conveying System	Receiving Dust Collector		
Stucco Handling & Storage Facilities Conveying System	Stucco Air Conveyor Inlet Dust Collector	47 / S-51	0.10
Vibrating Screen System & Williams Mill	Williams Mill for Synthetic Gypsum and Waste Reclaim Dust Collector	49 / S-53	6.86
Dunnage Machine	Dunnage Machine Dust Collector	50 / S-54	0.69
Sand Bulk Loading Bin	Bulk Sand Bin Vent Dust Collector	51 / S-55	0.13
Lime Bulk Loading Bin	Bulk Lime Bin Vent Dust Collector	52 / S-56	0.10
1000 Ton Stucco Storage Bin	1000 Ton Stucco Storage Bin Vent Dust Collector	53 / S-57	1.3
G.L.I.P. Operation	G.L.I.P. Saw Dust Collector	55 / S-59	1.35
PST System	#1 Board Line PST Belt Dust Collector	56 / S-60	0.06
North Packing Stucco Storage Bin	North Packing Bin Dust Collector	57 / S-61	0.05
South Packing Stucco Storage bin	South Packing Bin Dust Collector	58 / S-62	0.05
HRA Airveyor and Receiving Bin	#2 Board Line HRA Receiving Bin Dust Collector	59 / S-63	0.06
Synthetic Gypsum Storage Bin	Moisture Suppression		0.66
starch storage bin	Dust Collectors	60 / 64	0.15
starch refill bin	Dust Collectors	60 / 65	0.08
starch weight loss feeder	Dust Collectors	62 / 66	0.08
cerelose feeder	Dust Collectors	63 / 67	0.08

(b) The $PM/PM_{10}/PM_{2.5}$, VOC and Formaldehyde limits for the #1 and #2 Board Kilns shall be as follows:

(1) Mold resistant additive usage in the #1 and #2 Board Kilns shall not exceed 2,700,000 pounds (with additive #1 usage limited to 2,250,000 pounds per year and additive #2 usage limited to 450,000 pounds per year) per twelve (12) consecutive month period, with compliance determined at the end of each month. Glass mat usage in the #1 and #2 Board Kilns shall not exceed 2,400,000 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The total PM emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year.

(3) The total PM10 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year.

(4) The total PM2.5 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year.

(6) The total VOC emissions from the #1 and #2 Board Kiln shall not exceed 86.85 tons per year per twelve (12) consecutive month period, with compliance determined at the end of each month.

(7) The total Formaldehyde emissions from the #1 and #2 Board Kiln shall not exceed 7.35 tons per year.

Compliance with these limits shall limit VOC emissions to less than twenty-five (25) tons per twelve (12) consecutive month period and render the requirements of 326 IAC 20 and 40 CFR 63 not applicable.

Compliance with these limits shall limit Formaldehyde emissions to less than ten (10) tons per twelve (12) consecutive month period and render the requirements of 326 IAC 20 and 40 CFR 63 not applicable.

Compliance with the above limits, in conjunction with PM/PM_{10} limits already in the permit and the potential to emit $PM/PM_{10}/PM_{2.5}$, SO_2, and VOC from other emission units and insignificant activities at the source, shall limit the $PM/PM_{10}/PM_{2.5}$, SO_2, and VOC emissions from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

	Source-Wide Potential to Emit After Issuance (ton/yr)							
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**VOC**	**CO**	**NO_X**	**GHGs**
Mining & Storage Facilities	16.80	16.80	16.80	-	-	-	-	-
Bulk Rock Loading Facilities	29.21	29.21	29.21	-	-	-	-	-
Rotary Rock Dryer Facilities	12.45	12.45	12.45	-	-	-	-	-
Worst Case Combustion	5.11	11.88	10.83	118.42	6.10	93.17	189.12	172,079
Glass Batch Production Facilities	13.70	13.70	13.70	-	-	-	-	-
Landplaster Production Facilities	7.04	7.04	7.04	-	-	-	-	-
Stucco Production Facilities	27.65	27.65	27.65	-	-	-	-	-
Plaster Production Facilities	16.12	16.12	16.12	-	-	-	-	-
Stucco Handling & Storage Facilities	13.23	13.23	13.23	-	-	-	-	-
# 1 Wallboard Production Facilities	11.60	11.60	11.60	-	3.00	-	-	-
Board Kilns (process emissions)	34.53	34.53	34.53	-	86.85	-	-	-
# 2 Wallboard Production Facilities	3.94	3.94	3.94	-	-	-	-	-
Dunnage Machine Facilities	3.00	3.00	3.00	-	-	-	-	-
Wallboard Waste Reclamation Facilities	43.77	43.77	43.77	-	-	-	-	-
Gypsum Pile Transfers	0.12	0.06	0.01	-	-	-	-	-
Total for Source	238.28	244.99	243.89	118.42	95.95	93.17	189.12	172,079
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO_2e

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

Federal Rule Applicability Determination

There is no change in federal rule applicability due to this modification.

State Rule Applicability Determination

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

326 IAC 2-2 (PSD)
PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of this source is limited to less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Sources)
Pursuant to 326 IAC 6-3-2, the Permittee shall comply with the PM limits, when operating at the associated process weight rates, as shown in the table below:

Process Area	Emission Unit	Emission Point / Stack Number	Process Weight Rate (ton/hr)	PM Limit (lbs/hr)
#1 Wallboard Production Facilities	Kiln #1	41 / S-45	49.5	44.48
#2 Wallboard Production Facilities	Kiln #2	42 / S-46	80.81	49.16

The pounds per hour limitations were calculated with the following equations:

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

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

326 IAC 8-1-6 (BACT)
The #1 and #2 Board Kilns were each constructed prior to January 1, 1980. Therefore, these units are not subject to the requirements of 326 IAC 8-1-6.

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 Requirements applicable to this modification are as follows:

(a) The board kilns have applicable compliance determination conditions as specified below for PM, PM10, PM2.5, and Formaldehyde:

$ME_{X\ (ton/month)} = [(A1_{\ (lb/month)} * A1EF_{X\ (lb/lb)}) + (A2_{\ (lb/month)} * A2EF_{X\ (lb/lb)}) + (GM_{\ (lb/month)} * GMEF_{X\ (lb/lb)}) + ((KP\#1_{X\ (lb/day)} + KP\#2_{X\ (lb/day)}) * \text{days in month})] * 1\ ton / 2000\ lbs$

Where:
ME_X = Monthly Emissions of Pollutant X
A1 = Additive #1 Usage (lb/month)
$A1EF_X$ = Additive #1 Emission Factor for Pollutant X ($lb_X/lb_{additive\#1}$)
A2 = Additive #2 Usage (lb/month)
$A2EF_X$ = Additive #2 Emission Factor for Pollutant X ($lb_X/lb_{additive\#2}$)
GM = Glass Material Usage (lb/month)
$GMEF_X$ = Glass Material Emission Factor for Pollutant X ($lb_X/lb_{glassmaterial}$)
$KP\#1_X$ = Kiln #1 Process Emissions for Pollutant X (lb/day)
$KP\#2_X$ = Kiln #2 Process Emissions for Pollutant X (lb/day)

Where:
Additive #1 EF = The additive #1 pound per pound emission factor for each pollutant as follows: PM = 0.017 lb/lb, PM10 = 0.017 lb/lb, PM2.5 = 0.017 lb/lb, VOC = 0.024 lb/lb, Formaldehyde = 0.0023 lb/lb.
Additive #2 EF = The additive #2 pound per pound emission factor for each pollutant as follows: PM = 0.0 lb/lb, PM10 = 0.0 lb/lb, PM2.5 = 0.0 lb/lb, VOC = 0.15 lb/lb, Formaldehyde = 0.0 lb/lb.
Glass Material EF = The glass material pound per pound emission factor for each pollutant as follows: PM = 0.002 lb/lb, PM10 = 0.002 lb/lb, PM2.5 = 0.002 lb/lb, VOC = 0.005 lb/lb, Formaldehyde = 0.002 lb/lb.

KP#1 = The process emission rate (lb/day) as follows: PM = 29.04; PM10 = 29.04; PM2.5 = 29.04; VOC = 44.88; Formaldehyde = 5.28
KP#2 = The process emission rate (lb/day) as follows: PM = 42.24; PM10 = 42.24; PM2.5 = 42.24; VOC = 65.28; Formaldehyde = 7.68

Summary of Testing Requirements					
Emission Unit	**Control Device**	**Timeframe for Testing**	**Pollutant**	**Frequency of Testing**	**Limit or Requirement**
#1 Raymond Mill, #1 Raymond Mill Feed Bin, #2 Raymond Mill	#1/#2 Raymond Mill dust Collector	One group once every 5 years - last test date was June 3, 2011	PM/PM10/PM2.5	Once every 5 years	326 IAC 2-2 and 326 IA 6-3-2
#3 Raymond Mill, #2 Raymond Mill Feed Bin, #3 Raymond Mill	#3/#4 Raymond Mill Dust Collector				

Summary of Testing Requirements					
Emission Unit	**Control Device**	**Timeframe for Testing**	**Pollutant**	**Frequency of Testing**	**Limit or Requirement**
Feed Bin, #4 Raymond Mill, #4 Raymond Mill Feed Bin, Conveying System					
MBR Kettle #1, #1 Kettle Feed Bin, Hot Pit #1	#1 Kettle Dust Collector	One group once every 5 years - last test date was June 3, 2011	PM/PM10/PM2.5	Once every 5 years	326 IAC 2-2 and 326 IA 6-3-2
# 2 Kettle Feed Bin	#2 Kettle Dust Collector				
Kettle HEK #2a	#2a Kettle Dust Collector				
Kettle HEK #2b	#2b Kettle Dust Collector				
Kettle #3, #3 Kettle Feed Bin, Hot Pit #3	#3 Kettle Dust Collector				
Kettle #4, #4 Kettle Feed Bin, Hot Pit #4	#4 Kettle Dust Collector				
Kettle #5, Hot Pit #5	#5 Kettle Dust Collector				
HEK Air Slide	HEK Air Slide Dust Collector				
#1 and #2 Wallboard Line End Saw	North Board Plant End Saw Dust Collector	One group once every 5 years - last test date was June 2, 2011	PM/PM10/PM2.5	Once every 5 years	326 IAC 2-2 and 326 IA 6-3-2
#1 and #2 Wallboard Line End Saw	South Board Plant End Saw Dust Collector				
G.L.I.P. Operation	G.L.I.P. Saw Dust Collector	Once every 5 years - last test date June 2, 2011	PM/PM10/PM2.5	Once every 5 years	326 IAC 2-2 and 326 IA 6-3-2
# 1 or #2 Board Kiln	None	Once every 5 years - last test date June 1, 2011	PM/PM10/PM2.5	Once every 5 years	326 IAC 2-2 and 326 IA 6-3-2

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T101-17814-00001. These changes may include Title I changes (ex changes that add or modify synthetic minor emission limits). Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(a) Summary of Model Updates
While there are model updates applicable to this source, they are not being made as part of this modification. An application for a Part 70 Operating Permit Renewal was

submitted on April 4, 2013. The model updates will be made in the Part 70 Operating Permit Renewal.

(b) Condition A.1 has been updated to the greenhouse gas potential for the source.

(c) Condition D.1.1 has been modified to include PM2.5 limitations.

(d) Condition D.2.1 (a) has been modified to include PM2.5 limitations and move the limit for the #2 board kiln to Condition D.2.1(c).

(e) Condition D.2.1(c) has been modified to allow use of mold resistant additives on either the #1 or #2 board kiln. The descriptor "mold/water resistant additives" has also been changed to "mold resistant additives" for clarity.

(f) New Condition D.2.7, associated record keeping, and reporting forms have been added to demonstrate compliance with the revised D.2.1(c) limits.

(g) The 326 IAC 6-3-2 limit in Condition D.2.2 has been corrected for #1 Board Kiln.

(h) Condition D.2.5 has been revised to include PM2.5 testing and revised testing for the #1 and #2 Board Kilns.

(i) A typographical error has been corrected on the quarterly sulfur content reporting form.

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 mining operation and gypsum wallboard and plaster products manufacturing plant.

Source Address:	12802 Deep Cut Lake Road, Shoals, Indiana 47581
General Source Phone Number:	(812) 247-4115
SIC Code:	1499 and 3275
County Location:	Martin
Source Location Status:	Attainment for all criteria pollutants
Source Status: Part 70 Operating Permit Program	
	Greenhouse Gas (GHG) potential to emit (PTE) is equal to or more than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year
	Minor Source, under PSD Rules
	Minor Source, Section 112 of the Clean Air Act
	Not 1 of 28 Source Categories

***

D.1.1 PSD Minor Limit [326 IAC 2-2]

The Permittee shall comply with the following:

Emission Unit	PM/PM10/**PM2.5** Limit (lbs/hr)
Primary Crusher	0.03

Compliance with the above limits, in conjunction with the limits in Condition D.2.1 and the potential to emit PM/PM10**/PM2.5** from other emission units and insignificant activities at the source, shall limit the PM/PM10**/PM2.5** emissions from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

***

D.2.1 PSD Minor Limits **and HAP Minor Limit** [326 IAC 2-2][326 IAC 20][40 CFR 63]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the Permittee shall comply with the following:

(a) PM/PM10**/PM2.5** limits listed in the table below.

Unit ID	Control Device ID	Emission Point / Stack Number	PM/PM10/**PM2.5** Emission Limit (lbs/hr)
***			
~~#2 Board Kiln~~		~~42 / S-46~~	~~2.46~~
***			

(c) The PM/PM_{10}**/$PM_{2.5}$, VOC and Formaldehyde** limits for the #1 **and #2** Board Kiln**s** shall be as follows:

~~(1) When not using mold/water resistant additives:~~

~~(a) The PM emissions from the #1 Board Kiln shall not exceed 1.32 lbs/hr.~~

~~(b) The PM_{10} emissions from the #1 Board Kiln shall not exceed 1.62 lbs/hr.~~

~~(2) When using mold/water resistant additives:~~

(~~a~~**1**) Mold~~/water~~ resistant additive usage in the #1 **and #2** Board Kiln**s** shall not exceed 2,700,000 pounds (with additive #1 usage limited to 2,250,000 pounds **per year and additive #2 usage limited to 450,000 pounds per year**) per twelve (12) consecutive month period, with compliance determined at the end of each month. Glass mat usage in the #1 **and #2** Board Kiln**s** shall not exceed 2,400,000 pounds per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The total PM emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) The total PM10 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year per twelve (12) consecutive month period, with compliance determined at the end of each month.

(4) The total PM2.5 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year per twelve (12) consecutive month period, with compliance determined at the end of each month.

(6) The total VOC emissions from the #1 and #2 Board Kiln shall not exceed 86.85 tons per year per twelve (12) consecutive month period, with compliance determined at the end of each month.

(7) The total Formaldehyde emissions from the #1 and #2 Board Kiln shall not exceed 7.35 tons per year per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit Formaldehyde emissions to less than ten (10) tons per twelve (12) consecutive month period and render the requirements of 326 IAC 20 and 40 CFR 63 not applicable.

~~(b) The PM emissions from the #1 Board Kiln shall not exceed 13.2 lbs/hr.~~

~~(c) The PM_{10} emissions from the #1 Board Kiln shall not exceed 13.2 lbs/hr.~~

Compliance with the above limits, in conjunction with the limits in Condition D.1.1 and the potential to emit PM/PM_{10}**/$PM_{2.5}$** from other emission units and insignificant activities at the source, shall limit the PM/PM_{10}**/$PM_{2.5}$** ~~NO_x~~ **VOC,** and SO_2 emissions from the entire source to less than 250 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the Permittee shall comply with the PM limits, when operating at the associated process weight rates, as shown in the table below:

Process Area	Emission Unit	Emission Point / Stack Number	Process Weight Rate (ton/hr)	PM Limit (lbs/hr)
***				
#1 Wallboard Production Facilities	Conveying system	46 / S-50	40	42.53
	Stucco storage bin	46 / S-50	25	35.43
	Ball Mill #1	37 / S-37	1.8	6.08
	Dry additive feeders	46 / S-50	4.5	11.23
	PST system	56 / S-60	20	30.51
	Paper fiber hammermill	46 / S-50	0.12	0.99
	Gypsum panel slurry mixer	46 / S-50	80.81	49.16
	Kiln #1	41 / S-45	49.5	~~56.00~~**44.48**
	End saw	33 / S-33 & 34 / S-34	46.5	43.90
	Gypsum lay-in panel (GLIP) saws	55 / S-59	46.5	43.90
***				

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.1, the Permittee shall:

(a) For the purposes of PM**,** ~~and~~ PM-10**, and PM2.5** compliance stack testing, the units at this source are grouped as follows:

Group A:

Dust Collector	Units
#1/#2 Raymond Mill Dust Collector	#1 Raymond Mill #1 Raymond Mill Feed Bin #2 Raymond Mill Conveying System
#3/#4 Raymond Mill Dust Collector	#3 Raymond Mill #2 Raymond Mill Feed Bin #3 Raymond Mill Feed Bin #4 Raymond Mill #4 Raymond Mill Feed Bin Conveying System

Group B:

Dust Collector	Units
#1 Kettle Dust Collector	MBR Kettle #1
	#1 Kettle Feed Bin
	Hot Pit #1
#2 Kettle Dust Collector	#2 Kettle Feed Bin
#2a Kettle Dust Collector	Kettle HEK #2a
#2b Kettle Dust Collector	Kettle HEK #2b
#3 Kettle Dust Collector	Kettle #3
	#3 Kettle Feed Bin
	Hot Pit #3
#4 Kettle Dust Collector	Kettle #4
	#4 Kettle Feed Bin
	Hot Pit #4
#5 Kettle Dust Collector	Kettle #5
	Hot Pit #5
HEK Air Slide Dust Collector	HEK Air Slide

Group C:

Dust Collector	Units
North Board Plant End Saw Dust Collector	#1 Wallboard Line End Saw
	#2 Wallboard Line End Saw
South Board Plant End Saw Dust Collector	#1 Wallboard Line End Saw
	#2 Wallboard Line End Saw

(b) ***

(c) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM2.5 testing on one (1) dust collector from each of Groups A and B utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 3, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the dust collector for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

(d) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM2.5 testing on one (1) dust collector from each of Group C utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 2, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the dust collector for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the

Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

(~~c~~**e**) ***

(f) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM2.5 testing on the G.L.I.P. Saw Dust Collector utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 2, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the board kiln for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

(~~d~~**g**) **In order to demonstrate compliance with the emission factors in Condition D.2.7, the Permittee shall p**~~P~~erform PM and PM-10 testing of the #1 **or #2** Board Kiln ~~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 source will test the board kiln for which the longest period of time has passed since the last valid compliance test.** Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM-10 includes filterable and condensable PM.

(h) In order to demonstrate compliance with the emission factors in Condition D.2.7, the Permittee shall perform PM2.5 testing on the #1 or #2 Board Kiln utilizing methods as approved by the Commissioner, and in accordance with the following schedule:

(a) Not later than June 1, 2016 the source shall perform initial testing for PM2.5.

(b) Subsequent testing shall be performed at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the board kiln for which the longest period of time has passed since the last valid compliance test.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM2.5 includes filterable and condensable PM.

***

D.2.7 Particulate Matter. VOC, and HAPs

Compliance with Condition D.2.1(c) shall be determined using the following:

$$ME_{X\ (ton/month)} = [(A1_{(lb/month)} * A1EF_{X\ (lb/lb)}) + (A2_{(lb/month)} * A2EF_{X\ (lb/lb)}) + (GM_{(lb/month)} * GMEF_{X\ (lb/lb)}) + ((KP\#1_{X\ (lb/day)} + KP\#2_{X\ (lb/day)}) * \text{days in month})] * 1\ ton / 2000\ lbs$$

Where:
ME_X = Monthly Emissions of Pollutant X
A1 = Additive #1 Usage (lb/month)
$A1EF_X$ = Additive #1 Emission Factor for Pollutant X ($lb_X/lb_{additive\#1}$)
A2 = Additive #2 Usage (lb/month)
$A2EF_X$ = Additive #2 Emission Factor for Pollutant X ($lb_X/lb_{additive\#2}$)
GM = Glass Material Usage (lb/month)
$GMEF_X$ = Glass Material Emission Factor for Pollutant X ($lb_X/lb_{glassmaterial}$)
$KP\#1_X$ = Kiln #1 Process Emissions for Pollutant X (lb/day)
$KP\#2_X$ = Kiln #2 Process Emissions for Pollutant X (lb/day)

Where:
Additive #1 EF = The additive #1 pound per pound emission factor for each pollutant as follows: PM = 0.017 lb/lb, PM10 = 0.017 lb/lb, PM2.5 = 0.017 lb/lb, VOC = 0.024 lb/lb, Formaldehyde = 0.0023 lb/lb.
Additive #2 EF = The additive #2 pound per pound emission factor for each pollutant as follows: PM = 0.0 lb/lb, PM10 = 0.0 lb/lb, PM2.5 = 0.0 lb/lb, VOC = 0.15 lb/lb, Formaldehyde = 0.0 lb/lb.
Glass Material EF = The glass material pound per pound emission factor for each pollutant as follows: PM = 0.002 lb/lb, PM10 = 0.002 lb/lb, PM2.5 = 0.002 lb/lb, VOC = 0.005 lb/lb, Formaldehyde = 0.002 lb/lb.

KP#1 = The process emission rate (lb/day) as follows: PM = 29.04; PM10 = 29.04; PM2.5 = 29.04; VOC = 44.88; Formaldehyde = 5.28
KP#2 = The process emission rate (lb/day) as follows: PM = 42.24; PM10 = 42.24; PM2.5 = 42.24; VOC = 65.28; Formaldehyde = 7.68

D.2.~~7~~**8** Particulate Control (Baghouse)

***

D.2.~~8~~**9** Particulate Control (Cyclone)

***

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

D.2.~~9~~**10** Visible Emissions Notations [40 CFR 64]

***

D.2.~~10~~**11** Parametric Monitoring (Baghouse) [40 CFR 64]

***

D.2.~~11~~**12** Broken or Failed Bag/dust collector Detection [40 CFR 64]

***

D.2.~~12~~**13** Cyclone Failure Detection [40 CFR 64]

***

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

D.2.~~13~~**14** Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1(b), the Permittee shall maintain records of the plant wide fuel oil usage monthly.

(b) To document the compliance status with Condition D.2.1(c) **and Condition D.2.7**, the Permittee shall maintain records ~~of the plant wide mold/water resistant additive usage monthly.~~ **in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the emission limit established in D.2.1(c) and D.2.7.**

(1) The PM, PM10, PM2.5, VOC, and formaldehyde emissions from the mold resistant additives in tons per month.

(2) The PM, PM10, PM2.5, VOC, and formaldehyde emissions from the Kiln #1 in tons per month.

(3) The PM, PM10, PM2.5, VOC, and formaldehyde emissions from the Kiln #2 in tons per month.

(4) The PM, PM10, PM2.5, VOC, and formaldehyde emission factors used to calculate the mold resistant additive, Kiln #1, and Kiln #2 emissions.

(5) The amount of each mold resistant additive and glass material used each month.

(c) ***

(d) To document the compliance status with Conditions D.2.~~9~~**10**, the Permittee shall maintain a daily record of visible emission notations of the points 1, 2a, 2b, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 46, 47, 49, 50, 51, 52, 53, 55, 56, 57, 58 59, 60, 61, 62, 63 and 64 stack exhausts. 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).

(e) To document the compliance status with Condition D.2.~~10~~**11**, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the points 1, 2a, 2b, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 46, 47, 49, 50, 51, 53, 55, 56, 57, 58 59, 60, 61, 63 and 64. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(f) ***

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name:	U.S. Gypsum Company
Source Address:	12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.:	T101-17814-00001
Facility:	All combustion sources
Parameter:	SO_2 (Usage Limit), Sulfur Content, and SO_2 Emissions
Limit:	3,000,000 gallons per 12 month period and ~~3%~~**0.5%** sulfur content; 0.5 lbs/MMBtu

***

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name: **U.S. Gypsum Company**
Source Address: **12802 Deep Cut Lake Road, Shoals, Indiana 47581**
Part 70 Permit No.: **T101-17814-00001**
Facility: **# 1 Board Kiln and # 2 Board Kiln**
Parameter: **PM, PM10, PM2.5, VOC, and Formaldehyde Emissions**
Limit: **The total PM emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per twelve (12) consecutive month period.**
The total PM10 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year twelve (12) consecutive month period.
The total PM2.5 emissions from the #1 and #2 Board Kiln shall not exceed 34.53 tons per year twelve (12) consecutive month period.
The total VOC emissions from the #1 and #2 Board Kiln shall not exceed 86.85 tons per year per twelve (12) consecutive month period.
The total Formaldehyde emissions from the #1 and #2 Board Kiln shall not exceed 7.35 tons per year twelve (12) consecutive month period.

QUARTER: **YEAR:**

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ **No deviation occurred in this quarter.**

☐ **Deviation/s occurred in this quarter.**
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name:	U.S. Gypsum Company
Source Address:	12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.:	T101-17814-00001
Facility:	# 1 Board Kiln **and # 2 Board Kiln**
Parameter:	total mold~~/water~~ resistant additive/additive #1**/additive #2** usage
Limit:	2,700,000/2,250,000**/450,000** pounds per twelve (12) consecutive month period

***

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Part 70 Quarterly Report

Source Name:	U.S. Gypsum Company
Source Address:	12802 Deep Cut Lake Road, Shoals, Indiana 47581
Part 70 Permit No.:	T101-17814-00001
Facility:	# 1 Board Kiln **and # 2 Board Kiln**
Parameter:	glass mat usage
Limit:	2,400,000 pounds per twelve (12) consecutive month period

***

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 101-33557-00001 and Significant Permit Modification No. 101-33565-00001. The staff recommend to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Kristen Willoughby at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-3031 or toll free at 1-800-451-6027 extension 3-3031.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

Emissions Summary

Potential to Emit Non-Fugitive Emissions (TPY)

Process	PM	PM-10	PM-2.5	SO_2	VOC	NO_X	CO	GHG	Formaldehyde	Total HAPs
	non-fugitive	non-fugitive	non-fugitive							
Mining & Storage Facilities	31.97	31.97	31.974	-	-	-	-	-	-	-
Bulk Rock Loading Facilities	63.34	63.34	63.342	-	-	-	-	-	-	-
Rotary Rock Dryer Facilities	63.34	63.34	63.342	-	-	-	-	-	-	-
Worst Case Combustion	15.35	18.00	12.67	597.57	6.10	189.12	93.17	172,078.50	0.08	4.18
Glass Batch Production Facilities	32.85	32.85	32.85	-	-	-	-	-	-	-
Landplaster Production Facilities	1,875.95	1,875.95	1,875.95	-	-	-	-	-	-	-
Stucco Production Facilities	52,750.64	52,750.64	52,750.64	-	-	-	-	-	-	-
Plaster Production Facilities	168.32	168.32	168.32	-	-	-	-	-	-	-
Stucco Handling & Storage Facilities	465.48	465.48	465.48	-	-	-	-	-	-	-
#1 Wallboard Production Facilities	3,193.37	3,193.37	3,193.37	-	3.00	-	-	-	-	-
Board Kilns (process emissions)	34.53	34.53	34.53	-	86.85	-	-	-	7.35	7.35
#2 Wallboard Production Facilities	104.22	104.22	104.22	-	-	-	-	-	-	-
Dunnage Machine Facilities	240.90	240.90	240.90	-	-	-	-	-	-	-
Wallboard Waste Reclamation Facilities	66.36	66.36	66.36	-	-	-	-	-	-	-
Gypsum Pile Transfers	0.12	0.06	0.01	-	-	-	-	-	-	-
Total Non-Fugitive Emissions	**59,106.75**	**59,109.34**	**59,103.97**	**597.57**	**95.95**	**189.12**	**93.17**	**172,078.50**	**7.44**	**11.53**

Limited Emissions (TPY)

Process	PM	PM-10	PM-2.5	SO_2	VOC	NO_X	CO	GHG	Formaldehyde	Total HAPs
	non-fugitive	non-fugitive	non-fugitive	-	-	-	-	-	-	-
Mining & Storage Facilities	16.80	16.80	16.80	-	-	-	-	-	-	-
Bulk Rock Loading Facilities	29.21	29.21	29.21	-	-	-	-	-	-	-
Rotary Rock Dryer Facilities	12.45	12.45	12.45	-	-	-	-	-	-	-
Worst Case Combustion	5.11	11.88	10.83	118.42	6.10	189.12	93.17	172,078.50	0.08	4.18
Glass Batch Production Facilities	13.70	13.70	13.70	-	-	-	-	-	-	-
Landplaster Production Facilities	7.04	7.04	7.04	-	-	-	-	-	-	-
Stucco Production Facilities	27.65	27.65	27.65	-	-	-	-	-	-	-
Plaster Production Facilities	16.12	16.12	16.12	-	-	-	-	-	-	-
Stucco Handling & Storage Facilities	13.23	13.23	13.23	-	-	-	-	-	-	-
#1 Wallboard Production Facilities	11.60	11.60	11.60	-	3.00	-	-	-	-	-
Board Kilns (process emissions)	34.53	34.53	34.53	-	86.85	-	-	-	7.35	7.35
#2 Wallboard Production Facilities	3.94	3.94	3.94	-	-	-	-	-	-	-
Dunnage Machine Facilities	3.00	3.00	3.00	-	-	-	-	-	-	-
Wallboard Waste Reclamation Facilities	43.77	43.77	43.77	-	-	-	-	-	-	-
Gypsum Pile Transfers	0.12	0.06	0.01	-	-	-	-	-	-	-
Total Non-Fugitive Emissions	**238.28**	**244.99**	**243.89**	**118.42**	**95.95**	**189.12**	**93.17**	**172,078.50**	**7.44**	**11.53**

Potential to Emit of the Modification Non-Fugitive Emissions (TPY)

Process	PM	PM-10	PM-2.5	SO_2	VOC	NO_X	CO	GHG	Formaldehyde	Total HAPs
	non-fugitive	non-fugitive	non-fugitive							
Board Kiln # 2 (additive emissions)	21.53	21.53	21.53	-	66.75	-	-	-	4.99	4.99
Total Non-Fugitive Emissions	**21.53**	**21.53**	**21.53**	**-**	**66.75**	**-**	**-**	**-**	**4.99**	**4.99**

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

PM/PM10/PM2.5 - Ore Mining & Storage

POINT SOURCE EMISSION	Exhaust Point	Capacity TON/HR	Emission Factor LB PM/TON PROCESSED	% Reduction for Enclosure %	Hours	Potential to Emit PM/PM10/ PM2.5 LB/HR	Potential to Emit PM/PM10/PM2.5 TPY	Reduced PM/PM10/PM2.5 Emissions TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
Primary Crusher	Exhaust inside mine	140	0.025	99.00%	8760	3.5	15.33	0.15	54.72	Fire 6.25	SCC3-05-020-02	NF
Secondary Crusher	enclosure / exhaust inside mine	140	0.025	0.00%	8760	3.5	15.33	15.33	54.72	Fire 6.25	SCC3-05-020-02	NF
Mine Shaft Conveying	Exhaust inside mine	140	0.003	95.00%	8760	0.42	1.84	0.09	54.72	AP-42	Chapter 11.19.2-2	F
#1 Rock Belt (2) Ore Storage Silos	Partial Enclosure	100	0.003	0.00%	8760	0.3	1.31	1.31	51.28	AP-42	Chapter 11.19.2-2	NF
Stacker Belt	Snorkel	40	0.003	0.00%	8760	0.12	0.53	0.53	42.53	AP-42	Chapter 11.19.2-2	F
#2 Rock Belt	enclosure / Exhaust to atmosphere	140	0.003	0.00%	8760	0.42	1.84	1.84	54.72	AP-42	Chapter 11.19.2-2	F
				Total Ore Mining and Storage		**8.26**	**36.18**	**19.25**				
				Total Non-Fugitive		**7.30**	**31.97**	**16.80**				

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

Note: The #1 rock belt (2) ore storage silos, stacker belt, and #2 rock belt have a potential to emit of less than 0.551 pounds per hour. Therefore, these units are exempt from the requirements of 326 IAC 6-3.

Note: There are additional fugitive PM/PM10/PM2.5 emissions from mining operations. These are not calculated since they are not counted towards the PSD threshold.

Note: All conveyors are covered. For purposes of this permitting action the conveyors are considered fugitve.

Methodology

Potential to Emit PM (tpy) = capacity (ton/hr) * emission factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

Reduced PM/PM10 (tpy) = capacity (ton/hr) * emission factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb * (1 - reduction for enclosure%)

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

PM/PM10/PM2.5 - Bulk Rock Loading

POINT SOURCE EMISSION	Exhaust Point	Capacity TON/HR	Emission Factor LB PM/TON PROCESSED	Hours	PM/PM10/PM2.5 Emissions LB/HR	PM/PM10/PM2.5 Emissions TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
# 3 Rock Belt	Partial or Total enclosure / exhaust to atmosphere	140	0.003	8760	0.42	1.84	54.72	AP-42	Chapter 11.19.2-2	F
Rock Ore Screen	Partial enclosure / Exhaust inside building	140	0.025	8760	3.50	15.33	54.72	Fire 6.25	SCC3-05-020-02	NF
Crusher	Partial enclosure / Exhaust to atmosphere	110	0.025	8760	2.75	12.05	52.24	Fire 6.25	SCC3-05-020-02	NF
#5 Rock Belt Loading Station	Uncontrolled Emissions / Exhaust to atmosphere	140	0.0001	8760	0.01	0.06	54.72	Fire 6.25	SCC3-05-020-32	F
#4 Rock Belt Storage Silo	partial enclosure	140	0.003	8760	0.42	1.84	54.72	AP-42	Chapter 11.19.2-2	NF
				Total	**7.10**	**31.12**				
				Total Non-Fugitive	**6.67**	**29.21**				

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

Note: The #3 rock belt, #5 rock belt and bulk rock loading station, and #4 rock belt and storage silo have a potential to emit of less than 0.551 pounds per hour. Therefore, these units are exempt from the requirements of 326 IAC 6-3.

Note: All conveyors are covered. For purposes of this permitting action the conveyors are considered fugitve.

Methodology

Potential to Emit PM (tpy) = capacity (ton/hr) * emission factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

PM/PM10/PM2.5 - Rotary Rock Dryer Facilities

POINT SOURCE EMISSION	Exhaust Point	Capacity TPY	Emission Factor LB/TON	Hours	Potential to Emit PM/PM10/PM2.5 LB/HR	Potential to Emit PM/PM10/PM2.5 TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
Conveying System	Partial/Total Enclosure	90	0.003	8760	0.27	1.18	50.23	AP-42	Chapter 11.19.2-2	F
Feed Bin	Building enclosure	90	0.003	8760	0.27	1.18	50.23	AP-42	Chapter 11.19.2-2	NF
				Subtotal:	**0.54**	**2.37**				
				Subtotal Non-Fugitive:	**0.27**	**1.18**				

Note: The conveying system and feed bin have a potential to emit of less than 0.551 pounds per hour. Therefore, these units are exempt from the requirements of 326 IAC 6-3.
Note: All conveyors are covered. For purposes of this permitting action the conveyors are considered fugitve.

Methodology

Potential to Emit PM (tpy) = capacity (ton/hr) * emission factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

POINT SOURCE EMISSION	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
Rock Dryer	10 / S-10	20000	0.015	99.00%	8760	2.57	11.26	90	0.16	14.40	63.07	AP-42	Chapter 11-16-2	50.23
					Subtotal:	**2.57**	**11.26**				**63.07**			
					Total for Rotary Rock Dryer:	**3.11**	**13.63**				**63.61**			
					Total for Non-Fugitive from Rotary Rock Dryer:	**2.84**	**12.45**				**63.34**			

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * (1-Control Efficiency %)

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

PM/PM10/PM2.5 - Glass Batch Production Facilities

POINT SOURCE EMISSION	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
Plaster Packing Dust Collector - glass batch packing system	30 / S-30	9000	0.015	99.00%	8760	1.16	5.07	10	0.15	1.50	6.57	Fire 6.25	SCC3-05-015-04	19.18
Mill Glass Batch Receiving Bin Dust Collector	40 / S-40	2500	0.01	99.00%	8760	0.21	0.94	10	0.15	1.50	6.57	Fire 6.25	SCC3-05-015-04	19.18
Glass Batch System Dust Collector - screening operation	13 / S-13	2000	0.015	99.00%	8760	0.26	1.13	10	0.15	1.50	6.57	Fire 6.25	SCC3-05-015-04	19.18
Glass Batch System Dust Collector - glass batch separator	13 / S-13	2000	0.015	99.00%	8760	Vents to S-13	0.00	10	0.15	1.50	6.57	Fire 6.25	SCC3-05-015-04	19.18
					Subtotal:	**1.63**	**7.13**				**26.28**			

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

POINT SOURCE EMISSION	Exhaust Point	Capacity TON/HR	Emission Factor lb PM / ton	Hours	Potential to Emit PM/PM10/PM2.5 LB/HR	Potential to Emit PM/PM10/PM2.5 TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
Conveying	Partial Enclosure / Exhaust to Process or Inside Building	10	0.15	8760	1.5	6.57	19.18	Fire 6.25	SCC3-05-015-04	F
Storage Bin	Partial Enclosure	10	0.15	8760	1.5	6.57	19.18	Fire 6.25	SCC3-05-015-04	NF
Glass Batch Truck Loading	Exhaust to Atmosphere	10	0.15	8760	1.5	6.57	19.18	Fire 6.26	SCC3-05-015-05	F
				Subtotal:	**4.50**	**19.71**				
				Subtotal Non-Fugitive:	**1.50**	**6.57**				
				Total:		**26.84**				
				Total Non-Fugitive from Glass Production:		**13.70**				

Methodology

Potential to Emit PM (tpy) = capacity (ton/hr) * emission factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

Note: All conveyors are covered. For purposes of this permitting action the conveyors are considered fugitve.

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

PM/PM10/PM2.5 - Landplaster Production Facilities

POINT SOURCE EMISSION	Emission Point / Stack Number	AIR FLOW SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
#1 & #2 Raymond Mills	11 / S-11	6000	0.015	99.0%	8760	0.77	3.38	80	2.6	208.00	911.04	AP-42	Chapter 11.16-2	49.06
#3 & #4 Raymond Mills	12 / S-12	5000	0.015	99.0%	8760	0.64	2.82	80	2.6	208.00	911.04	AP-42	Chapter 11.16-2	49.06
HRA L.P. Air Conveyor Receiver Dust Collector	36 / S-36	1500	0.015	99.0%	8760	0.19	8.45E-01	2	0.15	0.30	1.31	Fire 6.25	SCC3-05-015-04	6.52
					Subtotal:	**1.61**	**7.04**				**1823.39**			

Note: Capacity for Potential to Emit for the Raymond Mill dust collectors is based on the sum of the capacities for all units routed to the dust collector.
Note: The HRA L.P. Air Conveyor has a potential to emit of less than 0.551 pounds per hour. Therefore, this unit is exempt from the requirements of 326 IAC 6-3.

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

POINT SOURCE EMISSION	Exhaust Point	Capacity TON/HR	Emission Factor LB/TON	Hours	Potential to Emit PM/PM10/PM2.5 LB/HR	Potential to Emit PM/PM10/PM2.5 TPY	Controlled PM/PM10 Emissions TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
Raymond Mill Feed Bin #1	partial enclosure	20	0.15	8760	3	13.14	Vents to S-11	30.51	Fire 6.25	SCC3-05-015-04	NF
Raymond Mill Feed Bin #2	partial enclosure	20	0.15	8760	3	13.14	Vents to S-12	30.51	Fire 6.25	SCC3-05-015-04	NF
Raymond Mill Feed Bin #3	partial enclosure	20	0.15	8760	3	13.14		30.51	Fire 6.25	SCC3-05-015-04	NF
Raymond Mill Feed Bin #4	partial enclosure	20	0.15	8760	3	13.14		30.51	Fire 6.25	SCC3-05-015-04	NF
				Subtotal:	**12.00**	**52.56**					
				Total:		**59.60**					
				Total Non-Fugitive from Glass Production:		**7.04**					

Methodology

Controlled Potential to Emit (lb/hr) = Capacity (ton/hr) * Emission Factor (lb/ton) * (1- Control Efficiency %)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) * 1 ton / 2000 lb
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

PM/PM10/PM2.5 - Stucco Production Facilities

POINT SOURCE EMISSION	Exhaust Point	Capacity TON/HR	Emission Factor LB/TON	Hours	POTENTIAL TO EMIT PM/PM10/PM2.5 LB/HR	POTENTIAL TO EMIT PM/PM10/PM2.5 TPY	CONTROLLED POTENTIAL TO EMIT PM/PM10/PM2.5 TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
Conveying System	partial enclosure	101.7	0.15	8760	15.26	66.82	66.82	51.45	Fire 6.25	SCC3-05-015-04	F
#2 Kettle Feed Bin	partial enclosure	12	0.15	8760	1.80	7.88	Vents to S-2	21.67	Fire 6.25	SCC3-05-015-04	NF
				Subtotal:	**15.26**	**74.70**	**66.82**				
				Subtotal Nonfugitive:	**1.80**	**7.88**	**0.00**				

Methodology

Potential to Emit (lb/hr) = Capacity (ton/hr) * Emission Factor (lb/ton)

Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

Note: All conveyors are covered. For purposes of this permitting action the conveyors are considered fugitve.

POINT SOURCE EMISSION	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Hours	Control Efficiency %	CONTROLLED POTENTIAL TO EMIT PM/PM10/PM2.5 LB/HR	CONTROLLED POTENTIAL TO EMIT PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	POTENTIAL TO EMIT PM/PM10/PM2.5 lb/hr	POTENTIAL TO EMIT PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
#1 Kettle Dust Collector	1 / S-1	8000	0.015	8760	99%	1.03	4.51	105.6	41	4329.60	18963.65	Fire 6.25	SCC3-05-015-02	51.83
HEK #2a	2a/2a	6000	0.015	8760	99%	0.77	3.38	13	41	533.00	2334.54	Fire 6.25	SCC3-05-015-02	22.86
HEK #2b	2b/2b	6000	0.015	8760	99%	0.77	3.38	13	41	533.00	2334.54	Fire 6.25	SCC3-05-015-02	22.86
HEK Air Slide	64/68	600	0.015	8760	99%	0.08	0.34	26	41	1066.00	4669.08	Fire 6.25	SCC3-05-015-02	36.38
#3 Kettle Dust Collector	3 / S-3	6500	0.015	8760	99%	0.84	3.66	36	41	1476.00	6464.88	Fire 6.25	SCC3-05-015-02	45.24
#4 Kettle Dust Collector	4 / S-4	6500	0.015	8760	99%	0.84	3.66	45	41	1845.00	8081.10	Fire 6.25	SCC3-05-015-02	52.53
#5 Kettle Dust Collector	5 / S-5	14000	0.015	8760	99%	1.80	7.88	55	41	2255.00	9876.90	Fire 6.25	SCC3-05-015-02	60.09
#5 Conical Kettle LP Feed Bin Dust Collector	35 / S-35	1500	0.015	8760	99%	0.19	0.84	27.5	0.150	4.13	18.07	Fire 6.25	SCC3-05-015-04	37.77
					Subtotal	**6.31**	**27.65**				**52,743**			

Above calculations represent process emissions only.

Total:	**94.47**
Total for Stucco Production Facilities	**27.65**

Note: Capacities for Potential to Emit for the Kettle and Hot Pit dust collectors are based on the sum of the capacities for all units routed to the dust collector.

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)

Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

PM/PM10/PM2.5 - Plaster Production Facilities

POINT SOURCE EMISSION	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
Tube Mill	14 / S-14	4000	0.015	99%	8760	0.51	2.25	10	0.15	1.50	6.57	Fire 6.25	SCC3-05-015-04	19.18
Mill Stucco Surge Bin Dust Collector	15 / S-15	2500	0.015	99%	8760	0.32	1.41	10	0.15	1.50	6.57	Fire 6.25	SCC3-05-015-04	19.18
#0 North Stucco Storage Bin	18 / S-18	412	0.012	99%	8760	0.04	0.19	20	0.15	3.00	13.14	Fire 6.25	SCC3-05-015-04	30.51
#0 South Stucco Storage Bin	19 / S-19	412	0.012	99%	8760	0.04	0.19	20	0.15	3.00	13.14	Fire 6.25	SCC3-05-015-04	30.51
#1 Stucco Storage Bin	20 / S-20	412	0.012	99%	8760	0.04	0.19	20	0.15	3.00	13.14	Fire 6.25	SCC3-05-015-04	30.51
B-Belt Dust Collector	17 / S-17	412	0.012	99%	8760	0.04	0.19	9	0.15	1.35	5.91	Fire 6.25	SCC3-05-015-04	17.87
Tail End of D-Belt Dust Collector	25 / S-25	412	0.012	99%	8760	0.04	0.19	9	0.15	1.35	5.91	Fire 6.25	SCC3-05-015-04	17.87
Perlite Dust Collector	29 / S-29	3000	0.015	99%	8760	0.39	1.69	1.6	0.15	0.24	1.05	Fire 6.25	SCC3-05-015-04	5.62
Plaster Packing Dust Collector - conveying system	30 / S-30	9000	0.015	99.00%	8760	Vents to S-30 (calculated in Glass Batch)	0.00	9	0.15	1.35	5.91	Fire 6.25	SCC3-05-015-04	17.87
Plaster Packing Dust Collector - plaster mixer	30 / S-30	9000	0.015	99.00%	8760	Vents to S-30 (calculated in Glass Batch)	0.00	27	0.15	4.05	17.74	Fire 6.25	SCC3-05-015-04	37.31
Plaster Packing Dust Collector - plaster packer	30 / S-30	9000	0.015	99.00%	8760	Vents to S-30 (calculated in Glass Batch)	0.00	27	0.15	4.05	17.74	Fire 6.25	SCC3-05-015-04	37.31
Bulk Sand Loading Bin	51 / S-55	1000	0.015	99%	8760	0.13	0.56	12	0.15	1.80	7.88	Fire 6.25	SCC3-05-015-04	21.67
Lime Bulk Loading Bin	52 / S-56	750	0.015	99%	8760	0.10	0.42	3.6	0.15	0.54	2.37	Fire 6.25	SCC3-05-015-04	9.67
North Packing Bin Dust Collector	57 / S-61	400	0.015	99%	8760	0.05	0.23	27	0.15	4.05	17.74	Fire 6.25	SCC3-05-015-04	37.31
South Packing Bin Dust Collector	58 / S-62	400	0.015	99%	8760	0.05	0.23	27	0.15	4.05	17.74	Fire 6.25	SCC3-05-015-04	37.31
					Subtotal	**1.76**	**7.71**				**152.56**			

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

POINT SOURCE EMISSION	Emission Point / Stack Number	Capacity TON/HR	Emission Factor LB/TON	Control Efficiency %	Hours	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 tons/yr	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
**Perlite Ore Expander	43 / S-47	1.6	2.1	50.00%	8760	3.36	14.72	1.68	7.36	5.62	AP-42	Chapter 11-30.1	NF
(2) Perlite Ore Storage Bins	partial enclosure	1.6	0.15	0.00%	8760	0.24	1.05	0.24	1.05	5.62	Fire 6.25	SCC3-05-015-04	NF
					Subtotal		**15.77**	**1.92**	**8.41**				
					Total Non-Fugitive for Plaster Production Facilities:		**168.32**		**16.12**				

* Above calculations represent process emissions only. Combustion calculations related to these units are located on pages 16-19.
** Perlite ore expander goes through a large drop out bin cyclone and then two cyclones before exhausting to the atmosphere.
Emission factor is based on AP-42 11-30.1 factor of 2.1 lb/ton for expander furnace with wet cyclone. A conservative 50% control efficiency was applied for the 2nd cyclone.

Methodology

Controlled Potential to Emit (lb/hr) = Capacity (ton/hr) * Emission Factor (lb/ton) * (1- Control Efficiency %)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) * 1 ton / 2000 lb
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

Note: The (2) Perlite Ore Storage Bins, Perlite Dust Collector, and Lime Bulk Loading Bin each have a potential to emit of less than 0.551 pounds per hour. Therefore, these units are exempt from the requirements of 326 IAC 6-3.

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

PM/PM10/PM2.5 - Stucco Handling and Storage Facilities

POINT SOURCE EMISSION	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
Mill Stucco Surge Bin Dust Collector	15 / S-15	2500	0.015	99%	8760	Vents to S-15 (calculated in Plaster Production)	0.00	55	0.150	8.25	36.14	Fire 6.25	SCC3-05-015-04	45.47
A-Belt Dust Collector	16 / S-16	412	0.012	99%	8760	0.04	0.19	101.7	0.150	15.26	66.82	Fire 6.25	SCC3-05-015-04	51.45
#4 Stucco Storage Bin Dust Collector	22 / S-22	412	0.012	99%	8760	0.04	0.19	30	0.150	4.50	19.71	Fire 6.25	SCC3-05-015-04	39.96
#5 Stucco Storage Bin Dust Collector	23 / S-23	412	0.012	99%	8760	0.04	0.19	30	0.150	4.50	19.71	Fire 6.25	SCC3-05-015-04	39.96
Head of D-Belt Dust Collector	24 / S-24	412	0.012	99%	8760	0.04	0.19	101.7	0.150	15.26	66.82	Fire 6.25	SCC3-05-015-04	51.45
Tail End of F-Belt Dust Collector	28 / S-28	2500	0.015	99%	8760	0.32	1.41	101.7	0.150	15.26	66.82	Fire 6.25	SCC3-05-015-04	51.45
#3 Stucco Storage	31 / S-31	3000	0.015	99%	8760	Vents to S-31 (below)	0.00	30	0.150	4.50	19.71	Fire 6.25	SCC3-05-015-04	39.96
#2 Stucco Storage Bin Dust Collector	31 / S-31	3000	0.015	99%	8760	0.39	1.69	27.5	0.150	4.13	18.07	Fire 6.25	SCC3-05-015-04	37.77
Stucco Air Conveyor Receiving Dust Collector / paper fiber hammermill	46 / S-50	5000	0.015	99%	8760	0.64	2.82	101.7	0.150	15.26	66.82	Fire 6.25	SCC3-05-015-04	51.45
Stucco Air Conveyor Inlet Dust Collector	47 / S-51	750	0.015	99%	8760	0.10	0.42	101.7	0.150	15.26	66.82	Fire 6.25	SCC3-05-015-04	51.45
1000T Stucco Bin Dust Collector	53 / S-57	8200	0.02	99%	8760	1.41	6.16	27.5	0.150	4.13	18.07	Fire 6.25	SCC3-05-015-04	37.77
					Total	**3.02**	**13.23**			**106.28**	**465.48**			

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)
Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

PM/PM10/PM2.5 - #1 Wallboard Production Facilities

Point Source Emission Unit	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
North and South Board Plant End Saw Dust Collectors	33 / S-33 or 34 / S-34	8000	0.015	99%	8760	1.03	4.51	112000 board feet per hour	0.005 lb/ft^2	560.00	2452.80	Fire 6.25	SCC3-05-015-22	157.60
Board Plant HRA Ball Mill Dust Collector	37 / S-37	2000	0.012	99%	8760	0.21	0.90	1.8	2.6	4.68	20.50	Fire 6.25	SCC3-05-015-02	6.08
Stucco Air Conveyor Receiving Dust Collector - conveying	46 / S-50	5000	0.015	99%	8760	Vents to S-50 (calculated in Stucco Handling)	0.00	40	0.150	6.00	26.28	Fire 6.25	SCC3-05-015-04	42.53
Stucco Air Conveyor Receiving Dust Collector - stucco storage bin	46 / S-50	5000	0.015	99%	8760	Vents to S-50 (calculated in Stucco Handling)	0.00	25	0.150	3.75	16.43	Fire 6.25	SCC3-05-015-04	35.43
Stucco Air Conveyor Receiving Dust Collector - dry additive feeders	46 / S-50	5000	0.015	99%	8760	Vents to S-50 (calculated in Stucco Handling)	0.00	4.5	0.150	0.68	2.96	Fire 6.25	SCC3-05-015-04	11.23
Stucco Air Conveyor Receiving Dust Collector - mixer	46 / S-50	5000	0.015	99%	8760	Vents to S-50 (calculated in Stucco Handling)	0.00	46.5	0.150	6.98	30.55	Fire 6.25	SCC3-05-015-04	43.90
GLIP Saws Dust Collector	55 / S-59	10500	0.015	99%	8760	1.35	5.91	28800 board feet per hour	0.005 lb/ft^2	144.00	630.72	Fire 6.25	SCC3-05-015-22	130.18
#1 Board Line PST Belt Dust Collector	56 / S-60	500	0.015	99%	8760	0.06	0.28	20	0.150	3.00	13.14	Fire 6.25	SCC3-05-015-04	30.51
					Subtotal	**2.65**	**11.60**				**3193.37**			

Note: Capacity for Potential to Emit for the North and South Board Plant End Saw and GLIP Dust Collectors is based on the sum of the capacities for all units routed to the dust collector.

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

Material	Usage (gal/year)	Usage (gal/hr)	VOC (lb/gallon)	Potential to Emit VOC lb/hr*	Potential to Emit VOC tons/yr
GLIP Adhesive	665,760	76	0.009	0.68	3.00

*All usage estimates have been based off of the maximum throughput of GLIP adhesive of 680 lb/hr. The density of GLIP adhesive from the MSDS is 9.2 lb/gallon

Methodology

Potential to Emit VOC (lb/hr) = Usage (gal/hr) * VOC (lb/gal)
Potential to Emit VOC (ton/yr) = Usage (gal/yr) * VOC (lb/gal) / 2000 (lb/ton)

U.S. Gypsum Company
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Significant Source Modification No. 101-33557-00001
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PM/PM10/PM2.5 - #2 Wallboard Production Facilities

Point Source Emission Unit	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
Stucco Air Conveyor Receiving Dust Collector - conveying	46 / S-50	5000	0.015	99%	8760	Vents to S-50 (calculated in Stucco Handling)	0.00	60	0.15	9.00	39.42	Fire 6.25	SCC3-05-015-04	46.29
#2 Board Line Stucco Bin Dust Collector - stucco storage silo	32 / S-32	3000	0.015	99%	8760	0.39	1.69	60	0.15	9.00	39.42	Fire 6.25	SCC3-05-015-04	46.29
#2 Board Line Stucco Bin Dust Collector - dry additive feeders	32 / S-32	3000	0.015	99%	8760	Vents to S-32 (calculated in #2 Wallboard)	0.00	4.5	0.15	0.68	2.96	Fire 6.25	SCC3-05-015-04	11.23
#2 Board Line Stucco Bin Dust Collector - slurry mixer	32 / S-32	3000	0.015	99%	8760	Vents to S-32 (calculated in #2 Wallboard)	0.00	64.5	0.15	9.68	42.38	Fire 6.25	SCC3-05-015-04	49.16
#2 Board Line HRA Receiving Bin Dust Collector	59 / S-63	500	0.015	99%	8760	0.06	0.28	1.5	0.15	0.23	0.99	Fire 6.25	SCC3-05-015-04	5.38
#2 Board Line PST Dust Collector	27 / S-27	500	0.015	99%	8760	0.06	0.28	20	0.15	3.00	13.14	Fire 6.25	SCC3-05-015-04	30.51
Starch Storage Bin	60 / S-64	1200	0.015	99%	8760	0.15	0.68	0.75	0.72	0.54	2.37	Fire 6.25	SCC3-05-011-07	3.38
Starch Refill Bin	61 / S-65	600	0.015	99%	8760	0.08	0.34	0.75	0.72	0.54	2.37	Fire 6.25	SCC3-05-011-07	3.38
Starch Weight Loss Feeder	62 / S-66	600	0.015	99%	8760	0.08	0.34	0.75	0.15	0.11	0.49	Fire 6.25	SCC3-05-015-04	3.38
Cerelose Feeder	63 / S-67	600	0.015	99%	8760	0.08	0.34	0.18	0.15	0.03	0.12	Fire 6.25	SCC3-05-015-04	1.30
					Subtotal	**0.90**	**3.94**				**104.22**			

Note: The slurry mixer has a capacity of 80.81 ton per hour including water. This capacity is used for the 326 IAC 6-3 limit calculation.

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)
Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)
Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

Note: The HRA Airveyor and Receiving Bin has a potential to emit of less than 0.551 pounds per hour. Therefore, this unit is exempt from the requirements of 326 IAC 6-3.

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Significant Source Modification No. 101-33557-00001
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PM/PM10PM2.5 - Dunnage Machine Facilities

Point Source Emission Unit	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Capacity Ft^2/hr	Emission Factor LB/FT^2	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR	Fugitive (F) or Non-Fugitive (NF)
Dunnage Machine	50 / S-54	8000	0.01	99%	8760	0.69	3.00	55	2400	0.008	19.20	240.90	Fire 6.25	SCC3-05-015-21	45.47	NF
					Total	**0.69**	**3.00**				**19.20**	**240.90**				

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)

Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

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Significant Source Modification No. 101-33557-00001
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PM/PM10/PM2.5 - Wallboard Waste Reclamation Facilities

Point Source Emission Unit	Emission Point / Stack Number	Air Flow SCFM	Grain Loading GR/DSCF	Control Efficiency %	Hours	Controlled PM/PM10/PM2.5 LB/HR	Controlled PM/PM10/PM2.5 TPY	Capacity TON/HR	Emission Factor LB/TON	Potential to Emit PM/PM10/PM2.5 lb/hr	Potential to Emit PM/PM10/PM2.5 TPY	Source of Emission Factor		326 IAC 6-3 LIMIT LB/HR
Williams Mill for Synthetic Gypsum & Waste Reclaim Dust Collector - vibrating screen system	49 / S-53	40000	0.02	99%	8760	6.86	30.03	50	0.15	7.50	32.85	Fire 6.25	SCC3-05-015-04	44.58
Williams Mill for Synthetic Gypsum & Waste Reclaim Dust Collector - Williams Mill	49 / S-53	40000	0.02	99%	8760	Vents to S-53 (calculated above)	0.00	50	0.15	7.50	32.85	Fire 6.25	SCC3-05-015-04	44.58
					Subtotal	**6.86**	**30.03**			**15.00**	**65.70**			

Methodology

Controlled Potential to Emit (lb/hr) = Air Flow (SCFM) * Grain Loading (GR/DSCF) * 60 (min/hr) / 7000 (gr/lb)

Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) / 2000 (lb/ton)

Point Source Emission Unit	Exhaust Point / Control Method	Capacity TON/HR	Emission Factor LB PM/TON PROCESSED	Control Efficiency %	Hours	Potential to Emit PM/PM10/PM2.5 LB/HR	Potential to Emit PM/PM10/PM2.5 TPY	Controlled PM/PM10/PM2.5 TPY	326 IAC 6-3 LIMIT LB/HR	Source of Emission Factor		Fugitive (F) or Non-Fugitive (NF)
waste wallboard shredder	partial enclosure	20	0.15	0%	8760	3	13.14	13.14	30.51	Fire 6.25	SCC3-05-015-04	NF
synthetic gypsum / waste reclaim belt	partial enclosure	50	0.003	0%	8760	0.15	0.66	0.66	44.58	AP-42	Chapter 11.19.2-2	F
synthetic gypsum storage bin	partial enclosure / moisture suppression	50	0.003	10%	8760	0.15	0.66	0.59	44.58	AP-42	Chapter 11.19.2-2	NF
					Subtotal	**3.3**	**14.5**	**14.4**				
					Total Non-Fugitive	**0.15**	**0.66**	**13.73**				
					Total Non-Fugitive for #1 Wallboard Production Facilities	**18.30**	**66.36**	**43.77**				

Note: The AP-42 emission factors for Crushed Stone Processing and Pulverized Mineral Processing was used for Waste reclamation operations occurring before the material is dried in the Williams Mill. These emission factors account for a conservative 1% moisture in the material. Synthetic gypsum is estimated by the source to contain 7 - 8% moisture.

Note: All conveyors are covered. For purposes of this permitting action the conveyors are considered fugitve.

Methodology

Controlled Potential to Emit (lb/hr) = Capacity (ton/hr) * Emission Factor (lb/ton) * (1- Control Efficiency %)

Controlled Potential to Emit (TPY) = Controlled Potential to Emit (lb/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

Potential to Emit (TPY) = Capacity (ton/hr) * Emission Factor (lb/ton) * 8760 (hr/yr) * 1 ton / 2000 lb

Note: Yellow highlight indicates that this number was used to calculate the total plant-wide limited emissions.

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Synthetic Gypsum Movement to Synthetic Gypsum Shed and Waste Surge Pile Calculations

Emission Factor (EF) Equation[1]

EF (lb/ton) = k * 0.0032 * ((U / 5) ^ 1.3 / (M/2) ^ 1.4)

k =	Particle size multiplier =	0.74	for PM
		0.35	for PM-10
		0.053	for PM-2.5
U =	mean wind speed, mph =	9	
M =	material moisture content, % =	10	

Material Transfer Emission Factor =	**5.34E-04**	**lb PM/ton Sludge**
	2.53E-04	**lb PM-10/ton Sludge**
	3.83E-05	**lb PM-2.5/ton Sludge**

PM/PM-10 Emissions Calculation

Annual emissions based on maximum transfer rates.

Synthetic Gypsum brought by IPL truckload 438,000 tons/yr

Transfer Description	Max Rate ton/hr	Max Gypsum Transferred ton/yr	Potential to Emit PM Emissions ton/yr	Potential to Emit PM-10 Emissions ton/yr	Potential to Emit PM-2.5 Emissions ton/yr
Addition to Synthetic/Gypsum Pile inside Syn Gyp Shed	50	438,000	0.117	0.055	8.38E-03
Waste Surge Pile	5	43,800	0.012	0.006	8.38E-04
Uncontrolled Potential Emissions			**0.12**	**0.06**	**9.22E-03**

Notes:

1. AP-42, Chapter 13.2.4, January 1995.

2. Wet materials; 10% moisture

Note: The potential to emit from the addition to the synthetic gypsum pile inside the synthetic gypsum storage shed and the waste surge pile is less than 0.551 pounds per hour. Therefore, these units are exempt from the requirements of 326 IAC 6-3.

Methodology

Potential to Emit PM/PM10/PM2.5 (ton/yr) = Max Rate (ton/hr) * Max Gypsum Transferred (ton/yr)

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Natural Gas Combustion Only

			Pollutant						
			PM**	PM10**	direct PM2.5**	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF			1.9	7.6	7.6	0.6	100.0	5.5	84.0
							**see below		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)						
kiln1	55	472.353	0.449	1.795	1.795	0.142	23.618	1.299	19.839
kiln 2	80	687.059	0.653	2.611	2.611	0.206	34.353	1.889	28.856
kettle 1	15	128.824	0.122	0.490	0.490	0.039	6.441	0.354	5.411
#2a HEK burner	7.5	64.412	0.061	0.245	0.245	0.019	3.221	0.177	2.705
#2b HEK burner	7.5	64.412	0.061	0.245	0.245	0.019	3.221	0.177	2.705
kettle 3	12	103.059	0.098	0.392	0.392	0.031	5.153	0.283	4.328
kettle 4	15	128.824	0.122	0.490	0.490	0.039	6.441	0.354	5.411
kettle 5	20	171.765	0.163	0.653	0.653	0.052	8.588	0.472	7.214
rock dryer	14	120.235	0.114	0.457	0.457	0.036	6.012	0.331	5.050
perlite expander	2.3	19.753	0.019	0.075	0.075	0.006	0.988	0.054	0.830
Williams mill	30	257.647	0.245	0.979	0.979	0.077	12.882	0.709	10.821
Total			2.11	8.43	8.43	0.67	110.92	6.10	93.17

**PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
***Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50

			HAPs - Organics					
			Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total HAPs (Organics)**
Emission Factor in lb/MMCF			2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
kiln1	55	472.353	5.0E-04	2.8E-04	1.8E-02	4.3E-01	8.0E-04	0.44
kiln 2	80	687.059	7.2E-04	4.1E-04	2.6E-02	6.2E-01	1.2E-03	0.65
kettle 1	15	128.824	1.4E-04	7.7E-05	4.8E-03	1.2E-01	2.2E-04	0.12
#2a HEK burner	7.5	64.412	6.8E-05	3.9E-05	2.4E-03	5.8E-02	1.1E-04	0.06
#2b HEK burner	7.5	64.412	6.8E-05	3.9E-05	2.4E-03	5.8E-02	1.1E-04	0.06
kettle 3	12	103.059	1.1E-04	6.2E-05	3.9E-03	9.3E-02	1.8E-04	0.10
kettle 4	15	128.824	1.4E-04	7.7E-05	4.8E-03	1.2E-01	2.2E-04	0.12
kettle 5	20	171.765	1.8E-04	1.0E-04	6.4E-03	1.5E-01	2.9E-04	0.16
rock dryer	14	120.235	1.3E-04	7.2E-05	4.5E-03	1.1E-01	2.0E-04	0.11
perlite expander	2.3	19.753	2.1E-05	1.2E-05	7.4E-04	1.8E-02	3.4E-05	0.02
Williams mill	30	257.647	2.7E-04	1.5E-04	9.7E-03	2.3E-01	4.4E-04	0.24
Total			2.3E-03	1.3E-03	8.3E-02	2.0E+00	3.8E-03	2.09

			HAPs - Metals					
			Lead	Cadmium	Chromium	Manganese	Nickel	**Total HAPs (Metals)**
Emission Factor in lb/MMCF			5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
kiln1	55	472.353	1.2E-04	2.6E-04	3.3E-04	9.0E-05	5.0E-04	4.5E-01
kiln 2	80	687.059	1.7E-04	3.8E-04	4.8E-04	1.3E-04	7.2E-04	6.5E-01
kettle 1	15	128.824	3.2E-05	7.1E-05	9.0E-05	2.4E-05	1.4E-04	1.2E-01
#2a HEK burner	7.5	64.412	1.6E-05	3.5E-05	4.5E-05	1.2E-05	6.8E-05	6.1E-02
#2b HEK burner	7.5	64.412	1.6E-05	3.5E-05	4.5E-05	1.2E-05	6.8E-05	6.1E-02
kettle 3	12	103.059	2.6E-05	5.7E-05	7.2E-05	2.0E-05	1.1E-04	9.7E-02
kettle 4	15	128.824	3.2E-05	7.1E-05	9.0E-05	2.4E-05	1.4E-04	1.2E-01
kettle 5	20	171.765	4.3E-05	9.4E-05	1.2E-04	3.3E-05	1.8E-04	1.6E-01
rock dryer	14	120.235	3.0E-05	6.6E-05	8.4E-05	2.3E-05	1.3E-04	1.1E-01
perlite expander	2.3	19.753	4.9E-06	1.1E-05	1.4E-05	3.8E-06	2.1E-05	1.9E-02
Williams mill	30	257.647	6.4E-05	1.4E-04	1.8E-04	4.9E-05	2.7E-04	2.4E-01
Total			5.5E-04	1.2E-03	1.6E-03	4.2E-04	2.3E-03	2.1E+00

The five highest organic and metal HAPs emission factors are provided above. **Total HAPs: 4.18**
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 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
Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

			Greenhouse Gas				
			CO2	CH4	N2O	CO2e	CO2e
Emission Factor in lb/MMcf			120000	2.3	2.2		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emission (tons/yr)			Summed PTE (tons/yr)	Total (tons/yr)
kiln1	55	472.353	28,341.18	0.54	0.52	28,342.24	28,513.66
kiln 2	80	687.059	41,223.53	0.79	0.76	41,225.08	41,474.41
kettle 1	15	128.824	7,729.41	0.15	0.14	7,729.70	7,776.45
#2a HEK burner	7.5	64.412	3,864.71	0.07	0.07	3,864.85	3,888.23
#2b HEK burner	7.5	64.412	3,864.71	0.07	0.07	3,864.85	3,888.23
kettle 3	12	103.059	6,183.53	0.12	0.11	6,183.76	6,221.16
kettle 4	15	128.824	7,729.41	0.15	0.14	7,729.70	7,776.45
kettle 5	20	171.765	10,305.88	0.20	0.19	10,306.27	10,368.60
rock dryer	14	120.235	7,214.12	0.14	0.13	7,214.39	7,258.02
perlite expander	2.3	19.753	1,185.18	0.02	0.02	1,185.22	1,192.39
Williams mill	30	257.647	15,458.82	0.30	0.28	15,459.40	15,552.90
Total			133,100.47	2.55	2.44	133,105.46	133,910.50

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

Fuel Oil Combustion Only

S = Weight % Sulfur: 0.5

			Pollutant						
			PM*	PM10	direct PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/kgal			2.0	2.3	1.6	78.5	24.0	0.2	0.5
						(157S)			
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)						
kiln1	55	3441.429	3.441	3.958	2.753	135.076	41.297	0.344	0.860
kiln 2	80	5005.714	5.006	5.757	4.005	196.474	60.069	0.501	1.251
kettle 1	15	938.571	0.939	1.079	0.751	36.839	11.263	0.094	0.235
kettle 3	12	750.857	0.751	0.863	0.601	29.471	9.010	0.075	0.188
kettle 4	15	938.571	0.939	1.079	0.751	36.839	11.263	0.094	0.235
kettle 5	20	1251.429	1.251	1.439	1.001	49.119	15.017	0.125	0.313
rock dryer	14	876.000	0.876	1.007	0.701	34.383	10.512	0.088	0.219
perlite expander	2.3	143.914	0.144	0.166	0.115	5.649	1.727	0.014	0.036
Williams mill	30	1877.143	1.877	2.159	1.502	73.678	22.526	0.188	0.469
Total			15.22	17.51	12.18	597.53	182.68	1.52	3.81
Limited		3000	3.00	3.45	2.40	117.75	36.00	0.30	0.75

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

			HAPs				
			Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/MMBtu			4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)				
kiln1	55	3441.429	9.6E-04	7.2E-04	7.2E-04	7.2E-04	2.2E-03
kiln 2	80	5005.714	1.4E-03	1.1E-03	1.1E-03	1.1E-03	3.2E-03
kettle 1	15	938.571	2.6E-04	2.0E-04	2.0E-04	2.0E-04	5.9E-04
kettle 3	12	750.857	2.1E-04	1.6E-04	1.6E-04	1.6E-04	4.7E-04
kettle 4	15	938.571	2.6E-04	2.0E-04	2.0E-04	2.0E-04	5.9E-04
kettle 5	20	1251.429	3.5E-04	2.6E-04	2.6E-04	2.6E-04	7.9E-04
rock dryer	14	876.000	2.5E-04	1.8E-04	1.8E-04	1.8E-04	5.5E-04
perlite expander	2.3	143.914	4.0E-05	3.0E-05	3.0E-05	3.0E-05	9.1E-05
Williams mill	30	1877.143	5.3E-04	3.9E-04	3.9E-04	3.9E-04	1.2E-03
Total			4.3E-03	3.2E-03	3.2E-03	3.2E-03	9.6E-03

			HAPs - Metals			
			Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/MMBtu			3.0E-06	6.0E-06	3.0E-06	1.5E-05
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)			
kiln1	55	3441.429	8.3E-08	1.7E-07	8.3E-08	4.1E-07
kiln 2	80	5005.714	1.2E-07	2.4E-07	1.2E-07	6.0E-07
kettle 1	15	938.571	2.3E-08	4.5E-08	2.3E-08	1.1E-07
kettle 3	12	750.857	1.8E-08	3.6E-08	1.8E-08	9.0E-08
kettle 4	15	938.571	2.3E-08	4.5E-08	2.3E-08	1.1E-07
kettle 5	20	1251.429	3.0E-08	6.0E-08	3.0E-08	1.5E-07
rock dryer	14	876.000	2.1E-08	4.2E-08	2.1E-08	1.1E-07
perlite expander	2.3	143.914	3.5E-09	6.9E-09	3.5E-09	1.7E-08
Williams mill	30	1877.143	4.5E-08	9.0E-08	4.5E-08	2.3E-07
Total			3.6E-07	7.3E-07	3.6E-07	1.8E-06

The five highest organic and metal HAPs emission factors are provided above. **Total HAPs: 0.02**
Additional HAPs emission factors are available in AP-42, Chapter 1.4. **Single HAP: 0.01**

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 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
Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

			Greenhouse Gas				
			CO2	CH4	N2O	CO2e	CO2e
Emission Factor in lb/kgal			21,500	0.216	0.26		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emission (tons/yr)			Summed PTE (tons/yr)	Total (tons/yr)
kiln1	55	3441.429	36,995.36	0.37	0.45	36,996.18	37,141.85
kiln 2	80	5005.714	53,811.43	0.54	0.65	53,812.62	54,024.51
kettle 1	15	938.571	10,089.64	0.10	0.12	10,089.87	10,129.60
kettle 3	12	750.857	8,071.71	0.08	0.10	8,071.89	8,103.68
kettle 4	15	938.571	10,089.64	0.10	0.12	10,089.87	10,129.60
kettle 5	20	1251.429	13,452.86	0.14	0.16	13,453.15	13,506.13
rock dryer	14	876.000	9,417.00	0.09	0.11	9,417.21	9,454.29
perlite expander	2.3	143.914	1,547.08	0.02	0.02	1,547.11	1,553.20
Williams mill	30	1877.143	20,179.29	0.20	0.24	20,179.73	20,259.19
Total			163,654.01	1.64	1.98	163,657.63	164,302.05
Limited		3000	32250	0.32	0.39	32250.714	32,377.70

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

U.S. Gypsum Company
Shoals, Indiana
Permit Reviewer: Kristen Willoughby

Significant Source Modification No. 101-33557-00001
Significant Permit Modification No. 101-33565-00001

Drying Kiln #1 and #2 Process Emissions

Heat Input Capacity
MMBtu/hr

55.0	Kiln #1
80.0	Kiln #2

		Pollutant				
	Mold/Water Resistant Additive Usage Limit	PM*	PM10*	PM2.5*	VOC	Formaldehyde
Process Emission Factor in lb/MMBtu	(lbs/yr)	0.022	0.022	0.022	0.034	0.004
Emission Factor Based on Mold/Water Resistant Additive Usage (lb/lb of Additive #1)	2,250,000	0.017	0.017	0.017	0.024	0.0023
Emission Factor Based on Mold/Water Resistant Additive Usage (lb/lb of Proprietary Glass Material)	2,400,000	0.002	0.002	0.002	0.005	0.002
Emission Factor Based on Mold/Water Resistant Additive Usage (lb/lb of Additive #2)	450,000	0	0	0	0.15	0
Process Emissions for Kiln #1 (lbs/hr)		1.21	1.21	1.21	1.87	0.22
Process Emissions for Kiln #2 (lbs/hr)		1.76	1.76	1.76	2.72	0.32
Process Emissions for Kiln #2 (tpy)		7.71	7.71	7.71	11.91	1.40
Process Emissions Total (tons/yr)		13.0	13.0	13.0	20.1	2.4
Emissions from Mold/Water Resistant Additive Usage (tons/yr) (Additive #1)		19.125	19.125	19.125	27	2.5875
Emissions from Mold/Water Resistant Additive Usage (tons/yr) (Proprietary Glass Material)		2.4	2.4	2.4	6	2.4
Emissions from Mold/Water Resistant Additive Usage (tons/yr) (Additive #2)		0	0	0	33.75	0
Total Limited Additive Emissions (ton/yr)		**21.53**	**21.53**	**21.53**	**66.75**	**4.99**
Kiln 2 Total Emissions (tons/yr)		**29.23**	**29.23**	**29.23**	**78.66**	**6.39**
Kiln 1 and Kiln 2 Total Emissions (tons/yr)		**34.53**	**34.53**	**34.53**	**86.85**	**7.35**
Limited Process Emissions for Kiln #1 when not using additive(tons/yr)		**5.30**	**5.30**	**5.30**	**8.19**	**0.96**
Limited Process Emissions for Kiln #2 when not using additive (tons/yr)		**7.71**	**7.71**	**7.71**	**11.91**	**1.40**
Limited Emissions (tons/yr)		**34.53**	**34.53**	**34.53**	**86.85**	**7.35**

Note: These emissions only account for process emissions. Combustion emissions from kilns are calculated on the worksheet titled "Combustion".

Note: Total Limited Additive VOC Emissions include VOC emissions based on the maximum allowable usage of additive #2 plus the VOC emissions from additive #1 base don a usage rate of 480,000 tpy (this is the total additive usage rate minus the additive #2 usage).

Additive and Process emission factors are based on highest value of a stack tests performed at similar facilities + 20% safety factor

Methodology

Process Emissions (ton/yr) = Process Emission Factor (lb/MMBtu) * Heat Input Capacity (MMBtu/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Emissions from Mold/Water Resistant Additive Usage (ton/yr) = Emission Factor based on Mold/Water Resistant Additive Usage (lb/lb of additive) * Mold/Water Resistant Additive Usage (lbs/yr) / 2000 (lb/ton)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Joel Belcher
United States Gypsum Company
12802 Deep Cut Lake Road
PO Box 1377
Shoals, IN 47581

DATE: November 1, 2013

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Significant Permit Modification to a Part 70 Operating Permit
101-33565-00001

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:
John Jones, Plant Manager
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.

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

November 1, 2013

TO: Shoals 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: 101-33565-00001

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 6/13/2013

Mail Code 61-53

IDEM Staff	VHAUN 11/1/2013 United States Gypsum Company 101-33565-00001 FINAL		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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1		Joel Belcher United States Gypsum Company 12802 Deep Cut Lake Rd Shoals IN 47581 (Source CAATS) Confirmed Delivery									
2		John Jones Plant Manager United States Gypsum Company 12802 Deep Cut Lake Rd Shoals IN 47581 *(RO CAATS)*									
3		Martin County Commissioners PO Box 600 129 S Main Street Courthouse Shoals IN 47581 *(Local Official)*									
4		Martin County Health Department P.O. Box 368 Shoals IN 47581-0368 *(Health Department)*									
5		Shoals Town Council P.O. Box 1078 Shoals IN 47581 *(Local Official)*									
6		Shoals Public Library Hwy 50 Shoals IN 47581 *(Library)*									
7		John Blair 800 Adams Ave Evansville IN 47713 *(Affected Party)*									
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