



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: May 18, 2005
RE: Barretts Minerals, Inc. / 129-20913-00023
FROM: Paul Dubenetzky
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 approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-MOD.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

Mr. Brett Cline
Barretts Minerals, Inc.
2700 Bluff Road
Mount Vernon, Indiana, 47620

May 18, 2005

Re: 129-20913
Minor Permit Revision to
MSOP 129-9292-00023

Dear Mr. Cline:

Barretts Minerals, Inc. was issued a permit on May 14, 2001 for a stationary talc, barite, calcium carbonate and mica processing operation. A letter requesting a revision to this permit was received on March 8, 2005. Pursuant to the provisions of 326 IAC 2-6.1-6 a minor permit revision to this permit (MSOP 129-9292-00023) is hereby approved as described in the attached Technical Support Document.

The modification consists of the removal of the baghouse known as AQ from the Bepex/Air Mill Room. The modification also consists of the addition of one (1) air jet milling system with a capacity of 2.5 tons per hour of nonmetallic minerals.

The following construction conditions are applicable to the proposed project:

1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Pursuant to IC 13-15-5-3, this approval to construct becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. For your convenience the entire revised minor source operating permit, with all modifications made to it, is being provided.

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 Jenny Acker, at (800) 451-6027, and ask for Jenny Acker or extension 2-8253, or dial (317) 232-8253.

Sincerely,

Original signed by
Kathy Moore, Section Chief
Permits Branch
Office of Air Quality

Attachments

JLA

cc: File – Posey County
U.S. EPA, Region V
Posey County Health Department
Southwest Regional Office
Air Compliance Section Inspector - Derrick Ohning
Compliance Data Section
Administrative and Development



Mitchell E. Daniels, Jr.
 Governor

Thomas W. Easterly
 Commissioner

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

MINOR SOURCE OPERATING PERMIT Office of Air Quality

Barretts Minerals Inc.
2700 Bluff Road
Mt. Vernon, Indiana 47620

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

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

Operation Permit No.: MSOP 129-9292-00023	
Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 14, 2001 Expiration Date: May 14, 2006

First Notice Only Change 129-10559 issued on February 17, 1999
 First Minor Permit Revision: 129-14294 issued on June 11, 2001
 First Significant Permit Revision 129-16451 issued on December 23, 2002
 Second Notice Only Change 129-17275 issued on March 31, 2003
 Second Significant Permit Revision 129-17710-00023 issued on March 23, 2004

Second Minor Permit Revision No.: 129-20913-00023	Pages Affected: Entire Permit
Issued by: Original signed by Kathy Moore, Section Chief Permits Branch Office of Air Quality	Issuance Date: May 18, 2005



TABLE OF CONTENTS

A	SOURCE SUMMARY	5
A.1	General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]	
A.2	Emissions Units and Pollution Control Equipment Summary	
B	GENERAL CONDITIONS	7
B.1	Permit No Defense [IC 13]	
B.2	Definitions	
B.3	Effective Date of the Permit [IC 13-15-5-3]	
B.4	Modification to Permits [326 IAC 2]	
B.5	Permit Term [326 IAC 2-6.1-7]	
B.6	Minor Source Operating Permit [326 IAC 2-6.1]	
C	SOURCE OPERATION CONDITIONS	8
C.1	PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]	
C.2	Hazardous Air Pollutants (HAPs) [326 IAC 2-7]	
C.3	Preventive Maintenance Plan [326 IAC 1-6-3]	
C.4	Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]	
C.5	Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]	
C.6	Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]	
C.7	Permit Revocation [326 IAC 2-1-9]	
C.8	Opacity [326 IAC 5-1]	
C.9	Fugitive Dust Emissions [326 IAC 6-4]	
C.10	Stack Height [326 IAC 1-7]	
C.11	Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]	
C.12	Compliance Monitoring [326 IAC 2-1.1-11]	
C.13	Maintenance of Monitoring Equipment [IC 13-14-1-13]	
C.14	Monitoring Methods [326 IAC 3]	
C.15	Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]	
C.16	Actions Related to Noncompliance Demonstrated by a Stack Test	
	Record Keeping and Reporting Requirements	
C.17	Malfunctions Report [326 IAC 1-6-2]	
C.18	Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]	
C.19	General Record Keeping Requirements [326 IAC 2-6.1-2]	
C.20	General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]	
C.21	Annual Notification [326 IAC 2-6.1-5(a)(5)]	
D.1	EMISSIONS UNIT OPERATION CONDITIONS:	17
	Emission Limitations and Standards [326 IAC 2-6.1-5(1)]	
D.1.1	General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]	
D.1.2	Nonmetallic Mineral Processing Plants NSPS [326 IAC 12-1] [40 CFR 60, Subpart OOO]	
D.1.3	Particulate Matter (PM) [326 IAC 2-2] [40 CFR 52.21]	
D.1.4	Particulate Matter (PM) [326 IAC 6-3-2(c)]	
D.1.5	Particulate Emissions Limitations for Facilities Constructed after September 21, 1983 [326 IAC 6-2-4]	
D.1.6	Preventive Maintenance Plan [326 IAC 1-6-3]	
	Compliance Determination Requirements [326 IAC 2-1.1-11]	
D.1.7	Particulate Matter (PM)	
D.1.8	Testing Requirements [326 IAC 3-6] [NSPS Subpart OOO]	

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.1.9 Visible Emissions Notations
- D.1.10 Parametric Monitoring
- D.1.11 Baghouse Inspections
- D.1.12 Broken Bag or Failure Detection

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

- D.1.13 Record Keeping Requirements

D.2 EMISSIONS UNIT OPERATION CONDITIONS: 21

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

- D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]
- D.2.2 Nonmetallic Mineral Processing Plants NSPS [326 IAC 12-1] [40 CFR 60, Subpart OOO]
- D.2.3 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 52.21]
- D.2.4 Particulate Matter (PM) [326 IAC 6-3-2]
- D.2.5 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements [326 IAC 2-1.1-11]

- D.2.6 Particulate Matter (PM)
- D.2.7 Testing Requirements [326 IAC 3-6] [NSPS Subpart OOO]

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.2.8 Visible Emissions Notations
- D.2.9 Parametric Monitoring
- D.2.10 Baghouse Inspections
- D.2.11 Broken or Failed Bag Detection

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

- D.2.12 Record Keeping Requirements

D.3 EMISSIONS UNIT OPERATION CONDITIONS: 25

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

- D.3.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]
- D.3.2 Nonmetallic Mineral Processing Plants NSPS [326 IAC 12-1] [40 CFR 60, Subpart OOO]
- D.3.3 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 52.21]
- D.3.4 Particulate Matter (PM) [326 IAC 6-3-2]
- D.3.5 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements [326 IAC 2-1.1-11]

- D.3.6 Particulate Matter (PM)
- D.3.7 Testing Requirements [326 IAC 3-6] [NSPS Subpart OOO]

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.3.8 Visible Emissions Notations
- D.3.9 Parametric Monitoring
- D.3.10 Baghouse Inspections
- D.3.11 Broken or Failed Bag Detection

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

- D.3.12 Record Keeping Requirements

D.4 EMISSIONS UNIT OPERATION CONDITIONS: 28

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

- D.4.1 Particulate Matter (PM) [326 IAC 2-2]
- D.4.2 Particulate Matter (PM) [326 IAC 6-3-2]
- D.4.3 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements [326 IAC 2-1.1-11]

- D.4.4 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.4.5 Visible Emissions Notations
- D.4.6 Parametric Monitoring
- D.4.7 Baghouse Inspections
- D.4.8 Broken or Failed Bag Detection

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

- D.4.9 Recordkeeping Requirements

D.5 EMISSIONS UNIT OPERATION CONDITIONS: 31

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

- D.5.1 Particulate Matter (PM) [326 IAC 2-2]
- D.5.2 Particulate Matter (PM) [326 IAC 6-3-2]
- D.5.3 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements [326 IAC 2-1.1-11]

- D.5.4 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.5.5 Visible Emissions Notations
- D.5.6 Parametric Monitoring
- D.5.7 Baghouse Inspections
- D.5.8 Broken or Failed Bag Detection

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

- D.5.9 Recordkeeping Requirements

Malfunction Report..... 34

Annual Notification 36

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary talc, barite, calcium carbonate and mica processing source.

Authorized Individual: Plant Manager
Source Address: 2700 Bluff Road, Mt. Vernon, Indiana 47620
Mailing Address: 2700 Bluff Road, Mt. Vernon, Indiana 47620
Phone Number: 812 - 838 - 5236
SIC Code: 3295
County Location: Posey
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD;
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary talc, barite, calcium carbonate and mica processing source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) grinding plant, installed in 1991, exhausted to stacks A through K and M controlled by twelve (12) baghouses, known as A through K and M, capacity: 14.0 tons of talc, barite, calcium carbonate or mica per hour, consisting of the following:
- (1) One (1) crusher system, manufactured on September 14, 1960 (capacity 50.0 tons per hour), exhausted to Stack A, controlled by baghouse, known as A (#105),
 - (2) Two (2) silos, known as B and C, exhausted to Stacks B and C, controlled by baghouses, known as B (#111) and C (#115),
 - (3) One (1) roller mill system, manufactured in November 1928, exhausted to Stack D, controlled by baghouse, known as D (#124),
 - (4) One (1) classifier, exhausted to Stack E, controlled by baghouse, known as E (#136),
 - (5) Six (6) bins, known as F through K, exhausted to Stacks F, G, H, I, J and K, controlled by baghouses, known as F (#143), G (#148), H (#153), I (#158), J (#162) and K (#168),
 - (6) One (1) imp mill system, manufactured on September 10, 1962, exhausted to Stack M, controlled by baghouse, known as M (#182) and
 - (7) One (1) gas-fired heater, rated at 4.0 million British thermal units per hour.

- (b) Four (4) silos, known as N through Q, installed in 1994, exhausted to Stacks N (#186) through Q (#189) connected pneumatically to baghouses N (#186) through Q (#189), capacity: 8,313 cubic feet, each.
- (c) Two (2) silos, known as R and S, installed in 1994, exhausted to Stacks R (#190) and S (#191), connected pneumatically to baghouses R (#190) and S (#191), capacity: 6,107 cubic feet, each.
- (d) Five (5) silos, known as T through X, installed in 1994, exhausted to Stacks T (#192) through X (#196), connected pneumatically to baghouses T (#192) through X (#196), capacity: 11,083 cubic feet, each.
- (e) One (1) hammer mill micronizer, known as Bepex Mill #1, manufactured on December 10, 1974, installed in 1994, exhausted to Stack Y, connected pneumatically to baghouse Y (#197), capacity: 2,000 pounds per hour.
- (f) One (1) Ball Mill micronizer, manufactured on January 25, 1950, connected pneumatically to baghouse Z, exhausted to Stack Z, capacity: 15,000 pounds per hour, two (2) silos, known as AA and AB, exhausted to Stacks AA and AB, capacity: 6,688 cubic feet, each and one (1) classifier #3, installed in 1994, connected pneumatically to baghouse AC (#201), exhausted to Stack AC, capacity: 10 tons per hour.
- (g) One (1) pellet mill, known as Pellet Mill, installed in 1996, exhausted to Stacks AE and AF, pneumatically connected to baghouses AE and AF, capacity: 16,000 pounds of talc per hour.
- (h) Five (5) material storage silos, known as Silo A through Silo D and Silo 14, exhausted to Stacks AG through AK, respectively, connected to baghouses AG through AK respectively, installed in 1997, capacity: 12,038 cubic feet, each. These silos are also connected to a common baghouse, known as AM for unloading purposes.
- (i) One (1) Bepex/Air Mill Room, capacity: 2.0 tons of nonmetallic minerals per hour, consisting of:
 - (1) Three (3) silo bins, known as AO, AS and AT, exhausted to Stacks AO, AS and AT, equipped with baghouses AO, AS and AT.
 - (2) Two (2) air mills, known as AP and AQ, exhausted to Stack AP, equipped with baghouse AP.
 - (3) One (1) #2 Bepex, known as AR, manufactured on December 10, 1974, exhausted to Stack AR, equipped with baghouse AR.
- (j) One (1) air jet milling system, identified as AU, equipped with a baghouse, identified as AU for particulate control, exhausted to stack AU, capacity: 5.00 tons of talc per hour.
- (k) One (1) air jet milling system, installed in 2005, capacity of 2.5 tons per hour of nonmetallic minerals per hour, consisting of:
 - (1) Two (2) silo bins, known as Silo #18 and Silo #19, exhausted to Stacks AV and AW, equipped with baghouses AV, and AW, capacity; 3,950 cubic feet, each.
 - (2) One (1) air jet mill, known as AX, exhausted to Stack AX, equipped with baghouse AX: capacity 2.5 tons per hour nonmetallic minerals.

SECTION B GENERAL CONDITIONS

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

B.1 Permit No Defense [IC 13]

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

B.2 Definitions

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, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

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

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

B.4 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

B.5 Permit Term [326 IAC 2-6.1-7]

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

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
- (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
- (2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and an Operation Permit Validation Letter is issued.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of all criteria pollutants is less than two hundred fifty (250) tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit PM₁₀, SO₂, VOC, NO_x or CO to 100 tons per year from this source, shall cause this source to be considered a major source under 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

C.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-7]

Any change or modification which may increase potential to emit to ten (10) tons per year of any single hazardous air pollutant, twenty-five (25) tons per year of any combination of hazardous air pollutants from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.4 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

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

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

C.5 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

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 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.6 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

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

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

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

C.7 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

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

C.8 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of 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.9 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.10 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements

C.11 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

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

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

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

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ, within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.12 Compliance Monitoring [326 IAC 2-1.1-11]

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

C.13 Maintenance of Monitoring Equipment [IC 13-14-1-13]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour this time frame is determined on a case by case basis until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.14 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
- (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

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

Record Keeping and Reporting Requirements

C.17 Malfunctions Report [326 IAC 1-6-2]

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

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a) (1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.18 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information 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 kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. 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 written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.20 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) The reports required by conditions in Section D of this permit shall be submitted to:

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

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) A malfunction as described in 326 IAC 1-6-2; or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.
- A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.
- (e) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (f) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.21 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) grinding plant, installed in 1991, exhausted to stacks A through K and M controlled by twelve (12) baghouses, known as A through K and M, capacity: 14.0 tons of talc, barite, calcium carbonate or mica per hour, consisting of the following:
- (1) One (1) crusher system, manufactured on September 14, 1960 (capacity 50.0 tons per hour), exhausted to Stack A, controlled by baghouse, known as A (#105),
 - (2) Two (2) silos, known as B and C, exhausted to Stacks B and C, controlled by baghouses, known as B (#111) and C (#115),
 - (3) One (1) roller mill system, manufactured in November 1928, exhausted to Stack D, controlled by baghouse, known as D (#124),
 - (4) One (1) classifier, exhausted to Stack E, controlled by baghouse, known as E (#136),
 - (5) Six (6) bins, known as F through K, exhausted to Stacks F, G, H, I, J and K, controlled by baghouses, known as F (#143), G (#148), H (#153), I (#158), J (#162) and K (#168),
 - (6) One (1) imp mill system, manufactured on September 10, 1962, exhausted to Stack M, controlled by baghouse, known as M (#182) and
 - (7) One (1) gas-fired heater, rated at 4.0 million British thermal units per hour.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

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

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the two (2) silos, known as B and C, the one (1) classifier and the six (6) bins, described in this section except when otherwise specified in 40 CFR 60.670 - 60.676, Subpart OOO)

D.1.2 Nonmetallic Mineral Processing Plants NSPS [326 IAC 12-1] [40 CFR 60, Subpart OOO]

- (a) Particulate matter emissions from the two (2) silos, known as B and C, exhausted to Stacks B and C, the one (1) classifier, exhausted to Stack E and the six (6) bins, known as F through K, exhausted to Stacks F through K shall not exceed 0.05 grams per dry standard cubic meter each, and
- (b) Visible emissions from the two (2) silos, known as B and C, exhausted to Stacks B and C, the one (1) classifier, exhausted to Stack E and the six (6) bins, known as F through K, exhausted to Stacks F through K shall not exceed seven percent (7%) opacity.

D.1.3 Particulate Matter (PM) [326 IAC 2-2]

- (a) Particulate matter emissions from the crusher system exhausted to Stack A shall not exceed 2.53 pounds per hour.

- (b) Particulate matter emissions from the two (2) silos, known as B and C, exhausted to Stacks B and C shall not exceed 0.262 pounds per hour each.
- (c) Particulate matter emissions from the roller miller system exhausted to Stack D shall not exceed 7.35 pounds per hour.
- (d) Particulate matter emissions from the classifier exhausted to Stack E shall not exceed 0.189 pounds per hour.
- (e) Particulate matter emissions from the three (3) bins, known as F, G and H, exhausted to Stacks F, G and H shall not exceed 0.227 pounds per hour each.
- (f) Particulate matter emissions from the two (2) bins, known as I and J, exhausted to Stacks I and J shall not exceed 0.265 pounds per hour each.
- (g) Particulate matter emissions from the one (1) bin, known as K, exhausted to Stack K shall not exceed 0.262 pounds per hour.
- (h) Particulate matter emissions from the one (1) imp mill system exhausted to Stack M shall not exceed 7.35 pounds per hour.
- (i) Compliance with these limits, as well as the limits in Conditions D.2.3, D.3.3, D.4.1 and D.5.1, renders the requirements of 326 IAC 2-2 not applicable.

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) The particulate matter (PM) from the crusher system located in the grinding plant shall be limited to 44.6 pounds per hour, when operating at a process weight rate of 50.0 tons per hour, calculated by the following:

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

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

- (b) The particulate matter (PM) from each of the facilities at the grinding plant, except the crusher system, shall be limited to 24.0 pounds per hour each, when operating at a process weight rate of 14.0 tons per hour each, calculated by the following:

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 equation:

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

D.1.5 Particulate Emissions Limitations for Facilities Constructed after September 21, 1983 [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) the one (1) gas-fired heater, rated at 4.0 million British thermal units per hour shall not exceed 0.6 lb/MMBtu.

D.1.6 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.1.7 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when each of the facilities at the grinding plant are in operation.

D.1.8 Testing Requirements [326 IAC 3-6] [NSPS Subpart OOO]

Within five (5) years from the date of the latest valid compliance demonstration, the Permittee shall perform particulate matter (grain loading) and opacity testing for the following operations. Tests shall be performed for one (1) of the two (2) silos, Stacks B or C, classifier, Stack E, and one (1) of the six (6) bins, Stacks F - K. These test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if these facilities are in compliance.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.9 Visible Emissions Notations

- (a) Visible emission notations of the grinding plant stack exhausts A through K and M shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the grinding plant, at least once per day when the grinding plant is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.1.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the grinding plant when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.1.13 Record Keeping Requirements

- (a) To document compliance with Condition D.1.9, the Permittee shall maintain records of daily visible emission notations for the grinding plant operations.
- (b) To document compliance with Condition D.1.10, the Permittee shall maintain per day records of the total static pressure drop during normal operation.
- (c) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) Four (4) silos, known as N through Q, installed in 1994, exhausted to Stacks N (#186) through Q (#189) connected pneumatically to baghouses N (#186) through Q (#189), capacity: 8,313 cubic feet, each.
- (c) Two (2) silos, known as R and S, installed in 1994, exhausted to Stacks R (#190) and S (#191), connected pneumatically to baghouses R (#190) and S (#191), capacity: 6,107 cubic feet, each.
- (d) Five (5) silos, known as T through X, installed in 1994, exhausted to Stacks T (#192) through X (#196), connected pneumatically to baghouses T (#192) through X (#196), capacity: 11,083 cubic feet, each.
- (e) One (1) hammer mill micronizer, known as Bepex Mill #1, manufactured on December 10, 1974, installed in 1994, exhausted to Stack Y, connected pneumatically to baghouse Y (#197), capacity: 2,000 pounds per hour.
- (f) One (1) Ball Mill micronizer, manufactured on January 25, 1950, connected pneumatically to baghouse Z, exhausted to Stack Z, capacity: 15,000 pounds per hour, two (2) silos, known as AA and AB, exhausted to Stacks AA and AB, capacity: 6,688 cubic feet, each and one (1) classifier #3, installed in 1994, connected pneumatically to baghouse AC (#201), exhausted to Stack AC, capacity: 10 tons per hour.
- (g) One (1) pellet mill, known as Pellet Mill, installed in 1996, exhausted to Stacks AE and AF, pneumatically connected to baghouses AE and AF, capacity: 16,000 pounds of talc per hour.
- (h) Five (5) material storage silos, known as Silo A through Silo D and Silo 14, exhausted to Stacks AG through AK, respectively, connected to baghouses AG through AK respectively, installed in 1997, capacity: 12,038 cubic feet, each. These silos are also connected to a common baghouse, known as AM for unloading purposes.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the eleven (11) silos, known as N through X, the two (2) silos, known as AA and AB, the classifier #3, the Pellet Mill and the five (5) material storage silos, known as A through D and 14 described in this section except when otherwise specified in 40 CFR 60.670 - 60.676, Subpart OOO)

D.2.2 Nonmetallic Mineral Processing Plants NSPS [326 IAC 12-1] [40 CFR 60, Subpart OOO]

- (a) Particulate matter emissions from the eleven (11) silos, known as N through X, exhausted to Stacks N through X, the two (2) silos, known as AA and AB, exhausted to Stacks AA and AB, the classifier #3, exhausted to Stack AC, the Pellet Mill, exhausted to Stacks AE and AF, and the five (5) material storage silos, known as Silo A through Silo D and Silo 14, exhausted to Stacks AG through AK shall not exceed 0.05 grams per dry standard cubic meter, and

- (b) Visible emissions from the eleven (11) silos, known as N through X, exhausted to Stacks N through X, the two (2) silos, known as AA and AB, exhausted to Stacks AA and AB, the Pellet Mill, exhausted to Stacks AE and AF, and the five (5) material storage silos, known as Silo A through Silo D and Silo 14, exhausted to Stacks AG through AK shall not exceed seven percent (7%) opacity.

D.2.3 Particulate Matter (PM) [326 IAC 2-2]

- (a) Particulate matter emissions from the four (4) silos, known as N through Q, exhausted to Stacks N, O, P and Q shall not exceed 0.136 pounds per hour each.
- (b) Particulate matter emissions from the seven (7) silos, known as R through X exhausted to Stacks R, S, T, U, V, W and X shall not exceed 0.227 pounds per hour each.
- (c) Particulate matter emissions from the Bepex Mill #1 exhausted to Stack Y shall not exceed 3.30 pounds per hour.
- (d) Particulate matter emissions from the Ball Mill micronizer exhausted to Stack Z shall not exceed 9.43 pounds per hour, respectively.
- (e) Particulate matter emissions from the two (2) silos, known as AA and AB, exhausted to Stacks AA and AB shall not exceed 0.146 pounds per hour each.
- (f) Particulate matter emissions from the Pellet Mill exhausted to Stacks AE and AF shall not exceed 0.375 and 1.00 pounds per hour, respectively.
- (g) Particulate matter emissions from the four (4) material storage silos, known as Silo A, Silo C, Silo D and Silo 14, exhausted to Stacks AG, AI, AJ and AK shall not exceed 0.103 pounds per hour each.
- (h) Particulate matter emissions from the one (1) material storage silo, known as Silo B, exhausted to Stack AH shall not exceed 0.235 pounds per hour.
- (i) Particulate matter emissions from the one (1) common baghouse associated with the five (5) material storage silos, known as Silo A through Silo D and Silo 14, exhausted to Stack AM shall not exceed 0.103 pounds per hour.
- (j) Compliance with these limits, as well as the limits in Conditions D.1.3, D.3.3, D.4.1 and D.5.1, renders the requirements of 326 IAC 2-2 not applicable.

D.2.4 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the Ball Mill micronizer, Bepex Mill #1, and Pellet Mill, shall be limited to 15.8, 4.10, and 16.5 pounds per hour, respectively when operating at process weight rates of 7.5, 1.0, and 8.0 tons per hour respectively, calculated by the following:

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 equation:

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

D.2.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.2.6 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when the each of the facilities are in operation.

D.2.7 Testing Requirements [326 IAC 3-6] [NSPS Subpart OOO]

Within five (5) years from the date of the latest valid compliance demonstration, the Permittee shall perform particulate matter (grain loading) and opacity testing for the following operations. Tests shall be performed for the one (1) of the silos, Stacks N (#186) through X (#196), classifier #3, Stack AC, Pellet Mill, one (1) of the Stacks AE or AF. These test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if these facilities are in compliance.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.8 Visible Emissions Notations

- (a) Visible emission notations of the Bepex Mill #1, Ball Mill micronizer, classifier #3 and Pellet Mill stack exhausts Y, Z, AC, AE and AF shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.2.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the Bepex Mill #1, Ball Mill micronizer, classifier #3, and Pellet Mill, at least once per day when the Bepex Mill #1, Ball Mill micronizer, classifier #3, or Pellet Mill is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.2.10 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the Bepex Mill #1, Ball Mill micronizer, classifier #3, and Pellet Mill when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.2.12 Record Keeping Requirements

- (a) To document compliance with Condition D.2.8, the Permittee shall maintain records of daily visible emission notations of the Bepex Mill #1, Ball Mill micronizer, classifier #3 and Pellet Mill stack exhausts Y, Z, AC, AE and AF.
- (b) To document compliance with Condition D.2.9, the Permittee shall maintain per day records of the total static pressure drop during normal operation:
- (c) To document compliance with Condition D.2.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (i) One (1) Bepex/Air Mill Room, capacity: 2.0 tons of nonmetallic minerals per hour, consisting of:
 - (1) Three (3) silo bins, known as AO, AS and AT, exhausted to Stacks AO, AS and AT, equipped with baghouses AO, AS and AT.
 - (2) Two (2) air mills, known as AP and AQ, exhausted to Stacks AP and AQ, equipped with baghouse AP.
 - (3) One (1) #2 Bepex, known as AR, manufactured on December 10, 1974, exhausted to Stack AR, equipped with baghouse AR.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.3.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the three (3) silo bins and two (2) air mills described in this section except when otherwise specified in 40 CFR 60.670 - 60.676, Subpart OOO

D.3.2 Nonmetallic Mineral Processing Plants NSPS [326 IAC 12-1] [40 CFR 60, Subpart OOO]

- (a) Particulate matter emissions from the three (3) silo bins, known as AO, AS and AT, exhausted to Stacks AO, AS and AT, and two (2) air mills, known as AP and AQ, exhausted to Stack AP shall not exceed 0.05 grams per dry standard cubic meter, and
- (b) Visible emissions from the three (3) silo bins, known as AO, AS and AT, exhausted to Stacks AO, AS and AT, and two (2) air mills, known as AP and AQ, exhausted to Stack AP shall not exceed seven percent (7%) opacity.

D.3.3 Particulate Matter (PM) [326 IAC 2-2]

- (a) Particulate matter emissions from the three (3) silo bins, known as AO, AS and AT, exhausted to Stacks AO, AS and AT shall not exceed 0.174 pounds per hour each.
- (b) Particulate matter emissions from the two (2) air mills, known as AP and AQ exhausted to Stack AP shall not exceed 0.371 pounds per hour.
- (c) Particulate matter emissions from the #2 Bepex, known as AR exhausted to Stack AR shall not exceed 4.19 pounds per hour.
- (d) Compliance with these limits, as well as the limits in Conditions D.1.3, D.2.3, D.4.1 and D.5.1, renders the requirements of 326 IAC 2-2 not applicable.

D.3.4 Particulate Matter (PM) [326 IAC 6-3-2]

The particulate matter (PM) from the Bepex/Air Mill Room facilities shall be limited to 6.52 pounds per hour each, when operating at a process weight rate of 2.0 tons per hour each, calculated by the following:

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 equation:

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

D.3.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.3.6 Particulate Matter (PM)

The baghouses AO, AP, AR, AS and AT for PM control shall be in operation at all times when the Bepex/Air Mill Room is in operation.

D.3.7 Testing Requirements [326 IAC 3-6] [NSPS Subpart OOO]

Within 180 days from start-up, the Permittee shall perform particulate matter (grain loading) and opacity testing for the Bepex/Air Mill Room operations. Tests shall be performed for the silos, one (1) of the three (3) stacks AO, AS or AT, and one (1) of the two (2) air mills. These test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if these facilities are in compliance.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.3.8 Visible Emissions Notations

- (a) Visible emission notations of the silos, air mills and #2 Bepex stack exhausts AO, AP, AR, AS and AT shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.3.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the Bepex/Air Mill Room, at least once per day when the Bepex/Air Mill Room is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 and 5.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.3.10 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the Bepex/Air Mill Room when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.3.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.3.12 Record Keeping Requirements

- (a) To document compliance with Condition D.3.8, the Permittee shall maintain records of daily visible emission notations of the Bepex/Air Mill Room stack exhausts AO, AP, AR, AS and AT.
- (b) To document compliance with Condition D.3.9, the Permittee shall maintain per day records of the total static pressure drop during normal operation.
- (c) To document compliance with Condition D.3.10, the Permittee shall maintain records of the results of the inspections required under Condition D.3.10 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (j) One (1) air jet milling system, identified as AU, equipped with a baghouse, identified as AU for particulate control, exhausted to stack AU, capacity: 5.00 tons of talc per hour

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

Emission Limitations and Standards

D.4.1 Particulate Matter (PM) [326 IAC 2-2]

The particulate matter (PM) emissions from the one (1) air jet milling system, identified as AU, exhausted to Stacks AU, shall not exceed 0.471 pounds per hour. Compliance with this limit, as well as the limits in Conditions D.1.3, D.2.3, D.3.3 and D.5.1, renders the requirements of 326 IAC 2-2 not applicable.

D.4.2 Particulate Matter (PM) [326 IAC 6-3-2]

The particulate matter (PM) from the one (1) air jet milling system, identified as AU, shall be limited to 12.1 pounds per hour when operating at a process weight rate of 5.00 tons per hour, calculated by the following:

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 equation:

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

D.4.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emission unit and its associated control device.

Compliance Determination Requirements

D.4.4 Particulate Control

In order to comply with Conditions D.4.1 and D.4.2, the baghouse for particulate control shall be in operation and control emissions from the one (1) air jet milling system, identified as AU, at all times that the one (1) air jet milling system, identified as AU, is in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.4.5 Visible Emissions Notations

- (a) Visible emission notations of the one (1) air jet milling system, identified as AU stack exhaust shall be performed once per day during normal daylight operations, when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that

specific process.

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.4.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the one (1) air jet milling system, identified as AU, at least once per day when the one (1) air jet milling system, identified as AU is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation and Implementation. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.4.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the one (1) air jet milling system, identified as AU when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.4.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

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

D.4.9 Recordkeeping Requirements

- (a) To document compliance with Condition D.4.5, the Permittee shall maintain records of daily visible emission notations of the one (1) air jet milling system, identified as AU stack exhaust.

- (b) To document compliance with Condition D.4.6, the Permittee shall maintain the following:

Weekly records of the total static pressure drop during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.4.7, the Permittee shall maintain records of the results of the inspections required under Condition D.4.7 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Recordkeeping Requirements, of this permit.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (k) One (1) air jet milling system, installed in 2005, capacity of 2.5 tons per hour of nonmetallic minerals per hour, consisting of:
- (1) Two (2) silo bins, known as Silo #18 and Silo #19, exhausted to Stacks AV and AW, equipped with baghouses AV, and AW, capacity; 3,950 cubic feet, each.
 - (2) One (1) air jet mill, known as AX, exhausted to Stack AX, equipped with baghouse AX: capacity 2.5 tons per hour nonmetallic minerals.

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

Emission Limitations and Standards

D.5.1 Particulate Matter (PM) [326 IAC 2-2]

- (a) Particulate matter emissions from the two (2) Silos (Silo #18 and Silo #19), and exhausted to Stacks AV and AW shall not exceed 0.13 pounds per hour each.
- (b) Particulate matter emissions from the one (1) air jet mill (AX), exhausted to Stack AX, shall not exceed, shall not exceed 0.23 pounds per hour.
- (c) Compliance with these limits, as well as the limits in Conditions D.1.3, D.2.3, D.3.3 and D.4.1, renders the requirements of 326 IAC 2-2 not applicable.

D.5.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), particulate matter (PM) emissions from the one (1) air jet milling system, shall be limited to 7.58 pounds per hour when operating a process weight rate of 2.50 tons per hour using the following equation:

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 equation:

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

The emissions rate E has been established for the units as follows:

Unit (Stack ID)	PM Emission Limit (lbs/hour)
Air Jet Mill (AX)	2.53
Silo #18 (AV)	2.53
Silo #19 (AW)	2.53
Total	7.58

The baghouses AV, AW, and AX shall be in operation at all times the one (1) air jet milling system, consisting of one air jet mill known as AX, Silo #18, and Silo #19, is in operation, in order to comply with this limit.

D.5.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emission unit and it's associated control device.

Compliance Determination Requirements

D.5.4 Particulate Control

In order to comply with Conditions D.5.1 and D.5.2, the baghouses for particulate control, known as AQ, AV, and AW shall be in operation and control emissions from the two silo bins (Silo #18 and Silo #19), and the air jet mill (AX) at all times that the one (1) air jet milling system is in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.5.5 Visible Emissions Notations

- (a) Visible emission notations of the two (2) silo bins (Silo #18 and Silo #19), and the one (1) air jet mill (AX), stack exhaust shall be performed once per day during normal daylight operations, when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation and Implementation shall be considered a deviation from this permit.

D.5.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the two (2) silo bins (Silo #18 and Silo #19) and (1) air jet mill (AX) at least once per day when the one (1) air jet milling system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation and Implementation. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.5.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the two (2) silo bins (Silo #18 and Silo #19) and (1) air jet mill (AX) when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.5.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the bag-house's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

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

D.5.9 Recordkeeping Requirements

- (a) To document compliance with Condition D.5.5, the Permittee shall maintain records of daily visible emission notations of the two (2) silo bins (Silo #18 and Silo #19) and (1) air jet mill (AX) stack exhaust.
- (b) To document compliance with Condition D.5.6, the Permittee shall maintain the following:

Weekly records of the total static pressure drop during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.5.7, the Permittee shall maintain records of the results of the inspections required under Condition D.5.7 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Recordkeeping Requirements, of this permit.

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Air Quality
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES ?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. : _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

* **Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Air Quality
COMPLIANCE DATA SECTION

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Barretts Minerals Inc.
Address:	2700 Bluff Road
City:	Mount Vernon, Indiana 47620
Phone #:	812 - 838 - 5236
MSOP #:	129-9292-00023

I hereby certify that Barretts Minerals Inc. is still in operation.
 no longer in operation.

I hereby certify that Barretts Minerals Inc. is in compliance with the requirements of MSOP **129-9292-00023**.
 not in compliance with the requirements of MSOP **129-9292-00023**.

Authorized Individual (typed):	Plant Manager
Title:	
Signature:	
Date:	

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a
Minor Permit Revision to a Minor Source Operating Permit

Source Background and Description

Source Name:	Barretts Minerals Inc.
Source Location:	2700 Bluff Road, Mt. Vernon, Indiana 47620
County:	Posey
SIC Code:	3295
Operation Permit No.:	MSOP 129-9292-00023
Operation Permit Issuance Date:	May 14, 2001
Minor Permit Revision No.:	129-20913-00023
Permit Reviewer:	Jenny Acker

The Office of Air Quality (OAQ) has reviewed an application from Barretts Minerals Inc. relating to the construction and operation of the following emission units and pollution control devices:

One (1) air jet milling system, installed in 2005, capacity of 2.5 tons per hour of nonmetallic minerals per hour, consisting of:

- (1) Two (2) silo bins, known as Silo #18 and Silo #19, exhausted to Stacks AV and AW, equipped with baghouses AV, and AW, capacity; 3,950 cubic feet, each.
- (2) One (1) air jet mill, known as AX, exhausted to Stack AX, equipped with baghouse AX, capacity; 2.5 tons per hour nonmetallic minerals.

History

On March 8, 2005, Barretts Minerals Inc. submitted an application to the OAQ requesting to add an additional air milling system to their existing plant. Barretts Minerals Inc. was issued a Minor Source Operating Permit (MSOP) on May 14, 2001.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the baghouses, identified as AV, AW and AX, be considered as an integral part of the one (1) air jet milling system.

IDEM has made a prior determination that baghouse AX, previously known as baghouse AQ, was integral to air jet mill AQ. The new air jet mill (AX) will be controlled by the baghouse to be known as AX and is the same process as air jet mill AQ.

The baghouses, identified as AV and AW, are used to collect product material. The collected material will be sold by the company. The primary purpose of the baghouses is to collect the product being manufactured and not air pollution control. The product being manufactured could not be produced without the operation of the baghouses. Additionally, the baghouses will control the pneumatic movement of material in a like manner to operations already in existence at the source and previously

determined integral to the existing processes

IDEM, OAQ has evaluated the justifications and agreed that the baghouses, identified as AV, AW and AX, will be considered as an integral part of the one (1) air jet milling system. Therefore, the permitting level will be determined using the potential to emit after the baghouse. Operating conditions in the proposed permit will specify that the baghouses shall operate at all times when the air jet milling system is in operation

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
AV	Silo #18	60.0	1.0	1500	195
AW	Silo #19	60.0	1.0	1500	195
AX	Air Jet Mill	20.0	0.833	2650	200

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on March 8, 2005. Additional information was received on March 23 and March 29, 2005.

Emission Calculations

See page 1 of 1 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Revision

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

The baghouses, identified as AV, AW and AX, have been determined to be integral to the process. Therefore, this table reflects the PTE after controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Baghouse AQ was previously permitted in Significant Permit Revision No. 129-16451-00023 as a duplicate to baghouse AP. Baghouses AQ and AP were used to reclaim one of two non-metallic

minerals processed in the Bepex/Air Mill room in order to prevent contamination of products. Baghouse AQ is no longer required as only one product will be produced from the Bepex/Air Mill Room facility after issuance of this revision, the emissions from the air mill jets in the BEPEX/Air Mill room will be controlled by baghouse AP.

Pollutant	Potential To Emit (tons/year)
PM	2.12
PM ₁₀	2.12
SO ₂	--
VOC	--
CO	--
NO _x	--

HAPs	Potential To Emit (tons/year)
TOTAL HAPs	--

Justification for Revision

The MSOP is being revised through a Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-6.1-6(g)(5)(C) a modification for which the potential to emit is limited to less than twenty-five tons per year of any regulated air pollutant by complying with the following: using particulate air pollution control device. This limit is necessary to establish an efficiency rating of the integral particulate control devices.

County Attainment Status

The source is located in Posey County.

Pollutant	Status
PM _{2.5}	attainment
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
1-Hour Ozone	attainment
8-Hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx are considered when

evaluating the rule applicability relating to the ozone standards. Posey County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) Posey County has been classified as unclassifiable or attainment for PM2.5. U.S.EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.
- (c) Posey County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	Less Than 250
PM ₁₀	Less Than 100
SO ₂	Less Than 100
VOC	Less Than 100
CO	Less Than 100
NO _x	Less Than 100

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon baghouse information provided by the source in prior applications.

Potential to Emit of Revision After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units.

Potential to Emit (tons per year)							
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Proposed Revision	2.12	2.12	--	--	--	--	--
Existing Emission Units	125	63.9	0.011	0.096	1.47	1.75	0.032
Total	127.12	66.02	0.011	0.096	1.47	1.75	0.032
MSOP Threshold Level	--	100	100	100	100	100	10/25

The potential PM emissions are greater than one-hundred (100) tons per year due to the fact that the fugitive PM emissions from unpaved roads are 79.0 tons per year. The fugitive PM₁₀ emissions from unpaved roads are 16.8 tons per year.

This revision to the existing MSOP will not change the status of the stationary source because the potential emissions from the entire source will still be less than the Part 70 major source thresholds.

Federal Rule Applicability

- (a) The one (1) air jet milling system is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.670 through 60.676, Subpart OOO), because there are no crushers associated with this process.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed revision.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Particulate Matter) [326 IAC 2-2]

Particulate matter emissions from the two (2) silos (Silo #18 and Silo #19) shall not exceed 0.13 pounds per hour each. Particulate matter emissions from the one (1) air jet mill (AX) shall not exceed 0.23 pounds per hour. Compliance with these limits, as well as the limits in Conditions D.1.3, D.2.3, D.3.3, and D.4.1, renders the requirements of 326 IAC 2-2 not applicable.

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

Pursuant to 326 IAC 6-3-2(e), particulate matter (PM) emissions from the one (1) air jet milling system, shall be limited to 7.58 pounds per hour when operating a process weight rate of 2.50 tons per hour using the following equation:

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 equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
 P = process weight rate in tons per hour

The emissions rate E has been established for the units as follows:

Unit (Stack ID)	PM Emission Limit (lbs/hour)
Air Jet Mill (AX)	2.53
Silo #18 (AV)	2.53
Silo #19 (AW)	2.53
Total	7.58

The baghouses AV, AW, and AX shall be in operation at all times the one (1) air jet milling system, consisting of one air jet mill known as AX, Silo #18, and Silo #19, is in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

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

The one (1) air jet milling system has applicable compliance monitoring conditions as specified below:

- (a) Visible emissions notations of the air jet milling system shall be performed during normal daylight operations once per day. A trained employee will record whether emissions are normal or abnormal. 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. 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. 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation and Implementation shall be considered a deviation from this permit.
- (b) The Permittee shall record the total static pressure drop across the baghouses, AV, AW and AX, controlling the air jet milling system, once per day when the air jet milling system is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 5.0 inches of water or a range established during the latest stack

test, the Permittee shall take reasonable response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation of this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation shall be considered a deviation from this permit.

These monitoring conditions are necessary because the baghouses, AV, AW and AX, for the air jet milling system must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), 326 IAC 2-6 (MSOP), and 326 IAC 2-2 (PSD).

Proposed Changes

1. Barretts Minerals, Inc. will be removing the baghouse known as AQ from the Bepex/Air Mill Room and adding one (1) air jet milling system. Condition A.2 Emission Units and Pollution Control Equipment Summary, is revised as follows:

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary talc, barite, calcium carbonate and mica processing source is approved to operate the following emissions units and pollution control devices:

- (i) One (1) Bepex/Air Mill Room, capacity: 2.0 tons of nonmetallic minerals per hour, consisting of:
 - (2) Two (2) air mills, known as AP and AQ, exhausted to Stacks AP and AQ, equipped with baghouses AP and AQ.
- (k) **One (1) air jet milling system, installed in 2005, capacity of 2.5 tons per hour of nonmetallic minerals per hour, consisting of:**
 - (1) **Two (2) silo bins, known as Silo #18 and Silo #19, exhausted to Stacks AV and AW, equipped with baghouses AV, and AW, capacity; 3,950 cubic feet, each.**
 - (2) **One (1) air jet mill, known as AX, exhausted to Stack AX, equipped with baghouse AX, capacity; 2.5 tons per hour nonmetallic minerals.**

2. Section D.3, Emissions Unit Operation Conditions, is revised to reflect the removal baghouse AQ from the Bepex/Air Mill Room.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (i) One (1) Bepex/Air Mill Room, capacity: 2.0 tons of nonmetallic minerals per hour, consisting of:
 - (2) Two (2) air mills, known as AP and AQ, exhausted to Stacks AP and AQ, equipped with baghouses AP and AQ.

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.3.2 Nonmetallic Mineral Processing Plants NSPS [326 IAC 12-1] [40 CFR 60, Subpart OOO]

- (a) Particulate matter emissions from the three (3) silo bins, known as AO, AS and AT, exhausted to Stacks AO, AS and AT, and two (2) air mills, known as AP and AQ, exhausted to Stacks AP and AQ shall not exceed 0.05 grams per dry standard cubic meter, and
- (b) Visible emissions from the three (3) silo bins, known as AO, AS and AT, exhausted to Stacks AO, AS and AT, and two (2) air mills, known as AP and AQ, exhausted to Stacks AP and AQ shall not exceed seven percent (7%) opacity.

D.3.3 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 52.21]

- (b) Particulate matter emissions from the two (2) air mills, known as AP and AQ exhausted to Stacks AP and AQ shall not exceed 0.371 pounds per hour each.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.3.6 Particulate Matter (PM)

The baghouses AO, AP, AQ, AR, AS and AT for PM control shall be in operation at all times when the Bepex/Air Mill Room is in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.3.8 Visible Emissions Notations

- (a) Visible emission notations of the silos, air mills and #2 Bepex stack exhausts AO, AP, AQ, AR, AS and AT shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

D.3.12 Record Keeping Requirements

- (a) To document compliance with Condition D.3.8, the Permittee shall maintain records of daily visible emission notations of the Bepex/Air Mill Room stack exhausts AO, AP, AQ, AR, AS and AT.

- 3. Section D.5, Emissions Unit Operation Conditions, has been added to incorporate the new air jet milling system as follows:

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (k) **One (1) air jet milling system, installed in 2005, capacity of 2.5 tons per hour of nonmetallic minerals per hour, consisting of:**
 - (1) **Two (2) silo bins, known as Silo #18 and Silo #19, exhausted to Stacks AV and AW, equipped with baghouses AV, and AW, capacity; 3,950 cubic feet, each.**
 - (2) **One (1) air jet mill, known as AX, exhausted to Stack AX, equipped with baghouse AQ, capacity; 2.5 tons per hour nonmetallic minerals.**

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

Emission Limitations and Standards

D.5.1 Particulate Matter (PM) [326 IAC 2-2]

- (a) Particulate matter emissions from the two (2) Silos (Silo #18 and Silo #19), and exhausted to Stacks AV and AW shall not exceed 0.13 pounds per hour each.
- (b) Particulate matter emissions from the one (1) air jet mill (AX), exhausted to Stack AX, shall not exceed, shall not exceed 0.23 pounds per hour.
- (c) Compliance with these limits, as well as the limits in Sections D.1.3, D.2.3, D.3.3, and D.4.1, renders the requirements of 326 IAC 2-2 not applicable.

D.5.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), particulate matter (PM) emissions from the one (1) air jet milling system, shall be limited to 7.58 pounds per hour when operating a process weight rate of 2.50 tons per hour using the following equation:

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 equation:

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

The emissions rate E has been established for the units as follows:

Unit (Stack ID)	PM Emission Limit (lbs/hour)
Air Jet Mill (AX)	2.53
Silo #18 (AV)	2.53
Silo #19 (AW)	2.53
Total	7.58

The baghouses AV, AW, and AX shall be in operation at all times the one (1) air jet milling system, consisting of one air jet mill known as AX, Silo #18, and Silo #19, is in operation, in order to comply with this limit.

D.5.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emission unit and its associated control device.

Compliance Determination Requirements

D.5.4 Particulate Control

In order to comply with Conditions D.5.1 and D.5.2, the baghouses for particulate control, known as AQ, AV, and AW shall be in operation and control emissions from the two silo bins (Silo #18 and Silo #19), and the air jet mill (AX) at all times that the one (1) air jet milling system is in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.5.5 Visible Emissions Notations

- (a) Visible emission notations of the two (2) silo bins (Silo #18 and Silo #19), and the one (1) air jet mill (AX), stack exhaust shall be performed once per day during normal

daylight operations, when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

D.5.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the two (2) silo bins (Silo #18 and Silo #19) and (1) air jet mill (AX) at least once per day when the one (1) air jet milling system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation and Implementation. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.5.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the two (2) silo bins (Silo #18 and Silo #19) and (1) air jet mill (AX) when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.5.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation of this permit.**

- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

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

D.5.9 Recordkeeping Requirements

- (a) To document compliance with Condition D.5.5, the Permittee shall maintain records of daily visible emission notations of the two (2) silo bins (Silo #18 and Silo #19) and (1) air jet mill (AX) stack exhaust.
- (b) To document compliance with Condition D.5.6, the Permittee shall maintain the following:
- Weekly records of the total static pressure drop during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.5.7, the Permittee shall maintain records of the results of the inspections required under Condition D.5.7 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Recordkeeping Requirements, of this permit.

4. Conditions D.1.3(i), D.2.3(j), D.3.3(d) and D.4.1 which reference Particulate Matter (PM) limitations have been revised as follows:

D.1.3 Particulate Matter (PM) [326 IAC 2-2] {40-CFR-52.24}

- (i) Compliance with these limits, **as well as the limits in Conditions D.2.3, D.3.3, D.4.1 and D.5.1**, renders the requirements of 326 IAC 2-2 not applicable.

D.2.3 Particulate Matter (PM) [326 IAC 2-2] {40-CFR-52.24}

- (j) Compliance with these limits, **as well as limits in Conditions D.1.3, D.3.3, D.4.1 and D.5.1**, renders the requirements of 326 IAC 2-2 not applicable.

D.3.3 Particulate Matter (PM) [326 IAC 2-2] {40-CFR-52.24}

- (d) Compliance with these limits, **as well as the limits in Conditions D.1.3, D.2.3, D.4.1 and D.5.1**, renders the requirements of 326 IAC 2-2 not applicable.

D.4.1 Particulate Matter (PM) [326 IAC 2-2]

The particulate matter (PM) emissions from the one (1) air jet milling system, identified as AU, exhausted to Stacks AU, shall not exceed 0.471 pounds per hour. Compliance with this limit, as well as the limits in ~~Sections D.1, D.2, and D.3~~ **Conditions D.1.3, D.2.3, D.3.3 and D.5.1**, renders the requirements of 326 IAC 2-2 not applicable

5. Language contained within Conditions D.1.9, D.1.10, D.2.8, D.2.9, D.3.8, D.3.9, D.4.5, D.4.6, Compliance Monitoring Requirements and Conditions, and D.1.13, D.2.12, D.3.12, D.4.9, Record Keeping Requirements, requiring once per shift monitoring and record keeping of stack emissions and once per shift parametric monitoring of the baghouse pressure drop has been revised to read once per day.

6. The address for IDEM has changed and has been incorporated throughout the permit as follows:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, ~~P. O. Box 6015~~
Indianapolis, Indiana ~~46206-6015~~ **46204**

Conclusion

The construction and operation of this Minor Permit Revision shall be subject to the conditions of the attached proposed Minor Permit Revision No. 129-20913-00023.

**Appendix A: Emissions Calculations
PM and PM10 Emission Calculation**

Company Name: Barretts Minerals, Inc.
Address City IN Zip: 2700 Bluff Road, Mt. Vernon, Indiana 47620
Permit Number: 129-20913
Pit ID: 129-00023
Reviewer: Jenny Acker
Date: 4/6/2005

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cu.ft.)	Gas or Air Flow Rate (acfm)	PM / PM10 Emission Rate (lb/hr)	PM / PM10 Emission Rate (tpy)
AV	99.90%	0.01	1500	0.13	0.56
AW	99.90%	0.01	1500	0.13	0.56
AX	99.90%	0.01	2650	0.23	0.99

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cubic ft.)(cubic ft./min.)(60min./hr)(lb/7000 grains)
Emission Rate in tpy (after controls) = (Emission Rate in lbs/hr)(8760 hrs/yr)(ton/2000 lbs)