



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: January 12, 2007
RE: Calcium Products Division of Irving Materials, Inc. / 053-23569-00038
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot 03/23/06



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NEW SOURCE REVIEW AND FEDERALLY ENFORCEABLE STATE OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**Calcium Products Division of Irving Materials Inc.
6455 West County Road 600 South
Swayzee, Indiana 46986**

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

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

Operation Permit No.: F053-23569-00038	
Issued by: <i>Original document signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: January 12, 2007 Expiration Date: January 12, 2012

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) . The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary limestone pulverizing plant.

Authorized Individual:	Walter E. Tharp, Director of Environmental Compliance
Source Address:	6455 West County Road 600 South, Swayzee, IN 46986
Mailing Address:	8032 N. State Road 9, Greenfield, IN 46140
General Source Phone Number:	(317)432-9604
SIC Code:	3274
County Location:	Grant
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) one (1) aggregate drum dryer, constructed in 1994, with a maximum aggregate throughput of 100 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 50 million (MM) Btu per hour, using No. 2 distillate oil as backup fuel; with a baghouse for controlling particulate matter emissions from the drum dryer, exhausting at stack (ID No. SV1);
- (b) all indoor activities in Building #4, constructed in 1989 unless otherwise noted, with a baghouse for controlling particulate matter emissions from the indoor activities, exhausting at one (1) stack (ID No. SV2) including:
 - (1) one (1) 6' x 16' 3-deck screen;
 - (2) four (4) 4' x 6' 5-deck screens;
 - (3) three (3) 6' x 12', 1 deck screens;
 - (4) two (2) 6' x 6' 1 deck screens;
 - (5) one (1) 36" Gyradisc crusher;
 - (6) one (1) 24" x 30" roll crusher;
 - (7) one (1) bagging machine, constructed in 1994, with a baghouse for controlling particulate matter emissions;
 - (8) ten (10) enclosed bucket elevators;
 - (9) four (4) indoor conveyors; and

(10) five (5) transfer conveyors.

Under 40 CFR 60, Subpart OOO, this aggregate pulverizing plant is considered an affected source.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

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

- (a) one (1) feed hopper located outdoor;
- (b) one (1) outdoor feed conveyor;
- (c) two (2) enclosed surge bins, each with a maximum capacity of 400 tons, constructed in 1994;
- (d) nine (9) enclosed storage bins each with a maximum capacity of 180 tons;
- (e) four (4) enclosed storage bins each with a maximum capacity of 400 tons;
- (f) aggregate storage piles;
- (g) one (1) enclosed storage bin inside with a maximum capacity of 800 tons; and
- (h) unpaved and paved roads with public access.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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

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

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

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4] [326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and 326 IAC 2-8 when prior to the start of operation, the following requirements are met:

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

B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, F053-23569-00038, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

B.6 Enforceability [326 IAC 2-8-6]

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

B.7 Severability [326 IAC 2-8-4(4)]

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

B.8 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ . IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the

causes of the emergency;

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

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

Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F053-23569-00038 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.17 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.18 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.19 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.20 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.21 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

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

Indianapolis, Indiana 46204-2251

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]

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 FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.24 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.26 Advanced Source Modification Approval[326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.27 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

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

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit of PM₁₀ and SO₂ from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 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.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

C.6 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).

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on August 30, 1996. The plan is included as Attachment A.

C.8 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.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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

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

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

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

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

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.16 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.17 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 response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements[326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) one (1) aggregate drum dryer, constructed in 1994, with a maximum aggregate throughput of 100 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 50 million (MM) Btu per hour, using No. 2 distillate oil as backup fuel; with a baghouse for controlling particulate matter emissions from the drum dryer, exhausting at stack (ID No. SV1);
- (b) all indoor activities in Building #4, constructed in 1989 unless otherwise noted, with a baghouse for controlling particulate matter emissions from the indoor activities, exhausting at one (1) stack (ID No. SV2) including:
 - (1) one (1) 6' x 16' 3-deck screen;
 - (2) four (4) 4' x 6' 5-deck screens;
 - (3) three (3) 6' x 12', 1 deck screens;
 - (4) two (2) 6' x 6' 1 deck screens;
 - (5) one (1) 36" Gyradisc crusher;
 - (6) one (1) 24" x 30" roll crusher;
 - (7) one (1) bagging machine, constructed in 1994, with a baghouse for controlling particulate matter emissions;
 - (8) ten (10) enclosed bucket elevators;
 - (9) four (4) indoor conveyors; and
 - (10) five (5) transfer conveyors.
- (c) one (1) feed hopper located outdoor;
- (d) one (1) outdoor feed conveyor;
- (e) two (2) enclosed surge bins, each with a maximum capacity of 400 tons, constructed in 1994;
- (f) nine (9) enclosed storage bins each with a maximum capacity of 180 tons;
- (g) four (4) enclosed storage bins each with a maximum capacity of 400 tons;
- (h) aggregate storage piles;
- (i) one (1) enclosed storage bin inside with a maximum capacity of 800 tons; and
- (j) unpaved and paved roads with public access.

Under 40 CFR 60, Subpart OOO, this aggregate pulverizing plant is considered an affected source

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

D.1.1 Particulate Matter (PM) [326 IAC 12] [40 CFR Part 60, Subpart OOO] [326 IAC 2-2]

- (a) PM emissions from the aggregate dryer/burner shall be less than 4.67 pounds per hour.
- (b) PM emissions from the indoor material handling activities shall be less than 1.63 pounds per hour.

Compliance with the above limits will limit total source wide PM emissions to less than 250 tons per year. Therefore, compliance with this limit will render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, the following limits shall apply:

- (a) PM₁₀ emissions from the aggregate dryer/burner shall be less than 17.57 pounds per hour.
- (b) PM₁₀ emissions from the indoor material handling activities shall be less than 1.71 pounds per hour.

Compliance with the above limits will limit the total source wide potential to emit PM₁₀ to less than 100 tons per year and render 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) non applicable to this source.

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 50.0 million British thermal units per hour burner for the aggregate dryer shall be limited to 0.5 pound per MMBtu heat input when using distillate oils. This is equivalent to a maximum allowable sulfur content of (0.5%) for No. 2 distillate fuel oil.

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average, with compliance determined at the end of each month.

D.1.4 No. 2 Fuel Usage and Equivalents, Sulfur Dioxide (SO₂) [326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) The sulfur content of the No. 2 fuel oil used in the 50.0 MMBtu per hour burner for the aggregate dryer shall not exceed 0.5 percent.
- (b) The input of No. 2 distillate fuel oil with a maximum sulfur content of 0.5% to the 50.0 MMBtu per hour burner for the aggregate dryer shall be less than 2,874,820 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the SO₂ emissions are limited to less than 100 tons per year.
- (c) For purposes of determining compliance based on SO₂ emissions, the following shall apply:

every million cubic feet (MMCF) of natural gas burned shall be equivalent to 9.0 gallons of No. 2 distillate fuel oil based on SO₂ emissions, such that the total input of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalent input does not exceed the limit specified.

Compliance with the above limits shall render the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable.

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) No later than five (5) years from December 13, 2004, in order to demonstrate compliance with conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM₁₀ testing for the aggregate dryer/burner, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable particulate matter. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) No later than five (5) years from December 14, 2004, in order to demonstrate compliance with conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM₁₀ testing for the indoor material handling activities, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable particulate matter. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 7-2-1, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.
- (c) In order to demonstrate compliance with Conditions D.1.3 and D.1.4 the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate fuel oil using the methods described in (a) of this condition.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.8 Particulate Matter (PM and PM10)

In order to comply with Conditions D.1.1 and D.1.2, the baghouses for particulate control shall be in operation and control emissions from the aggregate dryer and the indoor material handling operations at all times that these operations are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.9 Visible Emissions Notations

- (a) Daily visible emission notations of the limestone dryer and burner baghouse stack exhaust (SV1), the indoor material handling operations baghouse stack exhaust (SV2), and the outdoor conveying/handling activities, storage piles, unpaved roads, and paved roads shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.10 Parametric Monitoring

The Permittee shall record the pressure drop across each of the baghouses used in conjunction with the aggregate dryer/burner and the indoor material handling activities, once per day when each process is in operation and venting to the atmosphere. When for any one reading, the pressure drop across either baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.11 Broken or Failed Bag Detection

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

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

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.12 Record Keeping Requirements

(a) To document compliance with Conditions D.1.3 and D.1.4, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) below shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Conditions D.1.3 and D.1.4.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual No. 2 fuel oil and equivalent usage per month since last compliance determination period and equivalent SO₂ emissions; and
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period.

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) The Permittee shall maintain records sufficient to verify compliance with the procedures specified in Condition D.1.7. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM, OAQ.
- (c) To document compliance with Condition D.1.9, the Permittee shall maintain daily records of visible emission notations of the aggregate dryer and drum mixer stack exhaust (SV1), the indoor material handling operations baghouse stack exhaust (SV2), and the outdoor conveying/handling activities, storage piles, unpaved roads, and paved roads.
- (d) To document compliance with Condition D.1.10, the Permittee shall maintain daily records of the pressure drop during normal operation when venting to the atmosphere.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

D.1.14 General Provisions Relating to NSPS [326 IAC 12] [40 CFR 60, Subpart A]

Pursuant to 40 CFR 60, Subpart OOO, the Permittee shall comply with the provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12, for the crusher in accordance with the schedule in 40 CFR 60, Subpart A.

D.1.15 NSPS, Requirements [40 CFR Part 60, Subpart OOO] [326 IAC 12]

Pursuant to CFR Part 60, Subpart OOO, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart OOO, which are incorporated by reference as 326 IAC 12 for the crusher as specified as follows:

§ 60.670 Applicability and designation of affected facility.

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

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.

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

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

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

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

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

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

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

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

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

Subpart A reference	Applies to Subpart OOO	Comment
60.1, Applicability.....	Yes.....	
60.2, Definitions.....	Yes.....	
60.3, Units and abbreviations.....	Yes.....	
60.4, Address:		
(a).....	Yes.....	
(b).....	Yes.....	
60.5, Determination of construction or modification.	Yes.....	
60.6, Review of plans.....	Yes.....	
60.7, Notification and recordkeeping..	Yes.....	Except in (a)(2) report of anticipated date of initial startup is not required (§ 60.676(h)).
60.8, Performance tests.....	Yes.....	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§ 60.675(g)).
60.9, Availability of information.....	Yes.....	
60.10, State authority.....	Yes.....	
60.11, Compliance with standards and maintenance requirements.	Yes.....	Except in (b) under certain conditions (§§ 60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§ 60.675(h)).
60.12, Circumvention.....	Yes.....	
60.13, Monitoring requirements.....	Yes.....	
60.14, Modification.....	Yes.....	
60.15, Reconstruction.....	Yes.....	
60.16, Priority list.....	Yes.....	
60.17, Incorporations by reference....	Yes.....	
60.18, General control device.....	No.....	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements.	Yes.....	

§ 60.671 Definitions.

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

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

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

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

Building means any frame structure with a roof.

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

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

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

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

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

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

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

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

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

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

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

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

(b) Sand and Gravel.

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

(d) Rock Salt.

(e) Gypsum.

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

- (g) Pumice.
- (h) Gilsonite.
- (i) Talc and Pyrophyllite.
- (j) Boron, including Borax, Kernite, and Colemanite.
- (k) Barite.
- (l) Fluorospar.
- (m) Feldspar.
- (n) Diatomite.
- (o) Perlite.
- (p) Vermiculite.
- (q) Mica.
- (r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

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

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

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

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

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

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

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

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

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

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

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

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

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

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

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

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

(f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

§ 60.673 Reconstruction.

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

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

§ 60.675 Test methods and procedures.

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

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

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

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

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

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

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

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

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

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

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

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

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

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

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

§ 60.676 Reporting and recordkeeping.

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

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

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

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

(2) For a screening operation:

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

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

(3) For a conveyor belt:

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

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

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

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

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).

(h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

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

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Calcium Products Division of Irving Materials Inc.
Source Address: 6455 West County Road 600 South, Swayzee, IN 46986
Mailing Address: 8032 N. State Road 9, Greenfield, IN 46140
FESOP No.: F053-23569-00038

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Calcium Products Division of Irving Materials Inc.
Source Address: 6455 West County Road 600 South, Swayzee, IN 46986
Mailing Address: 8032 N. State Road 9, Greenfield, IN 46140
FESOP No.: F053-23569-00038

This form consists of 2 pages

Page 1 of 2

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

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

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

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

Page 2 of 2

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

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

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Calcium Products Division of Irving Materials Inc.
 Source Address: 6455 West County Road 600 South, Swayzee, IN 46986
 Mailing Address: 8032 N. State Road 9, Greenfield, IN 46140
 FESOP No.: F053-23569-00038
 Facility: 50.0 MMBtu per hour burner for the aggregate dryer
 Parameter: No. 2 distillate fuel oil usage to limit SO₂ emissions
 Limit: The usage of No. 2 distillate fuel oil with a maximum sulfur content of 0.5% and No. 2 distillate fuel oil equivalents in the 50.0 MMBtu per hour burner for the aggregate dryer shall be limited to 2,874,820 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, every million cubic feet (MMCF) of natural gas burned shall be equivalent to 9.0 gallons of No. 2 distillate fuel oil based on SO₂ emissions. This limit is equivalent to SO₂ emissions of less than 100 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 2 fuel oil and equivalent usage This Month (gallons)	No. 2 fuel oil and equivalent usage Previous 11 Months (gallons)	12 Month Total No. 2 fuel oil and equivalent usage (gallons)
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Calcium Products Division of Irving Materials Inc.
Source Address: 6455 West County Road 600 South, Swayzee, IN 46986
Mailing Address: 8032 N. State Road 9, Greenfield, IN 46140
FESOP No.: F053-23569-00038

Months: _____ to _____ Year: _____

Page 1 of 2

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Calcium Products Division of Irving Materials Inc.
6455 West County Road 600 South
Swayzee, Indiana 46986

Affidavit of Construction

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

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)
4. I hereby certify that Calcium Products Division of Irving Materials Inc., 6455 West County Road 600 South, Indiana, 46986, completed construction of the No. 2 distillate oil backup fuel to the 50 MMBtu/hr burner on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on August 8, 2006 and as permitted pursuant to FESOP Permit No. 053-23569-00038, **Plant ID No. 053-00038** issued on _____.

Further Affiant said not.

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

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana

on this _____ day of _____, 20 _____.

My Commission expires:

Signature

Name (typed or printed)

ATTACHMENT A

FUGITIVE DUST CONTROL PLAN

A) Activities that have a potential to emit fugitive emissions include:

1. quarry trucks that stockpile the raw material,
2. the stockpile,
3. a front end loader that charges the main feed conveyor,
4. the conveyor,
5. loading operations where product is transferred to customer trucks, and
6. semi-trailer trucks that haul the finished products to the customers.

B) Control activities to mitigate potential fugitive emissions:

1. Water will be applied to all driving surfaces both paved and unpaved on an as needed basis to maintain dust control. The on-site water truck operated by the quarry will apply water as needed.
2. Stockpiled raw material will have a top size of 1½" with the <200 mesh size material removed.
3. Water will be applied as needed to the plant charging area to minimize fugitive dust.
4. The charging end of the conveyor is covered and the discharge end of the conveyor is located inside the building. Visible emissions testing, completed for the conveying operations in September 2002 using Method 9, indicate no visible emissions for conveying.
5. Dust collection is used at all truck loading operations to minimize fugitive emissions.
6. Parking lots and drives traveled by over-the-road trucks are paved. Water will be applied as needed.



CALCIUM PRODUCTS - SITE MAP

150'

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

Technical Support Document (TSD) for a New Source Review and Federally Enforceable
State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	Calcium Products Division of Irving Materials Inc.
Source Location:	6455 West County Road 600 South, Swayzee, IN 46986
County:	Grant
SIC Code:	1422
Operation Permit No.:	F053-15149-00038
Operation Permit Issuance Date:	June 21, 2002
Permit Renewal No.:	F053-23569-00038
Permit Reviewer:	Julia Handley/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Calcium Products Division of Irving Materials Inc. relating to the operation of a stationary aggregate pulverizing plant and the addition of No. 2 distillate oil as a backup fuel to the 50 MMBtu aggregate dryer burner.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) one (1) aggregate drum dryer, constructed in 1994, with a maximum aggregate throughput of 100 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 50 million (MM) Btu per hour, using No. 2 distillate oil as backup fuel; with a baghouse for controlling particulate matter emissions from the drum dryer, exhausting at stack (ID No. SV1);

Note: The source has requested to add No. 2 distillate oil as back up fuel to the already permitted natural gas fired 50 MMBtu per hour dryer burner as part of this FESOP Renewal No. 053-23569-00038.

- (b) all indoor activities in Building #4, constructed in 1989 unless otherwise noted, with a baghouse for controlling particulate matter emissions from the indoor activities, exhausting at one (1) stack (ID No. SV2) including:
- (1) one (1) 6' x 16' 3-deck screen;
 - (2) four (4) 4' x 6' 5-deck screens;
 - (3) three (3) 6' x 12', 1 deck screens;
 - (4) two (2) 6' x 6' 1 deck screens;
 - (5) one (1) 36" Gyradisc crusher;
 - (6) one (1) 24" x 30" roll crusher;
 - (7) one (1) bagging machine, constructed in 1994, with a baghouse for controlling particulate matter emissions;

- (8) ten (10) enclosed bucket elevators;
- (9) four (4) indoor conveyors; and
- (10) five (5) transfer conveyors.

Under 40 CFR 60, Subpart OOO, this aggregate pulverizing plant is considered an affected source.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) one (1) feed hopper located outdoor;
- (b) one (1) outdoor feed conveyor;
- (c) two (2) enclosed surge bins, each with a maximum capacity of 400 tons, constructed in 1994;
- (d) nine (9) enclosed storage bins each with a maximum capacity of 180 tons;
- (e) four (4) enclosed storage bins each with a maximum capacity of 400 tons;
- (f) aggregate storage piles;
- (g) one (1) enclosed storage bin inside with a maximum capacity of 800 tons; and
- (h) unpaved and paved roads with public access.

Existing Approvals

The source has been operating under the previous FESOP F053-15149-00038 issued on June 21, 2002. There have been no additional approvals issued to the source since the original FESOP was issued.

All conditions from previous approvals were incorporated into this FESOP.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

An administratively complete FESOP renewal application for the purposes of this review was received on August 8, 2006. Additional information was received on October 16, 2006.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 9)

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	Greater than 250
PM-10	Greater than 250
SO ₂	Less than 250, Greater than 100
VOC	Less than 100
CO	Less than 100
NO _x	Less than 100

HAPs	Unrestricted Potential Emissions (tons/yr)
Single HAP	Less than 10
Total HAPs	Less than 25

- (a) The unrestricted potential emissions of PM-10 and SO₂ are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.

Potential to Emit After Issuance

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Aggregate drying	20.46 ⁽¹⁾	76.95 ⁽²⁾	99.90	1.20	18.40	21.90	Negl.
Indoor (nonfugitive) activities	7.15 ⁽¹⁾	7.5 ⁽¹⁾	-	-	-	-	-
Outdoor conveying/handling (fugitive) activities	0.68	0.53	-	-	-	-	-
Storage piles	4.15	3.93	-	-	-	-	-
Unpaved Roads	22.44	6.62	-	-	-	-	-
Paved Roads	20.96	4.37	-	-	-	-	-
Total Fugitive Emissions	48.23	15.45	-	-	-	-	-
Total Nonfugitive Emissions	27.61	84.45	99.90	1.20	18.40	21.90	Single HAP <10; Total HAPs <25

⁽¹⁾ Based on NSPS Subpart OOO limits.
⁽²⁾ Based on 326 IAC 2-8 (FESOP) limits.

County Attainment Status

The source is located in Grant County.

Pollutant	Status
PM2.5	attainment
PM-10	attainment
SO ₂	attainment
NO ₂	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 emissions are considered when evaluating the rule applicability relating to ozone. Grant County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, redesignating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.
- (c) Grant County has been classified as 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 a surrogate for PM2.5 emissions.
- (d) Grant County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

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

Pollutant	Emissions (tons/yr)
PM	less than 250
PM-10	less than 100
SO ₂	less than 100
VOC	less than 100
CO	less than 100
NO _x	less than 100
Single HAP	less than 10
Combination HAPs	less than 25

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (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 particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) The requirements of the New Source Performance Standards, 40 CFR 60.670 through 60.676, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, are included in the permit for the drum dryer, all indoor activities including crushing, conveying and screening operations, and outdoor conveying, storage and truck loading operations. These units were constructed after the August 31, 1983 rule applicability date and they are part of a fixed nonmetallic mineral processing plant. This rule requires:

Nonapplicable portions of the NSPS will not be included in the permit. The drum dryer, all indoor activities including crushing, conveying and screening operations, and outdoor conveying, and truck loading operations are subject to the following portions of Subpart OOO.

- (1) 40 CFR 60.670(a).
- (2) 40 CFR 60.670(c).
- (3) 40 CFR 60.670(d).
- (4) 40 CFR 60.670(e).
- (5) 40 CFR 60.670(f).
- (6) 40 CFR 60.671.
- (7) 40 CFR 60.672(a).
- (8) 40 CFR 60.672(b).
- (9) 40 CFR 60.672(d).
- (10) 40 CFR 60.672(e).
- (11) 40 CFR 60.672(f).
- (12) 40 CFR 60.672(g).
- (13) 40 CFR 60.672(h).
- (14) 40 CFR 60.673.
- (15) 40 CFR 60.675(a).
- (16) 40 CFR 60.675(b).
- (17) 40 CFR 60.675(c)(1).
- (18) 40 CFR 60.675(c)(2).
- (19) 40 CFR 60.675(d).
- (20) 40 CFR 60.675(e).
- (21) 40 CFR 60.675(f).
- (22) 40 CFR 60.675(g).
- (23) 40 CFR 60.675(h).
- (24) 40 CFR 60.676(a)
- (25) 40 CFR 60.676(f)
- (26) 40 CFR 60.676(g)
- (27) 40 CFR 60.676(h)
- (28) 40 CFR 60.676(i)(1)
- (29) 40 CFR 60.676(j)

The provisions of 40 CFR 60 Subpart A – General Provisions, apply to the facilities described in this section except when otherwise specified in 40 CFR 60 Subpart OOO.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 61) included in this permit.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake or Porter counties, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. This source is located in Grant County which is not one of the specifically listed counties, nor does this FESOP source have the potential to emit CO, VOC, NO_x, PM10 (including fugitive emissions), or SO₂ in amounts at or exceeding one-hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any source that constructs or reconstructs a major source of HAPs, which has the potential to emit (PTE) 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs, must control emissions from that source using technologies consistent with the Maximum Achievable Control Technology (MACT). This source has potential single HAP and total HAP emissions of less than 10 and 25 tons per year, respectively; therefore, this rule does not apply.

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

This source was originally constructed in 1989, which is after the rule applicability date of 326 IAC 2-2 (PSD), it is not one of the twenty-eight source categories, and the applicable NSPS (40 CFR 60, Subpart OOO) was not in effect on August 7, 1980. Therefore, the fugitive emissions of PM from the outdoor conveying/handling activities, storage piles, unpaved roads, and paved roads are not counted toward PSD applicability. Pursuant to 326 IAC 2-2 (PSD), this source was a minor stationary source when constructed because the emissions of all regulated pollutants were limited to less than 100 tons per year after application of all federally enforceable emission limits and nonfugitive PM emissions were limited to less than 250 tons per year. The nonfugitive PM emitting facilities at this source are the aggregate dryer and the indoor material handling operations. These nonfugitive operations are subject to NSPS, Subpart OOO. Compliance with the NSPS, Subpart OOO limitations will limit PM emissions from these nonfugitive operations to less than 250 tons per year. The nonfugitive PM emissions from the aggregate dryer/burner shall be less than 4.67 pounds per hour. This is equivalent to nonfugitive PM emissions from the aggregate dryer of 20.46 tons per year. The nonfugitive PM emissions from the indoor material handling activities shall be less than 1.63 pounds per hour. This is equivalent to nonfugitive PM emissions from the indoor material handling activities of 7.15 tons per year. The nonfugitive PM emissions are limited to less than 250 tons per year. Therefore, the source-wide nonfugitive PM emissions are restricted to less than the PSD major source threshold of 250 tons per year such that 326 IAC 2-2 (PSD) does not apply. The source-wide emissions of SO₂ are limited to less than 100 tons per year in accordance with 326 IAC 2-8-4 (FESOP), which renders 326 IAC 2-2 (PSD) not applicable.

326 IAC 2-8-4 (FESOP)

Pursuant to 326 IAC 2-8-4, the following limits shall apply:

- (a) The potential to emit NO_x from the combustion of natural gas and No. 2 distillate fuel oil in the 50.0 MMBtu per hour burner for the aggregate dryer based upon 8,760 hours per year of operation is less than 100 tons per year (31.51 tons per year, Appendix A, page 1 of 9). Therefore, limiting fuel input to the aggregate burner based upon NO_x emissions is not necessary.

- (b) The input of No. 2 distillate fuel oil with a maximum sulfur content of 0.5% to the 50.0 MMBtu per hour burner for the aggregate dryer shall be limited to 2,874,820 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the SO₂ emissions are limited to less than 100 tons per year.

For purposes of determining compliance based on SO₂ emissions (See calculations within Appendix A page 1 of 9), the following shall apply:

- (1) every million cubic feet (MMCF) of natural gas burned shall be equivalent to 9.0 gallons of No. 2 distillate fuel oil based on SO₂ emissions, such that the total input of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalent input does not exceed the limit specified;

This limit will render the requirements of 326 IAC 2-7 (Part 70) are not applicable.

- (c) PM-10 emissions from the aggregate dryer/burner shall be limited to less than 17.57 pounds per hour. The source will be able to comply with the PM-10 emission limit by utilizing a baghouse to control PM-10 emissions from the aggregate dryer to less than 17.57 pounds per hour. Operation of the baghouse is required at all times for the source to be able to comply with this limit. Compliance with this limit shall limit the source's potential to emit of PM-10 to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70) are not applicable.
- (d) PM-10 emissions from the indoor material handling activities shall be limited to less than 1.71 pounds per hour. The source will be able to comply with the PM-10 emission limit by utilizing a baghouse to control PM-10 emissions from the indoor material handling activities to less than 1.71 pounds per hour. Operation of the baghouse is required at all times for the source to be able to comply with this limit. Compliance with this limit shall limit the source's potential to emit of PM-10 to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70) are not applicable.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source 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 6-5 (Fugitive Particulate Matter Emissions Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on August 30, 1996. The plan consists of:

- (a) Water will be applied to all driving surfaces both paved and unpaved on an as needed basis to maintain dust control. The on-site water truck operated by the quarry will apply water as needed.
- (b) Stockpiled raw material will have a top size of 1½" with the <200 mesh size material removed.
- (c) Water will be applied as needed to the plant charging area to minimize fugitive dust.
- (d) The charging end of the conveyor is covered and the discharge end of the conveyor is located inside the building. Visible emissions testing, completed for the conveying operations in September 2002 using Method 9, indicate no visible emissions for conveying.
- (e) Dust collection is used at all truck loading operations to minimize fugitive emissions.

- (f) Parking lots and drives traveled by over-the-road trucks are paved. Water will be applied as needed.

326 IAC 5-1 (Opacity Limitations)

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 the 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.

State Rule Applicability – Individual Facilities

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

The aggregate drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is not consistent with applicable limitations in 326 IAC 12, 40 CFR 60, Subpart OOO. Since the applicable PM limits established by 326 IAC 12, 40 CFR 60, Subpart OOO, are less than the PM limits that would be established by 326 IAC 6-3-2, the more stringent limits apply and the limits pursuant to 326 IAC 6-3-2 do not apply (see TSD Appendix A page 9 of 9, for details).

326 IAC 6.5-1-2 (Particulate Emissions Limitations)

The requirements of this rule apply to stationary sources located in the counties listed in 326 IAC 6.5-1-1. This source is located in Grant County which is not one of the specifically listed counties in 326 IAC 6.5-1-1(a). Therefore, this rule is not applicable to this source.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

This source is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Quality upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

326 IAC 7 (Sulfur Dioxide Rules)

The 50.0 million British thermal units per hour burner for the aggregate drum mix dryer is subject to 326 IAC 7-1.1 because it has potential SO₂ emissions of greater than 25 tons per year (limited potential emissions are 99.90 tons per year). Pursuant to this rule, sulfur dioxide emissions from the dryer burner shall be limited to 0.5 pounds per MMBtu when using No. 2 distillate oil. This is equivalent to a maximum allowable No. 2 distillate oil sulfur contents of 0.5% (see Appendix A: Emission Calculations, page 9 of 9). The No. 2 distillate fuel used in the aggregate dryer will be able to comply with the aforementioned sulfur content limits, therefore the aggregate dryer can comply with this rule.

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

The source is not located in Clark or Floyd Counties, therefore, the requirements of 326 IAC 10-1 are not applicable.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category)

This source does not operate a Portland cement kiln or a blast furnace gas boiler with a heat input greater than two hundred fifty million (250,000,000) British thermal units per hour. The one 50 million Btu burner is not subject to this rule, therefore the requirements of 326 IAC 10-3 are not applicable.

Compliance Requirements

Permits issued under 326 IAC 2-8 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 2-8-4. 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 in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

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

The aggregate dryer and burner, indoor material handline operations, outdoor conveying/handling activities, storage piles, unpaved roads, and paved roads have applicable compliance monitoring conditions as specified below:

- (a) Daily visible emission notations of the aggregate dryer and burner baghouse stack exhaust (SV1), the indoor material handling operations baghouse stack exhaust (SV2), and the outdoor conveying/handling activities, storage piles, unpaved roads, and paved roads shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

- (f) The Permittee shall record the pressure drop across each of the baghouses used in conjunction with the aggregate dryer/burner and the indoor material handling activities, once per day when each process is in operation and venting to the atmosphere. When for any one reading, the pressure drop across either baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

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

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

These monitoring conditions are necessary because the baghouse for the aggregate dryer and burner and the baghouse for the indoor material handling activities must both operate properly to ensure compliance 326 IAC 2-8 (FESOP), 326 IAC 12, 40 CFR 60.670, Subpart OOO, and to ensure compliance with the PM and PM10 emission limits so that the requirements of 326 IAC 2-2 (PSD) do not apply.

Conclusion

The operation of this aggregate pulverizing plant shall be subject to the conditions of the FESOP F053-23569-00038.

Company Name: Calcium Products Div. of Irving Materials Inc.
 Plant Location: 6455 West County Road 600 S, Swayzee, IN 46986
 County: Grant
 Permit Reviewer: Julia Handley/EVP

**** limestone dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

Criteria Pollutant:	$\frac{50 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf} \times 2,000 \text{ lb/ton}}$	* Ef (lb/MMcf) = (ton/yr)
P M:	1.9 lb/MMcf =	0.42 ton/yr
P M-10:	7.6 lb/MMcf =	1.66 ton/yr
S O 2:	0.6 lb/MMcf =	0.13 ton/yr
N O x:	100.0 lb/MMcf =	21.90 ton/yr
V O C:	5.5 lb/MMcf =	1.20 ton/yr
C O:	84.0 lb/MMcf =	18.40 ton/yr

The following calculations determine the amount of emissions created by the combustion of # 2 distillate fuel oil @ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant:	$\frac{50 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{139,000 \text{ Btu/gal} \times 2,000 \text{ lb/ton}}$	* Ef (lb/1,000 gal) = (ton/yr)
P M:	2.0 lb/1000 gal =	3.15 ton/yr
P M-10:	3.3 lb/1000 gal =	5.20 ton/yr
S O 2:	69.5 lb/1000 gal =	109.50 ton/yr
N O x:	20.0 lb/1000 gal =	31.51 ton/yr
V O C:	0.34 lb/1000 gal =	0.54 ton/yr
C O:	5.0 lb/1000 gal =	7.88 ton/yr

The maximum potential emissions from the aggregate dryer burner due to fuel combustion are the following:

Criteria Pollutant:		Worst Case Fuel
P M:	3.15 ton/yr	No. 2 Fuel oil
P M-10:	5.20 ton/yr	No. 2 Fuel oil
S O 2:	109.50 ton/yr	No. 2 Fuel oil
N O x:	31.51 ton/yr	No. 2 Fuel oil
V O C:	1.20 ton/yr	Natural Gas
C O:	18.40 ton/yr	Natural Gas

**** limestone dryer ****

The following calculations determine the amount of worst case emissions created by the limestone dryer before controls, based on 8,760 hours of use of FIRE, SCC code 3-05-020-12 emission factor for stone drying.

Pollutant:	Ef	lb/ton x	100	ton/hr x	8,760 hr/yr
			2000	lb/ton	
PM:		5 lb/ton =		2190.00	ton/yr
PM-10:		5 lb/ton =		2190.00	ton/yr

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 11.19.2, Tables 11.19.2-2 for emission factors from outside, uncontrolled activities and AP-42, Section 11.17, Table 11.17-4 for controlled, indoor limestone processing & handling activities. Emission factors for bagging process from AP-42, Section 11.26, Table 11.26.1.

Emissions Per Operation:

$$\text{Pollutant: } \frac{100 \text{ ton/hr} * 8,760 \text{ hrs/yr} * \text{Ef (lb/ton of material)} * \text{Number of Similar Operations}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Operation					
Truck Loading (Outside):					
	PM:	1 operation(s) x	0.0001	lb/ton of material =	0.04 ton/yr
	PM-10	1 operation(s) x	0.0001	lb/ton of material =	0.04 ton/yr
Conveyor Transfers (Outside):					
	PM:	1 operation(s) x	0.0030	lb/ton of material =	1.31 ton/yr
	PM-10	1 operation(s) x	0.0011	lb/ton of material =	0.48 ton/yr
Conveyor Transfers with fabric filter (Indoor):					
	PM:	9 operation(s) x	0.000088	lb/ton of material =	0.35 ton/yr
	PM-10	9 operation(s) x	0.000088	lb/ton of material =	0.35 ton/yr
Enclosed Bucket Elevators with fabric filter (Indoor):					
	PM:	10 operation(s) x	0.000088	lb/ton of material =	0.39 ton/yr
	PM-10	10 operation(s) x	0.000088	lb/ton of material =	0.39 ton/yr
Crushing with fabric filter (Indoor):					
	PM:	2 operation(s) x	0.0006	lb/ton of material =	0.53 ton/yr
	PM-10	2 operation(s) x	0.0006	lb/ton of material =	0.53 ton/yr
Primary screening with fabric filter (Indoor):					
	PM:	5 operation(s) x	0.0006	lb/ton of material =	1.34 ton/yr
	PM-10	5 operation(s) x	0.0006	lb/ton of material =	1.34 ton/yr
Secondary & tertiary screening with fabric filter (Indoor):					
	PM:	5 operation(s) x	0.00013	lb/ton of material =	0.28 ton/yr
	PM-10	5 operation(s) x	0.00013	lb/ton of material =	0.28 ton/yr
Bagging machine equipped with fabric filter (Indoor):					
	PM:	5 operation(s) x	0.01800	lb/ton of material =	0.04 ton/yr
	PM-10	5 operation(s) x	0.01800	lb/ton of material =	0.04 ton/yr

**** Stockpile Storage ****

The following calculations determine the amount of emissions created by drop operations associated with stockpile storage, based on 8,760 hours of use and AP-42, Section 13.2.4, Tables 13.2.4-1 for stone processing operations, mean wind speed of 8 mph based on information from Indiana State Climate Office & National Climatic Data Center

$$\text{PM: } \frac{0.02 \text{ lb/ton} * 100 \text{ ton/hr} * 8760 \text{ hr/yr}}{2000 \text{ lb/ton}} = 8.31 \text{ tons/yr}$$

$$\text{PM: } \frac{0.01 \text{ lb/ton} * 100 \text{ ton/hr} * 8760 \text{ hr/yr}}{2000 \text{ lb/ton}} = 3.93 \text{ tons/yr}$$

$$\text{Ef} = k * (0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4})$$

$$= 0.0190 \text{ lb PM/ton}$$

$$= 0.0090 \text{ lb PM-10/ton}$$

where, k= 0.74 (particle size multiplier for PM)
 k= 0.35 (particle size multiplier for PM-10)
 U= 8 mean wind speed in mph
 M= 0.7 material moisture content (%)

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved industrial roads, based on 8,760 hours of use and AP-42, Section 13.2.2.2, 13.2.2-2, 13.2.2-1 for stone processing (1/2006)

I. Quarry Truck

$$11430 \text{ trip/yr} \times 0.75 \text{ mile/trip} \times 8,760 \text{ hr/yr} = 8,573 \text{ mile/yr}$$

$$E_f = k \cdot (s/12)^a \cdot (W/3)^b \cdot [(365-P)/365]$$

= 2.97 lb PM-10/mile
 = 10.06 lb PM/mile

where, k = 1.5 (particle size multiplier for PM-10)
 k = 4.9 (particle size multiplier for PM)
 s = 10 mean % silt content of unpaved roads
 a = 0.9 Constant for PM-10
 a = 0.7 Constant for PM
 b = 0.45 Constant for PM and PM-10
 W = 50 tons average vehicle weight
 P = 125 number of days with atleast 0.01 in of precipitation

$$\text{PM-10: } \frac{2.97 \text{ lb/mi} \times 8,573 \text{ mi/yr}}{2000 \text{ lb/ton}} = 12.72 \text{ tons/yr}$$

$$\text{PM: } \frac{10.06 \text{ lb/mi} \times 8,573 \text{ mi/yr}}{2000 \text{ lb/ton}} = 43.11 \text{ tons/yr}$$

II. Front End Loader

$$40000 \text{ trip/yr} \times 0.01 \text{ mile/trip} = 400 \text{ mile/yr}$$

$$E_f = k \cdot (s/12)^a \cdot (W/3)^b \cdot [(365-P)/365]$$

= 2.61 lb PM-10/mile
 = 8.84 lb PM/mile

where k = 1.5 (particle size multiplier for PM-10)
 k = 4.9 (particle size multiplier for PM)
 s = 10 mean % silt content of unpaved roads
 a = 0.9 Constant for PM-10
 a = 0.7 Constant for PM
 b = 0.45 Constant for PM and PM-10
 W = 38 tons average vehicle weight
 P = 125 number of days with atleast 0.01 in of precipitation

$$\text{PM-10: } \frac{2.61 \text{ lb/mi} \times 400 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.52 \text{ tons/yr}$$

$$\text{PM: } \frac{8.84 \text{ lb/mi} \times 400 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.77 \text{ tons/yr}$$

Total PM Emissions From Paved Roads = 44.88 tons/yr
Total PM-10 Emissions From Paved Roads = 13.25 tons/yr

**** paved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on paved roads, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.1 for stone processing

Trucks hauling product to customers

$$16000 \text{ trip/yr} \times 1.00 \text{ miles/roundtrip} = 16,000 \text{ mile/yr}$$

$$E_f = [k \cdot (sL/2)^{0.65} \cdot (W/3)^{1.5} - C] \cdot [1 - P/(4N)]$$

= 1.02 lb PM-10/mile
= 5.23 lb PM/mile

where k = 0.016 (particle size multiplier for PM-10) (k=0.082 for PM-30 or TSP)
sL = 8.2 road surface silt loading (g/m²) for quarry processes
W = 27.5 tons average weight of all vehicles traveling the road
C = 0.00047 emission factor for 1980's vehicle exhaust, brake wear and tire wear for PM and PM10
P = 120 wet days per year
N = 365 days per year

$$\text{PM-10: } \frac{1.02 \text{ lb/mi} \times 16,000 \text{ mi/yr}}{2000 \text{ lb/ton}} = 8.15 \text{ tons/yr}$$

$$\text{PM: } \frac{5.23 \text{ lb/mi} \times 16,000 \text{ mi/yr}}{2000 \text{ lb/ton}} = 41.81 \text{ tons/yr}$$

I. Employee cars

$$11 \text{ trip/day} \times 1.00 \text{ miles/roundtrip} \times 365 \text{ days/yr} = 4,015 \text{ mile/yr}$$

$$E_f = [k \cdot (sL/2)^{0.65} \cdot (W/3)^{1.5} - C] \cdot [1 - P/(4N)]$$

= 0.06 lb PM-10/mile
= 0.29 lb PM/mile

where k = 0.016 (particle size multiplier for PM-10) (k=0.082 for PM-30 or TSP)
sL = 8.2 road surface silt loading (g/m²)
W = 4.0 tons average weight of all vehicles traveling the road
C = 0.00047 emission factor for 1980's vehicle exhaust, brake wear and tire wear for PM and PM10
P = 120 wet days per year
N = 365 days per year

$$\text{PM-10: } \frac{0.06 \text{ lb/mi} \times 4,015 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.11 \text{ tons/yr}$$

$$\text{PM: } \frac{0.29 \text{ lb/mi} \times 4,015 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.58 \text{ tons/yr}$$

Total PM Emissions From Paved Roads = 41.92 tons/yr
Total PM-10 Emissions From Paved Roads = 8.74 tons/yr

** summary of source emissions before controls **		
Criteria Pollutants:	P M:	2,292.54 ton/yr
	P M-10:	2,224.56 ton/yr
	S O 2:	109.50 ton/yr
	N O x:	31.51 ton/yr
	V O C:	1.20 ton/yr
	C O:	18.40 ton/yr

**** source emissions after controls ****

In order to qualify for the FESOP program, this source must limit SO2 emissions to 99.9 tons per year. Consequently, SO2 emissions from the aggregate dryer must be limited as follows:

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a **99.90** % control efficiency.

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer, based on a maximum fuel usage of **438.00** MMcf

Criteria Pollutant:	438.00	MMcf/yr		* Ef (lb/MMcf) = (ton/yr)
		2,000 lb/ton		
P M:	1.9	lb/MMcf =	4.16E-04	ton/yr *
P M-10:	7.6	lb/MMcf =	1.66E-03	ton/yr *
S O 2:	0.6	lb/MMcf =	0.13	ton/yr
N O x:	100.0	lb/MMcf =	21.90	ton/yr
V O C:	5.5	lb/MMcf =	1.20	ton/yr
C O:	84.0	lb/MMcf =	18.40	ton/yr

The following calculations determine the amount of emissions created by the combustion of No. 2 distillate fuel oil @ **0.5** % sulfur, from the aggregate dryer burner, based on a fuel usage limitation of **2,874,820** gal/yr:

Criteria Pollutant:	2,875	Kgal/yr:		* Ef (lb/1,000 gal) = (ton/yr)
		2,000 lb/ton		
P M:	2.0	lb/1000 gal =	2.87E-03	ton/yr 2500957.234
P M-10:	3.3	lb/1000 gal =	4.74E-03	ton/yr
S O 2:	69.5	lb/1000 gal =	99.90	ton/yr
N O x:	20.0	lb/1000 gal =	28.75	ton/yr
V O C:	0.34	lb/1000 gal =	0.49	ton/yr
C O:	5.0	lb/1000 gal =	7.19	ton/yr

Criteria Pollutant:		Worst Case Fuel
P M:	2.87E-03 ton/yr *	No. 2 Fuel oil
P M-10:	4.74E-03 ton/yr *	No. 2 Fuel oil
S O 2:	99.90 ton/yr	No. 2 Fuel oil
N O x:	21.90 ton/yr	Natural Gas
V O C:	1.20 ton/yr	Natural Gas
C O:	18.40 ton/yr	Natural Gas

**** Aggregate Burner Fuel Usage Limitations ****

Fuel: Natural Gas

No fuel usage limit is needed for natural gas in the aggregate burner because the potential to emit of NOx and SO2 is less than the limit necessary to limit source wide emissions to 100tpy, as shown below:

$$\text{SO}_2: \quad 0.13 \text{ tons SO}_2/\text{year potential} < \quad 99.90 \text{ tons SO}_2/\text{year limited}$$

Fuel: #2 distillate oil

$$\begin{aligned} & 99.90 \text{ tons SO}_2/\text{year limited} \quad \times \quad 3,151.08 \frac{\text{Kgals}}{\text{year potential}} \\ & 109.50 \text{ tons SO}_2/\text{year potential} \quad \quad \quad = \quad 2,874.820 \frac{\text{Kgals}}{\text{year limited}} \end{aligned}$$

**** Fuel Equivalence Limitations ****

Fuel: Natural Gas

Fuel equivalence limit for natural gas based on SO2 emissions from #2 distillate fuel oil:

$$\begin{aligned} & \frac{109.50 \text{ #2 F.O. potential emissions (ton/yr)}}{3151.08 \text{ #2 F.O. potential usage (kgal/yr)}} \quad / \quad \frac{0.13 \text{ n.g. potential emissions (ton/yr)}}{438.00 \text{ n.g. potential usage (MMCF/yr)}} \\ & = \quad 115.83 \frac{\text{MMCF n.g. burned}}{\text{Kgal #2 F.O. burned}} \quad \text{or} \quad 0.009 \frac{\text{Kgal #2 F.O. burned}}{\text{MMCF n.g. burned}} \end{aligned}$$

****Source emissions after controls****

dryer burner combustion:		nonfugitive	
P M:	2.9E-03 ton/yr x		2.9E-03 ton/yr
P M-10:	4.7E-03 ton/yr x		4.7E-03 ton/yr
S O 2:	99.90 ton/yr x		99.90 ton/yr
N O x:	21.90 ton/yr x		21.90 ton/yr
V O C:	1.20 ton/yr x		1.20 ton/yr
C O:	18.40 ton/yr x		18.40 ton/yr
Limestone dyer		nonfugitive	
P M:	2,190.00 ton/yr x	0.10% emitted after controls =	2.19 ton/yr
P M-10:	2,190.00 ton/yr x	0.10% emitted after controls =	2.19 ton/yr
outdoor conveying/handling:		fugitive	
P M:	1.36 ton/yr x	50% emitted after controls =	0.68 ton/yr
P M-10:	0.53 ton/yr x	50% emitted after controls =	0.26 ton/yr
indoor materials handling (nonfugitive):		nonfugitive	
P M:	2.93 ton/yr x	100% emitted after controls =	2.93 ton/yr
P M-10:	2.93 ton/yr x	100% emitted after controls =	2.93 ton/yr
Storage piles		fugitive	
P M:	8.31 ton/yr x	50% emitted after controls =	4.15 ton/yr
P M-10:	3.93 ton/yr x	50% emitted after controls =	1.96 ton/yr
unpaved roads		fugitive	
P M:	44.88 ton/yr x	50% emitted after controls =	22.44 ton/yr
P M-10:	13.25 ton/yr x	50% emitted after controls =	6.62 ton/yr
paved roads		fugitive	
P M:	41.92 ton/yr x	50% emitted after controls =	20.96 ton/yr
P M-10:	8.74 ton/yr x	50% emitted after controls =	4.37 ton/yr

** summary of source emissions after limitation and controls **			
Criteria Pollutant:	Non-Fugitive	Fugitive	Total
PM:	5.12 ton/yr	48.23 ton/yr	53.35 ton/yr
PM-10:	5.12 ton/yr	13.22 ton/yr	18.34 ton/yr
S O 2:	99.90 ton/yr	0.00 ton/yr	99.90 ton/yr
N O x:	21.90 ton/yr	0.00 ton/yr	21.90 ton/yr
V O C:	1.20 ton/yr	0.00 ton/yr	1.20 ton/yr
C O:	18.40 ton/yr	0.00 ton/yr	18.40 ton/yr

Hazardous Air Pollutants (HAPs)

**** aggregate dryer burner****

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls @ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-10.

Hazardous Air Pollutants (HAPs):

		50 MMBtu/hr * 8760 hr/yr	* Ef (lb/10¹² Btu) = (ton/yr)
		2,000 lb/ton	
		Potential To Emit	Limited Emissions
Arsenic:	4 lb/10 ¹² Btu =	8.76E-04 ton/yr	8.76E-07 ton/yr
Beryllium:	3 lb/10 ¹² Btu =	6.57E-04 ton/yr	6.57E-07 ton/yr
Cadmium:	3 lb/10 ¹² Btu =	6.57E-04 ton/yr	6.57E-07 ton/yr
Chromium:	3 lb/10 ¹² Btu =	6.57E-04 ton/yr	6.57E-07 ton/yr
Lead:	9 lb/10 ¹² Btu =	1.97E-03 ton/yr	1.97E-06 ton/yr
Manganese:	6 lb/10 ¹² Btu =	1.31E-03 ton/yr	1.31E-06 ton/yr
Mercury:	3 lb/10 ¹² Btu =	6.57E-04 ton/yr	6.57E-07 ton/yr
Nickel:	3 lb/10 ¹² Btu =	6.57E-04 ton/yr	6.57E-07 ton/yr
Selenium:	15 lb/10 ¹² Btu =	3.29E-03 ton/yr	3.28E-06 ton/yr
	Total HAPs =	1.07E-02 ton/yr	1.07E-05 ton/yr

**** summary of source HAP emissions ****

potential to emit		limited emissions	
Hazardous Air Pollutants (HAPs):		Hazardous Air Pollutants (HAPs):	
Arsenic:	0.001 ton/yr	Arsenic:	0.000 ton/yr
Beryllium:	0.001 ton/yr	Beryllium:	0.000 ton/yr
Cadmium:	0.001 ton/yr	Cadmium:	0.000 ton/yr
Chromium:	0.001 ton/yr	Chromium:	0.000 ton/yr
Lead:	0.002 ton/yr	Lead:	0.000 ton/yr
Manganese:	0.001 ton/yr	Manganese:	0.000 ton/yr
Mercury:	0.001 ton/yr	Mercury:	0.000 ton/yr

Nickel:	0.001 ton/yr
Selenium:	0.003 ton/yr
<hr/>	
Total:	0.011 ton/yr

Nickel:	0.000 ton/yr
Selenium:	0.000 ton/yr
<hr/>	
Total:	0.00001 ton/yr

**** miscellaneous ****

326 IAC 7 Compliance Calculations:

The following calculations determine the maximum sulfur content of distillate # 2 fuel oil allowable by 326 IAC 7:

$$\begin{aligned} &0.5 \text{ lb/MMBtu} \times 139,000 \text{ Btu/gal} = 69.5 \text{ lb/1000gal} \\ &69.5 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} = 0.5 \% \end{aligned}$$

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

326 IAC 6-3-2 Compliance Calculations:

The following calculations determine compliance with 326 IAC 6-3-2 for the aggregate drying process with a process weight rates in excess of 30 tons per hour:

$$\text{limit} = 55 * (100 \wedge 0.11) - 40 = 51.28 \text{ lb/hr or } 224.59 \text{ ton/yr}$$

Since the emission limits pursuant to Subpart OOO of 40 CFR 60 are more stringent than this limit, the limit pursuant to 326 IAC 6-3-2 does not apply. The emission limits pursuant to Subpart OOO shall also render the requirements of 326 IAC 2-2 (PSD) not applicable.

PM-10 Emission Limit for Limestone Dryer:

$$\begin{aligned} &(99.90 \text{ tons PM-10/yr} - 22.95 \text{ tons PM-10/yr from other activities}) \\ &= 76.95 \text{ tons PM-10/yr} = 17.57 \text{ lbs/hr} \quad (\text{will be able to comply}) \\ &\text{Controlled PM-10 emissions from the aggregate dryer \& burner are } 0.50 \text{ lbs/hr} < 17.57 \text{ lbs/hr} \\ &\text{Based on a aggregate throughput max of 100 tons/hr, this emission limit is equivalent to } 0.176 \text{ lb PM-10 per ton} \end{aligned}$$

PM-10 Emission Limit for Indoor Conveying Activities:

$$\begin{aligned} &\text{PM-10 emissions from the indoor materials handling activities shall not exceed 5 ton per year.} \quad (\text{will be able to comply}) \\ &7.50 \text{ tons PM-10/yr} = 1.71 \text{ lbs/hr} \\ &\text{Controlled PM-10 emissions from the indoor materials handling are } 0.67 \text{ lbs/hr} < 1.71 \text{ lbs/hr} \\ &\text{Based on a indoor materials handling activities capacity of 100 tons/hr, this emission limit is equivalent to } 0.017 \text{ lb PM-10 per ton} \end{aligned}$$

PM Emission Limit for Limestone Dryer:

$$\begin{aligned} &(249.90 \text{ tons PM/yr} - 7.50 \text{ tons PM/yr from Indoor conveying activities}) \\ &= 242.40 \text{ tons PM/yr} = 55.34 \text{ lbs/hr} \quad (\text{will be able to comply}) \\ &\text{Controlled PM emissions from the aggregate dryer \& burner are } 0.5007 \text{ lbs/hr} < 55.34 \text{ lbs/hr} \\ &\text{Based on a aggregate throughput max of 100 tons/hr, this emission limit is equivalent to } 0.553 \text{ lb PM per ton} \end{aligned}$$

PM Emission Limit for Indoor Conveying Activities:

$$\begin{aligned} &\text{PM emissions from the indoor materials handling activities shall not exceed 5 ton per year.} \quad (\text{will be able to comply}) \\ &7.50 \text{ tons PM/yr} = 1.71 \text{ lbs/hr} \\ &\text{Controlled PM emissions from the indoor materials handling activities are } 0.67 \text{ lbs/hr} < 1.71 \text{ lbs/hr} \\ &\text{Based on a indoor materials handling activities capacity of 100 tons/hr, this emission limit is equivalent to } 0.017 \text{ lb PM per ton} \end{aligned}$$

40 CFR Part 60.670, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) Compliance Calculations:

(will be able to comply)

Indoor Activities and Screening Operations:

The following calculations determine compliance for all Indoor Activities with NSPS, which limits stack emissions from nonmetallic mineral processing plants to 0.05 gr/dscf:

$$\begin{aligned} &\frac{2.93 \text{ ton/yr} *}{525600 \text{ min/yr} *} = \frac{2000 \text{ lb/ton} *}{8,656 \text{ dscf/min}} \cdot 7000 \text{ gr/lb} = 0.00016 \text{ gr/dscf} \\ &\text{Allowable particulate emissions under NSPS equate to } 7.149 \text{ tons per year.} \quad 1.632 \text{ lbs/hr} \end{aligned}$$

Note:

$$\begin{aligned} \text{SCFM} &= 10,000 \text{ acfm} * (460 + 68) / (460 + 150) \\ &= 8,656 \text{ scfm} \end{aligned}$$

Drum Dryer:

(will be able to comply)

The following calculations determine compliance for the Drum Dryer with NSPS, which limits stack emissions from nonmetallic mineral processing plants to 0.05 gr/dscf:

$$\begin{aligned} &\frac{2.2 \text{ ton/yr} *}{525600 \text{ min/yr} *} = \frac{2000 \text{ lb/ton} *}{24,769 \text{ dscf/min}} \cdot 7000 \text{ gr/lb} = 0.01649 \text{ gr/dscf} \\ &\text{Allowable particulate emissions under NSPS equate to } 20.458 \text{ tons per year.} \quad 4.671 \text{ lbs/hr} \end{aligned}$$

Note:

$$\begin{aligned} \text{SCFM} &= 30,000 \text{ acfm} * (460 + 68) / (460 + 179.5) \\ &= 24,769 \text{ scfm} \end{aligned}$$