

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR MANAGEMENT**

**Northern Star Minerals Indiana, Inc.
2910 Grantline Road
New Albany, Indiana 47150**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 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.

Operation Permit No.: F043-5881-00011	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). 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 an agricultural fertilizer manufacturing plant.

Authorized Individual: Mitchell Gibson
Source Address: 2910 Grant Line Road, New Albany, Indiana 47150
Mailing Address: 2910 Grant Line Road, New Albany, Indiana 47150
Phone Number: 812-945-6671
SIC Code: 2874 and 2875
County Location: Floyd County
County Status: Nonattainment for ozone
Attainment for all other criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor PSD Source

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

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

Two fertilizer production lines consisting of the following:

- (1) One granulated fertilizer production line with the following units/facilities:
 - (a) One (1) ammoniator/granulator, identified as EU1, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by a Venturi wet scrubber exhausting to one (1) stack, identified as S/V 02.
 - (b) One (1) rotary dryer, identified as EU2, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by four (4) individual cyclones ducted to a marble bed scrubber exhausting to one (1) stack, identified as S/V 01.
 - (c) One (1) 16 (sixteen) MMBtu per hour natural gas-fired boiler, identified as EU2, which heats air for the rotary dryer.
 - (d) One (1) primary rotary cooler, identified as EU3, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) individual cyclones ducted to a marble bed scrubber exhausting to one stack (1), identified as SV 01.
 - (e) Sizing screens and grinding operation, identified as EU4, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) individual cyclones ducted through EU3 to the control equipment on EU3.

- (f) One (1) bag shipping mill and one (1) bulk loadout, jointly identified as EU6, with maximum joint throughput of 160,000 pounds per hour, and with particulate matter emissions controlled by individual baghouses.
- (2) One dry blend fertilizer production line with the following units/facilities: One (1) mixer/blender, identified as EU5, and one (1) bulk shipping mill, identified as EU7, with a maximum throughput of 20 tons per hour for each unit, and with particulate matter emissions jointly controlled by one (1) baghouse. The control equipment for this line (1 baghouse) is located outside the building and therefore the particulate matter emissions from the baghouse are vented outside.

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

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

- (a) Replacement or repair of electrostatic precipitators, bags in baghouses and filters on other air filtration equipment.
- (b) Paved and unpaved roads and parking lots with public access.
- (c) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.
- (d) Emergency gasoline generators not exceeding 110 horsepower (consists of a 16 horsepower, or 0.0407 MMBtu per hour generator).
- (e) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour (refers to several space heaters);
- (f) Other activities not previously mentioned. This includes storage bins, interior conveyors and elevators, and loadout and unloading.

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 Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

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.

B.2 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, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

- (a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM.

- (b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.

B.5 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.6 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.7 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.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management,
Permits Branch, Office of Air Management,
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that the IDEM, OAM 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.

- (c) Upon request, the Permittee shall also furnish to IDEM, OAM copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM 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.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance or modification; and
 - (3) Denial of a permit renewal application.
- (b) 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.

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 under this permit shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, and any other certification required under this permit, 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, on the attached Certification Form, with each 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. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

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

- (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, OAM on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was based on continuous or intermittent data;
 - (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, IDEM, OAM may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(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 prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, 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;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

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 describes 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, OAM 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 No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 require the certification by the "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) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM 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, OAM by telephone or facsimile of an emergency lasting more than one (1) hour in compliance 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.

B.15 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 Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 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 FESOP 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)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM 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, OAM 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, OAM at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 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, OAM 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).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) 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, OAM on or before the date it is due.

(2) If IDEM, OAM upon receiving a timely and complete 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.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

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, OAM 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, OAM any additional information identified as needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) The Permittee must comply with 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

- (c) The Permittee may implement the 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.19 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional condition:

For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

B.20 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without 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 2-1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

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

- (b) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions 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).
- (d) 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, OAM or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

B.22 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]
 - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
 - (2) The Permittee, and IDEM, OAM acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.23 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does not require the certification by the "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 2-8-11(b)(3)]

B.24 Annual Fee Payment [326 IAC 2-8-4(6)][326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM 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 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 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 any regulated pollutant 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) 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 that the source's potential to emit does not exceed the above specified limits.
- (c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

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

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

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Particulate Matter

Pursuant to 326 IAC 2-8-4 (FESOP), the amount of particulate matter less than ten (10) microns (PM-10) emitted is limited to 99 tons per year. To comply with this limit, the Permittee has accepted conditions that require the use of control equipment at all times when particulate matter emitting facilities (EU1, EU2, EU3, EU4, EU5, EU6, and EU7) are in operation.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) **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. The requirement that the inspector be accredited is federally enforceable.

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

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by the IDEM, OAM.

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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

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

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

C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notify:

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

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

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

C.11 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

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

C.12 Monitoring Methods [326 IAC 3]

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

C.13 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty (20) percent of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

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

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
within ninety (90) days from the date of issuance of this permit.

The ERP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) If the ERP is disapproved by IDEM, OAM the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
 - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
 - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4][326 IAC 2-8-5] [326 IAC 1-6]

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

- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall

notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

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

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

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

C.18 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6. This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

C.19 Monitoring Data Availability

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

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

C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

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

- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (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, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

Stratospheric Ozone Protection

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

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

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

- (1) One granulated fertilizer production line with the following units/facilities:
 - (a) One (1) ammoniator/granulator, identified as EU1, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by a Venturi wet scrubber exhausting to one (1) stack, identified as S/V 02.
 - (b) One (1) rotary dryer, identified as EU2, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by four (4) individual cyclones ducted to a marble bed scrubber exhausting to one (1) stack, identified as S/V 01.
 - (c) One (1) 16 (sixteen) MMBtu per hour natural gas-fired boiler, identified as EU2, which heats air for the rotary dryer.
 - (d) One (1) primary rotary cooler, identified as EU3, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) individual cyclones ducted to a marble bed scrubber exhausting to one stack (1), identified as SV 01.
 - (e) Sizing screens and grinding operation, identified as EU4, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) individual cyclones ducted through EU3 to the control equipment on EU3.
 - (f) One (1) bag shipping mill and one (1) bulk loadout, jointly identified as EU6, with maximum joint throughput of 160,000 pounds per hour, and with particulate matter emissions controlled by individual baghouses.
- (2) One dry blend fertilizer production line with the following units/facilities: One (1) mixer/blender, identified as EU5, and one (1) bulk shipping mill, identified as EU7, with a maximum throughput of 20 tons per hour for each unit, and with particulate matter emissions jointly controlled by one (1) baghouse. The control equipment for this line (1 baghouse) is located outside the building and therefore the particulate matter emissions from the baghouse are vented outside.

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

D.1.1 Particulate Matter less than ten microns (PM-10)

- (a) The combined PM-10 emissions from the granulated fertilizer production line and the dry blend fertilizer production line shall be limited to 19.83 pounds per hour.
- (b) Compliance with these limits and conditions D.1.7 and D.1.8 makes 326 IAC 2-7 (Part 70 Operating Permit Program) not applicable and satisfies 326 IAC 6-3 (Particulate Matter Emissions).

D.1.2 Natural Gas Usage

The heat source for the rotary dryer (EU2), rated at 16 MMBtu per hour, shall only operate with natural gas as fuel.

D.1.3 Fugitive Dust Emissions

Pursuant to Operation Permits #22-05-90-0095, #22-05-90-0096, and #22-05-90-0097, the particulate matter emissions from the granulated fertilizer production line shall comply with the provisions of 326 IAC 6-4 (Fugitive Dust Emissions).

D.1.4 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.

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

D.1.5 Particulate Matter [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

During the period between 540 days and 720 days after issuance of this permit, the Permittee shall perform PM and PM-10 testing on stack/vent S/V 01. This testing shall utilize methods per 40 CFR Part 60, Appendix A, Method 5, 17 for PM and 40 CFR Part 51, Appendix M, Method 201, 201a, 202 for PM-10, as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

This testing shall also be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.1 and ensures compliance with the PM limits established under 326 IAC 6-3 (Particulate Matter Emissions):

- (a) Four (4) cyclones on the rotary dryer (EU2), two (2) cyclones on the primary rotary cooler (EU3), and the two (2) cyclones on the sizing screens and grinding operation (EU4) - pressure drop across each series of cyclones.
- (b) Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.

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

D.1.6 Visible Emissions Notations

- (a) Daily visible emission notations of the S/V 01 and S/V 02 stack exhausts 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.7 Pressure Drop Readings

The Permittee shall take readings of the total static pressure drop across the cyclones and baghouses controlling the rotary dryer (EU2); the primary rotary cooler (EU3); the sizing screens and grinding operations (EU4); the mixer/blender (EU5); the bag shipping mill (EU6); the bulk loadout (EU6); and the bulk shipping mill (EU7) at least once per working shift when the unit they are controlling is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across these control devices shall be maintained within the following ranges or within ranges established during the initial stack tests:

- (a) The series of cyclones controlling the rotary dryer (EU2) - 4 and 7 inches of water across the series.

- (b) The series of cyclones controlling the primary rotary cooler (EU3) - 3 and 6 inches of water across the series.
- (c) The series of cyclones controlling the sizing screens and grinding operation (EU4) - between 5 and 8 inches of water across the series.
- (d) The baghouses controlling bag shipping mill (EU6); the bulk loadout (EU6); the mixer/blender (EU5); and the bulk shipping mill (EU7) - 5 and 8 inches of water.

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

D.1.8 Pressure and Water Flow Rate Readings

The Permittee shall take pressure drop and scrubbing liquid (water) flow rate readings from the Venturi scrubber controlling the ammoniator/granulator (EU1) and the marble bed scrubber controlling the rotary dryer (EU2), the primary rotary cooler (EU3), and the sizing screens and grinding operation (EU4) at least once per working shift when the process they are controlling is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop ranges and scrubbant flow rates for these controls shall be maintained within the following ranges or at a range established during the latest stack test:

- (a) The pressure drop across the Venturi scrubber shall be maintained within the range of 2-14 inches of water and the pressure drop across the marble bed scrubber shall be maintained within 2 - 5 inches of water.
- (b) The Venturi scrubber shall be operated at a scrubbant flow of 90 gallons per minute and the marble bed scrubber shall be operated at a scrubbant flow rate of 500 gallons per minute.

Additionally, the flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber and the marble bed scrubber) shall not be hindered.

The Preventive Maintenance Plan for these units shall contain troubleshooting contingencies and corrective actions for when the pressure readings and/or the scrubbant flow rates are outside the above ranges for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, be subject to approval by IDEM, OAM, and be calibrated at least once every six (6) operating months.

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

D.1.9 Record Keeping Requirements

The operating parameter levels or ranges for each control unit in Conditions D.1.7 and D.1.8 shall be recorded daily and maintained for a period of at least five (5) years from the date of monitoring.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 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.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Northern Star Minerals Indiana, Inc.
Source Address: 2910 Grantline Road, New Albany, Indiana 47150
Mailing Address: 2910 Grantline Road, New Albany, Indiana 47150
FESOP No.: F043-5881-00011

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:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 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 MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

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

Source Name: Northern Star Minerals Indiana, Inc.
Source Address: 2910 Grantline Road, New Albany, Indiana 47150
Mailing Address: 2910 Grantline Road, New Albany, Indiana 47150
Part 70 Permit No.: F043-5881-00011

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2
9 1. This is an emergency as defined in 326 IAC 2-7-1(12) CThe Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
9 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c) CThe Permittee must submit notice in writing within ten (10) calendar days

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

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

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

Page 2 of 2

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR MANAGEMENT
 COMPLIANCE DATA SECTION
 FESOP Monthly Report**

Source Name: Northern Star Minerals Indiana, Inc.
 Source Address: 2910 Grantline Road, New Albany, Indiana 47150
 Mailing Address: 2910 Grantline Road, New Albany, Indiana 47150
 FESOP No.: F043-5881-00011
 Facility: 4 cyclones on EU2, 2 cyclones on EU3, and the baghouse on EU5
 Parameter: Pressure drop
 Limit: 4 cyclones on EU2: 4-7 inches of water, 2 cyclones on EU3: 3-6 inches of water, and baghouse on EU5: 5-8 inches of water

Month: _____ Year: _____

Day	Pressure drop (in of water)	Day	Pressure drop (in of water)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		no. of deviations	

Note: This form must be filled out for each control device.

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: _____

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION FESOP Monthly Report

Source Name: Northern Star Minerals Indiana, Inc.
 Source Address: 2910 Grantline Road, New Albany, Indiana 47150
 Mailing Address: 2910 Grantline Road, New Albany, Indiana 47150
 FESOP No.: F043-5881-00011
 Facility: Venturi scrubber on EU1 and marble bed scrubber on EU2 and EU3
 Parameter: Pressure drop and scrubbant flow rate
 Limit: Venturi scrubber on EU1: 2-14 inches of water and 90 gallons per minute.
 Marble bed scrubber on EU2 and EU3: 2-5 inches of water and 500 gallons per minute.

Month: _____ Year: _____

Day	Scrubbant Flow Rate (gal/min)	Pressure drop (in of water)	Day	Scrubbant Flow Rate (gal/min)	Pressure drop (in of water)
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16			no. of deviations		

Note: This form must be filled out for each control device.

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: _____

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

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

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

Source Name: Northern Indiana Minerals Indiana, Inc.
 Source Address: 2910 Grantline Road, New Albany, Indiana 47150
 Mailing Address: 2910 Grantline Road, New Albany, Indiana 47150
 FESOP No.: F043-5881-00011

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

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (eg. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

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

Attach a signed certification to complete this report.

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

Technical Support Document (TSD) for a
Federally Enforceable State Operating Permit (FESOP)

Source Background And Description

Source Name: Northern Star Minerals Indiana, Inc.
Source Location: 2910 Grant Line Road, New Albany, Indiana 47150
County: Floyd County
Operation Permit No.: F043-5881-00011
Permit Reviewer: Kyle R. Dreyfuss-Wells

The Office of Air Management (OAM) has reviewed a Federally Enforceable State Operating Permit (FESOP) application from Northern Star Minerals Indiana, Inc. relating to the operation of a granulated fertilizer production plant.

The source consists of the following approvals (permits, registrations, exemptions, etc.) with the following emission units and pollution control devices:

(1) Operation Permit #22-05-90-0095

- (a) ammoniator/granulator (identified as EU1), with maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by a Venturi wet scrubber.
- (b) bulk loading and bagging operations (jointly identified as EU6), with maximum throughput on the bagging operation of 20,400 pounds per hour and maximum throughput on the bulk loading operation of 59,600 pounds per hour, and with particulate matter emissions controlled by individual baghouses.

(2) Operation Permit #22-05-90-0096

- (a) rotary dryer (identified as EU2), with maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by four (4) cyclones ducted to a marble bed scrubber shared with the cooler emissions.
- (b) primary rotary cooler (identified as EU3), with maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) cyclones ducted to a marble bed scrubber shared with the dryer emissions.
- (d) 1 MMBtu natural gas-fired boiler (identified as EU2). Note: Per conversation with Bob Benge, plant manager at Northern Star Minerals Indiana, Inc. on October 1, 1996, no such boiler exists at the plant. The only natural gas-fired boiler they have is 16 MMBtu per hour which heats air for the rotary dryer.

(3) Operation Permit # 22-05-90-0097

- (a) grinding operation (identified as EU4), with maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) cyclones ducted to the primary rotary cooler.
 - (b) screening operation (identified as EU4), with maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) cyclones ducted to the primary rotary cooler.
- (4) Unpermitted facilities consisting of:
- (a) Mixer/blender, identified as EU5, with maximum throughput of 20 tons per hour, and with particulate matter emissions controlled by 1(one) baghouse shared with EU7.
 - (b) Bulk loadout on dry blend fertilizer production line, identified as EU7, with a maximum throughput of 20 tons per hour, and with particulate matter emissions controlled by 1 (one) baghouse shared with EU5.

The source also includes the following insignificant activities:

- (1) Replacement or repair of electrostatic precipitators, bags in baghouses and filters on other air filtration equipment.
- (2) Paved and unpaved roads and parking lots with public access.
- (3) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.
- (4) Emergency gasoline generators not exceeding 110 horsepower (consists of 1 (one) 16 (sixteen) horsepower generator).

Enforcement Issue

IDEM is aware that the mixer/blender (identified as EU5) and bulk loadout (identified as EU7) for the dry blend fertilizer production line have been operated prior to the receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed FESOP will also satisfy the requirements of the construction permit rules.

Recommendation

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

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

A complete FESOP application for the purposes of this review was received on May 16, 1996.

Potential to Emit (PTE) Calculations

See Appendix A detailed emission calculations.

Controlled Emissions Summary (tons/year)							
Process/Facility	PM	PM-10	SO2	VOC	CO	NOx	HAPs
Granulation Process Line with a dryer	68.49	68.49	0.0	0.2	2.5	9.8	0.0
Dry Blend Process Line	19.03	19.03	0.0	0.0	0.0	0.0	0.0
Total Emissions	87.51	87.51	0.0	0.2	2.5	9.8	0.0

Attached Tables (1) to (3) summarize the permit conditions and requirements.

Total PTE

PTE is defined as “the maximum capacity of a stationary source to emit a pollutant under its physical and operational design.”

Pollutant	PTE (tons/year)
PM	1041.73
PM-10	1041.73
SO ₂	0
VOC	0.2
CO	2.5
NO _x	9.8

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

The potential to emit (as defined in the Indiana Rule) of PM-10 are greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7-1.

A source with “potential to emit” high enough to make it a “major source” but whose actual emissions are below the Part 70 emission levels may elect to avoid the Part 70 Operating Permit Program by agreeing to accept a permit with federally enforceable limits that restrict its PTE to below the major source emission levels. The permit containing these restrictions is called a Federally Enforceable State Operating Permit (FESOP).

County Attainment Status

The source is located in Floyd County.

Pollutant	Status (attainment or unclassifiable/severe, moderate, marginal, or maintenance nonattainment)
TSP	unclassifiable
PM-10	attainment
SO ₂	attainment
VOC	moderate nonattainment
CO	attainment
NO ₂	unclassifiable

Limited Potential to Emit (PTE)

This source has accepted a federally enforceable emission limit on particulate matter less than ten (10) microns of 99 tons per year. This limit applies to the entire source.

Federal Rule Applicability

The facilities composing the granulation process line (EU1, EU2, EU3, and EU4) are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.220, Subpart V), when Northern Star Minerals Indiana, Inc utilizes phosphoric acid in the granulation process line. The source has been made aware of the applicability of this NSPS in the event that they ever utilize phosphoric acid in the granulation process line.

State Rule Applicability

326 IAC 2-6 (Emissions Reporting)

This source is subject to 326 IAC 2-6 (Emissions Reporting) because it has the potential to emit greater than ten (10) tons per year of oxides of nitrogen (NO_x). Pursuant to this rule, the owner/operator of this source must annually submit an emission statement for this source. The annual emission statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4 (Emission Reporting: Information to be Submitted).

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of particulate matter less than ten (10) microns (PM-10) emitted is limited to 99 tons per year. To comply with this limit, Northern Star Minerals Indiana, Inc. has accepted conditions that require the use of control equipment when particulate matter emitting facilities are in operation and the following pound per hour limitations on each facility.

Facility	Emission Limitation* (lbs/hr)
Raw Material Handling for granulation process line	8.00
Ammoniator/Granulator (EU1)	0.61
Rotary Dryer (EU2)	0.60
Primary Rotary Cooler (EU3)	6.00
Sizing Screens/Grinding Operation(EU4)	0.12
Bag Shipping Mill(EU6)	0.02
Bull Loadout (EU6)	0.06
Raw Material Handling for Dry Blend Process Line	4.00
Mixer/Blender (EU5)	0.30
Bag Shipping Mill (EU7)	0.04

*See Appendix A for detailed calculations

326 IAC 5-1-2 (Visible Emission Limitations)

This source is subject to 326 IAC 5-1-2 (Visible Emissions Limitations) because it emits particulate matter. Pursuant to this rule, except as provided in 236 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings.
- (b) visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of 15 minutes (sixty (60) readings) in six (6) hour period.

326 IAC 6-3 (Process Operations)

This source is subject to 326 IAC 6-3 (Process Operations) because it emits particulate matter (PM) from its granulation and dry blend processes. This rule mandates an allowable particulate matter emission rate for these processes using the following calculations:

Allowable Particulate Matter Emissions from the Granulation Process Line

$$\begin{aligned}
 E &= 55.0P^{0.11} - 40 \\
 &= 55.0(40)^{0.11} - 40 \\
 &= 42.53 \text{ lbs/hr} \\
 &= 186.26 \text{ tons/yr}
 \end{aligned}$$

Where E = the rate of emissions in pounds per hour
 P = the process weight rate in tons per hour

Allowable Particulate Matter Emissions from the Dry Blend Process

$$\begin{aligned}
 E &= 4.10P^{0.67} \\
 &= 4.10(20)^{0.67} \\
 &= 30.51 \text{ lbs/hr} \\
 &= 133.64 \text{ tons/yr}
 \end{aligned}$$

Where E = the rate of emissions in pounds per hour
 P = the process weight rate in tons per hour

Total allowable particulate matter emissions for this source = 73.05 lbs/hr or 319.90 tons/yr
Since the allowable particulate matter emissions under this rule (319.90 tons per year) are greater than the 99 tons per year limit accepted by the source under 326 IAC 2-8 (note that because there are no emission factors specifically for PM-10 for the fertilizer production industry, 100% of the PM is considered as PM-10), the rate of emissions must be truncated as shown below.

$$\begin{aligned} E &= 99 \text{ tons/yr} * 1 \text{ year}/8760 \text{ hours} * 2000 \text{ lbs/ton} \\ &= 22.60 \text{ lbs/hr} \end{aligned}$$

To ensure compliance with 326 IAC 2-8, the total particulate matter emissions from the source must be less than 22.60 lbs per hour.

Granulation Process Line (see Appendix A for detailed calculations)

1. Raw Materials = 8.00 lbs/hr
2. Ammoniator/Granulator = 0.61 lbs/hr
3. Rotary Dryer = 0.60 lbs/hr
4. Primary Rotary Cooler = 6.00 lbs/hr
5. Sizing Screens/Grinding Operation = 0.12 lbs/hr
6. Bag Shipping Mill = 0.02 lbs/hr
7. Bulk Loadout = 0.06 lbs/hr

Dry Process Line (see Appendix A for detailed calculations)

1. Raw Materials = 4.00 lbs/hr
2. Mixer/Blender = 0.30 lbs/hr
3. Bulk Shipping Mill = 0.04 lbs/hr

Total Particulate Matter Emissions with Controls from these facilities = 19.75 lbs per hour.
19.75 lbs/hr < 22.60 lbs/hr, therefore this source is in compliance with 326 IAC 6-3 and 326 IAC 2-8.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to Operation Permits #22-05-90-0095, #22-05-90-0096, and #22-05-90-0097, the particulate matter emissions from this source shall comply with the provisions of 326 IAC 6-4 (Fugitive Dust Emissions).

Compliance Monitoring

1. The ammoniator/granulator (EU1) has applicable compliance monitoring conditions as specified below:

The air stream from the ammoniator/granulator (EU1) shall be vented through the Venturi scrubber. The scrubber shall be operated at all times when the ammoniator/granulator is in operation and the flow of fresh water into the scrubber supply tank (shared with the marble bed scrubber) shall not be hindered. The scrubber shall operate at a scrubbant flow rate of 90 gallons per minute (gpm) and at a pressure drop range of 2-14 inches of water, or at whatever ranges are determined during compliance or performance stack tests. These said parameters shall be monitored and recorded daily. Records shall be maintained at the source for a minimum period of two (2) years and be made available upon request of the Office of Air Management (OAM).

2. The rotary dryer (EU2) has applicable compliance monitoring conditions as specified below:

The air stream from the rotary dryer (EU2) shall be vented through a series of four (4) cyclones and through the marble bed scrubber. The four (4) cyclones and the marble bed scrubber shall be operated at all times when the rotary dryer is in operation.

Four (4) Cyclones

The pressure drops from each cyclone shall be maintained between 4 and 7 inches of water, or at whatever range is determined during compliance or performance stack tests.

Marble Bed Scrubber

The marble bed scrubber shall be operated at a scrubbant flow rate of 500 gallons per minute (gpm) and at a pressure drop range of 2-5 inches of water, or at whatever ranges are determined during compliance or performance stack tests. These parameters shall be monitored and recorded daily. The flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber) shall not be hindered. Records shall be maintained at the source for a minimum period of two (2) years and be made available upon request of the Office of Air Management (OAM).

3. The primary rotary cooler has applicable compliance monitoring conditions as specified below:

The air stream from the primary rotary cooler (EU3) shall be vented through a series of two (2) cyclones and through the marble bed scrubber. The two (2) cyclones and the marble bed scrubber shall be operated at all times when the primary rotary cooler is in operation.

Two (2) Cyclones

The pressure drops from each cyclone shall be maintained between 3 and 6 inches of water, or at whatever range is determined during compliance or performance stack test.

Marble Bed Scrubber (see #2 for rotary dryer)

4. The mixer/blender (EU5) has applicable compliance monitoring conditions as specified below:

The air stream from the mixer/blender (EU5) shall be vented through a baghouse. The baghouse shall be operated at all times when the mixer/blender is in operation. The inlet and outlet differential static pressure shall be maintained between 5 and 8 inches of water, or at whatever range is determined during compliance or performance stack tests.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 189 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application GSD-08.

None of these listed air toxics will be emitted from this source.

Conclusion

The operation of this granulated plant fertilizer production plant will be subject to the conditions of the attached proposed **FESOP No. F043-5881-00011**.

Table (1)

Stack/Vent ID: SV - 01				
Stack/Vent Dimensions:	Ht: 140'	Dia: 54"	Temp: 150°F	Flow: 55,000 CFM
Emission Units: Rotary Dryer (EU2) and Primary Rotary Cooler (EU3)				
Date of Construction: 1977 (EU2 and EU3)				
Alternative Scenario: none				
Pollution Control Equipment: 4 cyclones to marble bed scrubber (EU2) and 2 cyclones to marble bed scrubber (EU3).				
General Description of Requirement: Particulate Matter less than ten (10) microns				
Numerical Emission Limit: 99 ton/yr for the entire source				
Regulation/Citation: 326 IAC 2-8-4 (1)				
Compliance Demonstration: initial stack testing to determine operating parameters for EU2, EU3.				
PERFORMANCE TESTING				
Parameter/Pollutant to be Tested: PM-10				
Testing Method/Analysis: 5				
Testing Frequency/Schedule: once during permit cycle				
Submittal of Test Results: 45 days after completion of stack tests				
COMPLIANCE MONITORING				
Monitoring Description: pressure gauge readings on cyclones and scrubber, and scrubbant flow rate on scrubber.				
Monitoring Method: pressure gauges and flow monitors				
Monitoring Regulation/Citation: 326 IAC 2-8-5(a)(1)				
Monitoring Frequency: daily				
RECORD KEEPING				
Parameter/Pollutant to be Recorded: PM-10				
Recording Frequency: daily				
Submittal Schedule of Reports: quarterly				
REPORTING REQUIREMENTS				
Information in Report:				
Reporting Frequency/Submittal: quarterly				
Additional Comments: N/A				

Table (2)

Stack/Vent ID: SV - 02				
Stack/Vent Dimensions:	Ht: 95'	Dia: 24"	Temp: 150°F	Flow: 10,000 CFM
Emission Units: Ammoniator (EU1)				
Date of Construction: 1977				
Alternative Scenario: none				
Pollution Control Equipment: Venturi scrubber (EU1)				
General Description of Requirement: Particulate Matter less than ten (10) microns				
Numerical Emission Limit: 99 ton/yr for the entire source				
Regulation/Citation: 326 IAC 2-8-4 (1)				
Compliance Demonstration: initial stack testing to determine operating parameters for EU1.				
PERFORMANCE TESTING				
Parameter/Pollutant to be Tested: PM-10				
Testing Method/Analysis: 5				
Testing Frequency/Schedule: once during permit cycle				
Submittal of Test Results: 45 days after completion of stack tests				
COMPLIANCE MONITORING				
Monitoring Description: pressure gauge readings and scrubbant flow rate on scrubbers.				
Monitoring Method: pressure gauges and flow monitors				
Monitoring Regulation/Citation: 326 IAC 2-8-5(a)(1)				
Monitoring Frequency: daily				
RECORD KEEPING				
Parameter/Pollutant to be Recorded: PM-10				
Recording Frequency: daily				
Submittal Schedule of Reports: quarterly				
REPORTING REQUIREMENTS				
Information in Report:				
Reporting Frequency/Submittal: quarterly				
Additional Comments: N/A				

Table (3)

Stack/Vent ID: Process occurs outside
Stack/Vent Dimensions: N/A Ht: Dia: Temp: Flow:
Emission Units: Mixer/blender (EU5) and Bulk Loadout (EU7).
Date of Construction: 1968 (EU5) and 1960 (EU7)
Alternative Scenario: none
Pollution Control Equipment: One (1) baghouse shared by EU5 and EU7
General Description of Requirement: Particulate Matter less than ten (10) microns
Numerical Emission Limit: 99 ton/yr for the entire source
Regulation/Citation: 326 IAC 2-8-4 (1)
Compliance Demonstration: initial stack testing to determine operating parameters for baghouse on EU5 and EU7.
PERFORMANCE TESTING
Parameter/Pollutant to be Tested: PM-10
Testing Method/Analysis: 5
Testing Frequency/Schedule: once during permit cycle
Submittal of Test Results: 45 days after completion of stack tests
COMPLIANCE MONITORING
Monitoring Description: pressure gauge readings on the baghouse
Monitoring Method: pressure gauges
Monitoring Regulation/Citation: 326 IAC 2-8-5(a)(1)
Monitoring Frequency: daily
RECORD KEEPING
Parameter/Pollutant to be Recorded: PM-10
Recording Frequency: daily
Submittal Schedule of Reports: quarterly
REPORTING REQUIREMENTS
Information in Report:
Reporting Frequency/Submittal: quarterly
Additional Comments: N/A

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name: Northern Star Minerals, Indiana, Inc.
Source Location: 2910 Grantline Road, New Albany, Indiana 47150
County: Floyd
SIC Code: 2874, 2875
Operation Permit No.: F043-5881-00011
Permit Reviewer: Cathie Moore

On October 22, 1996, the Office of Air Management (OAM) had a notice published in the New Albany Tribune, New Albany, Indiana, stating that Northern Star Minerals, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to operate an agricultural fertilizer manufacturing plant. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 22, 1996, Mitchell Gibson of Northern Star Minerals Indiana, Inc. submitted comments on the proposed FESOP. The summary of the comments is as follows (~~strikeout~~ added to show what was deleted and **bold** added to show what was added):

Comment 1:

Page 4, A.2 1) (f)

EU 6 has a maximum throughput of 80,000 pounds per hour to either outflow (bag or bulk). And, it is possible to operate both outflows simultaneously. The change in emission limitation will be addressed in a later section of this comment.

Response to Comment 1:

Item A.2 (1)(f) "Emission Units and Pollution Control Equipment Summary" has been changed to be as follows:

- (f) One (1) bag shipping mill and one (1) bulk loadout, jointly identified as EU6, with maximum **joint** throughput ~~on the bagging operation of 20,400~~ **160,000** pounds per hour ~~and maximum throughput on the bulk loading operation of 59,600 pounds per hour,~~ and with particulate matter emissions controlled by individual baghouses.

The equipment listed in Section D.1 "FACILITY OPERATION CONDITIONS" has been changed to be as follows:

one (1) bag shipping mill and one (1) bulk loadout, jointly identified as EU6, with maximum **joint** throughput ~~on the bagging operation of 20,400~~ **160,000** pounds per hour ~~and maximum throughput on the bulk loading operation of 59,600 pounds per hour,~~ and with particulate matter emissions controlled by ~~two (2) baghouses, one (1) baghouse is dedicated to each component of EU6~~ **individual baghouses.**

The Technical Support Document (TSD) should also reflect this change. However, the TSD is not physically changed after Public Notice. The change is noted here in the Addendum.

Comment 2:

Page 5, A.3 Insignificant Activities

Northern Star also listed: natural gas-fired combustion sources with heat input equal to or less than 10 mmBtu per hour, storage bins, interior conveyors and elevators, loadout and unloading.

Response to Comment 2:

Condition A.3 "Insignificant Activities" has been changed to be as follows:

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

This stationary source also includes the following insignificant activities, as defined in ~~326 IAC 2-7-1(20)~~ **326 IAC 2-7-1(21)**:

- (a) Replacement or repair of electrostatic precipitators, bags in baghouses and filters on other air filtration equipment.
- (b) Paved and unpaved roads and parking lots with public access.
- (c) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.
- (d) Emergency gasoline generators not exceeding 110 horsepower (consists of a 16 horsepower, or 0.0407 MMBtu per hour generator).
- (e) **Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour (refers to several space heaters);**
- (f) **Other activities not previously mentioned. This includes storage bins, interior conveyors and elevators, and loadout and unloading.**

There are no additional conditions added to this permit due to the addition of these insignificant activities because there are no applicable requirements for these insignificant activities.

Comment 3:

Page 8-9, B.13 Preventive Maintenance Plan

Plans for each control unit requiring preventive maintenance were submitted with the FESOP application and have been accepted by IDEM as approved.

Response to Comment 3:

These plans were submitted with the FESOP application and reviewed by IDEM. IDEM has found that these plans meet the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan), but are not acceptable because they do not quantify the replacement parts to be maintained in inventory. There will be no changes in the final permit due to this comment.

Comment 4:

Page 9, B.14 (b) (4) and (f) Emergency Provision

These conditions do not contain language to address notification to the department on IDEM's non-business days. Northern Star cannot agree to accept these permit conditions unless clarification is made.

Response to Comment 4:

The term "business day" in this condition should be interpreted as an IDEM business day. If an emergency occurs at the source on a day when IDEM is not open (i.e. state holidays and off hours), the source should notify IDEM on the next business day for IDEM. There will be no changes in the final permit due to this comment.

Comment 5:

Page 10, B.14 (g)(2) Emergency Provision

Northern Star's draft permit contains technology-based limits only. It is therefore inappropriate for any language making reference to health-based limits to be included in this permit. Northern Star does not agree to accept this section as a permit condition.

Response to Comment 5:

The contents of Section B "GENERAL CONDITIONS" are the same in all FESOP permits. The source can ignore this language if it does not apply. IDEM will not remove this language because IDEM must retain the ability to insert a health-based limitation on the source should one be warranted. There will be no changes in the final permit due to this comment.

Comment 6:

Page 15, B.25 (d) Annual Fee Payment

This condition is not within the scope of IDEM's authority under [326 IAC 2-8-4(6)] or [326 IAC 2-8-16]. Northern Star does not agree to accept this section as a permit condition.

Response to Comment 6:

Pursuant to 326 IAC 2-8-16(b) (Fees), a source that has been issued a FESOP under this rule shall pay an annual operating fee of one thousand five hundred dollars (\$1,500) upon billing by IDEM. Therefore, IDEM does have the authority to require an annual fee payment. There will be no changes in the final permit due to this comment.

Comment 7:

Page 16, C.6 Performance Testing

The applicable requirement for EU 1, EU 2, EU 3, EU 4, EU 5 and EU 6 is Opacity (326 IAC 5). The acceptable test for this limitation is Visible Emission Limitations as outlined in condition C.1 on page 16 of the draft document. An alternate performance test is not required to demonstrate compliance. Northern Star does not have particulate emission in excess of 100 tons per year as demonstrated on the Emissions Inventory reports in file with IDEM. Visible Emissions observations are the true performance test for the source. Northern Star proposes that a quarterly Visible Emissions test for S/V 01 be performed in accordance with EPA Method 9 [326 IAC 3-2.1-5(2)]. The test will be performed once per calendar quarter during normal daytime representative operating conditions. Testing will begin within 180 days of the issuance of this permit. No advance protocol or notification to IDEM is required.

Page 17, C.7 Compliance Monitoring

Control equipment at the source is currently operating effectively as demonstrated by the IDEM inspection reports. No gauges or other operating parameter recording devices are in place. Installation of monitoring equipment is unnecessary since daily Visible Emissions readings performed in accordance with EPA Method 22 are required under condition D.1.11 on page 25 of the draft permit. Condition C.11 on page 18 provides for additional action if abnormal readings are observed. Visible Emissions are the accepted method for demonstrating compliance.

Response to Comment 7:

IDEM agrees that Visible Emission Observations is an appropriate performance test for 326 IAC 5-1-2 (Visible Emission Limitations). However, in addition to 326 IAC 5-1-2, Northern Star must comply with its overall FESOP limit on particulate matter less than ten microns (PM-10, measure as PM for this source). Visible Emissions are only a surrogate to particulate compliance. Observations in compliance with 326 IAC 5-1-2 does not guarantee particulate matter in compliance with the source's overall FESOP limit unless a site specific relationship between PM and opacity has been established. Such a relationship has not been established for this source and performance stack testing is therefore required to demonstrate that the source can comply with the FESOP limit. IDEM believes that this testing is warranted because of the extraordinary control efficiencies claimed on EU1 (ammoniator/granulator) and EU2 (rotary dryer). Additionally, past inspection reports (see report date 5/1/96) indicate that dryer stack (S/V 01) may not comply with the FESOP limits.

Based on the above discussion, there will be no changes to Condition C.7 (now re-numbered Condition C.10) "Compliance Monitoring". Condition C.6 (now re-numbered Condition C.9) "Performance Testing" has been changed to be as follows:

C.69 Performance Testing [326 IAC 3-6]

- (a)** ~~Compliance testing shall be conducted on the ammoniator/granulator (EU1), the rotary dryer (EU2), the primary rotary cooler (EU3), and the mixer/blender (EU5) for particulate matter less than ten (10) microns within one hundred and eighty (180) days of the issuance of this permit. The Permittee shall perform the tests specified in this permit to demonstrate compliance with the applicable rule or permit condition. All testing shall be performed according to the provisions of 326 IAC 3-2.1 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing and by methods in the approved test protocol by the IDEM, OAM.~~

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

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

~~at least no later than~~ thirty-five (35) days ~~before prior to~~ the intended test date ~~[326 IAC 3-2.1-2(a)]~~. **The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.**

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

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

Condition D.1.7 "Stack Testing" as follows has been deleted from the permit and replaced with the following condition:

D.1.7 Stack Testing

~~Compliance stack tests shall be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.2:~~

- a) ~~Venturi Scrubber on the ammoniator/granulator (EU1) - scrubbant flow rate and pressure drop across the scrubber.~~
- b) ~~Two (2) cyclones on the rotary dryer (EU2) and two (2) cyclones on the primary rotary cooler (EU3) - pressure drip across each cyclone.~~
- e) ~~Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.~~
- d) ~~The baghouse on the mixer/blender (EU5) - pressure drop across the baghouse.~~

~~These stack test shall be performed once every five years. These test shall be performed according to 326 IAC 3-2-1 (Source Sampling Procedures) using methods specified in the rule or approved by the Commissioner. The Office of Air Management (OAM), shall be notified of the actual test date at least two (2) weeks prior to the date. Pursuant to 326 IAC 3-2-1, a test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test, and all test reports must be received by the OAM within 45 days of completion of the testing.~~

D.1.5 Particulate Matter [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

During the period between 540 days and 720 days after issuance of this permit, the Permittee shall perform PM and PM-10 testing on stack/vent S/V 01. This testing shall utilize methods per 40 CFR Part 60, Appendix A, Method 5, 17 for PM and 40 CFR Part 51, Appendix M, Method 201, 201a, 202 for PM-10, as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

This testing shall also be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.1 and ensures compliance with the PM limits established under 326 IAC 6-3 (Particulate Matter Emissions):

- (a) **Four (4) cyclones on the rotary dryer (EU2), two (2) cyclones on the primary rotary cooler (EU3), and the two (2) cyclones on the sizing screens and grinding operation (EU4) - pressure drop across each series of cyclones.**
- (b) **Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.**

Comment 8:

Page 22, D.1 b)

The dry blend fertilizer line is located inside the source. The control equipment (1 baghouse) is located outside as shown on form GSD 02-1.

Response to Comment 8:

Condition A.2 (2) "Emission Units and Pollution Control Equipment Summary" has been changed to be as follows:

- (2) One dry blend fertilizer production line with the following units/facilities: **One (1) mixer/blender, identified as EU5, and one (1) bulk shipping mill, identified as EU7, with a maximum throughput of 20 tons per hour for each unit, and with particulate matter emissions jointly controlled by one (1) baghouse. The control equipment for this line (1 baghouse) is located outside the building and therefore the particulate matter emissions from the baghouse are vented outside.**

- (a) ~~One (1) mixer/blender, identified as EU5, and one (1) bulk shipping mill, identified as EU7, with particulate matter emissions jointly controlled by one (1) baghouse. The maximum throughput on EU5 and EU7 is 20 tons per hour for each unit.~~

The equipment listed in Section D.1(2) "FACILITY OPERATION CONDITIONS" has been changed to be as follows:

- (2) One dry blend fertilizer production line with the following units/facilities: One (1) mixer/blender, identified as EU5, and one (1) bulk shipping mill, identified as EU7, with a maximum throughput of 20 tons per hour for each unit, and with particulate matter emissions jointly controlled by one (1) baghouse. ~~This production~~ **The control equipment for this line is located outside the building** and therefore the particulate matter emissions from the baghouse are vented outside.

The Technical Support Document (TSD) should also reflect this change. However, the TSD is not physically changed after the Public Notice of the draft FESOP permit. The change is noted here in the TSD Addendum.

Comment 9:

Page 23, D.1.2 PM-10

The emission limitation for the Bag Shipping Mill (EU 6) must be changed to 0.08 lbs/hr. The emission limitation for the Bulk Loadout (EU 6) also must be changed to 0.08 lbs/hr. This results in a net addition of 0.08 lbs/hr to the total source limits specified in this condition. Using the calculations show in Appendix A for the TSD:

$$0.08 \text{ lbs/hr} \times 8760 \text{ hrs} \div 2000 \text{ lbs/ton} = 0.35 \text{ TPY uncontrolled}$$

$$0.35 \text{ TPY} \times (1-.99) = 0.0035 \text{ TPY controlled}$$

This additional quantity keeps Northern Star clearly within the 99 TPY permit limitation imposed by this FESOP.

Response to Comment 9:

Condition D.1.2 (now re-numbered Condition D.1.1) "Particulate Matter less than ten microns (PM-10)" has been changed to be as follows:

D.1.21 Particulate Matter less than ten microns (PM-10)

- (a) The combined PM-10 emissions from the granulated fertilizer production line and the dry blend fertilizer production line shall be limited ~~as stated in the following table:~~ **to 19.83 pounds per hour.**

Facility	Emission Limitation* (lbs/hr)
Raw Material Handling for Granulation Process Line	8.00
Ammoniator/Granulator (EU1)	0.61
Rotary Dryer (EU2)	0.60
Primary Rotary Cooler (EU3)	6.00
Sizing Screens/Grinding Operation(EU4)	0.42
Bag Shipping Mill(EU6)	0.02
Bulk Loadout (EU6)	0.06
Raw Material Handling for Dry Blend Process Line	4.00
Mixer/Blender (EU5)	0.30
Bag Shipping Mill (EU7)	0.04

- (b) Compliance with these limits and conditions D.1.7 and D.1.8 makes 326 IAC 2-7 (Part 70 Operating Permit Program) not applicable and satisfies 326 IAC 6-3 (Particulate Matter Emissions).

Comment 10:

Page 23-24, D.1.6 a) - g) Operational Parameters

None of the control units have operating parameter indicators. IDEM has judged the compliance of this source via Visual Emission as explained in the C.7 comment above. Northern Star does not agree that IDEM has the authority to require modification of existing control equipment since compliance has been consistently demonstrated using the Visible Emissions method. The Visible Emission are monitored daily through condition D.1.11.

Page 23, D.1.6 b)

The cyclones on EU 2 are connected in series and routed directly into the marble bed scrubber. The only appropriate monitoring parameters are the pressure drop across the scrubber and scrubbant flow rate through the scrubber.

Page 24, D.1.6 c)

The cyclones on EU 3 are connected in series and routed directly into the marble bed scrubber. The only appropriate monitoring parameters are the pressure drop across the scrubber and scrubbant flow rate through the scrubber.

Page 24 D.1.6 d)

The cyclones on EU 4 are connected in series and routed directly into the marble bed scrubber. The only appropriate monitoring parameters are the pressure drop across the scrubber and scrubbant flow rate through the scrubber.

Response to Comment 10:

In addition to the rationale stated in response to comment #7, IDEM, OAM is requiring stack testing on S/V 01 and S/V 02 because Northern Star is taking a limit on PM-10 emissions to stay below Title V emission levels and comply with FESOP requirements. Compliance with this PM-10 limit rests on the proper functioning of the control equipment on each unit. This cannot be guaranteed without the monitoring of operating parameters on these control devices. Due to the unusually high control efficiencies claimed, these parameters must be established through stack testing. Further, IDEM, OAM disagrees with the source's claim that only pressure drop across the scrubber and the scrubbant flow rate can be monitored on EU2, EU3, and EU4. The proper functioning of the cyclones on each of these units is integral to the attainment of the FESOP limit. As a result, the pressure drops across the series of cyclones on each unit must be established and monitored. Pursuant to this rationale, the stack testing condition has been deleted as follows and replaced with the following condition:

D.1.7 Stack Testing

~~Compliance stack tests shall be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.2:~~

- ~~a) Venturi Scrubber on the ammoniator/granulator (EU1) scrubbant flow rate and pressure drop across the scrubber.~~
- ~~b) Two (2) cyclones on the rotary dryer (EU2) and two (2) cyclones on the primary rotary cooler (EU3) pressure drop across each cyclone.~~
- ~~c) Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) scrubbant flow rate and pressure drop across the scrubber.~~
- ~~d) The baghouse on the mixer/blender (EU5) pressure drop across the baghouse.~~

~~These stack test shall be performed once every five years. These test shall be performed according to 326 IAC 3-2-1 (Source Sampling Procedures) using methods specified in the rule or approved by the Commissioner. The Office of Air Management (OAM), shall be notified of the actual test date at least two (2) weeks prior to the date. Pursuant to 326 IAC 3-2-1, a test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test, and all test reports must be received by the OAM within 45 days of completion of the testing.~~

D.1.5 Particulate Matter [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

During the period between 540 days and 720 days after issuance of this permit, the Permittee shall perform PM and PM-10 testing on stack/vents S/V 01. This testing shall utilize methods per 40 CFR Part 60, Appendix A, Method 5, 17 for PM and 40 CFR Part 51, Appendix M, Method 201, 201a, 202 for PM-10, as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

This testing shall also be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.1 and ensures compliance with the PM limits established under 326 IAC 6-3 (Particulate Matter Emissions):

- (a) Four (4) cyclones on the rotary dryer (EU2), two (2) cyclones on the primary rotary cooler (EU3), and the two (2) cyclones on the sizing screens and grinding operation (EU4) - pressure drop across each series of cyclones.
- (b) Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.

Comment 11:

Page 24, D.1.6 e)

Visible Emissions are the only necessary monitor of compliance on this control unit which is located outside the main building. Northern Star does not agree to perform a stack test on this unit. EU 7 is a bulk loadout. There is not bag mill on this production line.

Page 24, D.1.6 f)

There are two baghouses in EU 6. Both of them exhaust inside the main building. Northern Star does not agree to perform stack test on these units.

Page 24, D.1.6 g)

EU 5 shares the baghouse control with EU 7 listed in D.1.6 e) above.

In the event that bag failure has been observed, the affected compartments will be shut down until the units have been replaced.

Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Response to Comment 11:

Condition D.1.6 "Operating Parameters" has been deleted as follows from the permit and replaced with the following conditions:

D.1.6 Operating Parameters

~~Each control unit shall be in operation at all times when the process it is controlling is in operation. Each control unit shall be operated at the operating parameters specified below or at the operating parameter levels or ranges established during the initial stack tests.~~

- a) ~~The air stream from the ammoniator/granulator (EU1) shall be vented through the Venturi scrubber. The flow of fresh water into the scrubber supply tank (shared with the marble bed scrubber) shall not be hindered. The scrubber shall operate at a scrubbing flow rate of 90 gallons per minute (gpm) and at a pressure drop range of 2-14 inches of water.~~
- b) ~~The air stream from the rotary dryer (EU2) shall be vented through a series of four (4) cyclones and through the marble bed scrubber. The pressure drops from each cyclone shall be maintained between 4 and 7 inches of water. The marble bed scrubber shall be operated at a scrubbing flow rate of 500 gallons per minute (gpm) and at a pressure drop range of 2-5 inches of water. The flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber) shall not be hindered.~~
- e) ~~The air stream from the primary rotary cooler (EU3) shall be vented through a series of two (2) cyclones and through the marble bed scrubber. The pressure drops from each cyclone shall be maintained between 3 and 6 inches of water. The marble bed scrubber shall be operated at a scrubbing flow rate of 500 gallons per minute (gpm) and at a pressure drop range of 2-5 inches of water. The flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber) shall not be hindered.~~
- d) ~~The air stream from the sizing screens and grinding operation (EU4) shall be vented through a series of two (2) cyclones and through the primary rotary cooler (EU3) and its control equipment. The pressure drops from each cyclone shall be maintained between 5 and 8 inches of water.~~
- e) ~~The air stream from the mixer/blender (EU5) and the bag shipping mill (EU7) shall be vented through one (1) baghouse. The inlet and outlet differential static pressure shall be maintained between 5 and 8 inches of water.~~
- f) ~~The air stream from the bag shipping mill (EU6) shall be vented through a baghouse. The inlet and outlet differential static pressure shall be maintained between 5 and 8 inches of water.~~
- g) ~~The air stream from the bulk loadout (EU5) shall be vented through a baghouse. The inlet and outlet differential static pressure shall be maintained between 5 and 8 inches of water.~~

~~The above operating parameters shall be monitored daily.~~

D.1.7 Pressure Drop Readings

The Permittee shall take readings of the total static pressure drop across the cyclones and baghouses controlling the rotary dryer (EU2); the primary rotary cooler (EU3); the sizing screens and grinding operations (EU4); the mixer/blender (EU5); the bag shipping mill (EU6); the bulk loadout (EU6); and the bulk shipping mill (EU7) at least once per working shift when the unit they are controlling is in operation. Unless operated under conditions for which the Preventative Maintenance Plan specifies otherwise, the pressure drop across these control devices shall be maintained within the following ranges or within ranges established during the initial stack tests:

- (a) **The series of cyclones controlling the rotary dryer (EU2) - 4 and 7 inches of water across the series.**
- (b) **The series of cyclones controlling the primary rotary cooler (EU3) - 3 and 6 inches of water across the series.**

- (c) **The series of cyclones controlling the sizing screens and grinding operation (EU4) - between 5 and 8 inches of water across the series.**
- (d) **The baghouses controlling bag shipping mill (EU6); the bulk loadout (EU6); the mixer/blender (EU5); and the bulk shipping mill (EU7) - 5 and 8 inches of water.**

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

D.1.8 Pressure and Water Flow Rate Readings

The Permittee shall take pressure drop and scrubbing liquid (water) flow rate readings from the Venturi scrubber controlling the ammoniator/granulator (EU1) and the marble bed scrubber controlling the rotary dryer (EU2), the primary rotary cooler (EU3), and the sizing screens and grinding operation (EU4) at least once per working shift when the process they are controlling is in operation. Unless operated under conditions for which the Preventative Maintenance Plan specifies otherwise, the pressure drop ranges and scrubbant flow rates for these controls shall be maintained within the following ranges or at a range established during the latest stack test:

- (a) **The pressure drop across the Venturi scrubber shall be maintained within the range of 2-14 inches of water and the pressure drop across the marble bed scrubber shall be maintained within 2 - 5 inches of water.**
- (b) **The Venturi scrubber shall be operated at a scrubbant flow of 90 gallons per minute and the marble bed scrubber shall be operated at a scrubbant flow rate of 500 gallons per minute.**

Additionally, the flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber and the marble bed scrubber) shall not be hindered.

The Preventive Maintenance Plan for these units shall contain troubleshooting contingencies and corrective actions for when the pressure readings and/or the scrubbant flow rates are outside the above ranges for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, be subject to approval by IDEM, OAM, and be calibrated at least once every six (6) operating months.

Comment 12:

Page 24, D.1.7 Stack Testing

Northern Star does not agree to perform stack tests on units listed in D.1.7 a-d.

Northern Star does not agree that stack testing is required to demonstrate compliance. The Visible Emissions test as described in comment C.6 above combined with daily monitoring in condition D.1.11 is sufficient demonstration of compliance for a source with actual emissions consistently under 100 tons per year.

Please see comment D.1.6 a) regarding elimination of the Venturi control and S/V 02.

Please note in subsection b) there are 4 cyclones on EU 2. The cyclones on both EU 2 and EU 3 are connected in series to the marble bed scrubber.

Visible Emission from the scrubber stack are sufficient for compliance demonstration. Visible Emissions from EU 5 are also sufficient for compliance demonstration since this unit's potential controlled emissions are only 19 tons per year. (Appendix A, TSD). Please see comments D.1.6 e) and g) above.

Response to Comment 12:

Condition D.1.7 "Stack Testing" has been deleted as follows from the permit and replaced with the following condition:

~~D.1.7 Stack Testing~~

~~Compliance stack tests shall be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.2:~~

- ~~a) Venturi Scrubber on the ammoniator/granulator (EU1) - scrubbant flow rate and pressure drop across the scrubber.~~
- ~~b) Two (2) cyclones on the rotary dryer (EU2) and two (2) cyclones on the primary rotary cooler (EU3) - pressure drip across each cyclone.~~
- ~~e) Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.~~
- ~~d) The baghouse on the mixer/blender (EU5) - pressure drop across the baghouse.~~

~~These stack test shall be performed once every five years. These test shall be performed according to 326 IAC 3-2-1 (Source Sampling Procedures) using methods specified in the rule or approved by the Commissioner. The Office of Air Management (OAM), shall be notified of the actual test date at least two (2) weeks prior to the date. Pursuant to 326 IAC 3-2-1, a test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test, and all test reports must be received by the OAM within 45 days of completion of the testing.~~

D.1.5 Particulate Matter [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

During the period between 540 days and 720 days after issuance of this permit, the Permittee shall perform PM and PM-10 testing on stack/vent S/V 01. This testing shall utilize methods per 40 CFR Part 60, Appendix A, Method 5, 17 for PM and 40 CFR Part 51, Appendix M, Method 201, 201a, 202 for PM-10, as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

This testing shall also be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.1 and ensures compliance with the PM limits established under 326 IAC 6-3 (Particulate Matter Emissions):

- (a) Four (4) cyclones on the rotary dryer (EU2), two (2) cyclones on the primary rotary cooler (EU3), and the two (2) cyclones on the sizing screens and grinding operation (EU4) - pressure drop across each series of cyclones.**
- (b) Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.**

Comment 13:

Page 25, D.1.8 Compliance Tests

The following language should precede the entire paragraph. "The owner/operator when using phosphoric acid and ammonia in the granulated fertilizer production line shall perform compliance test to determine compliance with the total fluoride standard in condition D.1.3 using methods and procedures specified in the rule or approved by the Commissioner. These tests will be conducted within one hundred eighty (180) days of the startup of this process."

Delete the current first sentence in the existing paragraph.

Response to Comment 13:

Condition D.1.8 "Compliance Test" has been deleted from the permit as follows because these facilities are not subject to the requirements of NSPS, Subpart V because of construction date:

~~D.1.8 Compliance Tests~~

~~Compliance tests shall be performed to determine compliance with the total fluoride standard in condition D.1.2 using methods and procedures specified in the rule or approved by the Commissioner. During these tests, the pressure drops across the Venturi and marble bed scrubbers shall be established that corresponds with the total fluorides limit. Compliance with the total fluorides standard in condition D.1.2 shall be determined using the equation in the rule (see attached copy).~~

Comment 14:

Page 25, D.1.12 Control Equipment

The Visible Emissions readings taken under condition D.1.11, the scrubbant flow rate and the pressure drop on the marble bed scrubber are the only parameters to be recorded, summarized and submitted quarterly to IDEM.

Page 25, D.1.13 Control Equipment

Insert the following sentence after the first sentence in the existing paragraph. "These recordings and calculations shall only be necessary when the phosphoric acid and ammonia are used in the granulated fertilizer production line."

The second sentence in the existing paragraph then becomes the third sentence.

Response to Comment 14:

Proposed Conditions D.1.12 and D.1.13 written as follows have been deleted from the permit and replaced with the following conditions:

~~D.1.12 Control Equipment~~

~~The operating parameter levels or ranges for each control unit in Condition D.1.6 shall be recorded daily and maintained for a period of at least five (5) years from the date of monitoring. A quarterly summary of this information shall be submitted, using the enclosed forms, within thirty (30) days of the end of the quarter being reported.~~

~~D.1.13 The total mass rate reading from the flow monitoring device of metric tons per hour of phosphoric-bearing feed material shall be recorded daily and the equivalent P_2O_5 feed shall be determined using the equation in the attached rule. These records shall be maintained for a period of at least 5 years from the date of monitoring.~~

D.1.9 Record Keeping Requirements

The operating parameter levels or ranges for each control unit in Conditions D.1.7 and D.1.8 shall be recorded daily and maintained for a period of at least five (5) years from the date of monitoring.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 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.

Comment 15:

Page 1 (1) (b) , TSD

The maximum throughput for this unit can be 80,000 lbs per hour on either operation. While it is unlikely to operate both sides at maximum capacity, both sides can operate simultaneously. The additional emissions were addressed in a previous comment and do not affect Northern Star's ability to meet 99 tons per year FESOP cap.

Northern Star interprets this previous permit (#22-05-90-0095) as covering both EU 6 and EU 7 since the language is plural ("operations"). Both units were in existence and known to the department at the time this permit was issued.

Response to Comment 15:

The equipment listing on the TSD should be changed to be as follows:

One (1) bag shipping mill and one (1) bulk loadout, jointly identified as EU6, with maximum **joint** throughput ~~on the bagging operation of 20,400~~ **160,000** pounds per hour ~~and maximum throughput on the bulk loading operation of 59,600 pounds per hour~~, and with particulate matter emissions controlled by individual baghouses.

The Technical Support Document (TSD) should also reflect this change. However, the TSD is not physically changed after Public Notice. The change is noted here in the Addendum.

IDEM does not interpret the previous permit #22-05-90-0095 as applying to EU5 and EU7. To establish this, the source must submit past construction permit applications showing the presence of these units.

Comment 16:

Page 2 (4)(a) and (b), TSD

Please see comment (1)(b) above for Operation Permit #22-05-90-0095. Northern Star believes that since EU 5 has controlled emissions via a permitted baghouse that it is in fact permitted.

Response to Comment 16:

IDEM does not interpret the previous permit #22-05-90-0095 as applying to EU5 and EU7. To establish this, the source must submit past construction permit applications showing the presence of these units.

Comment 17:

TSD

The insignificant activity was amended to include the additional items on the permit application in a previous comment.

Response to Comment 17:

The Technical Support Document should be changed to include the following insignificant activities:

- (e) **Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour (refers to several space heaters);**
- (f) **Other activities not previously mentioned. This includes storage bins, interior conveyors and elevators, and loadout and unloading.**

The Technical Support Document (TSD) should also reflect this change. However, the TSD is not physically changed after Public Notice. The change is noted here in the Addendum.

Comment 18:

Page 4, Federal Rule Applicability, TSD

Northern Star requests this language be modified to include the ammonia used with the phosphoric acid. It may be possible for a future technology to emerge utilizing phosphoric acid without ammonia and this NSPS would not apply.

Response to Comment 18:

The New Source Performance Standard language on page 4 should be changed to be as follows:

The facilities composing of the granulation process line (EU1, EU2, EU3, and EU4) are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.220, Subpart V), when Northern Star Mineral Indiana, Inc. utilizes phosphoric acid **with ammonia** in the granulation process line. The source has been made aware of the applicability of this NSPS in the event that they ever utilize phosphoric acid with ammonia in the granulation process line.

The Technical Support Document (TSD) should also reflect this change. However, the TSD is not physically changed after Public Notice. The change is noted here in the Addendum.

Comment 19:

Page 6, Granulation Process Line, TSD

Items 6 and 7 must be changed to 0.08 lbs per hour for a net addition of 0.08 lbs per hour as described in comment D.1.2 PM-10.

Response to Comment 19:

The Potential to Emit (PTE) Calculations on page 3 should be changed to be as follows:

Controlled Emissions Summary (tons/year)							
Process/Facility	PM	PM-10	SO2	VOC	CO	NOx	HAPs
Granulation Process Line with a dryer	68.40 68.84	68.40 68.84	0.0	0.2	2.5	9.8	0.0
Dry Blend Process Line	19.03	19.03	0.0	0.0	0.0	0.0	0.0
Total Emissions	87.54 87.86	87.54 87.86	0.0	0.2	2.5	9.8	0.0

The Total PTE Table on page 3 should be changed to be as follows:

Pollutant	PTE (tons/year)
PM	4041.73 1076.77
PM-10	4041.73 1076.77
SO ₂	0
VOC	0.2
CO	2.5
NO _x	9.8

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

The FESOP Limitations table on page 4 should be deleted as follows because the source has requested to take a source-wide PM-10 emission limit rather than facility limits:

Facility	Emission Limitation [±] (lbs/hr)
Raw Material Handling for granulation process line	8.00
Ammoniator/Granulator (EU4)	0.61
Rotary Dryer (EU2)	0.60
Primary Rotary Cooler (EU3)	6.00
Sizing Screens/Grinding Operation(EU4)	0.12
Bag Shipping Mill(EU6)	0.02
Bull Loadout (EU6)	0.06
Raw Material Handling for Dry Blend Process Line	4.00
Mixer/Blender (EU5)	0.30
Bag Shipping Mill (EU7)	0.04

The Technical Support Document (TSD) should also reflect this change. However, the TSD is not physically changed after Public Notice. The change is noted here in the Addendum.

Comment 20:

Page 6-7, Compliance Monitoring, TSD

The Visible Emissions readings described in previous comments are the sole method of compliance demonstration for this source. Preventive Maintenance plans for each control equipment unit have been accepted by IDEM.

Response to Comment 20:

To document compliance with the FESOP limit, the source must also monitor the control equipment to ensure proper operation along with visible emissions notations. The Preventive Maintenance Plans were submitted with the FESOP application and reviewed by IDEM. IDEM has found that these plans meet the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan), but are not acceptable because they do not quantify the replacement parts to be maintained in inventory.

Comment 21:

Page 6, Compliance Monitoring 1 (EU 1), TSD

Please see comment D.1.6 a) above. These emissions will be routed through the control equipment on EU 2 unless the phosphoric acid/ammonia process is used.

Response to Comment 21:

In addition to the rationale stated in response to comment #7, IDEM, OAM is requiring stack testing on S/V 01 because Northern Star is taking a limit on PM-10 emissions to stay below Title V emission levels and comply with FESOP requirements. Compliance with this PM-10 limit rests on the proper functioning of the control equipment on each unit. This cannot be guaranteed without the monitoring of operating parameters on these control devices. Due to the unreasonable high control efficiencies claimed, these parameters must be established through stack testing. Further, IDEM, OAM disagrees with the source's claim that only pressure drop across the scrubber and the scrubbant flow rate can be monitored on EU2, EU3, and EU4. The proper functioning of the cyclones on each of these units is integral to the attainment of the FESOP limit. As a result, the pressure drops across the series of cyclones on each unit must be established and monitored.

Comment 22:

Page 6, Compliance Monitoring 2 (EU2), 3 (EU 3), TSD

The marble bed scrubber operating parameters of pressure drop and scrubbant flow rates are the only ones to be monitored and reported to IDEM. Visible Emissions readings are sufficient to determine compliance with the opacity limits. No stack testing is required.

Response to Comment 22:

In addition to the rationale stated in response to comment #7, IDEM, OAM is requiring stack testing on S/V 01 because Northern Star is taking a limit on PM-10 emissions to stay below Title V emission levels and comply with FESOP requirements. Compliance with this PM-10 limit rests on the proper functioning of the control equipment on each unit. This cannot be guaranteed without the monitoring of operating parameters on these control devices. Due to the unusually high control efficiencies claimed, these parameters must be established through stack testing. Further, IDEM, OAM disagrees with the source's claim that only pressure drop across the scrubber and the scrubbant flow rate can be monitored on EU2, EU3, and EU4. The proper functioning of the cyclones on each of these units is integral to the attainment of the FESOP limit. As a result, the pressure drops across the series of cyclones on each unit must be established and monitored.

Comment 23:

Page 6, Compliance Monitoring 4 (EU 5), TSD
Please see comments D.1.6 e) above.

Response to Comment 23:

In addition to the rationale stated in response to comment #7, IDEM, OAM is requiring stack testing on S/V 01 because Northern Star is taking a limit on PM-10 emissions to stay below Title V emission levels and comply with FESOP requirements. Compliance with this PM-10 limit rests on the proper functioning of the control equipment on each unit. This cannot be guaranteed without the monitoring of operating parameters on these control devices. Due to the unusually high control efficiencies claimed, these parameters must be established through stack testing. Further, IDEM, OAM disagrees with the source's claim that only pressure drop across the scrubber and the scrubbant flow rate can be monitored on EU2, EU3, and EU4. The proper functioning of the cyclones on each of these units is integral to the attainment of the FESOP limit. As a result, the pressure drops across the series of cyclones on each unit must be established and monitored.

Comment 24:

Page 8-10, TSD
These tables are modified by the comments above.

Response to Comment 24:

These tables should be changed in the Technical Support Document, however, the TSD is not physically changed after Public Notice. The change is noted here in the Addendum.

On July 21, 1998, Evelyn Crooks of Environmental Compliance Source, Ltd. consultant for Northern Star Minerals, Indiana, Inc. submitted comments on the proposed FESOP. The summary of the comments is as follows (~~strikeout~~ added to show what was deleted and **bold** added to show what was added):

Comment 25:

Condition C.8, Stack Height

Northern Star is grandfathered under 326 IAC 1-7-3 because the stacks and source were constructed prior to December 31, 1970.

Response to Comment 25:

Condition C.8 "Stack Height" has been deleted from the final permit. The remaining conditions in Section C have been renumbered.

Comment 26:

Condition C.15, Emergency Reduction Plan

Northern Star requests guidance from IDEM regarding the acceptable format for an ERP. We also request clarification as the manner in which direct notification of an episode will be made.

Response to Comment 26:

The following is an example of an ERP for a surface coating operation:

Alert: Curtail Solvent based coating application by 10% & check that all pollution control equipment is functioning properly. When possible shift production to reduce the amount of solvent based coatings used.

Warning: Curtail Solvent based coating application by an additional 50% . Curtail all production by 50%. Shut down any unnecessary equipment. When possible shift production of all solvent based coatings to another day or to after 6:00pm.

Emergency: Cease all production.

Please contact your IDEM, OAM inspector, Dave Holder at 317-233-5674, for further clarification of your ERP. The notification requirements of an episode are listed in Condition B.14 "Emergency Provisions".

Comment 27:

Condition D.1.6, Particulate Matter

Stack testing cannot be performed on S/V 02 unless the alternate scenario wet chemical process using liquid phosphoric acid and ammonia (anhydrous or aqueous solution) is activated. This stack only operates if the wet chemical process is running. No verification of operating parameters on the Venturi scrubber can be done unless the alternate scenario process is active. It is not our intent to activate the process in the foreseeable future. It is not physically possible to activate the process solely for test purposes.

Response to Comment 27:

The requirement to perform stack testing on S/V 02 is no longer required because this alternate scenario is not subject to the New Source Performance Standard, 326 IAC 12, 40 CFR 60.220, Subpart V. Therefore, the testing requirements for S/V 02 have been removed.

Comment 28:

Condition D.1.7, Compliance Tests

Northern Star requests further clarification in the language used to describe the alternate scenario wet chemical process. The language should read: "...when using liquid phosphoric acid and ammonia (anhydrous and/or aqueous solution)..." We request this change in Conditions D.1.8, D.1.2 and all other sections in which the language clarification would be applicable.

Response to Comment 28:

1. Conditions D.1.3, D.1.8, and D.1.9 have been deleted from the final permit as follows because these facilities are not subject to the requirements of NSPS, Subpart V because of their construction date:

~~D.1.3 Fluorides~~

~~The ammoniator/granulator (EU1), the rotary dryer (EU2), the primary rotary cooler (EU3), and the sizing screens and grinding operation (EU4) shall be subject to the New Source Performance Standard (NSPS) 40 CFR Part 60.220, Subpart V when phosphoric acid (P_2O_5) and ammonia are used in the granulated fertilizer production line. Pursuant to this NSPS, each facility in this line (EU1, EU2, EU3, and EU4) shall not emit fluorides in excess of 0.060 pounds per ton of equivalent P_2O_5 feed.~~

~~D.1.8 Compliance Tests~~

~~Compliance tests shall be performed to determine compliance with the total fluoride standard in condition D.1.2 using methods and procedures specified in the rule or approved by the Commissioner. During these tests, the pressure drops across the Venturi and marble bed scrubbers shall be established that corresponds with the total fluorides limit. Compliance with the total fluorides standard in condition D.1.2 shall be determined using the equation in the rule (see attached copy).~~

~~D.1.9 Monitoring Equipment~~

~~(a) The owner/operator when using phosphoric acid and ammonia in the granulated fertilizer production line shall install, calibrate, maintain, and operate a flow monitoring equipment device which will determine the mass flow of phosphoric bearing feed material to the process. The flow monitoring device shall have an accuracy of +/- 5% over its operating range. A daily record of the equivalent P_2O_5 feed shall be maintained by first determining the total mass rate in metric tons per hour of phosphoric bearing feed using a flow monitoring device meeting the above requirements. The pressure drop range established during the stack tests for the scrubbing system shall be monitored daily.~~

~~(b) The owner/operator when using phosphoric acid and ammonia shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the scrubbing system and the phosphoric rate.~~

Upon further review, OAM has made the following changes to the final FESOP (~~strikeout~~ added to show what was deleted and **bold** added to show what was added):

1. The IDEM, OAM address was deleted from the cover page.
2. The first sentence on the cover page has been changed to be as follows:

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

3. The second sentence on the cover page has been changed to be as follows:

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 ~~and 40 CFR Part 70.6~~ 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**, and IC 13-15 and IC 13-17 ~~(prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).~~

4. The signature block on the cover page has been changed to be as follows:

Operation Permit No.: F043-5881-00011	
Issued by: Felicia R. George, Assistant Commissioner Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

5. A "Source Summary" has been changed to be as follows:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) ~~and presented in the permit application.~~ **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.**

6. Condition A.1 "General Information" has been changed to be as follows:

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

The Permittee owns and operates an agricultural fertilizer manufacturing plant.

~~Responsible Official~~ **Authorized Individual:** Mitchell Gibson
Source Address: 2910 Grant Line Road, New Albany, Indiana 47150
Mailing Address: ~~same~~ **2910 Grant Line Road, New Albany, Indiana 47150**
Phone Number: 812-945-6671
SIC Code: 2874 and 2875
County Location: Floyd County
County Status: Nonattainment for ozone ~~and unclassifiable for total suspended particulate.~~
Attainment for all other criteria pollutants

Source Status: ~~Synthetic Minor Source, FESOP Program~~
Federally Enforceable State Operating Permit (FESOP)
Minor PSD Source

7 The heading of Condition A.2 "Emission Units and Pollution Control Summary" has been changed to be as follows:

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

8. The heading and the first paragraph of Condition A.3 "Insignificant Activities" has been changed to be as follows:

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

This stationary source also includes the following insignificant activities, as defined in ~~326 IAC 2-7-1(20)~~ **326 IAC 2-7-1(21)**:

9. Condition A.4 "FESOP Applicability" has been changed to be as follows:

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 Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

10. Condition A.5 "Prior Permit Conditions" has been added to the permit as follows:

A.5 Prior Permit Conditions

(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

11. Condition B.1 "General Requirements" has been changed to be as follows:

B.1 General Requirements [IC 13-15] [IC 13-17] (Prior to July 1, 1996: IC 13-7 and IC 13-1-1) Permit No Defense [IC 13]

~~The permittee shall comply with the provisions of IC 13-15 (Permits Generally), IC 13-17 (Air Pollution Control) and the rules promulgated thereunder.~~

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.

12. Condition B.2 "Definitions" has been changed to be as follows:

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

Terms in this permit shall have the ~~meaning~~ **definition** assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11 (~~prior to July 1, 1996, IC 13-7-2, IC 13-1-1-2~~), 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

13. Condition B.3 "Permit Term" has been changed to be as follows:

~~B.3 Permit Term [326 IAC 2-8-4(2)]~~

~~This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and ~~IC 13-5-5-3~~ IC 13-15-5-3 (prior to July 1, 1996, IC 13-7-10-2.5), of the permit.~~

14. Condition B.5 "Termination of Right to Operate" has been changed to be as follows:

~~B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]~~

~~The expiration of this permit terminates the Permittee's right to operate~~ **this source terminates with the expiration of this permit** unless a timely and complete renewal application ~~has been~~ **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 2-8-7~~ **326 IAC 2-8-9.**

15. Condition B.6 "Severability" has been changed to be as follows:

~~B.6 Severability [326 IAC 2-8-4(4)]~~

~~(a) — The provisions of this permit are severable; and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby~~ **a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.**

~~(b) — Indiana 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.~~

16. Condition B.8(b), (c) and (d) "Duty to Supplement and Provide Information" has been changed to be as follows:

~~(b) The Permittee shall also provide additional information as requested by~~ **furnish to IDEM, OAM, to determine the compliance status of the source in accordance with 326 IAC 2-8-5(a).**

~~(c) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that the IDEM, OAM 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.~~

~~(d)~~**(c) Upon written request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, For information claimed to be confidential, the Permittee shall** ~~shall~~ **must** ~~directly to both the U.S. EPA and IDEM, OAM, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to the U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.~~

~~Such confidentiality claims shall meet the requirements of 40 CFR Part 2, Subpart B (when submitting to U.S. EPA) and 326 IAC 17 (when submitting to IDEM, OAM).~~

17. Condition B.10(a) "Compliance with Permit Conditions" has been changed to be as follows:

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit **constitutes a violation of the Clean Air Act** and is grounds for:
 - (1) ~~e~~**E** Enforcement action;
 - (2) ~~p~~**P** Permit termination, revocation and reissuance or modification; and
 - (3) ~~d~~**D** Denial of a permit renewal application.

18. Condition B.11 "Certification" has been changed to be as follows:

B.11 Certification [326 IAC 2-8-3(d)] ~~[326 IAC 2-8-4(3)(C)(i)]~~ **[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** Any application form, report, or compliance certification submitted under this permit shall contain certification by a ~~responsible official~~ **authorized individual** of truth, accuracy, and completeness. This certification, and any other certification required under this permit 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, in the attached Certification Form, with each submittal.**
 - (c) ~~A responsible official~~ **An authorized individual** is defined at ~~326 IAC 2-7-1(33)~~ **326 IAC 2-1.1-1(1)**.

19. Condition B.12 "Annual Compliance Certification" has been changed to be as follows:

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

-
- (a) The Permittee shall annually ~~certify that the source has complied~~ **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, and work practices. The certification shall **cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year** to:

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

~~and~~

~~U.S. Environmental Protection Agency (EPA), Regional Administrator, Region V
Air and Radiation Division, Regulation Development Branch (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590~~

- (b) This annual compliance certification report required by this permit shall be **considered** timely if:

- (1) ~~Delivered by U.S. mail and 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; or. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM on or before the date it is due.~~
- (2) ~~Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.~~
- (c) The annual compliance certification report shall include the following:
- (1) The identification of each term and condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was **based on** continuous or intermittent **data**;
 - (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** IDEM, OAM, may require to determine the compliance status of the source.

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

20. Condition B.13 "Preventive Maintenance Plan" has been changed to be as follows:

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

- (a) **If required by specific condition(s) in Section D of this permit**, the Permittee shall prepare, ~~and~~ maintain ~~and implement operation and~~ Preventive Maintenance Plans **(PMP), within ninety (90) days after issuance of this permit as necessary** including the following information on each:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) ~~Corrective actions that will be implemented in the event an inspection indicates an out of specification situation;~~
 - (4) ~~A time schedule for taking such corrective actions including a schedule for devising additional corrective actions for situations that may not have been predicted, and~~
 - (5)(3) Identification and quantification of the replacement parts which will be maintained in inventory for quick replacement.

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

**Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

(b) **The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions, or potential to emit.**

~~(b)(c)~~ **Preventive Maintenance Plans PMP's** shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

21. Condition B.14 "Emergency Provision" has been changed to be as follows:

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 ~~as follows:~~ **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 describes 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 of this permit;
- (4) **For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency occurrence by telephone or facsimile or after the emergency was discovered or reasonably should have been discovered;**

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, **Compliance Data Section**) or,

Telephone No.: 317-233-5674 (**ask for Compliance Section**)

Facsimile No.: 317-233-5967

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

Indiana Department of Environmental Management,
Compliance Branch, Office of Air Management,
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

The notice shall fulfill 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 the “authorized individual” as defined in 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 ~~any emergency or upset provision contained in 326 IAC 1-6 (Malfunctions)~~ **for sources subject to this rule after the effective date of this rule.** This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, may require that the **Preventive Maintenance Plan** required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile ~~within four (4) daytime business hours after the beginning of the emergency~~ **of an emergency lasting more than one (1) hour in compliance 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 ~~clause (B) above~~ **(g)(2)(B) of this condition.**

22. Condition B.15 “Deviations from Permit Requirements and/or Conditions” has been changed to be as follows:

B.15 Deviations from Permit Requirements and/or Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a)** **Deviations from any permit requirements, (for emergencies see Condition B-14 - Emergency Provision), the probable cause of such deviations, and any ~~corrective actions~~ response steps or preventive measures taken shall be reported to:**

Indiana Department of Environmental Management,
Compliance Branch, Office of Air Management,
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or**
- (2) An emergency as defined in 326 IAC 2-7-1(12); or**
- (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.**
- (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.**

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

23. Condition B.16 "Permit Modification, Reopening, Revocation and Reissuance, or Termination" has been changed to be as follows:

B.16 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)] [326 IAC 2-8-8(b)] [326 IAC 2-8-8(c)]~~ **[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 **FESOP** 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)]
 - (b) This permit shall be reopened and revised under any of the circumstances listed in ~~IC 15-15-7-2 (prior to July 1, 1996, in IC 13-7-10-5)~~ **IC 13-15-7-2** or if the commissioner **IDEM, OAM** 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, OAM, 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 ~~practical~~ **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, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

24. Condition B.17 "Permit Renewal" has been changed to be as follows:

B.17 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, OAM, and shall include, ~~at minimum,~~ 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(20)~~ **326 IAC 2-7-1(21) and 326 IAC 2-7-1(40)**.

Request for renewal shall be submitted to:

Indiana Department of Environmental Management,
Permits Branch, Office of Air Management,
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-5-3]
 - (1) ~~The Permittee has a duty to submit a timely and complete permit renewal application.~~ A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) ~~Delivered by U. S. mail and~~ **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, OAM on or before the date it is due.** ~~or~~
 - ~~(C) Delivered by any other method if it received and stamped by IDEM, OAM, on or before the date it is due.~~
 - (2) If IDEM, OAM **upon receiving a timely and complete 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.
- (c) Right to Operate After Application of Renewal [326 IAC 2-8-9]

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, OAM 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, OAM, any additional information identified as needed to process the application.

25. Condition B.18 "Administrative Permit Amendment", Condition B.19 "Minor Permit Modification", and Condition B.20 "Significant Permit Modification" have all been combined into one condition numbered Condition B.18 "Permit Amendment or Modification" as follows:

~~B.18 Administrative Permit Amendment [326 IAC 2-8-10]~~

- ~~(a) An administrative permit amendment is a FESOP revision that makes changes of the type specified under 326 IAC 2-8-10(a).~~
- ~~(b) An administrative permit amendment may be made by IDEM, OAM, consistent with the procedures specified under 326 IAC 2-8-10(b).~~
- ~~(c) The Permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]~~

~~B.19 Minor Permit Modification [326 IAC 2-8-11(a)] [326 IAC 2-8-11(b)(1) and (2)]~~

- ~~(a) A permit modification is any revision to this permit that cannot be accomplished as an administrative permit amendment under 326 IAC 2-8-10.~~
- ~~(b) Minor permit modification procedures shall follow the procedures specified under 326 IAC 2-8-11(b)(1)(A) through (F).~~
- ~~(c) An application requesting the use of minor modification procedures shall meet the requirements of 326 IAC 2-8-3(c) and shall include the information required in 326 IAC 2-8-11(b)(3)(A) through (D).~~
- ~~(d) The Permittee may make the change proposed in its minor permit modification application immediately after it files such application unless the change is subject to the construction permit requirements of 326 IAC 2-1, 326 IAC 2-2, or 326 IAC 2-3. After the Permittee makes the change allowed under minor permit modification procedures, and until IDEM, OAM takes any of the actions specified in 326 IAC 2-8-11(b)(5), the Permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period, the Permittee need not comply with the existing permit terms and conditions it seeks to modify. If the Permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it. [326 IAC 2-8-11(b)(6)]~~

~~B.20 Significant Permit Modification [326 IAC 2-8-11(d)]~~

- ~~(a) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments.~~
- ~~(b) Any significant change in existing monitoring permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions of this permit shall be considered significant.~~
- ~~(c) Nothing in 326 IAC 2-8-11(d) shall be construed to preclude the Permittee from making changes consistent with 326 IAC 2-8 that would render existing permit compliance terms and conditions irrelevant.~~
- ~~(d) Significant modifications of this permit shall meet all requirements of 326 IAC 2-8, including those for application, public participation, and review by the U.S. EPA, as they apply to permit issuance and renewal.~~

B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) The Permittee must comply with 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

26. Condition B.21 “Permit Revision Under Economic Incentives and Other Programs” has been deleted from the final permit as follows. The remaining conditions of this section have been renumbered:

~~B.21 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(2)]~~

~~Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification procedures may be used for modifications of this permit involving the use of economic incentives, marketable FESOP's, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable implementation plan (SIP) or in applicable requirements promulgated by the U.S. EPA.~~

27. Condition B.19 “Changes Under Section 502(b)(10) of the Clean Air Act” was added to the permit as follows. The remaining conditions in Section B have been re-numbered:

B.19 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional condition:

For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

28. Condition B.22 (now re-numbered as Condition B.20) “Operational Flexibility” has been changed to be as follows:

~~B.22~~ **Operational Flexibility [326 IAC 2-8-15]**

(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 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 2-1 has been obtained;

~~(2)~~(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed ~~therein~~ **herein** as a rate of emissions or in terms of total emissions);

~~(3)~~(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

~~Regional Administrator, Region V, U.S. Environmental Protection Agency (EPA), Region V~~ **United States** Environmental Protection Agency **(EPA), 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

~~(4)~~(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

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

(b) For each such **Section 502(b)(10) of the Clean Air Act** change, the required written notification shall include the following:

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

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

(c) Emission Trades [326 IAC 2-8-15(c)]

The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints ~~in~~ **of** Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) 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), ~~and subject to the constraints in section (a) of this condition and those in 326 IAC 2-8-15(d)~~ **No prior notification of IDEM, OAM or U.S. EPA is required.**

- (e) **Backup fuel switches specifically addressed in, and limited under Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.**

29. Condition B.23 (now re-numbered Condition B.21) "Construction Permit Requirement" has been changed to be as follows:

B.2321 Construction Permit Requirement ~~[326 IAC 2-1-1]~~ [326 IAC 2]

~~Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM) Except as allowed by P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.~~

30. Condition B.24 (now re-numbered Condition B.22) "Inspection and Entry" has been changed to be as follows:

B.2422 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of ~~IDEM~~ **proper** identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, 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 are kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 - (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of ~~demonstrating~~ **assuring** compliance with this permit or applicable requirements; and
 - (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of ~~demonstrating~~ **assuring** compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]
- (1) **The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM nor an authorized representative, may disclose the information unless and until IDEM, OAM makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]**

- (2) **The Permittee, and IDEM, OAM acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]**

31. Condition B.23 "Transfer of Ownership or Operation" has been added to the permit as follows. The remaining conditions in Section B have been re-numbered:

B.23 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

The application which shall be submitted by the Permittee does not require the certification by the "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 2-8-11(b)(3)]**

32. Condition B.25 (now renumbered Condition B,.24) "Annual Fee Payment" has been changed to be as follows:

B.2524 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) **The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing, consistent with the fee schedule established in 326 IAC 2-8-16. If the Permittee does not receive a bill from IDEM, OAM 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; referral to the Office of Attorney General for collection; or other appropriate measures.**

~~(c) The Permittee shall pay the annual fee within thirty (30) calendar days of receipt of a billing by IDEM, OAM or in a time period that is consistent with the payment schedule issued by IDEM, OAM.~~

~~(d)~~(c) **If the Permittee does not receive a bill from IDEM, OAM, thirty (30) calendar days before due date, The Permittee shall may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 317-233-0425 (ask for OAM, Data Support Technical Support and Modeling Section), to determine the appropriate permit fee. The applicable fee is due April 1 of each year.**

33. Condition C.1 "Overall Source Limit" has been added as follows. The remaining conditions in Section C have been re-numbered:

C.1 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 any regulated pollutant 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) 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 that the source's potential to emit does not exceed the above specified limits.

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

34. Condition C.1 (now re-numbered Condition C.2) "Opacity" has been changed to be as follows:

C.4.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (~~Visible Emissions Opacity~~ Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), ~~visible emissions Opacity~~ shall meet the following, **unless otherwise stated in this permit:**

- (a) ~~Visible emissions Opacity~~ shall not exceed an average of **forty percent (40%) opacity** in ~~24 consecutive readings~~ **any one (1) six minute averaging period, as determined by 326 IAC 5-1-4,****
- (b) ~~Visible emissions Opacity~~ shall not exceed **sixty (60%) opacity** 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.****

35. Condition C.2 (now re-numbered Condition C.3) "Open Burning" has been changed to be as follows:

C.2.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. ~~This is not a federally enforceable condition.~~ **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. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.**

36. Condition C.4 "Incineration" has been added to the permit as follows. The remaining condition in Section C have been re-numbered:

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

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

37. Condition C.3 (now re-numbered Condition C.5) "Fugitive Dust Emissions" has been changed to be as follows:

C.35 Fugitive Dust Emissions [326 IAC 6-4]

~~The Permittee shall be in violation of 326 IAC 6-4 if any of the criteria specified in 326 IAC 6-4-2 (1) through (4) are violated. This is not a federally enforceable condition.~~ **not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.**

38. Condition C.4 (now re-numbered Condition C.6) "Operation of Equipment" has been changed to be as follows:

C.46 Operation of Equipment [326 IAC 2-8-5(a)(4)]

~~(a) All equipment that potentially might emit pollutants into the ambient air shall be properly operated and maintained.~~

~~(b) Unless otherwise stated in this permit, All air pollution control equipment listed in this permit~~ **and used to comply with an applicable requirement** shall be operated at all times that the emission unit(s) vented to the control equipment is in operation.

~~(c) The permittee shall perform all necessary maintenance and make all necessary attempts to keep all air pollution control equipment in proper operating condition at all times.~~

39. Condition C.8 "Asbestos Abatement Projects" has been added to the permit as follows. The remaining conditions in Section C have been re-numbered:

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

(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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control**
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) 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. The requirement that the inspector be accredited is federally enforceable.

40. Condition C.6 (now re-numbered C.9) "Performance Testing" has been changed to be as follows:

C.69 Performance Testing [326 IAC 3-6]

- (a) ~~Compliance testing shall be conducted on the ammoniator/granulator (EU1), the rotary dryer (EU2), the primary rotary cooler (EU3), and the mixer/blender (EU5) for particulate matter less than ten (10) microns within one hundred and eighty (180) days of the issuance of this permit. The Permittee shall perform the tests specified in this permit to demonstrate compliance with the applicable rule or permit condition. All testing shall be performed according to the provisions of ~~326 IAC 3-2.4~~ 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing and by methods in the approved test protocol by the IDEM, OAM.~~**

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

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

~~at least no later than~~ thirty-five (35) days ~~before~~ prior to the intended test date ~~[326 IAC 3-2.4-2(a)].~~ The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

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

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

41. Condition C.7 (now re-numbered Condition C.10) "Compliance Monitoring" has been changed to be as follows:

C.710 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Compliance with applicable requirements shall be documented in accordance with the provisions of ~~326 IAC 2-8-4(3)~~ **as required by this permit.** The Permittee shall be responsible for installing any necessary equipment and initiating any ~~additional~~ **required** monitoring **related to that equipment** no ~~less~~ **more** than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee **may extend the compliance schedule an additional ninety (90) days provided the Permittee shall** notify:

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

in writing **prior to the end of the initial ninety (90) day compliance schedule** with full justification of the reasons for inability to meet this date ~~and a schedule which it expects to meet.~~ ~~If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.~~

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

42. Condition C.8 (now re-numbered Condition C.11) "Maintenance of Monitoring Equipment" has been changed to be as follows:

C.811 Maintenance of Monitoring Equipment [326 IAC 4-6] [326 IAC 2-8-4(3)(A)(iii)]

- (a) ~~The Permittee shall perform all necessary maintenance and make all necessary attempts to keep all required monitoring equipment in proper operating condition at all times.~~ In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. **To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.**
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. ~~Preventive maintenance plans of the monitors shall be implemented.~~ In addition, prompt correction, ~~as indicated,~~ shall be initiated ~~within the time frames specified,~~ whenever the parameters monitored ~~fall outside of the indicated values.~~

43. Condition C.9 (now re-numbered Condition C.12) "Monitoring Methods" has been changed to be as follows:

C.912 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the **applicable** requirements of this permit shall be performed, ~~whenever applicable~~ according to the provisions of 326 IAC 3, or 40 CFR Part 60, Appendix A, ~~as appropriate, unless some or other approved method is as~~ specified in this permit.

44. Condition C.10 (now re-numbered Condition C.13) "Pressure Gauge Specifications" has been changed to be as follows:

C.4013 Pressure Gauge Specifications

Whenever a condition in this permit requires the ~~taking measurement~~ of pressure drop across any part of ~~a the~~ unit or its control device ~~or the maintenance of a scrubbant flow rate for any unit or control device~~, the gauge employed shall have a scale such that the expected normal reading shall be no less than **twenty (20)** percent of full scale and be accurate within **plus or minus two percent ($\pm 2\%$)** of full scale reading. ~~The instrument shall be quality assured and maintained as specified by the vendor.~~

45. Condition C.11 "Visible Emissions Observations" has been moved from Section C to Section D. The remaining conditions in Section C have been re-numbered):
46. Condition C.14 "Emergency Reduction Plans" has been added as follows. The remaining conditions in Section C have been re-numbered:

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) **The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.**

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

**Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

within ninety (90) days from the date of issuance of this permit.

The ERP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) **If the ERP is disapproved by IDEM, OAM the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.**
- (d) **These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.**
- (e) **Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.**

- (f) **Upon direct notification by IDEM, OAM that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]**

47. Condition C.15 "Risk Management Plan" has been added as follows. The remaining conditions in Section C have been re-numbered:

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) **Submit:**
- (1) **A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or**
 - (2) **As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and**
 - (3) **A verification to IDEM, OAM that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.**
- (b) **Provide annual certification to IDEM, OAM that the Risk Management Plan is being properly implemented.**

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

48. Condition C.12 (no re-numbered as Condition C.16) "Failure to Take Corrective Action" has been changed to be as follows:

C.16 Compliance Monitoring Plan - Failure to Take Corrective Action Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5] [326 IAC 1-6]

~~For each unit for which parametric monitoring is required, appropriate corrective actions as described in the Preventive Maintenance Plan shall be taken when indicated by monitoring information. Failure to take corrective action following an excursion of a surrogate monitoring parameter within the indicated time may constitute a violation of the permit coupled with any one of the following conditions:~~

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

- (5) **A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:**
- (A) **Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and**
- (B) **A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.**
- (b) ~~Taking corrective action as set in the Plan would be unreasonable;~~ **For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.**
- (c) ~~Failure to take corrective action results in the exceedance of an enforceable emission limitation, in which case the violation would be of the underlying standard and may result in a more severe penalty.~~
- (c) After investigating the reason for the excursion, the Permittee ~~may be~~ **is** excused from taking further ~~corrective action~~ **response steps** for any of the following reasons:
- (a)(1) ~~The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps~~ **providing that prompt action was taken to correct the monitoring equipment, that the monitoring equipment malfunctioned, giving a false reading; or**
- (b)(2) The Permittee has determined that the **compliance monitoring** parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or
- (c)(3) An automatic measurement was taken when the process was not operating; or
- (d)(4) ~~The permittee determines that~~ the process has already returned to operating within "normal" parameters and no ~~corrective action is~~ **response steps are** required.
- (d) Records shall be kept of all instances in which the ~~action values were~~ **compliance related info was** not met and of all ~~corrective actions~~ **response steps** taken. In the event of an "emergency", ~~as defined in 326 IAC 2-7-16~~ the provisions of ~~that rule~~ **326 IAC 2-7-16 (Emergency Provisions)** requiring prompt corrective action to mitigate emissions shall prevail.
49. Condition C.13 " Actions Related to Abnormal Visible Emissions" has been deleted from the permit. The remaining conditions in Section C have been re-numbered.

50. Condition C.14 (now re-numbered Condition C.17) "Actions Related to Abnormal Visible Emissions" has been changed to be as follows:

C.4417 Actions Related to Abnormal Visible Emissions Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) ~~Whenever~~ the results of the stack test performed in conformance with Condition C.6 - Performance Testing, of this permit exceed the level specified in any condition of this permit, **the Permittee shall take** appropriate corrective actions. **The Permittee shall be submitted a description of these corrective actions** to IDEM-OAM within thirty (30) days of receipt of the test results. ~~These actions shall be implemented immediately unless notified by OAM that they are not acceptable.~~ The Permittee shall **take appropriate action** to minimize emissions while the corrective actions are being implemented. **IDEM, OAM shall notify the Permittee within thirty (30) days if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.**
- (b) ~~Should IDEM, OAM request a second test~~ **retest** to demonstrate compliance it shall be performed within **one hundred twenty (120) days of the receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one hundred twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline.** Failure of the second test to demonstrate compliance may be grounds for immediate revocation of the permit to operate the affected facility.

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

51. Condition C.15 (now re-numbered Condition C.18) "Emission Reporting" has been changed to be as follows:

C.4518 Emission Reporting Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an ~~certified~~, annual emission statement **certified pursuant to the requirements of 326 IAC 2-6 that meets the requirements of 326 IAC 2-6 (Emission Reporting).** This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year). The annual statement must be submitted to:
- Indiana Department of Environmental Management,
~~Data Support~~ **Technical Support and Modeling** Section, Office of Air Management,
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) This annual emission statement required by this permit shall be 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, OAM, on or before the date it is due.**
- (1) ~~Delivered by U.S. mail and postmarked on or before the date it is due; or~~
- (2) ~~Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.~~

52. Condition C.16 (now re-numbered Condition C.19) "Monitoring Data Availability" has been changed to be as follows:

C.4619 Monitoring Data Availability

- (a) **With the exception of performance tests conducted in Section C - Performance Testing**, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) ~~Records shall be kept of the times that the equipment is not operating.~~ **As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.**
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed **five percent (5%)** of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason **for failure to perform the requirements in (a) above.**

53. Condition C.17 (now re-numbered Condition C.20) "General Record Keeping Requirements" has been changed to be as follows:

C.4720 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location **for a minimum of three (3) years** and available **upon the request** ~~within one hour upon verbal request of an IDEM, OAM representative, for a minimum of three (3) years. They~~ **The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request providing they are made available within thirty (30) days after written request. If the Commissioner makes a written request for the records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.**
- (b) Records of required monitoring information shall include, **where applicable**:
- (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and

- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include:
- (1) Copies of all reports required by this permit.;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) **All Records of preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include but are not limited to : work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.**
 - ~~(5) Relevant work purchases orders;~~
 - ~~(6) Quality assurance and quality control procedures;~~
 - ~~(7) Operator's standard operating procedures;~~
 - ~~(8) Manufacturer's specifications or their equivalent; and~~
 - ~~(9) Equipment "troubleshooting" guidance.~~
- (d) **All record keeping requirements not already legally required shall be implemented within (90) days of permit issuance.**

54. Condition C.18 (now re-numbered Condition C.21) "General Reporting Requirements" has been changed to be as follows:

C.4821 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

- (a) **To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).**
- ~~(a)(b) Unless otherwise stated in this permit, monitoring reports~~ **The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted semiannually to:**

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

~~(b)~~(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be 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, OAM, on or before the date it is due.**

~~(1) Delivered by U.S. mail and postmarked on or before the date it is due; or~~

~~(2) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.~~

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

~~(e)~~(e) All instances of deviations **as described in Section B - Deviations from Permit Requirements Conditions** from any requirements of this permit must be clearly identified in such reports. **The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

55. Condition C.22 "Compliance with 40 CFR 82 and 326 IAC 22-1" has been added to the permit as follows:

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

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

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

56. The equipment listed in Section D.1 "FACILITY OPERATION CONDITIONS" has been changed to be as follows:

Facility Description [326 IAC 2-8-4(10)]

- (1) One granulated fertilizer production line with the following units/facilities:
 - (a) One (1) ammoniator/granulator, identified as EU1, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by a Venturi wet scrubber exhausting to one (1) stack, identified as S/V 02.
 - (b) One (1) rotary dryer, identified as EU2, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by four (4) individual cyclones ducted to a marble bed scrubber exhausting to one (1) stack, identified as S/V 01.
 - (c) One (1) 16 (sixteen) MMBtu per hour natural gas-fired boiler, identified as EU2, which heats air for the rotary dryer.
 - (d) One (1) primary rotary cooler, identified as EU3, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) individual cyclones ducted to a marble bed scrubber exhausting to one stack (1), identified as SV 01.
 - (e) Sizing screens and grinding operation, identified as EU4, with a maximum throughput of 80,000 pounds per hour, and with particulate matter emissions controlled by two (2) individual cyclones ducted through EU3 to the control equipment on EU3.
 - (f) One (1) bag shipping mill and one (1) bulk loadout, jointly identified as EU6, with maximum joint throughput of 160,000 pounds per hour, and with particulate matter emissions controlled by individual baghouses.
- (2) One dry blend fertilizer production line with the following units/facilities: One (1) mixer/blender, identified as EU5, and one (1) bulk shipping mill, identified as EU7, with a maximum throughput of 20 tons per hour for each unit, and with particulate matter emissions jointly controlled by one (1) baghouse. ~~This production-~~ **The control equipment for this line is located outside the building** and therefore the particulate matter emissions from the baghouse are vented outside.

57. Condition D.1.1 "Opacity" has been deleted from this section because it is located in Section C. The remaining conditions in this section have been re-numbered.

58. Condition D.1.4 (now re-numbered Condition D.1.2) "Natural Gas Usage" has been changed to be as follows:

D.1.42 Natural Gas Usage

The ~~boiler~~ **heat source** for the rotary dryer (EU2), rated at 16 MMBtu per hour, shall only operate with natural gas as fuel.

59. Condition D.1.4 "Preventive Maintenance Plan" has been added to the permit as follows. The remaining conditions of this section have been re-numbered:

D.1.4 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.

60. The subsection, identified as "Testing Requirements", has been re-named "**Compliance Determination Requirements**" and has been moved to directly after the "Emission Limitations and Standards" subsection.

61. Condition D.1.7 (now re-numbered Condition D.1.5) "Stack Testing" has been changed to be as follows:

D.1.7 Stack Testing

~~Compliance stack tests shall be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.2:~~

- a) ~~Venturi Scrubber on the ammoniator/granulator (EU1) - scrubbant flow rate and pressure drop across the scrubber.~~
- b) ~~Two (2) cyclones on the rotary dryer (EU2) and two (2) cyclones on the primary rotary cooler (EU3) - pressure drip across each cyclone.~~
- e) ~~Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.~~
- d) ~~The baghouse on the mixer/blender (EU5) - pressure drop across the baghouse.~~

~~These stack test shall be performed once every five years. These test shall be performed according to 326 IAC 3-2-1 (Source Sampling Procedures) using methods specified in the rule or approved by the Commissioner. The Office of Air Management (OAM), shall be notified of the actual test date at least two (2) weeks prior to the date. Pursuant to 326 IAC 3-2-1, a test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test, and all test reports must be received by the OAM within 45 days of completion of the testing.~~

D.1.5 Particulate Matter [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

During the period between 540 days and 720 days after issuance of this permit, the Permittee shall perform PM and PM-10 testing on stack/vent S/V 01. This testing shall utilize methods per 40 CFR Part 60, Appendix A, Method 5, 17 for PM and 40 CFR Part 51, Appendix M, Method 201, 201a, 202 for PM-10, as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

This testing shall also be performed to verify/establish the operating parameters for the following control units that will achieve a minimum control efficiency that corresponds to the PM-10 emission limit in Condition D.1.1 and ensures compliance with the PM limits established under 326 IAC 6-3 (Particulate Matter Emissions):

- (a) **Four (4) cyclones on the rotary dryer (EU2), two (2) cyclones on the primary rotary cooler (EU3), and the two (2) cyclones on the sizing screens and grinding operation (EU4) - pressure drop across each series of cyclones.**
- (b) **Marble bed scrubber on the rotary dryer (EU2) and primary rotary cooler (EU3) - scrubbant flow rate and pressure drop across the scrubber.**

62. Condition D.1.12 (now re-numbered Condition D.1.6) "Daily Visible Emissions" has been moved to the "Compliance Monitoring Requirements" subsection and changed to be as follows:

D.1.426 Daily Visible Emissions Notations

~~Visible Observation at the stacks S/V 01 and S/V 02 shall be performed in accordance with 40 CFR 60, Appendix A, Method 22. The observations will be taken in accordance with the limit in Condition D.1.4~~

- (a) **Daily visible emission notations of the S/V 01 and S/V 02 stack exhausts 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

63. Condition D.1.6 "Operating Parameters" has been deleted and replaced with the following conditions:

D.1.6 Operating Parameters

~~Each control unit shall be in operation at all times when the process it is controlling is in operation. Each control unit shall be operated at the operating parameters specified below or at the operating parameter levels or ranges established during the initial stack tests.~~

- a) ~~The air stream from the ammoniator/granulator (EU1) shall be vented through the Venturi scrubber. The flow of fresh water into the scrubber supply tank (shared with the marble bed scrubber) shall not be hindered. The scrubber shall operate at a scrubbant flow rate of 90 gallons per minute (gpm) and at a pressure drop range of 2-14 inches of water.~~
- b) ~~The air stream from the rotary dryer (EU2) shall be vented through a series of four (4) cyclones and through the marble bed scrubber. The pressure drops from each cyclone shall be maintained between 4 and 7 inches of water. The marble bed scrubber shall be operated at a scrubbant flow rate of 500 gallons per minute (gpm) and at a pressure drop range of 2-5 inches of water. The flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber) shall not be hindered.~~
- e) ~~The air stream from the primary rotary cooler (EU3) shall be vented through a series of two (2) cyclones and through the marble bed scrubber. The pressure drops from each cyclone shall be maintained between 3 and 6 inches of water. The marble bed scrubber shall be operated at a scrubbant flow rate of 500 gallons per minute (gpm) and at a pressure drop range of 2-5 inches of water. The flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber) shall not be hindered.~~
- d) ~~The air stream from the sizing screens and grinding operation (EU4) shall be vented through a series of two (2) cyclones and through the primary rotary cooler (EU3) and its control equipment. The pressure drops from each cyclone shall be maintained between 5 and 8 inches of water.~~
- e) ~~The air stream from the mixer/blender (EU5) and the bag shipping mill (EU7) shall be vented through one (1) baghouse. The inlet and outlet differential static pressure shall be maintained between 5 and 8 inches of water.~~
- f) ~~The air stream from the bag shipping mill (EU6) shall be vented through a baghouse. The inlet and outlet differential static pressure shall be maintained between 5 and 8 inches of water.~~
- g) ~~The air stream from the bulk loadout (EU5) shall be vented through a baghouse. The inlet and outlet differential static pressure shall be maintained between 5 and 8 inches of water.~~

~~The above operating parameters shall be monitored daily.~~

D.1.7 Pressure Drop Readings

The Permittee shall take readings of the total static pressure drop across the cyclones and baghouses controlling the rotary dryer (EU2); the primary rotary cooler (EU3); the sizing screens and grinding operations (EU4); the mixer/blender (EU5); the bag shipping mill (EU6); the bulk loadout (EU6); and the bulk shipping mill (EU7) at least once per working shift when the unit they are controlling is in operation. Unless operated under conditions for which the Preventative Maintenance Plan specifies otherwise, the pressure drop across these control devices shall be maintained within the following ranges or within ranges established during the initial stack tests:

- (a) The series of cyclones controlling the rotary dryer (EU2) - 4 and 7 inches of water across the series.
- (b) The series of cyclones controlling the primary rotary cooler (EU3) - 3 and 6 inches of water across the series.
- (c) The series of cyclones controlling the sizing screens and grinding operation (EU4) - between 5 and 8 inches of water across the series.
- (d) The baghouses controlling bag shipping mill (EU6); the bulk loadout (EU6); the mixer/blender (EU5); and the bulk shipping mill (EU7) - 5 and 8 inches of water.

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

D.1.8 Pressure and Water Flow Rate Readings

The Permittee shall take pressure drop and scrubbing liquid (water) flow rate readings from the Venturi scrubber controlling the ammoniator/granulator (EU1) and the marble bed scrubber controlling the rotary dryer (EU2), the primary rotary cooler (EU3), and the sizing screens and grinding operation (EU4) at least once per working shift when the process they are controlling is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop ranges and scrubbant flow rates for these controls shall be maintained within the following ranges or at a range established during the latest stack test:

- (a) The pressure drop across the Venturi scrubber shall be maintained within the range of 2-14 inches of water and the pressure drop across the marble bed scrubber shall be maintained within 2 - 5 inches of water.
- (b) The Venturi scrubber shall be operated at a scrubbant flow of 90 gallons per minute and the marble bed scrubber shall be operated at a scrubbant flow rate of 500 gallons per minute.

Additionally, the flow of fresh water into the scrubber supply tank (shared with the Venturi scrubber and the marble bed scrubber) shall not be hindered.

The Preventive Maintenance Plan for these units shall contain troubleshooting contingencies and corrective actions for when the pressure readings and/or the scrubbant flow rates are outside the above ranges for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, be subject to approval by IDEM, OAM, and be calibrated at least once every six (6) operating months.

64. Conditions D.1.12 "Control Equipment" and D.1.13 have been deleted from the permit and replaced with the following conditions:

D.1.12 Control Equipment

~~The operating parameter levels or ranges for each control unit in Condition D.1.6 shall be recorded daily and maintained for a period of at least five (5) years from the date of monitoring. A quarterly summary of this information shall be submitted, using the enclosed forms, within thirty (30) days of the end of the quarter being reported.~~

- ~~D.1.13 The total mass rate reading from the flow monitoring device of metric tons per hour of phosphoric-bearing feed material shall be recorded daily and the equivalent P_2O_5 feed shall be determined using the equation in the attached rule. These records shall be maintained for a period of at least 5 years from the date of monitoring.~~

D.1.9 Record Keeping Requirements

The operating parameter levels or ranges for each control unit in Conditions D.1.7 and D.1.8 shall be recorded daily and maintained for a period of at least five (5) years from the date of monitoring.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 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.

65. The Relocation Notification Form has been deleted from the permit. It is not necessary to report changes in equipment locations within the source.
66. The two (2) Emergency/Deviation forms have been combined into one (1) 2-page form to decrease the likelihood of confusion.
67. The Certification Form "Emergency/Deviation Occurrence Reporting Form" has been deleted from the list of forms. This form no longer requires Certification.
68. The Emergency/ Deviation Occurrence Reporting Form "Attach a signed certification to complete this report" has been deleted from the bottom of the second page.
69. The Quarterly Compliance Report is now called the Quarterly Compliance Monitoring Report, the column marked "No Deviations" has been deleted, and the language on the form has been changed.

Appendix A: Emission Calculations

**Particulate Matter Emissions from
Granulation Process Line**

Company Name: Northern Star Minerals Indiana, Inc.
Address City IN Zip: 2910 Grant Line Road, New Albany, Indiana 47150
F: 043-5881
Plt ID: 043-00011
Reviewer: Kyle R. Dreyfuss-Wells
Date: September 27, 1996

Granulation Process Line

1. Raw Material Handling

Uncontrolled PM Emissions

$80,000 \text{ lbs/hr} * 0.2 \text{ lbs PM/ton product} * 1 \text{ ton/2000 lbs} * 8760 \text{ hr/yr} * 1 \text{ ton/2000 lbs}$
= 35.04 tons/yr PM

Controlled PM Emissions

= $35.04 * (1 - \text{CONTROL EFFICIENCY})$
= 35.04 tons/yr or 8.00 lbs/hr because no control device

2. Ammoniator/Granulator

Uncontrolled PM Emissions

$80,000 \text{ lbs/hr} * 1.52 \text{ lbs PM/ton product} * 1 \text{ ton/2000 lbs} * 8760 \text{ hr/yr} * 1 \text{ ton/2000 lbs}$
= 266.3 tons/yr PM

Controlled PM Emissions

$266.3 * (1 - 0.99)$
= 2.663 tons/yr or 0.61 lbs/hr

3. Rotary Dryer

Uncontrolled PM Emissions

$80,000 \text{ lbs/hr} * 1.50 \text{ lbs PM/ton product} * 1 \text{ ton/2000 lbs} * 8760 \text{ hr/yr} * 1 \text{ ton/2000 lbs}$
= 262.8 tons/yr PM

Controlled PM Emissions

$262.8 * (1 - 0.99)$
= 2.628 tons/yr or 0.60 lbs/hr

4. Primary Rotary Cooler

Uncontrolled PM Emissions

$80,000 \text{ lbs/hr} * 1.50 \text{ lbs PM/ton product} * 1 \text{ ton/2000 lbs} * 8760 \text{ hr/yr} * 1 \text{ ton/2000 lbs}$
= 262.8 tons/yr PM

Controlled PM Emissions

$262.8 * (1 - 0.90)$
= 26.28 tons/yr or 6.00 lbs/hr

5. Sizing Screens

Uncontrolled PM Emissions

$80,000 \text{ lbs/hr} * 0.06 \text{ lbs PM/ton product} * 1 \text{ ton/2000 lbs} * 8760 \text{ hr/yr} * 1 \text{ ton/2000 lbs}$
= 10.51 tons/yr PM

Controlled PM Emissions

$10.51 * (1 - 0.95)$
= 0.5256 tons/yr or 0.12 lbs/hr

6. Bag Shipping Mill*

Uncontrolled PM Emissions

$20,400 \text{ lbs/hr} * 0.2 \text{ lbs PM/ton product} * 1 \text{ ton/2000 lbs} * 8760 \text{ hr/yr} * 1 \text{ ton/2000 lbs}$
= 8.94 tons/yr PM

Controlled PM Emissions

$8.94 * (1 - 0.99)$
= 0.0894 tons/yr or 0.02 lbs/hr

7. Bulk Loadout*

Uncontrolled PM Emissions

$59,600 \text{ lbs/hr} * 0.2 \text{ lbs PM/ton product} * 1 \text{ ton/2000 lbs} * 8760 \text{ hr/yr} * 1 \text{ ton/2000 lbs}$
= 26.10 tons/yr PM

Controlled PM Emissions

$26.10 * (1 - 0.99)$
= 0.2610 tons/yr or 0.06 lbs/hr

*Note: Per Jay Emerson at Northern Star on 10/1/96 these are two distinct operations. According to Mr. Emerson, the ratio bag to bulk product shipped out in the past 11 months is 13,000 tons bagged and 38,000 tons bulk, out of a total of 51,000 tons. This is 25.5% bagged and 74.5% bulk. These percentages were applied to the 80,000 lbs per hour potential of the plant to yield the above ton per year estimation for bulk and bagged.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
10 < MM BTU/HR <100**

Small Industrial Boiler: 16 MMBtu/hr boiler for dryer
Company Name: Northern Star Minerals of Indiana, Inc.
Address City IN Zip: 2910 Grant Line Road, New Albany, Indiana, 47105
F: 043-5881
Plt ID: 043-00011
Reviewer: Kyle R. Dreyfuss-Wells
Date: October 1, 1996

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

16.0

140.2

Emission Factor in lb/MMCF	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
	13.7	13.7	0.6	140.0	2.8	35.0
Potential Emission in tons/yr	1.0	1.0	0.0	9.8	0.2	2.5

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 140, Low NOx Burner = 81, Flue gas recirculation = 30

Emission Factors for CO: Uncontrolled = 35, Low NOx Burner = 61, Flue gas recirculation = 37

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emission Calculations

Particulate Matter Emissions from dry blending

Company Name: Northern Star Minerals Indiana, Inc.
Address: 2910 Grant Line Road, New Albany, Indiana 47150
F: 043-5881
Plt ID: 043-00011
Reviewer: Kyle R. Dreyfuss-Wells
Date: October 1, 1996

TOTAL EMISSION CALCULATIONS

Dry Blend Process Line

1. Raw Material Handling

Uncontrolled PM Emissions

20 tons/hr * 0.2 lbs PM/ton product * 8760 hr/yr * 1 ton/2000 lbs
 = 17.52 tons/yr PM

Controlled PM Emissions

= 17.52 * (1 - CONTROL EFFICIENCY)
 = 17.52 tons/yr PM or 4.00 lbs/hr because no control device

2. Mixer/Blender

Uncontrolled PM Emissions

20 tons/hr * 1.52 lbs PM/ton product * 8760 hr/yr * 1 ton/2000 lbs
 = 133.2 tons/yr PM

Controlled PM Emissions

133.2 * (1 - 0.99)
 = 1.33 tons/yr or 0.30 lbs/hr

3. Bulk Shipping Mill

Uncontrolled PM Emissions

20 tons/hr * 0.2 lbs PM/ton product * 8760 hr/yr * 1 ton/2000 lbs
 = 17.52 tons/yr PM

Controlled PM Emissions

17.52 * (1 - 0.99)
 = 0.1752 tons/yr or 0.04 lbs/hr

1. a) PM from Granulation Process

Facility/Unit	Uncontrolled tpy	Controlled tpy
Raw Materials	35.04	35.04
Ammoniator/Granulator	266.3	2.663
Rotary Dryer	262.8	2.628
Primary Rotary Cooler	262.8	26.28
Sizing Screens	10.51	0.5256
Bag Shipping Mill	8.94	0.0894
Bulk Loadout	26.1	0.261
Total	872.49	67.487

b) 'Emissions from 16 MMBtu/hr Boiler for Rotary Dryer

Pollutant	tpy
PM	1
PM-10	1
SO2	0
NOx	9.8
VOC	0.2
CO	2.5

2. PM from Dry Blend Process

Facility/Unit	Uncontrolled tpy	Controlled tpy
Raw Materials	17.52	17.52
Mixer/Blender	133.2	1.33
Bulk Shipping Mill	17.52	0.1752
Total	168.24	19.0252

Total PM-10 from two Process lines

Uncontrolled	1041.73 tpy
Controlled	87.51 tpy