

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**Hydraulic Press Brick Company
Centerton Road
Brooklyn, Indiana 46111**

(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 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T109-6835-00007	
Issued by: Felicia R. George, Assistant Commissioner Office of Air Management	Issuance Date: February 2, 1999

First Significant Source Modification 109-10383	Pages Affected: 4, 6, 6a, 42a, 42b, 42c, 42d
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 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary shale processing plant producing lightweight expanded shale aggregate.

Responsible Official: Ira Smith
Source Address: Centerton Road, Brooklyn, Indiana 46111
Mailing Address: P.O. Box 7, Brooklyn, Indiana 46111-0007
SIC Code: 3295
County Location: Morgan
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD

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

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

- (e) One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
 - (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

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

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

- (a) Paved and unpaved roads and parking lots with public access,
- (b) Other activities or categories not previously identified with emissions below insignificant thresholds:
 - (1) Two coal silos, identified as silos 1 and 2, with a conveying system.
 - (2) Four (4) covered silos, identified as silos 3, 4, 5A, and 5B, each with a maximum capacity of 200 tons of raw shale,
 - (3) Three (3) hoppers, identified as HCR6 through HCR8, each with a maximum capacity of 100 tons of raw shale per hour,
 - (4) Two (2) chutes, identified as HCR16 and HCR17, each with a maximum capacity of 100 tons of expanded shale per hour.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.5 FACILITY OPERATION CONDITIONS

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

- (k) One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
- (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

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

D.5.1 PM Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

Process	Process ID	Stack ID	Emission Limitation (lb/hr)
Screening	ESA 2	ST6	0.42
Crushing	ESA 1	ST6	2.28
Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.2 PM10 Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter less than 10 microns emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

Process	Process ID	Stack ID	Emission Limitation (lb/hr)
Screening	ESA 2	ST6	0.42
Crushing	ESA 1	ST6	1.59
Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM₁₀ to less than 15 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.3 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the one (1) expanded shale aggregate crushing and screening facility which includes:

- (1) one (1) expanded shale aggregate crusher (ID ESA 1), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour),
- (2) one (1) screen (ID ESA 2), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour), and
- (3) five (5) conveyors (ID ESA 3 through ESA 7), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour).

The pounds per hour limitation was calculated with the following equation:

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

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

D.5.4 Particulate Matter (PM) [40 CFR 60, Subpart OOO] [326 IAC 12]

That pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants) the particulate emissions from transfer points on belt conveyors and the screening operation shall be limited to 10% opacity, and the stack emissions from any other affected facility shall be limited to 0.05 g/dscm or less; or to be limited to 7 percent opacity or less.

D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing on Stack ST6 and transfer points on the belt conveyor and screening operation utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. 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.

D.5.7 Particulate Matter (PM)

- (a) The baghouse for PM control shall be in operation at all times when the one (1) expanded shale aggregate crusher (ID ESA 1) and one (1) screen (ID ESA 2) are in operation.
- (b) The water sprinkling system for PM control shall be in operation at all times when the five (5) conveyors (ID ESA 3 through ESA 7) is in operation.

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

D.5.8 Visible Emissions Notations

- (a) Daily visible emission notations of the expanded shale aggregate crusher line, identified as ESA, stack exhaust and conveying operation shall be performed once per shift 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.5.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the ESA baghouse used in conjunction with the expanded shale aggregate crusher line, at least once weekly when the expanded shale aggregate crusher line is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

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

D.5.10 Baghouse Inspections

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

D.5.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.5.12 Record Keeping Requirements

- (a) To document compliance with Condition D.5.8, the Permittee shall maintain records of daily visible emission notations of the expanded shale aggregate crusher line stack exhaust.
- (b) To document compliance with Condition D.5.9, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure
 - (2) Documentation of all response steps implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (b) To document compliance with Condition D.5.10, the Permittee shall maintain records of the results of the inspections required under Condition D.5.10 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

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

Technical Support Document (TSD) for a Source Modification to a Part 70
Operating Permit

Source Background and Description

Source Name:	Hydraulic Press Brick Company
Source Location:	Centerton Road, Brooklyn, Indiana, 46111
County:	Morgan
SIC Code:	3295
Operation Permit No.:	T109-6835-00007
Operation Permit Issuance Date:	February 2, 1999
Source Modification No.:	T109-10383-00007
Permit Reviewer:	Phillip Ritz/EVP

The Office of Air Management (OAM) has reviewed an application from Hydraulic Press Brick Company relating to the construction and operation of a modification to the existing shale processing plant producing lightweight expanded shale aggregate, consisting of:

- (a) One (1) new expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
 - (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

History

On December 16, 1998, Hydraulic Press Brick Company submitted an application to the OAM requesting to add additional surface coating lines to their existing plant. Hydraulic Press Brick Company was issued a Part 70 permit on February 2, 1999.

Changes Proposed

- (a) The construction and operation of the following new equipment to be added to the Title V Operating Permit:

- (a) One (1) new expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
 - (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

- (b) The following changes have been made to the Part 70 Operating Permit:
 - (1) Condition A.2, Page 7 of 46
Add to the listing of emission units the following:
 - (k) One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:**
 - (1) **one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,**
 - (2) **one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and**
 - (3) **five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.**

 - (2) New Section D.5, Page 42a of 46
The equipment list in Section D.5 shall be as follows:

SECTION D.5

FACILITY OPERATION CONDITIONS

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

- (k) One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:**
 - (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,**
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and**
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.**

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

D.5.1 PM Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

Process	Process ID	Stack ID	Emission Limitation (lb/hr)
Screening	ESA 2	ST6	0.42
Crushing	ESA 1	ST6	2.28
Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.2 PM10 Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter less than 10 microns emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

Process	Process ID	Stack ID	Emission Limitation (lb/hr)
Screening	ESA 2	ST6	0.42
Crushing	ESA 1	ST6	1.59
Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM10 to less than 15 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.3 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the one (1) expanded shale aggregate crushing and screening facility which includes:

- (1) one (1) expanded shale aggregate crusher (ID ESA 1), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour),
- (2) one (1) screen (ID ESA 2), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour), and
- (3) five (5) conveyors (ID ESA 3 through ESA 7), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour).

The pounds per hour limitation was calculated with the following equation:

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

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

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

D.5.4 Particulate Matter (PM) [40 CFR 60, Subpart OOO] [326 IAC 12]

That pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants) the particulate emissions from transfer points on belt conveyors or the stack emissions from any other affected facility shall be limited to 0.05 g/dscm or less; or to be limited to 7 percent opacity or less.

D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. 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.

D.5.7 Particulate Matter (PM)

- (a) The baghouse for PM control shall be in operation at all times when the one (1) expanded shale aggregate crusher (ID ESA 1) and one (1) screen (ID ESA 2) are in operation.
- (b) The water sprinkling system for PM control shall be in operation at all times when the five (5) conveyors (ID ESA 3 through ESA 7) is in operation.

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

D.5.8 Visible Emissions Notations

- (a) Daily visible emission notations of the expanded shale aggregate crusher line, identified as ESA stack exhaust 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.5.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the expanded shale aggregate crusher line, at least once weekly when the expanded shale aggregate crusher line is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

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

D.5.10 Baghouse Inspections

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

D.5.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) **The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).**
- (b) **For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).**

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

D.5.12 Record Keeping Requirements

- (a) **To document compliance with Condition D.5.8, the Permittee shall maintain records of daily visible emission notations of the expanded shale aggregate crusher line stack exhaust.**
- (b) **To document compliance with Condition D.5.9, the Permittee shall maintain the following:**

- (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:**
 - (A) Inlet and outlet differential static pressure; and**
 - (B) Cleaning cycle: frequency and differential pressure**
 - (2) Documentation of all response steps implemented, per event.**
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.**
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.**
 - (5) Operator standard operating procedures (SOP).**
 - (6) Manufacturer's specifications or its equivalent.**
 - (7) Equipment "troubleshooting" contingency plan.**
 - (8) Documentation of the dates vents are redirected.**
- (b) To document compliance with Condition D.5.10, the Permittee shall maintain records of the results of the inspections required under Condition D.5.10 and the dates the vents are redirected.**
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

Existing Approvals

The source was issued a Part 70 Operating Permit **T109-6835-00007** on February 2, 1999.

The source has been operating under previous approvals including, but not limited to, the following:

- (a) OP 55-02-90-0093, issued on November 5, 1991;
- (b) OP 55-02-90-0094, issued on November 5, 1990;
- (c) OP 55-02-90-0095, issued on November 5, 1990;
- (d) OP 55-02-90-0096, issued on November 5, 1990; and
- (e) CP 109-2469-00007, issued on March 23, 1993.

All conditions from previous approvals were incorporated into this Part 70 permit except the following:

- (a) CP 109-2469-00007, issued on March 23, 1993.

All Conditions

Reason not incorporated: Emission units were never constructed.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
ST6	expanded shale aggregate crushing and screening	TBD	TBD	5,000	ambient

Recommendation

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

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

Emission Calculations

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

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	320.04
PM10	120.62
SO ₂	2,557.92
VOC	665.76
CO	273.31
NO _x	206.74

- (a) This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 250 tons per year.
- (b) These emissions were based on the Part 70 application issued to the source on February 2, 1999.

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	120.12	1235.16
Particulate Matter (PM10)	NA	935.57
Sulfur Dioxide (SO ₂)	NA	NA

Volatile Organic Compounds (VOC)	NA	NA
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO _x)	NA	NA
Single Hazardous Air Pollutant (HAP)	NA	NA
Combination of HAPs	NA	NA

- (a) Allowable emissions are determined from the applicability of rule 326 IAC 6-3-2. See attached spreadsheets for detailed calculations.
- (b) The allowable emissions based on the rules cited are less than the potential emissions, therefore, the allowable emissions are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of PM are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

Proposed Modification

PTE from the proposed First Significant Modification to Part 70 Permit No. T109-6835-00007 (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Screening ESA 2	1.84	1.84	—	—	—	---
Crushing ESA 1	9.99	6.99	—	—	—	---
Conveying ESA 3-7	5.26	5.26	—	—	—	---
Contemporaneous Increases	—	—	—	—	—	---
Contemporaneous Decreases	—	—	—	—	—	---
Net Emissions	17.08	14.09	NA	NA	NA	NA
PSD or Offset Significant Level	25	15	40	40	100	40

- (a) This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) The PM and PM-10 emissions are limited to less than 25 and 10 tons per year, respectively, therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. (See Appendix A, page 1 of 1).

County Attainment Status

The source is located in Morgan County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment

CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Morgan County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) 40 CFR Part 60, Subpart OOO (Nonmetallic Mineral Processing Plants)
This expanded shale aggregate crushing and screening facility is subject to the New Source Performance Standard 326 IAC 12 and 40 CFR 60.670 through 60.676, Subpart OOO (Nonmetallic Mineral Processing Plants). This rule requires the particulate emissions from transfer points on belt conveyors or the stack emissions from any other affected facility to be limited to 0.05 g/dscm or less; or to be limited to 7 percent opacity or less. (enclosed is a copy of this federal rule)
- (b) There are no National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is a major source under 326 IAC 2-2 (PSD). The facilities listed in this proposed construction permit have emissions that have a potential to emit after controls to less than PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM, PM-10, SO₂, NO_x, VOC and CO. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4 (Fugitive Dust Emissions). The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

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.

326 IAC 6-4 (Fugitive Dust Emissions)

Fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3). In order to comply with this limit the particulate matter (PM) from the expanded shale aggregate crushing and screening facilities shall be controlled by a baghouse and water spray sprinkling system.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The expanded shale aggregate crushing and screening facility is subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the expanded shale aggregate crushing and screening facility are limited as follows from the:

- (a) one (1) expanded shale aggregate crushing and screening facility which includes:
- (1) one (1) expanded shale aggregate crusher (ID ESA 1), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour),
 - (2) one (1) screen (ID ESA 2), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour), and
 - (3) five (5) conveyors (ID ESA 3 through ESA 7), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour).

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

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

According to the emission calculations (See Appendix A, pages 1 and 2 of 2), when operating with the baghouse and water spray system as a control, the emissions from these facilities are as follows:

- (1) one (1) expanded shale aggregate crusher (ID ESA 1) has a potential to emit (PTE) PM of 0.42 pounds per hour after baghouse control of particulate matter,
- (2) one (1) screen (ID ESA 2) has a potential to emit (PTE) PM of 2.28 pounds per hour after baghouse control of particulate matter, and
- (3) five (5) conveyors (ID ESA 3 through ESA 7) each have a potential to emit (PTE) PM of 1.20 pounds per hour after wet suppression of particulate matter.

Therefore, the facilities are in compliance with the requirements. The water spray system shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point or the shale already contains sufficient moisture. The baghouse shall be in operation at all times when the facility is in operation.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations) does not apply because the source is not located in a nonattainment area for particulate matter.

326 IAC 8-1-6 (New Facilities: General Reduction Requirements)

326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply because there are no sources of VOC emissions included in this Source Modification.

No other 326 IAC 8 rules apply.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

- (a) The one (1) expanded shale aggregate crusher line has applicable compliance monitoring conditions as specified below:
 - (1) The baghouse for PM control shall be in operation at all times when the one (1) expanded shale aggregate crusher (ID ESA 1) and one (1) screen (ID ESA 2) are in operation.
 - (2) The water sprinkling system for PM control shall be in operation at all times when the five (5) conveyors (ID ESA 3 through ESA 7) is in operation.
 - (3) Daily visible emission notations of the expanded shale aggregate crusher line, identified as ESA, stack exhaust and conveying operation shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
 - (4) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the expanded shale aggregate crusher line, at least once weekly when the expanded shale aggregate crusher line is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test.

The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (5) An inspection shall be performed each calendar quarter of all bags controlling the expanded shale aggregate crusher operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.
- (6) In the event that bag failure has been observed the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of the permit. For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of the permit.

These monitoring conditions are necessary because the baghouse and water sprinkling system for the one (1) expanded shale aggregate crusher line must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) 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) Part 70 Application Form GSD-08.

Based on information available at the present time, there are no accepted emission factors to utilize to characterize HAP emissions from the industry. However, evaluations of HAP emissions from this industry are ongoing.

Conclusion

The operation of this modification to the existing shale processing plant producing lightweight expanded shale aggregate shall be subject to the conditions of the attached proposed **Significant Source Modification to Part 70 Permit No. T109-6835-00007.**

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for New Construction and Operation

Source Name:	Hydraulic Press Brick Company
Source Location:	Centeron Road, Brooklyn, Indiana, 46111
County:	Morgan
Operation Permit No.:	T109-6835-00007
Operation Permit Issuance Date:	February 2, 1999
Source Modification No.:	T109-10383-00007
SIC Code:	3295
Permit Reviewer:	Phillip Ritz/EVP

On March 8, 1999, the Office of Air Management (OAM) had a notice published in the Martinsville Daily Reporter, Martinsville, Indiana, stating that Hydraulic Press Brick Company had applied for a construction permit to construct and operate a modification to the existing shale processing plant producing lightweight expanded shale aggregate with control. The notice also stated that OAM proposed to issue a permit for this installation 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 April 6, 1999, David Jordan submitted comments on behalf of Hydraulic Press Brick Company. The summary of the comments and corresponding responses is as follows:

Comment 1: The draft transmittal letter to Mr. Ira Smith of Hydraulic Press Brick Company provides a summary of the equipment covered by the permit as well as certain conditions applicable to the project. The numbering for these conditions skips the number "7." Hydraulic Press Brick assumes that this is a typo, and that no additional conditions are anticipated for the permit.

Response 1: The discussion of the NSPS Reporting Requirement on Page 3 of 3 in the Significant Source Modification Letter has been revised to correct the numbering of the conditions, and a header has been added. The language has been changed to:

NSPS Reporting Requirement

~~8~~-7. That pursuant to the New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart OOO, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

Comment 2: Condition A.3 - This condition describes specifically regulated insignificant activities at the plant, and states that the source does not have any such activities. The Title V permit for Hydraulic Press Brick does list several specifically regulated insignificant activities which are still in place at the plant. Hydraulic Press Brick assumes that this language is intended to refer only to equipment being installed as a part of the expanded shale aggregate crusher line, and not to the plant as a whole. Hydraulic Press Brick asks that this be clarified in the final Construction Permit.

Response 2: Although the modification to the source does not include any insignificant activities, the existing insignificant activities should have been included in Condition A.3, on page 6 of 46 in the permit, as the existing stationary source also includes insignificant activities. The following changes have been made to the permit:

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

~~This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).~~

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

- (a) **Paved and unpaved roads and parking lots with public access,**
- (b) **Other activities or categories not previously identified with emissions below insignificant thresholds:**
 - (1) **Two coal silos, identified as silos 1 and 2, with a conveying system.**
 - (2) **Four (4) covered silos, identified as silos 3, 4, 5A, and 5B, each with a maximum capacity of 200 tons of raw shale,**
 - (3) **Three (3) hoppers, identified as HCR6 through HCR8, each with a maximum capacity of 100 tons of raw shale per hour,**
 - (4) **Two (2) chutes, identified as HCR16 and HCR17, each with a maximum capacity of 100 tons of expanded shale per hour.**

Comment 3: Condition D.5.9, (now D.5.6) - This condition requires that a stack test be conducted 30 to 36 months after permit issuance to verify compliance with particulate matter and PM-10 emission limits. Conditions D.5.4 (now D.5.1) and D.5.5 (now D.5.2) contain limitations on emissions from screening, crushing and conveying emissions. As noted in the permit, Hydraulic Press Brick plans to control screening and crushing emission with a fabric filter that will be vented to a stack (Stack #6). Conveying emissions, on the other hand, will be controlled through water spray, and will be fugitive in nature. Hydraulic Press Brick requests that Condition D.5.9 (now D.5.6) be modified to clarify that testing is required for the Stack #6 exhaust only, and that tests to quantify fugitive emissions are not required.

Response 3: Testing for the screening and crushing emissions is required to determine compliance with 326 IAC 6-3-2 (Process Operations) and 40 CFR Part 60.670 Subpart OOO (Nonmetallic Mineral Processing Plants). Testing the emissions from a stack, such as Stack ST6, is the preferred method for establishing the emission rate at any point in time and for calibrating other monitoring methods. Although there is no existing stack venting for the belt conveyor and screening operation, the utilization of a stack to vent emissions from the belt conveyor and screening operation is feasible. Additionally, a temporary enclosure would also allow venting to a stack for performance stack testing, if deemed necessary. Transfer points on the belt conveyor and screening operation are also subject to Subpart OOO. 40 CFR Part 60.672(a) states that:

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

- (1) Contain particulate matter in excess of 0.05 g/dscm; and
- (2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device.

A transfer point is defined in Subpart 000 as “a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.” Testing of the transfer points on the uncovered belt conveyor and screening operation is required to determine compliance with 40 CFR Part 60, Subpart 000. To clarify the testing requirements of Subpart 000, the following change has been made to Condition D.5.9 (now D.5.6) of the permit:

D.5.96 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing **on Stack ST6 and transfer points on the belt conveyor and screening operation** utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. 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.

Comment 4: Condition D.5.11(a), (now D.5.8(a)) - This condition requires daily visible emission notations of the expanded shale aggregate crusher line. Hydraulic Press Brick requests that the language in this condition be clarified with the following additional phrase; “...shall be performed once per day during normal daylight operations...:”

Response 4: The frequency of monitoring needs to allow the results of the monitoring to relate to, that is, to provide assurance of compliance with the particulate matter limitations of 326 IAC 2-2 and 326 IAC 6-3-2. Monitoring once per shift, instead of once per day, allows the frequency of monitoring to accurately reflect the frequency of activity at the source. To clarify that the visible emission notations need only be taken once per shift, Condition D.5.8 has been revised as follows:

D.5.448 Visible Emissions Notations

(a) Daily visible emission notations of the expanded shale aggregate crusher line, identified as ESA, stack exhaust and conveying operation shall be performed **once per shift** during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Comment 5: Condition D.5.12, (now D.5.9) - This condition relates to the requirement to record pressure drop across the baghouse. Hydraulic Press Brick requests that the first sentence be modified to require a record of the “...total static pressure drop across the baghouses used...” to clarify that there is only one baghouse associated with equipment described in this permit.
Condition D.5.15(b) (now D.5.12(b)) - This condition requires that Hydraulic Press Brick shall maintain certain records to demonstrate compliance with Condition D.5.12 (now D.5.9), Parametric Monitoring. The records identified in subcondition (b) are assumed to relate only to the baghouse, however this is not clear. Hydraulic Press Brick requests that (b) be reworded as follows:
“To document compliance with Condition D.5.12, the Permittee shall maintain the following as related to the ESA baghouse:”

Response 5: Condition D.5.12, (now D.5.9) have been revised to show that there is only one baghouse requiring monitoring. A unit identification for the baghouse has also been added to Condition D.5.12, (now D.5.9) to clarify which baghouse requires monitoring. Condition D.5.15 (b), (now D.5.12(b)), which references the baghouse mentioned in Condition D.5.12, (now D.5.9), will remain unchanged.

D.5.129 Parametric Monitoring

The Permittee shall record the total static pressure drop across the **ESA** baghouses used in conjunction with the expanded shale aggregate crusher line...

Comment 6: Construction Conditions D.5.1 through D.5.3 of the Permit and Technical Support Document (Pages 3 to 6) - The condition numbers for the listing of permit conditions provided does not match those contained in the actual permit (all numbers are off by 3). Also, in the Technical Support Document (Condition D.5.10 on page 5 of 12) - The TSD working for this condition incorrectly refers to a "woodworking operation")

Response 6:

(a) Construction Conditions D.5.1 through D.5.3 in the Permit have been removed because the source modification letter provided the construction conditions for the modification. The remaining operation conditions and references in Section D.5 have been renumbered to reflect the removal of the construction conditions.

~~THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-7-10.5, WITH CONDITIONS LISTED BELOW.~~

~~Construction Conditions~~

~~General Construction Conditions~~

~~D.5.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.~~

~~Effective Date of the Permit~~

~~D.5.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.~~

~~D.5.4 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications pursuant to 326 IAC 2.~~

~~Operation Conditions~~

(b) The language in the changes proposed section of the TSD (Condition D.5.10) has been corrected to reflect the operation of an expanded shale aggregate crusher and not a woodworking operation.

The following revisions have been made to the TSD (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

D.5.10 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the ~~woodworking~~ **expanded shale aggregate crusher** operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

Comment 7: Technical Support Document (TSD) (Page 1 of 12) - Under the heading "History," the TSD incorrectly identifies the permit request as covering "additional surface coating lines."

Response 7: The following revisions have been made to the Technical Support Document (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The History section on Page 1 of 12 in the TSD has been revised to reflect the actual equipment at the source. The language has been changed to:

History

On December 16, 1998, Hydraulic Press Brick Company submitted an application to the OAM requesting to add ~~additional surface coating lines one (1)~~ **new expanded shale aggregate crusher line** to their existing plant. Hydraulic Press Brick Company was issued a Part 70 permit on February 2, 1999.

Upon further review from the OAM, the OAM has decided to make the following changes to the Part 70 Operating Permit (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

- 1) The Table of Contents on page 2 of 46 has been revised to include both the existing Title V Conditions and the First Significant Source Modification Conditions.
- 2) Section D.5.7 (now D.5.4) on Page 42b of 46 in the Permit has been revised to reflect the actual equipment at the source. The language has been changed to:

D.5.74 Particulate Matter (PM) [40 CFR 60, Subpart OOO] [326 IAC 12]

That pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants) the particulate emissions from transfer points on belt conveyors **and the screening operation shall be limited to 10% opacity**, and the stack emissions from any other affected facility shall be limited to 0.05 g/dscm or less; or to be limited to 7 percent opacity or less.

- 3) The changes proposed section of the TSD have been renumbered and changed to reflect comments on the Permit during the public notice period. The changes to the TSD are as follows:

The following revisions have been made to the TSD (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

D.5.4 Particulate Matter (PM) [40 CFR 60, Subpart OOO] [326 IAC 12]

That pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants) the particulate emissions from transfer points on belt conveyors **and the screening operation shall be limited to 10% opacity**, and the stack emissions from any other affected facility shall be limited to 0.05 g/dscm or less; or to be limited to 7 percent opacity or less.

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing **on Stack ST6 and transfer points on the belt conveyor and screening operation** utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. 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.

D.5.8 Visible Emissions Notations

- (a) Daily visible emission notations of the expanded shale aggregate crusher line, identified as ESA, stack exhaust and conveying operation shall be performed **once per shift** 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.5.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the **ESA** baghouses used in conjunction with the expanded shale aggregate crusher line, at least once weekly when the expanded shale aggregate crusher line is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test.

The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

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

Appendix A: Emission Calculations for PM

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: 109-10383
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 11/23/98

Appendix A: Emission Calculations for PM

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: 109-10383
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 11/23/98

SCC# 3-05-003-08 expanded shale aggregate screening		Throughput		Control Device: Baghouse (and moisture from water spray system on feed conveyor) Control Efficiency: 99.00%			
TYPE OF MATERIAL	LBS/HR	TON/HR					
Shale	60000	30					
	PM lbs/ton metal charged 1.4	PM10 lbs/ton metal charged 1.4	SOx lbs/ton metal charged 0.00	NOx lbs/ton metal charged 0.00	VOC lbs/ton metal charged 0.00	CO lbs/ton metal charged 0.00	Lead lbs/ton metal charged 0.00
Potential Uncontrolled Emissions lbs/hr	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	1008.0	1008.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	184.0	184.0	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/hr	0.42	0.42	0.00	0.00	0.00	0.00	0.00
Potential Controlled Emissions lbs/day	10.1	10.1	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	1.84	1.84	0.0	0.0	0.0	0.0	0.0

Note: Emission factors from USEPA's AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants (AIRS), March 1990.

SCC# 3-05-003-02 expanded shale aggregate crushing		Throughput		Control Device: Baghouse (and moisture from water spray system on feed conveyor) Control Efficiency: 99.00%			
TYPE OF MATERIAL	LBS/HR	TON/HR					
Shale	60000	30					
	PM lbs/ton metal charged 7.6	PM10 lbs/ton metal charged 5.32	SOx lbs/ton metal charged 0.00	NOx lbs/ton metal charged 0.00	VOC lbs/ton metal charged 0.00	CO lbs/ton metal charged 0.00	Lead lbs/ton metal charged 0.00
Potential Uncontrolled Emissions lbs/hr	228.0	159.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	5472.0	3830.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	998.6	699.0	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/hr	2.28	1.60	0.00	0.00	0.00	0.00	0.00
Potential Controlled Emissions lbs/day	54.7	38.3	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	9.99	6.99	0.0	0.0	0.0	0.0	0.0

Note: Emission factors from USEPA's AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants (AIRS), March 1990.

Appendix A: Emission Calculations for PM

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: 109-10383
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 11/23/98

SCC# 3-05-009-05							
expanded shale aggregate transfer/conveying							
TYPE OF MATERIAL		Throughput		Control Device: Water Spray System on feed conveyor			
		LBS/HR	TON/HR	Control Efficiency: 90.00%			
Shale		60000	30				
	PM	PM10	SOx	NOx	VOC	CO	Lead
	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged
	0.4	0.4	0.00	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions lbs/hr	12.0	12.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	288.0	288.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	52.6	52.6	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/hr	1.20	1.20	0.00	0.00	0.00	0.00	0.00
Potential Controlled Emissions lbs/day	28.8	28.8	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	5.26	5.26	0.0	0.0	0.0	0.0	0.0

Note: Emission factors from USEPA's AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants (AIRS), March 1990.

Totals (uncontrolled)	1,235.16	935.57	0	0	0	0	0
Totals (controlled)	17.08	14.09	0	0	0	0	0

Mr. Ira Smith
Hydraulic Press Brick Company
Centeron Road
Brooklyn, Indiana, 46111

Re: **109-10383-00007**
Significant Source Modification to:
Part 70 permit No.: **T109-6835-00007**

Dear Mr. Ira Smith:

Hydraulic Press Brick Company was issued Part 70 operating permit **T109-6835-00007** on February 2, 1999 for a modification to the existing shale processing plant producing lightweight expanded shale aggregate. An application to modify the source was received on November 23, 1998. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) One (1) new expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
- (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

NSPS Reporting Requirement

7. That pursuant to the New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart OOO, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:
 - (a) Commencement of construction date (no later than 30 days after such date);
 - (b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - (c) Actual start-up date (within 15 days after such date); and
 - (d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

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

The application and enforcement of these standards have been delegated to the IDEM-OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter please contact Phillip Ritz, at 973-575-2555 (ext. 3241) or 1-800-451-6027 press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

PR

cc: File - Morgan County
U.S. EPA, Region V
Morgan County Health Department
Air Compliance Section Inspector Marc Goldman
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Nancy Landau