

**NEW SOURCE CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY**

And

VIGO COUNTY AIR POLLUTION CONTROL

**Cheetah Building Products
4600 North 13th Street
Terre Haute, Indiana 47805**

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, (326 IAC 2-5.1 if new source), 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 167-18265-00056	
//Original Signed by// Issued by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: March 22, 2006 Expiration Date: March 22, 2011

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary concrete block and brick manufacturing operation.

Authorized Individual: Monte Barton
Source Address: 4600 North 13th Street, Terre Haute, Indiana 47805
Mailing Address: 4600 North 13th Street, Terre Haute, Indiana 47805
General Source Phone: 812-466-1234
SIC Code: 3271
County Location: Vigo
Source Location Status:
Nonattainment for ozone under the 8-hour standard
Maintenance attainment for sulfur dioxide
Attainment area for all other criteria pollutants
Source Status: Minor Source, under PSD and Nonattainment NSR;
Minor Source, Section 112 of the Clean Air Act
Not 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) cement mixer, identified as Mixer #1, constructed in 1982 with a maximum capacity of 34 tons per hour.
- (b) One (1) cement silo, identified as Silo #1, constructed in 1982 with a maximum capacity of 34 tons per hour, using dust collector #1 as control.
- (c) One (1) R-1500 cement mixer, identified as Mixer #2, constructed in 2002 with a maximum capacity of 95 tons per hour.
- (d) One (1) R-2000 cement mixer, identified as Mixer #3, constructed in 2002 with a maximum capacity of 63.5 tons per hour.
- (e) One (1) white-cement silo, identified as Silo #2, constructed in 2002 with a maximum capacity of 9 tons per hour, using dust collector #2 as control.
- (f) One (1) gray-cement silo, identified as Silo #3, constructed in 2002 with a maximum capacity of 9 tons per hour, using dust collector #3 as control.
- (g) Five (5) aggregate bins, constructed in 2002 each with a maximum capacity of 150 tons, and covered by a penthouse cover.
- (h) One (1) mist kiln, constructed in 2002 with a maximum heat input of 0.078 MMBtu/hr.

SECTION B GENERAL CONDITIONS

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

B.1 Permit No Defense [IC 13]

This permit to 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.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

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

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

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

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

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

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

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
 - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and 326 IAC 2-2 or 326 IAC 2-3 and an Operation Permit Validation Letter is issued.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

B.8 Local Agency Requirement

Approval of this New Construction Permit and Minor Source Operating Permit shall also serve as permission to operate.

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality and Vigo County Air Pollution Control stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807

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

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807

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

- (b) A copy of the PMP's shall be submitted to IDEM, OAQ, and VCAPC upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and VCAPC. IDEM, OAQ, and VCAPC may require the Permittee to revise its PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807

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

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

B.12 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and VCAPC U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.13 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

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

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

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

B.14 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate

permit fee.

B.15 Credible Evidence [326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

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

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 Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

C.3 Fugitive Dust Emissions [326 IAC 6-4]

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

C.4 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on November 19, 2002. The plan consists of:

- (a) Wet suppression of dust from unpaved roadways, operating areas, and storage piles.
- (b) Progressively paving unpaved roads and operating areas.

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least

thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

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

- (g) Indiana 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 to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements

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

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

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

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required

monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

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

C.10 Response to Exceedances or Excursions

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

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, and VCAPC within thirty (30) days

of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ and VCAPC that re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ and VCAPC may extend the re-testing deadline.
- (c) IDEM, OAQ and VCAPC reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

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

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

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

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

C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]

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

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

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

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and VCAPC on or before the date it is due.
- (c) Unless otherwise specified in this permit, any quarterly or semi-annual report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) 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. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 FACILITY OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) cement mixer, identified as Mixer #1, constructed in 1982 with a maximum capacity of 34 tons per hour.
- (b) One (1) cement silo, identified as Silo #1, constructed in 1982 with a maximum capacity of 34 tons per hour, using dust collector #1 as control.
- (c) One (1) R-1500 cement mixer, identified as Mixer #2, constructed in 2002 with a maximum capacity of 95 tons per hour.
- (d) One (1) R-2000 cement mixer, identified as Mixer #3, constructed in 2002 with a maximum capacity of 63.5 tons per hour.
- (e) One (1) white-cement silo, identified as Silo #2, constructed in 2002 with a maximum capacity of 9 tons per hour, using dust collector #2 as control.
- (f) One (1) gray-cement silo, identified as Silo #3, constructed in 2002 with a maximum capacity of 9 tons per hour, using dust collector #3 as control.
- (g) Five (5) aggregate bins, constructed in 2002 each with a maximum capacity of 150 tons, and covered by a penthouse cover.
- (h) One (1) mist kiln, constructed in 2002 with a maximum heat input of 0.078 MMBtu/hr.

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

Emission Limitations and Standards

D.1.1 Particulate [326 IAC 6-3-2] [326 IAC 2-6.1-6] [326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-3-2(e), particulate matter (PM) emissions from the cement transfer operations and cement mixer loading shall be limited to no greater than 43.6 pounds per hour for each operation.
- (b) Pursuant to 326 IAC 6-3-2(e), particulate matter (PM) emissions from the aggregate transfer operations shall be limited to no greater than 51.3 pounds per hour.
- (c) Pursuant to 326 IAC 6-2-4, particulate matter (PM) emissions from the mist kiln shall be limited to 0.60 pounds per million (MM) Btu heat input.

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.3 Particulate Control

In order to comply with D.1.1(a), the cement silo dust collectors for particulate control shall be in operation and controlling emissions from the cement transfer processes at all times these processes are in operation.

Compliance Monitoring Requirements

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the cement silo dust collector exhausts shall be performed once per day during normal daylight operations when cement transfer operations are taking place. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.5 Broken or Failed Bag Detection

For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line.

Dust collector bag failure can be indicated by an opacity violation, or by other means such as air infiltration, leaks, dust traces or triboflows.

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

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of visible emission notations of the dust collector exhausts once per day.
- (b) 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 QUALITY
COMPLIANCE BRANCH**

And

VIGO COUNTY AIR POLLUTION CONTROL

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

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

Company Name:	Cheetah Building Products
Address:	4600 North 13th Street
City:	Terre Haute
Phone #:	812-466-1234
MSOP #:	167-18265-00056

I hereby certify that Cheetah Building Products is still in operation.
 no longer in operation.

I hereby certify that Cheetah Building Products is in compliance with the requirements of MSOP 167-18265-00056.
 not in compliance with the requirements of MSOP 167-18265-00056.

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

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

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**VIGO COUNTY AIR POLLUTION CONTROL
FAX NUMBER - 812-462-3447**

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

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ? Yes. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

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

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

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

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

DATE/TIME MALFUNCTION STARTED: ____/____/19____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ AM/PM

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

**Indiana Department of Environmental Management
Office of Air Quality
and Vigo County Air Pollution Control**

Technical Support Document (TSD) for a New Source Construction
and Minor Source Operating Permit

Source Background and Description

Source Name:	Cheetah Building Products
Source Location:	4600 North 13th Street, Terre Haute, IN 47805
County:	Vigo
SIC Code:	3271
Operation Permit No.:	56-3271-01-93
Operation Permit Issuance Date:	October 22, 1993
MSOP No.:	167-18265-00056
Permit Reviewer:	Scott Sines

The Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) have reviewed an application from Cheetah Building Products relating to the construction and operation of a stationary concrete block and brick manufacturing operation.

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) cement mixer, identified as Mixer #1, constructed in 1982 with a maximum capacity of 34 tons per hour.
- (b) One (1) cement silo, identified as Silo #1, constructed in 1982 with a maximum capacity of 34 tons per hour, using dust collector #1 as control.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units:

- (a) One (1) R-1500 cement mixer, identified as Mixer #2, constructed in 2002 with a maximum capacity of 95 tons per hour.
- (b) One (1) R-2000 cement mixer, identified as Mixer #3, constructed in 2002 with a maximum capacity of 63.5 tons per hour.
- (c) One (1) white-cement silo, identified as Silo #2, constructed in 2002 with a maximum capacity of 9 tons per hour, using dust collector #2 as control.
- (d) One (1) gray-cement silo, identified as Silo #3, constructed in 2002 with a maximum capacity of 9 tons per hour, using dust collector #3 as control.
- (e) Five (5) aggregate bins, constructed in 2002 each with a maximum capacity of 150 tons, and covered by a penthouse cover.

- (f) One (1) mist kiln, constructed in 2002 with a maximum heat input of 0.078 MMBtu/hr.

Existing Approvals

The source has been operating under previous approvals including, but no limited to, the following:

OP 56-3271-01-93 issued on October 22, 1993.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

- (a) VCAPC is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled "Unpermitted Emission Units and Pollution Control Equipment".
- (b) VCAPC is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the construction and operation 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.

A complete application for the purposes of this review was received on November 19, 2002.

Emission Calculations

See Appendix A of this document for detailed emission calculations pages 1 – 4.

Potential to Emit of the Source Before Controls

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

Pollutant	Potential to Emit (tons/yr)
PM	71.09
PM-10	71.09
SO ₂	0.00
VOC	0.00
CO	0.01
NO _x	0.03

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.

- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Vigo County.

Pollutant	Status
PM-2.5	attainment
PM-10	Attainment
SO ₂	maintenance attainment
NO ₂	attainment
1-hour Ozone	attainment
8-hour Ozone	basic nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Vigo County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (b) Vigo County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (c) Vigo County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/yr)
PM	14.38

PM-10	14.38
SO ₂	0.00
VOC	0.00
CO	0.01
NO _x	0.03
Single HAP	0.0
Combination HAPs	0.0

- (a) This existing source is not a major stationary source because PM-10 is not emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

The source was issued Permit OP 56-3271-01-93 on October 22, 1993.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit. 40 CFR Part 60 Subpart OOO does not apply to this source as the source does not meet the definition of a nonmetallic mineral processing facility.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Vigo County and the potential to emit of all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (c) This source is not located in the area of Vigo County referenced in 326 IAC 5-1-1(c)(8).

326 IAC 6-4-2 (Fugitive Dust Emission Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions) the source shall comply with this rule as the source consists of multiple sources of fugitive dust including aggregate storage piles, unpaved roadways, and unpaved operating areas.

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

The source is subject of the provisions of 326 IAC 6-5 as it was constructed after December 13, 1985.

326 IAC 1-7 (Stack Height Provisions)

Pursuant to 326 IAC 1-7-1 this rule applies to sources having exhaust gas stacks through which a potential of twenty-five (25) tons per year or more of particulate matter are emitted. The source does not have any exhaust gas stacks with a potential to emit of twenty-five (25) tons per year or more of particulate matter. Therefore 326 IAC 1-7 does not apply.

State Rule Applicability – Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this concrete block and brick manufacturing operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-2-4 ((Emission Limitations for sources of indirect heating)

Pursuant to 326 IAC 6-2-4, for heat input less than 10 MMBTU/hour PM emissions shall not exceed 0.60 pounds per million (MM) Btu heat input.

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

- (a) Pursuant to 326 IAC 6-3-2(e), particulate matter (PM) emissions from the cement transfer operations and cement mixer loading shall be limited to no greater than 43.6 pounds per hour for each operation when operating at a process weight rate of 45 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2(e), particulate matter (PM) emissions from the aggregate transfer operations shall be limited to no greater than 51.3 pounds per hour when operating at a process weight rate of 100 tons per hour.

The following equation shall be used for interpolation and extrapolation for process weight rates in excess of sixty thousand (60,000) pounds per hour:

$$E = 55.0P^{0.11} - 40$$

With E = Rate of emission in pounds per hour.
P = Process weight rate in tons per hour.

326 IAC 6.5-1-2 (Nonattainment Area Limitations)

326 IAC 6.5-1-2 applies to Vigo County sources not specifically listed in 326 IAC 6.5-9 that have the potential to emit one hundred (100) tons or more, or have actual emissions of ten (10) tons or more, of particulate matter per year. As the source is not specifically listed in 326 IAC 6.5-9, does not have the potential to emit one hundred (100) tons or more, and does not have actual emissions of ten (10) tons or more or particulate matter per year 326 IAC 6.5-1-2 is not applicable to this source.

Compliance Requirements

326 IAC 2-6.1-5(a)(2)(Compliance Monitoring)

Compliance requirements are included to ensure that the source complies with all applicable state and federal requirements. These requirements are divided into two sections, Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit.

Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Compliance monitoring conditions applicable to this source are as follows:

1. Visible emission notations of the cement silo dust collectors shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. 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. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

2. In the event that dust collector bag failure has been observed:

For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line.

Dust collector bag failure can be indicated by an opacity violation, or by other means such as air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary in order to comply with the requirements of 326 IAC 6-3.

Conclusion

The construction and operation of this concrete block and brick manufacturing operation shall be subject to the conditions of the New Source Construction and Minor Source Operating Permit 167-18265-00056.

Cheetah Building Products
4600 North 135h Street
Terre Haute, IN 47805

Affidavit of Construction

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

- 1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
- 2. I hold the position of _____ for _____.
(Title) (Company Name)
- 3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)
- 4. I hereby certify that Cheetah Building Products, 4600 North 13th Street, Terre Haute, Indiana, 47805, has constructed the stationary concrete block and brick manufacturing facility in conformity with the requirements and intent of the construction permit application received by Vigo County Air Pollution Control on November 19, 2002 and as permitted pursuant to New Source **Construction Permit and Minor Source Operating Permit No. M167-18265-00056, Plant ID No. 167- 00056** issued on DATE
- 5. Additional facilities were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit. (Delete this statement if it does not apply.)
- 6. I hereby certify that Cheetah Building Products is now subject to the Minor Source Operating program.

Further Affiant said not.

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

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 20 _____ .

My Commission expires:

Signature

Name (typed or printed)

Appendix A: Emission Calculations
Stationary Concrete Batch Plants - Nonattainment Area
Portable Concrete Batch Plants

Company Name: Cheetah Building Products
Address City IN Zip: Terre Haute, Indiana
Permit Number: 167-18265-00056
Plt ID: 167-00056
Reviewer: Scott Sines
Date: 10/06/04

* * emissions before controls * *

Storage		** see page 2 **			0.00 tons/yr	Ch.11.2.3 (Fourth edition, no update)
Transporting		** see page 3 **			0.00 tons/yr	-42 Ch. 13.2.2 (Supplement E, 9/98)
Aggregate Dropping	57 ton/hr x	0.0016 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.40 tons/yr	\P-42 Ch. 13.2.4 (Fifth edition, 1/95)
Aggregate Transfer	91 ton/hr x	0.029 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	11.56 tons/yr	P-42 Ch.11.12.2 (Fifth edition, 1/95)
Cement Transfer	45 ton/hr x	0.24 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	47.30 tons/yr	P-42 Ch.11.12.2 (Fifth edition, 1/95)
Weigh Scale Loading	45 ton/hr x	0.02 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	3.94 tons/yr	P-42 Ch.11.12.2 (Fifth edition, 1/95)
Mixer Loading	45 ton/hr x	0.04 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	7.88 tons/yr	P-42 Ch.11.12.2 (Fifth edition, 1/95)
Truck Loading	0 ton/hr x	0.02 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.00 tons/yr	P-42 Ch.11.12.2 (Fifth edition, 1/95)
Total emissions before controls:					71.09 tons/yr	

Note: 45 ton/hr mixer loading based on maximum capacity of block machine.

* * emissions after controls * *

Storage	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Transporting	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Aggregate Dropping	0.40 tons/yr x	50.0% emitted after controls =	0.20 tons/yr
Aggregate Transfer	11.56 tons/yr x	50.0% emitted after controls =	5.78 tons/yr
Cement Transfer	47.30 tons/yr x	1.0% emitted after controls =	0.47 tons/yr
Weigh Scale Loading	3.94 tons/yr x	1.0% emitted after controls =	0.04 tons/yr
Mixer Loading	7.88 tons/yr x	100.0% emitted after controls =	7.88 tons/yr
Truck Loading	0.00 tons/yr x	100.0% emitted after controls =	0.00 tons/yr
Total emissions after controls:			14.38 tons/yr

concret2.xls 5/96
updated 4/99

** fugitive vs. nonfugitive **

Storage	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Transporting	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Aggregate Dropping	0.40 tons/yr x	50.0% emitted after controls =	0.20 tons/yr
Total fugitive emissions:			0.20 tons/yr
Weigh Scale Loading	3.94 tons/yr x	1.0% emitted after controls =	0.04 tons/yr
Mixer Loading	7.88 tons/yr x	100.0% emitted after controls =	7.88 tons/yr
Truck Loading	0.00 tons/yr x	100.0% emitted after controls =	0.00 tons/yr
Aggregate Transfer	11.56 tons/yr x	50.0% emitted after controls =	5.78 tons/yr
Cement Transfer	47.30 tons/yr x	1.0% emitted after controls =	0.47 tons/yr
Total nonfugitive emissions:			14.18 tons/yr

** storage **

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$

$$= 1.85 \text{ lb/acre/day}$$

where s = 1.6 % silt content of material
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft}) \cdot (365 \text{ day/yr})$$

$$= 0.00 \text{ tons/yr}$$

where sc = 0,000 tons storage capacity (storage piles are all in enclosed shelters)

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** unpaved roads **

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98). Two methods are provided for calculating emissions. The first method does not consider natural mitigation due to precipitation.

$$\begin{aligned} & 1.7 \text{ trip/hr} \times \\ & 0.0568 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8760 \text{ hr/yr} = \end{aligned} \quad 1691.731 \text{ miles per year}$$

Method 1

$$E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c]$$

$$= 3.45 \text{ lb/mile}$$

where k = 2.6 for PM-10 (k=10 for PM-30 or TSP)

s = 4.8 mean % silt content of unpaved roads

b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)

c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)

W = 38 tons average vehicle weight

M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{3.45 \text{ lb/mi} \times 0 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.00 \text{ tons/yr}$$

This method has a lower quality rating than Method 1.

Method 2:

$$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c]\} \cdot [(365-p)/365]$$

$$= 3.45 \text{ lb/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)

s = 4.8 mean % silt content of unpaved roads

b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)

c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)

W = 38 tons average vehicle weight

M_{dry} = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

p = no. of days with at least 0.254mm of precipitation (See Fig. 13.2.2-1)

$$\frac{3.45 \text{ lb/mi} \times 0 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.00 \text{ tons/yr}$$

** aggregate handling **

The following calculations determine the amount of emissions created by dropping of material, based on 8,760 hours of use and AP-42, Ch. 13.2.4 (Fifth edition, 1/95):

$$E_f = k \cdot (0.0032)^U \cdot (U/5)^{1.3} / (M/2)^{1.4}$$

$$= 0.0016 \text{ lb/ton}$$

where k = 0.74 (particle size multiplier)

U = 10 mile/hr mean wind speed

M = 5 % material moisture content

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** miscellaneous **

The following calculations determine the emissions created by natural gas combustion based on 8,760 hours of use and EPA SCC #1-03-006-03 (FIRE 6.01):

$$\text{Pollutant: } \frac{0.078 \text{ MMBtu/hr} * 8760 \text{ hr/yr}}{1000 \text{ Btu/cf} * 2000 \text{ lb/ton}} * \text{Ef (lb/MMcf)} = \text{Emission rate (tons/yr)}$$

P M*:	4.5 lb/MMcf =	0.00 tons/yr	*filterable PM only
S O x:	0.6 lb/MMcf =	0.00 tons/yr	
N O x:	100.0 lb/MMcf =	0.03 tons/yr	
V O C:	5.3 lb/MMcf =	0.00 tons/yr	
C O:	21.0 lb/MMcf =	0.01 tons/yr	

SOx, NOx, VOC and CO emissions are small enough to be negligible since the pollutant of concern is particulate matter.

The following calculations determine compliance with 326 IAC 6-2-4:

$$\text{limit} = 1.09 / (0.078)^{26} = 0.60 \text{ lb/MMBtu by default}$$

$$\frac{0.00 \text{ ton/yr} * 2000 \text{ lb/ton}}{8760 \text{ hr/yr} * 0.078 \text{ MMBtu/hr}} = 0.09 \text{ lb/MMBtu (will comply)}$$

The following calculations determine compliance with 326 IAC 6-1-2, which limits stack emissions from plants located in nonattainment areas to 0.03 gr/dscf:

$$\frac{0.47304 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb}}{525600 \text{ min/yr} * 504 \text{ sq ft cloth} * 3 :1 \text{ air/cloth ratio}} = 0.0083333 \text{ gr/cu ft (will comply)}$$

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