



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: September 20, 2005
RE: Lone Star Industries, Inc. dba Buzzi Unicem USA / 133-19255-00002
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

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

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

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

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

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

Enclosures
FNPER-MOD.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
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Mr. John Kass
Lone Star Industries, Inc. dba Buzzi Unicem USA
P.O.Box 482
Greencastle, IN 46135

September 20, 2005

Re: 133-19255
First Minor Permit Modification
Part 70 No.: T133-6927-00002

Dear Mr. Kass:

Lone Star Industries, Inc. dba Buzzi Unicem USA was issued a permit on April 14, 2004 for a stationary portland cement manufacturing plant. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification relates to burning alternate fuels in the kiln and calciner consisting of plastic chips, carpet fibers, wood chips, chipped tires, toner, oil filter fluff, cosmetics and petroleum coke. The alternate fuels will displace no more than (4) tons per hour of coal.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

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 Mack Sims, OAQ, 100 North Senate Avenue, Indianapolis, Indiana 46204, or call at (800) 451-6027 and ask for Mack Sims or extension (3-0867), or dial (317) 233-0867.

Sincerely

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
(SIMS)

cc:File – Putnam County
U.S. EPA, Region V
Putnam County Health Department
Air Compliance Section Inspector – Jim Thorpe
Compliance Data Section
Administrative and Development – Autumn Vandine



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Lone Star Industries, Inc. dba Buzzi Unicem USA
3301 South County Road 150 West
Greencastle, Indiana 46135**

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

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

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. ***This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.***

Operation Permit No.: T133-6927-00002	
Issued by: Original Signed by Janet McCabe Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: April 14, 2004 Expiration Date: April 14, 2009

First Significant Permit Modification No.: SPM 133-19255-00002	Affected Pages: 2, 13, 22, 23, 33, 42, 43, 44, 45, 69, 70, 128, 128a
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 20, 2005

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electrostatic precipitator (402L) with a 2,000 HP motor to control particulate emissions, exhausting to stack 3-1;

- (2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. The semi-dry kiln system has a nominal rated clinker capacity of 208 tons per hour, using coal and the following supplemental fuel:
 - (A) Hazardous and nonhazardous waste fuel at a maximum rate allowed by the approved Boiler and Industrial Furnace Permit required by 40 CFR 270;
 - (B) plastic chips, carpet fibers, wood chips, chipped tires, toner, oil filter fluff and cosmetics;
 - (C) petroleum coke; and
 - (D) distillate fuel for burner startup activities.

The particulate emissions from the calciner and kiln are controlled by one (1) electrostatic precipitator (402L) with a 2000 HP motor, exhausting to stack 3-1;

- (3) Nine (9) screw conveyors, identified as Point 3-1D (403V-410V, 404FV), constructed in 1968 and modified in 1999; and one (1) kiln dust chamber, identified as Point 3-1F (401BF1), constructed January 1, 1969; each with a nominal capacity of 10 tons per hour; with particulate emissions controlled by one (1) electrostatic precipitator (402L) with a 2000 HP motor, exhausting to stack 3-1;
- (4) One (1) return dust bin, identified as Point 3-3A (405F), constructed before 1971 and modified in 1999, with a nominal capacity of 100 tons; one (1) waste dust bin, identified as Point 3-3F (404F), constructed before 1971 and modified in 1999, with a nominal capacity of 75 tons; one (1) hopper, identified as Point 3-3C (445F), constructed May 1, 2000, with a nominal capacity of 60 tons per hour; two (2) bucket elevators, identified as Point 3-3G (411V, 413V), constructed before August 17, 1971, with a nominal capacity of 60 tons per hour; and one (1) rotary feeder, identified as Point 3-3H (405FVV) and one (1) screw conveyor, identified as Point 3-3I (405FVV1), both constructed in 2003, each with a nominal capacity of 60 tons per hour; all equipped with one fabric filter system (FF 3-3, baghouse 403L) to control particulate emissions;
- (5) One (1) non-routine raw material dust truck loading station, constructed before 1971 and modified in 1999, covered by a building enclosure (BE 3-25) to control particulate emissions;
- (6) One (1) conditioning tower, identified as Point 3-5A (480F), with a nominal capacity of 40 tons per hour, using lime injection to control sulfur dioxide emissions; and one (1) alkali bypass system, identified as Point 3-5B, one (1) hopper, identified as Point 3-5C (484F), with a nominal capacity of 10 tons per hour; one (1) dust cyclone, identified as Point 3-5D (480FL), with a nominal capacity of 31 tons per hour; four (4) screw conveyors, identified as Point 3-5E (480LV1-LV3, 480V), each with a nominal capacity of 10 tons per hour; one (1) weigh hopper, identified as Point 3-5I (481FF); and one (1) pug mill, identified as Point 3-5J (484L); all constructed May 1, 2000; and one (1) CKD loadout spout, identified as 481L, constructed in 2002; all equipped with one (1) fabric filter system (FF 3-5, baghouse 480L), which exhausts to stack 3-1, to control particulate emissions;

- (5) Fourteen (14) conveyors, identified as Point 6-5 (842V-846V, 848V, 845V1, 847V1, 847V2, 848V1, 848V2, 849V1, 849V2, 849V3), constructed before 1971, with a nominal capacity of 185 tons per hour, covered by a building enclosure (BE 6-5) to control particulate emissions;
 - (6) Two (2) palletizers, identified as Point 6-6 (900H, 901H), constructed before 1971, with a nominal capacity of 185 tons per hour, covered by a building enclosure (BE 6-6) to control particulate emissions; and
 - (7) One (1) truck loader, identified as Point 6-7, constructed before 1971, with a nominal capacity of 185 tons per hour, covered by a building enclosure (BE 6-7) to control particulate emissions.
- (n) Eight (8) above-ground, liquid organic waste tanks, identified as Tanks 1-8, all constructed in 1988, except for Tank 8 (Burn Tank #8) which was constructed in 1999, with a combined nominal storage capacity of 400,000 gallons, with VOC and HAP emissions controlled by an existing vapor balancing system and a closed vent, carbon adsorption vapor system that exhaust to the existing tank farm stack identified as S-001.

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) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2];
- (b) Cutting 200,000 linear feet or less of one inch (1") plate or equivalent [326 IAC 6-3-2];
- (c) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2]; and
- (d) Conveyors as follows [326 IAC 6-3-2]:
 - (1) Covered conveyors for coal or coke conveying or less than or equal to 360 tons per day;
 - (2) Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;
 - (3) Uncovered coal conveying of less than or equal to 120 tons per day; and
 - (4) Underground conveyors; and
- (e) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].
- (f) One (1) non-hazardous waste alternate fuels handling process, identified as Point 2-18, constructed in 2004, with a maximum capacity of 4.0 tons of non-hazardous waste alternate fuel per hour, consisted of the following: [326 IAC 6-3-2]
 - (1) One (1) hopper.

- (2) One (1) screw conveyor.
- (3) One (1) rotary feeder.
- (g) One (1) non-hazardous alternate fuels storage pile with a maximum capacity of 1,000 tons of material and a maximum throughput rate of 4.0 tons/hr. [326 IAC 6-4]

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)

- (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.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]

Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

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

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

- (a) Records of all required data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, other than projects at a Clean Unit which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee)) may result in significant emissions increase and the Permittee elects to utilize "projected actual emissions" (as defined in 326 IAC 2-2-1(rr)), the Permittee shall comply with the following:
 - (1) Prior to commencing the construction of the "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project;
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project;
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
 - (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or the potential to emit that regulated NSR pollutant at the emissions unit.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- ~~(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

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

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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..
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq)), at an existing emissions unit other than an Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C – General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx), for that regulated pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for a project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) in Section C – General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected-actual test stated in 326 IAC 2-2-2(d)(3).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-0015

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C – General Record Keeping Requirements available for review upon request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1

C.23 NESHAP Notification and Reporting Requirements [40 CFR Part 63, Subparts A, and LLL]

The Permittee shall comply with all reporting provisions specified in 40 CFR Part 63, Subpart LLL, and in particular:

- (a) The Permittee shall submit an initial notification in accordance with 40 CFR 63.9(b) (Subpart A, General Provisions) immediately. In 40 CFR 63.9(b), the Permittee is required to provide the following information:
- (1) The name and address of the Permittee;
 - (2) The address (i.e., physical location) of the affected source;
 - (3) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
 - (4) A brief description of the nature, size, design, and method of operation of the source, including its operating design capacity and an identification of each point of emission for each hazardous air pollutant, or if a definitive identification is not yet possible, a preliminary identification of each point of emission for each hazardous air pollutant; and
 - (5) A statement of whether the affected source is a major source or an area source.
- (b) The Permittee shall submit a notification of performance tests, as required by 40 CFR 63.7 and 40 CFR 63.9(e).
- (c) The Permittee shall submit a notification of opacity and visible emission observations required by 40 CFR 63.1349 in accordance with 40 CFR 63.6(h)(5) and 40 CFR 63.9(f).
- (d) The Permittee shall submit notification, as required by 40 CFR 63.9(g), of the date that continuous emission monitor performance evaluation required by 40 CFR 63.8(e) is scheduled to begin.
- (e) The Permittee shall submit notification of compliance status, as required by 40 CFR 63.9(h).
- (f) The notification(s) required in this section shall be submitted to:

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Stratospheric Ozone Protection

C.23 NESHAP Notification and Reporting Requirements [40 CFR Part 63, Subparts A, and LLL]

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

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

SECTION D.4 FACILITY OPERATION CONDITIONS – ALTERNATE RAW MATERIAL FEED SYSTEM, KILN OPERATION

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

- (g) One (1) alternate raw material feed system, constructed in 2002, operating at a nominal capacity of 20 tons per hour each, and consisting of the following pieces of equipment:
- (1) Slag pile, identified as one of the materials identified in Point 1-13, controlled with water mist spray as needed;
 - (2) Four (4) loading hoppers (485F, 486F, 487F, and 488F), identified as Point 1-29A, with emissions controlled with water mist spray as needed; six (6) belt conveyors (485V, 486V, 487V, 488V, 490V, and 491V), identified as Point 1-29B; one (1) weigh belt (489V), identified as Point 1-29C; one (1) bucket elevator (492V), identified as Point 1-29D; and one (1) enclosed screw conveyor (495V), identified as Point 1-29E, controlled with covers and enclosures;
 - (3) One (1) covered belt conveyor (494V), identified as Point 3-1D, exhausting to the hammermill dryer and through to the electrostatic precipitator (402L) to control particulate emissions, which has a maximum flow rate of 700,000 acfm, exhausting to stack 3-1; and
 - (4) Paved delivery roads with particulate emissions controlled by vacuum sweeping.
- (h) Kiln Operation, with a nominal capacity of 360 tons of dry raw feed per hour and 208 tons clinker per hour:
- (1) One (1) hammermill dryer, identified as Point 3-1C (440G), constructed May 1, 2000, with a nominal capacity of 258 tons per hour, equipped with one (1) electrostatic precipitator (402L) with a 2000 HP motor to control particulate emissions, exhausting to stack 3-1;
 - (2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. The semi-dry kiln system has a nominal rated clinker capacity of 208 tons per hour, using coal and the following supplemental fuel:
 - (A) Hazardous and nonhazardous waste fuel at a maximum rate allowed by the approved Boiler and Industrial Furnace Permit required by 40 CFR 270;
 - (B) plastic chips, carpet fibers, wood chips, chipped tires, toner, oil filter fluff and cosmetics;
 - (C) petroleum coke; and
 - (D) distillate fuel for burner startup activities.The particulate emissions from the calciner and kiln are controlled by one (1) electrostatic precipitator (402L) with a 2000 HP motor, exhausting to stack 3-1;
 - (3) Nine (9) screw conveyors, identified as Point 3-1D (403V-410V, 404FV), constructed in 1968 and modified in 1999; and one (1) kiln dust chamber, identified as Point 3-1F (401BF1), constructed in 1969; each with a nominal capacity of 10 tons per hour; with particulate emissions controlled by one (1) electrostatic precipitator (402L) with a 2000 HP motor, exhausting to stack 3-1;

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

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

- (4) One (1) return dust bin, identified as Point 3-3A (405F), constructed before 1971 and modified in 1999, with a nominal capacity of 100 tons; one (1) waste dust bin, identified as Point 3-3F (404F), constructed before 1971 and modified in 1999, with a nominal capacity of 75 tons; one (1) hopper, identified as Point 3-3C (445F), constructed May 1, 2000, with a nominal capacity of 60 tons per hour; two (2) bucket elevators, identified as Point 3-3G (411V, 413V), constructed before August 17, 1971, with a nominal capacity of 60 tons per hour; and one (1) rotary feeder, identified as Point 3-3H (405FVV) and one (1) screw conveyor, identified as Point 3-3I (405FVV1), both constructed in 2003, each with a nominal capacity of 60 tons per hour; all equipped with one fabric filter system (FF 3-3, baghouse 403L) to control particulate emissions;
- (5) One (1) non-routine raw material dust truck loading station, constructed before 1971 and modified in 1999, covered by a building enclosure (BE 3-25) to control particulate emissions;
- (6) One (1) conditioning tower, identified as Point 3-5A (480F), with a nominal capacity of 40 tons per hour, using lime injection to control sulfur dioxide emissions; and one (1) alkali bypass system, identified as Point 3-5B, one (1) hopper, identified as Point 3-5C (484F), with a nominal capacity of 10 tons per hour; one (1) dedust cyclone, identified as Point 3-5D (480FL), with a nominal capacity of 31 tons per hour; four (4) screw conveyors, identified as Point 3-5E (480LV1-LV3, 480V), each with a nominal capacity of 10 tons per hour; one (1) weigh hopper, identified as Point 3-5I (481FF); and one (1) pug mill, identified as Point 3-5J (484L); all constructed May 1, 2000; and one (1) CKD loadout spout, identified as 481L, constructed in 2002; all equipped with one (1) fabric filter system (FF 3-5, baghouse 480L), which exhausts to stack 3-1, to control particulate emissions;
- (7) One (1) reject dust bin for cement kiln dust, identified as Point 3-7A (481F), with a nominal capacity of 15 tons, constructed May 1, 2000, equipped with one (1) fabric filter system (FF 3-7, baghouse 483L) to control particulate emissions;
- (8) One (1) alkali bypass system cement kiln dust truck loading station, identified as Point 3-8, constructed in 2000, utilizing mist suppression or equivalent dust suppression to control particulate emissions; and
- (9) One (1) non-routine CKD loadout station, including one (1) screw conveyor, identified as Point 3-4B (412V), constructed in 2001, with a nominal capacity of 10 tons per hour, utilizing water mist suppression to control particulate emissions.

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

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

D.4.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to all the units listed under Condition D.4.2, except when otherwise specified in 40 CFR 63, Subpart LLL.

D.4.2 Particulate Matter Emission Limitation [326 IAC 20] [40 CFR 63, Subpart LLL]

Pursuant to 40 CFR 63, Subpart LLL (NESHAP for the Portland Cement Manufacturing Industry), the visible emissions from the following emission units shall be less than 10 percent opacity:

SECTION D.8

FACILITY OPERATION CONDITIONS – INSIGNIFICANT ACTIVITIES

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2];
- (b) Cutting 200,000 linear feet or less of one inch (1") plate or equivalent [326 IAC 6-3-2];
- (c) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2]; and
- (d) Conveyors as follows [326 IAC 6-3-2]:
 - (1) Covered conveyors for coal or coke conveying or less than or equal to 360 tons per day;
 - (2) Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;
 - (3) Uncovered coal conveying of less than or equal to 120 tons per day; and
 - (4) Underground conveyors; and
- (e) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].
- (f) One (1) non-hazardous waste alternate fuels handling process, identified as Point 2-18, constructed in 2004, with a maximum capacity of 4.0 tons of non-hazardous waste alternate fuel per hour, consisted of the following: [326 IAC 6-3-2]
 - (1) One (1) hopper.
 - (2) One (1) screw conveyor.
 - (3) One (1) rotary feeder.
- (g) One (1) alternate fuels storage pile with a maximum capacity of 1,000 tons of material and a maximum throughput rate of 4.0 tons/hr. [326 IAC 6-4]

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

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

D.8.1 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the listed facilities (a) through (d) and (f) shall not exceed the pounds per hour limitation calculated using the following equation:

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

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

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

D.8.2 Cold Cleaner Operations [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for degreasers constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70
Minor Permit Modification

Source Background and Description

Source Name:	Lone Star Industries, Inc.
Source Location:	3301 South County Road 150 West, Greencastle, Indiana 46135
County:	Putnam
SIC Code:	3241, 1422
Operation Permit No.:	T133-6927-00002
Operation Permit Issuance Date:	April 14, 2004
Minor Permit Modification No.:	133-19255-00002
Permit Reviewer:	Mack E. Sims

The Office of Air Quality (OAQ) has reviewed a modification application from Lone Star Industries, Inc. dba Buzzi Unicem USA (LSI) relating to burning alternate fuels at the Greencastle cement plant. LSI operates a semi-dry process cement manufacturing facility and utilizes a combination of coal and hazardous waste derived fuel (HWDF) to provide the thermal energy requirements of the cement manufacturing process. LSI is currently authorized to use HWDF in the kiln and coal in the kiln and calciner. Both the kiln and the calciner exhaust through one single stack (Stack 3-1). LSI proposes to construct and operate one (1) enclosed hazardous liquid waste fuel feed system for the calciner and one enclosed solid hazardous waste fuel system. The new liquid waste fuel feed system is enclosed, has no air emissions and is not considered an air emissions unit. The solid hazardous waste fuel system is comprised of previously permitted equipment. This equipment is documented in the Title V permit, Section D.2(c)(8). Additionally, LSI plans to modify the existing process to use plastic chips, carpet fibers, wood chips, chipped tires, toner, oil fluff and cosmetics in the kiln and calciner. An alternate fuel receiving and handling process is proposed to accommodate these materials. Plastic chips, carpet fibers, wood chips, chipped tires, toner, oil fluff and cosmetics will be received in truckload quantities and staged in a pile or stored in boxes. Chip size will be on the order of ¾ inch therefore no air quality impact from blowing dust is expected. A front-end loader will be used to transfer these alternate fuels from the ground to the staging hopper. A hopper screw arrangement will convey the chips to transfer piping and air flow moves the chips to the combustion station. Equipment installation for alternate fuels is limited to a hopper, screw conveyor and rotary feeder. The fuel feed rate to the kiln and calciner is approximately 36 tons per hour. These alternate fuels will displace no more than four (4) tons per hour of coal.

Petroleum coke is also proposed as an alternate fuel for the kiln and calciner. The existing coal storage, conveying and feeding equipment will be used for the petroleum coke. No new equipment is required for this modification.

On August 30, 2004, LSI was issued an approval to perform an experimental operation (EO 133-19766-00002) using non-hazardous waste as a supplemental fuel in the existing coal fired calciner. Types of non-hazardous waste included chipped plastics, chipped tires, wood chips, carpet fibers, toners, oil fluff and cosmetics. These test results indicate no emissions increase associated with the burning of these alternate non-hazardous fuels with respect to CO and particulates. The only emissions increase is associated with the actual handling and conveying (pneumatically) of these fuels. These include fugitives from unpaved roads, handling and storage. The kiln operation, including the calciner and various other emissions units, exhaust to Stack 3-1. There will be no change to any of the permitted emission limits for Stack 3-1.

LSI is an existing Portland cement manufacturing plant and is an existing major Prevention of Significant Deterioration (PSD) source. LSI was issued a Part 70 permit on April 14, 2004. The use of alternate fuels is considered a change in the method of operation for the kiln and the calciner and by definition is considered a modification pursuant to 326 IAC 2-2 (PSD). The use of alternative fuels will not affect the clinker production rate of the kiln system. This modification will not result in debottlenecking or increased utilization of other existing units.

LSI has chosen to use the baseline actual to projected actual applicability test to show that this project (changes being done under this modification) do not trigger PSD requirements.

Emission Units and Pollution Control Equipment

The following modifications to existing emissions units are proposed:

- (a) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) coal-fired calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. The semi-dry kiln system has a nominal rated clinker capacity of 208 tons per hour, using coal and the following supplemental fuel:
 - (1) hazardous and nonhazardous waste fuel at a maximum rate allowed by the approved Boiler and Industrial Furnace Permit required by 40 CFR 270;
 - (2) plastic chips, carpet fibers, wood chips, chipped tires, toner, oil filter fluff and cosmetics;
 - (3) petroleum coke; and
 - (4) distillate fuel for burner startup activities.

The particulate emissions from the calciner and kiln are controlled by one (1) electrostatic precipitator (402L) with a 2000 HP motor, and exhausting to Stack 3-1.

The Permittee also proposes to construct and operate the following new emissions units:

- (a) One (1) enclosed hazardous waste fuel feed system for the calciner,
- (b) One (1) non-hazardous alternate fuels handling process, with a maximum capacity of 4.0 tons of material per hour, consisting of the following:
 - (1) One (1) hopper,
 - (2) One (1) screw conveyor,
 - (3) One (1) rotary feeder
- (c) One (1) outdoor non-hazardous alternate fuels storage pile with a maximum capacity of 1000 tons of materials and a maximum throughput rate of 4.0 tons per hour.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was received on June 11, 2004. Additional information was received on August 4, 2004 and November 1, 2004.

Emission Calculations

The Permittee has provided information as part of the application for this approval that based on the Actual-to-Projected-Actual applicability test in 326 IAC 2-2-2 this modification at a major stationary source will not be major for Prevention of Significant Deterioration (PSD) under 326 IAC 2-2-1. IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The applicant will be required to keep records and report in accordance with Source Obligation requirements in 326 IAC 2-2-8.

The table below summarizes the potential to emit of emissions units involved in this modification project, reflecting all limits, of the emissions units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emission Increase Associated With the Project

Pollutant	PM	PM10	VOC	NOX	SOX	CO	Pb
Projected Actual Emissions	82.7	19.6	1	1631	217	532	0.00004
Baseline Actual Emissions	218	56.6	23.53	2627	2154.5	1336.65	0.1415
(a) A2PA	(135.3)	(37)	(22.53)	(996)	(1937.5)	(804.65)	(0.141)
New Emissions Units	0.66	0.27	-	-	-	-	-
(b) Project Emissions Increase	(134.64)	(36.73)	(22.53)	(996)	(1937.5)	(804.65)	(0.14)
PSD Significant Levels	25	15	40	40	40	100	0.6

(a) Actual to projected actual applicability test (projected actual emissions minus baseline actual emissions). Numbers in parenthesis represent negative numbers.

(b) Project emissions equal the summation of the A2PA emissions and new emissions units.

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 the PSD requirements do not apply.

Justification for Modification

The enclosed hazardous waste fuel feed system, the alternate fuels handling process and the outdoor alternate fuels storage pile are all insignificant activities and do not require a source modification to construct or operate. This permit modification is being performed though a Minor Permit Modification pursuant to 326 IAC 2-7-12(d) because this is not a modification under the provisions of Title 1 of CAA. The calciner is now subject to the National Emission Standard for

Hazardous Air Pollutants for Hazardous Waste Combustors (326 IAC 20-28, 40 CFR 63.1200 – 63.1213, Subpart EEE) but these requirements are already in the permit and no new requirements are being added. (See Federal Rule Applicability)

County Attainment Status

The source is located in Putnam County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Putnam County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Putnam County has been classified as attainment for unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements of Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions
Since this type of operation is in one of the 28 listed source categories under 326 IAC -2 and since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted towards determination of PSD applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	73
PM ₁₀	73
SO ₂	272
VOC	0
CO	224
NO _x	1512

- (a) This existing source is a major stationary source because at least one of the attainment regulated pollutants is emitted at a rate of 100 tons per year or more and it is in one of the 28 listed source categories.
- (b) These emissions are based upon the 2002 emission inventory information for Lone Star Industries, Inc. dba Buzzi Unicem USA.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) LSI proposes to use hazardous waste as one type of fuel used in the calciner at the source. Therefore, the calciner is subject to the National Emission Standard for Hazardous Air Pollutants for Hazardous Waste Combustors (326 IAC 20-28, 40 CFR 63.1200 – 63.1213, Subpart EEE).

The existing kiln currently uses both coal and hazardous waste as fuels and is in compliance with the requirements of Subpart EEE. The requirements of this NESHAP have been included in the source's Part 70 permit (T133-6927-00002) along with all applicable requirements. Since the kiln and calciner exhaust through one single stack (Stack 3-1) the emissions limitations pursuant to this NESHAP are already included in the Part 70 permit. There is no change to the emission limitations on Stack 3-1 pursuant to this proposed modification.

- (c) There are no other changes in Federal Rule Applicability resulting from this proposed modification.

State Rule Applicability – Cement Kiln System

There are no changes in State Rule Applicability for the cement kiln system resulting from this proposed modification.

State Rule Applicability – Alternative Fuels Handling Process (Insignificant Activity)

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

Particulate emissions from the alternative fuels handling process shall be limited to 10.4 lbs/hr when operating at a process rate not to exceed 4.0 tons per hour.

The pound per hour limitation was calculated with the following equation:
Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

According to the emissions calculations (see Appendix A), the potential to emit PM from the alternative fuels handling process is less than the above limit. Therefore, this alternative fuels handling process is in compliance with 326 IAC 6-3-2.

State Rule Applicability – Storage Pile and Unpaved Roads (Insignificant Activities)

326 IAC 6-4 (Fugitive Dust Emissions)

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)

Compliance Requirements

There are no changes in compliance monitoring requirements for the kiln system as a result of the modification.

There are no applicable compliance monitoring requirements for the proposed alternative fuels handling process.

Changes to the Part 70 Permit (T133-6927-00002)

New text is shown in bold, text removed is shown as ~~strikeout~~.

- (1) Condition A.2(h)(2) is revised as shown. Section D.4 Facility Description Box (h)(2) was also revised to reflect this change (not shown).

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

- (h) Kiln Operation, with a nominal capacity of 360 tons of dry raw feed per hour and 208 tons clinker per hour:

.....

- (2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) ~~coal-fired~~ calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. The semi-dry kiln system has a nominal rated clinker capacity of 208 tons per hour, using coal and the following supplemental fuel:

- (A) Hazardous and nonhazardous waste fuel at a maximum rate allowed by the approved Boiler and Industrial Furnace Permit required by 40 CFR 270; ~~and~~

- (B) plastic chips, carpet fibers, wood chips, chipped tires, toner, oil filter fluff and cosmetics;**

- (C) petroleum coke; and**

- ~~(D)~~ distillate fuel for burner startup activities.

- (2) The following units were added to Condition A.3 as shown. Section D.8 Facility Description Box was also revised to reflect these additions (not shown).

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

.....

- (f) One (1) non-hazardous waste alternate fuels handling process, identified as Point 2-18, constructed in 2004, with a maximum capacity of 4.0 tons of non-hazardous waste alternate fuel per hour, consisted of the following: [326 IAC 6-3-2]**

- (1) One (1) hopper.**

- (2) One (1) screw conveyor.**

- (3) One (1) rotary feeder.**

- (g) One (1) non-hazardous alternate fuels storage pile with a maximum capacity of 1,000 tons of material and a maximum throughput rate of 4.0 tons/hr. [326 IAC 6-4]**

- (3) Conditions C.21 – General Record Keeping Requirements and C.22 – General Reporting Requirements are changed to reflect NSR Reform provisions at major NSR sources when using the baseline actual to projected actual applicability test.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

- (a) Records of all required data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) **If there is a reasonable possibility that a “project” (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, other than projects at a Clean Unit which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee)) may result in significant emissions increase and the Permittee elects to utilize “projected actual emissions” (as defined in 326 IAC 2-2-1(rr), the Permittee shall comply with the following:**
- (1) **Prior to commencing the construction of the “project” (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, document and maintain the following records:**
- (A) **A description of the project;**
- (B) **Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project;**
- (C) **A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:**
- (i) **Baseline actual emissions;**
- (ii) **Projected actual emissions;**
- (iii) **Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and**
- (iv) **An explanation for why the amount was excluded, and any netting calculations, if applicable.**
- (2) **Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and**
- (3) **Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or the potential to emit that regulated NSR pollutant at the emissions unit.**

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- (a) ~~The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and~~

Compliance Monitoring Report shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (e) 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.**
- (f) **If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C – General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1(qq)), at an existing emissions unit other than an Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:**
- (1) **The annual emissions, in tons per year, from the project identified in (c)(1) in Section C – General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx), for that regulated pollutant, and**
 - (2) **The emissions differ from the preconstruction projection as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(ii).**
- (g) **The report for a project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:**
- (1) **The name, address, and telephone number of the major stationary source.**
 - (2) **The annual emissions calculated in accordance with (c)(2) in Section C – General Record Keeping Requirements.**
 - (3) **The emissions calculated under the actual-to-projected-actual test stated in 326 IAC 2-2-2(d)(3).**
 - (4) **Any other information that the Permittee deems fit to include in this report,**

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management

**Air Compliance Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-0015**

- (h) **The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C – General Record Keeping Requirements available for review upon request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1**

- (4) Condition D.8.1 is revised as shown.

D.8.1 Particulate Emission Limitations [326 IAC 6-3-2]

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

~~(p~~**P**articulate emissions from the listed facilities (a) through (d) **and (f)** shall not exceed the pounds per hour limitation calculated using the following equation: ~~Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:~~

Conclusion

The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Permit Modification No. 133-19255-00002.

Appendix A: Emission Calculations

Company Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
 Address: 3301 South County Road 150 West, Greencastle
 Greencastle, Indiana 46135
 MSM: 133-19255-00002
 Reviewer: Mack E. Sims
 Date: November 11, 2004

Modified Existing Emission Unit Baseline Actual to Projected Actual Applicability Test

Baseline Actual Emissions

Unit being changed: rotary kiln (401B) - change in method of
 operation

Ten Year Baseline LookBack Period (Actual Emissions in TPY)							
Year	PM	PM ₁₀	VOC	NO _x	SO _x	CO	Pb
1994	296	73	24.39	4389	3278	2831	0.124
1995	269	73	24.39	4389	3278	2831	0.124
1996	168.5	40.2	22.67	2656	1984	2631	0.013
1997	32	7.6	0	2598	2142	42.13	0.140
1998	33.3	7.7	0	2628	2167	42.63	0.142
1999	32	7.6	0	2597	2141	42.11	0.141
2000	33	8.1	0	1300.6	899	113.68	0.00003
2001	77.1	18.5	0.01	1191	232	186	0.00003
2002	64.6	15.4	0.0123	1512	271	223	0.00004
2003	74.3	17.6	0.012	1695	195	509	0.00004

Pollutant	Baseline Period	Average Actual Emissions (TPY)
PM	Jan 95 - Dec 96	218
PM ₁₀	Jan 95 - Dec 96	56.6
VOC	Jan 95 - Dec 96	23.53
NO _x	Jan 96 - Dec 97	2627
SO ₂	Jan 97 - Dec 98	2154.5
CO	Jan 96 - Dec 97	1336.65
Pb	Jan 98 - Dec 99	0.1415

Projected Actual Emissions

The change in the method of operation will not increase the capacity or potential to emit of the rotary kiln (401B). Therefore, actual emissions were projected for a five (5) year period following resumed operation of the rotary kiln (401B).

Projected Actual Emissions (TPY)							
Year	PM	PM ₁₀	VOC	NO _x	SO _x	CO	Pb
2005	82.7	19.6	1	1631	217	532	0.00004
2006	82.7	19.6	1	1631	217	532	0.00004
2007	82.7	19.6	1	1631	217	532	0.00004
2008	82.7	19.6	1	1631	217	532	0.00004
2009	82.7	19.6	1	1631	217	532	0.00004

Projected Actual Emissions Minus Baseline Actual Emissions

Pollutant	PM	PM ₁₀	VOC	NO _x	SO _x	CO	Pb
Projected Actual Emissions	82.7	19.6	1	1631	217	532	0.00004
Baseline Actual Emissions	218	56.6	23.53	2627	2154.5	1336.65	0.1415
Net Emissions	-135.3	-37	-22.53	-996	-1937.5	-804.65	-0.141
PSD Significant Level	25	15	40	40	40	100	0.6

New Emission Units

This project also involves the following new emission units: hopper, screw conveyor, and rotary feeder.

Potential to Emit of New Emission Units

CALCS LONESTAR #133-19255-00002

Projected Actual

Year	PM	PM10	VOC	NOx	SOx	CO	Pb
2005	82.7	19.6		1	1631	217	532 0.00004

BaseLine Actual

Year	PM	PM10	VOC	NOx	SOx	CO	Pb
	218	56.6	23.53	2627	2154.5	1336.65	0.1415

A2PA Test

Year	PM	PM10	VOC	NOx	SOx	CO	Pb
	-135.3	-37	-22.53	-996	-1937.5	-804.65	-0.14146