INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53 IGCN 1003
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: November 15, 2007

RE: Lone Star Industries, Inc. dba Buzzi Unicem USA / 133-25345-00002

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 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 03/23/06

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Mr. Jay Patterson
Lone Star Industries, Inc. dba Buzzi Unicem USA
P.O. Box 486
Greencastle, Indiana 46135

November 15, 2007

Re: 133-25345-00002
Minor Source Modification to
Part 70 Operating Permit No. 133-6927-00002

Dear Mr. Patterson:

Lone Star Industries, Inc. dba Buzzi Unicem USA was issued Part 70 Operating Permit No. 133-6927-00002 on April 14, 2004 for a stationary portland cement manufacturing plant. A letter requesting the addition of storage silos and pneumatic conveyors for an alternate fuel source was received on September 25, 2007. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) truck and railcar unloading operation, identified as 240F, approved for construction in 2007, for unloading and pneumatically conveying alternative fuel (spent pot liner) to a silo, with a maximum throughput capacity of 33 tons per hour, with a maximum storage capacity of 700 tons, with particulate emissions controlled by a dust collector (identified as 240L), and exhausting to stack 240L. This is an affected facility under 40 CFR 63, Subpart LLL.

(b) One (1) enclosed pneumatic conveyance system, identified as 24F, approved for construction in 2007, for pneumatically conveying alternative fuel (spent pot liner) from the silo to the cement kiln, with a maximum throughput capacity of 4 tons per hour, with particulate emissions controlled by a bin vent filter (identified as 241L), and exhausting to stack 241L. This is an affected facility under 40 CFR 63, Subpart LLL.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

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

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source=s Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction when the source modification has been issued. The source must comply with the requirements of 326 IAC 2-7-12 before operation of any of the proposed emission units can begin.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Stephen Treimel, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mr. Treimel. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027, and ask for Duane Van Laningham or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by Matt Stuckey for
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/ST
cc: File - Putnam County
Putnam County Health Department
Air Compliance Section Inspector
Compliance Data Section
Administrative and Development
Billing, Licensing and Training Section

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PART 70 MINOR SOURCE MODIFICATION
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.

Second Minor Source Modification No.: 133-25345-00002	
Issued by: *Original signed by Matt Stuckey for* Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: November 15, 2007

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary Portland cement manufacturing plant.

Source Address:	3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address:	P.O. Box 486, Greencastle, Indiana 46135
General Source Phone Number:	(765) 653-9766
SIC Code:	3241, 1422
County Location:	Putnam
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source under PSD Rules Major Source under Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) Quarry Activities:

(1) Removal and transfer of overburden material, drilling and blasting of limestone, and loading of raw materials using mobile equipment.

(b) Raw Material Sizing Activities:

(1) One (1) primary crusher, identified as Point 1-8 (201G); and one (1) vibrating feeder, identified as Point 1-9A (201V); both constructed in 1969, modified in 1998 and 1999, with a nominal capacity of 1,300 tons of limestone per hour, utilizing water mist suppression or equivalent dust suppression to control particulate emissions;

(2) Outside storage piles, modified in 1999, utilizing water mist suppression or equivalent dust suppression to control particulate emissions; and

(3) Raw material sizing transfer equipment including:

(A) One (1) apron feeder, identified as Point 1-14 (206V), constructed in 1969 and modified in 1999, with a nominal throughput of 400 tons per hour, utilizing water mist suppression or equivalent dust suppression to control particulate emissions;

(B) One (1) belt conveyor, identified as Point 1-9B (214V), constructed in 1969, with a nominal throughput of 1,300 tons per hour, utilizing water mist suppression or equivalent dust suppression to control particulate emissions;

(C) Three (3) vibrating feeders, identified as Point 1-11 (202V-204V), all constructed in 1969 and modified in 1999, with a nominal capacity of 1,300 tons per hour, utilizing water mist suppression or equivalent dust suppression to control particulate emissions;

(D) Three (3) belt conveyors, identified as Point 1-15 (215V, 305V, 251V), constructed in 1969, 1969, and 2000, respectively, with a nominal capacity of 1,300 tons per hour, equipped with one (1) fabric filter system (FF 1-15, baghouse 209L) to control particulate emissions; and

(E) One (1) secondary crusher system, identified as SC-1, constructed in 2001, with a nominal capacity of 600 tons of limestone and additives per hour; controlled by three baghouses (208L, 208L1, 210L), exhausting to three (3) stacks (208L, 208L1, 210L), respectively. The secondary crusher system is totally enclosed and consists of the following pieces of equipment:

(i) One (1) belt conveyor, identified as Point 1-16A (202G2V2), with a nominal capacity of 525 tons per hour; one (1) screen, identified as Point 1-16B (205G), with a nominal capacity of 600 tons per hour; one (1) crusher, identified as Point 1-16C (202G2), with a nominal capacity of 525 tons per hour; one (1) belt conveyor, identified as Point 1-16D (202G2V3), with a nominal capacity of 525 tons per hour; all constructed in 2001, equipped with one (1) fabric filter system (FF 1-16, baghouse 208L1) to control particulate emissions;

(ii) One (1) apron feeder, identified as Point 1-24 (202G2V1), with a nominal capacity of 600 tons per hour, constructed in 2001, utilizing water mist suppression or equivalent dust suppression to control particulate emissions;

(iii) One (1) belt conveyor, identified as Point 1-25C (202G1V1); one (1) crusher, identified as Point 1-25D (202G1); one (1) belt conveyor, identified as Point 1-25E (202G1V2); and one (1) belt conveyor, identified as Point 1-25F (202GV2); each with a nominal capacity of 600 tons per hour, all constructed in 2001, equipped with one (1) fabric filter system (FF 1-25, baghouse 208L) to control particulate emissions; and

(iv) One (1) screen, identified as Point 1-26C (204G); one (1) belt conveyor, identified as Point 1-26D (202GV3); and one (1) belt conveyor, identified as Point 1-26E (202GV4); each with a nominal capacity of 600 tons per hour, all constructed in 2001, equipped with one (1) fabric filter system (FF 1-26, baghouse 210L) to control particulate emissions.

(c) One (1) gypsum material handling process, constructed in 2002, with a nominal production of 150 tons per hour of the blended synthetic gypsum material, including the following units:

(1) One (1) synthetic gypsum transporting system, identified as 1-20, with fugitive emissions;

(2) One (1) granulated slag/rock transporting system, identified as 1-31, with fugitive emissions;

(3) One (1) outdoor gypsum storage pile, identified as 1-27, with a nominal storage capacity of 10,000 tons and a nominal throughput of 67,000 tons per year, using water suppression to control particulate emissions;

(4) One (1) outdoor granulated slag/rock storage pile, identified as 1-32, with a nominal storage capacity of 5,000 tons and a nominal throughput of 22,400 tons per year, using water suppression to control particulate emissions;

(5) One (1) synthetic gypsum hopper (230F), one (1) conveyor belt (230FV), and one (1) weigh belt (230V), all with a nominal throughput of 90 tons per hour; and one (1) conveyor belt (232V), with a nominal throughput of 120 tons per hour; all collectively identified as 1-34;

(6) One (1) granulated slag/rock hopper (231F), one (1) conveyor belt (231FV), and one (1) weigh belt (231V), collectively identified as 1-35, each with a nominal throughput of 30 tons per hour;

(7) One (1) enclosed pug mill (232L), identified as 1-36A, with a nominal throughput of 150 tons per hour, with particulate emissions controlled by Dust Collector (232FL), and exhausting through stack S1-36;

(8) One (1) CKD bin (232F) and one (1) discharge screw (232FV), identified as 1 36B and 1-36C, with a nominal throughput of 30 tons per hour, with particulate emissions controlled by Dust Collector (232FL), and exhausting through stack S1-36;

(9) Two (2) belt conveyors (233V, 233V1), identified as 1-41, for finished gypsum material, with a nominal throughput of 150 tons per hour;

(10) One (1) covered storage pile for finished gypsum material, identified as 1-37, with a nominal storage capacity of 5,000 tons and a nominal throughput of 112,000 tons per year; and

(11) One (1) finished gypsum material hopper (234F) and two (2) conveyor belts (234V, 234FV), identified as 1-38, with a nominal throughput of 150 tons per hour.

(d) Raw Material Ball Mill Operation, with a nominal capacity of 360 tons of raw material per hour, including the following units:

(1) Raw material ball mill transfer equipment including four (4) belt conveyors, identified as Point 1-17A (252V-255V); four (4) raw material bins, identified as Point 1-17B (350F-353F); all constructed April 1, 2000, with a nominal capacity of 525 tons per hour, equipped with one (1) fabric filter system (FF 1-17, baghouse 350L) to control particulate emissions;

(2) Four (4) weigh feeders, identified as Point 1-18A (350V-353V); one (1) conveyor belt, identified as Point 1-18B (358V); two (2) apron feeders, identified as Point 1-18C (350V1, 351V1); and two (2) scavenger conveyors, identified as Point 1 18D (350V2, 351V2); all constructed April 1, 2000, with a nominal capacity of 400 tons per hour; all utilizing a building enclosure to control particulate emissions;

(3) One (1) alleviator (357F), identified as Point 1-7, constructed April 1, 2000, with a nominal capacity of 20 tons per hour, equipped with one (1) fabric filter system (FF 1-7, baghouse 351L) to control particulate emissions.

(e) Fly Ash Storage and Additive Activities, including the following units:

(1) Two (2) screw conveyors, identified as Point 1-19A (273V, 274V); and two (2) fly ash hoppers, identified as Point 1-19B (273F, 273FA); all constructed April 1, 2000, and modified February 8, 2002, with exception of 273FA which was constructed in 2003, each with a nominal capacity of 20 tons per hour, equipped with one (1) fabric filter system (FF 1-20, 274L) to control particulate emissions;

(2) One (1) fly ash silo, identified as Point 1-39 (270F), constructed April 1, 2000, with a nominal capacity of 1,250 tons, equipped with one (1) fabric filter system (FF 1-39, 270L) to control particulate emissions;

(3) One (1) fly ash silo, identified as Point 1-40 (271F), constructed April 1, 2000, with a nominal capacity of 1,250 tons, equipped with one (1) fabric filter system (FF 1-40, 271L) to control particulate emissions;

(4) Two (2) additive silos, identified as Point 1-21A (318F, 328F), each with a nominal capacity of 500 tons, four (4) rotary feeders, identified as Point 1-21B (318V, 318VV, 328V, 328VV), with a nominal capacity of 30 tons per hour each; all constructed May 17, 1996, equipped with one (1) fabric filter system (FF 1-21, baghouse 319L) to control particulate emissions;

(5) One (1) additive feed bin, identified as Point 1-22 (308F), constructed after August 17, 1971 and before May 17, 1996, with a nominal capacity of 200 tons, covered by a building enclosure (BE 1-22) to control particulate emissions; and

(6) Two (2) rotary feeders, identified as Point 1-23A (308V, 308VV), constructed in 1996; and one (1) weigh belt, identified as Point 1-23B (309V), constructed after August 17, 1971; each with a nominal capacity of 30 tons per hour, covered by a building enclosure (BE 1-23) to control particulate emissions.

(f) Coal Mill Operation:

(1) Coal storage piles, modified in 1999, utilizing building enclosures (BE 2-1) or compaction (CMP 2 16) to control particulate emissions;

(2) Coal transfer equipment:

(A) Four (4) vibrating feeders, identified as Point 2-2A (209V-211V, 213V); one (1) belt conveyor, identified as Point 2-2B (222V); and one (1) coal grizzly, identified as Point 2-2C (223V); all constructed before 1974 and modified in 1999, with a nominal capacity of 100 tons per hour each, utilizing water mist suppression or equivalent dust suppression to control particulate emissions and covered by a building enclosure (BE 2-2) to control particulate emissions;

(B) One (1) belt conveyor, identified as Point 2-4 (420V), constructed before 1974 and modified in 2000, with a nominal capacity of 100 tons per hour, covered by a building enclosure (BE 2-4) to control particulate emissions; and

(C) One (1) belt conveyor, identified as Point 2-6B (420V3), constructed May 1, 2000, with a nominal capacity of 100 tons per hour, equipped with one (1) shared fabric filter system (FF 2-6, baghouse 420L2) to control particulate emissions; and

(D) One (1) belt conveyor (420V1), constructed May 1, 2000, with a nominal capacity of 100 tons per hour, equipped with one (1) fabric filter system (baghouse 420L1) which exhausts into the building.

(3) Three (3) coal reject piles, identified as Points 2-3, 2-5, and 2-15, modified in 1999, utilizing mist suppression or equivalent dust suppression to control particulate emissions;

(4) One (1) raw coal bin, identified as Point 2-9 (435F), constructed May 1, 2000, with a nominal capacity of 100 tons, equipped with one (1) fabric filter system (FF 2-9, baghouse 435L) to control particulate emissions;

(5) One (1) weigh feeder, identified as Point 2-10A (435V); and one (1) conveyor belt, identified as Point 2-10B (436V); all constructed May 1, 2000, each with a nominal capacity of 61 tons per hour, covered by a building enclosure (BE 2-10) to control particulate emissions;

(6) One (1) coal mill, identified as Point 2-11A (436G), with a nominal capacity of 40 tons of coal per hour, using a fuel oil fired burner during startup and clinker cooler gas at other times to remove moisture from the coal (Note: For the purposes of NSPS Subpart Y, this is also a thermal dryer); and three (3) screw conveyors, identified as Point 2-11B (436LV, 436L1V, 436GV1), each with a nominal capacity of 40 tons per hour; all constructed May 1, 2000, and equipped with one (1) fabric filter system (FF 2-11, baghouse 436L) to control particulate emissions; and

(7) Two (2) screw conveyors, identified as Point 2-13B (437V, 438V), with a nominal capacity of 40 tons per hour; two (2) rotary feeders, identified as Point 2-13C (436LVV, 436L1VV), with a nominal capacity of 40 tons per hour; and one (1) pulverized coal bin, identified as Point 2-13A (438F), with a nominal capacity of 100 tons; all constructed May 1, 2000, and equipped with one (1) fabric filter system (FF 2-13, baghouse 438L) to control particulate emissions.

(g) One (1) alternate raw material feed system, approved for construction in 2007, operating at a maximum 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) One (1) slag hopper, identified as 289F, with emissions uncontrolled.

(3) One (1) weight feeder, identified as 289V, with emissions uncontrolled.

(4) Three (3) covered belt conveyors, identified as 290V, 291V, and 294V, exhausting to kiln stack 3-1. The exhaust from Stack 3-1 is controlled by electrostatic precipitator 402L.

(5) One (1) bucket elevator, identified as 292V, exhausting to kiln stack 3-1. The exhaust from Stack 3-1 is controlled by electrostatic precipitator 402L.

(6) 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 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) 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. An oxygen enrichment system, constructed in 2006, introduces oxygen into the first stage pre-calciner and the front end of the rotary kiln. 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 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, cosmetics, and seed corn;

(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;

(7) One (1) reject dust bin for cement kiln dust, identified as Point 3-7A (481F), with a nominal capacity of 150 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.

(i) Clinker Cooler Operations, with a nominal capacity of 208 tons of clinker per hour:

(1) One (1) clinker cooler, identified as Point 3-9A (401C), constructed before August 17, 1971 and modified in 2000, with a nominal capacity of 208 tons per hour; one (1) clinker breaker, identified as Point 3-9B (401CG), constructed January 1, 1969 and modified in 2000, with a nominal capacity of 208 tons per hour; one (1) dropout chamber, identified as Point 3-9C (401CL), constructed January 1, 1969, with a nominal capacity of 20 tons per hour; two (2) vibrating feeders, identified as Point 3-9F (427V, 428V), constructed before August 17, 1971 and modified in 2000, with a nominal capacity of 208 tons per hour each; and one (1) drag conveyor, identified as Point 3-9G (401CV), and eight (8) screw conveyors (422V, 470CV2, 470CV3, 470CV9, 470CV10, 474V-476V), all constructed before August 17, 1971 and modified in 2001, each with a nominal capacity of 10 tons per hour; all equipped with one (1) fabric filter system (FF 3-9, baghouse 471-CL) to control particulate emissions, exhausting to stack 3-2;

(2) Two (2) belt conveyors, identified as Point 3-11A (421V, 509V); and two (2) bucket elevators, identified as Point 3-11B (418V, 419V); all constructed before 1971 and modified in 2000, with a nominal capacity of 208 tons per hour each (note that belt conveyor (421V) is a non-routine belt). Particulate emissions from 421V, 418V, and 419V are controlled by the one (1) fabric filter system (FF 3-9, baghouse 471-CL). Particulate emissions from 509V are controlled by the one (1) fabric filter system (FF 3-11, baghouse 406L). If needed, particulate emissions from 418V can also be controlled by the one (1) fabric filter system (FF 3-11, baghouse 406L);

(3) One (1) non-routine outdoor clinker pile, identified as Point 3-13, modified in 1999, utilizing water mist suppression or equivalent dust suppression to control particulate emissions;

(4) One (1) belt conveyor (turning tower), identified as Point 3-12 (510V), constructed before 1971 and modified in 2000, with a nominal capacity of 208 tons per hour, equipped with one (1) fabric filter system (FF 3-12, baghouse 506L) to control particulate emissions;

(5) One (1) bucket elevator, identified as Point 3-22 (500V), constructed October 1, 1999, with a nominal capacity of 250 tons per hour, equipped with one (1) fabric filter system (FF 3-22, baghouse 500L) to control particulate emissions;

(6) Two (2) feeders, identified as Point 3-24A (207F, 208F); and one (1) belt conveyor, identified as Point 3-24B (219V); each constructed before August 17, 1971, with a nominal capacity of 300 tons per hour each, equipped with one (1) fabric filter system (FF 3-24, baghouse 220L) to control particulate emissions;

(7) Seven (7) clinker silos, identified as Point 3-14 (501A-507A), constructed before 1971 and modified in 1999, each with a nominal capacity of 5000 tons, equipped with one (1) fabric filter system (FF 3-14, baghouse 503L) to control particulate emissions;

(8) One (1) belt conveyor, identified as Point 3-21 (220V), constructed before August 17, 1971, and one (1) belt scale, constructed in 2003, with a nominal capacity of 300 tons per hour, equipped with one (1) fabric filter system (FF 3-21, baghouse 221L) which was installed in 2001 to control particulate emissions;

(9) One (1) clinker resizing operation, identified as Point 3-24, constructed in 2003, operating parallel to existing clinker feeders and a clinker belt conveyer, comprised of the following activities and facilities:

(A) One (1) loader haul operation, identified as Unit #2 (F3-32), with fugitive emissions;

(B) One (1) vibrating feeder, identified as Unit #2 (F3-33), with a nominal throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions uncontrolled;

(C) One (1) jaw crusher, identified as Unit #3, with a nominal throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions controlled by Dust Collector #1, exhausting to stack S3-34; and

(D) Two (2) belt conveyors, identified as Unit #4 and Unit #5, operating in series, feeding existing belt 3-21 (220V), each with a nominal throughput of two hundred fifty (250) tons per hour, with emissions controlled by Dust Collector #1, exhausting to stack S3-34.

(j) Finish Mill Operations:

(1) Four (4) vibrating feeders, identified as Point 3-15 (504V-507V), constructed before 1971 and modified in 1999, with a nominal capacity of 250 tons per hour each, equipped with one (1) fabric filter system (FF 3-15, baghouse 505L) to control particulate emissions;

(2) Four (4) vibrating feeders, identified as Point 3-17A (501V-503V, 508V); and one (1) belt conveyor, identified as Point 3-17B (221V); with a nominal capacity of 250 tons per hour each; all constructed before 1971 and modified in 1999, equipped with one (1) fabric filter system (FF 3-17, baghouse 504L) to control particulate emissions;

(3) Two (2) belt conveyors, identified as Point 3-20B (514V, 511V), constructed before August 17, 1971; one (1) bucket elevator, identified as Point 3-20A (513V), constructed June 1, 2000; and one (1) belt conveyor, identified as 511V2, constructed in 2003; each with a nominal capacity of 250 tons per hour, equipped with one (1) fabric filter system (FF 3-20, baghouse 513L) to control particulate emissions;

(4) One (1) belt conveyor, identified as Point 4-13A (515V), constructed in 1969 and modified in 2000, with a nominal capacity of 250 tons per hour; and four one (4) (1) silos, identified as Point 4-13B (650A-653A) (652), constructed January 1, 1969, with a nominal capacity of 2,440, 2,315, 2,260, and 200 tons respectively, equipped with one (1) fabric filter system (FF 4-13, baghouse 515L) to control particulate emissions. The three (3) silos, 650A, 651A, and 653A, with a nominal capacity of 2,440, 2,315, and 200 tons, respectively, constructed in 1969, and controlled by baghouses 760L, 761L, and 762L (constructed in 2006), respectfully to control particulate emissions. The three (3) silos, 650A, 651A, and 653A, with a nominal capacity of 2,440, 2,315, and 200 tons, respectively, constructed in 1969, and controlled by baghouses 760L, 761L, and 762L (constructed in 2006), respectfully to control particulate emissions;

(5) One (1) belt conveyor, identified as Point 4-14 (516V), constructed January 1, 1969, with a nominal capacity of 250 tons per hour, equipped with one (1) fabric filter system (FF 4-14, baghouse 516L) to control particulate emissions;

(6) No. 1 Finish Mill, modified in 1993, with a nominal capacity of 70 tons of clinker per hour:

(A) Two (2) belt conveyors, identified as Point 4-1A (639V, 640V), constructed in 1971 and modified in 1999, with a nominal capacity of 250 tons per hour each; one (1) clinker bin, identified as Point 4-1B (601F), constructed before 1971 and modified in 1999, with a nominal capacity of 260 tons; one (1) gypsum bin, identified as Point 4-1C (603F), constructed before 1971 and modified in 1999, with a nominal capacity of 240 tons per hour; one (1) spill screw, identified as Point 4-1D (646V), constructed in 2002, with a nominal capacity of 5 tons per hour; and one (1) belt conveyor, identified as 614V, modified in 2003, with a maximum capacity of 250 tons of clinker per hour; all equipped with one (1) fabric filter system (FF 4-1, baghouse 617L) to control particulate emissions;

(B) One (1) No. 1 finish mill, identified as Point 4-2A (603G), constructed before 1971 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour; one (1) elevator, identified as Point 4-2B (626V), constructed before 1971 and modified in 1999, with a nominal capacity of 200 tons per hour; and one (1) spill screw, identified as Point 4-2D (642V), constructed 1969 and modified in 1999, with a nominal capacity of 5 tons per hour; all equipped with one (1) fabric filter system (FF 4-2, baghouse 613L) to control particulate emissions;

(C) One (1) air separator, identified as Point 4-3A (605G), constructed in 1994 and modified in 1999, with a nominal capacity of 200 tons per hour; one (1) tailing screw, identified as Point 4-3D (613V), constructed in 1969 and modified in 1999, with a nominal capacity of 200 tons per hour; two (2) cement coolers, identified as Point 4-3E (603C, 604C), constructed in 1969 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour each; one (1) F.K. pump hopper, identified as Point 4-3G (611F), constructed in 1969 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour; one (1) mill feed belt, identified as Point 4-3H (641V), constructed in 1974 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour; and one (1) clinker F.O.W. belt, identified as Point 4-3I (601V), constructed before 1971 and modified in 1999, with a nominal capacity of 70 tons per hour; equipped with one (1) fabric filter system (FF 4-3, baghouse 606L) to control particulate emissions;

(D) One (1) fringe bin for off specification cement and cement kiln dust, identified as Point 4-16A (604F), constructed before August 17, 1971, with a nominal capacity of 66 tons; and two (2) screw feeders, identified as Point 4-16B (611V, 604F1V), constructed January 1, 1969, with a nominal capacity of 20 tons per hour each; equipped with one (1) fabric filter system (FF 4-16, baghouse 605L) to control particulate emissions; and

(E) One (1) weigh belt, identified as Point 4-15A (605V), and one (1) belt conveyor, identified as Point 4-15B (616V), constructed before 1974, covered by a building enclosure to control particulate matter;

(7) No. 2 Finish Mill, with a capacity of 70 tons of clinker per hour:

(A) Two (2) conveyor belts, identified as Point 4-4A (639V, 640V), constructed 1969 and modified in 1999, with a nominal capacity of 250 tons per hour; one (1) clinker bin, identified as Point 4-4B (602F), constructed before 1971 and modified in 1999, with a nominal capacity of 260 tons; one (1) gypsum bin, identified as Point 4-4C (603F), constructed before 1971 and modified in 1999, with a nominal capacity of 240 tons; one (1) clinker F.O.W. belt, identified as Point 4-4D, (602V), constructed before 1971 and modified in 1999, with a nominal capacity of 70 tons per hour; and one (1) feed belt, identified as Point 4-4E (644V), constructed in 1975 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour; all equipped

with one (1) fabric filter system (FF 4-4, 636L) to control particulate emissions;

(B) One (1) No. 2 finish mill, identified as Point 4-5A (602G), constructed before 1971 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour; and one (1) spill screw, identified as Point 4-5B (645V), constructed in 1969 and modified in 1999, with a nominal capacity of 5 tons per hour; all equipped with one (1) fabric filter system (FF 4-5, baghouse 603L) to control particulate emissions; and

(C) One (1) air separator, identified as Point 4-6A (604G), constructed before 1971 and modified in 1999, with a nominal capacity of 200 tons per hour; one (1) elevator, identified as Point 4-6B (621V), constructed before 1971 and modified in 1999, with a nominal capacity of 200 tons per hour; one (1) tailing screw, identified as Point 4-6D (612V), constructed in 1969 and modified in 1999, with a nominal capacity of 200 tons per hour; two (2) cement coolers, identified as Point 4-6E (601C, 602C), constructed in 1969 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour each; one (1) F.K. pump hopper, identified as Point 4-6F (610F), constructed in 1969 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour; and one (1) mill feed belt, identified as Point 4-6G (644V), constructed in 1975 and modified in 1999, with a nominal capacity of 70 tons of clinker per hour; all equipped with one (1) fabric filter system (FF 4-6, baghouse 602L) to control particulate emissions;

(8) No. 3 Finish Mill, with a nominal capacity of 95 tons of clinker per hour:

(A) One (1) No. 3 finish mill, identified as Point 4-9 (660G), constructed June 1, 2000, with a nominal capacity of 95 tons of clinker per hour, equipped with one (1) fabric filter system (FF 4-9, baghouse 660L) to control particulate emissions;

(B) One (1) hopper, identified as Point 4-10C (667F), with a nominal capacity of 95 tons of clinker per hour; one (1) cooler, identified as Point 4-10D (664C), with a nominal capacity of 95 tons of clinker per hour; and one (1) feed belt, identified as Point 4-10E (654V), with a nominal capacity of 95 tons of clinker per hour; all constructed June 1, 2000, equipped with one (1) fabric filter system (FF 4-10, baghouse 661L) to control particulate emissions;

(C) One (1) fringe bin for off specification cement and cement kiln dust, identified as Point 4-11B (665F), with a nominal capacity of 80 tons; one (1) elevator, identified as Point 4-11C (661V), with a nominal capacity of 230 tons per hour; and one (1) rotary feeder, identified as Point 4-11D (665FV), with a nominal capacity of 50 tons per hour; all constructed June 1, 2000 and equipped with one (1) fabric filter system (FF 4-11, baghouse 665L) to control particulate emissions;

(D) One (1) air separator, identified as Point 4-12A (664G), constructed June 1, 2000, with a nominal capacity of 230 tons per hour, and equipped with one (1) fabric filter system (FF 4-12, baghouse 664L) to control particulate emissions; and

(E) Two (2) weigh feeders, identified as Point 4-17 (652V, 653V), constructed January 1, 1969; and two (2) weigh feeders (650V, 651V), constructed January 1, 1969, equipped with two (2) dust collectors (650L, 651L), installed in 2000, venting indoors; with a nominal capacity of 40 tons per hour each, covered by a building enclosure (BE 4-17) to control particulate emissions.

(k) Cement Storage, Loading, and Packaging Activities:

(1) Three (3) Group 5 silos, identified as Point 5-1 (705A, 707A, 709A), constructed before 1971 and modified in 1999, with a nominal storage capacity of 10,000 tons each, with particulate emission controlled by one (1) fabric filter system (FF 5-1, baghouse 757L);

(2) Three (3) Group 5 silos, identified as Point 5-2 (706A, 708A, 710A), constructed before 1971 and modified in 1999, with a nominal storage capacity of 10,000 tons each, with particulate emissions controlled by one (1) fabric filter systems (FF 5-2, baghouse 758L);

(3) Two (2) Group 4 silos, identified as Point 5-3 (702A, 704A), constructed in 1967 and modified in 1999, with a nominal storage capacity of 5,000 tons each, with particulate emissions controlled by one (1) fabric filter system (FF 5-3, baghouse 702L);

(4) Two (2) Group 4 silos, identified as Point 5-4 (701A, 703A), constructed in 1967 and modified in 1999, with a nominal storage capacity of 5,000 tons each, with particulate emissions controlled by one (1) fabric filter system (FF 5-4, baghouse 701L);

(5) Two (2) silos, identified as Point 5-29 (711A, 712A), constructed in January 1, 1969, with a nominal storage capacity of 5,000 tons each, with particulate emissions controlled by one (1) fabric filter system (FF 5-29, baghouse 713L);

(6) One (1) screen, identified as Point 5-5C (701G), constructed before 1971 and modified in 1999; and one (1) truck loader, identified as Point 5-5D (708L), constructed before 1971 and modified in 1999; each with a nominal capacity of 500 tons per hour, equipped with one (1) fabric filter system (FF 5-5, baghouse 703L) to control particulate emissions;

(7) One (1) screen, identified as Point 5-6B (702G), constructed before 1971 and modified in 1999; and one (1) railcar/truck loader, identified as Point 5-6C (709L), constructed before 1971 and modified in 1999; each with a nominal capacity of 500 tons per hour, equipped with one (1) fabric filter system (FF 5-6, baghouse 706L) to control particulate emissions;

(8) One (1) hopper, identified as Point 5-7B (701F), constructed before 1971 and modified in 1999, with a nominal capacity of 40 tons per hour, equipped with one (1) fabric filter system (FF 5-7, baghouse 710L) to control particulate emissions;

(9) One (1) hopper, identified as Point 5-8 (730F), constructed before 1971 and modified in 1999, with a nominal capacity of 40 tons per hour, equipped with one (1) fabric filter system (FF 5-8, baghouse 715L) to control particulate emissions;

(10) Three (3) screw conveyors, identified as Point 5-9A (809V, 809V1, 809V2), constructed before 1971, with a nominal capacity of 40 tons per hour each; one (1) alleviator, identified as Point 5-9C, constructed before 1971, with a nominal capacity of 40 tons per hour; and fourteen (14) Group 2 silos, identified as Point 5-9B (2S-7S, 9S, 11S-17S), constructed in 1924, with a combined nominal capacity of 24,842 tons; all equipped with one (1) fabric filter (FF 5-9, baghouse 808L) to control particulate matter;

(11) One (1) silo, identified as Point 5-10 (8S), constructed in 1924 and modified in 1999, with a nominal capacity of 5420 tons, equipped with one (1) fabric filter system (FF 5-10, baghouse 807L) for particulate control;

(12) One (1) silo, identified as Point 5-11 (10S), constructed in 1924 and modified in 1999, with a nominal capacity of 5420 tons, equipped with one (1) fabric filter system (FF 5-11, baghouse 810L) for particulate control;

(13) Four (4) Group 3 silos, identified as Point 5-13 (26S, 27S, 28S, and 29S), constructed in 1924 and modified in 1999, with a nominal capacity of 2,736 tons each, equipped with one (1) fabric filter system (FF 5-13, baghouse 27DC) to control particulate emissions;

(14) Three (3) Group 3 silos, identified as Point 5-14 (18S, 20S, 22S), constructed in 1924 and modified in 1999, with a nominal capacity of 3,112 tons each, equipped with one (1) fabric filter system (FF 5-14, baghouse 22DC) to control particulate emissions;

(15) Two (2) Group 3 silos, identified as Point 5-15 (24S, 30S), constructed in 1924 and modified in 1999, with a nominal capacity of 2,780 tons each, equipped with one (1) fabric filter system (FF 5-15, baghouse 24DC) to control particulate emissions;

(16) Four (4) Group 3 silos, identified as Point 5-17 (19S, 21S, 23S, 25S), constructed in 1924 and modified in 1999, with a nominal capacity of 2,736 tons each, equipped with one (1) fabric filter system (FF 5-17, baghouse 25DC) to control particulate emissions;

(17) One (1) screens elevator, identified as Point 5-18 (829V2), constructed before 1971, with a nominal capacity of 40 tons per hour, covered by a building enclosure (BE 5-18) to control particulate emissions;

(18) One (1) elevator, identified as Point 5-19 (829V1), constructed before 1971, with a nominal capacity of 40 tons per hour, covered by a building enclosure (BE 5-19) to control particulate emissions;

(19) Two (2) bulk tanks, identified as Point 5-23A (831F, 833F), with a nominal capacity of 20 tons each; and one (1) truck loader, identified as Point 5-23C, with a nominal capacity of 40 tons per hour; all constructed before 1971 and modified in 1999, except for 831V2 which was constructed in 2003, and equipped with one (1) fabric filter system (FF 5-23, baghouse 833L) to control particulate emissions;

(20) Three (3) bulk tanks, identified as Point 5-24A (832F, 834F, 835F), with a nominal capacity of 20 tons each, constructed before 1950 and modified in 1999, and equipped with one (1) fabric filter system (FF 5-24, baghouse 835L) to control particulate emissions;

(21) One (1) silo, identified as Point 5-26A (782F), with a nominal capacity of 2,430 tons; and one (1) bucket elevator, identified as Point 5-26B (781V), with a nominal capacity of 500 tons per hour; all constructed December 1, 2000, and equipped with one (1) fabric filter system (FF 5-26, baghouse 782L) to control particulate emissions;

(22) One (1) lump breaker, identified as Point 5-27B (783V3); one (1) spout, identified as Point 5-27C (785L); and one (1) truck loader, identified as Point 5-27D; all constructed December 1, 2000, with a nominal capacity of 500 tons per hour each, and equipped with one (1) fabric filter system (FF 5-27, baghouse 783L) to control particulate emissions;

(23) One (1) lump breaker, identified as Point 5-28B (784V3); one (1) spout, identified as Point 5-28C (786L); and one (1) truck loader, identified as Point 5-28D; all constructed December 1, 2000, with a nominal capacity of 500 tons per hour each, and equipped with one (1) fabric filter system (FF 5-28, baghouse 784L) to control particulate emissions;

(24) Five (5) screw conveyors, identified as Point 5-30B (755V, 759V-762V), constructed in 1978; six (6) rotary feeders, identified as Point 5-30C (755M-760M), constructed in 1978; and one (1) hopper, identified as Point 5-30D (750F), constructed before August 17, 1971; with a nominal capacity of 40 tons per hour each, covered by a building enclosure (BE 5-30) to control particulate emissions; and

(25) Nineteen (19) screw conveyors, identified as Point 5-33A (818V1-825V1, 818V2-825V2, 828V1, 828V2, 830V); and three (3) screen screws, identified as Point 5-33B (806V, 829V4, 830V1); all constructed before 1950, with a nominal capacity of 40 tons per hour each, and covered by a building enclosure (BE 5-33) to control particulate emissions.

(l) One (1) blend facility, consisting of the following units:

(1) Five (5) screw conveyors, identified as Point 5-35A (22SC, 24SCG, 24SC, 30SC, 31SC), all constructed in 1989, with a nominal capacity of 40 tons per hour each, covered by a building enclosure (BE 5-35) to control particulate emissions;

(2) One (1) transfer pod, identified as Point 5-36 (22) constructed in August 1989, with a nominal area of 25 cubic feet, equipped with one (1) fabric filter system (FF 5-36, filter 22-PVDC) to control particulate emissions;

(3) One (1) transfer pod, identified as Point 5-37 (24-G), constructed in August 1989, with a nominal area of 25 cubic feet, equipped with one (1) fabric filter system (FF 5-37, filter 24-PVDC-G) to control particulate emissions;

(4) One (1) transfer pod, identified as Point 5-38 (24), constructed in August 1989, with a nominal area of 25 cubic feet, equipped with one (1) fabric filter system (FF 5-38, filter 24-PVDC) to control particulate emissions;

(5) One (1) transfer pod, identified as Point 5-39 (30), constructed in August 1989, with a nominal area of 25 cubic feet, equipped with one (1) fabric filter system (FF 5-39, filter 30-PVDC) to control particulate emissions;

(6) One (1) receiving tank, identified as Point 5-40, constructed in August 1989, with a nominal capacity of 20 tons, equipped with one (1) fabric filter system (FF 5-40, baghouse 40-DC) to control particulate emissions;

(7) One (1) blending tank, identified as Point 5-41A, with a nominal capacity of 20 tons; and one (1) blending pod, identified as Point 5-41C, with a nominal capacity of 25 cubic feet; all constructed in August 1989, equipped with one (1) fabric filter system (FF 5-41, baghouse 41-DC) to control particulate emissions;

(8) Two (2) silos, identified as Point 5-42 (50S, 51S), constructed August 1989, with a nominal capacity of 175 tons each, equipped with one (1) fabric filter system (FF 5-42, baghouse 50-DC) to control particulate emissions;

(9) Two (2) silos, identified as Point 5-43 (52S, 53S), constructed August 1989, with a nominal capacity of 175 tons each, equipped with one (1) fabric filter system (FF 5-43, baghouse 53-DC) to control particulate emissions; and

(10) One (1) transfer pod, identified as Point 5-44B (50PV), constructed in August 1989, with a nominal capacity of 40 tons per hour each, equipped with one (1) fabric filter system (FF 5-44, filter 50-PVDC) to control particulate emissions.

(m) Packhouse operations consisting of the following:

(1) One (1) elevator, identified as Point 6-1A (838V), constructed in 1945; one (1) packer bin, identified as Point 6-1B (Bin #1), constructed in 1946; one (1) packing machine, identified as Point 6-1C (842LF), constructed in 1945; two (2) circulating tanks, identified as Point 6-1D (842F, 842FA), constructed in 1946; two (2) rotary feeders, identified as Point 6-1E (842M, 842MA), constructed in 1946; and four (4) screw conveyors, identified as Point 6-1F (842LV1, 837V, 837V1, 831V2), constructed in 1945; all modified in 1999, with a nominal capacity of 34 tons per hour, and equipped with one (1) fabric filter system (FF 6-1, baghouse 842L) for particulate control;

(2) One (1) elevator, identified as Point 6-2A (838V1), constructed in 1945; one (1) packer bin, identified as Point 6-2B (Bin #2), constructed in 1946; one (1) packing machine, identified as Point 6-2C (843LF), constructed in 1945; two (2) circulating tanks, identified as Point 6-2D (843F, 843FA), constructed in 1945; two (2) rotary feeders, identified as Point 6-2E (843M, 843MA), constructed before 1971; and four (4) screw conveyors (843LV1, 817V1, 817V3, 817V7), identified as Point 6-2G; constructed in 1945; all modified in 1999, with a nominal capacity of 46 tons per hour, and equipped with one (1) fabric filter system (FF 6-2, baghouse 843L) for particulate control;

(3) One (1) elevator, identified as Point 6-3A (838V2), constructed in 1945; one (1) packer bin, identified as Point 6-3B (Bin #3), constructed in 1946; one (1) packing machine, identified as Point 6-3C (844LF), constructed in 1945; two (2) circulating tanks, identified as Point 6-3D (844F, 844FA), constructed in 1945; two (2) rotary feeders, identified as Point 6-3E (844M, 844MA), constructed before 1971; and one (1) screw conveyor, identified as Point 6-3F (844LV1), constructed before 1971; all modified in 1999, with a nominal capacity of 65 tons per hour, and equipped with one (1) fabric filter system (FF 6-3, baghouse 844L) for particulate control;

(4) One (1) elevator, identified as Point 6-4A (838V3), constructed in 1945; one (1) packer bin, identified as Point 6-4B (Bin #4), constructed in 1946; one (1) packing machine, identified as Point 6-4C (845LF), constructed in 1945; two (2) circulating tanks, identified as Point 6-4D (845F, 845FA), constructed in 1945; two (2) rotary feeders, identified as Point 6-4E (845M, 845MA), constructed before 1971; and one (1) screw conveyor, identified as Point 6-4F (845LV1), constructed before 1971; all modified in 1999, with a nominal capacity of 40 tons per hour, and equipped with one (1) fabric filter system (FF 6-4, baghouse 845L) for particulate control;

(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.

(o) One (1) truck and railcar unloading operation, identified as 240F, approved for construction in 2007, for unloading and pneumatically conveying alternative fuel (spent pot liner) to a silo, with a maximum throughput capacity of 33 tons per hour, with a maximum storage

capacity of 700 tons, with particulate emissions controlled by a dust collector (identified as 240L), and exhausting to stack 240L. This is an affected facility under 40 CFR 63, Subpart LLL.

(p) One (1) enclosed pneumatic conveyance system, identified as 241F, approved for construction in 2007, for pneumatically conveying alternative fuel (spent pot liner) from the silo to the cement kiln, with a maximum throughput capacity of 4 tons per hour, with particulate emissions controlled by a bin vent filter (identified as 241L), and exhausting to stack 241L. This is an affected facility under 40 CFR 63, Subpart LLL.

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, approved for construction in 2007, with a maximum capacity of 10 tons of non-hazardous waste alternate fuel per hour, consisted of the following: [326 IAC 6-3-2]

(1) Two (2) hoppers, identified as 295F and 296F.

(2) Two (2) screw conveyors, identified as 295V and 296V.

(3) Two (2) weight feeders, identified as 295V1 and 296V1.

(4) Three (3) covered drag chain conveyors, identified as 296DCC, 297DCC, and 298DCC.

(5) Two (2) bucket elevators, identified as 296BE and 297BE.

(g) Storage piles for non-hazardous waste alternate fuels, located inside a three-sided building, with a total maximum throughput rate of 10 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).

SECTION D.2 FACILITY OPERATION CONDITIONS - GYPSUM MATERIAL HANDLING PROCESS, RAW MATERIAL BALL MILL OPERATION, FLY ASH STORAGE ACTIVITIES

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

(c) One (1) gypsum material handling process, constructed in 2002, with a nominal production of 150 tons per hour of the blended synthetic gypsum material, including the following units:

(1) One (1) synthetic gypsum transporting system, identified as 1-20, with fugitive emissions;

(2) One (1) granulated slag/rock transporting system, identified as 1-31, with fugitive emissions;

(3) One (1) outdoor gypsum storage pile, identified as 1-27, with a nominal storage capacity of 10,000 tons and a nominal throughput of 67,000 tons per year, using water suppression to control particulate emissions;

(4) One (1) outdoor granulated slag/rock storage pile, identified as 1-32, with a nominal storage capacity of 5,000 tons and a nominal throughput of 22,400 tons per year, using water suppression to control particulate emissions;

(5) One (1) synthetic gypsum hopper (230F), one (1) conveyor belt (230FV), and one (1) weigh belt (230V), all with a nominal throughput of 90 tons per hour; and one (1) conveyor belt (232V), with a nominal throughput of 120 tons per hour; all collectively identified as 1-34;

(6) One (1) granulated slag/rock hopper (231F), one (1) conveyor belt (231FV), and one (1) weigh belt (231V), collectively identified as 1-35, each with a nominal throughput of 30 tons per hour;

(7) One (1) enclosed pug mill (232L), identified as 1-36A, with a nominal throughput of 150 tons per hour, with particulate emissions controlled by Dust Collector (232FL), and exhausting through stack S1-36;

(8) One (1) CKD bin (232F) and one (1) discharge screw (232FV), identified as 1-36B and 1-36C, with a nominal throughput of 30 tons per hour, with particulate emissions controlled by Dust Collector (232FL), and exhausting through stack S1-36;

(9) Two (2) belt conveyors (233V, 233V1), identified as 1-41, for finished gypsum material, with a nominal throughput of 150 tons per hour;

(10) One (1) covered storage pile for finished gypsum material, identified as 1-37, with a nominal storage capacity of 5,000 tons and a nominal throughput of 112,000 tons per year; and

(11) One (1) finished gypsum material hopper (234F) and two (2) conveyor belts (234V, 234FV, identified as 1-38, with a nominal throughput of 150 tons per hour.

(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):

(d) Raw Material Ball Mill Operation, with a nominal capacity of 360 tons of raw material per hour, including the following units:

(1) Raw material ball mill transfer equipment including four (4) belt conveyors, identified as Point 1-17A (252V-255V); four (4) raw material bins, identified as Point 1-17B (350F-353F); all constructed April 1, 2000, with a nominal capacity of 525 tons per hour, equipped with one (1) fabric filter system (FF 1-17, baghouse 350L) to control particulate emissions;

(2) Four (4) weigh feeders, identified as Point 1-18A (350V-353V); one (1) conveyor belt, identified as Point 1-18B (358V); two (2) apron feeders, identified as Point 1-18C (350V1, 351V1); and two (2) scavenger conveyors, identified as Point 1-18D (350V2, 351V2); all constructed April 1, 2000, with a nominal capacity of 400 tons per hour; all utilizing a building enclosure to control particulate emissions;

(3) One (1) alleviator, identified as Point 1-7, constructed April 1, 2000, with a nominal capacity of 20 tons per hour, equipped with one (1) fabric filter system (FF 1-7, baghouse 351L) to control particulate emissions.

(e) Fly Ash Storage Activities, including the following units:

(1) Two (2) screw conveyors, identified as Point 1-19A (273V, 274V); and two (2) fly ash hoppers, identified as Point 1-19B (273F, 273FA); all constructed April 1, 2000 and modified February 8, 2002, with exception of 273FA which was constructed in 2003, each with a nominal capacity of 20 tons per hour, equipped with one (1) fabric filter system (FF 1-20, 274L) to control particulate emissions;

(2) One (1) fly ash silo, identified as Point 1-39 (270F), constructed April 1, 2000, with a nominal capacity of 1,250 tons, equipped with one (1) fabric filter system (FF 1-39, 270L) to control particulate emissions;

(3) One (1) fly ash silo, identified as Point 1-40 (271F), constructed April 1, 2000, with a nominal capacity of 1,250 tons, equipped with one (1) fabric filter system (FF 1-40, 271L) to control particulate emissions;

(4) Two (2) additive silos, identified as Point 1-21A (318F, 328F), each with a nominal capacity of 500 tons; four (4) rotary feeders, identified as Point 1-21B (318V, 318VV, 328V, 328VV), with a nominal capacity of 30 tons per hour each; all constructed May 17, 1996, equipped with one (1) fabric filter system (FF 1-21, baghouse 319L) to control particulate emissions;

(5) One (1) additive feed bin, identified as Point 1-22 (308F), constructed after August 17, 1971 and before May 17, 1996, with a nominal capacity of 200 tons, covered by a building enclosure (BE 1-22) to control particulate emissions; and

(6) Two (2) rotary feeders, identified as Point 1-23A (308V, 308VV), constructed in 1996; and one (1) weigh belt, identified as Point 1-23B (309V), constructed before August 17, 1971; each with a nominal capacity of 30 tons per hour, covered by a building enclosure (BE 1-23) to control particulate emissions.

(o) One (1) truck and railcar unloading operation, identified as 240F, approved for construction in 2007, for unloading and pneumatically conveying alternative fuel (spent pot liner) to a silo, with a maximum throughput capacity of 33 tons per hour, with a maximum storage capacity of 700 tons, with particulate emissions controlled by a dust collector (identified as 240L), and exhausting to stack 240L. This is an affected facility under 40 CFR 63, Subpart LLL.

(p) One (1) enclosed pneumatic conveyance system, identified as 241F, approved for construction in 2007, for pneumatically conveying alternative fuel (spent pot liner) from the silo to the cement kiln, with a maximum throughput capacity of 4 tons per hour, with particulate emissions controlled by a bin vent filter (identified as 241L), and exhausting to stack 241L. This is an affected facility under 40 CFR 63, Subpart LLL.

(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.2.1 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, except when otherwise specified in 40 CFR 63, Subpart LLL, to the gypsum material handling process, raw material ball mill operations, fly ash storage activities, truck unloading, and pneumatic transfer activities listed in Condition D.2.2.

D.2.2 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 following emission units are subject to 40 CFR 63, Subpart LLL, and the visible emissions from these units shall be less than 10 percent opacity:

Operations	Units	Emission Point
Synthetic Gypsum Material Handling Process	one (1) synthetic gypsum hopper (230F) one (1) conveyor belt (230FV) one (1) weigh belt (230V) one (1) conveyor belt (232V)	1-34
	one (1) granulated slag/rock hopper (231F) one (1) conveyor belt (231FV) one (1) weigh belt (231V)	1-35
	one (1) enclosed pug mill (232L) one (1) CKD bin (232F) one (1) discharge screw (232FV)	S1-36 (232FL)
	two (2) belt conveyors (233V, 233V1)	1-41
	one (1) finished gypsum material hopper (234F) two (2) conveyor belts (234V, 234FV)	1-38
Raw Material Ball Mill Operations	four (4) belt conveyors (252V-255V) four (4) raw material bins (350F-353F)	FF 1-17 (350L)
	four (4) weigh feeders (350V-353V) one (1) conveyor belt (358V) two (2) apron feeders (350V1, 351V1) two (2) scavenger conveyors (350V2, 351V2)	1-18
	one (1) alleviator	FF 1-7 (351L)
Fly Ash Storage Activities	two (2) screw conveyors (273V, 274V) two (2) fly ash hoppers (273F, 273FA)	FF 1-20 (274L)
	one (1) fly ash silo (270F)	FF 1-39 (270L)
	one (1) fly ash silo (271F)	FF 1-40 (271L)
	two (2) additive silos (318F, 328F) four (4) rotary feeders (318V, 318VV, 328V, 328VV)	FF 1-21 (319L)
	one (1) additive feed bin (308F)	BE 1-22
	two (2) rotary feeders (308V, 308VV) one (1) weigh belt (309V)	BE 1-23
Truck Unloading / Silo Loading	one (1) truck unloading, pneumatic conveying and silo (240F)	240L
Pneumatic Transfer	one (1) pneumatic transfer (241F)	241L

D.2.3 Particulate Matter Emission Limitation [326 IAC 2-2]

(a) Pursuant to CP133-10159-00002, issued on April 16, 1999, and 326 IAC 2-2 (Prevention of Significant Deterioration BACT), the following limitations apply to the following units:

Units	Emission Point	Filterable PM Limits	Filterable PM10 Limits
four (4) belt conveyors (252V-255V) four (4) raw material bins (350F-353F)	FF 1-17 (350L)	0.010 gr/dscf 1.08 lbs/hr	0.010 gr/dscf 1.08 lbs/hr
one (1) fly ash silo (270F) one (1) fly ash silo (271F)	FF 1-39 (270L) FF 1-40 (271L	0.015 gr/dscf 0.11 lbs/hr (each)	0.015 gr/dscf 0.11 lbs/hr (each)

(b) Pursuant to 326 IAC 2-2 (PSD BACT), the following limitations apply to the following units:

Units	Emission Point	Filterable PM Limits	Filterable PM10 Limits
one (1) alleviator	FF 1-7 (351L)	0.010 gr/dscf 0.17 lbs/hr	0.010 gr/dscf 0.17 lbs/hr
two (2) screw conveyors (273V, 274V) two (2) fly ash hoppers (273F, 273FA)	FF 1-20 (274L)	0.010 gr/dscf 0.26 lbs/hr	0.010 gr/dscf 0.26 lbs/hr

(c) Pursuant to 326 IAC 2-2 (PSD BACT), the following units shall use a building enclosure as control:

four (4) weigh feeders, identified as Point 1-18A (350V-353V);
one (1) conveyor belt, identified as Point 1-18B (358V);
two (2) apron feeders, identified as Point 1-18C (350V1, 351V1); and
two (2) scavenger conveyors, identified as Point 1-18 D (350V2, 351V2).

(d) In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(1) The emissions from the gypsum material handling process shall be limited to the following:

Units	Emission Point	PM/PM10 Limits
one (1) synthetic gypsum hopper (230F) one (1) conveyor belt (230FV) one (1) weigh belt (230V) one (1) conveyor belt (232V)	1-34	0.24 lbs/hr
one (1) granulated slag/rock hopper (231F) one (1) conveyor belt (231FV) one (1) weigh belt (231V)	1-35	0.24 lbs/hr
one (1) enclosed pug mill (232L) one (1) CKD bin (232F) one (1) discharge screw (232FV)	S1-36 (232 FL)	0.45 lbs/hr
one (1) finished gypsum material hopper (234F) two (2) conveyor belts (234V, 234FV)	1-38	0.24 lbs/hr
two (2) belt conveyors (233V, 233V1)	1-41	0.24 lbs/hr.

This is equivalent to 6.18 tons/yr PM/PM10 emissions. Combined with the fugitive emissions from the gypsum material handling process, the total emissions from this process are less than 15 tons/yr for PM10 and less than 25 tons/yr for PM. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable to the gypsum material handling process when it was constructed.

(2) The emissions from the following units shall comply with the limitations listed in the table below:

Units	Emission Point	PM/PM10 Limits
two (2) additive silos (318F, 328F)	FF 1-21 (319L)	0.15 lbs/hr

Units	Emission Point	PM/PM10 Limits
four (4) rotary feeders (318V, 318VV, 328V, 328VV)		

Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable to the units listed in the table above.

(e) In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the following units shall use a building enclosure as control:

one (1) additive feed bin (308F); and
two (2) rotary feeders (308V, 308VV).

(f) In order to render PSD not applicable to the modification permitted in MSM 133-25345-00002, the Permittee shall limit emissions as follows:

(1) The throughput of spent pot liner shall be less than 35,040 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The PM10 emissions from the truck and railcar unloading operation (240F) shall be limited to less than 0.4 pounds per ton of material unloaded and transferred to the silo.

(3) The PM10 emissions from the enclosed pneumatic conveyance system (241F) shall be limited to less than 0.4 pounds per ton of material transferred to the kiln.

D.2.4 Operation Standards [326 IAC 2-2-3]

Pursuant to CP 133-10159-00002, issued on April 16, 1999, and 326 IAC 2-2-3 (Prevention of Significant Deterioration BACT), the fly ash input rate to the kiln operations shall not exceed 135,289 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.2.5 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 following facilities shall be limited as follows when operating at the listed process weight rate:

Operations	Process Weight Rate (ton/hr) (P)	Allowable Emissions For All Units Combined (lbs/hour) (E)
Gypsum Material Handling Process	150	55.4
Raw Material Ball Mill Operations, excluding the units venting through baghouse 350L and 351L	400	66.3
Fly Ash Storage Activities, excluding the units venting through baghouse 270L, 271L, and 274L	30	40.0
Truck Unloading / Silo Loading	33	40.9
Pneumatic Transfer	4	10.4

NOTE: Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed that shown in this table, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

The limitations for these facilities were calculated using the following equations:

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

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

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.2.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices. If the Operations and Maintenance Plan required by Condition D.2.9 is developed in accordance with Section B - Preventive Maintenance Plan, then once the Operations and Maintenance Plan has been developed, it shall satisfy this condition.

Compliance Determination Requirements

D.2.7 Particulate Matter (PM)

(a) In order to comply with Conditions D.2.2, D.2.3, and D.2.5, the baghouses for PM/PM10 control associated with the gypsum material handling process, the raw material ball mill operation, the fly ash storage activities and the dust collector and bin vent filter for the truck unloading and pneumatic transfer operations shall be in operation and control emissions from the facilities at all times when the facilities are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.2.3(b) and D.2.3(d), no later than 180 days after issuance of this Part 70 permit, the Permittee shall perform PM and PM10 stack testing for one of the emission points listed in Conditions D.2.3(b) and all the emission points listed in D.2.3(d) utilizing methods as approved by the Commissioner. PM10 includes filterable PM10 and condensible PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.2.9 NESHAP Monitoring Requirements [326 IAC 20] [40 CFR 63, Subpart LLL]

Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall maintain a written operation and maintenance plan for the units listed in Condition D.2.2 by June 14, 2002, which is the compliance date for the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry, or upon startup, whichever is later. The plan shall include the following information:

(a) Procedures for proper operation and maintenance of the affected sources and associated air pollution control device(s) in order to meet the emission limits in Condition D.2.2; and

(b) Procedures to be used to periodically monitor the facilities listed in this section, which are subject to opacity standards under 40 CFR 63.1348. Such procedures must include the following provisions:

(1) The Permittee shall conduct a monthly 1-minute visible emissions test of each affected source except for the raw mill (350G), in accordance with 40 CFR 60,

Appendix A, Method 22. The test must be conducted while the affected source is in operation.

(2) If no visible emissions are observed in six consecutive monthly test for any affected source, the Permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(3) If no visible emissions are observed during the semi-annual test for any affected source, the Permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(4) If visible emissions are observed during any Method 22 test, the Permittee must conduct a 6-minute test of opacity in accordance with 40 CFR 60, Subpart A, Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.

(5) The requirement to conduct Method 22 visible emissions monitoring under this paragraph shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. “Totally enclosed conveying system transfer point” shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan.

(6) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the Permittee shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of paragraphs (1) through (4) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (7) of this section.

(7) If visible emissions from a building are monitored, the requirements of paragraphs (1) through (4) of this section apply to the monitoring of the building, and the Permittee shall also test visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.

Failure to comply with any provision of the operations and maintenance plan shall be a violation of the standard.

D.2.10 Visible Emissions Notations

(a) Visible emission notations of each baghouse associated with the synthetic gypsum material handling process (232FL), raw material ball mill operation (350L, 351L), the fly ash storage activities (274L, 270L, 271L, and 319L), and the truck unloading and pneumatic transfer operations (240L and 241L) stack exhausts 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.

(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.2.11 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with the synthetic gypsum material handling process, raw material ball mill operation, and fly ash storage activities at least once per day when those processes are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range listed below:

Baghouse	Pressure Drop (inches of water)
350L, 351L, 270L, 271L, 274L, 319L, 232FL	1-8

or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.2.12 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

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

D.2.13 Record Keeping Requirements

(a) To document compliance with Condition D.2.4, the Permittee shall maintain records of the fly ash input to the kiln system in order to establish compliance with the limit established in Condition D.2.4.

(b) To document compliance with Condition D.2.10, the Permittee shall maintain records of once per day visible emission notations of the synthetic gypsum material handling process, raw material ball mill operation, fly ash storage activities, truck unloading operations, and pneumatic transfer operations stack exhausts. The Permittee shall include in its daily record

when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.2.11, the Permittee shall maintain once per day records of the pressure drop across the baghouse. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) To document compliance with 40 CFR 63, Subpart LLL, the Permittee shall maintain all records required by 40 CFR 63.1355. These records include the following:

(1) The Permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.1355(a) recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1).

(2) The Permittee shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (3) including:

(A) All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.

(B) All records of applicability determination, including supporting analyses.

(e) To document compliance with Condition D.2.3(f)(1), the Permittee shall maintain records of the throughput amount, in tons, of spent pot liner through the truck unloading operations.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.14 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.2.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "Responsible Official" as defined by 326 IAC 2-7-1(34).

(b) To document compliance with 40 CFR 63, Subpart LLL, the Permittee shall report the information required by 40 CFR 63.1354, including, but not limited to the following:

(1) The plan required by 40 CFR 63.1350 shall be submitted to IDEM, OAQ and U.S. EPA by June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry:

(2) As required by 40 CFR 63.10(d)(2), the Permittee shall report the results of performance tests as part of the notification of compliance status, required in Section C - NESHAP Notification and Reporting Requirements.

(3) As required by 40 CFR 63.10(d)(3), the Permittee shall report the opacity results from tests required by 40 CFR 63.1349.

(4) As required by 40 CFR 63.10(d)(5), if actions taken by the Permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in 40 CFR 63.6(e)(3), the Permittee shall state such information in a semiannual report. Reports shall only be required if startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted

simultaneously with the excess emissions and continuous monitoring system performance reports.

(5) Pursuant to 40 CFR 63.10(d)(5)(ii), any time an action taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the Permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan, by telephone call to the OAQ Compliance Section at (317)233-0178 or facsimile (FAX) transmission at (317)233-6865. The immediate report shall be followed by a letter within 7 working days after the end of the event, certified by the Permittee, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

(c) In addition to being submitted to the address listed in Section C - General Reporting Requirements, all reports and the operation and maintenance plan submitted pursuant to 40 CFR 63, Subpart A shall also be submitted to the U.S. EPA at the following address:

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

Pursuant to 40 CFR 63.10(d)(5)(i) and (ii), the reports submitted by the Permittee shall include the certification by the "Responsible Official" as defined by 326 IAC 2-7-1(34).

(d) A quarterly summary of the information to document compliance with Condition D.2.3(f)(1) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "Responsible Official" as defined by 326 IAC 2-7-1(34).

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

Part 70 Quarterly Report

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Rd 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Truck Unloading, Pneumatic Conveyance, Silo Loading, Kiln Loading
Parameter: Pot Liner Throughput
Limit: The throughput shall not exceed 35,040 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

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

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	Lone Star Industries, Inc. dba Buzzi Unicem USA
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 Source Modification No.:	133-25345-00002
Significant Permit Modification No.:	133-25460-00002
Permit Reviewer:	ERG/ST

Existing Approvals

The source was issued Part 70 Operating Permit No. 133-6927-00002 on April 14, 2004. The source has since received the following approvals:

(a) First Minor Permit Modification 133-19255-00002, issued on September 20, 2005;

(b) First Administrative Amendment 133-21744-00002, issued on October 28, 2005;

(c) Second Administrative Amendment 133-22491-00002, issued on February 13, 2006;

(d) Third Administrative Amendment 133-23605-00002, issued on December 7, 2006;

(e) Second Minor Permit Modification 133-23892-00002, issued on May 7, 2007;

(f) First Minor Source Modification 133-24896-00002, issued August 17, 2007;

(g) Significant Permit Modification 133-24198-00002, issued on September 7, 2007; and

(h) Third Minor Permit Modification 133-25090-00002, issued on October 16, 2007.

County Attainment Status

The source is located in Putnam County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO_2	Attainment
NO_2	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(a) Putnam County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for 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 a surrogate for PM2.5 emissions.

(b) Volatile organic compounds (VOC) emissions and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Putnam County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Putnam County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 (i.e., portland cement plants), fugitive emissions are counted toward the determination of PSD applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	356
PM10	331
SO_2	3,326
VOC	19.2
CO	2,940
NO_x	4,402
Single HAP	Greater than 10
Total HAPs	Greater than 25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2) because at least one of the regulated pollutants is emitted at a rate of 100 tons per year or more, and it is in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) These emissions are based upon the technical support document (TSD) for T133-6927-00002 issued on April 14, 2004.

(c) This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Emissions (tons/year)
PM	68
PM10	68
SO_2	196
VOC	0.0
CO	509
NO_x	1,695
A Single HAP	Not Reported
Total HAP	Not Reported

Air Pollution Control Justification as an Integral Part of the Process

The Permittee has submitted the following information to justify why the dust collectors for controlling emissions from the pneumatic transfer of spent pot liner to silos and to the kilns should be considered an integral part of the process:

(a) The process cannot operate without the control equipment. The proposed spent pot liner transfer system uses air to fluidize and "blow" spent pot liner from one location to another. The dust collector and bin vent filter are an integral part of the pneumatic conveying system to prevent the release of the conveyed product with the venting of the air used to convey it.

(b) The dust collector and bin vent filter recover valuable kiln fuel which would otherwise be lost to the environment. Please see the economic analysis for operation of the dust collector and bin vent filter in the tables below.

(c) The use of the filters is necessary to contain the material, which is considered a hazardous waste. Were this material spilled into the environment, the company would have to spend additional money to clean it up.

Economic Benefit for Spent Pot Liner Truck Unloading/Silo Loading:

	Amount	Units
Spent Pot Liner Throughput	35,040	tons/year
Filter Recovery Efficiency[1]	0.03 %	%
Spent Pot Liner Recovered	11.3	tons/year
Replacement Cost of Spent Pot Liner [2]	$ 17.39	per ton
Expense With No Dust Collector	$ 195.82	per year
Annualized Cost of Dust Collector	$ 2,000.00	per year
Economic Benefit of Dust Collector System	$ (1,804.18)	per year

[1] The source estimates that less than 0.03% of the material would be lost or wasted without the use of the integral dust collector.

[2] The source would burn coal if spent pot liner were unavailable. On an equivalent BTU basis, replacing spent pot liner with coal would cost $17.39 per ton of spent pot liner.

Economic Benefit for Spent Pot Liner Kiln Loading:

	Amount	Units
Spent Pot Liner Throughput	35,040	tons/year
Filter Recovery Efficiency[1]	0.07 %	%
Spent Pot Liner Recovered	9.39	tons/year
Replacement Cost of Spent Pot Liner [2]	$ 17.39	per ton
Expense With No Filter	$ 163.18	per year
Annualized Cost of Filter	$ 1,000.00	per year
Economic Benefit of Filter System	$ (836.82)	per year

[1] The source estimates that less than 0.05% of material would be lost or wasted without the use of the integral bin vent filter.

[2] The source would burn coal if spent pot liner were unavailable. On an equivalent BTU basis, replacing spent pot liner with coal would cost $17.39 per ton of spent pot liner.

IDEM, OAQ has evaluated the information submitted and has determined that the dust collectors should not be considered an integral part of the pneumatic material transfer processes. This determination is based on the following:

(a) Pneumatic conveyance systems do require containment of the conveyed material for proper operation. However, this alone does not guarantee that the system is properly operated and maintained to prevent leaks.

(b) Avoidance of the loss of material with small monetary value is not believed to be sufficient motivation to ensure proper operation and maintenance of the dust collector and bin vent filter.

(b) Avoidance of the cost of cleanup is not income and does not provide financial motivation to ensure that no hazardous waste escapes from any of the conveyance systems. Avoiding possible cleanup of a wind-dispersed material with small monetary value is also not believed to be sufficient motivation to ensure proper operation and maintenance of the dust collector and bin vent filter.

Therefore, the permitting level will be determined using the potential to emit before the dust collector and bin vent filter.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Lone Star Industries on September 25, 2007, relating to the addition of pneumatic conveyors and storage silos for an alternate fuel source. The following is a list of the proposed emission units and air pollution control devices:

(a) One (1) truck and railcar unloading operation, identified as 240F, approved for construction in 2007, for unloading and pneumatically conveying alternative fuel (spent pot liner) to a silo, with a maximum throughput capacity of 33 tons per hour, with a maximum storage capacity of 700 tons, with particulate emissions controlled by a dust collector (identified as 240L), and exhausting to stack 240L. This is an affected facility under 40 CFR 63, Subpart LLL.

(b) One (1) enclosed pneumatic conveyance system, identified as 241F, approved for construction in 2007, for pneumatically conveying alternative fuel (spent pot liner) from the silo to the cement kiln, with a maximum throughput capacity of 4 tons per hour, with particulate emissions controlled by a bin vent filter (identified as 241L), and exhausting to stack 241L. This is an affected facility under 40 CFR 63, Subpart LLL.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 5).

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission 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, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	21.3
PM10	20.8
SO_2	0
VOC	0
CO	0
NO_x	0
Single HAP (cyanide)	0.04
Total HAPs	0.04

This source modification is subject to 326 IAC 2-7-10.5(d)(3) because the this modification has a potential to emit of PM and PM10 equal to or greater than 5 tons per year and less than 25 tons per year. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because it involves a case by case determination of a emission limitation in the Part 70 permit.

Permit Level Determination – PSD or Emission Offset

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

Process/Emission Unit	PM	PM10	SO_2	VOC	CO	NO_X
Paved Road	0.61	0.12	0	0	0	0
Truck Unloading / Silo Loading	11.3	Less than 7.0	0	0	0	0
Pneumatic Kiln Loading	9.4	Less than 7.0	0	0	0	0
Total for Modification	21.3	14.1	0	0	0	0
PSD Significant Levels	25	15	40	40	100	40

This source is considered a major PSD source. The unrestricted potential to emit of PM10 of the emission units in this source modification is greater than 15 tons per year. Therefore, this source has elected to limit the potential to emit of PM10 of this modification as follows:

(a) The throughput of spent pot liner shall be less than 35,040 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM10 emissions from the truck and railcar unloading operation (240F) shall not exceed 0.4 pounds per ton of material unloaded and transferred to the silo.

(c) The PM10 emissions from the enclosed pneumatic conveyance system (241F) shall not exceed 0.4 pounds per ton of material transferred to the kiln.

Compliance with these limits will ensure that the emissions increase from this modification is less than fifteen (15) tons of PM10 per year and therefore will render the requirements of 326 IAC 2-2 (PSD) not applicable.

Based on the calculations (see Appendix A), the source will be able to comply with this limit.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

(a) The requirements of the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants (40 CFR 60.670-676, Subpart OOO) are not included in this modification for the unloading operation, silo, and pneumatic transfer operations because these facilities are not affected facilities subject to this subpart, as specified in 40 CFR 60.670.

(b) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this modification.

(c) The unloading operation, silo, and pneumatic transfer operations are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry (40 CFR 63, Subpart LLL and 326 IAC 20-27) because, pursuant to 40 CFR 63.1340(b)(7), these operations are conveying systems used to transfer fuel to the kiln, and this portland cement plant is a major source.

Pursuant to 40 CFR 63.1340, the affected sources include each conveying system transfer point and bulk loading or unloading system. Therefore, the transfer points of the unloading operation, silo, and pneumatic transfer operations in this modification are subject to 40 CFR 63, Subpart LLL and shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten (10) percent, pursuant to 40 CFR 63.1348.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors (40 CFR 63, Subpart EEE) are not included in this modification for the unloading operation, silo, and pneumatic transfer operations because these facilities are not affected facilities subject to this subpart, as specified in 40 CFR 63.1200. However, the cement kiln burning hazardous waste is subject to the requirements of 40 CFR 63, Subpart EEE. These requirements are already included in the permit in Section D.4.

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

(d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or

modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)
Truck Unloading / Silo Loading	Dust Collector	Y	11.3	0.11	100	N
Pneumatic Transfer	Bin Vent Filer	Y	9.4	0.09	100	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modification.

State Rule Applicability Determination

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

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

The operation of the unloading operation, silo, and pneumatic transfer operations will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-4 (Fugitive Dust Emissions)

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

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

Although constructed after December 13, 1985, the provisions of 326 IAC 6-5 do not apply to this modification because the fugitive emissions from this modification are less than 5 tons per year.

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

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the unloading operation, silo, and pneumatic transfer operations shall not exceed the emission limits specified in the table below:

Unit Description	Max. Process Weight Rate (tons/hr)	Allowable Particulate Emission Rate (lbs/hr)
Truck Unloading / Silo Loading	33	40.9
Pneumatic Transfer	4	10.4

The allowable particulate emission rates were calculated using the equation below:

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

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The dust collector and bin vent filter for the unloading and pneumatic transfer operations shall be in operation and control emissions from the facilities at all times when the facilities are in operation.

According to the emissions calculations (see Appendix A, pages 2 and 3), the uncontrolled potential to emit PM from the unloading operation and pneumatic transfer operations is less than the above limit. Therefore, the proposed unloading operation and pneumatic transfer operations will be able to comply with 326 IAC 6-3-2.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source=s failure to take the appropriate corrective actions within a specific time period.

The Compliance Monitoring Requirements applicable to this modification are as follows:

Daily visible emission notations of the dust collector (240L) and bin vent filter (241L) stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. 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.

These monitoring conditions are necessary because the dust collector and bin vent filter must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70)).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T133-6927-00002. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. Sections A.2 and D.2 of the permit have been revised to add the requirements for the unloading operation, silo, and pneumatic transfer operations as follows:

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

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

. . .

(o) One (1) truck and railcar unloading operation, identified as 240F, approved for construction in 2007, for unloading and pneumatically conveying alternative fuel (spent pot liner) to a silo, with a maximum throughput capacity of 33 tons per hour, with a maximum storage capacity of 700 tons, with particulate emissions controlled by a dust collector (identified as 240L), and exhausting to stack 240L. This is an affected facility under 40 CFR 63, Subpart LLL.

(p) One (1) enclosed pneumatic conveyance system, identified as 241F, approved for construction in 2007, for pneumatically conveying alternative fuel (spent pot liner) from the silo to the cement kiln, with a maximum throughput capacity of 4 tons per hour, with particulate emissions controlled by a bin vent filter (identified as 241L), and exhausting to stack 241L. This is an affected facility under 40 CFR 63, Subpart LLL.

SECTION D.2 FACILITY OPERATION CONDITIONS - GYPSUM MATERIAL HANDLING PROCESS, RAW MATERIAL BALL MILL OPERATION, FLY ASH STORAGE ACTIVITIES

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

. . .

(o) One (1) truck and railcar unloading operation, identified as 240F, approved for construction in 2007, for unloading and pneumatically conveying alternative fuel (spent pot liner) to a silo, with a maximum throughput capacity of 33 tons per hour, with a maximum storage capacity of 700 tons, with particulate emissions controlled by a dust collector (identified as 240L), and exhausting to stack 240L. This is an affected facility under 40 CFR 63, Subpart LLL.

(p) One (1) enclosed pneumatic conveyance system, identified as 241F, approved for construction in 2007, for pneumatically conveying alternative fuel (spent pot liner) from the silo to the cement kiln, with a maximum throughput capacity of 4 tons per hour, with particulate emissions controlled by a bin vent filter (identified as 241L), and exhausting to stack 241L. This is an affected facility under 40 CFR 63, Subpart LLL.

D.2.1 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, except when otherwise specified in 40 CFR 63, Subpart LLL, to the gypsum material handling process, raw material ball mill operations, ~~and~~ fly ash storage activities**, truck unloading, and pneumatic transfer activities** listed in Condition D.2.2.

D.2.2 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 following emission units are subject to 40 CFR 63, Subpart LLL, and the visible emissions from these units shall be less than 10 percent opacity:

Operations	Units	Emission Point
Synthetic Gypsum Material Handling Process	one (1) synthetic gypsum hopper (230F) one (1) conveyor belt (230FV) one (1) weigh belt (230V) one (1) conveyor belt (232V)	1-34
	one (1) granulated slag/rock hopper (231F) one (1) conveyor belt (231FV) one (1) weigh belt (231V)	1-35
	one (1) enclosed pug mill (232L) one (1) CKD bin (232F) one (1) discharge screw (232FV)	S1-36 (232FL)
	two (2) belt conveyors (233V, 233V1)	1-41
	one (1) finished gypsum material hopper (234F) two (2) conveyor belts (234V, 234FV)	1-38
Raw Material Ball Mill Operations	four (4) belt conveyors (252V-255V) four (4) raw material bins (350F-353F)	FF 1-17 (350L)
	four (4) weigh feeders (350V-353V) one (1) conveyor belt (358V) two (2) apron feeders (350V1, 351V1) two (2) scavenger conveyors (350V2, 351V2)	1-18
	one (1) alleviator	FF 1-7 (351L)
Fly Ash Storage Activities	two (2) screw conveyors (273V, 274V) two (2) fly ash hoppers (273F, 273FA)	FF 1-20 (274L)
	one (1) fly ash silo (270F)	FF 1-39 (270L)
	one (1) fly ash silo (271F)	FF 1-40 (271L)
	two (2) additive silos (318F, 328F) four (4) rotary feeders (318V, 318VV, 328V, 328VV)	FF 1-21 (319L)
	one (1) additive feed bin (308F)	BE 1-22
	two (2) rotary feeders (308V, 308VV) one (1) weigh belt (309V)	BE 1-23
Truck Unloading / Silo Loading	**one (1) truck unloading, pneumatic conveying and silo (240F)**	**240L**
Pneumatic Transfer	**one (1) pneumatic transfer (241F)**	**241L**

D.2.3 Particulate Matter Emission Limitation [326 IAC 2-2]

. . .

(f) In order to render PSD not applicable to the modification permitted in MSM 133-25345-00002, the Permittee shall limit emissions as follows:

(1) The throughput of spent pot liner shall be less than 35,040 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The PM10 emissions from the truck and railcar unloading operation (240F) shall be limited to less than 0.4 pounds per ton of material unloaded and transferred to the silo.

(3) The PM10 emissions from the enclosed pneumatic conveyance system (241F) shall be limited to less than 0.4 pounds per ton of material transferred to the kiln.

D.2.5 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 following facilities shall be limited as follows when operating at the listed process weight rate:

Operations	Process Weight Rate (ton/hr) (P)	Allowable Emissions For All Units Combined (lbs/hour) (E)
Gypsum Material Handling Process	150	55.4
Raw Material Ball Mill Operations, excluding the units venting through baghouse 350L and 351L	400	66.3
Fly Ash Storage Activities, excluding the units venting through baghouse 270L, 271L, and 274L	30	40.0
Truck Unloading / Silo Loading	**33**	**40.9**
Pneumatic Transfer	**4**	**10.4**

NOTE: Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed that shown in this table, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

The limitations for these facilities were calculated using the following equations:

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**

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

$$E = 55.0\ P^{0.11} - 40$$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

D.2.7 Particulate Matter (PM)

(a) In order to comply with Conditions D.2.2, D.2.3, and D.2.5, the baghouses for PM/PM10 control associated with the gypsum material handling process, the raw material ball mill operation, ~~and~~ **the** fly ash storage activities **and the dust collector and bin vent filter for the truck unloading and pneumatic transfer operations** stack exhausts 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.

. . .

D.2.10 Visible Emissions Notations

(a) Visible emission notations of each baghouse associated with the synthetic gypsum material handling process (232FL), raw material ball mill operation (350L, 351L), ~~and~~ **the** fly ash storage activities (274L, 270L, 271L, and 319L), **and the truck unloading and pneumatic transfer operations (240L and 241L)** stack exhausts 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.

. . .

D.2.13 Record Keeping Requirements

. . .

(b) To document compliance with Condition D.2.10, the Permittee shall maintain records of once per day visible emission notations of the synthetic gypsum material handling process, raw material ball mill operation, ~~and~~ fly ash storage activities, **truck unloading operations, and pneumatic transfer operations** stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

. . .

(e) To document compliance with Condition D.2.3(f)(1), the Permittee shall maintain records of the throughput amount, in tons, of spent pot liner through the truck unloading operations.

~~(e)~~**(f)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.14 Reporting Requirements

. . .

(d) A quarterly summary of the information to document compliance with Condition D.2.3(f)(1) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "Responsible Official" as defined by 326 IAC 2-7-1(34).

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

Part 70 Quarterly Report

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Rd 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Truck Unloading, Pneumatic Conveyance, Silo Loading, Kiln Loading
Parameter: Pot Liner Throughput
Limit: The throughput shall not exceed 35,040 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

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

Attach a signed certification to complete this report.

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 133-25345-00002 and Significant Permit

Modification No.: 133-25460-00002. The staff recommend to the Commissioner that this Part 70 Minor Source Modification and Significant Permit Modification be approved.

Appendix A: Emission Calculations
Fugitive Emissions From Paved Roads

Company Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Address: 3301 South County Road 150 West, Greencastle, IN 46135
MSM to TV: 133-25345-00002
Reviewer: ERG/ST
Date: October 26, 2007

1. Emission Factors: AP-42

According to AP-42, Chapter 13.2.1 - Paved Roads (11/06), the PM/PM10 emission factors for paved roads can be estimated from the following equation:

$$E = (k \times (sL/2)^a \times (w/3)^b - C) \times (1 - p/(4 \times 365))$$

where:

E =	emission factor (lb/vehicle mile traveled)	
sL =	road surface silt loading (g/m^2) =	0.6 (g/m^2) (AP-42, Table 13.2.1-3)
w =	mean vehicle weight (tons) =	27.5 tons
k =	empirical constant =	0.082 for PM and 0.016 for PM10
a =	empirical constant =	0.65
b =	empirical constant =	1.5
C =	emission factor for exhaust, brake and tire wear	0.00047 for PM and PM10
p =	number of days per year with 0.01 inches precipitation	120

PM Emission Factor = $(0.082 \times (0.6/2)^{0.65} \times (27.5/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **0.95** lbs/mile

PM10 Emission Factor = $(0.016 \times (0.6/2)^{0.65} \times (27.5/3)^{1.5} - 0.00047) \times (1 - 120/1460)$ = **0.19** lbs/mile

2. Potential to Emit (PTE) of PM/PM10 Before Control from Paved Roads:

Vehicle Type	*Ave Weight of Vehicles (tons)	*Trip Number (trips/hr)	* Round Trip Distance (mile/trip)	Vehicle Miles Traveled (VMT) (miles/yr)	Traffic Component (%)	Component Vehicle Weight (tons)	PTE of PM Before Control (tons/yr)	PTE of PM10 Before Control (tons/yr)
Trucks - Alternative Fuel	27.5	0.15	1.00	1,270	100%	27.50	0.61	0.12
Total				**1,270**	**100%**	**27.5**	**0.61**	**0.12**

* This information is provided by the source.

Methodology

Vehicle Miles Traveled (miles/yr) = Trip Number (trips/hr) x Round Trip Distance (miles/trip) x 8760 hrs/yr
Traffic Component (%) = VMT (Trucks - Altrnative Fuel)/ Total VMT
Component Vehicle Weight = Ave. Weight of Vehicles (tons) x Traffic Component (%)
PTE of PM/PM10 before Control (tons/yr) = VMT (miles/yr) x PM/PM10 Emission Factors (lbs/mile) x 1 ton/2000 lbs

Appendix A: Emission Calculations
Particulate Emissions from Pneumatic Transfer of Alternative Fuel From Trucks to Silo

Lone Star Industries, Inc. dba Buzzi Unicem USA
Address: 3301 South County Road 150 West, Greencastle, IN 46135
MSM to TV: 133-25345-00002
Reviewer: ERG/ST
Date: October 26, 2007

Maximum Throughput Rate (tons/hr)	Maximum Yearly Throughput Rate (tons/yr) *	Hours of Operation (hr/yr) **
33	35,040	1,051

Process	Maximum Air Flow Rate (scfm)	Grain Loading (g/dscf)	Control Efficiency (%)	PTE PM/PM10 After Controls (lbs/hr)	PTE PM/PM10 After Controls (tons/yr)	PTE PM/PM10 Before Controls (lbs/hr)	PTE PM/PM10 Before Controls (tons/yr)	326 IAC 6-3-2 Emission Limit (lbs/hr)
Pneumatic Transfer to Silo	2500	0.01	99.0%	0.21	0.11	21.4	11.3	40.9

Assume all PM equals PM10.

* Although the maximum throughput rate is 33 tons per hour at the unloading facilities, yearly throughput is bottlenecked by the capacity of the kiln, which can burn only 4 tons of the alternative fuel (spent pot liner) per hour.

** The alternative fuel (spent pot liner) arrives in the form of small chunks and clinker. It is pneumatically transferred from trucks to the silo. The source estimates that a 25 ton truckload can be unloaded into the silo in 0.75 hours. Maximum yearly usage of the alternative fuel is bottlenecked by the capacity of the kiln (4 tons per hour). Therefore, the pneumatic transfer system can only operate a maximum of 1,051 hours per year. A small dust collector controls particulate emissions.

Methodology

PTE PM/PM10 After Controls (lbs/hr) = Max Air Flow Rate (scfm) x Grain Loading (g/dscf) x 60 min/hr x 1 lb/7,000 g
PTE PM/PM10 After Controls (tons/yr) = Max Air Flow Rate (scfm) x Grain Loading (g/dscf) x 60 min/hr x 1 lb/7,000 g x 1,051 hr/yr x 1 ton/ 2,000 lb
PTE PM/PM10 Before Controls (lbs/hr) = PTE PM/PM10 After Controls (lbs/hr) / (1 - Control Efficiency %)
PTE PM/PM10 Before Controls (tons/yr) = PTE PM/PM10 After Controls (tons/yr) / (1 - Control Efficiency %)
326 IAC 6-3-2 Emission Limit (lbs/hr) = $E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emission Calculations
Particulate Emissions from Pneumatic Transfer of Alternative Fuel from Silo to Kiln

Company Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Address: 3301 South County Road 150 West, Greencastle, IN 46135
MSM to TV: 133-25345-00002
Reviewer: ERG/ST
Date: October 26, 2007

Maximum Throughput Rate (tons/hr)	Hours of Operation (hr/yr) *
4	8,760

Process	Maximum Air Flow Rate (scfm)	Grain Loading (g/dscf)	Control Efficiency (%)	PTE PM/PM10 After Controls (lbs/hr)	PTE PM/PM10 After Controls (tons/yr)	PTE PM/PM10 Before Controls (lbs/hr)	PTE PM/PM10 Before Controls (tons/yr)	326 IAC 6-3-2 Emission Limit (lbs/hr)
Pneumatic Transfer to Kiln	250	0.01	99.0%	0.02	0.09	2.14	9.39	10.4

* The cement kiln operates continuously.

Methodology
PTE PM/PM10 After Controls (lbs/hr) = Max Air Flow Rate (scfm) x Grain Loading (g/dscf) x 60 min/hr x 1 lb/7,000 g
PTE PM/PM10 After Controls (tons/yr) = Max Air Flow Rate (scfm) x Grain Loading (g/dscf) x 60 min/hr x 1 lb/7,000 g x 8,760 hr/yr x 1 ton/ 2,000 lb
PTE PM/PM10 Before Controls (lbs/hr) = PTE PM/PM10 After Controls (lbs/hr) / (1 - Control Efficiency %)
PTE PM/PM10 Before Controls (tons/yr) = PTE PM/PM10 After Controls (tons/yr) / (1 - Control Efficiency %)
326 IAC 6-3-2 Emission Limit (lbs/hr) = $E = 4.1 \times P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emission Calculations
HAPs Emissions

Company Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Address: 3301 South County Road 150 West, Greencastle, IN 46135
MSM to TV: 133-25345-00002
Reviewer: ERG/ST
Date: October 26, 2007

The alternative fuel (spent pot liner) is 0.2 % cyanide salts by weight

Process	Weight % Cyanide	PTE PM/PM10 Before Controls * (tons/yr)	PTE HAPs Before Controls (tons/yr)	PTE PM/PM10 After Controls * (tons/yr)	PTE HAPs After Controls (tons/yr)
Pneumatic Transfer to Silo	0.20%	11.3	0.02	0.11	0.0002
Pneumatic Transfer to Kiln	0.20%	9.39	0.019	0.09	0.0002
		Totals	**0.041**		**0.0004**

* PTE PM/PM10 Before Controls (tons/yr) and PTE PM/PM10 After Controls (tons/yr) are from pages 2 and 3.

Methodology
PTE HAPs After Controls (tons/yr) = PTE PM/PM10 After Controls (tons/yr) x Weight % HAP
PTE HAPs Before Controls (tons/yr) = PTE PM/PM10 Before Controls (tons/yr) x Weight % HAP

Appendix A: Emission Calculations
Summary

Company Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Address: 3301 South County Road 150 West, Greencastle, IN 46135
MSM to TV: 133-25345-00002
Reviewer: ERG/ST
Date: October 26, 2007

	Potential to Emit (tons/year)									
	Before Controls			After Controls						
Emission Units	PM	PM10	Total HAPs	PM	PM10	Total HAPs	SO_2	NOx	VOC	CO
Paved Roads	0.61	0.12	-	0.61	0.12	-	-	-	-	-
Pneumatic Silo Loading	11.3	11.3	0.04	0.11	0.11	0.0004	-	-	-	-
Pneumatic Kiln Loading	9.39	9.39		0.09	0.09		-	-	-	-
Total	**21.3**	**20.8**	**0.04**	**0.81**	**0.32**	**0.0004**	**0**	**0**	**0**	**0**