INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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*Governor*

*Thomas W. Easterly*
*Commissioner*

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

TO: Interested Parties / Applicant

DATE: May 7, 2007

RE: Lone Star Industries, Inc. dba Buzzi Unicem USA / 133-23892-00002

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 permit modification 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) 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.



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Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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
FNTV-PMOD.doc 03/23/06

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Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
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Mr. Jay Patterson
Environmental Manager
Lone Star Industries, Inc. dba Buzzi Unicem USA
3301 South County Road 150 W
Greencastle, Indiana 46135

May 7, 2007

Re: 133-23892-00002
Second Minor Permit Modification to
Part 70 Permit No. T133-6927-00002

Dear Mr. Patterson:

Lone Star Industries, Inc. dba Buzzi Unicem USA was issued a part 70 operating permit on April 14, 2004 for a stationary Portland cement manufacturing plant. A letter requesting changes to this permit was received on November 14, 2006. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of an oxygen enrichment system to establish a more efficient burning zone in the kiln.

All other conditions of the permit shall remain unchanged and in effect. Please find attached a copy of the revised permit.

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 Bryan Lange, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7854 to speak directly to Mr. Lange. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, 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,

Nisha Sizemore

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/BL

cc: File - Putnam County
Putnam County Health Department
Air Compliance Section Inspector – Ray Schick
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner

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(800) 451-6027
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# PART 70 OPERATING PERMIT
# OFFICE OF AIR QUALITY

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

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

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

Minor Permit Modification No.: 133-19255-00002, issued on September 20, 2005
Administrative Amendment No.: 133-21744-00002, issued on October 28, 2005
Administrative Amendment No.: 133-22491-00002, issued on February 13, 2006
Administrative Amendment No.: 133-23605-00002, issued on December 7, 2006

| Second Minor Permit Modification No.:<br>133-23892-00002 | Affected Pages: 8, 12-13, 33, 34, 41-42, 68, 128 |
|---|---|
| Issued by:<br>Nisha Sizemore, Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: May 7, 2007<br><br>Expiration Date: April 14, 2009 |

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). 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<br>Major Source under PSD Rules<br>Major Source under Section 112 of the Clean Air Act<br>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, constructed in 2002, operating at a nominal capacity of 20 tons per hour each, and consisting of the following pieces of equipment:

(1) Slag pile, identified as one of the materials identified in Point 1-13, controlled with water mist spray as needed;

(2) Four (4) loading hoppers (485F, 486F, 487F, and 488F), identified as Point 1-29A, with emissions controlled with water mist spray as needed; six (6) belt conveyors (485V, 486V, 487V, 488V, 490V, and 491V), identified as Point 1-29B, one (1) weigh belt (489V), identified as Point 1-29C; one (1) bucket elevator (492V), identified as Point 1-29D; and one (1) enclosed screw conveyor (495V), identified as Point 1-29E, controlled with covers and enclosures;

(3) One (1) covered belt conveyor (494V), identified as Point 3-1D, exhausting to the hammermill dryer and through to the electrostatic precipitator (402L) to control particulate emissions, with a 2,000 HP motor exhausting to stack 3-1; and

(4) Paved delivery roads with particulate emissions controlled by vacuum sweeping.

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

(1) One (1) hammermill dryer, identified as Point 3-1C (440G), constructed May 1, 2000, with a nominal capacity of 258 tons per hour, equipped with one (1) electrostatic precipitator (402L) with a 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.

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

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

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2];

(b) Cutting 200,000 linear feet or less of one inch (1'') plate or equivalent [326 IAC 6-3-2];

(c) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2]; and

(d) Conveyors as follows [326 IAC 6-3-2]:

(1) Covered conveyors for coal or coke conveying or less than or equal to 360 tons per day;

(2) Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;

(3) Uncovered coal conveying of less than or equal to 120 tons per day; and

(4) Underground conveyors; and

(e) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].

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

(1) One (1) hopper.
(2) One (1) screw conveyor.
(3) One (1) rotary feeder.

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

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

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

### B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

### B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

### B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

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

and

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

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

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation

of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated.

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2 7 5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained

in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

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

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

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

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

(d) No permit or modification is required to the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2 7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2] [IC 13-30-3-2]

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1.7]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

Compliance with NESHAP requirements ensures compliance with this condition for those units subject to the NESHAP opacity limits.

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

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

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

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

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on September 19, 1997. The plan is included as Attachment A.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25)

tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

**Testing Requirements [326 IAC 2-7-6(1)]**

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**Compliance Requirements [326 IAC 2-1.1-11]**

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

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-2.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.13 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.

(b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR 60 or any other performance specification, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(c) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:

(1) If the CEM is required for monitoring NOX or SO2 emissions pursuant to 40 CFR 75 (Title IV Acid Rain program) or 326 IAC 10-4 (NOX Budget Trading Program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D - Missing Data Substitution Procedures.

(2) If the CEM is not used to monitor NOX or SO2 emissions pursuant to 40 CFR 75 or 326 IAC 10-4, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.

(e) Nothing in this permit, shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 10-3.

C.14 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment.

(b) All continuous opacity monitoring systems shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.

(c) In the even that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of one (1) hour or more, compliance with the applicable opacity limits shall be demonstrated by the following:

(1) Visible emission (VE) notations shall be performed once per hour during daylight operations following the shutdown or malfunction of the primary COM. A trained employee shall record whether emissions are normal or abnormal for the state of operation of the emission unit at the time of the reading.

(A) 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.

(B) If abnormal emissions are noted during two consecutive emission notations, the Permittee shall begin Method 9 opacity observations within four hours of the second abnormal notation.

(C) VE notations may be discontinued once a COM is online or formal Method 9 readings have been implemented.

(2) If a COM is not online within twenty-four (24) hours of shutdown or malfunction of the primary COM, the Permittee shall provide certified opacity reader(s), who may be employees of the Permittee or independent contractors, to self-monitor the emissions from the emission unit stack.

(A) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(B) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least once every four (4) hours during daylight operations, until such time that a COM is in operation.

(C) Method 9 readings may be discontinued once a COM is online.

(D) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(3) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

(e) Nothing in this permit, shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, 40 CFR 63, Subpart LLL (for clinker coolers), and 40 CFR 63, Subpart EEE (for the kiln).

## C.15 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

(b) Whenever a condition in this permit requires the measurement of a temperature, voltage or current, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.18 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2 7 5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan under 40 CFR 60/63 , such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, Operation, Maintenance and Monitoring (OMM) Plan, or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan, and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan, Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan to include such response steps taken.

The OMM Plan or Parametric Monitoring and SSM Plan shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirement.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan, Operation, Maintenance and Monitoring (OMM)

Plan, or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan, Operation, Maintenance and Monitoring (OMM) Plan, or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall be considered a deviation from the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within “normal” parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2 7 6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a

description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1(32)) ("Regulated pollutant which is issued only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

(a) Records of all required data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the

Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, or at a source with Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee)) and the Permittee elects to utilizes "projected actual emissions" (as defined in 326 IAC 2-2-1(rr)), the Permittee shall comply with the following:

(1) Prior to commencing the construction of the "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, document and maintain the following records:
- (A) A description of the project;
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project;
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
  - (i) Baseline actual emissions;
  - (ii) Projected actual emissions;
  - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and
  - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or the potential to emit that regulated NSR pollutant at the emissions unit.

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

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

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

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January1 to December 31 inclusive..

(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq)), at an existing emissions unit other than an Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C – General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx), for that regulated pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for a project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) in Section C – General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected-actual test stated in 326 IAC 2-2-2(d)(3).

(4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

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

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

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

(a) The Permittee shall submit an initial notification in accordance with 40 CFR 63.9(b) (Subpart A, General Provisions) immediately. In 40 CFR 63.9(b), the Permittee is required to provide the following information:

(1) The name and address of the Permittee;

(2) The address (i.e., physical location) of the affected source;

(3) An identification of the relevant standard or other requirement, that is the basis of the notification and the source's compliance date;

(4) A brief description of the nature, size, design, and method of operation of the source, including its operating design capacity and an identification of each point of emission for each hazardous air pollutant, or if a definitive identification is not yet possible, a preliminary identification of each point of emission for each hazardous air pollutant; and

(5) A statement of whether the affected source is a major source or an area source.

(b) The Permittee shall submit a notification of performance tests, as required by 40 CFR 63.7 and 40 CFR 63.9(e).

(c) The Permittee shall submit a notification of opacity and visible emission observations required by 40 CFR 63.1349 in accordance with 40 CFR 63.6(h)(5) and 40 CFR 63.9(f).

(d) The Permittee shall submit notification, as required by 40 CFR 63.9(g), of the date that continuous emissions monitor performance evaluation required by 40 CFR 63.8(e) is scheduled to begin.

(e) The Permittee shall submit notification of compliance status, as required by 40 CFR 63.9(h).

(f) The notification(s) required in this section shall be submitted to:

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

and

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

**Stratospheric Ozone Protection**

C.24 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

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

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

## SECTION D.1 FACILITY OPERATION CONDITIONS - QUARRY ACTIVITIES, RAW MATERIAL SIZING ACTIVITIES

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

(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 1999 and 1998, with a nominal capacity of 1300 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:

(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):**

(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.

(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.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities listed in Condition D.1.2 except when otherwise specified in 40 CFR 60, Subpart OOO.

D.1.2 Particulate Matter Emission Limitation [326 IAC 12] [40 CFR 60, Subpart OOO]

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart OOO (NSPS for Nonmetallic Mineral Processing Plants), the following facilities shall not exceed the following limitations:

| Operations | Units | Emission Point | PM Emission Limit |
|---|---|---|---|
| Raw Material Sizing Activities | one (1) primary crusher (201G)one (1) vibrating feeder (201V) | Fugitive | 15% Opacity |
| | one (1) apron feeder (206V) | Fugitive | 10% Opacity |
| | three (3) vibrating feeders (202V-204V) | Fugitive | 10% Opacity |
| | one (1) belt conveyor (251V) | FF 1-15 (209L) | 0.022 gr/dscf<br>7% Opacity |

| Operations | Units | Emission Point | PM Emission Limit |
|---|---|---|---|
| Raw Material Sizing Activities | one (1) belt conveyor (202G2V2)<br>one (1) screen (205G)<br>one (1) crusher (202G2)<br>one (1) belt conveyor (202G2V3) | FF 1-16 (208L1) | 0.022 gr/dscf<br>7% Opacity |
| | one (1) apron feeder (202G2V1) | Fugitive | 10% Opacity |
| | one (1) belt conveyor (202G1V1)<br>one (1) crusher (202G1)<br>one (1) belt conveyor (202G1V2)<br>one (1) belt conveyor (202GV2) | FF 1-25 (208L) | 0.022 gr/dscf<br>7% Opacity |
| | one (1) screen (204G)<br>one (1) belt conveyor (202GV3)<br>one (1) belt conveyor (202GV4) | FF 1-26 (210L) | 0.022 gr/dscf<br>7% Opacity |

D.1.3 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 |
|---|---|---|---|
| one (1) belt conveyor (251V) | FF 1-15 (209L) | 0.015 gr/dscf<br>1.60 lbs/hr | 0.015 gr/dscf<br>1.60 lbs/hr |

(b) The total PM/PM10 emissions from baghouses 208L, 208L1, and 210L of the secondary crusher system (SC-1) shall be less than 0.0108 pounds per ton of input to SC-1. Combined with the throughput limit in Condition D.1.4(c), this is equivalent to 13.9 tons of PM and PM10 emissions per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 (PSD) do not apply to the installation of the secondary crusher system (SC-1).

(c) Pursuant to 326 IAC 2-2 (PSD BACT), the following units shall use water mist suppression or equivalent dust suppression for PM control:

outside storage piles;
one (1) primary crusher, identified as Point 1-8 (201G);
one (1) vibrating feeder, identified as Point 1-9A (201V);
one (1) apron feeder, identified Point 1-14 (206V); and
three (3) vibrating feeders, identified Point 1-11 (202V-204V).

D.1.4 Operation Standards [326 IAC 2-2]

Pursuant to CP133-10159-00002, issued on April 16, 1999, and 326 IAC 2-2 (Prevention of Significant Deterioration BACT), the Permittee shall comply with the following throughput limitations:

(a) The overburden removed from the quarry activities shall not exceed 1.2 million tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(b) The limestone input rate to the primary crusher shall not exceed 2,262,479 tons per twelve (12) consecutive month period with compliance determined at the end of each month; and

(c) The total input of additives including slag, bottom ash, sand, shale, limestone and alternate raw materials to the secondary crusher system (SC-1) shall not exceed 2,574,685 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.1.5 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:

| Process | Process Weight Rate (ton/hr) (P) | Allowable Emissions For All Units Combined (lbs/hour) (E) |
|---|---|---|
| Raw Material Sizing Activities, excluding the units venting through baghouses 209L, 208L1, 208L, and 210L | 1,300 | 81.0 |

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 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.1.6 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.

**Compliance Determination Requirements**

D.1.7 Particulate Matter (PM)

In order to comply with Conditions D.1.2, D.1.3, and D.1.5, the baghouses for PM/PM10 control associated with the raw material sizing activities shall be in operation and control emissions from the facilities at all times when the facilities are in operation.

D.1.8 Water Spray Operating Condition

Pursuant to CP133-10159-00002, issued April 16, 1999, and in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.5, the water mist spray systems associated with the quarry activities and raw material sizing activities shall be operated on an as needed basis while its associated equipment is in operation and the temperature is above 35 degrees Fahrenheit.

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

D.1.9 Visible Emissions Notations

(a) Visible emission notations of baghouse exhausts (208L, 208L1, 209L, and 210L) 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.1.10 Parametric Monitoring

The Permittee shall continuously record the total static pressure drop across the baghouses (208L, 208L1, 209L, and 210L) used in conjunction with the raw material sizing activities when these units are in operation. The pressure gauges must be equipped with an alarm system that will alarm when the pressure drop across a baghouse is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test. When an alarm sounds, the baghouse interlock systems shall shut down the associated units automatically and the Permittee shall take reasonable response steps, in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.1.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the raw material sizing activities. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.1.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

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

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

D.1.13 Record Keeping Requirements

(a) To document compliance with Condition D.1.4, the Permittee shall maintain monthly records of the overburden removed from the quarry activities, the limestone input to the primary crusher, and the total input of raw materials to the secondary crusher system.

(b) To document compliance with Condition D.1.9, the Permittee shall maintain records of daily visible emission notations of the baghouse stack exhausts.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain continuous records of the total static pressure drop during normal operation, the dates and times of all alarms, the cause of each alarm, and an explanation of all corrective actions taken.

(d) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11.

(e) To document compliance with Condition D.1.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 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).

## 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.

(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, and fly ash storage 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)<br>one (1) conveyor belt (230FV)<br>one (1) weigh belt (230V)<br>one (1) conveyor belt (232V) | 1-34 |
| | one (1) granulated slag/rock hopper (231F)<br>one (1) conveyor belt (231FV)<br>one (1) weigh belt (231V) | 1-35 |
| | one (1) enclosed pug mill (232L)<br>one (1) CKD bin (232F)<br>one (1) discharge screw (232FV) | S1-36 (232FL) |
| | two (2) belt conveyors (233V, 233V1) | 1-41 |
| | one (1) finished gypsum material hopper (234F)<br>two (2) conveyor belts (234V, 234FV) | 1-38 |
| Raw Material Ball Mill Operations | four (4) belt conveyors (252V-255V)<br>four (4) raw material bins (350F-353F) | FF 1-17 (350L) |
| | four (4) weigh feeders (350V-353V)<br>one (1) conveyor belt (358V)<br>two (2) apron feeders (350V1, 351V1)<br>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)<br>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)<br>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)<br>one (1) weigh belt (309V) | BE 1-23 |

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)<br>four (4) raw material bins (350F-353F) | FF 1-17 (350L) | 0.010 gr/dscf<br>1.08 lbs/hr | 0.010 gr/dscf<br>1.08 lbs/hr |
| one (1) fly ash silo (270F)<br>one (1) fly ash silo (271F) | FF 1-39 (270L)<br>FF 1-40 (271L | 0.015 gr/dscf<br>0.11 lbs/hr (each) | 0.015 gr/dscf<br>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<br>0.17 lbs/hr | 0.010 gr/dscf<br>0.17 lbs/hr |
| two (2) screw conveyors (273V, 274V)<br>two (2) fly ash hoppers (273F, 273FA) | FF 1-20 (274L) | 0.010 gr/dscf<br>0.26 lbs/hr | 0.010 gr/dscf<br>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)<br>one (1) conveyor belt (230FV)<br>one (1) weigh belt (230V)<br>one (1) conveyor belt (232V) | 1-34 | 0.24 lbs/hr |
| one (1) granulated slag/rock hopper (231F)<br>one (1) conveyor belt (231FV)<br>one (1) weigh belt (231V) | 1-35 | 0.24 lbs/hr |
| one (1) enclosed pug mill (232L)<br>one (1) CKD bin (232F)<br>one (1) discharge screw (232FV) | S1-36 (232 FL) | 0.45 lbs/hr |
| one (1) finished gypsum material hopper (234F)<br>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)<br>four (4) rotary feeders (318V, 318VV, 328V, 328VV) | FF 1-21 (319L) | 0.15 lbs/hr |

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).

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

Pursuant to CP133-10159-00002, issued on April 16, 1999, and 326 IAC 2-2 (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 |

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 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)

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 fly ash storage activities shall be in operation and control emissions from the facilities at all times when the facilities are in operation.

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), and fly ash storage activities (274L, 270L, 271L, and 319L), 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.2.11 Parametric Monitoring

The Permittee shall record the total static 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the synthetic gypsum material handling process, raw material ball mill operation, and fly ash storage activities. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.2.13 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

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

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

D.2.14 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, and fly ash storage activities stack exhausts.

(c) To document compliance with Condition D.2.11, the Permittee shall maintain once per day records of the total static pressure drop during normal operation.

(d) To document compliance with Condition D.2.12, the Permittee shall maintain records of the results of the inspections required under Condition D.2.12.

(e) 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.

(f) To document compliance with Condition D.2.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

D.2.15 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)233-5674 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).

## SECTION D.3 FACILITY OPERATION CONDITIONS - COAL MILL OPERATION

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

(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) 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;

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

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

(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.

(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.3.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply except when otherwise specified in 40 CFR 60, Subpart Y, to the facilities described in Condition D.3.2.

D.3.2 Particulate Matter Emission Limitation [326 IAC 12] [40 CFR 60, Subpart Y]

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart Y (NSPS for Coal Preparation Plants), the following emission units, which were constructed after October 24, 1974, are subject to 40 CFR 60, Subpart Y and shall comply with the following:

(a) The visible emissions for the following units shall be less than 20 percent opacity:

| Operations | Units | Emission Point |
|---|---|---|
| Coal Mill Operation | coal storage piles | BE 2-1 |
| | four (4) vibrating feeders (209V-211V, 213V)<br>one (1) belt conveyor (222V)<br>one (1) coal grizzly(223V) | BE 2-2 |
| | one (1) belt conveyor (420V) | BE 2-4 |
| | one (1) belt conveyor (420V3) | FF 2-6 (420L2) |
| | one (1) belt conveyor (420V1) | 420L1 (vent indoor) |
| | three (3) coal reject piles | 2-3, 2-5, and 2-15 |
| | one (1) raw coal bin (435F) | FF 2-9 (435L) |
| | one (1) weigh feeder (435V)<br>one (1) conveyor belt (436V) | BE 2-10 |
| | three (3) screw conveyor (436LV, 436L1V, 436GV1) | FF 2-11 (436L) |
| | two (2) screw conveyors (437V, 438V)<br>two (2) rotary feeders (436LVV, 436L1VV)<br>one (1) pulverized coal bin (438F) | FF 2-13 (438L) |

(b) The particulate matter emissions from the coal mill (2-11A, 436G) shall be less than 0.031 grains per dry standard cubic foot of exhaust air (0.070 g/dscf) and 20% opacity.

D.3.3 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 | Point | Filterable PM limits | Filterable PM10 Limits |
|---|---|---|---|
| one (1) raw coal bin (435F) | FF 2-9 (435L) | 0.010 gr/dscf<br>0.33 lbs/hr | 0.010 gr/dscf<br>0.33 lbs/hr |
| one (1) coal mill (436G)<br>three (3) screw conveyor (436LV, 436L1V, 436GV1) | FF 2-11 (436L) | 0.010 gr/dscf<br>4.45 lbs/hr | 0.010 gr/dscf<br>4.45 lbs/hr |
| two (2) screw conveyors (437V, 438V)<br>two (2) rotary feeders (436LVV, 436L1VV)<br>one (1) pulverized coal bin (438F) | FF 2-13 (438L) | 0.010 gr/dscf<br>0.14 lbs/hr | 0.010 gr/dscf<br>0.14 lbs/hr |

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

| Units | Point | Filterable PM Limits | PM10 Limits |
|---|---|---|---|
| one (1) belt conveyor (420V3) | FF 2-6 (420L2) | 0.010 gr/dscf<br>0.17 lbs/hr | 0.010 gr/dscf<br>0.17 lbs/hr |
| one (1) belt conveyor (420V1) | 420L1 (vent indoor) | 0.010 gr/dscf<br>0.17 lbs/hr | 0.010 gr/dscf<br>0.17 lbs/hr |

(c) Pursuant to 326 IAC 2-2 (PSD BACT), the following emission units shall use the control methods listed in the table below:

| Units | Control Method |
|---|---|
| coal storage piles | building enclosure (BE 2-1) |
| four (4) vibrating feeders (209V-211V, 213V)<br>one (1) belt conveyor (222V)<br>one (1) coal grizzly (223V) | building enclosure (BE 2-2) |
| one (1) belt conveyor (420V) | building enclosure (BE 2-4) |
| three (3) coal reject piles | water mist suppression or equivalent |
| one (1) weigh feeder (435V)<br>one (1) conveyor belt (436V) | building enclosure (BE 2-10) |

D.3.4 Operation Standards [326 IAC 2-2]

Pursuant to CP133-10159-00002, issued on April 16, 1999, and 326 IAC 2-2 (Prevention of Significant Deterioration BACT), the coal input rate to the coal mill shall not exceed 313,552 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.3.5 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:

| Processes | Process Weight Rate (ton/hr)<br>(P) | Allowable Emissions For All Units Combined (lbs/hour)<br>(E) |
|---|---|---|
| Coal Mill Operation, excluding the units venting hrough baghouses 420L2, 20L1, 435L, 436L, and 438L | 100 | 51.3 |

The limitation was calculated using the following equation:

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.3.6 Sulfur Dioxide (SO2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO2 Emissions Limitations), the SO2 emissions from the coal mill's fuel oil-fired burner (2-11A, 436G) shall not exceed five tenths (0.5) pounds per MMBtu heat input from the combustion of fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.3.7 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.

**Compliance Determination Requirements**

D.3.8 Particulate Matter (PM) and PM10

In order to comply with Conditions D.3.2, D.3.3, and D.3.5, the baghouses for PM and PM10 control associated with the coal mill operation shall be in operation and control emissions from the facilities at all times when the facilities are in operation.

D.3.9 Water Spray Operating Condition

Pursuant to CP133-10159-00002, issued April 16, 1999 and in order to demonstrate compliance with Conditions D.3.2, D.3.3, and D.3.5, the water mist spray systems associated with the coal mill operation shall be operated on an as needed basis while its associated equipment is in operation and the temperature is above 35 degrees Fahrenheit.

D.3.10 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11][40 CFR 60, Subpart Y]

(a) In order to demonstrate compliance with Conditions D.3.2(b) and D.3.3(a) and pursuant to 40 CFR 60.254 and 40 CFR 60.11, no later than five (5) years from the last valid stack testing, the Permittee shall perform stack testing for the coal mill (436G) utilizing methods as approved by the Commissioner. These tests shall be repeated once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable PM10 only.

(b) In order to demonstrate compliance with Condition D.3.3(b), 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 Condition D.3.3(b) 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.

D.3.11 Sulfur Dioxide Emissions and Sulfur Content

Compliance with the limit in Condition D.3.6 shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions from the coal mill's fuel oil-fired burner do not exceed five-tenths (0.5) pounds per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the coal mill's fuel oil-fired burner during startup, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

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

D.3.12 Visible Emissions Notations

(a) Visible emission notations of each baghouse associated with the coal mill operation stack exhausts (420L2, 435L, 436L, 438L), 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.3.13 Temperature Monitoring [326 IAC 12] [40 CFR 60, Subpart Y]

Pursuant to 40 CFR 60.253, the Permittee shall install, calibrate, maintain, and continuously operate a monitoring device for the measurement of the temperature of the gas stream at the exit of the coal mill (2-11A, 436G) on a continuous basis. The monitoring device is to be certified by the manufacturer and be accurate within plus or minus 3 degrees Fahrenheit. The monitoring device shall be calibrated annually in accordance with the procedures specified in 40 CFR 60.13(b).

D.3.14 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses at least once per day for baghouses 420L2, 435L, 436L, and 438L when the coal mill operation is 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) |
|---|---|
| 436L, 438L | 1-8 |
| 420L2, 435L | 0.1-4 |

or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.3.15 Baghouse Inspections

(a) An inspection shall be performed at least twice per year of all bags associated with baghouse 438L. Inspections required by this condition shall be at least three (3) months apart. All defective bags shall be replaced.

(b) An inspection shall be performed during each calendar quarter of all bags controlling the coal mill operation other than those associated with baghouse 438L. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.3.16 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

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

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

D.3.17 Record Keeping Requirements

(a) To document compliance with Condition D.3.4, the Permittee shall maintain records of the coal input rate to the coal mill in order to establish compliance with the limit established in Condition D.3.4.

(b) To document compliance with Condition D.3.6, the Permittee shall maintain records in accordance with (1) through (5) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions.

If the fuel supplier certification is used to demonstrate compliance instead of determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

(3) Fuel supplier certifications;

(4) The name of the fuel supplier; and

(5) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(c) To document compliance with Condition D.3.12, the Permittee shall maintain records of once per day visible emission notations for baghouses 420L2, 435L, 438L, and 436L.

(d) To document compliance with Condition D.3.13, the Permittee shall maintain records of continuous temperature monitoring results for the coal mill exhaust (436L).

(e) To document compliance with Condition D.3.14, the Permittee shall maintain once per day records of the total static pressure drop for baghouses 420L2, 435L, 438L, and 436L during normal operation.

(f) To document compliance with Condition D.3.15, the Permittee shall maintain records of the results of the inspections required under Condition D.3.15.

(g) To document compliance with Condition D.3.7, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

D.3.18 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.3.4 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) A quarterly summary of the information to document compliance with the SO2 limit specified in Condition D.3.6 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. This report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

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

(g) One (1) alternate raw material feed system, constructed in 2002, operating at a nominal capacity of 20 tons per hour each, and consisting of the following pieces of equipment:

(1) Slag pile, identified as one of the materials identified in Point 1-13, controlled with water mist spray as needed;

(2) Four (4) loading hoppers (485F, 486F, 487F, and 488F), identified as Point 1-29A, with emissions controlled with water mist spray as needed; six (6) belt conveyors (485V, 486V, 487V, 488V, 490V, and 491V), identified as Point 1-29B; one (1) weigh belt (489V), identified as Point 1-29C; one (1) bucket elevator (492V), identified as Point 1-29D; and one (1) enclosed screw conveyor (495V), identified as Point 1-29E, controlled with covers and enclosures;

(3) One (1) covered belt conveyor (494V), identified as Point 3-1D, exhausting to the hammermill dryer and through to the electrostatic precipitator (402L) to control particulate emissions, which has a maximum flow rate of 700,000 acfm, exhausting to stack 3-1; and

(4) Paved delivery roads with particulate emissions controlled by vacuum sweeping.

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

(1) One (1) hammermill dryer, identified as Point 3-1C (440G), constructed May 1, 2000, with a nominal capacity of 258 tons per hour, equipped with one (1) electrostatic precipitator (402L) with a 2000 HP motor to control particulate emissions, exhausting to stack 3-1;

(2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) 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;

(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):**

(3) Nine (9) screw conveyors, identified as Point 3-1D (403V-410V, 404FV), constructed in 1968 and modified in 1999; and one (1) kiln dust chamber, identified as Point 3-1F (401BF1), constructed in 1969; each with a nominal capacity of 10 tons per hour; with particulate emissions controlled by one (1) electrostatic precipitator (402L) with a 2000 HP motor, exhausting to stack 3-1;

(4) One (1) return dust bin, identified as Point 3-3A (405F), constructed before 1971 and modified in 1999, with a nominal capacity of 100 tons; one (1) waste dust bin, identified as Point 3-3F (404F), constructed before 1971 and modified in 1999, with a nominal capacity of 75 tons; one (1) hopper, identified as Point 3-3C (445F), constructed May 1, 2000, with a nominal capacity of 60 tons per hour; two (2) bucket elevators, identified as Point 3-3G (411V, 413V), constructed before August 17, 1971, with a nominal capacity of 60 tons per hour; and one (1) rotary feeder, identified as Point 3-3H (405FVV) and one (1) screw conveyor, identified as Point 3-3I (405FVV1), both constructed in 2003, each with a nominal capacity of 60 tons per hour; all equipped with one fabric filter system (FF 3-3, baghouse 403L) to control particulate emissions;

(5) One (1) non-routine raw material dust truck loading station, constructed before 1971 and modified in 1999, covered by a building enclosure (BE 3-25) to control particulate emissions;

(6) One (1) conditioning tower, identified as Point 3-5A (480F), with a nominal capacity of 40 tons per hour, using lime injection to control sulfur dioxide emissions; and one (1) alkali bypass system, identified as Point 3-5B, one (1) hopper, identified as Point 3-5C (484F), with a nominal capacity of 10 tons per hour; one (1) dedust cyclone, identified as Point 3-5D (480FL), with a nominal capacity of 31 tons per hour; four (4) screw conveyors, identified as Point 3-5E (480LV1-LV3, 480V), each with a nominal capacity of 10 tons per hour; one (1) weigh hopper, identified as Point 3-5I (481FF); and one (1) pug mill, identified as Point 3-5J (484L); all constructed May 1, 2000; and one (1) CKD loadout spout, identified as 481L, constructed in 2002; all equipped with one (1) fabric filter system (FF 3-5, baghouse 480L), which exhausts to stack 3-1, to control particulate emissions;

(7) One (1) reject dust bin for cement kiln dust, identified as Point 3-7A (481F), with a nominal capacity of 15 tons, constructed May 1, 2000, equipped with one (1) fabric filter system (FF 3-7, baghouse 483L) to control particulate emissions;

(8) One (1) alkali bypass system cement kiln dust truck loading station, identified as Point 3-8, constructed in 2000, utilizing mist suppression or equivalent dust suppression to control particulate emissions; and

(9) One (1) non-routine CKD loadout station, including one (1) screw conveyor, identified as Point 3-4B (412V), constructed in 2001, with a nominal capacity of 10 tons per hour, utilizing water mist suppression to control particulate emissions.

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

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

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

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

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

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

| Operations | Units | Emission Point |
|---|---|---|
| Alternate Raw Material Feed System | four (4) loading hoppers (485F, 486F, 487F, 488F)<br>six (6) belt conveyors (485V-488V, 490V, 491V)<br>one (1) weigh belt (489V)<br>one (1) bucket elevator (492V)<br>one (1) enclosed screw conveyor (495V) | 1-29A -E |

D.4.3 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 | Point | Filterable PM limits | Filterable PM10 Limits |
|---|---|---|---|
| one (1) hammermill dryer (440G)<br>one (1) calciner tower (440PH)<br>one (1) rotary kiln (401B)<br>one (1) alkali bypass system (3-5B) | Stack 3-1 | 0.016 gr/dscf<br>91.3 lbs/hr | 0.014 gr/dscf<br>88.7 lbs/hr |
| one (1) return dust bin (405F)<br>one (1) waste dust bin (404F) | FF 3-3 (403L) | 0.020 gr/dscf<br>1.40 lbs/hr | 0.020 gr/dscf<br>1.40 lbs/hr |
| one (1) reject dust bin for cement kiln dust (481F) | FF 3-7 (483L) | 0.010 gr/dscf<br>0.64 lbs/hr | 0.010 gr/dscf<br>0.64 lbs/hr |

(b) Pursuant to 326 IAC 2-2 (PSD BACT), the following emission units shall use the control methods listed in the table below:

| Units | Control Method |
|---|---|
| one (1) non-routine raw material dust truck loading station | building enclosure (BE 3-25) |
| one (1) alkali bypass system cement kiln dust truck loading station (3-8) | water mist suppression or equivalent |

(c) Pursuant to MSM 133-16137-00002, issued August 29, 2002, the throughput rate to the alternate raw material feeding system shall not exceed 87,600 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

This limit is equivalent to 2.51 tons per year of PM emissions and 1.07 tons per year of PM10 emissions. Combined with the emissions for the secondary crusher system (SC-1), the emissions for both systems combined are limited to less than 25 tons per year of PM and less than 15 tons per year of PM10. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable to the modification permitted in MSM 133-16137-00002.

(d) In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the following emission units shall use water mist suppression, as needed, to control the particulate emissions:

slag pile (1-13)
one (1) non-routine CKD loadout station, including one (1) screw conveyor (412V).

D.4.4 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, and listed in Table 1 of 40 CFR 63, Subpart EEE, apply to the units listed in Condition D.4.5 except when otherwise specified in 40 CFR Part 63, Subpart EEE.

D.4.5 NESHAP Emissions Limitation [326 IAC 2-4.1] [326 IAC 20-1][40 CFR Part 63, Subpart EEE]

Pursuant to 326 IAC 2-4.1 (Hazardous Air Pollutants) and 40 CFR 63.1204 (NESHAP for Hazardous Waste Combustors), the emissions from the following units:

| Operations | Units | Emission Point |
|---|---|---|
| Alternate Raw Material Feed System | *one (1) covered belt conveyor (494V) | Stack 3-1 |
| Kiln Operations | *one (1) hammermill dryer (440G) | Stack 3-1 |
| | one (1) calciner tower (440PH)<br>one (1) rotary kiln (401B) | Stack 3-1 |
| | *nine (9) screw conveyors (403V-410V, 404FV) | Stack 3-1 |
| | *one (1) conditioning tower (480F)<br>*one (1) alkali bypass system (3-5B)<br>*one (1) hopper, identified as (484F)<br>*four (4) screw conveyors (480LV1-LV3, 480V)<br>one (1) weight hopper (481FF)<br>one (1) pug mill (484L)<br>one (1) CKD loadout spout (481L) | Stack 3-1 |

*Note: When these units are not venting through kiln stack (3-1), the emissions from these units shall comply with the requirements in 40 CFR 63, Subpart LLL.

shall be limited as follows:

(a) Dioxin/Furan emissions shall be limited to 0.20 ng TEQ/dscm corrected to seven percent oxygen; or 0.40 ng TEQ/dscm corrected to seven percent oxygen, when the average of the performance test run average combustion gas temperatures at the inlet to the particulate matter control device is 400 degrees Fahrenheit or less.

(b) Mercury emissions shall be limited to 120 micrograms/dscm corrected to seven percent oxygen.

(c) Lead and cadmium combined emissions shall be limited to 330 micrograms/dscm corrected to seven percent oxygen.

(d) Arsenic, beryllium, and chromium combined emissions shall be limited to 56 micrograms/dscm corrected to seven percent oxygen.

(e) Carbon monoxide and hydrocarbon emissions shall comply with the following:

Carbon monoxide in the bypass duct shall not exceed 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to seven percent oxygen; and in addition, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by 40 CFR 63.1206(b)(7), hydrocarbons in the bypass duct shall not exceed 10 parts per million by volume over an hourly rolling average (monitoring continuously with a continuous emissions monitoring system), dry basis, corrected to seven percent oxygen, and reported as propane.

(f) Hydrochloric acid and chlorine gas combined emissions shall not exceed 130 parts per million by volume, expressed as hydrochloric acid equivalents, dry basis, corrected to seven percent oxygen.

(g) Particulate matter (PM) emissions shall be limited to 0.30 pound per ton of feed (dry basis) to the kiln.

(h) Visible emissions shall be limited to twenty percent (20%) opacity.

D.4.6 Alternate Emission Limitations [40 CFR 63.1206, Subpart EEE]

Pursuant to 40 CFR 63, Subpart EEE, the emission standards and operating requirements of 40 CFR 63, Subpart EEE, shall not apply during those periods of operation when hazardous waste is not in the combustion chamber and the Permittee has:

(a) Submitted a one-time written notice to the Administrator documenting compliance with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129; and

(b) Documented in the operating record that the source is complying with such applicable requirements in lieu of the emission standards and operating requirements of this subpart.

During those periods of operation when hazardous waste is not in the combustion chamber and the Permittee has complied with (a) and (b) above, the following conditions shall apply instead of the limits listed in Condition D.4.5.

(a) Particulate matter (PM) emissions shall be limited to 0.30 pound per ton of feed (dry basis) to the kiln.

(b) Visible emissions shall be limited to twenty percent (20%) opacity.

(c) Dioxin/Furan emissions shall be limited to 8.7 x 10-11 grains per dry standard cubic foot (TEQ) corrected to seven percent oxygen; or 1.7 x 10-10 grains per dry standard cubic foot (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 400 degrees Fahrenheit or less.

(d) The kiln shall be operated such that the temperature of the gas at the inlet to the kiln's particulate matter control device does not exceed the average of the run average temperatures determined during the performance tests required in Condition D.4.24, based upon a 3-hour rolling average.

D.4.7 General Provisions Relating to NESHAP [326 IAC 14-1] [40 CFR Part 61, Subpart A]

The provisions of 40 CFR Part 61, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 14-1, apply to the facilities described in Condition D.4.8 except when otherwise specified in 40 CFR Part 61, Subpart FF.

D.4.8 National Emission Standard for Benzene Waste Operations [326 IAC 14] [40 CFR Part 61, Subpart FF]

Pursuant to 40 CFR 61, Subpart FF - National Emissions Standard for Benzene Waste Operations, the Permittee shall design, install, operate and maintain the kiln (3-1A, 401B) to destroy the benzene contained in waste streams meeting the criteria specified in 40 CFR 61.340(b).

(a) Pursuant to 40 CFR 61.348(a)(1)(iii), the Permittee shall destroy the benzene in the waste stream by incinerating the waste in a cement kiln that achieves a destruction efficiency of ninety-nine percent (99%) or greater for benzene.

(b) As provided in 40 CFR 61.348(a)(4), the Permittee may aggregate or mix together individual waste streams to create a combined waste stream for the purpose of facilitating treatment of waste to comply with part (a) of this condition.

(c) Pursuant to 40 CFR 61.348(c), the Permittee shall demonstrate that the cement kiln achieves ninety-nine percent (99%) destruction efficiency by conducting performance tests using test methods and procedures specified in 40 CFR 61.355(f) and Condition D.4.24.

(d) Pursuant to 40 CFR 61.348(e)(3), the Permittee may operate the cement kiln with an opening that is not sealed and kept closed at all times if the cover and closed-vent system operate such that the cement kiln is maintained at a pressure less than atmospheric pressure and the following conditions are met:

(1) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(2) The opening is designed to operate with no detectable emissions as indicated by a instrument reading of less than 500 ppmv above background, as determined at least once per year by the methods specified in 40 CFR 60.355(h) and Condition D.4.24; and

(3) The pressure is monitored continuously to ensure that the pressure in the treatment process unit remains below atmospheric pressure.

(e) Pursuant to 40 CFR 61.348(g), the Permittee shall monitor the cement kiln in accordance with the applicable requirements in 40 CFR 61.354(a)(2) and the following:

(1) The Permittee shall install, calibrate, operate, and maintain according to manufacturer's specifications equipment to continuously monitor and record a process parameter (or parameters) that indicates proper system operation.

(2) The Permittee shall inspect at least once each operating day the data recorded by the equipment to ensure that the kiln is operating properly.

D.4.9 Sulfur Dioxide Emission Limitations [326 IAC 2-2]

Pursuant to CP133-10159-00002, issued on April 16, 1999, the SO2 emissions from Stack 3-1 of the semi-dry process kiln and calciner tower shall not exceed 4.13 pounds of SO2 per ton of clinker produced and 1.01 lbs/MMBtu. Combined with the clinker production limit of 1,606,000 tons/yr, this is equivalent to 3,317 tons/yr of SO2 emissions. This limit ensures that the increase in SO2 emissions from the 1999 modification does not exceed 40 tons/yr. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.4.10 Sulfur Dioxide (SO2) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO2 Emissions Limitations), the SO2 emissions from the kiln operation shall comply with the following:

(a) Less than 6.0 pounds per MMBtu heat input, when combusting coal or coal blend.

(b) Less than 0.5 pounds per MMBtu heat input, when combusting fuel oil.

Compliance shall be demonstrated on a calendar month average.

D.4.11 Nitrogen Oxide Emission Limitations [326 IAC 2-2]

Pursuant to CP133-10159-00002, issued on April 16, 1999, the NOx emissions from Stack 3-1 of the semi-dry process kiln shall be controlled by the low-NOX calciner and good combustion practices and shall not exceed 5.47 pounds per ton of clinker produced. Combined with the clinker production limit of 1,606,000 tons/yr, this is equivalent to 4,428 tons/yr of NOx emissions. This limit ensures that the increase in NOx emissions from the 1999 modification does not exceed 40 tons/yr. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.4.12 Nitrogen Oxide Emissions [326 IAC 10-3]

The preheater, precalciner cement kiln (3-1A, 401B) is subject to 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories) because it has a process rate greater than twenty-two (22) tons per hour. Pursuant to this rule, the following requirements apply:

(a) Pursuant to 326 IAC 10-3-3(a)(3), the Permittee shall use semi-dry precalciner kiln processing and the NOx emissions from the cement kiln shall not exceed 5.10 pounds per ton of clinker produced during the ozone control period, which is defined as May 31 to September 30 for the year of 2004 and during the period from May 1 to September 30 for every year after.

(b) Pursuant to 326 IAC 10-3-4, beginning May 31, 2004 and each ozone control period thereafter, the NOx emissions during the ozone control period of each year shall be monitored using a NOx CEMS in accordance with 40 CFR 60, Subpart A and 40 CFR 60, Appendix B. The Permittee shall also comply with the quality assurance procedures specified in 40 CFR 60, Appendix F and 326 IAC 3, as applicable.

D.4.13 Carbon Monoxide Emission Limitations [326 IAC 2-2]

Pursuant to CP133-10159-00002, issued on April 16, 1999, the CO emissions from Stack 3-1 of the semi-dry process kiln shall be controlled by good combustion practices and shall not exceed 3.65 pounds per ton of clinker produced. Combined with the clinker production limit of 1,606,000 tons/yr, this limitation is equivalent to 2,930 tons/yr of CO emissions. This limit ensures that the increase in CO emissions from the 1999 modification does not exceed 100 tons/yr. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.4.14 Lead Emissions [326 IAC 2-2]

The emissions of lead from the kiln shall be less than 0.00106 pounds per ton of clinker produced. This is equivalent to lead emission of less than 0.85 tons per year. This limit ensures that the lead emission increase from the 1999 modification is below the PSD significant threshold of 0.6 tons/yr. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

D.4.15 Beryllium Emissions [326 IAC 2-2]

The emissions of beryllium from the kiln shall be less than 7.8 x 10-7 pounds per ton of clinker produced. This is equivalent to beryllium emission of less than 0.00063 tons per year. This limit ensures that the beryllium emission increase from the 1999 modification is below the PSD significant threshold of 0.0004 tons/yr. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

D.4.16 Mercury Emissions [326 IAC 2-2]

The emissions of mercury from the kiln shall be less than 0.000224 pounds per ton of clinker produced. This is equivalent to mercury emissions of less than 0.18 tons per year. This limit ensures that the mercury emission increase from the 1999 modification is below the PSD significant threshold of 0.1 tons/yr. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

D.4.17 Operation Standards [326 IAC 2-2]

Pursuant to CP133-10159-00002, issued on April 16, 1999, and 326 IAC 2-2 (Prevention of Significant Deterioration BACT), the Permittee shall comply with the following throughput limitations:

(a) the raw material feed input rate to the kiln system shall not exceed 3,149,427 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(b) the total coal input rate to the kiln and calciner burner systems shall not exceed 313,552 tons per twelve (12) consecutive month period with compliance determined at the end of each month; and

(c) the clinker production rate shall not exceed 1,606,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.4.18 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:

| Processes | Process Weight Rate (ton/hr) (P) | Allowable Emissions For All Units Combined (lbs/hour) (E) |
|---|---|---|
| Alternate Raw Material Feed System, excluding the units venting through stack 3-1 | 110 | 52.2 |
| Kiln Operations, excluding the units venting through stack 3-1, baghouses 403L and 483L | 208 | 58.9 |

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 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.4.19 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.4.25 is developed in accordance with Section B - Preventive Maintenance Plan, then once it has been developed, the Operations and Maintenance Plan shall satisfy this condition.

**Compliance Determination Requirements**

D.4.20 Particulate and Nitrogen Oxide (NOx)

(a) In order to comply with Conditions D.4.2, D.4.3(a), and D.4.5, the electrostatic precipitator for particulate control shall be in operation and control emissions from all the emission units which vent through kiln stack (Stack 3-1) at all times that these facilities are in operation.

(b) In order to comply with Conditions D.4.2, D.4.3 (a), and D.4.5, the baghouses for particulate control shall be in operation and control emissions from the units associated with baghouses 403L and 483L all times that these facilities are in operation.

(c) In order to comply with Conditions D.4.11 and D.4.12, the low-NOx calciner shall be in operation and control emissions from the kiln (3-1A, 401B) at all times that the kiln (3-1A, 401B) is in operation.

D.4.21 Water Spray Operating Condition

Pursuant to CP133-10159-00002, issued April 16, 1999, and in order to demonstrate compliance with Conditions D.4.2, D.4.3(b), and D.4.5, the water mist spray systems associated with the kiln

operation shall be operated on an as needed basis while its associated equipment is in operation and the temperature is above 35 degrees Fahrenheit.

D.4.22 Lime Injection Operation

Pursuant to CP-133-10159-00002, issued April 16, 1999, the lime injection system associated with the conditioning tower (3-5A) shall be operated as necessary to demonstrate compliance with the sulfur dioxide limit in Conditions D.4.9 and D.4.10.

D.4.23 Gas Suspension Absorber

Pursuant to CP-133-10159-00002, issued April 16, 1999, the gas suspension absorber system associated with the alkali bypass system (3-5B-F) shall be operated at all times when the kiln gases are exhausting through the bypass system.

D.4.24 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 63, Subpart EEE] [40 CFR 61, Subpart FF]

(a) In order to demonstrate compliance with Conditions D.4.5 and D.4.8, the Permittee shall demonstrate compliance by commencing performance test for the kiln (stack 3-1), in accordance with 40 CFR 63.1207, 40 CFR 63.1349, and Section C - Performance Testing. These tests shall also establish limits for the operating parameters provided by 40 CFR 63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems. A comprehensive test shall be repeated once every five (5) years and dioxin/furan, PM, PM10, and opacity tests shall be repeated once every two and one half (2 ½) years from the date of the last valid compliance demonstration.

During each stack test required above, the following items shall be performed:

(1) Certified continuous opacity monitoring (COM) data shall be observed and recorded or EPA Method 9 opacity tests shall be performed.

(2) The kiln temperature shall be measured and recorded at the first stage outlet. The oxygen concentration shall be measured and recorded at the bypass duct.

(3) The kiln feed rate shall be measured and recorded.

(4) Pursuant to 326 IAC 3-6-3(b)(2), 40 CFR 63.7(e) and 40 CFR 63.1207(g), the tests shall be conducted under conditions representative of the extreme range of normal operating conditions.

(5) Pursuant to 326 IAC 3-6-3(b)(3), during the performance tests, the kiln must be operating at 95 percent of its maximum production capacity or other capacities or conditions specified and approved by IDEM to be considered a valid test.

(b) Certified continuous opacity monitoring (COM) data shall be performed concurrently with the particulate matter compliance tests for Stack 3-1 of the semi-dry process kiln (3-1A, 401B) unless meteorological conditions require rescheduling the opacity tests to another date.

(c) In order to demonstrate compliance with Condition D.4.8, the Permittee shall demonstrate that the cement kiln achieves ninety-nine percent (99%) destruction efficiency by conducting performance tests using test methods and procedures specified in 40 CFR 61.355(f).

(d) Pursuant to 40 CFR 61.348(e)(3), the Permittee must demonstrate no detectable emissions for openings in the cement kiln by performing a test, at least once per year, in accordance with 40 CFR 61.355(h).

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

D.4.25 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.4.2 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 within 180 days after 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.4.2; 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 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 tests 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.

(c) Corrective actions to be taken when required by paragraph (b).

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

D.4.26 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 20-1] [40 CFR 63, Subpart EEE] [326 IAC 2-7-6(1),(6)]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), 326 IAC 2, and 40 CFR 63, Subpart EEE, a continuous monitoring system shall be installed, calibrated, maintained, and operated for measuring the opacity from the kiln, pursuant to 326 IAC 3-5. The continuous monitoring system shall be installed and operational prior to conducting the performance tests required in Condition D.4.24. The continuous monitoring system shall meet the performance specifications of 326 IAC 3-5-2 and 40 CFR 63.8(c). 326 IAC 3-5 is not federally enforceable.

(b) Pursuant to 40 CFR 63.1209(a)(1)(i), the Permittee shall install, calibrate, maintain, and operate a carbon monoxide continuous emissions monitor to demonstrate continuous compliance with the carbon monoxide limit specified in 40 CFR 63 and Condition D.4.5. An oxygen CEMS shall also be installed, calibrated, maintained, and operated to continuously correct the carbon monoxide level to 7 percent oxygen.

In the event that the carbon monoxide continuous emissions monitor fails, the Permittee shall monitor the oxygen content and temperature once per hour. Pursuant to 40 CFR 63.1209(a)(6)(iii)(B), the Permittee is not subject to the CEMS requirements of 40 CFR 63, Subpart EEE during periods of time that the Permittee meets the requirements of 40 CFR 63.1206(b)(1)(ii). If the oxygen content or temperature is outside the range established in the latest compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

(c) The Permittee shall comply with all other monitoring requirements pursuant to 40 CFR 63.1209.

(d) Pursuant to CP133-10159-00002 issued April 16, 1999 and 326 IAC 2-2 (Prevention of Significant Deterioration), and 326 IAC 12, and in order to comply with Conditions D.4.2(b), D.4.5(h), D.4.9, D.4.10, D.4.11, and D.4.12, the Permittee shall continuously monitor and record the following parameters from the semi-dry process kiln:

(1) Opacity;

(2) Sulfur dioxide emission rates; and

(3) Nitrogen oxides.

The continuous monitors shall be operated according to Conditions C.13 and C.14.
In the event that the sulfur dioxide continuous emissions monitor fails, the Permittee shall perform fuel sampling and analysis on each new shipment of fuel. If lime injection is used, the lime injection rate shall be monitored once every hour. If the lime injection rate is outside the range established in the latest compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

In the event that the nitrogen oxide continuous emissions monitor fails, the Permittee shall monitor the oxygen content and temperature once per hour. If the oxygen content or temperature is outside the range established in the latest compliance stack test, the

Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.4.27 NESHAP Monitoring Requirements [326 IAC 20] [40 CFR 63, Subpart EEE]

Upon issuance of the permit, the Permittee shall perform the following monitoring requirements:

(a) The Permittee shall maintain a written operations and maintenance plan for the kiln. The plan shall include the following information:

(1) Procedures for proper operation, inspection, maintenance, and corrective measures for all components of the kiln and associated air pollution control device(s) in order to meet the emissions limits in Conditions D.4.4 and D.4.5; and

(2) Procedures for operating and maintaining the kilns in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

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

(b) The Permittee shall perform the monitoring requirements specified in 40 CFR 63.1209.

D.4.28 Visible Emissions Notations

(a) Once per day visible emission notations of each baghouse stack exhaust associated with the kiln operations, excluding the kiln exhaust stack (3-1), shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.4.29 ESP Parametric Monitoring

(a) The Permittee shall monitor and record the total KVA (Kilovolt-Amperes) of the ESP every minute when the kiln is in operation as provided in 326 IAC 1-5-3. When for any one rolling hourly average KVA is below the normal minimum of 153, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. The Compliance Response Plan shall also contain troubleshooting contingency and response steps for when any one (1) minute reading drops five (5) KVA below the predetermined baseline. This parameter can be adjusted to incorporate values determined from a compliant stack test. A KVA reading or a rolling hourly average KVA that is below the above mentioned minimum is not a

deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

(b) An inspection of the ESP shall be performed at least twice per year. Inspections required by this condition shall be performed at least three (3) months apart. A record shall be kept of the results of the inspections and the number of ESP parts replaced.

(c) Pursuant to CP133-10159-00002, issued April 16, 1999, in the event that an ESP failure has been observed:

(1) All reasonable measures shall be taken to correct, as expeditiously as practicable, the condition causing the emissions to exceed the allowable limits.

(2) All possible steps shall be taken to minimize the impact of the excessive emissions on ambient air quality which may include, but not limited to, curtailment of operations and/or shutdown of the facility.

D.4.30 Baghouse Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses (403L and 483L) used in conjunction with the kiln operation at least once per day when the controlled units are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 1 and 8 inches of water, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.4.31 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the kiln operation. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.4.32 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

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

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

D.4.33 Record Keeping Requirements

(a) To document compliance with Condition D.4.3(c), the Permittee shall maintain records of the throughput to the alternative raw material feed system.

(b) To document compliance with 40 CFR 63, Subpart EEE, the Permittee shall maintain all records required by 40 CFR 63.1210 and 40 CFR 63.1211, including, but not limited to, the following:

(1) The Permittee shall maintain files of all information (including all reports and notifications) required by this rule 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.

(3) The Permittee shall maintain all records of continuous monitoring system data required by 40 CFR 63.10(c).

(c) Pursuant to 40 CFR 61.356(e)(1), the Permittee shall maintain a statement signed and dated by the Permittee certifying that the treatment unit (cement kiln) is designed to operate at the documented performance level when the waste stream entering the unit is at the highest stream flow rate and benzene content expected to occur. The documentation shall be retained for the life of the cement kiln.

(d) Pursuant to 40 CFR 61.356(e)(3), the Permittee shall maintain all test information necessary to demonstrate the cement kiln performance as specified in 40 CFR 61.356(e)(3)(i) through (iv).

(e) Pursuant to 40 CFR 61.356(i), the Permittee shall maintain documentation that includes the following information regarding the cement kiln operation:

(1) Dates of startup and shutdown of the units.

(2) For a process parameter monitored in accordance with 40 CFR 61.354(a)(2), the Permittee shall maintain records that include a description of the operating parameter (or parameters) to be monitored to ensure that the units will be operated in conformance with the standard in 40 CFR 61.348(c) and the units' design specifications, and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the equipment.

(3) Periods when the units are not operated as designed.

(f) Pursuant to 326 IAC 10-3-5 and to document compliance with Condition D.4.12, beginning May 31, 2004 and each ozone control period thereafter, the Permittee shall maintain records of the following:

(1) Emissions, in pounds of NOx per ton of clinker produced from each affected Portland cement kiln; and

(2) Daily clinker production records.

(g) To document compliance with Condition D.4.17, the Permittee shall maintain records of the raw material feed input to the kiln system, the total coal input rate to the kiln and calciner burner systems, and the clinker production rate in order to establish compliance with the limits established in Condition D.4.17.

(h) To document compliance with Conditions D.4.24, D.4.26, D.4.28, and D.4.29, the Permittee shall maintain records in accordance with (1) through (8) below. Records shall be complete and sufficient to establish compliance with the limits established in this section.

(1) Data and results from the most recent stack test.

(2) All continuous emissions monitoring data.

(3) Total KVA of ESP on a one (1) hour rolling average.

(4) The results of the ESP inspections required under Condition D.4.29(b).

(5) Visible emission notations once per day for all baghouses.

(6) Method 9 opacity readings for the kiln whenever required by this permit.

(7) All preventive maintenance measures taken.

(8) All response steps taken and the outcome for each.

(i) To document compliance with Condition D.4.30, the Permittee shall maintain once per day records of the total static pressure drop across the baghouses during normal operation.

(j) To document compliance with Condition D.4.31, the Permittee shall maintain records of the results of the inspections required under Condition D.4.31.

(k) 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.

(l) To document compliance with Condition D.4.19, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

D.4.34 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Conditions D.4.3(c) and D.4.17 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or its 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) A quarterly summary of excess opacity emissions, as defined in 326 IAC 3-5-7 (and 40 CFR 60.63(d) if applicable), from the continuous monitoring system, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported.

(c) The Permittee shall submit a continuous monitoring system (CMS) performance report with the excess opacity summaries, in accordance with 40 CFR 63.10(e)(3) and 40 CFR 63, Subpart A. This report shall be submitted when CMS downtime is 5% or greater in accordance with 40 CFR 63.10(e)(3)(viii).

(d) The Permittee shall submit a semi-annual summary report which contains the information specified in 40 CFR 63.10(e)(3)(vi). If the total continuous monitoring system (CMS) downtime for any CO, hydrocarbon, SO2, NOx, CEM, or any CMS for the reporting period is ten percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and CMS performance report along with the summary report.

(e) To document compliance with 326 IAC 2-4.1 and 40 CFR 63, Subpart EEE, the Permittee shall report the information required by 40 CFR 63.1211, including, but not limited to the following:

(1) 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.

(2) As required by 40 CFR 63.10(d)(3), the Permittee shall report the opacity results from tests required by 40 CFR 63.1207.

(3) 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 a 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.

(4) 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) 233-5674 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.

(5) Pursuant to 40 CFR 63.1206(c)(3)(vi), the Permittee shall report excessive exceedances.

(6) Pursuant to 40 CFR 63.1206(c)(4)(iv), the Permittee shall report emergency safety vent openings.

(f) Pursuant to 40 CFR 61.357(d)(7)(ii) and (v), the Permittee shall submit to the US EPA and IDEM, OAQ a quarterly report containing the following information:

(1) Each 3-hour period of operation, during times when waste is being combusted, during which the average value of the monitored parameter is outside the range of acceptable values or during which the cement kiln is not operating as designed

(2) Any period, during times when waste is being combusted, in which the pressure in cement kiln is equal to or greater than atmospheric pressure.

(g) Pursuant to 326 IAC 10-3-5, the Permittee shall submit the following:

(1) by May 31, 2004, the Permittee shall submit the following information:

(A) The identification number and type of each unit subject to this rule;

(B) The name and address of the plant where the unit is located;

(C) The name and telephone number of the person responsible for demonstrating compliance with this rule; and

(D) Anticipated control measures, if any.

(2) A report documenting the total NOx emissions and the average NOx emission rate for the ozone control period of each year by October 31, beginning in 2003 and each year thereafter. For Portland cement kilns complying with 326 IAC 10-3-3(a)(1), estimated emissions and emissions rate shall be determined in accordance with 326 IAC 10-3-3(d) or from CEMS data and a certification that the low NOx calciner was installed, operated, and maintained according to 326 IAC 10-3 shall be included with this report.

(h) 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, or upon startup, whichever is later.

(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)233-5674 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.

(i) In addition to being submitted to the address listed in Section C - General Reporting Requirements, all reports submitted pursuant to 40 CFR 60, Subpart A, or 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).

## SECTION D.5 FACILITY OPERATION CONDITIONS - CLINKER COOLER OPERATIONS

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

(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;

(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)]:**

(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.

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

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the clinker cooler operations listed in Condition D.5.2 except when otherwise specified in 40 CFR 63, Subpart LLL.

D.5.2 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 units shall comply with the following limitations:

| Units | Emission Point | PM Limit |
|---|---|---|
| one (1) clinker cooler (401C)<br>one (1) clinker breaker (401CG)<br>one (1) dropout chamber (401CL)<br>two (2) vibrating feeders (427V, 428V)<br>one (1) drag conveyor (401CV)<br>eight (8) screw conveyors (422V, 470CV2, 470CV3, 470CV9, 470CV10, 474V-476V)<br>one (1) belt conveyor (421V)<br>two (2) bucket elevators (418V, 419V)* | FF 3-9 (471-CL, Stack 3-2) | 0.10 pound per ton of feed (dry basis) to the kiln (filterable);<br>and<br>10 percent opacity |

| Units | Emission Point | PM Limit |
|---|---|---|
| one (1) belt conveyor (509V)<br>one (1) bucket elevator (418V)* | FF 3-11 (406L) | 10 percent opacity |
| one (1) belt conveyor (510V) | FF 3-12 (506L) | |
| one (1) bucket elevator (500V) | FF 3-22 (500L) | |
| two (2) feeders (207F, 208F)<br>one (1) belt conveyor (219V) | FF 3-24 (220L) | |
| seven (7) clinker silos (501A-507A) | FF 3-14 (503L) | |
| one (1) belt conveyor (220V)<br>one (1) belt scale | FF 3-21 (221L) | |
| one (1) vibrating feeder (Unit #2) | F3-33 | |
| one (1) jaw crusher (Unit #3)<br>two (2) belt conveyors (Unit #4 and #5) | Dust Collector #1 | |

*Particulate emissions from 418V can be controlled by either the FF 3-11 (406L) or FF 3-9 (471-CL)

D.5.3 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 | Point | Filterable PM limits | Filterable PM10 Limits |
|---|---|---|---|
| one (1) clinker cooler (401C)<br>one (1) clinker breaker (401CG)<br>one (1) dropout chamber (401CL)<br>two (2) vibrating feeders (427V, 428V)<br>one (1) drag conveyor (401CV)<br>eight (8) screw conveyors (422V, 470CV2, 470CV3, 470CV9, 470CV10, 474V-476V)<br>one (1) belt conveyor (421V)<br>two (2) bucket elevators (418V, 419V)* | FF 3-9<br>(471-CL, Stack 3-2) | 0.015 gr/dscf<br>7.25 lbs/hr | 0.015 gr/dscf<br>7.25 lbs/hr |
| one (1) belt conveyor (509V)<br>one (1) bucket elevator (418V)* | FF 3-11 (406L) | 0.015 gr/dscf<br>0.64 lbs/hr | 0.015 gr/dscf<br>0.64 lbs/hr |
| one (1) belt conveyor (510V) | FF 3-12 (506L) | 0.015 gr/dscf<br>0.48 lbs/hr | 0.015 gr/dscf<br>0.48 lbs/hr |
| seven (7) clinker silos (501A-507A) | FF 3-14 (503L) | 0.015 gr/dscf<br>0.59 lbs/hr | 0.015 gr/dscf<br>0.59 lbs/hr |

*Particulate emissions from 418V can be controlled by either the FF 3-11 (406L) or FF 3-9 (471-CL)

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

| Units | Point | PM Limits | PM10 Limits |
|---|---|---|---|
| one (1) bucket elevator (500V) | FF 3-22 (500L) | 0.010 gr/dscf<br>0.28 lbs/hr | 0.010 gr/dscf<br>0.28 lbs/hr |

(c) Pursuant to 326 IAC 2-2 (PSD BACT), the following emission unit shall use water mist suppression or equivalent to control particulate emissions:

one (1) non-routine outdoor clinker pile (3-13).

(d) Pursuant to MSM 133-16484-00002, issued March 11, 2003, the clinker resizing operation shall comply with the following:

(1) The throughput to clinker resizing operation shall not exceed 50,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The PM/PM10 emissions from Dust Collector #1 shall not exceed 0.01 gr/acfm and 0.30 lbs/hr.

Combined with the PM/PM10 emissions from the belt scale for belt conveyor 220V and fugitive emissions, the emissions from this modification are limited to 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.

(e) In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the PM/PM10 emissions from baghouse 221L, which is used to control the emissions from belt scale for belt conveyor 220V, shall not exceed 0.26 lbs/hr. This is equivalent to 1.14 tons/yr of PM/PM10 emissions. Combined with the PM/PM10 emissions from the clinker resizing operation, the emissions from the modification permitted in MSM 133-16484-00002, issued March 11, 2003, are limited to 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.

D.5.4 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:

| Processes | Process Weight Rate (ton/hr) (P) | Allowable Emissions For All Units Combined (lbs/hour) (E) |
|---|---|---|
| Clinker Cooler Operations, excluding the units venting through baghouses 471CL, 406L, 506L, 500L, and 503L | 208 | 58.9 |

The limitation for these operations was calculated using the following equation:

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices. If the Operations and Maintenance Plan required by Condition D.5.8 is developed in accordance with Section B - Preventive Maintenance Plan, then once it is developed, the Operations and Maintenance Plan shall satisfy this condition.

**Compliance Determination Requirements**

D.5.6 Particulate Matter (PM) and PM10

In order to comply with Conditions D.5.2, D.5.3, and D.5.4, the baghouses for PM and PM10 control shall be in operation and control emissions from the clinker cooler operations at all times that these facilities are in operation.

D.5.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 63, Subpart LLL]

(a) In order to demonstrate compliance with Condition D.5.2 and pursuant to 40 CFR 63.1349, no later than two and one half (2 ½) years from the date of last valid compliance demonstration, the Permittee shall perform compliance testing for the clinker cooler (stack 3-2) utilizing methods as approved by the Commissioner. These tests shall be repeated at

least once every two and one half (2 ½) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) In order to demonstrate compliance with Conditions D.5.3(b), (d)(2), and (e), no later than 180 days after issuance of this Part 70 Permit, the Permittee shall perform PM and PM10 stack testing for the units listed in Conditions D.5.3(b), (d)(2), and (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.

(c) A certified continuous opacity monitoring (COM) data shall be performed concurrently with the particulate matter compliance tests for Stack 3-2 of the clinker cooler operation unless meteorological conditions require rescheduling the opacity tests to another date.

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

D.5.8 NESHAP Monitoring Requirements [326 IAC 20] [40 CFR 63, Subpart LLL]

(a) 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.5.2. The plan shall include the following information:

(1) Procedures for proper operation and maintenance of the affected sources and associated air pollution control device(s) in order to meet the emissions limit in Condition D.5.2(a); and

(2) 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:

(A) The Permittee shall conduct a monthly 1-minute visible emissions test of each affected source, except for those sources with continuous opacity monitors, in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.

(B) 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.

(C) 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.

(D) 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.

(E) 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.

(F) 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 (A) through (E) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (G) of this section.

(G) If visible emissions from a building are monitored, the requirements of paragraphs (A) through (E) 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.

(b) The Permittee shall continuously monitor opacity of emissions at the outlet of the PM control device for the clinker cooler (Stack 3-2). The COM shall be installed, maintained, calibrated and operated as required by 40 CFR 63, Subpart A and 326 IAC 3-5.

D.5.9 Visible Emissions Notations

(a) Visible emission notations of each baghouse associated with the clinker cooler operation stack exhausts (406L, 506L, 500L, 220L, 503L, 221L, and Dust Collector #1), 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.5.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the clinker cooler operation 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) |
|---|---|
| 406L, 506L, 500L, 220L, 503L, 221L, Dust Collector #1 | 1-8 |

or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.5.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the clinker cooler operation. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.5.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

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

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

D.5.13 Record Keeping Requirements

(a) To document compliance with Condition D.5.3(d)(1), the Permittee shall maintain records of the throughput to the clinker resizing operation.

(b) To document compliance with Conditions D.5.7, D.5.8(b), and D.5.9, the Permittee shall maintain records in accordance with (1) through (6) below. Records shall be complete and sufficient to establish compliance with the limits established in this section.

(1) Data and results from the most recent stack test.

(2) All continuous opacity monitoring data.

(3) Visible emission notations once per day for baghouses 406L, 506L, 500L, 220L, 503L, 221L, and Dust Collector #1.

(4) Method 9 opacity readings for the clinker cooler whenever required by this permit.

(5) All preventive maintenance measures taken.

(6) All response steps taken and the outcome for each.

(c) To document compliance with Condition D.5.10, the Permittee shall maintain once per day records of the total static pressure drop during normal operation.

(d) To document compliance with Condition D.5.11, the Permittee shall maintain records of the results of the inspections required under Condition D.5.11.

(e) To document compliance with the NESHAP, 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 60.1355(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.

(3) The Permittee shall maintain all records of continuous monitoring system data required by 40 CFR 63.10(c).

(f) Pursuant to 326 IAC 3-5-6, on and after the certification of the continuous opacity monitor, the Permittee shall maintain records, including raw data, of all monitoring data and supporting information for a minimum of five (5) years from the date of any of the following:

(1) A monitoring sample.

(2) A measurement.

(3) A test.

(4) A certification.

(5) A report.

The records shall include the following:

(1) A documentation relating to design, installation, and testing of elements of the monitoring system and documentation relating to required corrective action or compliance plan activities.

(2) All maintenance logs, calibration checks, and other required quality assurance activities.

(3) All records of corrective and preventive action.

(4) A log of plant operations, including dates of facility downtime, time of commencement and completion of each downtime, and the reason for each downtime.

(g) To document compliance with Condition D.5.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

D.5.14 Reporting Requirements

(a) A quarterly summary of excess opacity emissions, as defined in 326 IAC 3-5-7 (and 40 CFR 60.63(d) if applicable), from the continuous monitoring system shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. If applicable, the excess opacity summary shall also be submitted in accordance with 40 CFR 60.7(c), 40 CFR 60.63(d) and 40 CFR 63.1354(8).

(b) A quarterly summary of the information to document compliance with Condition D.5.3(d)(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).

(c) To document compliance with the NESHAP 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) from 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 a 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) 233-5674 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.

(6) Beginning June 14, 2002, the Permittee shall submit a continuous monitoring system (CMS) performance report with the excess opacity summaries, in accordance with 40 CFR 63.1354(8) and 40 CFR 63, Subpart A.

(7) Beginning June 14, 2002, the Permittee shall submit a semi-annual summary report which contains the information specified in 40 CFR 63.10(e)(3)(vi), as well as all failures to comply with any provision of the operation and maintenance plan developed in accordance with 40 CFR 63.1350(a). If the total continuous monitoring system (CMS) downtime for any CEM or any CMS for the reporting period is ten percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and CMS performance report along with the summary report.

(d) 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).

## SECTION D.6 FACILITY OPERATION CONDITIONS - FINISH MILL OPERATIONS, CEMENT STORAGE, LOADING, AND PACKAGING ACTIVITIES, BLEND FACILITY, AND PACKHOUSE OPERATIONS

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

(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); all 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 3-17, 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;

(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 in 1969 and modified in 1999, with a nominal capacity of 5 tons per hour; all equipped with one (1) fabric filter system (FF 4-2, baghouse 613L) to control particulate emissions;

(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):**

(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, 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 nominal capacity of 70 tons of clinker per hour:

(A) Two (2) conveyor belts, identified as Point 4-4A (639V, 640V), constructed in 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

(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):**

(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.

(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):**

(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 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;

(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):**

(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;

(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):**

(20) Three (3) bulk tanks, identified as Point 5-24A (832F, 834F, 835F), with a nominal capacity of 20 tons each, all 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;

(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):**

(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;

(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):**

(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 and 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.

(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.6.1 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 finish mill operations, cement storage, loading, and packaging activities, blend facility, and packhouse operations listed in Condition D.6.2.

## D.6.2 Particulate Matter Emission Limitation [326 IAC 20] [40 CFR 63, Subpart LLL]

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

| Operations | Units | Emission Point |
|---|---|---|
| Finish Mill Operations | four (4) vibrating feeders (504-507V) | FF 3-15 (505L) |
| | four (4) vibrating feeders (501V-503V, 508V)<br>one (1) belt conveyor (221V) | FF 3-17 (504L) |
| | two (2) belt conveyors (514V, 511V)<br>one (1) bucket elevator (513V)<br>one (1) belt conveyor (511V2) | FF 3-20 (513L) |
| | one (1) belt conveyor (515V) and<br>four one (4) (1) silos (650A-653A) (652A)<br>three (3) silos (650A, and 653A) | FF 4-13 (515L) 760L, 761L, 762 |
| | one (1) belt conveyor (516V) | FF 4-14 (516L) |
| | two (2) belt conveyors (639V, 640V)<br>one (1) clinker bin (601F)<br>one (1) gypsum bin (603F)<br>one (1) spill screw (646V)<br>one (1) belt conveyor (614V) | FF 4-1 (617L) |
| | one (1) No. 1 finish mill (603G)<br>one (1) elevator (626V)<br>one (1) spill screw (642V) | FF 4-2 (613L) |
| | one (1) air separator (605G)<br>one (1) tailing screw (613V)<br>two (2) cement coolers (603C, 604C)<br>one (1) F.K. pump hopper (611F)<br>one (1) mill feed belt (641V)<br>one (1) clinker F.O.W. belt (601V) | FF 4-3 (606L) |
| | one (1) fringe bin (604F)<br>two (2) screw feeders (611V, 604F1V) | FF 4-16 (605L) |
| | one (1) weigh belt (605V)<br>one (1) belt conveyor (616V) | Building Enclosure |
| | two (2) conveyor belts (639V, 640V)<br>one (1) clinker bin (602F)<br>one (1) gypsum bin (603F)<br>one (1) clinker F.O.W. belt (602V)<br>one (1) feed belt (644V) | FF 4-4 (636L) |
| | one (1) No. 2 finish mill (602G)<br>one (1) spill screw (645V) | FF 4-5 (603L) |
| | one (1) air separator (604G)<br>one (1) elevator (621V)<br>one (1) tailing screw (612V)<br>two (2) cement coolers (601C, 602C)<br>one (1) F.K. pump hopper (610F)<br>one (1) mill feed belt (644V) | FF 4-6 (602L) |
| | one (1) No. 3 finish mill (660G) | FF 4-9 (660L) |
| | one (1) hopper (667F)<br>one (1) cooler (664C)<br>one (1) feed belt (654V) | FF 4-10 (661L) |
| | one (1) fringe bin (665F)<br>one (1) elevator (661V)<br>one (1) rotary feeder (665FV) | FF 4-11 (665L) |
| | one (1) air separator (664G) | FF 4-12 (664L) |
| | two (2) weigh feeders (652V, 653V)<br>two (2) weigh feeders (650V, 651V) | BE 4-17 |

| Operations | Units | Emission Point |
|---|---|---|
| Cement Storage, Loading, and Packaging Activities | three (3) Group 5 silos (705A, 707A, 709A) | FF 5-1 (757L) |
| | three (3) Group 5 silos (706A, 708A, 710A) | FF 5-2 (758L) |
| | two (2) Group 4 silos (702A, 704A) | FF 5-3 (702L) |
| | two (2) Group 4 silos (701A, 703A) | FF 5-4 (701L) |
| | two (2) silos (711A, 712A) | FF 5-29 (713L) |
| | one (1) screen (701G)<br>one (1) truck loader (708L) | FF 5-5 (703L) |
| | one (1) screen (702G)<br>one (1) railcar/truck loader (709L) | FF 5-6 (706L) |
| | one (1) hopper (701F)<br>one (1) hopper (730F) | FF 5-7 (710L)<br>FF 5-8 (715L) |
| | three (3) screw conveyors (809V, 809V1, 809V2)<br>one (1) alleviator<br>fourteen (14) Group 2 silos(2S-7S, 9S, 11S-17S) | FF 5-9 (808L) |
| | one (1) silo (8S) | FF 5-10 (807L) |
| | one (1) silo (10S) | FF 5-11 (810L) |
| | four (4) Group 3 silos (26S, 27S, 28S, and 29S) | FF 5-13 (27DC) |
| | three (3) Group 3 silos (18S, 20S, 22S) | FF 5-14 (22DC) |
| | two (2) Group 3 silos (24S, 30S) | FF 5-15 (24DC) |
| | four (4) Group 3 silos (19S, 21S, 23S, 25S) | FF 5-17 (25DC) |
| | one (1) screen elevator (829V2) | BE (5-18) |
| | one (1) elevator (829V1) | Be (5-19) |
| | two (2) bulk tanks (831F, 833F)<br>one (1) truck loader | FF 5-23 (833L) |
| | three (3) bulk tanks (832F, 834F, 835F) | FF 5-24 (835L) |
| | one (1) silo (782F)<br>one (1) bucket elevator (781V) | FF 5-26 (782L) |
| | one (1) lump breaker (783V3)<br>one (1) spout (785L)<br>one (1) truck loader | FF 5-27 (783L) |
| | one (1) lump breaker (784V3)<br>one (1) spout (786L)<br>one (1) truck loader | FF 5-28 (784L) |
| | five (5) screw conveyors (755V, 759V-762V)<br>six (6) rotary feeders (755M-760M)<br>one (1) hopper (750F) | BE (5-30) |
| | nineteen (19) screw conveyors (818V1-825V1, 818V2-825V2, 828V1, 828V2, 830V)<br>three (3) screen screws (806V, 829V4, 830V1) | BE (5-33) |

| Operations | Units | Emission Point |
|---|---|---|
| Blend Facility | five (5) screw conveyors (22SC, 24SCG, 24SC, 30SC, 31SC) | BE (5-35) |
| | one (1) transfer pod (22) | FF 5-36 (22-PVDC) |
| | one (1) transfer pod (24-G) | FF 5-37 (24-PVDC-G) |
| | one (1) transfer pod (24) | FF 5-38 (24-PVDC) |
| | one (1) transfer pod (30) | FF 5-39 (30-PVDC) |
| | one (1) receiving tank | FF 5-40 (40-DC) |
| | one (1) blending tank<br>one (1) blending pod | FF 5-41 (41-DC) |
| | two (2) silos (50S, 51S) | FF 5-42 (50-DC) |
| | two (2) silos (52S, 53S) | FF 5-43 (53-DC) |
| | one (1) transfer pod (50PV) | FF 5-44 (50-PVDC) |
| Packhouse Operations | one (1) elevator (838V)<br>one (1) packer bin (Bin #1)<br>one (1) packing machine (842LF)<br>two (2) circulating tanks (842F, 842FA)<br>two (2) rotary feeders (842M, 842MA)<br>four (4) screw conveyors (842LV1, 837V, 837V1, 831V2) | FF 6-1 (842L) |
| | one (1) elevator (838V1)<br>one (1) packer bin (Bin #2)<br>one (1) packing machine (843LF)<br>two (2) circulating tanks (843F, 843FA)<br>two (2) rotary feeders (843M, 843MA)<br>four (4) screw conveyors (843LV1, 817V1, 817V3, 817V7) | FF 6-2 (843L) |
| | one (1) elevator (838V2)<br>one (1) packer bin (Bin #3)<br>one (1) packing machine (844LF)<br>two (2) circulating tanks (844F, 844FA)<br>two (2) rotary feeders (844M, 844MA)<br>one (1) screw conveyor (844LV1) | FF 6-3 (844L) |
| | one (1) elevator (838V3)<br>one (1) packer bin (Bin #4),<br>one (1) packing machine(845LF)<br>two (2) circulating tanks (845F, 845FA)<br>two (2) rotary feeders (845M, 845MA)<br>one (1) screw conveyor (845LV1) | FF 6-4 (845L) |
| | fourteen (14) conveyors (842V-846V, 848V, 845V1, 847V1, 847V2, 848V1, 848V2, 849V1, 849V2, 849V3) | BE (6-5) |
| | two (2) palletizers (900H, 901H) | BE (6-6) |
| | one (1) truck loader | BE (6-7) |

### D.6.3 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 | Point | Filterable PM limits | Filterable PM10 Limits |
|---|---|---|---|
| four (4) vibrating feeders (504-507V) | FF 3-15 (505L) | 0.015 gr/dscf<br>0.59 lbs/hr | 0.015 gr/dscf<br>0.59 lbs/hr |
| four (4) vibrating feeders (501V-503V, 508V)<br>one (1) belt conveyor (221V) | FF 3-17 (504L) | 0.015 gr/dscf<br>0.59 lbs/hr | 0.015 gr/dscf<br>0.59 lbs/hr |
| two (2) belt conveyors (639V, 640V)<br>one (1) clinker bin (601F)<br>one (1) gypsum bin (603F)<br>one (1) spill screw (646V) | FF 4-1 (617L) | 0.020 gr/dscf<br>1.12 lbs/hr | 0.020 gr/dscf<br>1.12 lbs/hr |

| Units | Point | Filterable PM limits | Filterable PM10 Limits |
|---|---|---|---|
| one (1) No. 1 finish mill (603G)<br>one (1) elevator (626V)<br>one (1) spill screw (642V) | FF 4-2 (613L) | 0.020 gr/dscf<br>2.07 lbs/hr | 0.020 gr/dscf<br>2.07 lbs/hr |
| one (1) air separator (605G)<br>one (1) tailing screw (613V)<br>two (2) cement coolers (603C, 604C)<br>one (1) F.K. pump hopper (611F)<br>one (1) mill feed belt (641V)<br>one (1) clinker F.O.W. belt (601V) | FF 4-3 (606L) | 0.015 gr/dscf<br>9.64 lbs/hr | 0.015 gr/dscf<br>9.64 lbs/hr |
| two (2) conveyor belts (639V, 640V)<br>one (1) clinker bin (602F)<br>one (1) gypsum bin (603F)<br>one (1) clinker F.O.W. belt (602V)<br>one (1) feed belt (644V) | FF 4-4 (636L) | 0.015 gr/dscf<br>0.98 lbs/hr | 0.015 gr/dscf<br>0.98 lbs/hr |
| one (1) No. 2 finish mill (602G)<br>one (1) spill screw (645V) | FF 4-5 (603L) | 0.020 gr/dscf<br>2.07 lbs/hr | 0.020 gr/dscf<br>2.07 lbs/hr |
| one (1) air separator (604G)<br>one (1) elevator (621V)<br>one (1) tailing screw (612V),<br>two (2) cement coolers (601C, 602C)<br>one (1) F.K. pump hopper (610F)<br>one (1) mill feed belt (644V) | FF 4-6 (602L) | 0.020 gr/dscf<br>2.07 lbs/hr | 0.020 gr/dscf<br>2.07 lbs/hr |
| one (1) No. 3 finish mill (660G) | FF 4-9 (660L) | 0.010 gr/dscf<br>1.97 lbs/hr | 0.010 gr/dscf<br>1.97 lbs/hr |
| one (1) hopper (667F)<br>one (1) cooler (664C)<br>one (1) feed belt (654V) | FF 4-10 (661L) | 0.010 gr/dscf<br>0.55 lbs/hr | 0.010 gr/dscf<br>0.55 lbs/hr |
| one (1) fringe bin (665F)<br>one (1) elevator (661V)<br>one (1) rotary feeder (665FV) | FF 4-11 (665L) | 0.010 gr/dscf<br>0.36 lbs/hr | 0.010 gr/dscf<br>0.36 lbs/hr |
| one (1) air separator (664G) | FF 4-12 (664L) | 0.010 gr/dscf<br>6.43 lbs/hr | 0.010 gr/dscf<br>6.43 lbs/hr |
| three (3) Group 5 silos (705A, 707A, 709A) | FF 5-1 (757L) | 0.015 gr/dscf<br>12.86 lbs/hr | 0.015 gr/dscf<br>12.86 lbs/hr |
| three (3) Group 5 silos (706A, 708A, 710A) | FF 5-2 (758L) | 0.015 gr/dscf<br>12.86 lbs/hr | 0.015 gr/dscf<br>12.86 lbs/hr |
| two (2) Group 4 silos (702A, 704A) | FF 5-3 (702L) | 0.020 gr/dscf<br>1.88 lbs/hr | 0.020 gr/dscf<br>1.88 lbs/hr |
| two (2) Group 4 silos (701A, 703A) | FF 5-4 (701L) | 0.020 gr/dscf<br>0.45 lbs/hr | 0.020 gr/dscf<br>0.45 lbs/hr |
| one (1) screen (701G)<br>one (1) truck loader (708L) | FF 5-5 (703L) | 0.020 gr/dscf<br>1.88 lbs/hr | 0.020 gr/dscf<br>1.88 lbs/hr |
| one (1) screen (702G)<br>one (1) railcar/truck loader (709L) | FF 5-6 (706L) | 0.020 gr/dscf<br>0.45 lbs/hr | 0.020 gr/dscf<br>0.45 lbs/hr |
| one (1) hopper (701F) | FF 5-7 (710L) | 0.020 gr/dscf<br>0.45 lbs/hr | 0.020 gr/dscf<br>0.45 lbs/hr |
| one (1) hopper (730F) | FF 5-8 (715L) | 0.020 gr/dscf<br>1.88 lbs/hr | 0.020 gr/dscf<br>1.88 lbs/hr |
| one (1) silo (8S) | FF 5-10 (807L) | 0.015 gr/dscf<br>0.32 lbs/hr | 0.015 gr/dscf<br>0.32 lbs/hr |
| one (1) silo (10S) | FF 5-11 (810L) | 0.020 gr/dscf<br>0.36 lbs/hr | 0.020 gr/dscf<br>0.36 lbs/hr |
| four (4) Group 3 silos (26S, 27S, 28S, and 29S) | FF 5-13 (27DC) | 0.020 gr/dscf<br>0.28 lbs/hr | 0.020 gr/dscf<br>0.28 lbs/hr |
| three (3) Group 3 silos (18S, 20S, 22S) | FF 5-14 (22DC) | 0.020 gr/dscf<br>0.28 lbs/hr | 0.020 gr/dscf<br>0.28 lbs/hr |

| Units | Point | Filterable PM limits | Filterable PM10 Limits |
|---|---|---|---|
| two (2) Group 3 silos (24S, 30S) | FF 5-15 (24DC) | 0.020 gr/dscf<br>0.28 lbs/hr | 0.020 gr/dscf<br>0.28 lbs/hr |
| four (4) Group 3 silos (19S, 21S, 23S, 25S) | FF 5-17 (25DC) | 0.020 gr/dscf<br>0.28 lbs/hr | 0.020 gr/dscf<br>0.28 lbs/hr |
| two (2) bulk tanks (831F, 833F)<br>one (1) truck loader | FF 5-23 (833L) | 0.020 gr/dscf<br>0.73 lbs/hr | 0.020 gr/dscf<br>0.73 lbs/hr |
| three (3) bulk tanks (832F, 834F, 835F) | FF 5-24 (835L) | 0.020 gr/dscf<br>0.73 lbs/hr | 0.020 gr/dscf<br>0.73 lbs/hr |
| one (1) elevator (838V)<br>one (1) packer bin (Bin #1)<br>one (1) packing machine (842LF)<br>two (2) circulating tanks (842F, 842FA)<br>two (2) rotary feeders (842M, 842MA)<br>four (4) screw conveyors (842LV1, 837V, 837V1, 831V2) | FF 6-1 (842L) | 0.020 gr/dscf<br>0.13 lbs/hr | 0.020 gr/dscf<br>0.13 lbs/hr |
| one (1) elevator (838V1)<br>one (1) packer bin (Bin #2)<br>one (1) packing machine (843LF)<br>two (2) circulating tanks (843F, 843FA)<br>two (2) rotary feeders (843M, 843MA)<br>four (4) screw conveyors (843LV1, 817V1, 817V3, 817V7) | FF 6-2 (843L) | 0.015 gr/dscf<br>0.93 lbs/hr | 0.015 gr/dscf<br>0.93 lbs/hr |
| one (1) elevator (838V2)<br>one (1) packer bin (Bin #3)<br>one (1) packing machine (844LF)<br>two (2) circulating tanks (844F, 844FA)<br>two (2) rotary feeders (844M, 844MA)<br>one (1) screw conveyor (844LV1) | FF 6-3 (844L) | 0.015 gr/dscf<br>0.93 lbs/hr | 0.015 gr/dscf<br>0.93 lbs/hr |
| one (1) elevator (838V3)<br>one (1) packer bin (Bin #4),<br>one (1) packing machine(845LF)<br>two (2) circulating tanks (845F, 845FA)<br>two (2) rotary feeders (845M, 845MA)<br>one (1) screw conveyor (845LV1) | FF 6-4 (845L) | 0.015 gr/dscf<br>0.93 lbs/hr | 0.015 gr/dscf<br>0.93 lbs/hr |

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

| Units | Point | Filterable PM Limits | PM10 Limits |
|---|---|---|---|
| two (2) belt conveyors (514V, 511V)<br>one (1) bucket elevator (513V) | FF 3-20 (513L) | 0.010 gr/dscf<br>0.64 lbs/hr | 0.010 gr/dscf<br>0.64 lbs/hr |
| one (1) belt conveyor (51 5V) and four one (4) (1) silos (650A-653A) (652A) three (3) silos (650A, 651A, and 653A) | FF 4-13 (515L)<br>760L, 761L, 762L | 0.010 gr/dscf<br>0.60 lbs/hr | 0.010 gr/dscf<br>0.60 lbs/hr |
| one (1) silo (782F)<br>one (1) bucket elevator (781V) | FF 5-26 (782L) | 0.010 gr/dscf<br>0.67 lbs/hr | 0.010 gr/dscf<br>0.67 lbs/hr |
| one (1) lump breaker (783V3)<br>one (1) spout (785L)<br>one (1) truck loader | FF 5-27 (783L) | 0.010 gr/dscf<br>0.40 lbs/hr | 0.010 gr/dscf<br>0.40 lbs/hr |
| one (1) lump breaker (784V3)<br>one (1) spout (786L)<br>one (1) truck loader | FF 5-28 (784L) | 0.010 gr/dscf<br>0.40 lbs/hr | 0.010 gr/dscf<br>0.40 lbs/hr |

(c) In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the emissions from the following units shall be limited as below:

| Units | Point | PM/PM10 Limits |
|---|---|---|
| one (1) receiving tank | FF 5-40 (40-DC) | 0.14 lbs/hr |
| one (1) blending tank<br>one (1) blending pod | FF 5-41 (41-DC) | 0.14 lbs/hr |

| Units | Point | PM/PM10 Limits |
|---|---|---|
| two (2) silos (50S, 51S) | FF 5-42 (50-DC) | 0.11 lbs/hr |
| two (2) silos (52S, 53S) | FF 5-43 (53-DC) | 0.11 lbs/hr |

(d) In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the following emission units shall use the control methods listed in the table below:

| Units | Control Method |
|---|---|
| five (5) screw conveyors (22SC, 24SCG, 24SC, 30SC, 31SC | Building Enclosure (BE 5-35) |
| one (1) transfer pod (22) | Filter (22-PVDC) |
| one (1) transfer pod (24-G) | Filter (24-PVDC-G) |
| one (1) transfer pod (24) | Filter (24-PVDC) |
| one (1) transfer pod (30) | Filter (30-PVDC) |
| one (1) transfer pod (50PV) | Filter (50-PVDC) |

### D.6.4 Operation Standards [326 IAC 2-2]

Pursuant to CP133-10159-00002, issued on April 16, 1999, and 326 IAC 2-2 (Prevention of Significant Deterioration BACT), the Permittee shall comply with the following throughput limitations:

(a) The clinker input rate to the No. 1 finish mill shall not exceed 517,942 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(b) The clinker input rate to the No. 2 finish mill shall not exceed 517,942 tons per twelve (12) consecutive month period with compliance determined at the end of each month; and

(c) The clinker input rate to the No. 3 finish mill shall not exceed 700,567 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

### D.6.5 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:

| Processes | Process Weight Rate (ton/hr) (P) | Allowable Emissions For All Units Combined (lbs/hour) (E) |
|---|---|---|
| Finish Mill Operations, excluding the units venting through baghouses 505L, 504l, 513L, 515L, 760L, 761L, and 762L, 617L, 613L, 606L, 636L, 603L, 602L, 660L, 661L, 665L, and 664L | 250 | 61.0 |
| Cement Storage, Loading, and Packaging Activities, excluding the units venting through baghouses 757L, 807L, 810L, 27DC, 22DC, 24DC, 25DC, 833L, 835L, 782L, 783L, and 784L | 500 | 69.0 |
| Blend Facility Operations | 40 | 42.5 |
| Packhouse Operations, excluding the units venting through baghouses 842L, 843L, 844L, and 845L | 185 | 57.7 |

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 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.6.6 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.6.9 is developed in accordance with Section B - Preventive Maintenance Plan, then once it has been developed, the Operations and Maintenance Plan shall satisfy this condition.

**Compliance Determination Requirements**

D.6.7 Particulate Matter (PM) and PM10

In order to comply with Conditions D.6.2, D.6.3, and D.6.5, the baghouses for PM and PM10 control associated with the finish mill operations, the cement storage, loading, and packing activities, the blend facility, and the packhouse operations shall be in operation and control emissions from the facilities at all times when the facilities are in operation.

D.6.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 63, Subpart LLL]

(a) In order to demonstrate compliance with Conditions D.6.2 and D.6.3(a) and pursuant to 40 CFR 63.1349, no later than five (5) years from the last valid compliance demonstration, the Permittee shall perform stack testing for finish mill baghouses 613L, 606L, 603L, 602L, 660L, and 661L utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable PM10 only.

(b) In order to demonstrate compliance with Conditions D.6.3(b) and D.6.3(c), no later than 180 days after issuance of this Part 70 Permit, the Permittee shall perform PM and PM10 stack testing for the following emission points utilizing methods as approved by the Commissioner. PM10 includes filterable PM10 and condensible PM10.

(1) One of the emission points FF 3-20 (513L) or FF 4-13 (515L);

(2) One of the emission points FF 5-26 (782L), FF 5-27 (783L), or FF 5-28 (784L); and

(3) One of the emission points FF 5-40 (40-DC), FF 5-41 (41-DC), FF 5-42 (50-DC), or FF 5-43 (53-DC).

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

(a) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operation and maintenance plan for the units listed in Condition D.6.2 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. The plan shall include the following information:

(1) Procedures for proper operation and maintenance of the affected sources and associated air pollution control device(s) in order to meet the emissions limit in Condition D.6.2; and

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

(A) The Permittee shall conduct a monthly 1-minute visible emissions test of each affected source except for the finish mills, in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.

(B) 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.

(C) 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.

(D) Except for the finish mills, 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.

(E) 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.

(F) 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 (A) through (E) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (G) of this section.

(G) If visible emissions from a building are monitored, the requirements of paragraphs (A) through (E) 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.

(b) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall monitor opacity from the finish mill operations by conducting daily visible emissions observations in accordance with the procedures of 40 CFR 60, Appendix A, Method 22. The Method

22 test shall be conducted while the affected source is operating at the representative performance conditions. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the Permittee must:

(1) Initiate, within one (1) hour, the corrective actions specified in the site specific operations and maintenance plan developed in accordance with 40 CFR 63.1350(a)(1) and (a)(2); and

(2) Within 24 hours of the end of the Method 22 test in which the visible emissions were observed, conduct a follow up Method 22 test of each stack from which visible emissions were observed during the pervious Method 22 test. If visible emissions are observed during the follow up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a test in accordance with 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 test shall be thirty minutes.

D.6.10 Visible Emissions Notations

(a) Visible emission notations of the finish mill operations, the cement storage, loading, and packaging activities, the blend facility, and the packhouse 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.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.6.11 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the finish mill operations, the cement storage, loading, and packaging activities, the blend facility, and the packhouse operations 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) |
|---|---|
| 505L, 504L, 513L, 515L, 516L, 617L, 613L, 606L, 636L, 603L, 602L, 660L, 661L, 665L, 664L 757L, 758L, 702L, 701L, 713L, 703L, 706L, 710L, 715L, 760L, 761L, 762L, 808L, 807L, 810L, 27DC, 22DC, 24DC, 25DC, 833L, 835L, 782L, 783L, 784L, 40-DC, 41-DC, 50-DC, 53-DC, 842L, 843L, 844L, 845L | 1-8 |
| 664L | 2-10 |

Note: Filters 22-PVDC, 24-PVDC-G, 24-PVDC, 30-PVDC and 50-PVDC are not baghouses and do not have pressure drop readings.

or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation,

Records, and Reports. 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.6.12 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the finish mill operations, cement storage, loading, and packaging activities, blend facility, and packhouse operations. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.6.13 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

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

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

D.6.14 Record Keeping Requirements

(a) To document compliance with Condition D.6.4, the Permittee shall maintain records of the clinker input to the No. 1 finish mill, the No. 2 finish mill, and the No. 3 finish mill in order to establish compliance with the limits established in Condition D.6.4.

(b) To document compliance with Condition D.6.10, the Permittee shall maintain records of once per day visible emission notations of the baghouse stack exhausts.

(c) To document compliance with Condition D.6.11, the Permittee shall maintain once per day records of the total static pressure drop across the baghouses during normal operation.

(d) To document compliance with Condition D.6.12, the Permittee shall maintain records of the results of the inspections required under Condition D.6.12.

(e) 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.

(f) To document compliance with Condition D.6.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

D.6.15 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.6.4 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 OAF Compliance Section at (317)233-5674 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).

## SECTION D.7 FACILITY CONDITIONS - WASTE TANKS

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

(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.

(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.7.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 60, Subpart Kb.

D.7.2 Storage Tanks [326 IAC 12] [40 CFR 60, Subpart Kb]

Pursuant to 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984), the storage vessels shall be equipped with the following:

A closed vent system and control device meeting the following specifications 40 CFR 60.112b(a)(3):

(a) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determine in part 60, subpart VV, 40 CFR 60.485(b).

(b) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater.

D.7.3 General Provisions Relating to NESHAP [326 IAC 14-1] [40 CFR Part 61, Subpart A]

The provisions of 40 CFR Part 61, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 14-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 61, Subpart FF.

D.7.4 National Emission Standard for Benzene Waste Operations [326 IAC 14] [40 CFR Part 61, Subpart FF]

Pursuant to 40 CFR 61.342(b), the Permittee shall manage each waste stream that contains benzene meeting the criteria specified in 40 CFR 61.340(b) in accordance with 40 CFR 61, Subpart FF - National Emissions Standard for Benzene Waste Operations, paragraphs 61.342(c) through (h).

(a) Pursuant to 40 CFR 61.342(c)(1)(ii), the Permittee shall control air emissions from each tank in accordance with the applicable standards specified in 40 CFR 61.343(a) and an Agreed Order EPA-5-03-113(a)-05, issued on July 3, 2003. Pursuant to 40 CFR 61.343(a)(1), each tank shall be covered by a fixed roof and vented through a closed-vent system that routes all organic vapors vented from the tank to a control device in accordance with items (1) through (4) below.

(1) The cover and all openings shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h).

(2) Each opening shall be maintained in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.

(3) Condition D.7.4(a)(2) does not apply if the cover and closed-vent system operate such that the tank is maintained at a pressure less than atmospheric pressure and the opening meets the following conditions:

(A) The purpose of the opening is to provide dilution air to reduce the explosion hazard,

(B) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h) and Condition D.7.7(c); and

(C) The pressure is monitored continuously to ensure that the pressure in the tank remains below atmospheric pressure.

(4) The closed-vent system and carbon adsorption vapor system shall be designed to operate in accordance with 40 CFR 61.349 and Condition D.7.5.

(b) Pursuant to 40 CFR 61.342(c)(1)(ii), the Permittee shall control air emissions from each container in accordance with the applicable standards specified in 40 CFR 61.345.

(1) The Permittee shall install, operate, and maintain a cover on each container used to handle, transfer, or store waste in accordance with the following requirements:

(A) The cover and all openings shall be designed to operate with no detectable emissions in accordance with 40 CFR 61.355(h) and Condition D.7.7(c).

(B) Each opening shall be maintained in a closed, sealed position when waste is in the container, except when it is necessary to use the opening for waste loading, removal, inspection, or sampling, except as provided in Condition D.7.4(b)(4).

(2) When transferring waste into a container by pumping, the Permittee shall perform the transfer using a submerged fill pipe as specified in 40 CFR 61.345(a)(2).

(3) Treatment of waste in a container as specified in 40 CFR 61.345(a)(3) shall route all organic vapors vented from the container through a closed-vent system to the carbon adsorption vapor system.

(A) The cover and all openings shall be designed to operated with no detectable emissions in accordance with 40 CFR 61.355(h) and Condition D.7.7(c).

(B) The closed-vent system and carbon adsorption vapor system shall be designed to operate in accordance with 40 CFR 61.349 and Condition D.7.5.

(4) Condition D.7.4(b)(1)(B) and Condition D.7.4(b)(2) do not apply if the cover and closed-vent system operate such that the tank is maintained at a pressure less than atmospheric pressure and the opening meets the following conditions:

(A) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(B) The opening is designed to operate with no detectable emissions in accordance with 40 CFR 61.355(h) and Condition D.7.7(c); and

(C) The pressure is monitored continuously to ensure that the pressure in the tank remains below atmospheric pressure.

D.7.5 Standards: Closed-Vent Systems and Carbon Adsorption Vapor System [326 IAC 14] [40 CFR Part 61, Subpart FF] [40 CFR 61.349]

The provisions of 40 CFR 61.349 apply to the closed-vent system and the carbon adsorption vapor system used to control air emissions from the tanks and containers with conditions for which 40 CFR 61.343(a) and 61.345(a)(3) applies. The Permittee shall meet the requirements specified in items (a) and (b) below.

(a) Pursuant to 40 CFR 61.349(a), the Permittee shall meet the following requirements for the closed-vent system and carbon adsorption vapor system used to comply with 40 CFR 61.343 and 61.345:

(1) The Permittee shall properly design, install, operate, and maintain the closed-vent system in accordance with the following requirements:

(A) The closed-vent system shall be designed to operate with no detectable emissions in accordance with 40 CFR 61.355(h) and Condition D.7.7(c).

(B) Vent systems that contain a bypass line shall install, maintain, and operate according to manufacturer's specifications a flow indicator as specified in 61.349(a)(1)(ii).

(C) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(D) Devices use by the closed-vent system that vent directly to the atmosphere shall remain in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.

(2) Pursuant to 40 CFR 61.349(a)(2)(ii), the Permittee shall maintain a carbon adsorption vapor system designed and operated to control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

(b) Pursuant to 40 CFR 61.349(b), the closed-vent system and carbon adsorption vapor system shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device.

D.7.6 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.

**Compliance Determination Requirements**

D.7.7 Leak Detection Testing Requirements [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF] [40 CFR 61, Subpart V]

(a) When equipment is tested for compliance with or monitored for no detectable emissions in accordance with the standard for pressure relief devices in 40 CFR 61.242-4 and closed-vent system in 40 CFR 61.242-11, the Permittee shall comply with the requirements in 40 CFR 61.245(c).

(b) Pursuant to 40 CFR 61.242-1(b), compliance with 40 CFR 61, Subpart V, will be determined by a review of records, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 61.245.

(c) Pursuant to 40 CFR 61, Subpart FF, the Permittee must demonstrate no detectable emissions from the cover and all openings in waste management units by performing a test in accordance with 40 CFR 61.355(h) at least once per year.

D.7.8 Carbon Adsorption Vapor System Compliance Determination Requirements [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]

Pursuant to 40 CFR 61.349(c)(1), the Permittee shall demonstrate that the activated carbon canister system achieves the conditions specified in 40 CFR 61.349(a)(2)(ii) and D.7.3(a)(2) by performing a design analysis that includes the items specified in 61.356(f)(2) and as follows:

(a) Pursuant to 40 CFR 61.356(f)(2)(i), the design analysis shall include, but is not limited to, specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the Permittee, or the control device manufacturer or vendor that describe the activated carbon canister system design based on acceptable engineering texts; and

(b) The design analysis shall address the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and the total carbon working capacity of the control device and source operating schedule.

(c) Pursuant to 40 CFR 61.342(g), compliance with 40 CFR part 61, Subpart FF will be determined by review of facility records and results from tests and inspections using methods and procedures specified in 40 CFR 61.355.

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

D.7.9 Monitoring Procedures for Tanks [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]

The Permittee shall inspect and repair defects for each tank in which the waste stream is placed as follows:

(a) Pursuant to 40 CFR 61.343(c), the Permittee shall inspect each fixed-roof, seal, access door, and all other openings by visual inspection initially and quarterly thereafter to ensure no cracks or gaps occur and that access doors and other openings are closed and gasketed properly.

(b) The Permittee shall repair all detected defects, in accordance with 40 CFR 61.343(d) and 40 CFR 61.350, as follows:

(1) The Permittee shall make a first effort to repair broken seals or gaskets or other problems identified as soon as practicable, but not later than 45 calendar days after identification.

(2) Repair of defects may be delayed beyond 45 calendar days if completion of the repair is technically impossible without a complete or partial facility or unit shutdown. Repair of such equipment shall occur before the end of the next facility or unit shutdown.

D.7.10 Monitoring Procedures for Containers [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]

(a) Pursuant to 40 CFR 61.345(b), the Permittee shall visually inspect each cover and all openings initially and quarterly thereafter to ensure that they are closed and gasketed properly.

(b) The Permittee shall repair all detected defects, in accordance with 40 CFR 61.345(c) and 40 CFR 61.350, as follows:

(1) The Permittee shall make a first effort to repair broken seals or gaskets or other problems identified as soon as practicable, but not later than 15 calendar days after identification.

(2) Repair of defects may be delayed beyond 15 calendar days if completion of the repair is technically impossible without a complete or partial facility or unit shutdown. Repair of such equipment shall occur before the end of the next facility or unit shutdown.

D.7.11 Monitoring Procedures for Carbon Adsorption Vapor System and Closed-Vent System [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]

(a) Pursuant to 40 CFR 61.349(h) and 40 CFR 61.354(d), the Permittee shall ensure that the carbon adsorption vapor system operates properly in accordance with the performance specifications in D.7.4 by monitoring the carbon adsorption vapor system in accordance with all of the following requirements:

(1) The Permittee shall install and operate a device to monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption vapor system on a regular schedule.

(2) Existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated.

(3) The device shall be monitored on a daily basis.

(4) The monitoring system shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications.

(b) The Permittee shall visually inspect the bypass line valve at least once every month to ensure that the valve is maintained in the closed position and readings from the flow monitoring device at least once each operating day as specified in 40 CFR 61.354(f) and Condition D.7.4.

(c) The Permittee using a system for emission control that is maintained at a pressure less than atmospheric pressure shall monitor the pressure with a device equipped with a continuous recorder as specified in 40 CFR 61.354(g).

(d) The closed-vent system and the carbon adsorption vapor system shall be visually inspected quarterly in accordance with 40 CFR 61.349(f).

(e) The Permittee shall repair all detected defects, in accordance with 40 CFR 61.349(g) and 40 CFR 61.350, as follows:

(1) The Permittee shall make a first effort to repair the closed-vent system and carbon adsorption vapor system as soon as practicable, but no later than 5 calendar days after detection and repair shall be completed no later than 15 calendar days after detection.

(2) Repair of defects may be delayed beyond 15 calendar days if completion of the repair is technically impossible without a complete or partial facility or unit shutdown. Repair of such equipment shall occur before the end of the next facility or unit shutdown.

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

D.7.12 Record Keeping Requirements

(a) To demonstrate compliance with Condition D.7.2 and 40 CFR 60, Subpart Kb, the Permittee shall keep a record of the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(b) Pursuant to 40 CFR 61.356(a), the Permittee shall maintain each record in accordance with Section C - General Record Keeping Requirements.

(c) Pursuant to 40 CFR 61.356(b), the Permittee shall maintain records that identify each waste stream at the facility subject to 40 CFR 61, Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with 40 CFR 61, Subpart FF.

(d) Pursuant to 40 CFR 61.356(b)(1), for each waste stream not controlled for benzene emissions in accordance with 40 CFR 61, Subpart FF, the Permittee shall keep records that include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

(e) Pursuant to 40 CFR 61.356(d), the Permittee shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment.

(f) Pursuant to 40 CFR 61.356(g), the Permittee shall maintain the following records:

(1) For tanks using a fixed roof to comply with the tank control requirements specified in 40 CFR 61.343(a) and Condition D.7.4(a), a record of each visual inspection required by 40 CFR 61.343(c) and Condition D.7.9 that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions.

(2) For containers using a cover to comply with the container control requirements specified in 40 CFR 61.345(a) and Condition D.7.4(b), a record of each visual inspection required by 40 CFR 61.345(b) and Condition D.7.10 that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions.

(3) Each record required by paragraphs (1) and (2) shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed.

(g) The Permittee shall maintain a record of each test of no detectable emissions required by 40 CFR 61.343(a), 40 CFR 61.345(a), Condition D.7.4(a), and Condition D.7.4(b) as specified in 40 CFR 61.356(h).

(h) Pursuant to 40 CFR 61.356(m), if the cover and closed-vent system operate such that the tank or container is maintained at a pressure less than atmospheric pressure as allowed in Condition D.7.4 then the Permittee shall maintain records of all periods during which the pressure in the unit is operated at a pressure greater than atmospheric pressure.

(i) Pursuant to 40 CFR 61.356(f), the Permittee shall maintain the following records for the closed-vent and carbon adsorption vapor system for the life of the system:

(1) A statement, signed and dated by the Permittee, certifying that the closed-vent system and carbon adsorption vapor system is designed to operate at the documented performance level when the waste management unit vented to the carbon adsorption vapor system is or would be operating at the highest load or capacity expected to occur.

(2) For the carbon adsorption vapor system, records of the design analysis required in Condition D.7.8.

(j) The Permittee shall maintain a record for each visual inspection required by 40 CFR 61.343 and 61.345 that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions as specified in 40 CFR 61.356(g).

(k) The Permittee shall maintain a record of each test of no detectable emissions required by 40 CFR 61.349(a) and Condition D.7.5(a) as specified in 40 CFR 61.356(h).

(l) Pursuant to 40 CFR 61.356(j), the Permittee shall maintain documentation that includes the following information regarding the control device operation:

(1) Dates of startup and shutdown of the closed-vent system and carbon adsorption vapor system.

(2) A description of the operating parameters to be monitored as specified in 40 CFR 61.356 (j)(2). This documentation shall be kept for the life of the control device.

(3) Pursuant to 40 CFR 61.356(j)(3), periods when the closed-vent system and carbon adsorption vapor system are not operated as designed including all periods and the duration when any valve car-seal or closure mechanism is broken or the by-pass line valve has changed and when the flow monitoring devices indicate that vapors are not routed to the control device as required.

(4) Records from the monitoring device of the concentration of organics in the carbon adsorption vapor system outlet gas stream as specified in 40 CFR 61.356(j)(9).

(5) Records of the dates and times when the carbon adsorption vapor system is monitored, when breakthrough is measured, and the date and time the existing carbon is replaced with fresh carbon as specified in 40 CFR 61.356(j)(10).

(m) To document compliance with Condition D.7.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

D.7.13 Reporting Requirements

(a) Pursuant to 40 CFR 61.357, the Permittee shall submit to the US EPA and IDEM, OAQ an annual report containing the following information:

(1) Information updating the report originally submitted pursuant to 40 CFR 61.357 (a)(1) through (a)(3), or a statement that the information has not changed from the following year as specified in 40 CFR 61.357(d)(2).

(2) Summary of all inspections required by condition D.7.9 and D.7.10 during which detectable were measure or a problem that could result in benzene emissions was identified, including information about the repairs or corrective action taken as specified in 40 CFR 61.357(d)(8).

(b) Pursuant to 40 CFR 61.357, the Permittee shall submit to the US EPA and IDEM, OAQ a quarterly report containing the following information:

(1) A certification that all the required inspections have been carried out as required by condition D.7.9 and D.7.10 as specified in 40 CFR 61.357(d)(6).

(2) Each 3-hour period of operation during which the average concentration of organics in the exhaust gases from the carbon adsorption vapor system is more than 20 percent greater than the design concentration level of organics in the exhaust gas as specified in 40 CFR 61.357(d)(7)(iv)(D).

(3) Identifies any period in which the pressure in the waste management unit is equal to or greater than atmospheric pressure if the cover and closed-vent system operate in this manner as specified in 40 CFR 61.357(d)(7)(v).

## SECTION D.8 FACILITY OPERATION CONDITIONS - INSIGNIFICANT ACTIVITIES

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

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2];

(b) Cutting 200,000 linear feet or less of one inch (1") plate or equivalent [326 IAC 6-3-2];

(c) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2]; and

(d) Conveyors as follows [326 IAC 6-3-2]:

(1) Covered conveyors for coal or coke conveying or less than or equal to 360 tons per day;

(2) Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;

(3) Uncovered coal conveying of less than or equal to 120 tons per day; and

(4) Underground conveyors; and

(e) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].

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

(1) One (1) hopper.

(2) One (1) screw conveyor.

(3) One (1) rotary feeder.

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

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

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

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

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

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

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

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

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

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.8.3 Cold Cleaner Degreaser Operation and Control [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs and constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38$^{o}$C) (one hundred degrees Fahrenheit (100$^{o}$F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38$^{o}$C) (one hundred degrees Fahrenheit (100$^{o}$F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38$^{o}$C) (one hundred degrees Fahrenheit (100$^{o}$F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9$^{o}$C) (one hundred twenty degrees Fahrenheit (120$^{o}$F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for a cold cleaning facility constructed after July 1, 1990, the Permittee shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY

## PART 70 OPERATING PERMIT
## CERTIFICATION

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Affidavit (specify)
- ☐ Other (specify)

| |
|---|
| I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.<br><br>Signature: |
| Printed Name: |
| Title/Position: |
| Phone: |
| Date: |

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY

**COMPLIANCE BRANCH**
**100 North Senate Avenue**
**Indianapolis, Indiana 46204-2251**
**Phone: 317-233-0178**
**Fax: 317-233-6865**

## PART 70 OPERATING PERMIT
## EMERGENCY OCCURRENCE REPORT

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002

**This form consists of 2 pages** **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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



| |
|---|
| Date/Time Emergency started: |
| Date/Time Emergency was corrected: |
| Was the facility being properly operated at the time of the emergency? Y N<br>Describe:<br><br>Type of Pollutants Emitted: TSP, PM-10, $SO_2$, VOC, $NO_X$, CO, Pb, other: |
| Estimated amount of pollutant(s) emitted during emergency: |
| Describe the steps taken to mitigate the problem: |
| Describe the corrective actions/response steps taken: |
| Describe the measures taken to minimize emissions: |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

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

## Part 70 Quarterly Report When Combusting Only Fuel Oil

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Coal Mill Fuel Oil Fired Burner
Parameter: Sulfur Dioxide ($SO_2$) from fuel oil combustion
Limit: 0.5 pounds per million Btu heat input

FACILITY: _____ YEAR:

| Month | Monthly Average Fuel Oil Sulfur Content (%) | Monthly Average Fuel Oil Heat Content (MMBtu/lb) | Fuel Oil Consumption (Gallons) | Equivalent Sulfur Dioxide Emissions (lbs/MMBtu) |
|---|---|---|---|---|
| | | | | |
| | | | | |

☐ 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
# COMPLIANCE DATA SECTION

## Part 70 Quarterly Report When Combusting Only Fuel Oil

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Kiln
Parameter: Sulfur Dioxide ($SO_2$) from fuel oil combustion
Limit: 0.5 pounds per million Btu heat input

FACILITY: _____ YEAR:

| Month | Monthly Average Fuel Oil Sulfur Content (%) | Monthly Average Fuel Oil Heat Content (MMBtu/lb) | Fuel Oil Consumption (Gallons) | Equivalent Sulfur Dioxide Emissions (lbs/MMBtu) |
|---|---|---|---|---|
| | | | | |
| | | | | |

☐ 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
# COMPLIANCE DATA SECTION

## Part 70 Quarterly Report When Combusting Coal

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Kiln
Parameter: Sulfur Dioxide ($SO_2$) from coal combustion
Limit: 6.0 pounds per million Btu heat input

FACILITY: _____ YEAR:

| Month | Monthly Average Fuel Oil Sulfur Content (%) | Monthly Average Fuel Oil Heat Content (MMBtu/lb) | Fuel Oil Consumption (Gallons) | Equivalent Sulfur Dioxide Emissions (lbs/MMBtu) |
|---|---|---|---|---|
| | | | | |
| | | | | |

☐ 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
# COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Quarry Activities, Raw Material Sizing, Ball Mill Operation, Fly Ash Storage Activities, and Coal Mill Operation
Parameter: Production
Limit: See table below

YEAR:

| Month | Production Facility | Column 1 | Column 2 | Column 1 + Column 2 | Production Limit, tons per twelve (12) consecutive month period |
|---|---|---|---|---|---|
| | | This Month | Previous 11 Months | 3 Month Total | |
| Month 1 | Overburden Material | | | | 1.2 million overburden |
| | Input to Primary Crusher | | | | 2,262,479 limestone |
| | Input to Secondary Crusher | | | | 2,574,685 slag, bottom ash, sand, shale, limestone, and alternate raw materials |
| | Input to Coal Mill | | | | 313,552 coal |
| | Fly Ash Input to Kiln | | | | 135,289 fly ash |
| Month 2 | Overburden Material | | | | 1.2 million overburden |
| | Input to Primary Crusher | | | | 2,262,479 limestone |
| | Input to Secondary Crusher | | | | 2,574,685 slag, bottom ash, sand, shale, limestone, and alternate raw materials |
| | Input to Coal Mill | | | | 313,552 coal |
| | Fly Ash Input to Kiln | | | | 135,289 fly ash |
| Month 3 | Overburden Material | | | | 1.2 million overburden |
| | Input to Primary Crusher | | | | 2,262,479 limestone |
| | Input to Secondary Crusher | | | | 2,574,685 slag, bottom ash, sand, shale, limestone, and alternate raw materials |
| | Input to Coal Mill | | | | 313,552 coal |
| | Fly Ash Input to Kiln | | | | 135,289 fly ash |

☐ 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
# COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Kiln Operations
Parameter: Production
Limit: See table below

YEAR:

| Month | Production Facility | Column 1 | Column 2 | Column 1 + Column 2 | Production Limit, tons per twelve (12) consecutive month period |
|---|---|---|---|---|---|
| | | This Month | Previous 11 Months | 12 Month Total | |
| Month 1 | Kiln Raw Material Input | | | | 3,149,427 raw feed |
| | Total Coal Input | | | | 313,552 coal |
| | Clinker Production | | | | 1,606,000 clinker |
| Month 2 | Kiln Raw Material Input | | | | 3,149,427 raw feed |
| | Total Coal Input | | | | 313,552 coal |
| | Clinker Production | | | | 1,606,000 clinker |
| Month 3 | Kiln Raw Material Input | | | | 3,149,427 raw feed |
| | Total Coal Input | | | | 313,552 coal |
| | Clinker Production | | | | 1,606,000 clinker |

☐ 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
# COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002
Facility: Finish Mill Operations
Parameter: Production
Limit: See table below

YEAR:

| Month | Production Facility | Column 1 | Column 2 | Column 1 + Column 2 | Production Limit, tons per twelve (12) consecutive month period |
|---|---|---|---|---|---|
| | | This Month | Previous 11 Months | 12 Month Total | |
| Month 1 | Input to No. 1 Finish Mill | | | | 517,942 clinker |
| | Input to No. 2 Finish Mill | | | | 517,942 clinker |
| | Input to No. 3 Finish Mill | | | | 700,567 clinker |
| Month 2 | Input to No. 1 Finish Mill | | | | 517,942 clinker |
| | Input to No. 2 Finish Mill | | | | 517,942 clinker |
| | Input to No. 3 Finish Mill | | | | 700,567 clinker |
| Month 3 | Input to No. 1 Finish Mill | | | | 517,942 clinker |
| | Input to No. 2 Finish Mill | | | | 517,942 clinker |
| | Input to No. 3 Finish Mill | | | | 700,567 clinker |

☐ 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
# COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Source Modification No.: T133-6927-00002
Facility: The alternate raw material feeding system (SF-1)
Parameter: The raw material throughput
Limit: Less than 87,600 tons per twelve (12) consecutive month period

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
# 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: Clinker Resizing Operation
Parameter: Clinker Throughput
Limit: The throughput to clinker resizing operation shall not exceed 50,000 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
# COMPLIANCE DATA SECTION

## PART 70 OPERATING PERMIT
## QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Address: 3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 486, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002

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



| |
|---|
| This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period". |
| ☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD. |
| ☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

# Attachment A

## FUGITIVE DUST CONTROL PLAN

**Lone Star Industries, Inc. dba Buzzi Unicem USA**
**3310 South County Road 150 West**
**Greencastle, Indiana 46135**

The following equipment and operating procedures will be implemented to control fugitive dust:

(a) A mechanical street sweeper is located on site and normally services all of the paved surfaces associated with plant vehicle traffic on a daily basis during periods when there is an elevated blowing road dust potential. This would be expected to cover summer time operations generally, other than rainfall days.

(b) A water spray tanker is also available at the plant and normally services all of the unpaved surfaces associated with quarry vehicle traffic or maintenance truck traffic on a daily basis during the same periods.

(c) Speed limit signs are posted alerting truckers and other personnel to limit vehicle speeds associated with incoming truck traffic for coal deliveries, sand and gypsum deliveries, and other material received in bulk. Limits also apply to automobile and truck traffic from visitors, maintenance ans service companies, employees, etc.

(d) The mean speed limit for quarry haul truck traffic during periods with high blowing road dust potential have been established at 9.6 miles per hour.

(e) Quarry overburden removal, drilling, and blasting operations are not conducted on a continuous basis. During periods of high blowing dust potential, an evaluation will be conducted toward possibilities for rescheduling the work or arranging for additional water spray application to the affected areas.

# Indiana Department of Environmental Management
# Office of Air Quality

## Addendum to the
## Technical Support Document (TSD)
## for a Minor Permit Modification to a Part 70 Operating Permit

**Source Background and Description**

| | |
|---|---|
| Source Name: | Lone Star Industries, Inc. dba Buzzi Unicem USA |
| Source Location: | 3301 South County Road 150 W, Greencastle, IN 46135 |
| County: | Putnam |
| SIC Code: | 3241 |
| Operation Permit No.: | 133-6927-00002 |
| Operation Permit Issuance Date: | April 14, 2004 |
| Minor Permit Modification No.: | 133-23892-00002 |
| Permit Reviewer: | ERG/BL |

On March 9, 2007 the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) had a notice published in the Banner Graphic of Greencastle, Indiana, stating that Lone Star Industries, Inc. dba Buzzi Unicem USA had applied for a modification of the existing kiln operation at the Portland cement manufacturing plant. The notice also stated that IDEM, OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments on the draft permit were submitted by Lone Star Industries, Inc. dba Buzzi Unicem USA on March 22, 2007. The summary of the comments is as follows. New language is in **bold** while deleted language is in ~~strikeout~~. The Table of Contents has been updated as necessary.

**Comment 1:**

Lone Star Industries, Inc. commented that descriptive information for the oxygen enrichment system incorrectly described the location of the oxygen introduction. The oxygen is introduced at two different locations, the pre-calciner and the rotary kiln front end. IDEM also incorrectly stated the construction date; the kiln modification was constructed in 2006.

**Response 1:**

The construction date was not listed in the permit, but the date of construction approval was listed. However, the proposed changes to the permit are acceptable to IDEM. The following descriptive information has been changed at the Permittee's request:

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

---

…

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

…

(2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system

includes one (1) coal-fired calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. An oxygen enrichment system, ~~approved for construction~~ **constructed** in **2006**~~2007~~, introduces oxygen into the first stage pre-calciner **and**~~at~~ 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:

…

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

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

…

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

…

(2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) coal-fired calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. An oxygen enrichment system, ~~approved for construction~~ **constructed** in **2006**~~2007~~, introduces oxygen into the first stage pre-calciner **and**~~at~~ 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:

...

# Indiana Department of Environmental Management
# Office of Air Quality

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

### Source Description and Location

| | |
|---|---|
| Source Name: | Lone Star Industries, Inc. dba Buzzi Unicem USA |
| Source Location: | 3301 South County Road 150 W, Greencastle, IN 46135 |
| County: | Putnam |
| SIC Code: | 3241 |
| Operation Permit No.: | 133-6927-00002 |
| Operation Permit Issuance Date: | April 14, 2004 |
| Minor Permit Modification No.: | 133-23892-00002 |
| Permit Reviewer: | ERG/BL |

### Existing Approvals

The source was issued Part 70 Operating Permit No. T133-6927-00002 on April 14, 2004. The source has since received the following approvals:

(a) Minor Permit Modification No. 133-19255-00002, issued on September 20, 2005;

(b) Administrative Amendment No. 133-21744-00002, issued on October 28, 2005;

(c) Administrative Amendment No. 133-22491-00002, issued on February 13, 2006; and

(d) Administrative Amendment No. 133-23605-00002, issued on December 7, 2006.

### 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) Volatile organic compounds (VOC) 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 the 8-hour ozone standard. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to 8-hour 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.

(b) 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 PM2.5 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.

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

(d) Since this source is classified as a portland cement plant, it is considered to be in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

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

## 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 | Greater than 100 |
| PM10 | Greater than 100 |
| $SO_2$ | Greater than 100 |
| VOC | Less than 100 |
| CO | Greater than 100 |
| $NO_x$ | Greater than 100 |

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is 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 emission calculations included in the TSD for T133-6927-00002 issued April 14, 2002 and have been verified to be accurate.

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

| HAPs | Potential To Emit (tons/year) |
|---|---|
| Hydrochloric acid | greater than 10 |
| Chlorine | 215 |
| Arsenic | 0.26 |
| Beryllium | 0.03 |
| Cadmium | 0.14 |
| Chromium | 5.46 |
| Cobalt | 0.24 |
| Manganese | 9.37 |
| Nickel | 0.71 |
| Lead | 1.17 |
| Antimony | 0.30 |
| Selenium | 0.15 |
| Mercury | 11.3 |
| Naphthalene | 6.95 |
| PCDF | 0.25 |
| Phenol | 8.22 |
| Acetophenone | 10.3 |
| Dibenzofuran | 2.49 |
| Di-n-butyl phthalate | 1.01 |
| Bis(2-ethylhexyl)phthalate | 3.80 |
| Acetonitrile | 26.0 |
| Acrylonitrile | 11.3 |
| Methylene Chloride | 3.87 |

| HAPs | Potential To Emit (tons/year) |
|---|---|
| Benzene | 57.1 |
| Toluene | 21.0 |
| Chlorobenzene | 2.01 |
| Ethylbenzene | 2.48 |
| Xylene | 90.8 |
| Styrene | 9.79 |
| Carbon disulfide | 22.6 |
| Chloroform | 0.31 |
| Carbon tetrachloride | 0.32 |
| TOTAL | Greater than 25 |

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 for 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 | Actual Emissions (tons/year) |
|---|---|
| PM | - |
| PM10 | 68 |
| $SO_2$ | 196 |
| VOC | 0 |
| CO | 509 |
| $NO_x$ | 1,695 |
| HAP (lead) | 0 |

## Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Lone Star Industries, Inc. dba Buzzi Unicem USA on November 14, 2006, relating to modification of the existing kiln operation. Combustion air is currently supplied to the kiln operation from two sources, primary air used as fuel transport and secondary air drawn in from the clinker cooler. The requested change consists of using an oxygen enrichment system installed to establish a more efficient burning zone in the kiln operation. The facility will recognize an approximate 5 to 7 percent increase in clinker production and improved combustion efficiency.

The oxygen enrichment system will introduce oxygen in the first stage pre-calciner and at the front end of the rotary kiln. The system is comprised of two (2) liquid oxygen storage tanks, transport equipment to convey liquid oxygen to the injection points within the kiln burner pipes, and supply and control equipment. The following is the modified emission unit:

(h) Kiln Operation, with a nominal capacity of 360 tons of dry raw feed per hour and 208 tons clinker per hour (new unit shown in bold):

...

(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, approved for construction in 2007, introduces oxygen into the first stage pre-calciner at 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:

## Enforcement Issues

There are no pending enforcement actions related to this modification.

## Emission Calculations

See Appendix A of this document for detailed emission calculations.

## 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."

Clinker production is currently limited to 1,606,000 tons/yr. There will be no change in this limit as a result of the proposed change. Therefore, the potential to emit of this facility will not be affected by the addition of the oxygen enrichment system, and pursuant to 326 IAC 2-7-12, this change to the permit will be processed as a minor permit modification as the revision will not trigger a new requirement or violate a permit term and is not required to be processed as a significant modification.

## Permit Level Determination – PSD

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

The following table reflects the projected sourcewide emission increases resulting from the increase in clinker production:

| Pollutant | Actual Emissions* (tons/year) | Projected Actual Emissions** (tons/year) | Difference (tons/year) |
|---|---|---|---|
| PM | 89.4 | 98.3 | 8.95 |
| PM10 | 85.0 | 93.5 | 8.50 |
| $SO_2$ | 180 | 180 | 0 |
| VOC | 0 | 0 | 0 |
| CO | 613 | 600 | (13) |
| $NO_X$ | 1,969 | 1,773 | (196) |
| Beryllium | $4.20 \times 10^{-4}$ | $4.62 \times 10^{-4}$ | $4.18 \times 10^{-5}$ |
| Lead | $3.56 \times 10^{-3}$ | $3.91 \times 10^{-3}$ | $3.54 \times 10^{-4}$ |
| Mercury | $1.18 \times 10^{-5}$ | $1.29 \times 10^{-5}$ | $1.17 \times 10^{-6}$ |
| Combined HAPs | $1.43 \times 10^{-2}$*** | $1.57 \times 10^{-2}$ | $1.42 \times 10^{-3}$ |

* Actual Emissions reported by source reflect various emission units and data sources: $NO_X$ and $SO_2$ actual emissions are an average of 24-consecutive months of continuous emission monitoring (CEM) data, CO emissions were calcuated from stack testing results, and particulate (PM/PM10) emissions were calculated on a combination of stack testing and AP-42 emission factors.

** Projected Actual Emissions of CO and $NO_X$ are based on an emission assessment conducted at a comparable facility that employed oxygen enrichment. PM/PM10 projected actual emissions are

based on a ten (10) percent increase in production. There is no expected change to $SO_2$, VOC, or HAP emissions.

*** The NESHAP for Hazardous Waste Combustors (40 CFR 63 Subpart EEE) requires the source to analyze their slag, fly ash, coal, and slurry for metal HAPs (Arsenic, Beryllium, Cadmium, Chromium, and Lead) on a monthly basis. Long term concentration data from the four (4) feedstreams shows that fly ash contains the highest concentration of metal HAP. To estimate a worst case increase in metal HAP emissions from the proposed oxygen enrichment system, the metal HAP concentration data observed in the fly ash has been applied to the actual and projected PM emissions.

## Federal Rule Applicability Determination

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) Hazardous waste is one type of fuel used in the cement kiln operation at this source. The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) from Hazardous Waste Combustors (40 CFR 63 Subpart EEE) are not affected by this source modification for the kiln operation because the oxygen enrichment system will not adversely effect compliance with emission standards or operating requirements.

(c) During periods of operation when hazardous waste is not in the combustion chamber, the source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) from the Portland Cement Manufacturing Industry (40 CFR 63 Subpart LLL). This change in operations will not affect either the PM or D/F standards under Subpart LLL and a performance test to establish new temperature limits is not required.

(d) The requirements of the National Emission Standard for Benzene Waste Operations (40 CFR Part 61, Subpart FF) are not included in this source modification because the modification will not adversely effect the destruction efficiency for benzene.

(e) 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.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

| Emission Unit (Pollutant) | Control Device Used | Emission Limitation (Y/N) | Uncontrolled PTE (tons/year) | Controlled PTE (tons/year) | Major Source Threshold (tons/year) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|---|---|---|---|---|---|---|---|
| Kiln Operation ($SO_2$) | NA | Y | 3,763 | 3,316 [a] | 100 | N | Y |
| Kiln Operation ($NO_X$) | NA | Y | 4,983 | 4,392 [a] | 100 | N | Y |
| Kiln Operation (CO) | NA | Y | 3,325 | 2,930 [a] | 100 | N | Y |

a - Pursuant to CP133-10159-00002, issued on April 16, 1999 the clinker production is limited to 1,606,000 tons/yr. This limit ensured that the 1999 modification did not exceed 326 IAC 2-2 (PSD) thresholds.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the modified units as part of this modication. Athough the kiln operation has the potential to emit before controls equal to or greater than the major source threshold for the pollutant involved and is subject to an emission limitation, the kiln operation does not use a control device to comply with

emission limitations. The electrostatic precipitator (identified as 402L) is not used to control $SO_2$, $NO_X$ or CO. The low-NOx calciner installed on the preheater, precalciner cement kiln (3-1A, 401B) does not qualify as a control device.

## State Rule Applicability Determination

State rules and compliance monitoring applicabilities shall remain unchanged as a result of this modification.

## Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 133-6927-00002. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. Section A.1 has been updated to remove the responsible official:

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.

~~Responsible Official: Plant Manager~~

...

2. Section A.2 has been updated to include modification to the emission unit 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:

...

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

...

(2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) coal-fired calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. **An oxygen enrichment system, approved for construction in 2007, introduces oxygen into the first stage pre-calciner at 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:

3. Section B.24 has been updated to clarify credible evidence requirements.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

~~Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.~~ **For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.**

4. Section C.4 has been updated to clarify that 326 IAC 9-1-2 is federally enforceable.

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

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

5. Section C.21(c) has been updated to clarify recordkeeping requirements.

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

. . .

(c) If there is a ~~reasonable possibility that a~~ "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, ~~other than projects at a Clean Unit~~ **or at a source with Plantwide Applicability Limitation (PAL),** which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee)) ~~may result in significant emissions increase~~ and the Permittee elects to utilizes "projected actual emissions" (as defined in 326 IAC 2-2-1(rr)), the Permittee shall comply with the following:

. . .

6. Section D.4 has been updated to include modification to the emission unit as follows:

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

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

. .

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

. . .

(2) One (1) pre-heater, pre-calciner Portland cement kiln, originally constructed in 1966 and modified to the semi-dry system in 2000. The semi-dry kiln system includes one (1) coal-fired calciner tower with staged combustion, identified as Point 3-1B (440PH), and one (1) rotary kiln, identified as Point 3-1A (401B), with a combined nominal rated capacity of 827 million British thermal units per hour. **An oxygen enrichment system, approved for construction in 2007, introduces oxygen into the first stage pre-calciner at 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:

. . .

7. All references to IDEM, OAQ's mailing address and contact numbers have been revised as follows:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
**OFFICE OF AIR QUALITY**
**COMPLIANCE BRANCH**
**100 North Senate Avenue**
**Indianapolis, Indiana 46204-2251**
**Phone: 317-233-~~5674~~ 0178**
**Fax: 317-233-~~5967~~ 6865**

**PART 70 OPERATING PERMIT**
**EMERGENCY OCCURRENCE REPORT**

Source Name: Lone Star Industries, Inc. dba Buzzi Unicem USA

. . .

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-~~5674~~**0178**, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-~~5674~~**6865**), and follow the other requirements of 326 IAC 2-7-16.

## Conclusion and Recommendation

This proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Permit Modification No. 133-23892-00002. The staff recommends to the Commissioner that this Part 70 Minor Permit Modification be approved.

**Appendix A: Emission Calculations**
**Actual-To-Projected-Actual Applicability Test Results for Particulate**

**Company Name:** Lone Star Industries, Inc. dba Buzzi Unicem USA
**Address:** 3301 South County Road 150 W, Greencastle, IN 46135
**Title V, MPM:** 133-23892-00002
**Reviewer:** ERG/BL
**Date:** December 7, 2006

| Emission Unit | ID | PM Emission Factor * | | PM10 Emission Factor ** | | Flowrate | Throughput | Expected Increases in Actual | Expected Increases in Actual |
|---|---|---|---|---|---|---|---|---|---|
| | | (lb/ton) | (gr/acf) | (lb/ton) | (gr/acf) | (acfm) | (tons/yr) | PM Emissions (lbs/yr) | PM10 Emissions (lbs/yr) |
| **Quarry Activities** | | | | | | | | | |
| Removal Overburden (wms) | | 0.00053 | | 0.00025 | | | | | |
| Drilling/Blasting (wms) | | 0.00017 | | 0.00008 | | | 1848477 | 31.4 | 14.8 |
| Loading Stone (wms) | | 0.00053 | | 0.00025 | | | 1848477 | 98.0 | 46.2 |
| Haul Roads (wms) * | | 0.66950 | | 0.30130 | | | 1232 | 825 | 371 |
| **Raw Material Sizing** | | | | | | | | | |
| Primary Crusher (wms) | 201G | 0.00007 | | 0.00003 | | | 1848477 | 12.9 | 5.55 |
| Vibrating Feeder (wms) | 201V | 0.00029 | | 0.00014 | | | 1848477 | 53.6 | 25.9 |
| Outside Storage Pile (wms) | | 0.00053 | | 0.00025 | | | 130000 | 6.89 | 3.25 |
| Apron Feeder (wms) | 206V | 0.00029 | | 0.00014 | | | 1848477 | 53.6 | 25.9 |
| Belt Conveyor (wms) | 214V | | | | | | | | |
| Vibrating Feeder (wms) | 202V | 0.00029 | | 0.00014 | | | 1848477 | 53.6 | 25.9 |
| Vibrating Feeder (wms) | 203V | | | | | | | | |
| Vibrating Feeder (wms) | 204V | | | | | | | | |
| Belt Conveyor (209L) | 215V | | 0.01500 | | 0.01500 | 12480 | 1848477 | 1,123 | 1,123 |
| Belt Conveyor (209L) | 305V | | | | | | | | |
| Belt Conveyor (209L) | 251V | | | | | | | | |
| Belt Conveyor (208L1) | 202G2V2 | | 0.00163 | | 0.00163 | 18000 | 2066413 | 176 | 176 |
| Screen (208L1) | 205G | | | | | | | | |
| Crusher (208L1) | 202G2 | | | | | | | | |
| Belt Conveyor (208L1) | 202G2V3 | | | | | | | | |
| Apron Feeder (wms) | 202G2V1 | 0.00029 | | 0.00014 | | | 2066413 | 59.9 | 28.9 |
| Belt Conveyor (208L) | 202G1V1 | | 0.00164 | | 0.00164 | 18000 | 2066413 | 177 | 177 |
| Crusher (208L) | 202G1 | | | | | | | | |
| Belt Conveyor (208L) | 202G1V2 | | | | | | | | |
| Belt Conveyor (208L) | 202GV2 | | | | | | | | |
| Screen (210L) | 204G | | 0.00136 | | 0.00136 | 18000 | 2066413 | 147 | 147 |
| Belt Conveyor (210L) | 202GV3 | | | | | | | | |
| Belt Conveyor (210L) | 202GV | | | | | | | | |

* Expected increase in actual emissions from hauling was calculated based on the PM/PM emission factor of 0.6695 pounds per vehicle mile traveled (VMT) and the annual distance traveled by trucks from blasted rock to the primary crusher: Actual Quarry Throughput (1,848,477 tons/yr) * Proposed Increase (10%) / Truck Capacity (75 tons) * Distance Traveled (1/4 mile) * 2 (round trip) = 1,232 VMT
A three percent increase in coal mill operation can accommodate ten percent increase in clinker production. A ten percent increase in annual clinker production equates to an increase in operation hours of 700 hours plant wide.
**PM10 is a surrogate for PM2.5

**Methodology**
Expected Increases in Actual Particulate PTE (lbs/yr) = Emission Factor (lb/ton) * Throughput (tons/yr) * Production Increase (%)
Expected Increases in Actual Particulate PTE (lbs/yr) = Emission Factor (gr/acf) * Flowrate (acfm) * 60 min/1hr * Production Increase (hr/yr)

**Actual-To-Projected-Actual Applicability Test Results for Particulate (Continued)**

| Emission Unit | ID | PM Emission Factor * (lb/ton) | PM Emission Factor * (gr/acf) | PM10 Emission Factor ** (lb/ton) | PM10 Emission Factor ** (gr/acf) | Flowrate (acfm) | Throughput (tons/yr) | Expected Increases in Actual PM Emissions (lbs/yr) | Expected Increases in Actual PM10 Emissions (lbs/yr) |
|---|---|---|---|---|---|---|---|---|---|
| **Raw Mill Operation** | | | | | | | | | |
| Belt Conveyor (350L) | 252V | | 0.01000 | | 0.01000 | 13140 | 2204276 | 788 | 788 |
| Belt Conveyor (350L) | 253V | | | | | | | | |
| Belt Conveyor (350L) | 254V | | | | | | | | |
| Belt Conveyor (350L) | 255V | | | | | | | | |
| Raw Material Bin (350L) | 350F | | | | | | | | |
| Raw Material Bin (350L) | 351F | | | | | | | | |
| Raw Material Bin (350L) | 352F | | | | | | | | |
| Raw Material Bin (350L) | 353F | | | | | | | | |
| weigh feeder (BE) | 350V | 0.00053 | | 0.00025 | | | 2204276 | 117 | 55.1 |
| weigh feeder (BE) | 351V | | | | | | | | |
| weigh feeder (BE) | 352V | | | | | | | | |
| weigh feeder (BE) | 353V | | | | | | | | |
| Belt Conveyor (BE) | 358V | | | | | | | | |
| Apron Feeder (BE) | 350V1 | | | | | | | | |
| Apron Feeder (BE) | 351V1 | | | | | | | | |
| Scavenger Conveyor (BE) | 350V2 | | | | | | | | |
| Scavenger Conveyor (BE) | 351V2 | | | | | | | | |
| **Fly Ash Storage** | | | | | | | | | |
| Screw Conveyor (274L) | 273V | | 0.01000 | | 0.01000 | 3000 | | 180 | 180 |
| Screw Conveyor (274L) | 274V | | | | | | | | |
| Hopper (274L) | 273F | | | | | | | | |
| Hopper (274L) | 273FA | | | | | | | | |
| Fly Ash Silo (271L) | 270F | | 0.01000 | | 0.01000 | 1500 | | 90.0 | 90.0 |
| Fly Ash Silo (271L) | 271F | | | | | | | | |
| Additive Silo (319L) | 318F | | 0.02000 | | 0.02000 | 1700 | | 204 | 204 |
| Additive Silo (319L) | 328F | | | | | | | | |
| Rotary Feeder (319L) | 318V | | | | | | | | |
| Rotary Feeder (319L) | 318VV | | | | | | | | |
| Rotary Feeder (319L) | 328V | | | | | | | | |
| Rotary Feeder (319L) | 328VV | | | | | | | | |
| Additive Feed Bin (BE) | 308F | 0.00015 | | 0.00007 | | | 98415 | 1.48 | 0.69 |
| Rotary Feeder (BE) | 308V | 0.00015 | | 0.00007 | | | 98415 | 1.48 | 0.69 |
| Rotary Feeder (BE) | 308VV | | | | | | | | |
| Weigh Belt (BE) | 309V | | | | | | | | |

Methodology is the same as page 1.

**Actual-To-Projected-Actual Applicability Test Results for Particulate (Continued)**

| Emission Unit | ID | PM Emission Factor * | | PM10 Emission Factor ** | | Flowrate | Throughput | Expected Increases in Actual | Expected Increases in Actual |
|---|---|---|---|---|---|---|---|---|---|
| | | (lb/ton) | (gr/acf) | (lb/ton) | (gr/acf) | (acfm) | (tons/yr) | PM Emissions (lbs/yr) | PM10 Emissions (lbs/yr) |
| **Coal Mill Operation** | | | | | | | | | |
| Coal Storage Pile (BE) | 2.1 | 0.00053 | | 0.00007 | | | 10288 | 0.16 | 0.02 |
| Vibrating Feeder (WMs,BE) | 209V | 0.00029 | | 0.00014 | | | 212756 | 1.85 | 0.89 |
| Vibrating Feeder (WMs,BE) | 210V | | | | | | | | |
| Vibrating Feeder (WMs,BE) | 211V | | | | | | | | |
| Vibrating Feeder (WMs,BE) | 213V | | | | | | | | |
| Belt Conveyor (WMS,BE) | 222V | | | | | | | | |
| Coal Grizzly (WMS,BE) | 223V | | | | | | | | |
| Belt Conveyor (BE) | 420V | 0.00029 | | 0.00014 | | | 212756 | 1.85 | 0.89 |
| Belt Conveyor (420L2) | 420V3 | | 0.01000 | | 0.01000 | 2000 | 212756 | 120 | 120 |
| Belt Conveyor (420 L1) | 420V1 | | 0.01000 | | 0.01000 | 2000 | 212756 | 120 | 120 |
| Reject Pile (WMS) | 2.3 | 0.00032 | | 0.00016 | | | 1 | 9.60E-06 | 4.80E-06 |
| Reject Pile (WMS) | 2.5 | 0.00032 | | 0.00016 | | | 1 | 9.60E-06 | 4.80E-06 |
| Raw Coal Bin (435L) | 435F | | 0.01000 | | 0.01000 | 1400 | 212756 | 84.0 | 84.0 |
| weigh feeder (BE) | 435V | 0.00015 | | 0.00007 | | | 212756 | | |
| Conveyor Belt (BE) | 436V | | | | | | | | |
| Coal Mill (436L) | 436G | | 0.00361 | | 0.00361 | 29200 | 212756 | 632 | 632 |
| Screw Conveyor (436L) | 436LV | | | | | | | | |
| Screw Conveyor (436L) | 436LV1 | | | | | | | | |
| Screw Conveyor (436L) | 436GV1 | | | | | | | | |
| Screw Conveyor (438L) | 437V | | 0.01000 | | 0.01000 | 176 | 212756 | 10.6 | 10.6 |
| Screw Conveyor (438L) | 438V | | | | | | | | |
| Rotary Feeder (438L) | 436LVV | | | | | | | | |
| Rotary Feeder (438L) | 436L1VV | | | | | | | | |
| Pulverized Coal Bin (438L) | 438F | | | | | | | | |
| **Alt. Raw Material Feed Sys.** | | | | | | | | | |
| Slag Pile (WMS) | 1.13 | 0.00053 | | 0.00029 | | | 2334 | 0.12 | 0.07 |
| Loading Hopper (WMS) | 485F | 0.00053 | | 0.00029 | | | 29366 | 1.56 | 0.85 |
| Loading Hopper (WMS) | 486F | | | | | | | | |
| Loading Hopper (WMS) | 487F | | | | | | | | |
| Loading Hopper (WMS) | 488F | | | | | | | | |
| Belt Conveyor (BE) | 485V | 0.00053 | | 0.00029 | | | 29366 | 1.56 | 0.85 |
| Belt Conveyor (BE) | 486V | | | | | | | | |
| Belt Conveyor (BE) | 487V | | | | | | | | |
| Belt Conveyor (BE) | 488V | | | | | | | | |
| Belt Conveyor (BE) | 487F | | | | | | | | |
| Belt Conveyor (BE) | 488F | | | | | | | | |
| Weight Belt (BE) | 489V | | | | | | | | |
| Bucket Elevator (BE) | 492V | | | | | | | | |
| Screw Conveyor (BE) | 495V | | | | | | | | |

Methodology is the same as page 1.

**Actual-To-Projected-Actual Applicability Test Results for Particulate (Continued)**

| Emission Unit | ID | PM Emission Factor * (lb/ton) | PM Emission Factor * (gr/acf) | PM10 Emission Factor ** (lb/ton) | PM10 Emission Factor ** (gr/acf) | Flowrate (acfm) | Throughput (tons/yr) | Expected Increases in Actual PM Emissions (lbs/yr) | Expected Increases in Actual PM10 Emissions (lbs/yr) |
|---|---|---|---|---|---|---|---|---|---|
| **Finish Mill Operations** | | | | | | | | | |
| Vibrating Feeder (505L) | 504V | | 0.01000 | | 0.01000 | 4600 | | 276 | 276 |
| Vibrating Feeder (505L) | 505V | | | | | | | | |
| Vibrating Feeder (505L) | 506V | | | | | | | | |
| Vibrating Feeder (505L) | 507V | | | | | | | | |
| Vibrating Feeder (504L) | 501V | | 0.01000 | | 0.01000 | 4600 | | 276 | 276 |
| Vibrating Feeder (504L) | 502V | | | | | | | | |
| Vibrating Feeder (504L) | 503V | | | | | | | | |
| Vibrating Feeder (504L) | 508V | | | | | | | | |
| Belt Conveyor (504L) | 221V | | | | | | | | |
| Belt Conveyor (513L) | 511V | | 0.01000 | | 0.01000 | 7500 | | 450 | 450 |
| Belt Conveyor (513L) | 514V | | | | | | | | |
| Bucket Elevator (513L) | 513V | | | | | | | | |
| Belt Conveyor (513L) | 511V2 | | | | | | | | |
| Belt Conveyor (515L) | 515V | | 0.01000 | | 0.01000 | 7000 | | 420 | 420 |
| Silo (515L) | 650 | | | | | | | | |
| Silo (515L) | 651 | | | | | | | | |
| Silo (515L) | 652 | | | | | | | | |
| Silo (515L) | 653A | | | | | | | | |
| Belt Conveyor (516L) | 516V | | 0.01000 | | 0.01000 | 2000 | | 120 | 120 |

**Kiln**
**Clinker Cooler**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Finish Mill 1** | | | | | | | | | |
| Belt Conveyor (617L) | 639V | | 0.01000 | | 0.01000 | 7600 | | 456 | 456 |
| Belt Conveyor (617L) | 640V | | | | | | | | |
| Clinker Bin (617L) | 601F | | | | | | | | |
| Gypsum Bin (617L) | 603F | | | | | | | | |
| Spill Screw (617L) | 646V | | | | | | | | |
| Belt Conveyor (617L) | 614V | | | | | | | | |
| Finish Mill (613L) | 603G | | 0.00460 | | 0.00460 | 12096 | | 334 | 334 |
| Elevator (613L) | 626V | | | | | | | | |
| Spill screw (613L) | 642V | | | | | | | | |
| Air Separator (606L) | 605G | | 0.00281 | | 0.00281 | 75000 | | 1,265 | 1,265 |
| Tailing Screw (606L) | 613V | | | | | | | | |
| Cement Cooler (606L) | 603C | | | | | | | | |
| Cement Cooler (606L) | 604C | | | | | | | | |
| F.K.Pump Hopper (606L) | 611F | | | | | | | | |
| Mill Feed Belt (606L) | 641V | | | | | | | | |
| Clinker Belt (606L) | 601V | | | | | | | | |
| Fringe Bin (605L) | 604F | | 0.01000 | | 0.01000 | 1308 | | 78.5 | 78.5 |
| Screw Feeder (605L) | 611V | | | | | | | | |
| Screw Feeder (605L) | 604F1V | | | | | | | | |
| Weigh Belt (BE) | 605V | 0.00053 | | 0.00029 | | | 284180 | 15.1 | 8.24 |
| Belt Conveyor (BE) | 616V | | | | | | | | |

Methodology is the same as page 1.

**Actual-To-Projected-Actual Applicability Test Results for Particulate (Continued)**

| Emission Unit | ID | PM Emission Factor * (lb/ton) | PM Emission Factor * (gr/acf) | PM10 Emission Factor ** (lb/ton) | PM10 Emission Factor ** (gr/acf) | Flowrate (acfm) | Throughput (tons/yr) | Expected Increases in Actual PM Emissions (lbs/yr) | Expected Increases in Actual PM10 Emissions (lbs/yr) |
|---|---|---|---|---|---|---|---|---|---|
| **Finish Mill 2** | | | | | | | | | |
| Belt Conveyor (636L) | 639V | | 0.01000 | | 0.01000 | 6507 | | 390 | 390 |
| Belt Conveyor (636L) | 640V | | | | | | | | |
| Clinker Bin (636L) | 602F | | | | | | | | |
| Gypsum Bin (636L) | 603F | | | | | | | | |
| Clinker Belt (636L) | 602V | | | | | | | | |
| Feed Belt (636L) | 646V | | | | | | | | |
| Finish Mill (603L) | 602G | | 0.00438 | | 0.00438 | 12096 | | 318 | 318 |
| Spill Screw (603L) | 645V | | | | | | | | |
| Air Separator (602L) | 604G | | 0.00242 | | 0.00242 | 12096 | | 176 | 176 |
| Elevator (602L) | 621V | | | | | | | | |
| Tailing Screw (602L) | 612V | | | | | | | | |
| Cement Cooler (602L) | 601C | | | | | | | | |
| Cement Cooler (602L) | 602C | | | | | | | | |
| F.K. Pump Hopper (602L) | 610F | | | | | | | | |
| Mill Feed Belt (602L) | 644V | | | | | | | | |
| **Finish Mill 3** | | | | | | | | | |
| Finish Mill 3 (660L) | 660G | | 0.00248 | | 0.00248 | 20300 | | 302 | 302 |
| Hopper (661L) | 667F | | 0.01000 | | 0.01000 | 2500 | | 150 | 150 |
| Cement Cooler (661L) | 664C | | | | | | | | |
| Feed Belt (661L) | 654V | | | | | | | | |
| Fringe Bin (665L) | 665F | | 0.01000 | | 0.01000 | 4000 | | 240 | 240 |
| Elevator (665L) | 661V | | | | | | | | |
| Rotary Feeder (665L) | 665FV | | | | | | | | |
| Separator (664L) | 664G | | 0.00149 | | 0.00149 | 78000 | | 697 | 697 |
| Weigh Feeder (650L) | 652V | | 0.01000 | | 0.01000 | 896 | | 53.8 | 53.8 |
| Weigh Feeder (650L) | 653V | | | | | | | | |
| Weigh Feeder (651L) | 620V | | 0.01000 | | 0.01000 | 896 | | 53.8 | 53.8 |
| Weigh Feeder (651L) | 651V | | | | | | | | |

Methodology is the same as page 1.

**Actual-To-Projected-Actual Applicability Test Results for Particulate (Continued)**

| Emission Unit | ID | PM Emission Factor * | | PM10 Emission Factor ** | | Flowrate | Throughput | Expected Increases in Actual | Expected Increases in Actual |
|---|---|---|---|---|---|---|---|---|---|
| | | (lb/ton) | (gr/acf) | (lb/ton) | (gr/acf) | (acfm) | (tons/yr) | PM Emissions (lbs/yr) | PM10 Emissions (lbs/yr) |
| **Cement Storage, Loading** | | | | | | | | | |
| **Packaging** | | | | | | | | | |
| Group 5 Silo (757L) | 705A | | 0.00048 | | 0.00048 | 10000 | | 29.0 | 29.0 |
| Group 5 Silo (757L) | 707A | | | | | | | | |
| Group 5 Silo (757L) | 709A | | | | | | | | |
| Group 5 Silo (758L) | 706A | | 0.01000 | | 0.01000 | 10000 | | 600 | 600 |
| Group 5 Silo (758L) | 708A | | | | | | | | |
| Group 5 Silo (758L) | 710A | | | | | | | | |
| Group 4 Silo (702L) | 702A | | 0.01000 | | 0.01000 | 10000 | | 600 | 600 |
| Group 4 Silo (702L) | 704A | | | | | | | | |
| Group 4 Silo (701L) | 701A | | 0.01000 | | 0.01000 | 10000 | | 600 | 600 |
| Group 4 Silo (701L) | 703A | | | | | | | | |
| Silo (713L) | 711A | | 0.01000 | | 0.01000 | 1860 | | 112 | 112 |
| Silo (713L) | 712A | | | | | | | | |
| Screen (703L) | 701G | | 0.01000 | | 0.01000 | 3450 | | 207 | 207 |
| Truck Loader (703L) | 708L | | | | | | | | |
| screen (706L) | 702G | | 0.01000 | | 0.01000 | 3450 | | 207 | 207 |
| Railcar/truck Loader (706L) | 709L | | | | | | | | |
| Hopper (710L) | 701F | | 0.01000 | | 0.01000 | 5000 | | 300 | 300 |
| Hopper (715L) | 730F | | 0.00012 | | 0.00012 | 10944 | | 8.14 | 8.14 |
| Screw Conveyor (808L) | 809V | | 0.01000 | | 0.01000 | 5000 | | 300 | 300 |
| Screw Conveyor (808L) | 809V1 | | | | | | | | |
| Screw Conveyor (808L) | 809V2 | | | | | | | | |
| Group 2 Silo (808L) | 2S | | | | | | | | |
| Group 2 Silo (808L) | 3S | | | | | | | | |
| Group 2 Silo (808L) | 4S | | | | | | | | |
| Group 2 Silo (808L) | 5S | | | | | | | | |
| Group 2 Silo (808L) | 6S | | | | | | | | |
| Group 2 Silo (808L) | 7S | | | | | | | | |
| Group 2 Silo (808L) | 9S | | | | | | | | |
| Group 2 Silo (808L) | 11S | | | | | | | | |
| Group 2 Silo (808L) | 12S | | | | | | | | |
| Group 2 Silo (808L) | 13S | | | | | | | | |
| Group 2 Silo (808L) | 14S | | | | | | | | |
| Group 2 Silo (808L) | 15S | | | | | | | | |
| Group 2 Silo (808L) | 16S | | | | | | | | |
| Group 2 Silo (808L) | 17S | | | | | | | | |
| Silo (810L) | 10S | | 0.01000 | | 0.01000 | 2094 | | 126 | 126 |
| Group 3 Silo (27DC) | 26S | | 0.01000 | | 0.01000 | 1633 | | 98.0 | 98.0 |
| Group 3 Silo (27DC) | 27S | | | | | | | | |
| Group 3 Silo (27DC) | 28S | | | | | | | | |
| Group 3 Silo (27DC) | 29S | | | | | | | | |
| Group 3 Silo (22DC) | 18S | | 0.01000 | | 0.01000 | 1633 | | 98.0 | 98.0 |
| Group 3 Silo (22DC) | 20S | | | | | | | | |
| Group 3 Silo (22DC) | 22S | | | | | | | | |
| Group 3 Silo (24DC) | 24S | | 0.01000 | | 0.01000 | 1633 | | 98.0 | 98.0 |
| Group 3 Silo (24DC) | 30S | | | | | | | | |
| Group 3 Silo (25DC) | 19S | | 0.01000 | | 0.01000 | 1633 | | 98.0 | 98.0 |
| Group 3 Silo (25DC) | 21S | | | | | | | | |
| Group 3 Silo (25DC) | 23S | | | | | | | | |
| Group 3 Silo (25DC) | 25S | | | | | | | | |
| Screen (BE) | 829V2 | 0.00015 | | 0.00006 | | | 200000 | 3.00 | 1.20 |

Methodology is the same as page 1.

**Actual-To-Projected-Actual Applicability Test Results for Particulate (Continued)**

| Emission Unit | ID | PM Emission Factor * (lb/ton) | PM Emission Factor * (gr/acf) | PM10 Emission Factor ** (lb/ton) | PM10 Emission Factor ** (gr/acf) | Flowrate (acfm) | Throughput (tons/yr) | Expected Increases in Actual PM Emissions (lbs/yr) | Expected Increases in Actual PM10 Emissions (lbs/yr) |
|---|---|---|---|---|---|---|---|---|---|
| **Cement Storage, Loading** | | | | | | | | | |
| **Packaging (Continued)** | | | | | | | | | |
| Elevator (BE) | 829V1 | 0.00015 | | 0.00006 | | | 200000 | 3.00 | 1.20 |
| Bulk Tank (833L) | 831F | | 0.01000 | | 0.01000 | 5500 | | 330 | 330 |
| Bulk Tank (833L) | 833F | | | | | | | | |
| Truck Loader (833L) | 5-23C | | | | | | | | |
| Bulk Tank (835L) | 832F | | 0.01000 | | 0.01000 | 5500 | | 330 | 330 |
| Bulk Tank (835L) | 834F | | | | | | | | |
| Bulk Tank (835L) | 835F | | | | | | | | |
| Silo (782L) | 782F | | 0.01000 | | 0.01000 | 7776 | | 467 | 467 |
| Bucket Elevator (782L) | 781V | | | | | | | | |
| Lump Breaker (783L) | 783V3 | | 0.01000 | | 0.01000 | 4704 | | 282 | 282 |
| Spout (783L) | 785L | | | | | | | | |
| Truck Loader (783L) | 5-27D | | | | | | | | |
| Lump Breaker (784L) | 784V3 | | 0.01000 | | 0.01000 | 4704 | | 282 | 282 |
| Spout (784L) | 786L | | | | | | | | |
| Truck Loader (784L) | 5-28D | | | | | | | | |
| Screw Conveyor (BE) | 755V | 0.00015 | | 0.00006 | | | 200000 | 3.00 | 1.20 |
| Screw Conveyor (BE) | 759V | | | | | | | | |
| Screw Conveyor (BE) | 760V | | | | | | | | |
| Screw Conveyor (BE) | 761V | | | | | | | | |
| Screw Conveyor (BE) | 762V | | | | | | | | |
| Rotary Feeder (BE) | 755M | | | | | | | | |
| Rotary Feeder (BE) | 756M | | | | | | | | |
| Rotary Feeder (BE) | 757M | | | | | | | | |
| Rotary Feeder (BE) | 758M | | | | | | | | |
| Rotary Feeder (BE) | 759M | | | | | | | | |
| Rotary Feeder (BE) | 760M | | | | | | | | |
| Hopper (BE) | 750F | | | | | | | | |
| Screw Conveyor (BE) | 818V1 | 0.00015 | | 0.00006 | | | 200000 | 3.00 | 1.20 |
| Screw Conveyor (BE) | 819V1 | | | | | | | | |
| Screw Conveyor (BE) | 820V1 | | | | | | | | |
| Screw Conveyor (BE) | 821V1 | | | | | | | | |
| Screw Conveyor (BE) | 822V1 | | | | | | | | |
| Screw Conveyor (BE) | 823V1 | | | | | | | | |
| Screw Conveyor (BE) | 824V1 | | | | | | | | |
| Screw Conveyor (BE) | 825V1 | | | | | | | | |
| Screw Conveyor (BE) | 818V2 | | | | | | | | |
| Screw Conveyor (BE) | 819V2 | | | | | | | | |
| Screw Conveyor (BE) | 820V2 | | | | | | | | |
| Screw Conveyor (BE) | 821V2 | | | | | | | | |
| Screw Conveyor (BE) | 822V2 | | | | | | | | |
| Screw Conveyor (BE) | 823V2 | | | | | | | | |
| Screw Conveyor (BE) | 824V2 | | | | | | | | |
| Screw Conveyor (BE) | 825V2 | | | | | | | | |
| Screw Conveyor (BE) | 828V1 | | | | | | | | |
| Screw Conveyor (BE) | 828V2 | | | | | | | | |
| Screw Conveyor (BE) | 830V | | | | | | | | |
| Screen Screws (BE) | 806V | | | | | | | | |
| Screen Screws (BE) | 829V4 | | | | | | | | |
| Screen Screws (BE) | 830V1 | | | | | | | | |

Methodology is the same as page 1.

**Actual-To-Projected-Actual Applicability Test Results for Particulate (Continued)**

| Emission Unit | ID | PM Emission Factor * (lb/ton) | PM Emission Factor * (gr/acf) | PM10 Emission Factor ** (lb/ton) | PM10 Emission Factor ** (gr/acf) | Flowrate (acfm) | Throughput (tons/yr) | Expected Increases in Actual PM Emissions (lbs/yr) | Expected Increases in Actual PM10 Emissions (lbs/yr) |
|---|---|---|---|---|---|---|---|---|---|
| **Blend Facility** | | | | | | | | | |
| Screw Conveyor (BE) | 22SC | 0.00015 | | 0.00006 | | | 200000 | 3.00 | 1.20 |
| Screw Conveyor (BE) | 24SCG | | | | | | | | |
| Screw Conveyor (BE) | 24SCG | | | | | | | | |
| Screw Conveyor (BE) | 30SC | | | | | | | | |
| Screw Conveyor (BE) | 31SC | | | | | | | | |
| Transfer Pod (22PVDC) | 5.36 | | 0.01000 | | 0.01000 | 100 | | 6.00 | 6.00 |
| Transfer Pod (24PVDC-G) | 5.37 | | 0.01000 | | 0.01000 | 100 | | 6.00 | 6.00 |
| Transfer Pod (24PVDC) | 5.38 | | 0.01000 | | 0.01000 | 100 | | 6.00 | 6.00 |
| Transfer Pod (30PVDC) | 5.39 | | 0.01000 | | 0.01000 | 100 | | 6.00 | 6.00 |
| Receiving Tank (40DC) | 5.40 | | 0.01000 | | 0.01000 | 1633 | | 98.0 | 98.0 |
| Blending Tank (41DC) | 5.41A | | 0.01000 | | 0.01000 | 1633 | | 98.0 | 98.0 |
| Blending Pod (41DC) | 5.41C | | | | | | | | |
| Silo (50DC) | 50S | | 0.01000 | | 0.01000 | 1278 | | 76.7 | 76.7 |
| Silo (50DC) | 51S | | | | | | | | |
| Silo (53DC) | 52S | | 0.01000 | | 0.01000 | 1278 | | 76.7 | 76.7 |
| Silo (53DC) | 53S | | | | | | | | |
| Transfer Pod (50PVDC) | 50PV | | 0.01000 | | 0.01000 | 100 | | 6.00 | 6.00 |
| **Packhouse** | | | | | | | | | |
| Elevator (842L) | 838V | | 0.01000 | | 0.01000 | 7200 | | 432 | 432 |
| Packer Bin (842L) | BIN1 | | | | | | | | |
| Circulating Tank (842) | 842LF | | | | | | | | |
| Circulating Tank (842) | 842F | | | | | | | | |
| Rotary Feeder (842L) | 842FA | | | | | | | | |
| Rotary Feeder (842L) | 842M | | | | | | | | |
| Screw Conveyor (842L) | 842MA | | | | | | | | |
| Screw Conveyor (842L) | 842LV1 | | | | | | | | |
| Screw Conveyor (842L) | 837V | | | | | | | | |
| Screw Conveyor (842L) | 837V1 | | | | | | | | |
| Elevator (844L) | 831V2 | | 0.01000 | | 0.01000 | 7200 | | 432 | 432 |
| Packer Bin (844L) | BIN3 | | | | | | | | |
| Packing Machine (844L) | 844LF | | | | | | | | |
| Circulating Tank (844L) | 844F | | | | | | | | |
| Circulating Tank (844L) | 844FA | | | | | | | | |
| Rotary Feeder (844L) | 844M | | | | | | | | |
| Rotary Feeder (844L) | 844MA | | | | | | | | |
| Screw Conveyor (844L) | 844LV1 | | | | | | | | |
| Elevator (845L) | 838V3 | | 0.01000 | | 0.01000 | 7200 | | 432 | 432 |
| Packer Bin (845L) | BIN4 | | | | | | | | |
| Packing Machine (845L) | 845LF | | | | | | | | |
| Circulating Tank (845L) | 845F | | | | | | | | |
| Circulating Tank (845L) | 845FA | | | | | | | | |
| Rotary Feeder (845L) | 845M | | | | | | | | |
| Rotary Feeder (845L) | 845MA | | | | | | | | |
| Screw Conveyor (845L) | 845LV1 | | | | | | | | |
| Conveyor (BE) | 842V | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 843V | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 844V | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 845V | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 846V | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 848V | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 845V1 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 847V1 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 847V2 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 848V1 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 848V2 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 849V1 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 849V2 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Conveyor (BE) | 849V3 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Palletizer (BE) | 900H | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Palletizer (BE) | 901H | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |
| Truck Loader (BE) | 6.7 | 0.00053 | | 0.00006 | | | 200000 | 10.6 | 1.20 |

Methodology is the same as page 1.

| | | |
|---|---|---|
| Total Increase (lbs/year) | 18,287 | 17,397 |
| (tons/year) | 9.14 | 8.70 |

**Actual to Projected Actual Test Results**

| Pollutant | Actual Emissions* (tons/year) | Projected Actual Emissions** (tons/year) | Difference (tons/year) |
|---|---|---|---|
| PM | 89 | 98 | 8.95 |
| PM10 | 85 | 94 | 8.5 |
| $SO_2$ | 180 | 180 | 0 |
| VOC | 0 | 0 | 0 |
| CO | 613 | 600 | -13 |
| NOx | 1,969 | 1,773 | -196 |
| HAPs | 0 | 0 | 0 |

* Actual emissions reported by source reflect various data sources: NOx and SO2 actual emissions are an average of 24-consecutive months of continuous emission monitoring (CEM) data, CO emissions were calcuated from stack testing results, and particulate (PM/PM10) emissions were calculated on a combination of stack testing and AP-42 emission factors.
** Projected Actual Emissions of CO and NOx are based on an emission assessment conducted at a comparable facility that employed oxygen enrichment. PM/PM10 projected actual emissions are based on a ten (10) percent increase in production. There is no expected change to SO2, VOC, or HAP emissions.

**Appendix A: Emission Calculations**
**Actual-To-Projected-Actual Applicability Test Results for HAPs**

**Company Name:** Lone Star Industries, Inc. dba Buzzi Unicem USA
**Address:** 3301 South County Road 150 W, Greencastle, IN 46135
**Title V, MPM:** 133-23892-00002
**Reviewer:** ERG/BL
**Date:** December 7, 2006

Long term concentration data from the four (4) regulated feedstreams:*

| | Arsenic (ug/g) | Beryllium (ug/g) | Cadmium (ug/g) | Chromium (ug/g) | Lead (ug/g) | Mercury (ug/g) |
|---|---|---|---|---|---|---|
| Slag | 32.3 | 3.50 | 0.10 | 21.1 | 0.90 | 0.01 |
| Fly Ash | 60.5 | 4.70 | 1.00 | 53.7 | 39.8 | 0.13 |
| Coal | 10.7 | 1.44 | 0.25 | 12.1 | 14.9 | 0.04 |
| Slurry | 12.1 | 0.20 | 1.00 | 24.3 | 0.90 | 0.01 |

* The NESHAP for Hazardous Waste Combustors (40 CFR 63 Subpart EEE) requires the source to analyze their slag, fly ash, coal, and slurry for metal HAPs (Arsenic, Beryllium, Cadmium, Chromium, Lead, and Mercury) on a monthly basis. The Permittee provided the arithmetic mean of 12 monthly samples and analyses.

Worstcase projected increase in HAPs **

| | PTE PM (tons/yr) | PTE Arsenic (tons/yr) | PTE Beryllium (tons/yr) | PTE Cadmium (tons/yr) | PTE Chromium (tons/yr) | PTE Lead (tons/yr) | PTE Mercury (tons/yr) | PTE Combined HAPs (tons/yr) |
|---|---|---|---|---|---|---|---|---|
| Actual Emissions | 89.4 | 5.41E-03 | 4.20E-04 | 8.94E-05 | 4.80E-03 | 3.56E-03 | 1.18E-05 | 1.43E-02 |
| Projected Actual Emissions | 98.3 | 5.95E-03 | 4.62E-04 | 9.83E-05 | 5.28E-03 | 3.91E-03 | 1.29E-05 | 1.57E-02 |
| Increase | 8.90 | 5.38E-04 | 4.18E-05 | 8.90E-06 | 4.78E-04 | 3.54E-04 | 1.17E-06 | 1.42E-03 |

** Fly ash has the highest concentration of each metal. To estimate a worst case increase in metal HAP from the proposed oxygen enrichment system, the ATPA has applied the metal HAP concentration data observed in the fly ash to the actual and projected PM emissions.

**Methodology**
Actual Arsenic PTE (lb/yr) = Actual Particulate (tons/yr) * Arsenic in Fly Ash (ug/g) * 1 g/1000000 ug
Projected Actual Arsenic PTE (lb/yr) = Projected Actual Particulate (tons/yr) * Arsenic in Fly Ash (ug/g) * 1 g/1000000 ug
Increase in Arsenic PTE (lb/yr) = Projected Actual Arsenic PTE (lb/yr) - Actual Arsenic PTE (lb/yr)