INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
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April 14, 2004

TO: Interested Parties / Applicant

RE: Lone Star Industries, Inc. dba Buzzi Unicem USA / T133-6927-00002

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit 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 13-15-6-1(b) or IC 13-15-6-1(a) 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 of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).
For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, 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
FNTVOP.dot 9/16/03

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

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

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

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

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

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

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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.

Responsible Official:	Plant Manager
Source Address:	3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address:	P.O. Box 482, Greencastle, Indiana 46135
General Source Phone Number :	(765) 653-9766
SIC Code:	3241, 1422
County Location:	Putnam
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source under PSD Rules Major Source under Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) Quarry Activities:

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

(b) Raw Material Sizing Activities:

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

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

(3) Raw material sizing transfer equipment including:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(f) Coal Mill Operation:

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

(2) Coal transfer equipment:

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

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

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

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

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

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

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

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

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

(g) One (1) alternate raw material feed system, 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. The semi-dry kiln system has a nominal rated clinker capacity of 208 tons per hour, using coal and the following supplemental fuel:

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

(B) 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) 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 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, equipped with one (1) fabric filter system (FF 3-11, baghouse 406L) to control particulate emissions (note that belt conveyor (421V) is a non-routine belt);

(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 (4) silos, identified as Point 4-13B (650A-653A), 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;

(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].

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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

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

(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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [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.

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 [40 CFR 52 Subpart P] [326 IAC 6-3-2]

(a) Pursuant to 40 CFR Subpart P, particulate emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) 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. This condition is not federally enforceable.

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. 326 IAC 9-1-2 is not federally enforceable.

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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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 NO_X or SO_2 emissions pursuant to 40 CFR 75 (Title IV Acid Rain program) or 326 IAC 10-4 (NO_X 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 NO_X or SO_2 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 SMM 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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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]

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

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

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

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

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

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

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

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

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

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

(1) The name and address of the Permittee;

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

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

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

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

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

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

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

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

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

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

and

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

Stratospheric Ozone Protection

C.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 7% Opacity

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

D.1.3 Particulate Matter Emission Limitation [326 IAC 2-2] [40 CFR 52.21]

(a) Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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 1.60 lbs/hr	0.015 gr/dscf 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 2-2-3(a)(3) (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 2-2-3(a)(3)] [40 CFR 52.21]

Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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) one (1) conveyor belt (230FV) one (1) weigh belt (230V) one (1) conveyor belt (232V)	1-34
	one (1) granulated slag/rock hopper (231F) one (1) conveyor belt (231FV) one (1) weigh belt (231V)	1-35
	one (1) enclosed pug mill (232L) one (1) CKD bin (232F) one (1) discharge screw (232FV)	S1-36 (232FL)
	two (2) belt conveyors (233V, 233V1)	1-41
	one (1) finished gypsum material hopper (234F) two (2) conveyor belts (234V, 234FV)	1-38
Raw Material Ball Mill Operations	four (4) belt conveyors (252V-255V) four (4) raw material bins (350F-353F)	FF 1-17 (350L)
	four (4) weigh feeders (350V-353V) one (1) conveyor belt (358V) two (2) apron feeders (350V1, 351V1) two (2) scavenger conveyors (350V2, 351V2)	1-18
	one (1) alleviator	FF 1-7 (351L)
Fly Ash Storage Activities	two (2) screw conveyors (273V, 274V) two (2) fly ash hoppers (273F, 273FA)	FF 1-20 (274L)
	one (1) fly ash silo (270F)	FF 1-39 (270L)
	one (1) fly ash silo (271F)	FF 1-40 (271L)
	two (2) additive silos (318F, 328F) four (4) rotary feeders (318V, 318VV, 328V, 328VV)	FF 1-21 (319L)
	one (1) additive feed bin (308F)	BE 1-22
	two (2) rotary feeders (308V, 308VV) one (1) weigh belt (309V)	BE 1-23

D.2.3 Particulate Matter Emission Limitation [326 IAC 2-2] [40 CFR 52.21]

(a) Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, the following limitations apply to the following units:

Units	Emission Point	Filterable PM Limits	Filterable PM10 Limits

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

(b) Pursuant to 326 IAC 2-2-3(a)(3) (PSD BACT), the following limitations apply to the following units:

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

(c) Pursuant to 326 IAC 2-2-3(a)(3) (PSD BACT), the following units shall use a building enclosure as control:

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

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

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

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

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

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

Units	Emission Point	PM/PM10 Limits
two (2) additive silos (318F, 328F) 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 2-2-3(a)(3)] [40 CFR 52.21]

Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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;

(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

(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):

(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) one (1) belt conveyor (222V) 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) 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) two (2) rotary feeders (436LVV, 436L1VV) 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/dscm) and 20% opacity.

D.3.3 Particulate Matter Emission Limitation [326 IAC 2-2] [40 CFR 52.21]

(a) Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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 0.33 lbs/hr	0.010 gr/dscf 0.33 lbs/hr
one (1) coal mill (436G) three (3) screw conveyor (436LV, 436L1V, 436GV1)	FF 2-11 (436L)	0.010 gr/dscf 4.45 lbs/hr	0.010 gr/dscf 4.45 lbs/hr
two (2) screw conveyors (437V, 438V) two (2) rotary feeders (436LVV, 436L1VV) one (1) pulverized coal bin (438F)	FF 2-13 (438L)	0.010 gr/dscf 0.14 lbs/hr	0.010 gr/dscf 0.14 lbs/hr

(b) Pursuant to 326 IAC 2-2-3(a)(3) (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 0.17 lbs/hr	0.010 gr/dscf 0.17 lbs/hr
one (1) belt conveyor (420V1)	420L1 (vent indoor)	0.010 gr/dscf 0.17 lbs/hr	0.010 gr/dscf 0.17 lbs/hr

(c) Pursuant to 326 IAC 2-2-3(a)(3) (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) one (1) belt conveyor (222V) 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) one (1) conveyor belt (436V)	building enclosure (BE 2-10)

D.3.4 Operation Standards [326 IAC 2-2-3(a)(3)] [40 CFR 52.21]

Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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] [40 CFR 52.21]

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)
Coal Mill Operation, excluding the units venting through baghouses 420L2, 420L1, 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 (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 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 SO_2 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. The semi-dry kiln system has a nominal rated clinker capacity of 208 tons per hour, using coal and the following supplemental fuel:

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

(B) distillate fuel for burner startup activities.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

D.4.3 Particulate Matter Emission Limitation [326 IAC 2-2] [40 CFR 52.21]

(a) Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, the following limitations apply to the following units:

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

(b) Pursuant to 326 IAC 2-2-3(a)(3) (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) one (1) rotary kiln (401B)	Stack 3-1
	*nine (9) screw conveyors (403V-410V, 404FV)	Stack 3-1
	*one (1) conditioning tower (480F) *one (1) alkali bypass system (3-5B) *one (1) hopper, identified as (484F) *four (4) screw conveyors (480LV1-LV3, 480V) one (1) weight hopper (481FF) one (1) pug mill (484L) 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 8.7×10^{-11} grains per dry standard cubic foot (TEQ) corrected to seven percent oxygen; or 1.7×10^{-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 SO_2 emissions from Stack 3-1 of the semi-dry process kiln and calciner tower shall not exceed 4.13 pounds of SO_2 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 SO_2 emissions. This limit ensures that the increase in SO_2 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 (SO_2) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 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 NO_x emissions from Stack 3-1 of the semi-dry process kiln shall be controlled by the low-NO_X 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 NO_x emissions. This limit ensures that the increase in NO_x 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 NO_x 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 7.8×10^{-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 2-2-3(a)(3)] [40 CFR 52.21]

Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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, 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21, 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, SO_2, 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, equipped with one (1) fabric filter system (FF 3-11, baghouse 406L) to control particulate emissions (note that belt conveyor (421V) is a non-routine belt);

(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;

(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)]:

(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) one (1) clinker breaker (401CG) one (1) dropout chamber (401CL) two (2) vibrating feeders (427V, 428V) one (1) drag conveyor (401CV) eight (8) screw conveyors (422V, 470CV2, 470CV3, 470CV9, 470CV10, 474V-476V)	FF 3-9 (471-CL, Stack 3-2)	0.10 pound per ton of feed (dry basis) to the kiln (filterable); and 10 percent opacity
two (2) belt conveyors (421V, 509V) two (2) bucket elevators (418V, 419V)	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) one (1) belt conveyor (219V)	FF 3-24 (220L)	
seven (7) clinker silos (501A-507A)	FF 3-14 (503L)	
one (1) belt conveyor (220V) one (1) belt scale	FF 3-21 (221L)	

Units	Emission Point	PM Limit
one (1) vibrating feeder (Unit #2)	F3-33	10 percent opacity
one (1) jaw crusher (Unit #3) two (2) belt conveyors (Unit #4 and #5)	Dust Collector #1	

D.5.3 Particulate Matter Emission Limitation [326 IAC 2-2] [40 CFR 52.21]

(a) Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, the following limitations apply to the following units:

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

(b) Pursuant to 326 IAC 2-2-3(a)(3) (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 0.28 lbs/hr	0.010 gr/dscf 0.28 lbs/hr

(c) Pursuant to 326 IAC 2-2-3(a)(3) (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 June 1, 2000, with a nominal capacity of 250 tons per hour; and four (4) silos, identified as Point 4-13B (650A-653A), 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;

(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

(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):

(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 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;

(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):

(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;

(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) one (1) belt conveyor (221V)	FF 3-17 (504L)
	two (2) belt conveyors (514V, 511V) one (1) bucket elevator (513V) one (1) belt conveyor (511V2)	FF 3-20 (513L)
	one (1) belt conveyor (515V) four (4) silos (650A-653A)	FF 4-13 (515L)
	one (1) belt conveyor (516V)	FF 4-14 (516L)
	two (2) belt conveyors (639V, 640V) one (1) clinker bin (601F) one (1) gypsum bin (603F) one (1) spill screw (646V) one (1) belt conveyor (614V)	FF 4-1 (617L)
	one (1) No. 1 finish mill (603G) one (1) elevator (626V) one (1) spill screw (642V)	FF 4-2 (613L)
	one (1) air separator (605G) one (1) tailing screw (613V) two (2) cement coolers (603C, 604C) one (1) F.K. pump hopper (611F) one (1) mill feed belt (641V) one (1) clinker F.O.W. belt (601V)	FF 4-3 (606L)
	one (1) fringe bin (604F) two (2) screw feeders (611V, 604F1V)	FF 4-16 (605L)
	one (1) weigh belt (605V) one (1) belt conveyor (616V)	Building Enclosure
	two (2) conveyor belts (639V, 640V) one (1) clinker bin (602F) one (1) gypsum bin (603F) one (1) clinker F.O.W. belt (602V) one (1) feed belt (644V)	FF 4-4 (636L)
	one (1) No. 2 finish mill (602G) one (1) spill screw (645V)	FF 4-5 (603L)
	one (1) air separator (604G) one (1) elevator (621V) one (1) tailing screw (612V) two (2) cement coolers (601C, 602C) one (1) F.K. pump hopper (610F) 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) one (1) cooler (664C) one (1) feed belt (654V)	FF 4-10 (661L)
	one (1) fringe bin (665F) one (1) elevator (661V) one (1) rotary feeder (665FV)	FF 4-11 (665L)
	one (1) air separator (664G)	FF 4-12 (664L)
	two (2) weigh feeders (652V, 653V) 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) one (1) truck loader (708L)	FF 5-5 (703L)
	one (1) screen (702G) one (1) railcar/truck loader (709L)	FF 5-6 (706L)
	one (1) hopper (701F)	FF 5-7 (710L)
	one (1) hopper (730F)	FF 5-8 (715L)
	three (3) screw conveyors (809V, 809V1, 809V2) one (1) alleviator 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) one (1) truck loader	FF 5-23 (833L)
	three (3) bulk tanks (832F, 834F, 835F)	FF 5-24 (835L)
	one (1) silo (782F) one (1) bucket elevator (781V)	FF 5-26 (782L)
	one (1) lump breaker (783V3) one (1) spout (785L) one (1) truck loader	FF 5-27 (783L)
	one (1) lump breaker (784V3) one (1) spout (786L) one (1) truck loader	FF 5-28 (784L)
	five (5) screw conveyors (755V, 759V-762V) six (6) rotary feeders (755M-760M) one (1) hopper (750F)	BE (5-30)
	nineteen (19) screw conveyors (818V1-825V1, 818V2-825V2, 828V1, 828V2, 830V) three (3) screen screws (806V, 829V4, 830V1)	BE (5-33)
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)

Operations	Units	Emission Point
Blend Facility	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 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) one (1) packer bin (Bin #1) one (1) packing machine (842LF) two (2) circulating tanks (842F, 842FA) two (2) rotary feeders (842M, 842MA) four (4) screw conveyors (842LV1, 837V, 837V1, 831V2)	FF 6-1 (842L)
	one (1) elevator (838V1) one (1) packer bin (Bin #2) one (1) packing machine (843LF) two (2) circulating tanks (843F, 843FA) two (2) rotary feeders (843M, 843MA) four (4) screw conveyors (843LV1, 817V1, 817V3, 817V7)	FF 6-2 (843L)
	one (1) elevator (838V2) one (1) packer bin (Bin #3) one (1) packing machine (844LF) two (2) circulating tanks (844F, 844FA) two (2) rotary feeders (844M, 844MA) one (1) screw conveyor (844LV1)	FF 6-3 (844L)
	one (1) elevator (838V3) one (1) packer bin (Bin #4), one (1) packing machine(845LF) two (2) circulating tanks (845F, 845FA) two (2) rotary feeders (845M, 845MA) 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] [40 CFR 52.21]

(a) Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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 0.59 lbs/hr	0.015 gr/dscf 0.59 lbs/hr
four (4) vibrating feeders (501V-503V, 508V) one (1) belt conveyor (221V)	FF 3-17 (504L)	0.015 gr/dscf 0.59 lbs/hr	0.015 gr/dscf 0.59 lbs/hr
two (2) belt conveyors (639V, 640V) one (1) clinker bin (601F) one (1) gypsum bin (603F) one (1) spill screw (646V)	FF 4-1 (617L)	0.020 gr/dscf 1.12 lbs/hr	0.020 gr/dscf 1.12 lbs/hr

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

Units	Point	Filterable PM limits	Filterable PM10 Limits
four (4) Group 3 silos (26S, 27S, 28S, and 29S)	FF 5-13 (27DC)	0.020 gr/dscf 0.28 lbs/hr	0.020 gr/dscf 0.28 lbs/hr
three (3) Group 3 silos (18S, 20S, 22S)	FF 5-14 (22DC)	0.020 gr/dscf 0.28 lbs/hr	0.020 gr/dscf 0.28 lbs/hr
two (2) Group 3 silos (24S, 30S)	FF 5-15 (24DC)	0.020 gr/dscf 0.28 lbs/hr	0.020 gr/dscf 0.28 lbs/hr
four (4) Group 3 silos (19S, 21S, 23S, 25S)	FF 5-17 (25DC)	0.020 gr/dscf 0.28 lbs/hr	0.020 gr/dscf 0.28 lbs/hr
two (2) bulk tanks (831F, 833F) one (1) truck loader	FF 5-23 (833L)	0.020 gr/dscf 0.73 lbs/hr	0.020 gr/dscf 0.73 lbs/hr
three (3) bulk tanks (832F, 834F, 835F)	FF 5-24 (835L)	0.020 gr/dscf 0.73 lbs/hr	0.020 gr/dscf 0.73 lbs/hr
one (1) elevator (838V) one (1) packer bin (Bin #1) one (1) packing machine (842LF) two (2) circulating tanks (842F, 842FA) two (2) rotary feeders (842M, 842MA) four (4) screw conveyors (842LV1, 837V, 837V1, 831V2)	FF 6-1 (842L)	0.020 gr/dscf 0.13 lbs/hr	0.020 gr/dscf 0.13 lbs/hr
one (1) elevator (838V1) one (1) packer bin (Bin #2) one (1) packing machine (843LF) two (2) circulating tanks (843F, 843FA) two (2) rotary feeders (843M, 843MA) four (4) screw conveyors (843LV1, 817V1, 817V3, 817V7)	FF 6-2 (843L)	0.015 gr/dscf 0.93 lbs/hr	0.015 gr/dscf 0.93 lbs/hr
one (1) elevator (838V2) one (1) packer bin (Bin #3) one (1) packing machine (844LF) two (2) circulating tanks (844F, 844FA) two (2) rotary feeders (844M, 844MA) one (1) screw conveyor (844LV1)	FF 6-3 (844L)	0.015 gr/dscf 0.93 lbs/hr	0.015 gr/dscf 0.93 lbs/hr
one (1) elevator (838V3) one (1) packer bin (Bin #4), one (1) packing machine(845LF) two (2) circulating tanks (845F, 845FA) two (2) rotary feeders (845M, 845MA) one (1) screw conveyor (845LV1)	FF 6-4 (845L)	0.015 gr/dscf 0.93 lbs/hr	0.015 gr/dscf 0.93 lbs/hr

(b) Pursuant to 326 IAC 2-2-3(a)(3) (PSD BACT), the following limitations apply:

Units	Point	Filterable PM Limits	PM10 Limits
two (2) belt conveyors (514V, 511V) one (1) bucket elevator (513V)	FF 3-20 (513L)	0.010 gr/dscf 0.64 lbs/hr	0.010 gr/dscf 0.64 lbs/hr
one (1) belt conveyor (515V) four (4) silos (650A-653A)	FF 4-13 (515L)	0.010 gr/dscf 0.60 lbs/hr	0.010 gr/dscf 0.60 lbs/hr
one (1) silo (782F) one (1) bucket elevator (781V)	FF 5-26 (782L)	0.010 gr/dscf 0.67 lbs/hr	0.010 gr/dscf 0.67 lbs/hr
one (1) lump breaker (783V3) one (1) spout (785L) one (1) truck loader	FF 5-27 (783L)	0.010 gr/dscf 0.40 lbs/hr	0.010 gr/dscf 0.40 lbs/hr
one (1) lump breaker (784V3) one (1) spout (786L) one (1) truck loader	FF 5-28 (784L)	0.010 gr/dscf 0.40 lbs/hr	0.010 gr/dscf 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 one (1) blending pod	FF 5-41 (41-DC)	0.14 lbs/hr
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 2-2-3(a)(3)] [40 CFR 52.21]

Pursuant to CP133-10159-00002, issued on April 16, 1999, 326 IAC 2-2 (Prevention of Significant Deterioration BACT), and 40 CFR 52.21, 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, 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, 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].

(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) shall not exceed the pounds per hour limitation calculated using the following equation: Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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 (38EC) (one hundred degrees Fahrenheit (100EF));

(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 (38EC) (one hundred degrees Fahrenheit (100EF)), 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 (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

(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 482, 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.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

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 482, Greencastle, Indiana 46135
Part 70 Permit No.: T133-6927-00002

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- C The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- C The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-5967), 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 **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
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 482, 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 482, 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 482, 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 482, 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	12 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 482, 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 482, 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 482, 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 482, 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 482, 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:	

Page 2 of 2

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 for Part 70 Permit

Source Background and Description

Source Name:	Lone Star Industries, Inc. dba Buzzi Unicem USA
Source Location:	3301 South County Road 150 West, Greencastle, Indiana 46135
County:	Putnam
SIC Code:	3241, 1422
Operation Permit No.:	133-6927-00002
Permit Reviewer:	ERG/YC

On November 18, 2003, the Office of Air Quality (OAQ) had a notice published in the Banner Graphic in Greencastle, Indiana, stating that Lone Star Industries, Inc. dba Buzzi Unicem USA had applied for a Part 70 Permit to operate a Portland Cement manufacturing plant with control. The notice also stated that 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.

On December 17, 2003, Lone Star Industries, Inc. dba Buzzi Unicem USA submitted comments on the proposed Part 70 Permit. The summary of the comments is as follows. Bold text has been added while text with a line through it has been deleted. The Table of Contents was updated as needed.

Comment 1:

The source indicated that there is a typographical error for the unit description in Condition A.2(b)(3)(A). The maximum throughput rate of the apron feeder(206V) should be 400 “tons” per hour.

Response to Comment 1:

IDEM OAQ has made the following correction to Condition A.2(b)(3)(A). The unit description box in Section D.1 has also been corrected.

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:

. . . .

(b) Raw Material Sizing Activities:

...

(3) Raw material sizing transfer equipment including:

(A) One (1) apron feeder, identified as Point 1-14 (206V), constructed in 1969, with a nominal throughput of 400 ton**s** per hour, utilizing water mist

suppression or equivalent dust suppression to control particulate emissions;

Comment 2:

The source indicated there is a typographical error in Condition B.10(b).

Response to Comment 2:

IDEM OAQ has made the following correction to Condition B.10(b) as a result of this comment.

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]

. . . . .

(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 ~~a~~ an exceedance of any limitation on emissions or potential to emit.

Comment 3:

The source requested clarification on what the "notification" referred to in the last sentence of Condition B.15(a) is.

Response to Comment 3:

Condition B.15(a) is listed as follows:

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).

The notification referred to in the last sentence includes notifications for permit modifications, permit revocation and reissuance, permit termination, planned changes, or anticipated noncompliance. No change has been made as a result of this comment.

Comment 4:

The source stated that Condition D.2.8 - Testing Requirements should be removed because the units listed under Conditions D.2.3(b) and D.2.3(d) emit minuscule amounts of PM.

Response to Comment 4:

The emission limits in Conditions D.2.3(b) and D.2.3(d) are newly established PSD BACT and PSD minor emission limits for these units. Stack testing has not been performed for these units. Therefore, stack tests are necessary for these units to demonstrate compliance with the new emission limits established in Conditions D.2.3(b) and D.2.3(d).

IDEM has evaluated the additional information submitted by the source. Due to the similarity of these two baghouses, it has been determined that the source only needs to test one of the baghouses (351L or 274L) as a representative test for the two baghouses. However, there was

insufficient information provided for the units listed in Condition D.2.3(d). Therefore, Condition D.2.8 has been revised as follows:

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 ~~units~~ **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.

Comment 5:

The source stated that Condition D.3.10(b) - Testing Requirements should be removed because the units listed under Condition D.3.3(b) emit minuscule amounts of PM.

Response to Comment 5:

The emission limits in Condition D.3.3(b) are newly established PSD BACT and PSD minor emission limits for these units. Stack testing has not been performed for these units. Therefore, stack tests are necessary for these units to demonstrate compliance with the new emission limits established in Condition D.3.3(b).

IDEM has evaluated the additional information submitted by the source. Due to the similarity of these two baghouses, it has been determined that the source only needs to test one of the baghouses (420L1 or 420L2) as a representative test for these two baghouses. Therefore, Condition D.3.10(b) has been revised as follows:

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

...

(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 ~~units~~ **emission points** listed in Condition D.3.3(b) utilizing methods as approved by the Commissioner. PM10 includes filterable PM10 and condensible PM10.

Comment 6:

The source suggested the words “as needed” be added after water mist suppression in Condition D.4.3(d) to be consistent with the water suppression requirements in the rest of the permit.

Response to Comment 6:

The purpose of using water suppression is to control particulate emissions from the emission units and it is only required when particulate emissions are observed. For clarification purpose, Condition D.4.3(d) has been revised as follows as a result of this comment:

D.4.3 Particulate Matter Emission Limitation [326 IAC 2-2] [40 CFR 52.21]

. . . .

(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).

Comment 7:

The source requested "(monitoring continuously with a continuous emissions monitoring system), dry basis, corrected to seven percent oxygen, and reported as propane" be deleted from the last sentence of Condition 4.5(e) because there is continuous HC monitor installed in the bypass duct at Lone Star.

Response to Comment 7:

Condition D.4.5(e) is an exact copy of 40 CFR 63.1204 (a)(5)(A). Pursuant to 40 CFR 63.1204(a)(5)(A), the source is required to monitor the hydrocarbons in the bypass duct during the destruction and removal efficiency (DRE) test runs. Therefore, no change has been made as a result of this comment.

Comment 8:

The source requested ", based upon a 3-hour rolling average" be added at the end of Condition D.4.6(d) to confirm that the gas inlet temperature limit is based on a 3-hour rolling average, pursuant to 40 CFR 63, Subpart LLL.

Response to Comment 8:

According to 40 CFR 63.1342(b), the gas inlet temperature limit is set for a 3-hour rolling average. For clarification purpose, Condition D.4.6(d) has been revised as follows as the result of this comment:

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

. . . .

(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**.

Comment 9:

The source stated that Condition D.4.17(b) and (c), the coal input limits for the kiln burner and the calciner burner, should be removed. The source stated that a combined coal input limit for the kiln system is sufficient because both the kiln and the calciner exhaust to a common stack. In addition, the source stated that the respective inputs to the kiln and the calciner may vary without any impact on emissions at the end of the common stack.

Response to Comment 9:

IDEM, OAQ agrees that the combined coal input limit for both the kiln burner and the calciner burner is a sufficient fuel usage limit, and the removal of the individual coal input limits for the kiln burner and for the calciner burners will not affect the potential to emit of the kiln. Therefore, Conditions D.4.17 and D.4.33 have been revised as follows as the results of this comment:

D.4.17 Operation Standards [326 IAC 2-2-3(a)(3)] [40 CFR 52.21]

...

~~(b) the coal input rate to the kiln burner system shall not exceed 157,680 tons per twelve (12) consecutive month period with compliance determined at the end of each month;~~

~~(c) the coal input rate to the calciner burner system shall not exceed 201,480 tons per twelve~~

~~(12) consecutive month period with compliance determined at the end of each month;~~

~~(d)~~**(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

~~(e)~~**(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.4.33 Record Keeping Requirements

.....

(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 coal input rate to the kiln burner system, the coal input rate to the calciner burner 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.

Comment 10:

The source stated that Condition D.4.22 should be removed because no lime injection is necessary on the conditioning tower (3-5A). The source stated that compliance with the SO_2 emission limit without lime injection has been verfied by a stack test on December 14, 2000 and by the SO_2 emission data from the CEM.

Response to Comment 10:

Condition D.4.22 states that the lime injection system associated with the conditioning tower (3-5A) shall be operated as necessary to demonstrate compliance with the SO_2 limits in Conditions D.4.9 and D.4.10, pursuant to CP-133-10159-00002, issued April 16, 1999. Therefore, the operation of the lime injection is only required when it is necessary. If the source is currently in compliance with the SO_2 emission limits in Conditions D.4.9 and D.4.10 without the operation of lime injection, the source is in compliance with the requirements in Condition D.4.22. The source may still need to use the lime injection system to control SO_2 emissions when using high sulfur content coal as fuel. Therefore, no change has been made as a result of this comment.

Comment 11:

The source stated that the comprehensive stack test frequency of 2.5 years for the kiln in Condition D.4.24(a) is arbitrary and capricious. The source stated that a comprehensive stack test costs over $250,000 and is only required once every 5 years, pursuant to 40 CFR 63.1207 and 40 CFR 63.1349. The source stated that they will continue to perform dioxin-furan and particulate emission tests every 2.5 years.

Response to Comment 11:

According to 40 CFR 63.1207(d) and 40 CFR 63.1349(c), the frequency of confirmatory tests (for dioxin/furan) is once every 2.5 years, and the frequency for comprehensive tests (for the pollutants with specific emission limits in 40 CFR 63, Subpart EEE) is once every 5 years. Pursuant to CP #133-10159-00002, issued on April 16, 1999, the PM, PM10, and opacity stack test for the kiln shall be repeated once every 2.5 years. Therefore, Condition D.2.4(a) has been revised as follows to clarify the testing frequency for the kiln:

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, ~~no later than two and one half (2 ½) years from the date of the last valid compliance demonstration,~~ the Permittee shall demonstrate compliance by commencing ~~comprehensive~~ 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. ~~These tests~~**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.

Comment 12:

The source requested the language relating to HC monitoring be removed and the once-per-hour monitoring requirement for the oxygen content and temperature when the CO emission monitor fails be removed. The source stated that the 40 CFR 63, Subpart EEE requires an automatic cutoff of the input of hazardous waste in the event of CO monitor failure. Therefore, there is no legal requirement to monitor when the hazardous waste fuel is cutoff. The source also indicated that the CO emissions are monitored in the bypass, not the stack.

Response to Comment 12:

Pursuant to 40 CFR 63.1206(c)(3)(i)(C), the Permittee must operate an automatic waste feed cutoff (AWFCO) system that immediately and automatically cuts off the hazardous feed upon malfunction of a CEM monitoring an operating parameter limit specified under 63.1209. Therefore, when a CO CEM fails, the source shall cut off the hazardous feed immediately.

Pursuant to 40 CFR 63.1209(a)(6)(iii)(A), except as provided by 40 CFR 63.1209(a)(6)(iii)(B), the Permittee must continue monitoring carbon monoxide and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. Pursuant to 40 CFR 63.1209(a)(6)(iii)(B), the Permittee is not subject to the CEMS requirements during periods of time that the source meet the requirements of 40 CFR 63.1206(b)(1)(ii).

Therefore, unless the Permittee meets the requirements of 40 CFR 63.1206(b)(1)(ii), the Permittee is not exempt from the CEM monitoring when the waste feed is cutoff and the source is in operation. According to 63.1206(b)(1)(ii), the Permittee shall meet the following requirements:

(a) The hazardous waste is not in the combustion chamber (i.e. the hazardous waste feed to the combustor has been cutoff for a period of time no less than the hazardous waste residence time);

(b) The Permittee has submitted a written, one-time 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

(c) The Permittee has documented in the operating record that you are complying with such applicable requirements in lieu of the requirements of 40 CFR 63, Subpart EEE.

Therefore, unless the Permittee meets the requirements of 40 CFR 63.1206(b)(1)(ii), the Permittee shall continuously monitor emissions from the kiln during the period when the hazardous feed is cutoff and the source is operating. Condition D.4.26(b) has been revised as follows to reflect the fact that the source elected to monitor CO, instead of HC emissions and the CEM requirements could be exempt if the source is in compliance with the requirements of 40 CFR 63.1206(b)(1)(ii).

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)]

. . . .

(b) Pursuant to 40 CFR 63.1209(a)(1)(i), the Permittee shall install, calibrate, maintain, and

operate a carbon monoxide ~~or hydrocarbon~~ continuous emissions monitor to demonstrate continuous compliance with the carbon monoxide ~~and hydrocarbon~~ limit~~s~~ 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 ~~or hydrocarbon~~ level~~s~~ to 7 percent oxygen.

In the event that the carbon monoxide ~~or hydrocarbon~~ 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.

Comment 13:

The source requested the second and the third sentences of Condition D.4.26(d) be removed because Lone Star does not use lime injection currently. Alternatively, the source suggested to replace the word “Additionally” with “If lime injection is used”.

Response to Comment 13:

Since this source does not use lime injection to control SO_2 emissions currently and may use it in the future, Condition D.4.26(d) has been revised as follows as the result of this comment:

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)]

. . . .

(d) Pursuant to CP133-10159-00002, issued April 16, 1999, 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21, 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. ~~Additionally~~**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.

Comment 14:

The source requested the coal input record requirements in Condition D.4.33(g) be removed for the reasons stated in comment 9.

Response to Comment 14:

Since the coal input limits for the kiln burner and the calciner burner were established in PSD permit #133-10159-00002, issued on April 16, 1999, they cannot be removed from the permit in this addendum (see the response to comment 9). No change has been made as a result of this comment.

Comment 15:

The source stated that the equipment in Conditions D.5.3(b), (d)(2), and (e) has been permitted before and the emissions from these units are minuscule. The source requested the testing requirements for these units in Condition D.5.7(b) be removed.

Response to Comment 15:

The emission limits in Conditions D.5.3(b), (d)(2), and (e) are newly established PSD BACT and PSD minor emission limits for these units. Stack testing has not been performed previously for these units. Therefore, stack tests are necessary for these units to demonstrate compliance with the new emission limits established in Conditions D.5.3(b), (d)(2), and (e). Insufficient information was provided for these units to eliminate the stack testing requirement. Therefore, no change has been made as a result of this comment.

Comment 16:

The source indicated that there is a typographical error in Condition D.5.14(b). The referenced condition should be D.5.3(d)(1), not D.5.3(c)(1).

Response to Comment 16:

IDEM OAQ has made the following correction to Condition D.5.14(b):

D.5.14 Reporting Requirements

. . . .

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

Comment 17:

The source stated that the equipment in Conditions D.6.3(b) and D.6.3(c) has been permitted before and the emissions from these units are minuscule. The source requested to remove the testing requirements for these units in Condition D.6.8(b).

Response to Comment 17:

The emission limits in Conditions D.6.3(b) and D.6.3(c) are newly established PSD BACT and PSD minor emission limits for these units. Stack testing has not been performed for these units. Therefore, stack tests are necessary for these units to demonstrate compliance with the new

emission limits established in Conditions D.6.3(b) and D.6.3(c).

IDEM has evaluated the additional information submitted by the source and determined that the source could test one emission point in a group to represent tests for the other units listed in Conditions D.6.3(b) and D.6.3(c) because they are similar processes. The source has the following choices:

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

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

(c) 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).

Therefore, Condition D.6.8(b) has been revised as follows:

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** ~~units listed in Conditions D.6.3(b) and D.6.3(c)~~ 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).

Comment 18:

The source stated that the phrase “an activated carbon canister system” in Condition D.7.4(a) should be changed to “a control device”. In fact, the source uses the closed vent system, the vapor balance, and the carbon canisters to manage standing and working losses from the tanks.

Response to Comment 18:

The source shall control air emissions from each tank in accordance with the applicable standards specified in 40 CFR 61.343(a) and Agreed Order EPA-5-03-113(a)-05, issued on July 3, 2003. In addition, the provisions of 40 CFR 61.343 were revised on December 4, 2003. Therefore, Condition D.7.4(a) has been revised as follows to reflect the changes:

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) ~~or~~ **and** an Agreed Order **EPA-5-03-113(a)-05, issued on July 3, 2003** ~~issued by EPA~~. 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** ~~an activated carbon canister system~~ 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 ~~accordance with~~ 40 CFR 61.355(h).

.....

(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 ~~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.

.....

Upon further review, the OAQ has decided to make the following revisions to the permit:

1. MSM #133-17960-00002 was issued to this source on October 31, 2003 and is incorporated into this Part 70 permit 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:

. . . .

(j) Finish Mill Operations:

. . . .

(3) Two (2) belt conveyors, identified as Point 3-20B (514V, 511V), constructed before August 17, 1971; ~~and~~ 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;

. . . .

(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; ~~and~~ 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;

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:

. . . .

(3) Two (2) belt conveyors, identified as Point 3-20B (514V, 511V), constructed before August 17, 1971; ~~and~~ 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;

. . . .

(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; ~~and~~ 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;

. . . .

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

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	two (2) belt conveyors (514V, 511V) one (1) bucket elevator (513V) **one (1) belt conveyor (511V2)**	FF 3-20 (513L)
	one (1) belt conveyor (515V) four (4) silos (650A-653A)	FF 4-13 (515L)
Finish Mill Operations	one (1) belt conveyor (516V)	FF 4-14 (516L)
	two (2) belt conveyors (639V, 640V) one (1) clinker bin (601F) one (1) gypsum bin (603F) one (1) spill screw (646V) **one (1) belt conveyor (614V)**	FF 4-1 (617L)
	.....	.....

2. The rule citations in the following conditions have been updated and corrected:

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]

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 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d)~~ **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.

3. For clarification purposes, the following conditions have been revised as follows:

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

. . . .

(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 ~~source~~**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.

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 ~~source~~**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]

. . . .

(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:

. . . .

(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.

. . . .

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

(a) The ~~source~~ **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).

4. IDEM, OAQ has made the following revisions and corrections to Condition D.4.29(a):

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 ~~volts~~, 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.

5. Amendment #133-18428-00002 was issued to this source on February 6, 2004 and is incorporated into this Part 70 permit. According to this amendment, the official name of this source has been changed from "Lone Star Industries, Inc." to "Lone Star Industries, Inc. dba Buzzi Unicem USA". This change has been made through the whole permit.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Lone Star Industries, Inc.
Source Location:	3301 South County Road 150 West, Greencastle, Indiana 46135
County:	Putnam
SIC Code:	3241, 1422
Operation Permit No.:	T133-6927-00002
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Lone Star Industries, Inc. relating to the operation of a Portland cement manufacturing plant.

Emission Units and Pollution Control Equipment

(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 ton 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. The semi-dry kiln system has a nominal rated clinker capacity of 208 tons per hour, using coal and the following supplemental fuel:

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

(B) 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) 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 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, equipped with one (1) fabric filter system (FF 3-11, baghouse 406L) to control particulate emissions (note that belt conveyor (421V) is a non-routine belt);

(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; and one (1) bucket elevator, identified as Point 3-20A (513V), constructed June 1, 2000; 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 (4) silos, identified as Point 4-13B (650A-653A), 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;

(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; and one (1) spill screw, identified as Point 4-1D (646V), constructed in 2002, with a nominal capacity of 5 tons 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.

Unpermitted Emission Units and Pollution Control Equipment

(a) One (1) belt conveyor, identified as Point 1-25F (202GV2), constructed in 2001, with a nominal capacity of 600 tons per hour, equipped with one (1) fabric filter system (FF 1-25, baghouse 208L) to control particulate emissions.

(b) One (1) conveyor belt (230FV) and one (1) conveyor belt (232V), constructed in 2002, each with a nominal throughput of 120 tons per hour; all collectively identified as 1-34.

(c) One (1) discharge screw (232FV), identified as 1-36C,constructed in 2002, with a nominal throughput of 30 tons per hour, with particulate emissions controlled by Dust Collector (232FL), and exhausting through stack S1-36.

(d) One (1) of the two (2) belt conveyors (233V, 233V1), identified as 1-41, constructed in 2002, for finished gypsum material, with a nominal throughput of 150 tons per hour.

(e) One (1) of the four (4) belt conveyors, identified as Point 1-17A (252V-255V), 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.

(f) One of the two (2) scavenger conveyors, identified as Point 1-18 D (350V2, 351V2), constructed in 2000, with a nominal capacity of 400 tons per hour; utilizing a building enclosure to control particulate emissions.

(g) Two (2) screw conveyors, identified as Point 1-19A (273V, 274V); and one (1) fly ash hopper, identified as Point 1-19B (273F); all constructed April 1, 2000 and modified February 8, 2002, 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.

(h) One of the three (3) screw conveyors, identified as Point 2-11B (436LV, 436L1V, 436GV1), constructed May 1, 2000, with a nominal capacity of 40 tons per hour, and equipped with one (1) fabric filter systems (FF 2-11, baghouse 436L) to control particulate emissions.

(i) One of the two (2) rotary feeders, identified as Point 2-13C (436LVV, 436L1VV), with a nominal capacity of 40 tons per hour; constructed May 1, 2000, and equipped with one fabric filter system (FF 2-13, baghouse 438L) to control particulate emissions.

(j) One (1) hopper, identified as Point 3-3C (445F), constructed May 1, 2000, with a nominal capacity of 60 tons per hour; equipped with one fabric filter system (FF 3-3, baghouse 403L) to control particulate emissions.

(k) 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; 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.

(l) One (1) drag conveyor, identified as Point 3-9G (401CV), constructed before August 17, 1971 and modified in 2001, with a nominal capacity of 10 tons per hour; equipped with one (1) fabric filter system (FF 3-9, baghouse 471-CL) to control particulate emissions, exhausting to stack 3-2;

(m) 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.

(n) One (1) bucket elevator, identified as Point 3-20A (513V), constructed June 1, 2000, 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.

(o) 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.

(p) One (1) elevator, identified as Point 4-11C (661V), with a nominal capacity of 230 tons per hour; constructed June 1, 2000, and equipped with one (1) fabric filter system (FF 4-11, baghouse 665L) to control particulate emissions.

(q) 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.

(r) 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.

(s) 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.

New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval

There are no new emission units and pollution control equipment receiving advanced source modification approval.

Insignificant Activities

The source also consists of the following insignificant activities, 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];

(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;

(4) Underground conveyors;

(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) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour;

(g) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour;

(h) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight;

(i) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary sources exceeds 2,000,000 British thermal units per hour;

(j) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;

(k) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month;

(l) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;

(m) Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids;

(n) Refractory storage not requiring air pollution control equipment;

(o) Packaging lubricants and greases;

(p) Filling drums, pails, or other packaging containers with lubricating oils, waxes, and greases;

(q) Application of oils, greases, lubricants or other nonvolatile materials applies as temporary protective coatings;

(r) Machining where an aqueous cutting coolant continuously floods the machining interface.

(s) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100^{o}F) or;

(2) Having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20^{o}C (68^{o}F);

The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;

(t) Closed loop heating and cooling systems;

(u) Using 80 tons or less of welding consumables;

(v) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume;

(w) Water runoff ponds for petroleum coke-cutting and coke storage piles;

(x) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, this is, an on-site sewage treatment facility;

(y) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;

(z) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs;

(aa) Natural draft cooling towers not regulated under a NESHAP;

(bb) Forced and induced draft cooling tower system not regulated under a NESHAP;

(cc) Quenching operations used with heat treating processes;

(dd) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;

(ee) Heat exchanger cleaning and repair;

(ff) Process vessel degassing and cleaning to prepare for internal repairs;

(gg) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal;

(hh) Paved and unpaved roads and parking lots with public access;

(ii) Asbestos abatement projects regulated by 326 IAC 14-10;

(jj) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate; ammonia; and sulfur trioxide;

(kk) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, and fluid handling equipment;

(ll) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;

(mm) On-site fire and emergency response training approved by the department;

(nn) Gasoline generators not exceeding 110 horsepower;

(oo) Diesel generators not exceeding 1600 horsepower;

(pp) Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower;

(qq) Stationary fire pumps;

(rr) Purge double block and bleed valves;

(ss) Filter or coalescer media changeout;

(tt) Vents from ash transport systems not operated at positive pressure;

(uu) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C;

(vv) A laboratory as defined in 326 IAC 2-7-1(21)(D); and

(ww) Farm operations.

Existing Approvals

The source has constructed or has been operating under the following previous approvals:

(a) MSM #133-16484-00002, issued March 11, 2003;

(b) MSM #133-16137-00002, issued August 29, 2002;

(c) Amendment #133-16207-00002, issued August 19, 2002;

(d) MSM #133-15262-00002, issued on April 9, 2002;

(e) SSM #133-14452-00002, issued on February 26, 2002;

(f) Amendment #133-12826-00002, issued January 8, 2001;

(g) Exemption #133-10690-00002, issued on April 28, 1999; and

(h) CP #133-10159-00002, issued April 16, 1999 (This permit supercedes all previous permits).

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not included into this Part 70 permit:

(a) All construction conditions from all previously issued permits.

Reason not included: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

The following terms and conditions from previous approvals have been revised in this Part 70 permit:

(a) Condition D.1.3 of SSM 113-14452-00002, issued February 26, 2002:

This condition limited the PM/PM10 emissions from each of the baghouses 208L, 208L1, and 210L in the secondary crusher system to less than 0.01 grains per dry standard cubic feet and 1.54 lbs/hr. The flow rate of each baghouse was limited to less than 18,000 actual cubic feet per minute. In addition, PM and PM10 emissions from all three baghouses (208L, 208L1, and 210L) shall not exceed 13.9 tons per consecutive twelve (12) month period, rolled on a monthly basis. Therefore, the requirements of 326 IAC 2-2 (PSD) do not apply to this modification.

However, the limits as stated above do not effectively limit PM10 emissions to less than 15 tons per year. Since the secondary crusher system SC-1 has a throughput limit of 2,574,685 tons/yr, IDEM, OAQ has replaced the grain loading and flow rate limitations with a limit of 0.0108 lbs/ton of PM/PM10 emissions. Combined with the throughput limit, the PM/PM10 emissions from the secondary crusher system (SC-1) are effectively limited to less than 13.9 tons/yr. (0.0108 lbs/ton x 2,574,685 tons/yr x 1 ton/2000 lbs = 13.9 tons/yr). Therefore, the PM/PM10 emission limits for the secondary crusher system (SC-1) have been revised in this permit.

(b) IDEM has determined that the following units permitted in CP #133-10159-00002, issued on April 16, 1999, are not air emission units. Therefore, these units are removed from this Part 70 Permit:

(1) Wet ball mill operation, which is used to process slurry, including the following units:

One (1) wet ball mill, identified as 350G;
One (1) mill sump, identified as 350A;
Six (6) screens, identified as 351G-356G; and
One (1) screen sump, identified as 351A.

(2) Gates, which shut off flow of material or air and do not create air emissions.

(3) Flow meters, which do not create air emissions.

(4) Pumps, which are used to transfer materials and are totally enclosed.

(5) Air locks and valves, which allow material to be conveyed without air re-entraining dust.

(6) Air slide, which are used to transfer materials and are totally enclosed.

(7) Drags, which are totally enclosed conveyors.

(8) Heat exchanger 470C, which is a an enclosed non-contact air cooler.

(9) CKD water blender 414L, which mixes water with dust prior to dumping.

(c) The fly ash silos 270F and 271F were permitted to vent through one single baghouse (FF 1-21) and had BACT limits of 0.015 gr/dscf and 0.22 lbs/hr in CP #133-10159-00002, issued on April 16, 1999. However, the source installed one (1) baghouse for each fly ash silo and renamed the control devices to baghouses 270L (FF 1-39) and 270L1(FF 1-40). Therefore, the BACT emission limits for baghouse FF 1-21 in CP #133-10159-00002, issued on April 16, 1999, now apply to baghouses 270L and 271L.

The pounds per hour limit was divided between the two (2) baghouses based on the ratio of the flow rates. Since the flow rates of baghouses 270L and 271L are identical. The BACT limits for these two baghouses are 0.11 lbs/hr each. The source has performed an air qualify analysis (see Appendix D) to demonstrate compliance with the NAAQS with the new BACT limits.

(d) Belt conveyor 420V with the coal mill operation was permitted to use water mist suppression for particulate emission control in CP133-10159-00002, issued April 16, 1999. The source now uses building enclosure to control emissions, which provides control efficiencies similar to water mist suppression.

(e) The alkali bypass system cement kiln dust truck loading station (Point 3-8) was permitted to use building enclosure BE 3-8 for particulate emission control in CP133-10159-00002, issued April 16, 1999. The source now uses water mist suppression to control emissions, which provides control efficiencies similar to building enclosure.

(f) Belt conveyor 420V1 with the coal mill operation was permitted to use water mist suppression for particulate emission control in CP133-10159-00002, issued April 16, 1999. However, the source installed a baghouse (420L1) to control the emissions from this unit, which provides higher control efficiencies and vents into the building. Therefore, the BACT limit for this unit has been revised in this permit.

Additional changes:

(a) In a letter received on December 23, 2002, the source requested the following changes:

(1) The current 1,500 HP motor on the electrostatic precipitator controlling emissions from the kiln was to be replaced with a 2,000 HP motor to provide sufficient air flow to the kiln. The air flow design for the kiln was 760,000 acfm upon which modeling and permitting were based. The new motor operates in a normal range of 660,000-700,000 acfm. This change is not a modification to the kiln.

(2) The installation of the multi-ports for the calciner coal feed. Currently, the calciner has two ports for coal fuel feed. Two (2) additional ports in combination with one additional blower will be added to improve the fuel combustion efficiency. This project has been determined to be a Pollution Control Project and is excluded from the PSD review. See the “Pollution Control Project Exclusion” section for details.

(b) In a letter received on December 20, 2002, the source requested to install a spill screw (646V) with a nominal capacity of 5 tons/yr on Finish Mill No. 1 as part of emission unit 4-1. The potential to emit from the new equipment is less than the exemption levels in 326

IAC 2-1.1-3(e)(1). Therefore, this unit is exempt from the requirements of 327 IAC 2-7-10.5 (Part 70 Source Modification) and has been added to this Part 70 permit.

(c) In a letter received on January 30, 2003, the source requested to construct one (1) rotary feeder, identified as Point 3-3H (405FVV) and one (1) screw conveyor, identified as Point 3-3I (405FVV1), each with a nominal capacity of 60 tons per hour and controlled by the existing baghouse 403L.The potential to emit from the new equipment is less than the exemption levels in 326 IAC 2-1.1-3(e)(1). Therefore, these units are exempt from the requirements of 327 IAC 2-7-10.5 (Part 70 Source Modification) and have been added to this Part 70 permit.

Pollution Control Project Exclusion

In the letter submitted on December 19, 2002, the source requested to install two (2) additional coal feed ports and one (1) blower for the calciner coal feed system. The source stated that this modification would convert the existing calciner to a staged combustion system, which provides better fuel efficiency and product quality.

Since this change includes physical changes to the calciner and change in the method of operation of the existing kiln, this change is considered a modification to the kiln under PSD. However, if this modification qualifies as a Pollution Control Project (PCP) as defined in 326 IAC 2-2.5-2(b), PSD review is not necessary, according to the EPA's memo from Mr. John S. Seitz, dated July1, 1994.

IDEM, OAQ has evaluated the information submitted by the source on August 11, 2003, September 22, 2003, and September 25, 2003, and determined that this staged combustion is a PCP because it meets all the following criteria:

(a) Environmental Benefit:

The purpose of this project is to increase the fuel efficiency and reduce CO and NO_x emissions. For a staged combustion system, a portion of fuel is fired at a reduced temperature, therefore, the thermal NO_x emissions from the kiln will be reduced. In addition, higher fuel efficiency means more complete combustion. Therefore, the CO emissions from the kiln are also reduced.

The source has provided the actual emission data for NO_x, CO, and SO_2, as listed in the table below, to show the emission changes before and after installing this staged combustion system. Since the actual PM, PM10, and VOC emissions from the kiln are much lower than the NO_x, CO, and SO_2 from the kiln, the emission changes for PM, PM10, and VOC are not significant and will not be reviewed here.

Pollutant	NO_x (lbs/ton clinker)	CO (lbs/ton clinker)	SO_2 (lbs/ton clinker)
Emission Limit in CP133-10159-00002	5.47	3.65	4.13
Before Modification (10/01/02 - 12/31/02)	2.66	3.23	0.18
After Modification (04/01/03 - 06/30/03)	2.49	0.45	0.32
Emission Increase	- 0.17	- 2.78	0.14

Note: The emission data for NO_x and SO_2 is from the CEMs with the kiln. The emission data for CO is from the precipitator CO analyzers, which measure the CO concentration before the air enters ESP.

Combined with the clinker production limit of 1,606,000 tons/yr, a reduction of 0.17 pounds of NO_x per ton clinker is equivalent to 137 tons/yr of NO_x emission reduction (0.17 lbs/ton x 1,606,000 tons/yr x 1 tons/2000 lbs = 137 tons/yr) and a reduction of 2.78 pounds of CO per ton clinker is equivalent to 2,232 tons/yr of CO emission reduction (2.78 lbs/ton x 1,606,000 tons/yr x 1 tons/2000 lbs = 2,232 tons/yr). Therefore, the total emission reduction from this project is 2,369 tons/yr.

Note that this modification also resulted in SO_2 emission increases. Combined with the clinker production limit of 1,606,000 tons/yr, an increase of 0.14 pounds of SO_2 per ton clinker is equivalent to 122 tons/yr of SO_2 emission increase (0.14 lbs/ton x 1,606,000 tons/yr x 1 tons/2000 lbs = 122 tons/yr). However, based on relative accuracy test results for the SO_2 CEMs in 2000 through 2003 submitted by the source, the SO_2 CEM readings have been systematically higher than test results using EPA reference methods (at least 8 lbs/hr higher). Therefore, actual SO_2 emission increase is expected to be less than 0.14 lbs/ton.

In conclusion, the total emission reduction from this staged combustion project is at least 2,247 tons/yr (2,369 tons/yr - 122 tons/yr = 2,247 tons/yr). The source also indicated that the fuel efficiency has been increase by 5% after this modification. Therefore, this modification is considered environmental beneficial due to the significant decreases in total emissions and the improvement of fuel efficiency.

(b) Not a reconstruction of the emission unit being modified:

This modification included adding two(2) additional coal feed ports to the calciner. This is a relatively small construction project and did not constitute more than 50% of the replacement cost of the kiln. Therefore, this modification is not a reconstruction of the existing kiln.

(c) Not an increase in the maximum capacity of the unit being modified:

The purpose of this modification is to improve the fuel efficiency and to improve product quality. In addition, the total coal input rate to the kiln and calciner burner systems is limited to less than 313,552 tons/yr and the clinker production rate is limited to less than1,606,000 tons/yr in CP133-10159-00002, issued on April 16, 1999. Therefore, this modification does not increase the maximum capacity of the kiln.

(d) Not increase utilization of the unit being modified:

The purpose of this project is to increase fuel efficiency and to improve product qualify, which will not result in increase utilization of the existing kiln.

(e) Adverse Impacts:

A PCP must not cause or contribute to a violation of the NAAQS or of a PSD increment. Since the CO and NO_x emissions after this stage combustion project are lower than the emissions before and the SO_2 emissions after modification (0.32 lbs/ton) are much lower than the SO_2 emission limit of 4.13 lbs/ton, which was used for the Air Quality Analysis performed in CP133-10159-00002, issued on April 16, 1999, this modification does not increase the risk of a violation.

(f) EPA Notice:

US EPA must be provided with an opportunity to review and comment on PCP determinations. US EPA Region V will be provided the Part 70 permit to review . Therefore, the US EPA can review the PCP concurrently with the Part 70 permit review.

(g) Public Comment:

The public must be notified and allowed to comment on PCP determinations. This Part 70 Permit is required a 30 days public comment period. Therefore, the public can review the PCP determination concurrently with the Part 70 permit.

In conclusion, this staged combustion project is a PCP as defined in 326 IAC 2-2.5-2(b) and is excluded from the PSD review.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that baghouse 782L, controlling emissions from one (1) silo (5-26A, 782F) and one (1) bucket elevator (5-26B, 781V); baghouse 783L, controlling emissions from one (1) lump breaker (5-27B, 783V3), one (1) spout (5-27C, 785L), and one (1) truck loader (5-27D); and baghouse 784L, controlling emissions from one (1) lump breaker (5-28B, 784V3), one (1) spout (5-28C, 786L), and one (1) truck loader (5-28D) be considered as an integral part of the processes:

(a) *Baghouse 782L, controlling emissions from one (1) silo (5-26A, 782F) and one (1) bucket elevator (5-26B, 781V)*

Silo (5-26A, 782F) is filled via bucket elevator (5-26B, 781V) and air slides (enclosed conveyors). These material transfers are enclosed and are vented to baghouse 782L. The baghouse 782L is interlocked to the controls for the bucket elevator (5-26B, 781V) and air slides such that the cement transfer cannot occur unless the baghouse is operational. This interlock is necessary as the baghouse acts as an air/ product separator. The process equipment utilizes air in the air slides to assist with the movement of the product (cement) into the silo (5-26A, 782F). Product becomes entrained in the air and must be separated and returned to the silo (5-26A, 782F). In the event that the fan on the dust collector is not operational, the air would still vent through the baghouse before venting to the ambient air. Because the baghouse operates as an air/product separator and collects and returns valuable product to storage, it meets the definition of “integral” as contained in IDEM’s March 11,1999 memo on Potential to Emit. Therefore, the potential emissions from this process should be potential “controlled” emissions and are 2.9 TPY. Actual emissions are less, as this equipment does not actually operate 8760 hr/year.

IDEM, OAQ has evaluated the justification provided by Lone Star. Our review is based on the following three criteria:

Criteria 1: The process cannot operate without the control equipment.

Lone Star claims that baghouse 782L is integral to the process because of interlock controls. The presence of interlock controls is not sufficient to claim that a baghouse is integral. Interlock controls do not mean that the process cannot operate without the control equipment since the interlock controls can be changed or removed from the operation. Baghouse 782L controls emissions from the vent stream of seven pieces of equipment. Because the baghouse is used as an add-on controlling the vent streams and does not perform a role in the process, it is clear that the emission points could operate even if the baghouse was not operating properly. Based on the justification provided by Lone Star, IDEM, OAQ has determined that the process can operate without the control equipment.

Criteria 2: The control equipment serves a primary purpose other than pollution control.

Lone Star claims that the baghouse is integral to the process because the baghouse is required to separate the product from the air since, during transfer, the product becomes entrained in the air. Baghouse 782L does not separate the full product stream from air. Instead it removes the entrained product that saturates the air from the air stream, as a control device does. Based on the emission factor, the quantity of product entrained in the airstream would be low. Since the maximum transfer rate is 500 tons per hour, the amount of cement entrained in the air is a relatively small percentage of the cement transferred by weight. It would not make up 85% or more of the product or even close to that amount. Therefore, IDEM, OAQ has determined that the control equipment does not serve a primary purpose other than pollution control.

Criteria 3: The control equipment has an overwhelming positive net economic effect.

The economic data provided by Lone Star did not show substantial savings from the products recovered when compared to the cost of operating the baghouse.

Since none of the three criteria have been met, IDEM, OAQ has determined that the baghouse does not qualify as an integral part of the process. The permitting level will be determined using the potential to emit before baghouse 782L.

(b) *Baghouse 783L, controlling emissions from one (1) lump breaker (5-27B, 783V3), one (1) spout (5-27C, 785L), and one (1) truck loader (5-27D), and Baghouse 784L, controlling emissions from one (1) lump breaker (5-28B, 784V3), one (1) spout (5-28C, 786L), and one (1) truck loader (5-28D)*.

Lump breaker (5-27B, 783V3), spout (5-27C, 785L), and truck loader (5-27D) are identical to lump breaker (5-28B, 784V3), spout (5-28C, 786L), and truck loader (5-28D), respectively. When a truck is loaded, the spout, which is surrounded by a boot, is lowered into/onto the cement truck hatch opening. The boot encloses the material transfer from the spout to the truck. The boot is constructed as a part of the spout and is not operated separately. Therefore the enclosure exists every time the spout is lowered and does not rely on a control system interlock. The enclosure is an integral part of the material transfer process. In addition, the baghouse, which vents the boot, lump breaker and truck loader, is interlocked to the material transfer system. Material transfer cannot occur without the baghouse. The air slides utilize air to facilitate product (cement) transfer from the silo to the truck. This transfer air vents to the baghouse so that the entrained product (cement) can be separated from the transfer air and returned to storage silo. Again, since air is utilized to transfer the product, and product becomes entrained in the transfer air, the baghouse acts as in integral part of the process equipment by separating product from transfer air. Potential emissions from baghouses 783L and 784L should be based upon “controlled” potential.

IDEM, OAQ has evaluated the justification provided by Lone Star. Our review is based on the following three criteria:

Criteria 1: The process cannot operate without the control equipment.

Lone Star claims that baghouse 783L and 784L are integral to the process because of interlock controls. The presence of interlock controls is not sufficient to claim that a baghouse is integral. Interlock controls do not mean that the process cannot operate without the control equipment since the interlock controls can be changed or removed from the operation. Baghouse 783L controls emissions from the vent stream of four pieces of equipment and baghouse 784L controls emissions from the vent stream of four pieces of equipment. Because

these baghouses are used as add-ons controlling the vent streams and do not perform a role in the processes, it is clear that the emission points could operate even if the baghouses were not operating properly or operating at all. Based on the justification provided by Lone Star, IDEM, OAQ has determined that the process can operate without the control equipment.

Criteria 2: The control equipment serves a primary purpose other than pollution control.

Lone Star claims that the baghouses are integral to the process because the baghouses are required to separate product from the air since, during transfer, product becomes entrained in the air. Baghouses 783L and 784L do not separate the full product stream from air. Instead they remove the entrained product that saturates the air from the air stream, as a control device does. Based on the emission factor, the quantity of product entrained in the airstream would be low. Since the maximum transfer rate is 500 tons per hour, the amount of cement entrained in the air is a relatively small percentage of the cement transferred by weight. It would not make up 85% or more of the product or even close to that amount. Therefore, IDEM, OAQ has determined that the control equipment do not serve a primary purpose other than pollution control.

Criteria 3: The control equipment has an overwhelming positive not economic effect.

The economic data provided by Lone Star did not show substantial savings from the products recovered when compared to the cost of operating the baghouse.

Since none of the three criteria have been met, IDEM, OAQ has determined that the baghouses do not qualify as an integral part of the process. The permitting level will be determined using the potential to emit before baghouses 783L and 784L.

Enforcement Issue

(a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment.*

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

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

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

An administratively complete Part 70 permit application for the purposes of this review was received on October 15, 1996. Additional information in the form of an addendum to the application was received on June 20, 2001. Additional information was received on March 19, 2002, March 26, 2002, December 20, 2002, December 23, 2002, January 30, 2003, April 3, 2003, April 30, 2003, June 27, 2003, September 15, 2003, September 17, 2003, and September 22, 2003 and September 25, 2003.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (page 1 through 12). For the gypsum material handling process, see the TSD for MSM133-15262-00002, issued on April 9, 2002.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source 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."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	Greater than 250
PM-10	Greater than 250
SO_2	Greater than 200
VOC	Less than 100
CO	Greater than 250
NO_x	Greater than 250

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	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
MEK	12.5
Benzene	57.1
Toluene	21.0
Chlorobenzene	2.01

HAP's	Potential To Emit (tons/year)
Ethylbenzene	2.48
Xylene	90.8
Styrene	9.79
Carbon disulfide	22.6
Chloroform	0.31
Carbon tetrachloride	0.32
TOTAL	Greater than 25

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10, SO_2, CO, and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit of any combination of HAPs is greater than 25 tons/yr. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	57
PM-10	57
SO_2	233
VOC	--
CO	186
NO_x	1,192

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_x	HAPs
Raw Material Sizing Activities	Less than 25.1	Less than 21.8	-	-	-	-	-
*Gypsum Material Handling Process	Less than 0.97	Less than 0.88	-	-	-	-	-
Raw Material Ball Mill Operations	Less than 40.6	Less than 22.6	-	-	-	-	-
Fly Ash Activities	Less than 3.20	Less than 3.04	-	-	-	-	-

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_x	HAPs
Coal Mill Operations	Less than 24.6	Less than 23.9	-	-	-	-	-
Raw Material Feed and Kiln Operations	Less than 53.1	Less than 53.0	Less than 3,316	Less than 9.23	Less than 2,930	Less than 4,392	Less than 15.4
Clinker Cooler Operations	Less than 47.1	Less than 46.4	-	-	-	-	-
Finish Mill Operations	Less than 87.8	Less than 87.7	-	-	-	-	-
Cement Storage, Loading, and Packaging Activities	Less than 39.0	Less than 39.0	-	-	-	-	-
Blend Facilities	Less than 2.44	Less than 2.31	-	-	-	-	-
Packhouse Operations	Less than 12.5	Less than 10.5	-	-	-	-	-
Storage Tanks	-	-	-	Less than 5.0	-	-	Less than 5.0
Insignificant Activities	Less than 10.0	Less than 10.0	Less than 10.0	Less than 5.0	Less than 10.0	Less than 10.0	Less than 5.0
**Storage Pile (fugitive)	Less than 10.0	Less than 10.0	-	-	-	-	-
Total PTE of this Source	Less than 356	Less than 331	Less than 3,326	Less than 19.2	Less than 2,940	Less than 4,402	Less than 25.4
PSD Significant Thresholds	100	100	100	100	100	100	NA

Note: (*) The potential to emit PM/PM10 from they gypsum material handling process is from the TSD for MSM #133-15262-00002, issued on April 9, 2002.
(**) Since this source is one of the 28 source categories under 326 IAC 2-2, the fugitive particulate matter (PM) emissions from the storage pile are counted towards determination of PSD applicability.

County Attainment Status

The source is located in Putnam County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Putnam County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Putnam County has been classified as attainment 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.

(c) Fugitive Emissions
Since this type of operation is in one of the 28 listed source categories under 326 IAC 2-2 and since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

(a) The quarry activities and the raw material sizing activities at this source process nonmetallic mineral and are not subject to 40 CFR 63, Subpart LLL (NESHAP for Portland Cement Industry), according to affected facility definition in 40 CFR 63.1340. Therefore, the requirements of the New Source Performance Standard for Nonmetallic Mineral Processing Plants (40 CFR 60.670 - 60.676, Subpart OOO) are applicable to the units included in these activities.

Pursuant to 40 CFR 63.670(a), the affected facilities include each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, storage bin, enclosed truck or railcar loading station. Note that this NSPS was promulgated on August 31, 1983. Therefore, the requirements of 40 CFR 60, Subpart OOO do not apply to the facilities constructed or modified before August 31, 1983.

Pursuant to 40 CFR 60.672, the quarry activities and the raw material sizing activities shall comply with the following:

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 7% Opacity
Raw Material Sizing Activities	one (1) belt conveyor (202G2V2) one (1) screen (205G) one (1) crusher (202G2) one (1) belt conveyor (202G2V3)	FF 1-16 (208L1)	0.022 gr/dscf 7% Opacity
	one (1) apron feeder (202G2V1)	Fugitive	10% Opacity

Operations	Units	Emission Point	PM Emission Limit
	one (1) belt conveyor (202G1V1) one (1) crusher (202G1) one (1) belt conveyor (202G1V2) one (1) belt conveyor (202GV2)	FF 1-25 (208L)	0.022 gr/dscf 7% Opacity
	one (1) screen (204G) one (1) belt conveyor (202GV3) one (1) belt conveyor (202GV4)	FF 1-26 (210L)	0.022 gr/dscf 7% Opacity

(b) The coal mill operation at this source processes more than 200 tons of coal per day. In addition, none of the coal conveying facilities listed under coal mill operation are used to convey coal from the coal mill to the kiln. Therefore, the coal mill operation is subject to the requirements of the New Source Performance Standard for Coal Preparation Plants (40 CFR 60.250 - 60.254, Subpart Y).

Pursuant to 40 CFR 60.250(a), the affected facilities include thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems. Pursuant to 40 CFR 60.250(b), only the units constructed or modified after October 24, 1974 are subject to the requirements in 40 CFR 60, Subpart Y.

Pursuant to 40 CFR 60.252(c), the visible emissions from the following coal conveying, storage, and transfer facilities at the coal mill operation shall not be less than 20% opacity:

Operations	Units	Emission Point
Coal Mill Operation	coal storage piles	BE 2-1
	four (4) vibrating feeders (209V-211V, 213V) one (1) belt conveyor (222V) 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) 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) two (2) rotary feeders (436LVV, 436L1VV) one (1) pulverized coal bin (438F)	FF 2-13 (438L)

The coal mill 436G at this source is also used to remove moisture from the coal. Therefore, this coal mill is considered a thermal dryer, based on the definition in 40 CFR 60.251(e). Pursuant to 40 CFR 60.252(a), the PM emissions from the thermal dryers shall be less than 0.031 gr/dscf (0.070 g/dscm) and 20% opacity. Note that this coal mill is not considered a raw material dryer, and therefore, is not subject to the requirements in 40 CFR 63, Subpart LLL (NESHAP for Portland Cement Manufacturing Industry).

(c) This Portland Cement plant was modified after August 17, 1971. Therefore, this source is subject to the requirements of the New Source Performance Standard for Portland

Cement Plants (40 CFR 60.60 - 60.66, Subpart F). However, this source is also subject to 40 CFR 63, Subpart LLL (NESHAP for Portland Cement Manufacturing Industry). Pursuant to 40 CFR 63.1356(a), any source subject to 40 CFR 63, Subpart LLL is exempt from the requirement of 40 CFR 60, Subpart F. Therefore, the requirements of 40 CFR 60, Subpart F are not applicable to this source.

(d) Hazardous waste is one type of fuel used in the cement kiln at this source. Therefore, the kiln is subject to the National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (326 IAC 20-28, 40 CFR 63.1200 - 63.1213, Subpart EEE). The source also proposed to comply with this NESHAP after issuance of this Part 70 permit to satisfy the requirements of 326 IAC 2-4.1 (New Source Toxics Control). Pursuant to 40 CFR 63, Subpart EEE, this source has the following applicable requirements:

Emission Limits

(1) 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 combustion gas temperatures at the inlet to the particulate matter control device is 400 degrees Fahrenheit or less.

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

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

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

(A) Hydrocarbons in the bypass shall not exceed 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to seven percent oxygen, and reported as propane; or

(5) Carbon monoxide in the bypass duct for the kiln system 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 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, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by 40 CFR 63.1206(b)(7).

(6) 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.

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

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

Note that the following emission units vent through kiln stack (3-1) and the emissions from these units shall comply with the emission limitations in 40 CFR 63, Subpart EEE.

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) one (1) rotary kiln (401B)	Stack 3-1
	*nine (9) screw conveyors (403V-410V, 404FV)	Stack 3-1
	*one (1) conditioning tower (480F) *one (1) alkali bypass system (3-5B) *one (1) hopper, identified as (484F) *four (4) screw conveyors (480LV1-LV3, 480V) one (1) weight hopper (481FF) one (1) pug mill (484L) 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.

Pursuant to 40 CFR 63.1342, 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 emission limitations in 40 CFR 63, Subpart LLL shall apply to the kiln:

(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 8.7×10^{-11} grains per dry standard cubic foot (TEQ) corrected to seven percent oxygen; or 1.7×10^{-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.

Testing Requirements

(1) Within 180 days of issuance of this permit, the Permittee shall demonstrate initial compliance with the emission limits established in the permit by commencing initial comprehensive performance tests in accordance with 40 CFR 63.1207 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. The testing must be completed within 60 days after the date of commencement. These tests shall be repeated at least once every 2.5 years from the date of this valid compliance demonstration.

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

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

(B) 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.

(C) The clinker production rate shall be measured and recorded. The kilns must be operating at 95 percent of its maximum production capacity or more during the performance tests to be considered a valid test.

Monitoring Requirements

(1) Pursuant to 40 CFR 63, a continuous monitoring system shall be installed, calibrated, maintained, and operated for measuring the opacity from the kiln. The continuous monitoring system shall be installed and operational prior to conducting the performance tests. The continuous monitoring systems shall meet the performance specifications of 40 CFR 63.8(c).

(2) Pursuant to 40 CFR 63, a continuous monitoring system shall be installed, calibrated, maintained, and operated to demonstrate continuous compliance with the carbon monoxide and hydrocarbon limits specified in 40 CFR 63. An oxygen CEMS shall also be installed, calibrated, maintained, and operated to continuously correct the carbon monoxide or hydrocarbon levels to 7 percent oxygen.

(3) The Permittee shall install, calibrate, maintain and operate a particulate matter continuous emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere. The compliance deadline for installing the PM CEMS and all requirements relating to performance of the PM CEMS and implementation of the PM CEMS requirement is deferred pending further rulemaking.

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

(A) 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 limit in the permit; and

(B) Procedures for operating and maintaining the kiln 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.

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

Record Keeping Requirements

To document compliance with the NESHAP, 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 including:

(A) All documentation supporting initial notifications and notifications of compliance status.

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

(3) The Permittee shall maintain all records of continuous monitoring system data.

Reporting Requirements

(1) Beginning on the date of issuance of this permit, the Permittee shall submit a continuous monitory system (CMS) performance report with the excess opacity summaries, in accordance with 40 CFR 63.10(e)(3) and 40 CFR 63, Subpart A.

(2) Beginning on the date of issuance of this permit, 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 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.

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

(A) Compliance progress reports as required by 40 CFR 63.1211(b) and 40 CFR 63.10(d)(4).

(B) 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 of the permit.

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

(D) 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.

(E) 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 or facsimile (FAX) transmission. 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.

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

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

(e) This Portland cement manufacturing plant is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Portland Cement Industry (40 CFR 63.1340 - 63.1358, Subpart LLL). This NESHAP applies to any new or existing portland cement plant.

The source is an existing HAP major source. Pursuant to 40 CFR 63.1340(b), the affected facilities include the following:

(1) Each kiln and each in-line kiln/raw mill, including alkali bypasses, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to and regulated under 40 CFR 63, Subpart EEE.

(2) Each clinker cooler;

(3) Each raw mill;

(4) Each finish mill;

(5) Each raw material dryer and each greenfield raw material dryer;

(6) Each raw material, clinker, or finished product storage bin;

(7) Each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln; and

(8) Each bagging and bulk loading and unloading system.

Therefore, the gypsum material handling process, the raw material ball mill operation, the fly ash storage activities, the alternate raw material feed system, the clinker cooler operation, the finish mill operation, the cement storage, loading, and packaging activities at this source are subject to this NESHAP, except for all the storage piles with fugitive emissions. See Appendix B for rule applicability for each unit.

The cement kiln at this source uses waste or coal as fuel. Therefore, this kiln is subject to the requirements of 40 CFR 63, Subpart EEE (NESHAP for Hazardous Waste Combustion Incinerators).

Note that the units included in the coal mill operation are used to process the coal before the kiln and none of the units listed under the coal mill operation is used to convey coal from the coal mill to the kiln. Therefore, the coal mill operation is not subject to 40 CFR 63, Subpart LLL. In addition, most of the units listed under alternate raw material feed system and kiln operation vent through the kiln stack (stack 3-1). When venting through the kiln stack, the exhausts from these units shall comply with the emission standards for the kiln.

In addition, the following units are used to process the cement kiln dust and are not considered affected facilities under 40 CFR 63, Subpart LLL:

(1) One (1) return dust bin, identified as Point 3-3A (405F); one (1) waste dust bin, identified as Point 3-3F (404F); one (1) hopper, identified as Point 3-3C (445F); two (2) bucket elevators, identified as Point 3-3G (411V, 413V); one (1) rotary feeder, identified as Point 3-3H (405FVV); and one (1) screw conveyor, identified as Point 3-3I (405FVV1); all equipped with one fabric filter system (FF 3-3, baghouse 403L) to control particulate emissions.

(2) One (1) non-routine raw material dust truck loading station, covered by a building enclosure (BE 3-25) to control particulate emissions.

(3) One (1) weigh hopper, identified as Point 3-5I (481FF); one (1) pug mill, identified as Point 3-5J (484L); and one (1) CKD loadout spout, identified as 481L; all equipped with one (1) fabric filter system (FF 3-5, baghouse 480L) to control particulate emissions.

(4) One (1) reject dust bin, for cement kiln dust, identified as Point 3-7A (481F), equipped with one (1) fabric filter system (FF 3-7, baghouse 483L) to control particulate emissions.

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

(6) One (1) non-routine CKD loadout station, including one (1) screw conveyor (412V), utilizing water mist suppression to control particulate emissions.

The units subject to 40 CFR 63, Subpart LLL have the following applicable requirements:

Emission Limits

(1) Pursuant to 40 CFR 63.1345 (Emissions Standards and Operating Limits), the clinker cooler (3-9A, 401C) shall be limited as follows:

(A) Particulate matter (PM) emissions shall be limited to 0.10 pound per ton of feed (dry basis) to the kiln.

(B) Visible emissions shall be limited to ten percent (10%) opacity.

(2) Pursuant to this rule, the visible emissions from the remaining listed facilities shall not exceed ten percent (10%) opacity.

Testing Requirements

(1) The Permittee shall demonstrate initial compliance with the limits established the permit by conducting a test in accordance with 40 CFR 63.1349 and Method 9 of 40 CFR Part 60, Appendix A. Testing shall be conducted in accordance with Section C - Performance Testing.

(2) The Permittee shall demonstrate initial compliance with the PM and opacity limits for the clinker cooler by conducting performance tests in accordance with 40 CFR 63.1349, Methods 5 and 9 of 40 CFR Part 60, Appendix A, and Section C-Performance Testing. These tests shall be repeated at least once every 2.5 years from the date of this valid compliance demonstration. These tests shall be conducted in accordance with Section C - Performance Testing.

Monitoring Requirements

(1) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for each affected source 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 or upon startup, which ever 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 emissions limit in the rule; 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:

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

(ii) 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.

(iii) 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.

(iv) 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, Appendix A, Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.

(v) 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.

(vi) 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 (i) through (iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (vii) of this section.

(vii) If visible emissions from a building are monitored, the requirements of paragraphs (i) through (iv) 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.

(2) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall monitor opacity from the finish mills by conducting daily visual emissions observations of the mill sweep and air separator particulate matter control devices (PMCDs), 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:

(A) 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

(B) 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 visual opacity test of each stack from which emissions were observed during the follow up Method 22 test in accordance with 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 test shall be thirty minutes.

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

Record Keeping Requirements

(1) To document compliance with the NESHAP, the Permittee shall maintain all records required by 40 CFR 63.1355. These records include the following:

(A) 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).

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

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

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

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

Reporting Requirements

(1) 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:

(A) 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 or upon startup, which ever is later.

(B) 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.

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

(D) 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.

(E) 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.

(F) 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.

(G) 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.

(f) The cement kiln is subject to 40 CFR Part 61, Subpart FF (National Emission Standard for Benzene Waste Operations) because it is a hazardous waste disposal facility that disposes of hazardous waste. The hazardous waste serves as a supplemental fuel and because of the extreme temperatures of the kiln system, destructs a majority of the organics in the hazardous waste. Tanks 1-8 are also subject to 40 CFR Part 61, Subpart FF because they are hazardous waste storage facilities. The requirements of this rule include, but are not limited to, the following:

Standards

(1) The Permittee shall design, install, operate, and maintain a treatment process (cement kiln) that destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene and has been issued a final permit under 40 CFR Part 270.

(2) The 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 the carbon canister adsorption vapor system.

[Note: According to the letter dated February 7, 2003 from Ms. Cynthia A. King, US EPA, EPA agreed that Lone Star could comply with 40 CFR 61.342(c)(1)(ii) by an Agreed Order issued by EPA, instead of using an activated carbon canister system. This letter stated that an Agreed Order may include monthly liquid level check requirements, an EPA approved emission abatement plan, and pressure relief value requirements. EPA and Lone Star are currently working on this Agreed Order.]

(3) Each opening in the fixed-roof for a tank 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.

(4) Each opening in the fixed-roof for a container shall be maintained in a closed, sealed position at all times that waste is in the container except when it is

necessary to use the opening for waste loading, removal, inspection, or sampling.

(5) The activated carbon adsorption vapor system shall control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

(6) Closed-vent systems that contain devices 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.

(7) The closed-vent system and carbon adsorption system shall be operated at all times when waste is placed in the tank vented to the control device except when maintenance or repair of the tank cannot be completed without a shutdown of the control device.

Testing Requirements

(1) Each opening in the kiln shall be designed to operate with no detectable emissions 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) The cover and all openings for each tank shall designed to operate with no detectable emissions in accordance with 40 CFR 61.355(h).

(3) The cover and all openings for each container shall designed to operate with no detectable emissions in accordance with 40 CFR 61.355(h).

(4) The closed-vent system shall be designed to operate with no detectable emissions in accordance with 40 CFR 61.355(h).

(5) Pursuant to 61.349(c)(1), the Permittee shall demonstrate compliance using engineering calculations that includes a design analysis that addresses the items specified in 40 CFR 61.356(f)(2)(i)(G).

Monitoring Requirements

(1) The pressure in the kiln shall be monitored continuously to ensure that the pressure remains below atmospheric pressure.

(2) Pursuant to 61.349(h), the Permittee must monitor the carbon absorption vapor system in accordance with 40 CFR 61.354(c).

Inspection Requirements

(1) Each fixed-roof, seal, access door, and all other openings in the tank shall be checked by visual inspection quarterly to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Except as provided in 40 CFR 61.350, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 45 calendar days after identification.

(2) Each cover and all openings in the container shall be checked by visual inspection initially and quarterly thereafter to ensure that they are closed and gasketed properly. Except as provided in 40 CFR 61.350, when a broken seal or

gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.

(3) Each closed-vent system and control device shall be visually inspected quarterly. The visual inspection shall include inspection of the ductwork, piping, and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections. Except as provided in 40 CFR 61.350, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed.

Record Keeping and Reporting Requirements

(1) The Permittee shall comply with the record keeping requirements of 40 CFR 61.356 and reporting requirements of 40 CFR 61.357.

(g) 40 CFR 63, Subpart DD (National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations) is not applicable to Tanks 1-8 because the waste that the source receives is excluded from the definition of “off-site materials” pursuant to 40 CFR 60.680(b)(2).

(h) The waste tanks at this source are not subject to 40 CFR 63, Subpart DD (NESHAP for Off-Site Waste and Recovery Operations), 40 CFR 61, Subpart J (National Emission Standards for Equipment Leaks of Benzene), and 40 CFR 61, Subpart F (National Emission Standards for Vinyl Chloride). Therefore, these tanks are not subject to the requirements of the NESHAPs for Equipment Leaks (Fugitive Emission Sources) (40 CFR 61.240-247, Subpart V).

(i) The liquid organic waste tanks 1-8 were constructed after 1988 and each has a capacity greater than 40 cubic meters (10,560 gallons). Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b - 117b, Subpart Kb) are applicable to these waste tanks.

Pursuant to 40 CFR 60.112b(a)(3), a closed vent system and control device shall comply with the following requirements:

(1) 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 indicate 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).

(2) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 CFR 60.18) of the General Provisions.

(j) The insignificant degreasers are not subject to the requirements of the 40 CFR 63, Subpart T (National Emission Standards for Halogenated Solvent Cleaning) because they do not utilize a solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform, or any combination of these halogens, in a total concentration greater than five percent by weight.

(k) All the insignificant tanks at this source do not have the capacities greater than 40 cubic meters (10,560 gallons) gallons. Therefore, the following New Source Performance Standards do not apply to these insignificant tanks:

(1) Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after June 11, 1973, and Prior to May 19, 1978 (40 CFR 60.110 - 113, Subpart K) ;

(2) Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after May 19, 1978 (40 CFR 60.110a - 115a, Subpart Ka); and

(3) Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b - 117b, Subpart Kb)

(l) This source does involve pollutant-specific emissions units as defined in 40 CFR 64.1:

(1) With the potential to emit before controls equal to or greater than the major source threshold;

(2) That is subject to an emission limitation or standard; and

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

For the units subject to the NESHAPs for Portland Cement Manufacturing Industry (40 CFR 63, Subpart LLL), and since this NESHAP was promulgated after November 15, 1990, these units are exempt from the requirements of 40 CFR 64 (Compliance Assurance Monitoring), Pursuant to 40 CFR 64.2(b)(i).

For the units subject to the NSPS for Nonmetallic Mineral Processing Plants (40 CFR 60 Subpart OOO) and the NSPS for Coal Preparation Plants (40 CFR 60, Subpart Y), which were promulgated before November 15, 1990, these units are subject to the requirements of 40 CFR 64 (CAM). However, since this source submitted their Part 70 permit application before April 20, 1998, the CAM requirements will be addressed in the first Part 70 renewal permit and will not be included in this permit.

(m) This Portland cement plant is HAP major source. However, this source does not include one or more units that belong to one or more source categories affected by Section 112(j) MACT Hammer date of May 15, 2002. Therefore, the requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (PSD)

This source was constructed before 1980 and had significant modifications in 1996, 1998, 1999, and 2000. This source is one of 28 source categories and has potential to emit PM, PM10, SO_2, NO_x, and CO after control greater than 100 tons/yr. Therefore, this source is an existing PSD major source and has the following requirements:

(a) Pursuant to CP133-10159-00002, issued April 16, 1999, the following limitations apply:

(1) Pursuant to 326 IAC 2-2-3(a)(3) (PSD BACT) and 40 CFR 52.21, the emissions from the following emission points shall comply with the emission limits listed in the table below:

Units	Point	Filterable PM Limits	Filterable PM10 Limits
one (1) belt conveyor (251V)	FF 1-15 (209L)	0.015 gr/dscf 1.60 lbs/hr	0.015 gr/dscf 1.60 lbs/hr
four (4) belt conveyors (252V-255V) four (4) raw material bins (350F-353F)	FF 1-17 (350L)	0.010 gr/dscf 1.08 lbs/hr	0.010 gr/dscf 1.08 lbs/hr
one (1) fly ash silo (270F) one (1) fly ash silo (271F)	*FF 1-39 (270L) FF 1-40 (271L)	0.015 gr/dscf 0.11 lbs/hr (each)	0.015 gr/dscf 0.11 lbs/hr (each)
one (1) raw coal bin (435F)	FF 2-9 (435L)	0.010 gr/dscf 0.33 lbs/hr	0.010 gr/dscf 0.33 lbs/hr
one (1) coal mill (436G) three (3) screw conveyor (436LV, 436L1V, 436GV1)	FF 2-11 (436L)	0.010 gr/dscf 4.45 lbs/hr	0.010 gr/dscf 4.45 lbs/hr
two (2) screw conveyors (437V, 438V) two (2) rotary feeders (436LVV, 436L1VV) one (1) pulverized coal bin (438F)	FF 2-13 (438L)	0.010 gr/dscf 0.14 lbs/hr	0.010 gr/dscf 0.14 lbs/hr
one (1) hammermill dryer (440G) one (1) calciner tower (440PH) one (1) rotary kiln (401B) one (1) alkali bypass system (3-5B)	Stack 3-1	0.016 gr/dscf 91.3 lbs/hr	0.014 gr/dscf 88.7 lbs/hr
one (1) return dust bin (405F) one (1) waste dust bin (404F)	FF 3-3 (403L)	0.020 gr/dscf 1.40 lbs/hr	0.020 gr/dscf 1.40 lbs/hr
one (1) reject dust bin for cement kiln dust (481F)	FF 3-7 (483L)	0.010 gr/dscf 0.64 lbs/hr	0.010 gr/dscf 0.64 lbs/hr
one (1) clinker cooler (401C) one (1) clinker breaker (401CG) one (1) dropout chamber (401CL) two (2) vibrating feeders (427V, 428V) one (1) drag conveyor (401CV) eight (8) screw conveyors (422V, 470CV2, 470CV3, 470CV9, 470CV10, 474V-476V)	FF 3-9 (471-CL, Stack 3-2)	0.015 gr/dscf 7.25 lbs/hr	0.015 gr/dscf 7.25 lbs/hr
two (2) belt conveyors (421V, 509V) two (2) bucket elevators (418V, 419V)	FF 3-11 (406L)	0.015 gr/dscf 0.64 lbs/hr	0.015 gr/dscf 0.64 lbs/hr
one (1) belt conveyor (510V)	FF 3-12 (506L)	0.015 gr/dscf 0.48 lbs/hr	0.015 gr/dscf 0.48 lbs/hr
seven (7) clinker silos (501A-507A)	FF 3-14 (503L)	0.015 gr/dscf 0.59 lbs/hr	0.015 gr/dscf 0.59 lbs/hr
four (4) vibrating feeders (504-507V)	FF 3-15 (505L)	0.015 gr/dscf 0.59 lbs/hr	0.015 gr/dscf 0.59 lbs/hr
four (4) vibrating feeders (501V-503V, 508V) one (1) belt conveyor (221V)	FF 3-17 (504L)	0.015 gr/dscf 0.59 lbs/hr	0.015 gr/dscf 0.59 lbs/hr
two (2) belt conveyors (639V, 640V) one (1) clinker bin (601F) one (1) gypsum bin (603F) one (1) spill screw (646V)	FF 4-1 (617L)	0.020 gr/dscf 1.12 lbs/hr	0.020 gr/dscf 1.12 lbs/hr
one (1) No. 1 finish mill (603G) one (1) elevator (626V) one (1) spill screw (642V)	FF 4-2 (613L)	0.020 gr/dscf 2.07 lbs/hr	0.020 gr/dscf 2.07 lbs/hr

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

Units	Point	Filterable PM Limits	Filterable PM10 Limits
three (3) Group 3 silos (18S, 20S, 22S)	FF 5-14 (22DC)	0.020 gr/dscf 0.28 lbs/hr	0.020 gr/dscf 0.28 lbs/hr
two (2) Group 3 silos (24S, 30S)	FF 5-15 (24DC)	0.020 gr/dscf 0.28 lbs/hr	0.020 gr/dscf 0.28 lbs/hr
four (4) Group 3 silos (19S, 21S, 23S, 25S)	FF 5-17 (25DC)	0.020 gr/dscf 0.28 lbs/hr	0.020 gr/dscf 0.28 lbs/hr
two (2) bulk tanks (831F, 833F) one (1) truck loader	FF 5-23 (833L)	0.020 gr/dscf 0.73 lbs/hr	0.020 gr/dscf 0.73 lbs/hr
three (3) bulk tanks (832F, 834F, 835F)	FF 5-24 (835L)	0.020 gr/dscf 0.73 lbs/hr	0.020 gr/dscf 0.73 lbs/hr
one (1) elevator (838V) one (1) packer bin (Bin #1) one (1) packing machine (842LF) two (2) circulating tanks (842F, 842FA) two (2) rotary feeders (842M, 842MA) four (4) screw conveyors (842LV1, 837V, 837V1, 831V2)	FF 6-1 (842L)	0.020 gr/dscf 0.13 lbs/hr	0.020 gr/dscf 0.13 lbs/hr
one (1) elevator (838V1) one (1) packer bin (Bin #2) one (1) packing machine (843LF) two (2) circulating tanks (843F, 843FA) two (2) rotary feeders (843M, 843MA) four (4) screw conveyors (843LV1, 817V1, 817V3, 817V7)	FF 6-2 (843L)	0.015 gr/dscf 0.93 lbs/hr	0.015 gr/dscf 0.93 lbs/hr
one (1) elevator (838V2) one (1) packer bin (Bin #3) one (1) packing machine (844LF) two (2) circulating tanks (844F, 844FA) two (2) rotary feeders (844M, 844MA) one (1) screw conveyor (844LV1)	FF 6-3 (844L)	0.015 gr/dscf 0.93 lbs/hr	0.015 gr/dscf 0.93 lbs/hr
one (1) elevator (838V3) one (1) packer bin (Bin #4), one (1) packing machine(845LF) two (2) circulating tanks (845F, 845FA) two (2) rotary feeders (845M, 845MA) one (1) screw conveyor (845LV1)	FF 6-4 (845L)	0.015 gr/dscf 0.93 lbs/hr	0.015 gr/dscf 0.93 lbs/hr

*Note: These emission limits were set for the two (2) fly ash silos, which were permitted to construct in CP #133-10159-00002, issued on April 16, 1999 and were permitted to vent through one single baghouse FF 1-21. However, the source installed one baghouse for each fly ash silo and renamed the control devices baghouses 270L and 270L1. Therefore, the BACT emission limits for baghouse FF 1-21 in CP #133-10159-00002, issued on April 16, 1999, now apply to baghouses 270L and 271L. The pounds per hour limit was divided between the two baghouses based on the ratio of the two flow rates.

(2) 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.

(3) 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.

(4) 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.

(5) 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.

(6) 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.

(7) 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;

(8) The coal input rate to the kiln burner system shall not exceed 157,680 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(9) The coal input rate to the calciner burner system shall not exceed 201,480 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(10) 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

(11) 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.

(12) The SO_2 emissions from Stack 3-1 of the semi-dry process kiln and calciner tower shall not exceed 4.13 pounds of SO_2 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 SO_2 emissions. This limit ensures that the increase in SO_2 emissions from the 1999 modification does not exceed 40 tons/yr. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

The lime injection system associated with the conditioning tower (3-5A) shall be operated as necessary to reduce SO_2 emissions. Compliance with this SO_2 emission limit is demonstrated by SO_2 CEMs.

(13) The NO_x emissions from Stack 3-1 of the semi-dry process kiln shall be controlled by the low-NO_X 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 NO_x emissions. This limit ensures that the increase in NO_x emissions from the 1999 modification does not exceed 40 tons/yr. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable. Compliance with this NO_x emission limit is demonstrated by NO_x CEMs.

(14) 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.

(15) 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;

(16) 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

(17) 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.

(b) Pursuant to SSM 113-14452-00002, issued February 26, 2002, the PM/PM10 emissions from each of the baghouses 208L, 208L1, and 210L in the secondary crusher system to less than 0.01 grains per dry standard cubic feet and 1.54 lbs/hr. The flow rate of each baghouse was limited to less than 18,000 actual cubic feet per minute. In addition, PM and PM10 emissions from all three baghouses (208L, 208L1, and 210L) shall not exceed 13.9 tons per consecutive twelve (12) month period, rolled on a monthly basis. Therefore, the requirements of 326 IAC 2-2 (PSD) do not apply to the installation of the secondary crusher system.

However, since the limits above do not effectively limit PM10 emissions to less than 15 tons per year, IDEM, OAQ has replaced the grain loading and flow rate limitations with a limit of 0.0108 lbs/ton of PM/PM10 emissions. Combined with the throughput limit of 2,574,685 tons/yr, the PM/PM10 emissions from the secondary crusher system (SC-1) are effectively limited to less than 13.9 tons/yr (0.0108 lbs/ton x 2,574,685 tons/yr x 1 ton/2000 lbs = 13.9 tons/yr). Therefore, the PM/PM10 emission limits for the secondary crusher system (SC-1) have been revised in this permit.

(c) Pursuant to MSM 133-16137-00002, issued August 29, 2002, the throughput rate of 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 (PSD) are not applicable to the modification permitted in MSM 133-16137-00002.

(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) The kiln was permitted to be modified in CP #133-10159-0000, issued on April 16, 1999. Lone Star was an existing PSD major source before this modification. The Pb, Be, and Hg emissions from the kiln at this source were not required to be controlled with Best Available Control Technology (BACT) because the Pb, Be, and Hg emission increases from this modification were less than the PSD significant modification thresholds.

However, this construction permit did not contain the PSD minor limits for these pollutants. Therefore, the following emission limits will be added in this permit in order to rectify the deficiency of the construction permit and to ensure that the kiln is properly permitted.

In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the Pb, Be, and Hg emission limits after the kiln modification in 1999 shall be limited to less than the emission limits listed in the table below:

Pollutant	Pb	Be	Hg
Emission Limit (tons/yr)	0.85	0.00063	0.18
*Emission Limit (lbs/ton clinker)	0.00106	0.00000078	0.000224

* Emission Limit (lbs/ton) = PTE (tons/yr) x 2000 lbs/ton / 1,606,000 (tons/yr), because the clinker production rate was limited to less than 1,606,000 (tons/yr) in CP #133-10159-0000, issued on April 16, 1999.

These limits were calculated using the baseline emissions (the average emissions in 1997 and 1998) plus the PSD significant modification thresholds. The detail calculations are listed in the table below:

	Potential to Emit (tons/year)		
Pollutant	Pb	Be	Hg
*Emission Factor (lbs/ton)	0.00071	0.00000066	0.00022
**Representative Emissions before the Kiln Modification	0.25	0.00023	0.078
PSD Significant Modification Thresholds	0.6	0.0004	0.1
Emission Limits for the Kiln Modification	0.85	0.00063	0.18

* Emission factors are from AP-42, Table 11.6-9 (01/95).
**Emissions (tons/yr) = Representative Production Rate (tons/yr) x Emission Factor (lbs/ton) x 1 ton/2000 lbs. The representative production rate is 706,342.5 tons/yr, which is the average of 702,248 tons/yr in 1997 and 710,437 tons/yr in 1998.

(f) During the permit review process, IDEM, OAQ discovered that some of the unpermitted units were constructed or modified along with the 1999 modification, which was permitted in a PSD permit (CP133-10159-00002, issued April 16, 1999). Therefore, these units shall also have BACT limits. The Permittee has completed a BACT analysis for these units and the summary of this analysis is attached as Appendix C. According to this BACT analysis, the following emission points have the BACT limitations as listed in the table below:

Units	Emission Point	Filterable PM Limits	PM10 Limits
one (1) alleviator	FF 1-7 (351L)	0.010 gr/dscf 0.17 lbs/hr	0.010 gr/dscf 0.17 lbs/hr
two (2) screw conveyors (273V, 274V) two (2) fly ash hoppers (273F, 273FA)	FF 1-20 (274L)	0.010 gr/dscf 0.26 lbs/hr	0.010 gr/dscf 0.26 lbs/hr
one (1) belt conveyor (420V3)	*FF 2-6 (420L2)	0.010 gr/dscf 0.17 lbs/hr	0.010 gr/dscf 0.17 lbs/hr

one (1) belt conveyor (420V1)	*420L1 (vent indoor)	0.010 gr/dscf 0.17lbs/hr	0.010 gr/dscf 0.17lb/hr
one (1) bucket elevator (500V)	FF 3-22 (500L)	0.010 gr/dscf 0.28 lbs/hr	0.010 gr/dscf 0.28 lbs/hr
two (2) belt conveyors (514V, 511V) one (1) bucket elevator (513V)	FF 3-20 (513L)	0.010 gr/dscf 0.64 lbs/hr	0.010 gr/dscf 0.64 lbs/hr
one (1) belt conveyor (515V) four (4) silos (650A-653A)	FF 4-13 (515L)	0.010 gr/dscf 0.60 lbs/hr	0.010 gr/dscf 0.60 lbs/hr
one (1) silo (782F) one (1) bucket elevator (781V)	FF 5-26 (782L)	0.010 gr/dscf 0.67 lbs/hr	0.010 gr/dscf 0.67 lbs/hr
one (1) lump breaker (783V3) one (1) spout (785L) one (1) truck loader	FF 5-27 (783L)	0.010 gr/dscf 0.40 lbs/hr	0.010 gr/dscf 0.40 lbs/hr
one (1) lump breaker (784V3) one (1) spout (786L) one (1) truck loader	FF 5-28 (784L)	0.010 gr/dscf 0.40 lbs/hr	0.010 gr/dscf 0.40 lbs/hr

*Note: This emission point was permitted to use water mist suppression for particulate emission control in CP 133-10159-00002, issued April 16, 1999. The source has now installed baghouses for this unit, which provides a higher control efficiency.

Note that the emission limits for PM10 include filterable and condensible PM10. The limits in the table above will be added to this Part 70 permit as BACT limits also. The source also performed an air quality analysis (see Appendix D) for the entire source to demonstrate that the particulate emissions from this source are in compliance with NAAQS at the proposed BACT limits.

(g) In the PSD permit (CP 133-10159-00002, issued April 16, 1999), there were no permit conditions to specify that building enclosure or water mist suppression is the BACT for the following emission units:

Units	Control Method
outside storage piles one (1) primary crusher (201G) one (1) vibrating feeder (201V) one (1) apron feeder (206V) three (3) vibrating feeders (202V-204V)	water mist suppression or equivalent
four (4) weigh feeders (350V-353V) one (1) conveyor belt (358V); two (2) apron feeders (350V1, 351V1) two (2) scavenger conveyors (350V2, 351V2)	building enclosure
coal storage piles	building enclosure (BE 2-1)
four (4) vibrating feeders (209V-211V, 213V) one (1) belt conveyor (222V) 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) one (1) conveyor belt (436V)	building enclosure (BE 2-10)
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

Units	Control Method
one (1) non-routine outdoor clinker pile (3-13)	water mist suppression or equivalent

Note: (*)This unit was permitted to use water mist suppression for particulate emission control in CP 133-10159-00002, issued April 16, 1999. The source now uses building enclosure to control emissions, which provide similar control efficiencies as water mist suppression does.
(**)This unit was permitted to use building enclosure BE 3-8 for particulate emission control in CP 133-10159-00002, issued April 16, 1999. The source now uses water mist suppression to control emissions, which provide similar control efficiencies as building enclosure does.

Therefore, conditions to specify water mist or building enclosure is the BACT for the emission units in the table above will be added to this Part 70 Permit.

(h) The gypsum material handling process was permitted to constructed in MSM 133-15262-00002, issued on April 9, 2002. However, there were no specific PSD minor limits in this MSM. In order to make the requirements of 326 IAC 2-2 (PSD) not applicable the construction of the gypsum material handling process, the PM/PM10 emissions from this process shall be limited as follows:

Emission Point	PM Limits	PM10 Limits
1-34	0.24 lbs/hr	0.24 lbs/hr
1-35	0.24 lbs/hr	0.24 lbs/hr
S1-36 (232 FL)	0.45 lbs/hr	0.45 lbs/hr
1-38	0.24 lbs/hr	0.24 lbs/hr
1-41	0.24 lbs/hr.	0.24 lbs/hr

This is equivalent to 6.18 tons/yr of 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.

(i) The following emission units were constructed after 1980 and controlled by baghouses. In order to make the requirements of 326 IAC 2-2 (PSD) are not applicable, these units shall comply with the limitations listed in the table below:

Units	Emission Point	PM/PM10 Limits
two (2) additive silos (318F, 328F) four (4) rotary feeders (318V, 318VV, 328V, 328VV)	FF 1-21 (319L)	0.15 lbs/hr
one (1) receiving tank	FF 5-40 (40-DC)	0.14 lbs/hr
one (1) blending tank one (1) blending pod	FF 5-41 (41-DC)	0.14 lbs/hr
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

(j) The belt scale for belt conveyor 220V, which is controlled by an existing baghouse 221L was permitted to construct in MSM 133-16484-00002, issued March 11, 2003. In order to make the requirement of 326 IAC 2-2 (PSD) not applicable, the PM/PM10 emissions from baghouse 221L 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.

(k) The following emission units were constructed after 1980. In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the following emission units shall use the following control method for particulate control:

Emission Units	Control Methods
one (1) additive feed bin (308F) two (2) rotary feeders (308V, 308VV)	building enclosure
slag pile (1-13), one (1) non-routine CKD loadout station, including one (1) screw conveyor (412V)	water mist suppression and equivalent
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 (22-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)

326 IAC 2-4.1-1 (New Sources of Hazardous Air Pollutants)

At the time the kiln (3-1A, 401B) was permitted for reconstruction in 2000, the source accepted limits to limit the HAPs emissions from the kiln to less than 10 tons per year for a single HAP and less than 25 tons/yr for any combination of HAPs. The source requested to remove these limits and will become a HAP major source. Therefore, the requirements of 326 IAC 2-4.1 would become applicable. The source has chose to comply with the requirements of 40 CFR 63, Subpart EEE upon permit issuance in order to satisfy the requirements of 326 IAC 2-4.1.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM10, SO_2, NO_x, and CO. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

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

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

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

326 IAC 6-3-2(a) (Particulate Emission Limitations for Cement Kilns)

326 IAC 6-3-2(a) (Cement Kilns) does not apply to the semi-dry process cement kiln identified as Point 3-1A even though it was constructed before December 6, 1968 because it was modified in 2000.

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

Pursuant to the revised 326 IAC 6-3-2, “manufacturing process” means any single or series of actions, operations, or treatments in which a mechanical, physical, or chemical transformation of material occurs that emits, or has the potential to emit, particulate in the production of the product. IDEM, OAQ has historically viewed processes as groups of equipment that are physically connected and perform a similar function (i.e. the storage or handling of material). In addition, pursuant to the revised 326 IAC 6-3-1(c), the emission units which have specific PM limitations established in 326 IAC 2-2-3 (BACT), NSPS, or NESHAP, are exempt from the requirements of 326 IAC 6-3-2. Therefore, particulate emissions from the following group operations shall not exceed the limits listed in the table below:

Processes	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
Synthetic 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
Coal Mill Operation, excluding the units venting through baghouses 420L2, 420L1, 435L, 436L, and 438L	100	51.3
Alternate Raw Material Feed System, excluding the units venting through stack 3-1	110	52.2
Kiln Operation, excluding the units venting through stack 3-1 and baghouses 403L and 483L	208	58.9
Clinker Cooler Operations, excluding the units venting through baghouses 471CL, 406L, 506L, 500L and 503L	208	58.9
Finish Mill Operations, excluding the units venting through baghouses 505L, 504l, 513L, 515L, 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

The limitation for these operations were 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

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 the table above, provided the concentration of particulate matter in the discharge gases to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

326 IAC 6-4 (Fugitive Dust Emissions)

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

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

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 contains the following equipment and operating procedures for the control of fugitive dust emissions:

(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 and service companies, employees, etc.

(d) The mean speed limit for quarry haul truck traffic during periods with high blowing road dust potential has 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.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

(a) The cement kiln operation (3-1B, 440PH and 3-1A, 401B) is subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) because it has the potential to emit greater than twenty-five (25) tons per hour of sulfur dioxide. Pursuant to this rule, sulfur dioxide emissions from the combustion of coal shall be limited to 6.0 pounds per million British thermal units heat input. Pursuant to this rule, sulfur dioxide emissions from the combustion of fuel oil shall be limited to less than 0.5 pounds per million British thermal units heat input. Compliance with the emission limitation for sulfur dioxide from the kiln to ensure 326 IAC 2-2 does not apply shall ensure compliance with this rule.

(b) The coal mill fuel oil-fired burner (2-11A, 436G) that is used during startup is subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) because it has the potential to emit greater than twenty-five (25) tons per year of sulfur dioxide. Pursuant to this rule, sulfur dioxide emissions from the combustion of fuel oil in the burner shall be limited to less

than 0.5 pounds per million British thermal units heat input.

326 IAC 7-2-1 (Sulfur Dioxide Compliance Reporting)

(a) Pursuant to this rule, a quarterly report shall be submitted including the average sulfur content, heat content, the sulfur dioxide emission rate in pounds per million Btu, and the coal consumptions. Coal sampling and analysis data shall be collected pursuant to the procedures specified in 326 IAC 3-7-2 for coal combustion.

(b) Pursuant to this rule, a quarterly report shall be submitted including the average sulfur content, heat content, the sulfur dioxide emission rate in pounds per million Btu, and the fuel oil consumption. Fuel oil sampling and analysis data shall be collected pursuant to the procedures specified in 326 IAC 3-7-4 for fuel oil combustion.

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

The kiln is not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though it was constructed and modified after 1980, because, when operating at maximum capacity and worst case conditions, the potential emissions of VOC are less than twenty-five (25) tons per year.

326 IAC 10-1 (Nitrogen Oxides Rules)

326 IAC 10-1 (Nitrogen Oxides Rules) does not apply to this source because the source is not in Clark or Floyd County.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)

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 326 IAC 10-3-3, after May 31, 2004, the kiln shall not operate during the ozone control period of each year unless the kiln complies with one of the choices listed in 326 IAC 10-3-6(a)(1) through (3). On April 30, 2003, the source submitted a letter stating that Lone Star elected to comply with 326 IAC 10-3 through 326 IAC 10-3-3(a)(3), which states that the Permittee shall use alternative control techniques that achieve 30% NO_x emission reduction from the baseline ozone control period (May 1 to September 20) emissions. The control techniques may include kiln system modifications, such as conversions to semi-dry precalciner kiln processing. Baseline emissions are defined as the average of the sum of ozone control period emissions for the two (2) highest emitting years from 1995 to 2000.

Lone Star has modified their process from a wet cement kiln to a semi-dry cement kiln in 1999. This modification was permitted in CP #133-10159-00002, issued on April 16, 1999. The highest two (2) emitting years from Lone Star are 1998 and 1999 and the average NO_x emission factor is 7.28 lbs/ton of clinker produced. For 30% emission reduction, the NO_x emission limit for the kiln at Lone Star during the ozone control period will be 5.10 lbs/ton (7.28 lbs/ton x 70% = 5.10 lbs/ton). Lone Star believes that the semi-dry cement kiln is in compliance with the NO_x emission limit of 5.10 lbs/ton of clinker produced. The compliance with this limit will be determined by the use of continuous emission monitoring (CEM) devices.

Therefore, the Permittee shall comply with the following requirements:

(a) Pursuant to 326 IAC 10-3-3(a)(3), the Permittee shall use semi-dry precalciner kiln processing and the NO_x 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 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.

State Rule Applicability - Insignificant Conveyors, Trimmers, and Brazing, Cutting, Soldering, and Welding Equipment

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the insignificant conveyors, trimmers, and brazing, cutting, soldering, and welding equipment shall not exceed the pounds per hour limitation calculated using the following equation:

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

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

State Rule Applicability - Insignificant Degreasers

326 IAC 8-3-2 (Cold Cleaner Operation)

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.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without removing 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 (38EC) (one hundred degrees Fahrenheit (100EF));

(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 (38EC) (one hundred degrees Fahrenheit (100EF)), 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 (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

(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), the owner or operator of a cold cleaning facility constructed after July 1, 1990 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.

State Rule Applicability - Insignificant Gasoline Transfer and Dispensing Operation and Storage Tanks

326 IAC 8-4-3 (Petroleum Liquid Storage Refineries)

326 IAC 8-4-3 (Petroleum Liquid Storage Refineries) is not applicable to this source because the petroleum liquid storage vessels do not have capacities greater than one hundred fifty thousand (150,000) liters (thirty-nine thousand (39,000) gallons).

326 IAC 8-4-6 (Gasoline Dispensing Facilities)

326 IAC 8-4-6 (Gasoline Dispensing Facilities) does not apply to the insignificant gasoline dispensing operations because they were construction prior to July 1, 1989, the applicability date of this rule.

Testing Requirements

(a) In order to demonstrate compliance with the new PSD BACT and PSD minor limits, which were established in this Part 70 permit, the Permittee shall perform PM and PM-10 testing for the units with specific BACT or PSD minor emission limits utilizing methods as approved by the Commissioner.

(b) In order to determine compliance with 40 CFR 60, Subpart Y and the PSD BACT limit, 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.

(c) In order to determine initial compliance with 40 CFR 63, Subpart LLL and the PSD BACT limits, 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.

(d) In order to determine initial compliance with 40 CFR 63 and Subpart EEE, the Permittee shall perform comprehensive performance tests for the kiln exhaust (stack 3-1) in accordance with 40 CFR 63.1207, 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. The source has proposed to repeat these tests at least once every 2.5 years from the date of this valid compliance demonstration.

(e) In order to determine initial compliance with 40 CFR 63, Subpart LLL, the Permittee shall perform tests for the clinker cooler exhaust (stack 3-2) in accordance with 40 CFR 63.1349, and Section C - Performance Testing. The source has proposed to repeat these tests at least once every 2.5 years from the date of this valid compliance demonstration.

(f) In order to demonstrate compliance with 40 CFR 61, Subpart FF, 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).

(g) 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).

(h) Certified continuous opacity monitoring (COM) shall be performed concurrently with the particulate matter compliance tests for Stack 3-1 of the semi-dry process kiln and Stack 3-2 of the clinker cooler operation.

Compliance Requirements

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

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

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

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

1. The quarry activities, raw material sizing activities, synthetic gypsum material handling process, raw material ball mill operation, alternate raw material feed system, fly ash storage activities, and coal mill operation have applicable compliance monitoring conditions as specified below:

    (a) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operation and maintenance plan for the alternate raw material feed system, fly ash storage activities, and coal mill operation. 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 the permit; 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 the finish mills or raw 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) 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.

        (3) 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.

(b) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall monitor opacity from the affected units 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 highest load or capacity level reasonably expected to occur within the day. 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 visual opacity test in accordance with 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 test shall be thirty minutes.

(c) Visible emissions notations of each baghouse or building enclosure associated with the raw material sizing activities, synthetic gypsum material handling process, raw material ball mill operation, fly ash storage activities, and coal mill operation stacks shall be performed once per day during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for 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.

[Note: For the units subject to 40 CFR 60, Subpart OOO (NSPS for Nonmetallic Mineral Processing Plants), since the source agreed to install continuous pressure drop monitoring alarm system with the associated baghouses (209L, 208L1, 208L, and 210L), IDEM has agreed to reduce the visible emission notation frequency to once per day, instead of once per shift for baghouses 209L, 208L1, 208L, and 210L.]

(d) 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 (2-11, 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 recalibrated annually in accordance with the procedures specified in 40 CFR 60.13(b).

(e) The Permittee shall continuously record the total static pressure drop across the baghouses (208L, 208L1, 209L, and 210L) used in conjunction 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.

(f) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the raw material ball mill operation, fly ash storage activities, synthetic gypsum material handling process, and coal mill 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 ranges listed below:

Baghouse	Pressure Drop (inches of water)
350L, 351L, 270L, 271L, 274L, 319L, 232FL, 436L, 438L	1-8
420L2, 435L	*0.1-4

*Note: This pressure drop range was provided by the baghouse manufacturer.

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.

(g) An inspection shall be performed each calender quarter of all bags controlling the raw material sizing activities, synthetic gypsum material handling process, raw material ball mill operation, fly ash storage activities and coal mill operation (except for baghouse 438L). Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

The source stated that the inspection for baghouse 438L is dangerous because the inflow would have to be kept at very low oxygen levels to avoid the risk of combustion of the fine coal dust. IDEM has agreed to allow this baghouse to be inspected during shutdowns. In addition, the inspection for baghouse 438L shall be performed at least twice per year and at least three (3) months apart.

(h) 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.

(i) 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).

(j) Pursuant to CP133-10159-00002, issued April 16, 1999, the water mist spray systems associated with the quarry activities, raw material sizing activities, and 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.

(k) Compliance with the sulfur dioxide emissions and sulfur content limits shall be monitoring as follows:

(1) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions from the coal mill's (2-11A, 436G) fuel oil-fired burner during startup do not exceed five-tenths (0.5) pounds per million Btu heat input by:

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

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

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

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

(2) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the coal mill's (2-11A, 436G) 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 (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

These monitoring conditions are necessary because the baghouses for the raw material sizing activities, synthetic gypsum material handling process, raw material ball mill operation, fly ash storage activities, and coal mill operation must operate properly to

ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (PSD), 40 CFR Part 60, Subpart OOO (NSPS for Nonmetallic Mineral Processing Plants), 40 CFR Part 60, Subpart Y (NSPS for Coal Preparation Plants), and 40 CFR 63, Subpart LLL (NESHAP for Portland Cement Manufacturing Industry).

2. The kiln operation has applicable compliance monitoring conditions as specified below:

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), 326 IAC 2 and 40 CFR 63.1209(a)(1)(ii), a continuous monitoring system shall be installed, calibrated, maintained, and operated for measuring the opacity from the kiln, pursuant to 326 IAC 3-5 and 40 CFR 63, Subpart EEE. The continuous monitoring systems 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), a continuous monitoring system shall be installed, calibrated, maintained, and operated to demonstrate compliance with the carbon monoxide and hydrocarbon limits specified in 40 CFR 63 and the permit. An oxygen CEMS shall also be installed, calibrated, maintained, and operated to continuously correct the carbon monoxide and hydrocarbon levels to 7 percent oxygen.

(c) Pursuant to CP133-10159-00002, issued April 16, 1999, 326 IAC 2-2 (Prevention of Significant Deterioration), and 326 IAC 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.

(d) Pursuant to 40 CFR 63.1206(c)(7), the Permittee shall perform the following monitoring requirements:

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

(A) 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 the permit; and

(B) 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.

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

(e) Visible emissions notations of each baghouse or building enclosure associated with the kiln operations, excluding the kiln exhaust stack (3-1), shall be performed once per day during normal daylight operations. A trained employee

will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for 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.

(f) The Permittee shall monitor and record the total KVA 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 volts, 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.

(g) 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.

(h) Whenever a continuous opacity monitor is malfunctioning, the Permittee shall follow the procedures in accordance with Section C - Maintenance of Opacity Monitoring Equipment, until such time that the continuous opacity monitor is back in operation.

(i) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the cement kiln dust handling process 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 ranges listed below:

Baghouse	Pressure Drop (inches of water)
403L, 483L	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.

(j) An inspection shall be performed each calender 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.

(k) 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.

(l) 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).

These monitoring conditions are necessary because the electrostatic precipitator and baghouses for the kiln process must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (PSD), and 40 CFR Part 63, Subpart EEE (NESHAP for Hazardous Waste Combustors).

3. The clinker cooler operations have applicable compliance monitoring conditions as specified below:

(a) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operation and maintenance plan for the units listed in the permit 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 the permit; 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 the finish mills or raw 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 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.

(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.

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.

(c) Visible emissions notations of each baghouse associated with the clinker cooler operations, excluding the clinker cooler stack, shall be performed once per day during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for 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) 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 venting to the atmosphere. 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, 503L, 500L, 220L, 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.

(e) An inspection shall be performed each calender 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.

(f) In the event that bag failure has been observed:

(1) 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.

(2) 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).

These monitoring conditions are necessary because the baghouses for the clinker cooler operations must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (PSD), and 40 CFR Part 63, Subpart LLL (NESHAP for Portland Cement Manufacturing Industry).

4. The finish mill operations, cement storage, loading, and packaging activities, blend facility, and packhouse operations have applicable compliance monitoring conditions as specified below:

(a) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operation and maintenance plan for the units listed in the permit 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 the permit; and

(2) Procedures to be sued 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 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) 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.

(3) 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.

(b) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall monitor opacity from the finish mill operations, cement storage, loading, and packaging operations, blend facility, and packhouse 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 highest load or capacity level reasonably expected to occur within the day. 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 visual opacity test in accordance with 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 test shall be thirty minutes.

(c) Visible emissions notations of each baghouse or building enclosure associated with the finish mill operations, cement storage, loading, and packaging operations, blend facility, and packhouse operations shall be performed once per day during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for 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) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the finish mill operations, cement storage, loading, and packaging activities, blend facility, and 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, 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.

(e) An inspection shall be performed each calender 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.

(f) In the event that bag failure has been observed:

(1) 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.

(2) 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).

These monitoring conditions are necessary because the baghouses for the finish mill operations, cement storage, loading, and packaging operations, blend facility, and packhouse operations must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (PSD), and 40 CFR Part 63, Subpart LLL (NESHAP for Portland Cement Manufacturing Industry).

5. The liquid organic waste tanks 1-8 have the following compliance monitoring conditions as specified below:

(a) The Permittee shall inspect and repair defects for each tank in which the waste stream is placed as follows:

(1) 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.

(2) The Permittee shall repair all detected defects, in accordance with 40 CFR 61.343(d) and 40 CFR 61.350, as follows:

(A) 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 calender days after identification.

(B) Repair of defects may be delayed beyond 45 calender 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.

(b) 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.

(c) 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 calender days after identification.

(2) Repair of defects may be delayed beyond 15 calender 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) 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 the permit 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.

(e) 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).

(f) 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).

(g) The closed-vent system and the carbon adsorption vapor system shall be visually inspected quarterly in accordance with 40 CFR 61.349(f).

(h) 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 calender days after detection and repair shall be completed no later than 15 calender days after detection.

(2) Repair of defects may be delayed beyond 15 calender 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.

This monitoring condition is necessary to ensure compliance with 40 CFR Part 61, Subpart FF (NESHAP for Benzene Waste Operations).

Conclusion

The operation of this Portland cement manufacturing plant shall be subject to the conditions of the attached proposed Part 70 Permit No. T133-6927-00002.

Appendix A: Emission Calculations
PM and PM10 Emissions
From Raw Material Sizing Activities

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Water Mist Suppression

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Max. Throughput Limit (tons/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
1-8	Primary Crusher	1	1,300	0.00070	3.99	0.00030	1.71	2,262,479	90.0%	0.08	0.03
1-9A	Vibrating Feeder	1	1,300	0.00880	50.1	0.00430	24.5	2,262,479	90.0%	1.00	0.49
1-9B	Belt Conveyor	1	1,300	0.00294	16.7	0.00140	7.97	2,262,479	90.0%	0.33	0.16
1-11	Vibrating Feeders	3	1,300	0.00880	150	0.00430	73.5	2,262,479	90.0%	2.99	1.46
1-14	Apron Feeder	1	400	0.00880	15.4	0.00430	7.53	2,262,479	90.0%	1.00	0.49
1-24	Apron Feeder	1	600	0.00880	23.1	0.00430	11.3	2,574,685	90.0%	1.13	0.55
Total					**260**		**126**			**6.52**	**3.18**

* These emissions factors are from AP-42, Table 11.19.2-2 and Table 12.5-4 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Max. Throughput Limit (tons/yr) x Num. of Units x Emission Factor (lbs/ton) x (1- Control Efficiency) x 1 ton/2000 lbs

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 1-15	209L	0.01	12,480	1.07	4.69	99.0%	107	469
FF 1-16	208L1	0.01	18,000	1.54		99.0%	154	676
FF 1-25	208L	0.01	18,000	1.54	*13.9*	99.0%	154	676
FF 1-26	210L	0.01	18,000	1.54		99.0%	154	676
Total					**18.6**			**2,496**

Note: The texts in Italic are the emission limits for the units.

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 2,756 tons/yr **PTE of PM after Control: 25.1 tons/yr**
PTE of PM10 before Control: 2,622 tons/yr **PTE of PM10 after Control: 21.8 tons/yr**

Appendix A: Emission Calculations
PM and PM10 Emissions
From Raw Material Ball Mill Operation

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Building Enclosure

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
1-18A	feeders	4	1,300	0.00880	200	0.0043	97.9	90.0%	20.0	9.79
1-18B	conveyor belt	1	1,300	0.00294	16.7	0.0014	7.97	90.0%	1.67	0.80
1-18C	apron feeders	2	1,300	0.00880	100	0.0043	49.0	90.0%	10.0	4.90
1-18D	conveyors	2	1,300	0.00294	33.5	0.0014	15.9	90.0%	3.35	1.59
Total					**351**		**171**		**35.1**	**17.1**

* These emissions factors are from AP-42, Table 11.19.2-2 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) x (1- Control Efficiency)

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 1-17	350L	*0.01*	13,140	*1.08*	4.73	99.0%	108	473
FF 1-7	351L	0.01	2,000	0.17	0.75	99.0%	17.1	75.1
Total					**5.48**			**548**

Note: The texts in Italic are the emission limits for the units.

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 899 tons/yr **PTE of PM after Control: 40.6 tons/yr**
PTE of PM10 before Control: 719 tons/yr **PTE of PM10 after Control: 22.6 tons/yr**

Appendix A: Emission Calculations
PM and PM10 Emissions
From Fly Ash Activities

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Building Enclosure

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
1-22	feed bin	1	30	0.00294	0.39	0.0014	0.18	90.0%	0.04	0.02
1-23A	feeders	2	30	0.00880	2.31	0.0043	1.13	90.0%	0.23	0.11
1-23B	weight belt	1	30	0.00294	0.39	0.0014	0.18	90.0%	0.04	0.02
Total					**3.09**		**1.50**		**0.31**	**0.15**

* These emissions factors are from AP-42, Table 11.19.2-2 and Table 12.5-4 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) x (1- Control Efficiency)

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 1-20	274L	0.01	3,000	0.26	1.13	99.0%	25.7	113
FF 1-21	319L	0.01	1,700	0.15	0.64	99.0%	14.6	63.8
FF 1-39	270L	0.01	1,500	0.13	0.56	99.0%	12.9	56.3
FF 1-40	271L	0.01	1,500	0.13	0.56	99.0%	12.9	56.3
Total					**2.89**			**289**

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 292 tons/yr **PTE of PM after Control: 3.20 tons/yr**
PTE of PM10 before Control: 291 tons/yr **PTE of PM10 after Control: 3.04 tons/yr**

Appendix A: Emission Calculations
PM and PM10 Emissions
From Coal Mill Operations

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Building Enclosure or Water Mist Suppression

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Max. Throughput Limit (tons/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
2-2A	feeders	4	100	0.00840	14.72	0.00430	7.53	313,552	90.0%	0.53	0.27
2-2B	belt conveyor	1	100	0.00294	1.29	0.00140	0.61	313,552	90.0%	0.05	0.02
2-2C	grizzly	1	100	0.03150	13.8	0.01500	6.57	313,552	90.0%	0.49	0.24
2-4	belt conveyor	1	100	0.00294	1.29	0.00140	0.61	313,552	90.0%	0.05	0.02
2-10A	feeder	1	61	0.00840	2.24	0.00430	1.15	313,552	90.0%	0.13	0.07
2-10B	conveyor belt	1	61	0.00294	0.79	0.00140	0.37	313,552	90.0%	0.05	0.02
Total					**34.1**		**16.9**			**1.29**	**0.64**

* These emissions factors are from AP-42, Table 11.19.2-2 and Table 12.5-4 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Max. Throughput Limit (tons/yr) x Num. of Units x Emission Factor (lbs/ton) x (1- Control Efficiency) x 1 ton/2000 lbs

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 2-6	420L2	0.01	2,000	0.17	0.75	99.0%	17.14	75.1
Indoor	420V1L	0.01	2,000	0.17	0.75	99.0%	17.1	75.1
FF 2-9	435L	0.01	1,400	0.12	0.53	99.0%	12.0	52.6
FF 2-11	436L	0.01	29,200	2.50	11.0	99.0%	250	1,096
FF 2-13	438L	0.01	176	0.02	0.07	99.0%	1.51	6.61
FF 2-14	436L1	0.01	29,200	2.50	11.0	99.0%	250.29	1,096
Total					**23.3**			**2,327**

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 2,361 tons/yr **PTE of PM after Control: 24.6 tons/yr**
PTE of PM10 before Control: 2,344 tons/yr **PTE of PM10 after Control: 23.9 tons/yr**

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Alternate Raw Material Feed System and the Kiln Operations (except stack 3-1)

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Building Enclosure or Water Mist Suppression

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Max. Throughput Limit (tons/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
1-29A	loading hoppers	4	20	0.00840	2.94	0.00430	1.51	87,600	90.0%	0.15	0.08
1-29B	belt conveyors	6	20	0.00294	1.55	0.00140	0.74	87,600	90.0%	0.08	0.04
1-29C	weight belt	1	20	0.00294	0.26	0.00140	0.12	87,600	90.0%	0.01	0.01
1-29E	screw conveyor	1	20	0.00294	0.26	0.00140	0.12	87,600	90.0%	0.01	0.01
BE 3-25	dust truck loading	1	10	0.00021	0.01	0.00010	0.004	NA	90.0%	0.0009	0.0004
3-8	dust truck loading	1	10	0.00021	0.01	0.00010	0.004	NA	90.0%	0.0009	0.0004
3-4B	screw conveyor	1	10	0.00294	0.13	0.00140	0.06	NA	90.0%	0.01	0.01
Total					**5.15**		**2.56**			**0.26**	**0.13**

* These emissions factors are from AP-42, Table 11.19.2-2 and Table 12.5-4 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Max. Throughput Limit (tons/yr) x Num. of Units x Emission Factor (lbs/ton) x (1- Control Efficiency) x 1 ton/2000 lbs

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 3-3	403L	0.01	10,000	0.86	3.75	99.0%	85.7	375
FF 3-7	483L	0.01	2,450	0.21	0.92	99.0%	21.0	92.0
Total					**4.67**			**467**

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 473 tons/yr **PTE of PM after Control: 4.94 tons/yr**
PTE of PM10 before Control: 470 tons/yr **PTE of PM10 after Control: 4.81 tons/yr**

Appendix A: Emission Calculations
Criteria Pollutant Emissions from
the Semi-Dry Cement Kiln (Stack 3-1)

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Nominal Production Rate tons/hr	Limited Production Rate tons/yr
208	1,606,000

	Pollutant					
	PM[a]	PM10[a]	SO_2[b]	NOx[b]	VOC[a]	CO[b]
*Emission Factor in lbs/ton	0.06	0.06	4.13	5.47	0.0115	3.65
Uncontrolled Potential to Emit in (tons/yr)	**54.7**	**54.7**	**3,763**	**4,983**	**10.5**	**3,325**
Limited Potential to Emit (tons/yr)	**48.2**	**48.2**	**3,316**	**4,392**	**9.23**	**2,930**

[a] Emission factors are from the stack test results on December 14, 2000.

[b] Emission factors are the emission limits established in CP133-10159-00002, issued on April 16, 1999.

Methodology

Uncontrolled PTE (tons/yr) = Nominal Production Rate (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2,000 lbs

Limited PTE (tons/yr) = Limited Production Rate (tons/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
HAP Emissions
from the Semi-Dry Cement Kiln (Stack 3-1)

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Pollutant	*Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)	Control Efficiency (%)	Calculated Potential Uncontrolled Emissions (ton/yr)
Hydrochloric acid	> 2.28	>10	99%	>25
Chlorine	0.491	2.15E+00	99%	215
Arsenic	5.98E-04	2.62E-03	99%	0.26
Beryllium	6.65E-05	2.91E-04	99%	0.03
Cadmium	3.10E-04	1.36E-03	99%	0.14
Chromium	1.25E-02	5.46E-02	99%	5.46
Cobalt	5.54E-04	2.43E-03	99%	0.24
Manganese	2.14E-02	9.37E-02	99%	9.37
Nickel	1.62E-03	7.10E-03	99%	0.71
Lead	2.66E-03	1.17E-02	99%	1.17
Antimony	6.87E-04	3.01E-03	99%	0.30
Selenium	3.33E-04	1.46E-03	99%	0.15
Mercury	2.58E-02	1.13E-01	99%	11.3
Naphthalene	1.59E-02	6.95E-02	99%	6.95
PCDF	5.66E-04	2.48E-03	99%	0.25
Phenol	1.88E-02	8.22E-02	99%	8.22
Acetophenone	2.34E-02	0.102492	99%	10.2
Dibenzofuran	5.69E-03	2.49E-02	99%	2.49
Di-n-butyl phthalate	2.30E-03	1.01E-02	99%	1.01
Bis(2-Ethylhexyl)phthalate	8.68E-03	3.80E-02	99%	3.80
Acetonitrile	5.94E-02	2.60E-01	99%	26.0
Acrylonitrile	2.58E-02	1.13E-01	99%	11.3
Methylene Chloride	8.83E-03	3.87E-02	99%	3.87
MEK	2.85E-02	1.25E-01	99%	12.5
Benzene	1.30E-01	5.71E-01	99%	57.1
Toluene	4.80E-02	2.10E-01	99%	21.0
Chlorobenzene	4.58E-03	2.01E-02	99%	2.01
Ethylbenzene	5.67E-03	2.48E-02	99%	2.48
Xylene	2.07E-01	9.08E-01	99%	90.8
Styrene	2.23E-02	9.79E-02	99%	9.79
Carbon disulfide	5.16E-02	2.26E-01	99%	22.6
Chloroform	7.03E-04	3.08E-03	99%	0.31
Carbon tetrachloride	7.37E-04	3.23E-03	99%	0.32
Total	**1.23**	**>25**		**> 25**

* The hourly emission rates are from the stack test results for stack 3-1 on December 6, 8, and 9, 2000.

Controlled Emissions (tons/yr) = Controlled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions (tons/yr) = Controlled Emissions / (1-Control Efficiency)

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Clinker Cooler Operations

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Water Mist Suppression

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Max. Production Limit (tons/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
FF 3-32	loader	1	250	0.00840	9.20	0.00430	4.71	1,606,000	90.0%	0.67	0.35
FF 3-33	feeder	1	250	0.00840	9.20	0.00430	0.00	1,606,000	90.0%	0.67	0.35
Total					**18.4**		**4.71**			**1.35**	**0.69**

* These emissions factors are from AP-42, Table 12.5-4 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Max. Production Limit (tons/yr) x Num. of Units x Emission Factor (lbs/ton) x (1- Control Efficiency) x 1 ton/2000 lbs

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 3-9	471-CL	*0.015*	200,000	*7.25*	31.8	99.0%	725	3,176
FF 3-11	406L	0.01	5,000	0.43	1.88	99.0%	42.9	188
FF 3-12	506L	0.01	3,570	0.31	1.34	99.0%	30.6	134
FF 3-22	500L	0.01	3,234	0.28	1.21	99.0%	27.7	121
FF 3-24	220L	0.01	14,250	1.22	5.35	99.0%	122	535
FF 3-14	503L	0.01	4,600	0.39	1.73	99.0%	39.4	173
FF 3-21	221L	0.01	3,000	0.26	1.13	99.0%	25.7	113
S3-34	Dust Collector #1	0.01	3,500	0.30	1.31	99.0%	30.0	131
Total					**45.7**			**4,570**

Note: The texts in Italic are the emission limits for the units.

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 4,589 tons/yr **PTE of PM after Control: 47.1 tons/yr**
PTE of PM10 before Control: 4,575 tons/yr **PTE of PM10 after Control: 46.4 tons/yr**

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Finish Mill Operations

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Building Enclosure

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Max. Production Limit (tons/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
4-15A	weight belt	1	250	0.00294	3.22	0.00140	1.53	517,942	90.0%	0.08	0.04
4-15B	belt conveyor	1	250	0.00294	3.22	0.00140	1.53	517,942	90.0%	0.08	0.04
Total					**6.44**		**3.07**			**0.15**	**0.07**

* These emissions factors are from AP-42, Table 11.19.2-2 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Max. Production Limit (tons/yr) x Num. of Units x Emission Factor (lbs/ton) x (1- Control Efficiency) x 1 ton/2000 lbs

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 3-15	505L	0.01	4,600	0.39	1.73	99.0%	39.4	173
FF 3-17	504L	0.01	4,600	0.39	1.73	99.0%	39.4	173
FF 3-20	513L	0.01	7,500	0.64	2.82	99.0%	64.3	282
FF 4-13	515L	0.01	7,000	0.60	2.63	99.0%	60.0	263
FF 4-14	516L	0.01	2,100	0.18	0.79	99.0%	18.0	79
FF 4-1	617L	0.01	7,600	0.65	2.85	99.0%	65.1	285
FF 4-2	613L	0.01	12,096	1.04	4.54	99.0%	104	454
FF 4-3	606L	0.01	75,000	6.43	28.2	99.0%	643	2,816
FF 4-16	605L	0.01	3,431	0.29	1.29	99.0%	29.4	129
FF 4-4	636L	0.01	6,507	0.56	2.44	99.0%	55.8	244
FF 4-5	603L	0.01	12,096	1.04	4.54	99.0%	104	454
FF 4-6	602L	0.01	12,096	1.04	4.54	99.0%	104	454
FF 4-9	660L	0.01	20,300	1.74	7.62	99.0%	174	762
FF 4-10	661L	0.01	2,500	0.21	0.94	99.0%	21.4	94
FF 4-11	665L	0.01	4,000	0.34	1.50	99.0%	34.3	150
FF 4-12	664L	*0.01*	78,000	*6.43*	28.2	99.0%	643	2,816
Vent Indoor	650L	0.015	896	0.12	0.50	99.0%	11.5	50.5
Vent Indoor	651L	0.015	896	0.12	0.50	99.0%	11.5	50.5
Total					**87.6**			**8,760**

Note: The texts in Italic are the emission limits for the units.

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 8,766 tons/yr **PTE of PM after Control: 87.8 tons/yr**
PTE of PM10 before Control: 8,763 tons/yr **PTE of PM10 after Control: 87.7 tons/yr**

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Cement Storage, Loading and Packaging Activities

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 5-1	757L	0.01	10,000	0.86	3.75	99.0%	85.7	375
FF 5-2	758L	0.01	10,000	0.86	3.75	99.0%	85.7	375
FF 5-3	702L	0.01	10,000	0.86	3.75	99.0%	85.7	375
FF 5-4	701L	*0.02*	10,000	*0.45*	1.97	99.0%	45.0	197
FF 5-29	713L	0.01	1,860	0.16	0.70	99.0%	15.9	69.8
FF 5-5	703L	0.01	3,450	0.30	1.30	99.0%	29.6	130
FF 5-6	706L	0.01	3,450	0.30	1.30	99.0%	29.6	130
FF 5-7	710L	0.01	5,000	0.43	1.88	99.0%	42.9	188
FF 5-8	715L	0.01	10,944	0.94	4.11	99.0%	93.8	411
FF 5-9	808L	0.01	5,000	0.43	1.88	99.0%	42.9	188
FF 5-10	807L	0.01	2,094	0.18	0.79	99.0%	17.9	78.6
FF 5-11	810L	0.01	2,094	0.18	0.79	99.0%	17.9	78.6
FF 5-13	27DC	0.01	1,633	0.14	0.61	99.0%	14.0	61.3
FF 5-14	22DC	0.01	1,633	0.14	0.61	99.0%	14.0	61.3
FF 5-15	24DC	0.01	1,633	0.14	0.61	99.0%	14.0	61.3
FF 5-17	25DC	0.01	1,633	0.14	0.61	99.0%	14.0	61.3
FF 5-23	833L	0.01	5,500	0.47	2.06	99.0%	47.1	206
FF 5-24	835L	0.01	5,500	0.47	2.06	99.0%	47.1	206
FF 5-26	782L	0.01	7,776	0.67	2.92	99.0%	66.7	292
FF 5-27	783L	0.01	4,704	0.40	1.77	99.0%	40.3	177
FF 5-28	784L	0.01	4,704	0.40	1.77	99.0%	40.3	177
Total					**39.0**			**3,899**

Note: The texts in Italic are the emission limits for the units.

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Blend Facilities

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Building Enclosure

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
5-35A	screw conveyors	5	40	0.00294	2.58	0.00140	1.23	90.0%	0.26	0.12
Total					**2.58**		**1.23**		**0.26**	**0.12**

* These emissions factors are from AP-42, Table 11.19.2-2 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) x (1- Control Efficiency)

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 5-40	40-DC	0.01	1,633	0.14	0.61	99.0%	14.0	61.3
FF 5-41	41-DC	0.01	1,633	0.14	0.61	99.0%	14.0	61.3
FF 5-42	50-DC	0.01	1,278	0.11	0.48	99.0%	11.0	48.0
FF 5-43	53-DC	0.01	1,278	0.11	0.48	99.0%	11.0	48.0
Total					**2.19**			**219**

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 221 tons/yr **PTE of PM after Control: 2.44 tons/yr**
PTE of PM10 before Control: 220 tons/yr **PTE of PM10 after Control: 2.31 tons/yr**

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Packhouse Operations

Company Name: Lone Star Industries, Inc.
Address: 3301 South County Road 150 West, Greencastle, IN 46135
TV: T133-6927-00002
Reviewer: ERG/YC
Date: September 24, 2003

Control Type: Building Enclosure

Point	Unit	Number of Unit	Nominal Capacity (tons/hr)	*PM Emission Factor (lb/ton)	Uncontrolled PM Emissions (ton/yr)	*PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	Control Efficiency (%)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
6-5	conveyors	14	185	0.00294	33.4	0.00140	15.9	90.0%	3.34	1.59
6-6	palletizers	2	185	0.00294	4.76	0.00140	2.27	90.0%	0.48	0.23
6-7	truck loader	1	185	0.00021	0.17	0.00010	0.08	90.0%	0.02	0.01
Total					**38.3**		**18.2**		**3.83**	**1.82**

* These emissions factors are from AP-42, Table 11.19.2-2 (01/95).

Uncontrolled Emissions (tons/yr) = Num. of Units x Nominal Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) x (1- Control Efficiency)

Control Type: Baghouse

Point	Baghouse	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (ton/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (ton/yr)
FF 6-1	842L	*0.02*	7,200	*0.13*	0.57	99.0%	13.0	57
FF 6-2	843L	0.01	7,200	0.62	2.70	99.0%	61.7	270
FF 6-3	844L	0.01	7,200	0.62	2.70	99.0%	61.7	270
FF 6-4	845L	0.01	7,200	0.62	2.70	99.0%	61.7	270
Total					**8.7**			**868**

Note: The texts in Italic are the emission limits for the units.

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lbs/7000 gr

Controlled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Controlled Efficiency)

PTE of PM before Control: 906 tons/yr **PTE of PM after Control: 12.5 tons/yr**
PTE of PM10 before Control: 886 tons/yr **PTE of PM10 after Control: 10.5 tons/yr**

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Federal Regulations

NSPS, 40 CFR 60, Subpart OOO for Nonmetallic Mineral Processing Plants
Effective Date: August 31, 1983
Affected facilities: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, storage bin, enclosed truck or railcar loading station.

NSPS, 40 CFR 60, Subpart Y for Coal Preparation Plants
Effective Date: October 24, 1974
Affected facilities: thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems (except for open storage piles), and coal transfer and loading systems.

NESHAP, 40 CFR 63, Subpart EEE for Hazardous Waste Combustors
Effective Date: September 30, 1999
Affected facilities: cement kiln using hazardous waste as fuel.

NESHAP, 40 CFR 63, Subpart LLL for Portland Cement Manufacturing Industry
Effective Date: June 10, 2002
Affected facilities: each clinker cooler, each raw mill, each finish mill, each raw material dryer and greenfield raw material dryer, each raw material, clinker, or finished product storage bin, each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln, and bagging and bulk loading and unloading system.
Exemptions: any facility preceding raw material storage, just prior to raw mill, any kiln dust processing facilities, and fugitive emissions.

Note: Any facility venting though kiln stack exhaust shall comply with the same requirements for the kiln.

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Quarry activities	---	---	---	1999	not affected facilities	not affected facilities	not affected facilities	not affected facilities
Raw Material Sizing Activities								
primary crusher	1-8	201C	1969	1999	Yes	not affected facilities	not affected facilities	not affected facilities
vibrating feeder	1-9A	201V	1969	1998	Yes	not affected facilities	not affected facilities	not affected facilities
outside storage piles	---	---	---	1999	not affected facilities	not affected facilities	not affected facilities	not affected facilities
Raw Material Sizing Transfer Equipment								
apron feeder	1-14	206V	1969	1999	Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-9B	214V	1969		pre-dates rule	not affected facilities	not affected facilities	not affected facilities
vibrating feeders	1-11	202V-204V	1969	1999	Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyors	1-15	215V, 305	1969		pre-dates rule	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-15	251	2000		Yes	not affected facilities	not affected facilities	not affected facilities
Secondary Crusher System								
belt conveyor	1-16A	202G2V2	2001		Yes	not affected facilities	not affected facilities	not affected facilities
screen	1-16B	205G	2001		Yes	not affected facilities	not affected facilities	not affected facilities
crusher	1-16C	202G2	2001		Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-16D	202G2V3	2001		Yes	not affected facilities	not affected facilities	not affected facilities
apron feeder	1-24	202G2V1	2001		Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-25C	202G1V1	2001		Yes	not affected facilities	not affected facilities	not affected facilities
crusher	1-25D	202G1	2001		Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-25E	202G1V2	2001		Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-25F	202GV2	2001		Yes	not affected facilities	not affected facilities	not affected facilities
screen	1-26C	204G	2001		Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-26D	202GV3	2001		Yes	not affected facilities	not affected facilities	not affected facilities
belt conveyor	1-26E	202GV4	2001		Yes	not affected facilities	not affected facilities	not affected facilities

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Gypsum Material Handling Process								
synthetic gypsum transporting system	1-20	---	2002		not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
granulated slag/rock transporting system	1-31	---	2002		not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
outdoor gypsum storage pile	1-27	---	2002		not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
outdoor granulated/slag rock storage pile	1-32	---	2002		not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
synthetic gypsum hopper	1-34	230F	2002		not affected facilities	not affected facilities	not affected facilities	Yes
conveyor belt	1-34	230FV	2002		not affected facilities	not affected facilities	not affected facilities	Yes
weight belt	1-34	230V	2002		not affected facilities	not affected facilities	not affected facilities	Yes
conveyor belt	1-34	232V	2002		not affected facilities	not affected facilities	not affected facilities	Yes
granulated slag/rock hopper	1-35	231F	2002		not affected facilities	not affected facilities	not affected facilities	Yes
conveyor belot	1-35	231FV	2002		not affected facilities	not affected facilities	not affected facilities	Yes
weigh belt	1-35	231V	2002		not affected facilities	not affected facilities	not affected facilities	Yes
enclosed pug mill	1-36A	232L	2002		not affected facilities	not affected facilities	not affected facilities	Yes
CKD bin	1-36B	232F	2002		not affected facilities	not affected facilities	not affected facilities	Yes
discharge screw	1-36C	232FV	2002		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyors	1-41	233V, 233V1	2002		not affected facilities	not affected facilities	not affected facilities	Yes
storage pile	1-37	---	2002		not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
finished gypsum material hoopper	1-38	234F	2002		not affected facilities	not affected facilities	not affected facilities	Yes
conveyor belts	1-39	234V, 234FV	2002		not affected facilities	not affected facilities	not affected facilities	Yes
Raw Material Ball Mill Operation								
belt conveyors	1-17A	252V-255V	2000		not affected facilities	not affected facilities	not affected facilities	Yes
weigh feeders	1-18A	350V-353V	2000		not affected facilities	not affected facilities	not affected facilities	Yes
conveyor belt	1-18B	358V	2000		not affected facilities	not affected facilities	not affected facilities	Yes
apron feeders	1-18C	350V1, 351V1	2000		not affected facilities	not affected facilities	not affected facilities	Yes
scavenger conveyors	1-18D	350V2, 351V2	2000		not affected facilities	not affected facilities	not affected facilities	Yes
alleviator	1-7	---	2000		not affected facilities	not affected facilities	not affected facilities	Yes
Fly Ash Storage Activities								
screw conveyors	1-19A	273V, 274V	2000	2002	not affected facilities	not affected facilities	not affected facilities	Yes
fly ash hoppers	1-19B	273F, 273FA	2000	2002, 2003	not affected facilities	not affected facilities	not affected facilities	Yes
fly ash silo	1-39	270F	2000		not affected facilities	not affected facilities	not affected facilities	Yes
fly ash silo	1-40	271F	2000		not affected facilities	not affected facilities	not affected facilities	Yes
additive silos	1-21A	318F, 328F	1996		not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeders	1-21B	318V, 318VV, 328V, 328VV	1996		not affected facilities	not affected facilities	not affected facilities	Yes
additive feed bin	1-22	308F	before 1996		not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeders	1-23A	308V, 308VV	1996		not affected facilities	not affected facilities	not affected facilities	Yes
weigh belt	1-23B	309V	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Coal Mill Operation								
coal storage pile	2-1	---	1999		not affected facilities	Yes - (not open piles)	not affected facilities	not affected facilities
vibrating feeders	2-2A	209V-211V, 213V	before 1974	1999	not affected facilities	Yes	not affected facilities	not affected facilities
belt conveyor	2-2B	222V	before 1974	1999	not affected facilities	Yes	not affected facilities	not affected facilities
coal grizzly	2-2C	223V	before 1974	1999	not affected facilities	Yes	not affected facilities	not affected facilities
belt conveyor	2-4	420V	before 1974	2000	not affected facilities	Yes	not affected facilities	not affected facilities
belt conveyor	2-6B	420V3	2000		not affected facilities	Yes	not affected facilities	not affected facilities
belt conveyor	---	420V1	2000		not affected facilities	Yes	not affected facilities	not affected facilities
coal reject piles	2-3, 2-5, 2-15	---	1999		not affected facilities	Yes - (not open piles)	not affected facilities	not affected facilities
raw coal bin	2-9	435F	2000		not affected facilities	Yes	not affected facilities	not affected facilities
weigh feeder	2-10A	435V	2000		not affected facilities	Yes	not affected facilities	not affected facilities
conveyor belt	2-10B	436V	2000		not affected facilities	Yes	not affected facilities	not affected facilities
coal mill	2-11A	436G	2000		not affected facilities	Yes	not affected facilities	not affected facilities
screw conveyors	2-11B	436LV, 436L1V, 436GV1	2000		not affected facilities	Yes	not affected facilities	not affected facilities
screw conveyors	2-13B	437V, 438V	2000		not affected facilities	Yes	not affected facilities	not affected facilities
rotary feeders	2-13C	436LVV, 436L1VV	2000		not affected facilities	Yes	not affected facilities	not affected facilities
pulverized coal bin	2-13A	438F	2000		not affected facilities	Yes	not affected facilities	not affected facilities

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Alternate Raw Material Feed System								
slag pile	1-13	---	2002		not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
loading hoppers	1-29A	485F - 488F	2002		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyors	1-29B	485V-488V, 490V, 491V	2002		not affected facilities	not affected facilities	not affected facilities	Yes
weight belt	1-29C	489V	2002		not affected facilities	not affected facilities	not affected facilities	Yes
bucket elevator	1-29D	492V	2002		not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyor elevator	1-29E	495V	2002		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyor	3-1D	494V	2002		not affected facilities	not affected facilities	Yes	vent through kiln stack
Kiln Operation								
hammermill dryer	3-1C	440G	2000		not affected facilities	not affected facilities	Yes	vent through kiln stack
rotary kiln	3-1A	401B	1996	2000	not affected facilities	not affected facilities	Yes	not affected faclities
coal-fired calciner tower	3-1B	440PH	1996	2000	not affected facilities	not affected facilities	Yes	vent through kiln stack
screw conveyors	3-1D	403V-4010V, 404FV	1968	1999	not affected facilities	not affected facilities	Yes	vent through kiln stack
kiln dust chamber	3-1F	410BF1	1969		not affected facilities	not affected facilities	not affected faclities	not affected faclities
return dust bin	3-3A	405F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	not affected faclities
waste dust bin	3-3F	404F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	not affected faclities
hopper	3-3C	445F	2000		not affected facilities	not affected facilities	not affected facilities	not affected faclities
bucket elevators	3-3G	411V, 413V	before 1971		not affected facilities	not affected facilities	not affected facilities	not affected faclities
rotoary feeder	3-3H	405FVV	2003		not affected facilities	not affected facilities	not affected facilities	not affected faclities
screw conveyor	3-3I	405FVV1	2003		not affected facilities	not affected facilities	not affected facilities	not affected faclities
raw material dust truck loading station	3-25	---	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	not affected faclities
conditioning tower	3-5A	480F	2000		not affected facilities	not affected facilities	Yes	vent through kiln stack
alkali bypass system	3-5B	---	2000		not affected facilities	not affected facilities	Yes	vent through kiln stack
hopper	3-5C	484F	2000		not affected facilities	not affected facilities	Yes	vent through kiln stack
dedust cylcone	3-5D	480FL	2000		not affected facilities	not affected facilities	not an emission unit	vent through kiln stack
screw conveyors	3-5E	480LV1-LV3, 480V	2000		not affected facilities	not affected facilities	Yes	vent through kiln stack
weigh hopper	3-5I	481FF	2000		not affected facilities	not affected facilities	Yes	not affected faclities
pug mill	3-5J	484L	2000		not affected facilities	not affected facilities	Yes	not affected faclities
CKD loadout spot	---	481L	2002		not affected facilities	not affected facilities	Yes	not affected faclities
reject dust bin for cement kiln dust	3-7A	481F	2000		not affected facilities	not affected facilities	not affected facilities	not affected faclities
alkali bypass system cement kiln dust truck loading station	3-8	---	2000		not affected facilities	not affected facilities	not affected facilities	not affected faclities
screw conveyor	3-4B	412V	2001		not affected facilities	not affected facilities	not affected facilities	not affected facilities

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Clinker Cooler Operations								
clinker cooler	3-9A	401C	before 1971	2000	not affected facilities	not affected facilities	not affected facilities	Yes
clinker breaker	3-9B	401CG	1969	2000	not affected facilities	not affected facilities	not affected facilities	Yes
dropout chamber	3-9C	401CL	1969		not affected facilities	not affected facilities	not affected facilities	Yes
vibrating feeders	3-9F	427V, 428V	before 1971	2000	not affected facilities	not affected facilities	not affected facilities	Yes
drag conveyor	3-9G	401CV	before 1971	2001	not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyors	---	422V, 470CV2, 470CV3, 470CV9, 470CV10, 474V-476V	before 1971	2001	not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyors	3-11A	421V, 509V	before 1971	2000	not affected facilities	not affected facilities	not affected facilities	Yes
bucket elevators	3-11B	418V, 419V	before 1971	2000	not affected facilities	not affected facilities	not affected facilities	Yes
non-routine outdoor clinker pile	3-13	---		1999	not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
belt conveyor (turning tower)	3-12	510V	before 1971	2000	not affected facilities	not affected facilities	not affected facilities	Yes
bucket elevators	3-22	500V	1999		not affected facilities	not affected facilities	not affected facilities	Yes
feeders	3-24A	207F, 208F	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyor	3-24B	219V	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
clinker silos	3-14	501A-507A	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyor	3-21	220V	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
belt scale	---	---	2003		not affected facilities	not affected facilities	not affected facilities	Yes
Clinker Resizing Operation								
loader haul operation	3-32	Unit 2	2003		not affected facilities	not affected facilities	not affected facilities	not affected facilities - fugitive
vibrating feeder	3-33	Unit 2	2003		not affected facilities	not affected facilities	not affected facilities	Yes
jaw crusher	3-34	Unit 3	2003		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyors	3-34	Unit 4 and Unit 5	2003		not affected facilities	not affected facilities	not affected facilities	Yes

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Finish Mill Operations								
vibrating feeders	3-15	504V-507V	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
vibrating feeders	3-17A	501V-503V, 508V	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyor	3-17B	221V	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyors	3-20B	514V, 511V	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
bucket elevator	3-20A	513V	2000		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyor	4-13A	515V	1969	2000	not affected facilities	not affected facilities	not affected facilities	Yes
silos	4-13B	650A-653A	1969		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyor	4-14	516V	1969		not affected facilities	not affected facilities	not affected facilities	Yes
No. 1 Finish Mill								
belt conveyors	4-1A	639V, 640V	1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
clinker bin	4-1B	601F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
gypsum bin	4-1C	603F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
spill screw	4-1D	646V	2002					
no. 1 finish mill	4-2A	603G	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
elevator	4-2B	626V	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
spill screw	4-2D	642V	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
air separator	4-3A	605G	1994	1999	not affected facilities	not affected facilities	not affected facilities	Yes
tailing screw	4-3D	613V	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
cement coolers	4-3E	603C, 604C	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
F.K. pump hopper	4-3G	611F	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
mill feed belt	4-3H	641V	1974	1999	not affected facilities	not affected facilities	not affected facilities	Yes
clinker F.O.W. belt	4-3I	601V	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
fringe bin	4-16A	604F	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
screw feeders	4-16B	611V, 604F1V	1969		not affected facilities	not affected facilities	not affected facilities	Yes
weigh belt	4-15A	605V	before 1974		not affected facilities	not affected facilities	not affected facilities	Yes
belt conveyor	4-15B	616V	before 1974		not affected facilities	not affected facilities	not affected facilities	Yes
No. 2 Finish Mill								
conveyor belts	4-4A	639V, 640V	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
clinker bin	4-4B	602F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
gypsum bin	4-4C	603F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
clinker F.O.W. belt	4-4D	602V	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
feed belt	4-4E	644V	1975	1999	not affected facilities	not affected facilities	not affected facilities	Yes
no. 2 finish mill	4-5A	602G	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
spill screw	4-5B	645V	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
air separator	4-6A	604G	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
elevator	4-6B	621V	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
tailing screw	4-6D	612V	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
cement coolers	4-6E	601C, 602C	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
F.K. pump hopper	4-6F	610F	1969	1999	not affected facilities	not affected facilities	not affected facilities	Yes
mill feed belt	4-6G	644V	1975	1999	not affected facilities	not affected facilities	not affected facilities	Yes
No. 3 Finish Mill								
no. 3 finish mill	4-9	660G	2000		not affected facilities	not affected facilities	not affected facilities	Yes
hopper	4-10C	667F	2000		not affected facilities	not affected facilities	not affected facilities	Yes
cooler	4-10D	664C	2000		not affected facilities	not affected facilities	not affected facilities	Yes
feed belt	4-10E	654V	2000		not affected facilities	not affected facilities	not affected facilities	Yes
fringe bin	4-11B	665F	2000		not affected facilities	not affected facilities	not affected facilities	Yes
elevator	4-11C	661V	2000		not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeder	4-11D	665FV	2000		not affected facilities	not affected facilities	not affected facilities	Yes
air separator	4-12A	664G	2000		not affected facilities	not affected facilities	not affected facilities	Yes
weigh feeders	37728	652V, 653V	1969					
weigh feeders	---	650V, 651V	1969		not affected facilities	not affected facilities	not affected facilities	Yes

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Cement Storage, Loading, and Packaging Activites								
group 5 silos	5-1	705A, 707A, 709A	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
group 5 silos	5-2	706A, 708A, 710A	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
group 4 silos	5-3	702A, 704A	1967	1999	not affected facilities	not affected facilities	not affected facilities	Yes
group 4 silos	5-4	701A, 703A	1967	1999	not affected facilities	not affected facilities	not affected facilities	Yes
silos	5-29	711A, 712A	1969		not affected facilities	not affected facilities	not affected facilities	Yes
screen	5-5C	701G	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
truck loader	5-5D	708L	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
screen	5-6B	702G	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
railcar loader	5-6C	709L	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
hopper	5-7B	701F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
hopper	5-8	730F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyors	5-9A	809V, 809V1, 809V2	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
group 2 silos	5-9B	2S-7S, 9S, 11S-17S	1924		not affected facilities	not affected facilities	not affected facilities	Yes
alleviator	5-9C	---	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
silo	5-10	8S	1924	1999	not affected facilities	not affected facilities	not affected facilities	Yes
silo	5-11	10S	1924	1999	not affected facilities	not affected facilities	not affected facilities	Yes
group 3 silos	5-13	26S, 27S, 28S, 29S	1924	1999	not affected facilities	not affected facilities	not affected facilities	Yes
group 3 silos	5-14	18S, 20S, 22S	1924	1999	not affected facilities	not affected facilities	not affected facilities	Yes
group 3 silos	5-15	24S, 30S	1924	1999	not affected facilities	not affected facilities	not affected facilities	Yes
group 3 silos	5-17	19S, 21S, 23S, 25S	1924	1999	not affected facilities	not affected facilities	not affected facilities	Yes
screens elevator	5-18	829V2	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
elevator	5-19	829V1	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
bulk tanks	5-23A	831F, 833F	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
truck loader	5-23C	---	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
bulk tanks	5-24A	832F, 834F, 835F	before 1950	1999	not affected facilities	not affected facilities	not affected facilities	Yes
silo	5-26A	782F	2000		not affected facilities	not affected facilities	not affected facilities	Yes
bucket elevator	5-26B	781V	2000		not affected facilities	not affected facilities	not affected facilities	Yes
lump breaker	5-27B	783V3	2000		not affected facilities	not affected facilities	not affected facilities	Yes
spout	5-27C	785L	2000		not affected facilities	not affected facilities	not affected facilities	Yes
truck loader	5-27D	---	2000		not affected facilities	not affected facilities	not affected facilities	Yes
lump breaker	5-28B	784V3	2000		not affected facilities	not affected facilities	not affected facilities	Yes
spout	5-28C	786L	2000		not affected facilities	not affected facilities	not affected facilities	Yes
truck loader	5-28D	---	2000		not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyors	5-30B	755V, 759V-762V	1978		not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeders	5-30C	755M-760M	1978		not affected facilities	not affected facilities	not affected facilities	Yes
hopper	5-30D	750F	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyors	5-33A	818V1-825V1, 818V2-825V2, 828V1, 828V2, 830V	before 1950		not affected facilities	not affected facilities	not affected facilities	Yes
screen screws	5-33B	806V, 829V4, 830V1	before 1950		not affected facilities	not affected facilities	not affected facilities	Yes

Appendix B: NSPS/NESHAP Applicability for Particulate Emission Units

Company Name: Lone Star Industries, Inc.
Address: 3301 South CR 150 West, Greencastle, Indiana 46135
Title V: T133-6927-00002
Reviewer: ERG/YC
Date: October 29, 2003

Emission Unit Description	Emission Point ID	Emission Unit Number	Date of Construction	Date of Last Modificaton	Aug 31, 1983 NSPS Subpart OOO	Oct 24, 1974 NSPS Subpart Y	October 30, 1999 NESHAP Subpart EEE	June 10, 2002 NESHAP Subpart LLL
Blend Facility								
screw conveyors	5-35A	22SC, 24SCG, 24SC, 30SC, 31SC	1989		not affected facilities	not affected facilities	not affected facilities	Yes
transfer pod	5-36	22	1989		not affected facilities	not affected facilities	not affected facilities	Yes
transfer pod	5-37	24-G	1989		not affected facilities	not affected facilities	not affected facilities	Yes
transfer pod	5-38	24	1989		not affected facilities	not affected facilities	not affected facilities	Yes
transfer pod	5-39	30	1989		not affected facilities	not affected facilities	not affected facilities	Yes
receiving tank	5-40	---	1989		not affected facilities	not affected facilities	not affected facilities	Yes
blending tank	5-41A	---	1989		not affected facilities	not affected facilities	not affected facilities	Yes
blending pod	5-41C	---	1989		not affected facilities	not affected facilities	not affected facilities	Yes
silos	5-42	50S, 51S	1989		not affected facilities	not affected facilities	not affected facilities	Yes
silos	5-43	52S, 53S	1989		not affected facilities	not affected facilities	not affected facilities	Yes
transfer pod	5-44B	50PV	1989		not affected facilities	not affected facilities	not affected facilities	Yes
Packhouse Operations								
elevator	6-1A	838V	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
paker bin	6-1B	Bin #1	1946	1999	not affected facilities	not affected facilities	not affected facilities	Yes
packing machine	6-1C	842LF	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
circulating tanks	6-1D	842F, 842FA	1946	1999	not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeders	6-1E	842M, 842MA	1946	1999	not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyors	6-1F	842LV1, 837V, 837V1, 831V2	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
elevator	6-2A	838V1	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
packer bin	6-2B	Bin #2	1946	1999	not affected facilities	not affected facilities	not affected facilities	Yes
packing machine	6-2C	843LF	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
circulating tanks	6-2D	843F, 843FA	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeders	6-2E	843M, 843MA	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyors	6-2G	843LV1, 817V1, 817V3, 817V7	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
elevator	6-3A	838V2	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
packer bin	6-3B	Bin #3	1946	1999	not affected facilities	not affected facilities	not affected facilities	Yes
packing machine	6-3C	844LF	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
circulating tanks	6-3D	844F, 844FA	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeders	6-3E	844M, 844MA	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyor	6-3F	844LV1	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
elevator	6-4A	838V3	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
packer bin	6-4B	Bin #4	1946	1999	not affected facilities	not affected facilities	not affected facilities	Yes
packing machine	6-4C	845LF	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
circulating tanks	6-4D	845F, 845FA	1945	1999	not affected facilities	not affected facilities	not affected facilities	Yes
rotary feeders	6-4E	845M, 845MA	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
screw conveyor	6-4F	845LV1	before 1971	1999	not affected facilities	not affected facilities	not affected facilities	Yes
conveyors	6-5	842V-846V, 848V, 845V1, 847V1, 847V2, 848V1, 848V2, 849V1, 849V2, 849V3	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
palletizers	6-6	900H, 901H	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes
truck loader	6-7	---	before 1971		not affected facilities	not affected facilities	not affected facilities	Yes

Appendix C
BACT Analysis for Portland Cement Material Handling

Source Background and Description

Source Name:	Lone Star Industries, Inc.
Source Location:	3301 South County Road 150 West, Greencastle, Indiana 46135
County:	Putnam
SIC Code:	3241, 1422
Operation Permit No.:	T133-6927-00002
Permit Reviewer:	ERG/YC

IDEM searched EPA's RACT/BACT/LEAR Clearinghouse (RBLC) to identify the PM/PM10 BACT for Portland cement manufacturing sources with material handling operations similar to those at Lone Star. The RBLC database was searched using the Standard Industrial Classification (SIC) Code of 3241. The following is a summary of the search results.

Source Name	RBLC ID	Process	BACT	Comments
Rio Grand Portland Cement Corp.	CO-0043	Material Handling	High Temperature Baghouse (0.01 gr/dscf)	BACT-PSD (90%)
Lehigh Portland Cement Company	MD-0027	Cement Manufacturing	Baghouse (Kiln Stack: 0.015 gr/dscf; Clinker Cooler Stack: 0.0129 gr/dscf; Other Stacks: 0.01 gr/dscf)	MACT (99%)
Suwannee American Cement Company	FL-0139	Material Handling	Baghouse (0.01 gr/dscf)	BACT-PSD
Lone Star Industries	IN-0081	Clinker Cooler Transfer, Finish Mill Transfer	Fabric Filter/ Baghouse (0.01 gr/dscf)	BACT-PSD
		Raw Material Sizing Transfer	Baghouse (0.015 gr/dscf)	BACT-PSD
		Finish Mill No. 3	Enclosures and/or Water Mist Suppression	NSPS
LaFarge Midwest , Inc.	MI-0257	Clinker Transfer	Baghouse (0.02 gr/dscf)	NSPS
LaFarge Corporation	MO-0048	Ash Conveyors	Enclosures	BACT-PSD (50%)
		Conveyor Transfer Points; Screens; Storage Piles	Enclosures and Water Spray	BACT-PSD (98.3%; 97.2%; 50%)
LaFarge Corporation	MO-0048	Transfer Points	Baghouses	BACT-PSD (99%)
Florida Rock Industries	FL-228	Material Handling/Storage/Conveyance	Fabric Filter (5% Opacity)	BACT-PSD
Great Star Cement Corp./ United Rock Products Corp.	NV-0032	Material Handling, Separator Vent, Raw Materials Blending	Baghouse (0.01 gr/dscf)	BACT-PSD (99%)
Great Star Cement Corp./ United Rock Products Corp.	NV-0032	Material Handling - Sand/Gravel Loaders and Conveyors	Wet Suppression	BACT-PSD

Source Name	RBLC ID	Process	BACT	Comments
Mountain Cement Company - Laramie	WY-0044	Conveyor, Clinker; Mill, Finish;	Baghouse (0.01 gr/dscf)	BACT-PSD (99.9%)
Carolina's Cement Company, LP	NC-0056	Material Transfer	Water Spray	BACT-PSD (90%)

Based on the results from the RBLC database search, IDEM has identified three techniques to control emissions from the material handling operations at a Portland cement manufacturing company. These techniques are listed below in order of control efficiency.

(1) Fabric Filter / Baghouse

(2) Enclosure

(3) Water Mist Suppression

Each of the listed techniques has been determined to be BACT in past BACT analyses for Lone Star and these techniques remain to be the best control techniques available for material handling processes at Portland Cement Plants. The fabric filter or baghouse has the highest control efficiency of the BACT options for these processes and therefore a fabric filter has been determined to be BACT for the following units:

(1) Alleviator (1-7) - currently controlled by fabric filter system FF 1-7, baghouse 351L.

(2) Screw Conveyors (1-19A, 273V, 274V), and Fly Ash Hopper (1-19B, 272F) - currently controlled by fabric filter system FF 1-20, baghouse 274L.

(3) Belt Conveyor (2-6B, 420V3) - currently controlled by fabric filter system FF 2-6, baghouse 420L2.

(4) Belt Conveyor (420V1) - currently controlled by baghouse 420L1, which vents into the building.

(5) Bucket Elevator (3-22, 500V) - currently controlled by fabric filter system FF 3-22, baghouse 500L.

(6) Bucket Elevator (3-20A, 513V) - currently controlled by fabric filter system FF 3-20, baghouse 513L.

(7) Belt Conveyor (4-13A, 515V), and Silos (4-13B, 650V-653V) - currently controlled by fabric filter system FF 4-13, baghouse 515L.

(8) Silo (5-26A, 782F), and Bucket Elevator (5-26B, 781V) - currently controlled by fabric filter system FF 5-26, baghouse 782L.

(9) Lump Breaker (5-27B, 783V3), Spout (5-27C, 785L), and Truck Loader (5-27D) - currently controlled by fabric filter system FF 5-27, baghouse 783L.

(10) Lump Breaker (5-28B, 784V3), Spout (5-28C, 786L), and Truck Loader (5-28D) - currently controlled by fabric filter system FF 5-28, baghouse 784L.

IDEM has determined that the PM and PM10 BACT emissions from the fabric filters associated with the above units shall be less than 0.010 grains per dry standard cubic feet (gr/dscf). This is the lowest limit required for similar sources.

Appendix D
NAAQS Analysis for PM10

Source Background and Description

Source Name:	Lone Star Industries, Inc.
Source Location:	3301 South County Road 150 West, Greencastle, Indiana 46135
County:	Putnam
SIC Code:	3241, 1422
Operation Permit No.:	T133-6927-00002
Permit Reviewer:	ERG/YC

Lone Star owns and operates a Portland cement manufacturing plant in Putnam County, Indiana. This source is a PSD major source and the air quality analysis was performed during the review of the recent PSD permit, CP133-10159-00002, issued on April 16, 1999. However, the source constructed some unpermitted particulate emission units along with the modification permitted in CP133-10159-00002. Since the unpermitted units were not included in the previous air quality analysis, this source is required to performed another air quality analysis to demonstrate they are still in compliance with the PM_{10} NAAQS after adding these unpermitted units.

Lone Star stated they used maximum throughputs and the current plant layout for their modeling analysis. OAQ reviewed the Lone Star modeling analysis. OAQ used the Trinity Breeze ISC suite, Version 3.5.17. This suite uses USEPA's Industrial Source Complex air dispersion model. The area is primarily rural therefore a rural classification was used. The model utilized the Schulman-Scire algorithm to account for building downwash effects. The stacks at the facility are below the Good Engineering Practice (GEP) formula for stack heights. This indicates wind flow over and around surrounding buildings can influence the dispersion of concentrations from the stack. The aerodynamic downwash parameters were calculated using USEPA Building Profile Input Program (BPIP). The meteorological data used in the ISCST3 model consisted of the latest five years (1990-1994) of surface data from Indianapolis Regional Airport National Weather Service station merged with the mixing heights from Peoria Airport in Peoria, Illinois National Weather Service station. OAQ did change the anemometer height to 6.1 meters instead of using the default height of 10 meters. Ground-level receptors surrounding the source are modeled to determine the maximum-modeled concentrations that would occur at each point. OAQ utilized the same receptor grid as Lone Star. Receptors were placed 500-meter spacing on 10k x 10k grid. Additionally, receptors were place along the facility property boundary and high concentration areas at 100-meter spacing. Background sources were also included in the modeling analysis. The regulatory default option of the model was used. Background ambient concentrations were taken from Lone Star's PM_{10} monitoring station.

The NAAQS analysis was conducted by modeling the emissions from Lone Star and background sources. The modeled concentrations are then added to the ambient concentrations to obtain the total, which is compared, to the NAAQS. Results of the NAAQS analysis are shown below.

Time Averaging Period	Modeled Concentration (ug/m3)	Background Ambient (ug/m3)	Total (ug/m3)	NAAQS (ug/m3)
Annual	10.59	24.64	35.23	50.00
24 hour	71.44	63.72	135.16	150

The results of the NAAQS analysis indicate that the NAAQS will not be exceeded with the previously unpermitted units listed in Appendix C, at the modeled emission rates.