



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: February 3, 2006  
RE: ESSROC Cement Corporation / 017-22319-00005  
FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures  
FNPER-MOD.dot 1/10/05



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

---

Mitchell E. Daniels, Jr.  
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Indianapolis, Indiana 46204-2251  
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February 3, 2006

Mr. Brian K. Graf  
ESSROC Cement Corporation  
3084 West County Road 225  
Logansport, IN 46947

Re: **017-22319-00005**  
Minor Source Modification to:  
Part 70 Operating Permit No.: **T 017-6033-00005**

Dear Mr. Graf:

ESSROC Cement Corporation was issued Part 70 Operating Permit T017-6033-00005 on December 29, 2003 for a Portland cement manufacturing plant. An application to modify the source was received on November 30, 2005. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for modification and construction at the source:

- One (1) waste dust tank, constructed in 1962, modified in 2005 with the addition of one (1) CKD2FM surge system, collectively identified as EU406, with emissions controlled by a baghouse, constructed in 2005, identified as baghouse 142 and CE901, and exhausting to one (1) stack identified as EP901.
- One (1) CKD2FM recycling storage tank system, identified as EU902, constructed in 2005, with particulate emissions controlled by one (1) baghouse, identified as baghouse 143 and CE902, and exhausting to one (1) stack, identified as EP902.
- One (1) CKD2FM #1 FM recycling system, identified as EU903, constructed in 2005.
- One (1) CKD2FM #2 FM recycling system, identified as EU904, constructed in 2005.
- One (1) silo, Silo 15, identified as EU905, constructed in 1965, with particulate emissions controlled by one (1) baghouse, identified as baghouse 144 and CE905, and exhausting to one (1) stack, identified as EP905.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

The source may begin construction when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jenny Acker, at (800) 451-6027, and ask for Jenny Acker or extension 2-8253, or dial (317) 232-8253.

Sincerely,  
Origin signed by

Paul Dubenetzky  
Assistant Commissioner  
Office of Air Quality

Attachments

JLA

cc: File - Cass County  
Cass County Health Department  
Air Compliance Section Inspector – Dave Rice  
Compliance Branch  
Administrative and Development Section  
Billing, Licensing and Training



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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

### ESSROC Cement Corporation State Road 25 South, 3084 West County Road 225 South Logansport, Indiana 46947

(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 2-7-10.5, applicable to those conditions.

Operation Permit No.: T017-6033-00005	
Issued by: Original Signed by Janet McCabe Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: December 29, 2003  Expiration Date: December 29, 2008

Minor Source Modification No.: 017-22319-00005	
Issued by: Origin signed by Paul DUBENETZKY, Assistant Commissioner Office of Air Quality	Issuance Date: February 3, 2006  Expiration Date: December 29, 2008

## TABLE OF CONTENTS

### A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
- A.4 Part 70 Permit Applicability [326 IAC 2-7-2] [326 IAC 2-7-5(15)]

### B GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-7-1]
- B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]
- B.3 Enforceability [326 IAC 2-7-7]
- B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]
- B.5 Severability [326 IAC 2-7-5(5)]
- B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]
- B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
- 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.11 Emergency Provisions [326 IAC 2-7-16]
- B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]
- B.13 Prior Permit Conditions Superseded [326 IAC 2-1.1-9.5]
- B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- 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]
- B.16 Permit Renewal [326 IAC 2-7-4]
- B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
- B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]
- B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]
- B.20 Source Modification Requirement [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 13-30-3-2]
- B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]
- B.24 Creditable Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-16]

### C SOURCE OPERATION CONDITIONS

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

- C.1 Particulate Emission Limitations for Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]
- C.2 Opacity [326 IAC 5-1]
- C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- C.6 Operation of Equipment [326 IAC 2-7-6(6)]
- C.7 Stack Height [326 IAC 1-7]
- C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

C.9 Performance Testing [326 IAC 3-6]

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

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

C.12 Maintenance of Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

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

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

C.15 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

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

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

**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]

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

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

C.23 NESHAP Notification Requirements [40 CFR 63]

**Stratospheric Ozone Protection**

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

**D.1 FACILITY OPERATION CONDITIONS - Quarry Activities, Stockpile Operations, and Raw Material Sizing**

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

D.1.1 PSD Minor Limits [326 IAC 2-2]

D.1.2 Particulate Emissions [326 IAC 6-3-2]

D.1.3 Determinations of Nonapplicability [40 CFR 60, Subparts A and F]  
[40 CFR 63, Subparts A and LLL]

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

D.1.5 Particulate Control [326 IAC 2-7-6(6)]

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

D.1.6 Visible Emissions Notations

D.1.7 Parametric Monitoring

D.1.8 Broken or Failed Bag Detection

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

D.1.9 Record Keeping Requirements

**D.2 FACILITY OPERATION CONDITIONS - CKD Operations, Clay processing operations, Crane storage facilities, Raw Mill facilities,**

**Unloading station facilities, Fossil fuel facilities, Clinker handling facilities, Finish mill facilities, Silo storage facilities and transfer operations, Finish product loadout, Finish product masonry packing and portland packing**

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

- D.2.1 PSD Minor Limits [326 IAC 2-2]
- D.2.2 Particulate Emissions [326 IAC 6-3-2]
- D.2.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]
- D.2.4 NESHAP Emissions Limitation [40 CFR 63, Subpart LLL]
- D.2.5 Determinations of Nonapplicability [40 CFR 60, Subparts A and F]
- D.2.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)]
- D.2.8 Particulate Control [326 IAC 2-7-6(6)]
- D.2.9 NESHAP Monitoring Requirements [40 CFR 63, Subpart LLL]

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

- D.2.10 Visible Emissions Notations
- D.2.11 Parametric Monitoring
- D.2.12 Broken or Failed Bag Detection

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

- D.2.13 Record Keeping Requirements
- D.2.14 Reporting Requirements

**D.3 FACILITY OPERATION CONDITIONS - Kilns**

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

- D.3.1 Particulate Emissions [326 IAC 6-3-2]
- D.3.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]
- D.3.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]
- D.3.4 NESHAP Emission Limitations [40 CFR 63, Subpart EEE]
- D.3.5 Alternate Emission Limitations [40 CFR 63, Subpart EEE]
- D.3.6 Determinations of Nonapplicability [40 CFR 60, Subparts A and F]
- D.3.7 NESHAP for Benzene Waste Operations [40 CFR 61, Subpart FF]
- D.3.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.3.9 Testing Requirements [40 CFR 63, Subpart EEE] [326 IAC 2-7-6(1),(6)]  
[326 IAC 2-1-3(i)(8)] [326 IAC 2-1.1-11]
- D.3.10 Particulate Control [326 IAC 2-7-6(6)]
- D.3.11 Sulfur Dioxide Emissions and Sulfur Content
- D.3.12 Continuous Emissions Monitoring [326 IAC 3-5] [40 CFR 63, Subpart EEE]  
[326 IAC 2-7-6(1),(6)]
- D.3.13 NESHAP Monitoring Requirements [40 CFR 63, Subpart EEE]

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

- D.3.14 ESP Parametric Monitoring and ESP Inspections
- D.3.15 Visible Emissions Notations

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

- D.3.16 Record Keeping Requirements
- D.3.17 Reporting Requirements

**D.4 FACILITY OPERATION CONDITIONS - Clinker Coolers**

**Emission Limitations and IAC 2-7-5(1)**

- D.4.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]
- D.4.2 NESHAP Emissions Limitation [40 CFR 63, Subpart LLL]
- D.4.3 Determination of Nonapplicability [40 CFR 60, Subparts A and F]
- D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.4.5 NESHAP Testing Requirements [40 CFR 63, Subpart LLL]
- D.4.6 Continuous Emissions Monitoring [326 IAC 3-5] [40 CFR 60, Subpart F]
- D.4.7 Particulate Control [326 IAC 2-7-6(6)]
- D.4.8 NESHAP Monitoring Requirements [40 CFR 63, Subpart LLL]

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

- D.4.9 Parametric Monitoring
- D.4.10 Visible Emission Notations

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

- D.4.11 Record Keeping Requirements
- D.4.12 Reporting Requirements

**D.5 FACILITY OPERATION CONDITIONS - Degreasing Operations**

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

- D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]
- D.5.3 Determination of Nonapplicability [40 CFR 60.460 Subpart T] [40 CFR 60 Subparts A and F] [40 CFR 63 Subparts A and LLL]

**D.6 FACILITY OPERATION CONDITIONS - Hazardous Waste Storage Facilities**

**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]
- D.6.2 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 61, Subpart A]
- D.6.3 Off-site Waste and Recovery Operations NESHAP [326 IAC 20-23-1] [40 CFR 63, Subpart DD]
- D.6.4 NESHAP (Fugitive Emission Sources) [326 IAC 14-8-1] [40 CFR 61, Subpart V]
- D.6.5 Monitoring Procedures for Equipment Leaks [326 IAC 2-7-6(1)] [40 CFR 61, Subpart V] [40 CFR 63, Subpart DD]
- D.6.6 NESHAP for Benzene Waste Operations [40 CFR 61, Subpart FF]
- D.6.7 Standards: Closed-vent Systems and Activated Carbon Canister System [40 CFR 61, Subpart FF] [40 CFR 61.349]
- D.6.8 Monitoring Procedures for Tanks [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]
- D.6.9 Monitoring Procedures for Containers [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]
- D.6.10 Monitoring Procedures for Activated Carbon Canister System and Closed-Vent System [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]
- D.6.11 Startup, Shutdown, and Malfunction Plan [40 CFR 63.6(e)(3) General Provisions]

**Compliance Determination Requirements**

- D.6.12 Leak Detection Testing Requirements [326 IAC 2-7-6(1)] [40 CFR 61, Subpart FF]
- D.6.13 Activated Carbon Canister System Compliance Determination Requirements [326 IAC 2-7-6(1)][40 CFR 61, Subpart FF]

**Record Keeping and Reporting Requirements**

- D.6.14 General Record Keeping Requirements [40 CFR 63, Subpart A] [40 CFR 63, Subpart DD] [40 CFR 61, Subpart FF]
- D.6.15 Record Keeping Requirements for Equipment Leaks [40 CFR 63, Subpart DD] [40 CFR 61, Subpart V]
- D.6.16 Record Keeping Requirements for Tanks and Containers [40 CFR 61, Subpart FF]
- D.6.17 Record Keeping Requirements for Activated Carbon Canister System and Closed-Vent System [40 CFR 61, Subpart FF]
- D.6.18 Reporting Requirements [40 CFR 63, Subpart A] [40 CFR 63, Subpart DD] [40 CFR 61, Subpart V]
- D.6.19 Reporting Requirements [40 CFR 61, Subpart FF]

Certification  
Emergency Occurrence Report  
Quarterly Reports  
Quarterly Deviation and Compliance Monitoring Report

## 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 and the description boxes in Sections D 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)]

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The Permittee owns and operates a portland cement manufacturing plant.

Responsible Official:	Plant Manager
Source Address:	State Road 25 South, 3084 West County Road 225 South, Logansport, Indiana 46947
Mailing Address:	State Road 25 South, 3084 West County Road 225 South, Logansport, Indiana 46947
General Source Phone Number:	219 753-5121
SIC Code:	3241
County Location:	Cass
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 listed source categories

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

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

#### Quarry Activities

- (1) Drilling and blasting, identified as EU101 and EU102 respectively, commenced operation in 1961, with associated fugitive particulate matter (PM) emissions.

#### Raw Material / Clinker Stockpile Operations

- (2) One (1) limestone stockpile, identified as EU103, created in 1961.
- (3) Two (2) reclaimed clay stockpiles, identified as EU104 and EU105, created in 1961.
- (4) Two (2) wet flyash stockpiles, identified as EU106 and EU107, created in 1967.
- (5) Carhoe Missouri clay unloading, identified as EU108, created in 1962.
- (6) Truck to quarry loading, identified as EU109, commenced operation in 1961.
- (7) One (1) Mo. clay stockpile, identified as EU110, created in 1962.
- (8) One (1) alternate materials stockpile, identified as EU111, created in 1967.
- (9) One (1) overburden clay stockpile, identified as EU128, created in 1962.

- (10) One (1) iron stockpile, identified as EU301, created in 1967.
- (11) Iron unloading, identified as EU302, commenced operation in 1967.
- (12) One (1) gypsum stockpile, identified as EU303, created in 1962.
- (13) Gypsum unloading, identified as EU304, created in 1962.
- (14) One (1) coal/coke stockpile, identified as EU305, created in 1962.
- (15) Coal/coke unloading, identified as EU306, commenced operation in 1962.
- (16) One (1) coal/coke crane storage stockpile, located outside, identified as EU312, created in 1962.
- (17) Coal/coke unloading, identified as EU313, commenced operation in 1962.
- (18) Outside clinker storage stockpiles, identified as EU512, created in 1962.
- (19) Special clinker stockpile, identified as EU513, created in 1962.
- (20) Clinker loading, identified as EU514, commenced operation in 1962.
- (21) Special clinker stockpile (crushed), identified as EU515, created in 1962.

#### **Raw Material Sizing Operations**

- (22) Raw material loading, identified as EU112, commenced operation in 1962.
- (23) Quarry haul road, identified as EU113, created in 1961.
- (24) Raw material unloading, identified as EU114, commenced operation in 1962.
- (25) One (1) apron feeder transfer to primary crusher, identified as EU115, constructed in 1961, with a nominal throughput of 550 tons per hour.
- (26) One (1) primary crusher, identified as EU116, constructed in 1961, with a nominal capacity of 550 tons per hour, with PM emissions controlled by one (1) baghouse, identified as baghouse CE101, and exhausting to one (1) stack, identified as EP101.
- (27) One (1) clean-up screw, identified as EU117, constructed in 1961, with a nominal capacity of 15 tons per hour.
- (28) One (1) impact apron feeder, identified as EU118, constructed in 1961, with a nominal capacity of 550 tons per hour, with emissions controlled by a baghouse, identified as baghouse CE101, and exhausting to one (1) stack, identified as EP101.
- (29) Belt 1 covered conveyor, identified as EU119, constructed in 1962, with a nominal capacity of 550 tons per hour, with emissions controlled by two baghouses, identified as baghouse CE101 and baghouse CE102, and exhausting to two (2) stacks, identified as EP101 and EP102.

- (30) Screen transfers, identified as EU120, constructed in 1962, with a nominal capacity of 550 tons per hour.
- (31) Belt 2 covered conveyor, identified as EU121, constructed in 1962, with a nominal capacity of 300 tons per hour.
- (32) One (1) secondary crusher, identified as EU122, constructed in 1969, with a nominal capacity of 300 tons per hour, with PM emissions controlled by one (1) baghouse, identified as baghouse CE102, and exhausting to one (1) stack, identified as EP102
- (33) Belt 3 covered conveyor, identified as EU201, constructed in 1962, with a nominal capacity of 550 tons per hour.

#### **Kiln #1 and kiln #2 Recycled CKD Operations**

- (34) #1 recycled dust elevator, identified as EU408, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 106 and CE402, and exhausting to one (1) stack identified as EP402.
- (35) One (1) recycled dust holding tank, identified as EU409, and constructed in 1965.
- (36) One (1) feeder screw and F-K pump, identified as EU410, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 106 and CE402, and exhausting to one (1) stack identified as EP402.
- (37) #1 recycled dust scoop system/insufflation system, identified as EU411, with emissions exhausting directly to the kilns. The #1 recycled dust scoop was constructed in 1995. The insufflation system was constructed in 1965.

#### **Kiln #1 and kiln #2 Waste CKD Operations**

- (38) five (5) discharge hopper screws, identified as EU402, constructed in 1965.
- (39) one (1) covered 16" cross screw, identified as EU403, constructed in 1965.
- (40) One (1) #1 waste dust elevator, identified as EU404, constructed in 1965.
- (41) One (1) 9" cross screw, identified as EU405, constructed in 1965.

#### **Kiln #2 Recycled CKD Operations**

- (42) #2 recycled dust elevator, identified as EU417, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 106 and CE402, and exhausting to one (1) stack identified as EP402.
- (43) One (1) recycled dust holding tank, identified as EU418, constructed in 1965.
- (44) One (1) feeder screw and F-K pump, identified as EU419, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 106 and CE402, and exhausting to one (1) stack identified as EP402.

- (45) #2 recycled dust scoop system/insufflation system, identified as EU420, with emissions exhausting directly to the kilns. The #2 recycled dust scoop system was constructed in 1995. The insufflation system was constructed in 1965.

#### **Kiln #2 Waste CKD Operations**

- (46) five (5) discharge hopper screws, identified as EU414, constructed in 1965.
- (47) 16" covered cross screws, identified as EU415, constructed in 1965.
- (48) #2 waste dust elevator, identified as EU416, constructed in 1965.

#### **CKD –Silo Storage Facilities**

- (49) One (1) silo, Silo 15, identified as EU905, constructed in 1965, with particulate emissions controlled by one (1) baghouse, identified as baghouse 144 and CE905, and exhausting to one (1) stack, identified as EP905

#### **Waste CKD Disposal Operations**

- (50) Truck unloading, identified as EU407, commenced operation in 1962.
- (51) One (1) cement kiln dust haul road system, identified as EU422, constructed in 1962.
- (52) One (1) cement kiln dust pile, identified as EU423, commenced operation in 1962.

#### **Clay Processing Operations**

- (53) Clay unloading to hopper, identified as EU123, commenced operation in 1962, with a nominal capacity of 30 tons per hour.
- (54) One (1) wobbler feeder for transferring clay to the log washer system, identified as EU124, constructed in 1962, with a nominal capacity of 30 tons per hour.
- (55) One (1) log washer system, identified as EU125, constructed in 1962, with a nominal capacity of 30 tons per hour.
- (56) One (1) waste gravel pile, identified as EU126, created in 1962.
- (57) Loading waste gravel into trucks, identified as EU127, commenced operation in 1962.

#### **Crane Storage Facilities**

- (58) Three (3) limestone storage bins, identified as EU202, constructed in 1962.
- (59) One (1) Missouri clay storage bin, identified as EU203, constructed in 1962.
- (60) One (1) iron storage bin, identified as EU204, constructed in 1962.
- (61) West flyash truck unloading utilizing pneumatic conveying, identified as EU210, including

tank 9, commenced operation in 1962, with a nominal storage capacity of 100 tons, tank 10 with a nominal storage capacity of 100 tons, tank 11 with a nominal storage capacity of 125 tons, and tank 12 with a nominal capacity of 125 tons, with emissions controlled by a baghouse, identified as baghouse 138 and CE202, and exhausting to one (1) stack identified as EP202.

- (62) One (1) inside west flyash holding tank, identified as EU211, with a nominal storage capacity of 130 tons, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 104 and CE203, and exhausting to one (1) stack identified as EP203.
- (63) East flyash truck unloading utilizing pneumatic conveying, identified as EU213, commenced operation in 1962, with emissions controlled by a baghouse, identified as baghouse 103 and CE204, and exhausting to one (1) stack identified as EP204.
- (64) One (1) east flyash storage bin, identified as EU214, constructed in 1962.
- (65) One (1) spare storage bin, identified as EU314, constructed in 1962.
- (66) One (1) coal/coke storage bin, identified as EU315, constructed in 1962.
- (67) Two (2) gypsum storage bins, identified as EU316, constructed in 1962.
- (68) Clinker bin 1 finish mill #1, identified as EU505, constructed in 1962.
- (69) Stone/clinker bin 2 finish mill #1, identified as EU506, constructed in 1962.
- (70) Clinker bin 3 finish mill #1, identified as EU507, constructed in 1962.
- (71) Crane unloading, identified as EU510, commenced operation in 1962.
- (72) Clinker bin 1 #2 finish mill, identified as EU520, constructed in 1962.
- (73) Clinker bin 2 #2 finish mill, identified as EU521, constructed in 1962.
- (74) Bin 1 clinker spill pile, identified as EU522, constructed in 1962.

### **Raw Mill Facilities**

- (75) Three belt feeders, identified as EU205, constructed in 1962, with a nominal capacity of 45 tons per hour.
- (76) One (1) Missouri clay belt feeder, identified as EU206, constructed in 1962, with a nominal capacity of 45 tons per hour.
- (77) One (1) iron feeder, identified as EU207, constructed in 1962, with a nominal capacity of 45 tons per hour.
- (78) One (1) covered cross belt, identified as EU208, constructed in 1962, with a nominal capacity of 45 tons per hour.
- (79) One (1) covered raw mill feed belt, identified as EU209, constructed in 1962, with a nominal capacity of 175 tons per hour, with emissions controlled by a baghouse, identified

as baghouse 105 and CE201, and exhausting to one (1) stack identified as EP201.

- (80) Transfer screw to raw mill, identified as EU212, constructed in 1962, with a nominal capacity of 15 tons per hour.
- (81) One (1) east short covered screw, identified as EU215, constructed in 1962, with a nominal capacity of 15 tons per hour.
- (82) One (1) E-W long covered screw, identified as EU216, constructed in 1962, with a nominal capacity of 15 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as baghouse 105 and CE405, and exhausting to one (1) stack, identified as EP405.

### **Unloading Station Facilities**

- (83) Railroad unloading, identified as EU307, commenced operation in 1962.
- (84) One (1) unloading station hopper, identified as EU308, constructed in 1962.
- (85) One (1) belt feeder, identified as EU309, constructed in 1962.
- (86) Belt 7 covered conveyor, identified as EU310, constructed in 1962.
- (87) Conveyor transfer to outside storage, identified as EU311, constructed in 1962.

### **Fossil Fuel Facilities**

- (88) One (1) spare belt feeder to belt 8, identified as EU317, constructed in 1962.
- (89) One (1) coal/coke belt feeder to belt 8, identified as EU318, constructed in 1962.
- (90) Belt 8 to coal/coke tanks, identified as EU319, constructed in 1962.
- (91) One (1) coal/coke tank #1, identified as EU320, constructed in 1962.
- (92) Belt feed to coal mill #1, identified as EU321, constructed in 1962.
- (93) Coal/Coke cross belt, identified as EU322, constructed in 1962.
- (94) One (1) coal/coke tank #2, identified as EU323, constructed in 1962.
- (95) Belt feed to coal mill #2, identified as EU324, constructed in 1962.

### **Kiln #1 and kiln #2 Clinker Handling Facilities**

- (96) One (1) #1 clinker drag conveyor, identified as EU501, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 109 and CE501, and exhausting to one (1) stack identified as EP501.
- (97) #1 CCDC screws, identified as EU502, constructed in 1962.

- (98) #1 clinker elevator, identified as EU503, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 109 and CE501, and exhausting to one (1) stack identified as EP501.
- (99) Clinker conveyor transfer system, identified as EU504, constructed in 1962 and modified in 1975, with emissions controlled by a baghouse, identified as baghouse 110 and CE502, and exhausting to one (1) stack identified as EP502.

### **Kiln #2 Clinker Handling Facilities**

- (100) #2 clinker drag conveyor, identified as EU516, constructed in 1964, with emissions controlled by two (2) baghouses, identified as baghouse 112 and CE503 and baghouse 113 and CE504, and exhausting to two (2) stacks identified as EP503 and EP504 respectively.
- (101) #2 CCDC screw conveyor, identified as EU517 constructed in 1964.
- (102) #2 clinker elevator, identified as EU518, constructed in 1964, with emissions controlled by two baghouses, identified as baghouse 112 and CE503 and as baghouse 113 and CE504, and exhausting to two (2) stacks identified as EP503 and EP504 respectively.
- (103) Clinker conveyor transfer system circuit, identified as EU519, constructed in 1964, with emissions controlled by a baghouse, identified as baghouse 113 and CE504, and exhausting to one (1) stack identified as EP504.

### **Finish Mill #1 Facilities**

- (104) Clinker bin #1 feeder, identified as EU508, constructed in 1962.
- (105) Stone/clinker bin 2 feeder, identified as EU509, constructed in 1962.
- (106) One (1) gypsum feed belt, identified as EU511, constructed in 1962.
- (107) One (1) finish mill #1 feed belt, identified as EU601, constructed in 1962, with a nominal capacity of 45.0 tons per hour, with PM emissions controlled by one (1) baghouse, identified as baghouse 114 and CE601, and exhausting to one (1) stack, identified as EP601.
- (108) one (1) finish mill #1 circuit, identified as EU602, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 116 and CE602, and exhausting to one (1) stack identified as EP602.
- (109) One (1) separator, cooler #1 and transfer, identified as EU603, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 115 and CE603, and exhausting to one (1) stack identified as EP603.

### **Finish Mill #2 Facilities**

- (110) Clinker bin 1 feeder, identified as EU523, constructed in 1964.
- (111) Clinker bin 2 feeder, identified as EU524, constructed in 1964.

- (112) FM #2 gypsum feeder, identified as EU525, constructed in 1964.
- (113) One (1) finish mill #2 feed belt, identified as EU604, constructed in 1964, with a nominal capacity of 45.0 tons per hour, with PM emissions controlled by two (2) baghouses, identified as baghouses 117a (CE604a) and 117b (CE604b) respectively, and exhausting to one (1) stack, identified as EP604.
- (114) One (1) finish mill #2 circuit, identified as EU605, constructed in 1964, with emissions controlled by a baghouse, identified as baghouse 119 and CE605, and exhausting to one (1) stack identified as EP605.
- (115) One (1) separator, cooler #2 and transfer, identified as EU606, constructed in 1964, with emissions controlled by a baghouse, identified as baghouse 118 and CE606, and exhausting to one (1) stack identified as EP606.

#### **Finish Product Silo Storage Facilities**

- (116) Silos 11/12/13/14/16/17/18, identified as EU704, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 126 and CE704, and exhausting to one (1) stack identified as EP704.
- (117) Silos 1/ 2/3/4/5/6/7, identified as EU709, constructed in 1961, with emissions controlled by a baghouse, identified as baghouse 122 and CE709, and exhausting to one (1) stack identified as EP709.
- (118) Silos 8/9/10, identified as EU711, constructed in 1961, with emissions controlled by a baghouse, identified as baghouse 124 and CE711, and exhausting to one (1) stack identified as EP711.

#### **Finish Product Silo Transfer Operations**

- (119) Truck/Railroad car unloading and internal transfers to silos, identified as EU701 and EU702, commenced operation in 1962, with emissions controlled by two (2) baghouses, identified as baghouse 132 and CE701 and as baghouse 133 and CE702, and exhausting to two (2) stacks identified as EP701 and EP702 respectively.

#### **Finish Product Loadout Old Silos (West) Operation**

- (120) Bulk truck loadout, identified as EU712, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 129 and CE712, and exhausting to one (1) stack identified as EP712.
- (121) Bulk railroad loadout, identified as EU713, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 130 and CE713, and exhausting to one (1) stack identified as EP713.

#### **Finish Product Loadout New Silos (East) Operation**

- (122) Bulk truck loadout, identified as EU706, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 131 and CE706, and exhausting to one (1) stack

identified as EP706.

### **Finish Product Masonry Packing**

- (123) Transfer to masonry packer, identified as EU801, constructed in 1965, with emissions controlled by two (2) baghouses, identified as baghouse 128 and CE801 and as baghouse 139 and CE802, and exhausting to two (2) stacks identified as EP801 and EP802 respectively.
- (124) One (1) masonry packer, identified as EU802, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 128 and CE801, and exhausting to one (1) stack identified as EP801.
- (125) Transfer to pallets/storage (masonry), identified as EU803, constructed in 1965.

### **Finish Product Portland Packing**

- (126) Transfer to portland packer, identified as EU804, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 127 and CE803, and exhausting to one (1) stack identified as EP803.
- (127) One (1) portland packer, identified as EU805, constructed in 1962, with emissions controlled by a baghouse, identified as baghouse 127 and CE803, and exhausting to one (1) stack identified as EP803.
- (128) Transfer to pallets/storage (portland), identified as EU806, constructed in 1962.

### **Kiln #1 and Kiln #2 Facilities**

- (129) One (1) wet process rotary cement kiln #1, identified as EU401, constructed in 1962, with a nominal heat input of 245 million Btu per hour, with a nominal production rate of 42.0 tons per hour (as clinker), with PM emissions controlled by one (1) electrostatic precipitator (ESP #1), identified as CE401, and exhausting to one (1) stack, identified as EP401. Raw material sources include clay, sand, limestone, and other sources of silica, alumina, iron, calcium, magnesium, and trace elements. As part of the semi-direct firing system, a pulverizing mill is used to grind the solid fuels that are used in the kiln. The pulverizing mill exhausts to the kiln.
- (130) One (1) wet process rotary cement kiln #2, identified as EU413, constructed in 1964, with a nominal heat input of 245 million Btu per hour, with a nominal production rate of 42.0 tons per hour (as clinker), with PM emissions controlled by one (1) electrostatic precipitator (ESP #1), identified as CE401, and exhausting to one (1) stack, identified as EP401. Raw material sources include clay, sand, limestone, and other sources of silica, alumina, iron, calcium, magnesium, and trace elements. As part of the semi-direct firing system, a pulverizing mill is used to grind the solid fuels that are used in the kiln. The pulverizing mill exhausts to the kiln.

### **Clinker Cooler #1 Facilities**

- (131) One (1) clinker cooler #1, identified as EU412, constructed in 1962, with a nominal

production rate of 42.0 tons per hour, with PM emissions controlled by one (1) baghouse, identified as baghouse 107 and CE404, and exhausting to one (1) stack, identified as EP404.

### **Clinker Cooler #2 Facilities**

- (132) One (1) clinker cooler #2, identified as EU421, constructed in 1962, with a nominal production rate of 42.0 tons per hour, with PM emissions controlled by one (1) baghouse, identified as baghouse 111 and CE407, and exhausting to one (1) stack, identified as EP404.

### **CKD –To-Finish Mill (CKD2FM) Recycling Operations**

- (133) One (1) waste dust tank, constructed in 1962, modified in 2005 with the addition of one (1) CKD2FM surge system, collectively identified as EU406, with emissions controlled by a baghouse, constructed in 2005, identified as baghouse 142 and CE901, and exhausting to one (1) stack identified as EP901.
- (134) One (1) CKD2FM recycling storage tank system, identified as EU902, constructed in 2005, with particulate emissions controlled by one (1) baghouse, identified as baghouse 143 and CE902, and exhausting to one (1) stack, identified as EP902.
- (135) One (1) CKD2FM #1 FM recycling system, identified as EU903, constructed in 2005.
- (136) One (1) CKD2FM #2 FM recycling system, identified as EU904, constructed in 2005.

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

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

- (1) degreasing operations; [326 IAC 8-3-2] [326 IAC 8-3-5]
- (2) waste fuel operations; [40 CFR 63, Subpart DD] [40 CFR 61, Subpart FF]

This stationary source also includes other insignificant activities as defined at 326 IAC 2-7-1(21) identified in the Technical Support Document for this permit that are not specifically regulated hereunder.

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

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

## SECTION D.1

## FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] Note: Complete Descriptions are shown in Section A.2.

### Quarrying and Raw Material/Clinker Stockpile Operations

- (1) Drilling and blasting, identified as EU101 and EU102 respectively.
- (2) One (1) limestone stockpile, identified as EU103.
- (3) Two (2) reclaimed clay stockpiles, identified as EU104 and EU105.
- (4) Two (2) wet flyash stockpiles, identified as EU106 and EU107.
- (5) Carhoe Missouri clay unloading, identified as EU108.
- (6) Truck to quarry loading, identified as EU109.
- (7) One (1) Mo. clay stockpile, identified as EU110.
- (8) One (1) alternate materials stockpile, identified as EU111.
- (9) One (1) overburden clay stockpile, identified as EU128.
- (10) One (1) iron stockpile, identified as EU301.
- (11) Iron unloading, identified as EU302.
- (12) One (1) gypsum stockpile, identified as EU303.
- (13) Gypsum unloading, identified as EU304.
- (14) One (1) coal/coke stockpile, identified as EU305.
- (15) Coal/coke unloading, identified as EU306.
- (16) One (1) coal/coke crane storage stockpile, located outside, identified as EU312.
- (17) Coal/coke unloading, identified as EU313.
- (18) Outside clinker storage stockpile, identified as EU512.
- (19) Special clinker stockpile, identified as EU513.
- (20) Clinker loading, identified as EU514.
- (21) Special clinker stockpile (crushed), identified as EU515.

### Raw Material Sizing Operations

- (22) Raw material loading, identified as EU112.
- (23) Quarry haul road, identified as EU113.
- (24) Raw material unloading, identified as EU114.
- (25) One (1) apron feeder transfer to primary crusher, identified as EU115.
- (26) One (1) primary crusher, identified as EU116.
- (27) One (1) clean-up screw, identified as EU117.
- (28) One (1) impact apron feeder, identified as EU118.
- (29) Belt 1 covered conveyor, identified as EU119.
- (30) Screen transfers, identified as EU120.
- (31) Belt 2 covered conveyor, identified as EU121.
- (32) One (1) secondary crusher, identified as EU122.
- (33) Belt 3 covered conveyor, identified as EU201.

### CKD –Silo Storage Facilities

- (49) One (1) silo, Silo 15, identified as EU905.

### Waste CKD Disposal Operations

- (50) Truck unloading, identified as EU407.
- (51) One (1) cement kiln dust haul road system, identified as EU422.
- (52) One (1) cement kiln dust pile, identified as EU423.

(The information describing the processes 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 PSD Minor Limits [326 IAC 2-2]**

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) The PM emission rate from Silo 15, identified as EU905, shall not exceed 0.72 pounds per ton of CKD throughput.
- (b) The PM10 emission rate from Silo 15, identified as EU905, shall not exceed 0.46 pounds per ton of CKD throughput.
- (c) The Permittee shall limit the throughput of CKD per twelve consecutive month period, with compliance determined at the end of each month, according to the following:

Emission Unit	CKD Throughput (tons)
Silo 15 (EU905) Described in Section D.1	65,000 (combined)
CKD2FM recycling storage tank system (EU902) Described in Section D.2	

Compliance with the above limits, along with the limits in Condition D.2.1, will ensure that total PM and PM10 emissions from Minor Source Modification 017-22319-00005 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable.

**D.1.2 Particulate Emissions [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

- (a) The allowable PM emission rate from the raw material sizing facilities (EU112, EU114 through EU122, and EU201) shall not exceed 70.1 pounds per hour when operating at a process weight rate of 550 tons per hour.
- (b) The allowable PM emission rate from the waste CKD disposal operations (EU407 and EU905) shall not exceed 39.96 pounds per hour (total for all units combined) when operating at a combined process weight rate of 30 tons per hour.

The pounds per hour limitations were calculated with the following equations:

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

$$E = 4.1 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and } P = \text{process weight rate in tons per hour}$$

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

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

When the process weight rate exceeds 200 tons per hour, the maximum allowable emissions may exceed the pound per hour limit calculated using the above-referenced equation, provided the concentration of particulate matter in the discharge gases to the atmosphere is less than 0.10 pounds per on thousand (1,000) pounds of gases.

**D.1.3 Determinations of Nonapplicability [40 CFR 60, Subparts A, F, and OOO] [40 CFR 63, Subparts A and LLL]**

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- (a) None of the facilities/emission units listed in this section are subject to the requirements of the New Source Performance Standards (NSPS), 40 CFR 60, Subparts A and F (Standards of Performance for Portland Cement Plants) because they were constructed prior to the applicability date of August 17, 1971.
- (b) None of the quarry facilities/emission units or raw material sizing facilities/emission units listed in this section are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subparts A and LLL, because they are not affected facilities under this rule.
- (c) None of the cement kiln dust storage and handling facilities/emission units listed in this section are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subparts A and LLL, because they are not considered affected facilities under this rule.
- (d) None of the facilities at ESSROC are subject to the New Source Performance Standard 326 IAC 12, 40 CFR 60, Subpart OOO for Nonmetallic Mineral Processing Plants, because they were constructed prior the applicability date of August 31, 1983 or they are subject to 40 CFR 60.60 (Subpart F).

**D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the emission control devices listed in this section.

**Compliance Determination Requirements**

**D.1.5 Particulate Control [326 IAC 2-7-6(6)]**

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- (a) In order to comply with D.1.2 and D.1.4, the baghouses for particulate control shall be in operation and control emissions at all times its associated facility is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

**D.1.6 Visible Emissions Notations**

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- (a) Visible emission notations of each of the baghouse stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether visible emissions are present.
- (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 visible emissions for that specific process.
- (e) If abnormal missions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.1.7 Parametric Monitoring

The Permittee shall record the pressure drop across each baghouse, at least once per day when the associated facility is in operation. When for any one reading, 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, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside of the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

#### D.1.8 Broken or Failed Bag Detection

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

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

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

#### D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the baghouse stack exhausts once per day and of the visible emission notations of the quarry activities once per day.
- (b) To document compliance with Condition D.1.7, the Permittee shall maintain records of the pressure drop once per day during normal operation when venting to the atmosphere:

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

## SECTION D.2

## FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] Note: Complete Descriptions are shown in Section A.2.

### **Kiln #1 Recycled CKD Operations**

- (34) #1 recycled dust elevator, identified as EU408.
- (35) One (1) recycled dust holding tank, identified as EU409.
- (36) One (1) feeder screw and F-K pump, identified as EU410.
- (37) #1 recycled dust scoop/insufflation system, identified as EU411.

### **Kiln #1 Waste CKD Operations**

- (38) five (5) discharge hopper screws, identified as EU402.
- (39) one (1) covered 16" cross screw, identified as EU403.
- (40) One (1) #1 waste dust elevator, identified as EU404.
- (41) One (1) 9" cross screw, identified as EU405.

### **Kiln #2 Recycled CKD Operations**

- (42) #2 recycled dust elevator, identified as EU417.
- (43) One (1) recycled dust holding tank, identified as EU418.
- (44) One (1) feeder screw and F-K pump, identified as EU419.
- (45) #2 recycled dust scoop system/insufflation system, identified as EU420.

### **Kiln #2 Waste CKD Operations**

- (46) five (5) discharge hopper screws, identified as EU414.
- (47) 16" covered cross screws, identified as EU415.
- (48) #2 waste dust elevator, identified as EU416.

### **Clay Processing Operations**

- (53) Clay unloading to hopper, identified as EU123.
- (54) One (1) wobbler feeder for transferring clay to the log washer system, identified as EU124.
- (55) One (1) log washer system, identified as EU125.
- (56) One (1) waste gravel pile, identified as EU126.
- (57) Loading waste gravel into trucks, identified as EU127.

### **Crane Storage Facilities**

- (58) Three (3) limestone storage bins, identified as EU202.
- (59) One (1) Missouri clay storage bin, identified as EU203.
- (60) One (1) iron storage bin, identified as EU204.
- (61) West flyash truck unloading utilizing pneumatic conveying, identified as EU210.
- (62) One (1) inside west flyash holding tank, identified as EU211.
- (63) East flyash truck unloading utilizing pneumatic conveying, identified as EU213.
- (64) One (1) east flyash storage bin, identified as EU214.
- (65) One (1) spare storage bin, identified as EU314.
- (66) One (1) coal/coke storage bin, identified as EU315.
- (67) Two (2) gypsum storage bins, identified as EU316.
- (68) Clinker bin 1 finish mill #1, identified as EU505.
- (69) Stone/clinker bin 2 finish mill #1, identified as EU506.
- (70) Clinker bin 3 finish mill #1, identified as EU507.
- (71) Crane unloading, identified as EU510.
- (72) Clinker bin 1 #2 finish mill, identified as EU520.
- (73) Clinker bin 2 #2 finish mill, identified as EU521.
- (74) Bin 1 clinker spill pile, identified as EU522.

### **Raw Mill Facilities**

- (75) Three belt feeders, identified as EU205.
- (76) One (1) Missouri clay belt feeder, identified as EU206.
- (77) One (1) iron feeder, identified as EU207.
- (78) One (1) covered cross belt, identified as EU208.
- (79) One (1) covered raw mill feed belt, identified as EU209.
- (80) Transfer screw to raw mill, identified as EU212.
- (81) One (1) east short covered screw, identified as EU215.
- (82) One (1) E-W long covered screw, identified as EU216.

### **Unloading Station Facilities**

- (83) Railroad unloading, identified as EU307.
- (84) One (1) unloading station hopper, identified as EU308.
- (85) One (1) belt feeder, identified as EU309.
- (86) Belt 7 covered conveyor, identified as EU310.
- (87) Conveyor transfer to outside storage, identified as EU311.

### **Fossil Fuel Facilities**

- (88) One (1) spare belt feeder to belt 8, identified as EU317.
- (89) One (1) coal/coke belt feeder to belt 8, identified as EU318.
- (90) Belt 8 to coal/coke tanks, identified as EU319.
- (91) One (1) coal/coke tank #1, identified as EU320.
- (92) Belt feed to coal mill #1, identified as EU321.
- (93) Coal/Coke cross belt, identified as EU322.
- (94) One (1) coal/coke tank #2, identified as EU323.
- (95) Belt feed to coal mill #2, identified as EU324.

### **Kiln #1 Clinker Handling Facilities**

- (96) One (1) #1 clinker drag conveyor, identified as EU501.
- (97) #1 CCDC screws, identified as EU502.
- (98) #1 clinker elevator, identified as EU503.
- (99) Clinker conveyor transfer system, identified as EU504.

### **Kiln #2 Clinker Handling Facilities**

- (100) #2 clinker drag conveyor, identified as EU516.
- (101) #2 CCDC screw conveyor, identified as EU517.
- (102) #2 clinker elevator, identified as EU518.
- (103) Clinker conveyor transfer system circuit, identified as EU519.

### **Finish Mill #1 Facilities**

- (104) Clinker bin #1 feeder, identified as EU508.
- (105) Stone/clinker bin 2 feeder, identified as EU509.
- (106) One (1) gypsum feed belt, identified as EU511.
- (107) One (1) finish mill #1 feed belt, identified as EU601.
- (108) One (1) finish mill #1 circuit, identified as EU602.
- (109) One (1) separator, cooler #1 and transfer, identified as EU603.

### **Finish Mill #2 Facilities**

- (110) Clinker bin 1 feeder, identified as EU523.
- (111) Clinker bin 2 feeder, identified as EU524.
- (112) FM #2 gypsum feeder, identified as EU525.
- (113) One (1) finish mill #2 feed belt, identified as EU604.
- (114) One (1) finish mill #2 circuit, identified as EU605.
- (115) One (1) separator, cooler #2 and transfer, identified as EU606.

**Finish Product Silo Storage Facilities**

- (116) Silos 11/12/13/14/16/17/18, identified as EU704.
- (117) Silos 1/2/3/4/5/6/7 identified as EU709.
- (118) Silos 8/9/10, identified as EU711.

**Finish Product Silo Transfer Operations**

- (119) Truck/Railroad car unloading and internal transfers to silos, identified as EU701 and EU702.

**Finish Product Loadout Old Silos (West) Operation**

- (120) Bulk truck loadout, identified as EU712.
- (121) Bulk railroad loadout, identified as EU713.

**Finish Product Loadout New Silos (East) Operation**

- (122) Bulk truck loadout, identified as EU706.

**Finish Product Masonry Packing**

- (123) Transfer to masonry packer, identified as EU801.
- (124) One (1) masonry packer, identified as EU802.
- (125) Transfer to pallets/storage (masonry), identified as EU803.

**Finish Product Portland Packing**

- (126) Transfer to portland packer, identified as EU804.
- (127) One (1) portland packer, identified as EU805.
- (128) Transfer to pallets/storage (portland), identified as EU806.

**CKD –To-Finish Mill (CKD2FM) Recycling Operations**

- (133) One (1) waste dust tank, and one (1) CKD2FM surge system, collectively identified as EU406.
- (134) One (1) CKD2FM recycling storage tank system, identified as EU902.
- (135) One (1) CKD2FM #1 FM recycling system, identified as EU903.
- (136) One (1) CKD2FM #2 FM recycling system, identified as EU904.

(The information describing the processes 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 PSD Minor Limits [326 IAC 2-2]**

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) PM and PM10 emissions shall be limited as follows:

Emission Unit	PM	PM10
CKD2FM recycling storage tank system (EU902)	0.72 (lb/ton of CKD)	0.46 (lb/ton of CKD)
CKD2FM #1 FM recycling system (EU903)	0.003 (lb/ton of CKD)	0.0011 (lb/ton of CKD)

Emission Unit	PM	PM10
CKD2FM #2 FM recycling system (EU904)	0.003 (lb/ton of CKD)	0.0011 (lb/tons of CKD)

- (b) The Permittee shall limit the throughput of CKD per twelve consecutive month period, with compliance determined at the end of each month, according to the following:

Emission Unit	CKD Throughput (tons)
Silo 15 (EU905) Described in Section D.1	65,000 (combined)
CKD2FM recycling storage tank system (EU902)	
CKD2FM #1 FM recycling system (EU903)	65,000 (combined)
CKD2FM #2 FM recycling system (EU904)	

Compliance with the above limits, along with the limits in Condition D.1.1, will ensure that total PM and PM10 emissions from Minor Source Modification 017-22319-00005 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable.

#### D.2.2 Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

- (a) The allowable PM emission rate from the kiln #1 recycled CKD operations (EU408 through EU411) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a process weight rate of 15 tons per hour.
- (b) The allowable PM emission rate from the kiln #1 waste CKD operations (EU402 through EU405) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a combined process weight rate of 15 tons per hour.
- (c) The allowable PM emission rate from the kiln #2 waste CKD operations (EU414 through EU416) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a combined process weight rate of 15 tons per hour.
- (d) The allowable PM emission rate from the kiln #2 recycled CKD operations (EU417 through EU420) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a process weight rate of 15 tons per hour.
- (e) The allowable PM emission rate from the clay processing facilities (EU123 through EU125, and EU127) shall not exceed 39.96 pounds per hour (total for all units combined) when operating at a process weight rate of 30 tons per hour.
- (f) The allowable PM emission rate from the raw material storage process (EU202, EU204, EU210, EU211, EU213 and EU214) shall not exceed 58.51 pounds per hour (total for all units combined) when operating at a process weight rate of 200 tons per hour.

- (g) The allowable PM emission rate from the process for transferring clinker from storage bins to finish mills (EU505 through EU509, EU511, EU520, EU521, and EU523 through EU525) shall not exceed 43.6 pounds per hour (total for all units combined) when operating at a process weight rate of 45 tons per hour.
- (h) The allowable PM emission rate from the raw mill facilities (EU205-209 and EU212, and EU215 and EU216) shall not exceed 57.07 pounds per hour (total for all units combined) when operating at a process weight rate of 175 tons per hour.
- (i) The allowable PM emission rate from the unloading station facilities (EU307 through EU311) shall not exceed 58.51 pounds per hour (total for all units combined) when operating at a process weight rate of 200 tons per hour.
- (j) The allowable PM emission rate from the fossil fuel facilities (EU314 through EU324) shall not exceed 58.51 pounds per hour (total for all units combined) when operating at a process weight rate of 200 tons per hour.
- (k) The allowable PM emission rate from the kiln #1 clinker handling facilities (EU501 through EU504) shall not exceed 42.97 pounds per hour (total for all units combined) when operating at a process weight rate of 42 tons per hour.
- (l) The allowable PM emission rate from the kiln #2 clinker handling facilities (EU516 through EU519) shall not exceed 42.97 pounds per hour (total for all units combined) when operating at a combined process weight rate of 42 tons per hour.
- (m) The allowable PM emission rate from the finish mill #1 (EU601 through EU603) shall not exceed 43.6 pounds per hour (total for all units combined) when operating at a process weight rate of 45 tons per hour.
- (n) The allowable PM emission rate from the finish mill #2 (EU604 through EU606) shall not exceed 43.6 pounds per hour (total for all units combined) when operating at a process weight rate of 45 tons per hour.
- (o) The allowable PM emission rate from the silos (EU703 through EU705 and EU707 through EU711) shall not exceed 66.89 pounds per hour (total for all units combined) when operating at a process weight rate of 420 tons per hour.
- (p) The allowable PM emission rate from the west bulk truck loadout (EU712) shall not exceed 67.7 pounds per hour when operating at a process weight rate of 450 tons per hour.
- (q) The allowable PM emission rate from the east bulk truck loadout (EU706) shall not exceed 67.7 pounds per hour when operating at a process weight rate of 450 tons per hour.
- (r) The allowable PM emission rate from the truck/RR car unloading process and internal transfer to silos (EU701 and EU702) shall not exceed 51.28 pounds per hour (total for both units combined) when operating at a process weight rate of 100 tons per hour.

- (s) The allowable PM emission rate from the bulk RR loadout process (EU713) shall not exceed 51.28 pounds per hour when operating at a process weight rate of 100 tons per hour.
- (t) The allowable PM emission rate from the finish product masonry packing (EU801 through EU803) shall not exceed 43.4 pounds per hour (total for all units combined) when operating at a process weight rate of 44 tons per hour.
- (u) The allowable PM emission rate from the finish product portland packing (EU804 through EU806) shall not exceed 43.4 pounds per hour (total for all units combined) when operating at a process weight rate of 44 tons per hour.
- (v) The allowable PM emission rate from the waste dust tank, and CKD2FM surge system (EU406) shall not exceed 39.96 pounds per hour when operating at a process weight rate of 30 tons per hour.
- (w) The allowable PM emission rate from the CKD2FM recycling storage tank system, and CKD2FM #1FM and #2FM shall not exceed 24.03 pounds per hour (total for all units combined) when operating at a process weight rate of 14 tons per hour.

The pounds per hour limitations were calculated with the following equations:

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

$$E = 4.1 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

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

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

When the process weight rate exceeds 200 tons per hour, the maximum allowable emission may exceed the pound per hour limit calculated using the above-referenced equation, provided the concentration of particulate matter in the discharge gases to the atmosphere is less than 0.10 pounds per on thousand (1,000) pounds of gases.

#### D.2.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

Except when otherwise specified in 40 CFR Part 63, Subpart LLL, the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to all the facilities described in this section, except for the open/unenclosed material stockpiles and haul roads.

**D.2.4 NESHAP Emissions Limitation [40 CFR 63, Subpart LLL]**

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The NESHAP 40 CFR 63, Subpart LLL and 326 IAC 20-27-1 applies to all of the emission units listed in this section, except for the open/unenclosed material stockpiles and haul roads. Pursuant to 40 CFR 63.1348 (Emissions Standards and Operating Limits), on and after June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry, the visible emissions from each of the affected facilities listed in this section shall not exceed ten percent (10%) opacity.

**D.2.5 Determinations of Nonapplicability [40 CFR 60, Subparts A and F]**

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None of the facilities listed in this section, except for the east and west flyash truck unloading facilities (EU210 and EU213), are subject to the requirements of the New Source Performance Standards (NSPS), 40 CFR 60, Subparts A and F (Standards of Performance for Portland Cement Plants) because they were constructed prior to the applicability date of August 17, 1971.

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

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the emission control devices listed in this section.

**Compliance Determination Requirements**

**D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 63, Subpart LLL]**

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(a) For affected sources existing on or before June 14, 2002:

No later than 180 days after June 14, 2002, which is the compliance date for the Portland Cement Manufacturing Industry NESHAP, the Permittee shall demonstrate initial compliance with the limits established in Condition D.2.4 by conducting a test in accordance with 40 CFR 63.1349, Method 9 of 40 CFR Part 60, Appendix A, and Section C - Performance Testing.

(b) For affected sources modified or constructed after June 14, 2002:

No later than 90 day after start-up, the Permittee shall demonstrate initial compliance with the limits established in Condition D.2.4 by conducting a test in accordance with 40 CFR 63.1349, Method 9 of 40 CFR Part 60, Appendix A, and Section C - Performance Testing.

(c) In order to demonstrate compliance with Condition D.2.2, the Permittee shall perform PM testing on the Finish mill #1 (EU601 through EU603), Finish mill #2 (EU604 through EU606), and Raw Mills (EU205 through EU209, EU212, EU215, and EU216) utilizing methods as approved by the Commissioner. These tests shall be conducted within 180 days after issuance of this Part 70 permit. These tests shall be repeated at least once every five years. Testing shall be conducted in accordance with Section C- Performance Testing. All associated facilities exhausting to a single stack must all be operating when determining compliance with the limit.

**D.2.8 Particulate Control [326 IAC 2-7-6(6)]**

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(a) In order to comply with D.2.1 and D.2.3, the baghouses for particulate control shall be in operation and control emissions at all times their associated facility is in operation.

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

normal, and the results of any response actions taken up to the time of notification.

#### D.2.9 NESHAP Monitoring Requirements [40 CFR 63, Subpart LLL]

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- (a) 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 before startup for affect sources modified or constructed after June 14, 2002. 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.2.3; 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 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.
    - (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, Appendix 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 raw mills and 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 in accordance with 40 CFR 63.7(e). 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 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 conduct a follow-up Method 22 test. If visible emissions are observed, then within 24 hours of the end of the Method 22 test in which the visible emissions were observed, the Permittee must conduct a followup Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the followup Method 22 test, the Permittee must conduct a visual opacity test of each stack from which visible emissions were observed during the followup Method 22 test, in accordance with 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 test shall be thirty minutes.
- (c) The requirement to conduct Method 22 visible emissions monitoring under this paragraph [40 CFR 63.1350(a)(4)] 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.
- (d) For any partially enclosed or unenclosed conveying system transfer point 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 40 CFR 63.1350(a)(4)(i) through (iv) for each such conveying system transfer point located within the building, or for the building itself [according to paragraph 40 CFR 63.1350(a)(4)(vii)]. If visible emissions from a building are monitored, the requirements of paragraphs 40 CFR 63.1350(a)(4)(i) through (iv) apply to the monitoring of the building, and the Permittee must also do the following: 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.

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

#### **D.2.10 Visible Emissions Notations**

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- (a) Visible emission notations of each of the baghouse stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether visible emissions are present.
- (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 visible emissions for that specific process.
- (e) On days that the NESHAP monitoring required in Condition D.2.9 is performed, the Permittee may use those results to satisfy the requirements of this condition for the units subject to the NESHAP.
- (f) If abnormal missions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.2.11 Parametric Monitoring

The Permittee shall record the pressure drop across each baghouse, at least once per day when the associated facility is in operation. When for any one reading, 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, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside of the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

#### D.2.12 Broken or Failed Bag Detection

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

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

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

#### D.2.13 Record Keeping Requirements

- (a) To document compliance with Condition D.2.10, the Permittee shall maintain records of visible emission notations of the baghouse stack exhausts once per day.
- (b) To document compliance with Condition D.2.11, the Permittee shall maintain records of

the pressure drop once per day during normal operation when venting to the atmosphere:

- (c) To document compliance with the NESHAP 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 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.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.14 Reporting Requirements

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- (a) 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 Condition D.2.9 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 before startup for affect sources modified or constructed after June 14, 2002. .
  - (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.

- (b) 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).

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

### Part 70 Quarterly Report for CKD Throughput EU902 to EU905

Source Name: ESSROC Cement Corporation  
 Source Address: State Road 25 South, 3084 W. C.R. 225 South, Logansport, Indiana  
 Mailing Address: State Road 25 South, 3084 W. C.R. 225 South, Logansport, Indiana  
 Part 70 Permit No.: T017-6033-00005  
 Facility: Silo 15 (EU905) and CKD2FM recycling storage tank system (EU902)  
 CKD2FM #1 FM (EU903) and CKD2FM #2 FM (EU904)  
 Parameter: Cement Kiln Dust (CKD) throughput  
 Limit: 65,000 tons per twelve (12) consecutive month period for EU905 and EU902  
 combined.  
 65,000 tons per twelve (12) consecutive month period for EU905 and EU902  
 combined.

FACILITY: \_\_\_\_\_ YEAR: \_\_\_\_\_

Monthly CKD throughput (tons)					
Silo 15 (EU905) and CKD2FM recycling storage tank system (EU902) (combined)			CKD2FM #1 FM (EU903) and CKD2FM #2 FM (EU904) (Combined)		
This Month	Previous 11 Months	12 Month Total	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
 Deviation has been reported on:

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

Attach a signed certification to complete this report.

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD) for a

Part 70 Minor Source Modification and  
Significant Permit Modification

<b>Source Description and Location</b>
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<b>Source Name:</b>	ESSROC Cement Corporation
<b>Source Location:</b>	State Road 25 South, 3084 West County Road 225 South, Logansport, Indiana 46947
<b>County:</b>	Cass
<b>SIC Code:</b>	3241
<b>Operation Permit No.:</b>	T 017-6033-00005
<b>Operation Permit Issuance Date:</b>	December 29, 2003
<b>Minor Source Modification No.:</b>	017-22319-00005
<b>Significant Permit Modification No.:</b>	017-22539-00005
<b>Permit Reviewer:</b>	Jenny Acker

<b>Existing Approvals</b>
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The source was issued Part 70 Operating Permit No. 017-6033-00005 on December 29, 2003.

<b>County Attainment Status</b>
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The source is located in Cass County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Cass County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Cass County has been classified as attainment for PM<sub>2.5</sub>. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2

for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

- (c) Cass County has been classified as attainment or unclassifiable for PM10, SO<sub>2</sub>, NO<sub>2</sub>, CO, Lead and Ozone under the 1 and 8 hour standards. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Since this source is classified as a portland cement plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (e) Fugitive Emissions  
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

**Source Status**

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

Pollutant	Emissions (tons/year)
PM	Greater than 100
PM10	Greater than 100
SO <sub>2</sub>	Greater than 100
VOC	Less than 100
CO	Greater than 100
NO <sub>x</sub>	Greater than 100

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) These emissions are based upon the Technical Support Document (TSD) to the Part 70 Operating Permit No. 017-6033-00005, issued on December 29, 2003.

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

HAPs	Potential To Emit tons/year)
Any One Single HAP	Less than 10
Total HAPs	Greater than 25

Note: The emissions for HAPs were determined through use of AP-42 emission factors. The emission factors are based on controlled emissions. Potential emissions may be greater than those stated above. (Part 70 Operating Permit No.: 017-6033-00005)

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

### Actual Emissions

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

Pollutant	Actual Emissions (tons/year)
PM	No Data
PM10	298
SO <sub>2</sub>	1543
VOC	63
CO	1758
NO <sub>x</sub>	1392
HAP	No Data

### Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by ESSROC Cement Corporation on November 30, 2005, relating to the construction of the CKD-To-Finish Mill (CKD2FM) Project. This project will allow the source to divert cement kiln dust (CKD), which is currently being disposed, to finish mill #1 circuit and finish mill #2 circuit, where the CKD can be recycled back into the cement manufacturing process.

CKD stored in the existing waste CKD tank (EU406) is currently loaded onto trucks for transfer to an on-site landfill. The CKD2FM surge system will be a modification to the waste CKD tank and will provide the option of pneumatically transferring the CKD to one of two storage tanks. The primary destination of the CKD will be the new CKD2FM recycling storage tank system (EU902). The CKD will then be transferred via the new CKD2FM #1 FM (EU903) to the existing finish mill #1 circuit (EU602) and via the new CKD2FM #2 FM (EU904) to the existing finish mill #2 circuit (EU605). The project will also allow the transfer of the CKD from the waste CKD tank to silo 15 CKD storage (EU905) where the CKD can be transported to the on-site landfill or sold.

Note: Silo 15 is an existing silo, which was isolated from the main bank of silos and a common baghouse, and will be controlled by an independent baghouse.

The following is a list of the proposed and modified emission units and pollution control devices associated with the CKD2FM project:

- One (1) waste dust tank, constructed in 1962, modified in 2005 with the addition of one (1) CKD2FM surge system, collectively identified as EU406, with emissions controlled by a baghouse, constructed in 2005, identified as baghouse 142 and CE901, and exhausting to one (1) stack identified as EP901.
- One (1) CKD2FM recycling storage tank system, identified as EU902, constructed in 2005, with particulate emissions controlled by one (1) baghouse, identified as baghouse 143 and CE902, and exhausting to one (1) stack, identified as EP902.
- One (1) CKD2FM #1 FM recycling system, identified as EU903, constructed in 2005.
- One (1) CKDFM #2 FM recycling system, identified as EU904, constructed in 2005.
- One (1) silo, Silo 15, identified as EU905, constructed in 1965, with particulate emissions

controlled by one (1) baghouse, identified as baghouse 144 and CE905, and exhausting to one (1) stack, identified as EP905.

Silo 8 which was part of emission unit EU709 will be moved to emission unit EU711. There are no new emissions associated with this move.

ESSROC Cement Corporation, requested that IDEM, OAQ re-evaluate the compliance determination and monitoring requirements.

**Enforcement Issues**

IDEM is aware that equipment has been constructed prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
CE901/EP901	EU406	N/A	N/A	644	150
CE902/EP902	EU902	N/A	N/A	3400	150
CE905/EP905	EU905	N/A	N/A	1550	150

**Emission Calculations**

See Appendix A of this document for detailed emission calculations.

**Permit Level Determination – Part 70**

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

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

Pollutant	Potential To Emit (tons/year)
PM	23.50
PM10	14.99
SO <sub>2</sub>	--
VOC	--
CO	--

Pollutant	Potential To Emit (tons/year)
NO <sub>x</sub>	--

This source modification is subject to 326 IAC 2-7-10.5 (d)(4)(E) for modifications for which the potential to emit is limited to less than twenty-five (25) tons per year of any regulated pollutant other than hazardous air pollutants (HAPS) by limiting the raw material throughput. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1), since every significant change in existing monitoring Part 70 permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions shall be considered significant.

**Permit Level Determination – PSD or Emission Offset**

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

Process/Emission Unit	Potential to Emit (tons/year)					
	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
<b>CKD2FM recycling storage tank system (EU902) and Silo 15 (EU905)</b>	23.40	14.95	--	--	--	--
<b>CKD2FM #1 recycling system (EU903) and CKD2FM #2 recycling system (EU904)</b>	0.01	0.04	--	--	--	--
Total for Modification	23.50	14.99				
Significant Level or Major Source Threshold	25	15	40	100	100	40

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Since this source is considered a major PSD source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM per year and fifteen (15) tons of PM<sub>10</sub> per year, this source has elected to limit the potential to emit of this modification as follows:

- (a) PM and PM10 emissions shall be limited as follows:

Emission Unit	PM	PM10
CKD2FM recycling storage tank system (EU902)	0.72 (lb/ton of CKD)	0.46 (lb/ton of CKD)
CKD2FM #1 FM recycling system (EU903)	0.003 (lb/ton of CKD)	0.0011 (lb/ton of CKD)

Emission Unit	PM	PM10
CKD2FM #2 FM recycling system (EU904)	0.003 (lb/ton of CKD)	0.0011 (lb/ton of CKD)
Silo 15 (EU905) Described in Section D.1	0.72 (lb/ton of CKD)	0.46 (lb/ton of CKD)

- (b) The Permittee shall limit the throughput of CKD per twelve consecutive month period, with compliance determined at the end of each month, according to the following:

Emission Unit	CKD Throughput (tons)
Silo 15 (EU905) Described in Section D.1	65,000 (combined)
CKD2FM recycling storage tank system (EU902)	
CKD2FM #1 FM recycling system (EU903)	65,000 (combined)
CKD2FM #2 FM recycling system (EU904)	

Compliance with the above limits will ensure that total PM and PM10 emissions from Minor Source Modification 017-22319-00005 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable.

**Federal Rule Applicability Determination**

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

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

This source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Portland Cement Manufacturing Industry (40 CFR 63, Subpart LLL), which is incorporated by reference as 326 IAC 20-27. The units subject to this rule include the following

- (a) The following existing emission units are subject to the provision of 40 CFR 63, Subpart LLL immediately upon startup of the CKD2FM project, since the cement kiln dust (CKD) being conveyed and stored by these emission units will be a raw material under 40 CFR 63, Subpart LLL.

**Kiln #1 Waste CKD Operations**

- (38) five (5) discharge hopper screws, identified as EU402.
- (39) one (1) covered 16" cross screw, identified as EU403.
- (40) One (1) #1 waste dust elevator, identified as EU404.
- (41) One (1) 9" cross screw, identified as EU405.

**Kiln #2 Waste CKD Operations**

- (46) five (5) discharge hopper screws, identified as EU414.
- (47) 16" covered cross screws, identified as EU415.
- (48) #2 waste dust elevator, identified as EU416.

- (b) The following existing emission units were subject to the provisions of 40 CFR 63, Subpart LLL on June 10, 2002, since the cement kiln dust (CKD) being conveyed and stored by

these emission units is a raw material under 40 CFR 63, Subpart LLL.

**Kiln #1 Recycled CKD Operations**

- (34) #1 recycled dust elevator, identified as EU408.
- (35) One (1) recycled dust holding tank, identified as EU409.
- (36) One (1) feeder screw and F-K pump, identified as EU410.
- (37) #1 recycled dust scoop/insufflation system, identified as EU411.

**Kiln #2 Recycled CKD Operations**

- (42) #2 recycled dust elevator, identified as EU417.
- (43) One (1) recycled dust holding tank, identified as EU418.
- (44) One (1) feeder screw and F-K pump, identified as EU419.
- (45) #2 recycled dust scoop system/insufflation system, identified as EU420.

- (c) The new or modified emission units are subject to the provisions of 40 CFR 63, Subpart LLL immediately upon startup of the CKD2FM project.

**CKD –To-Finish Mill (CKD2FM) Recycling Operations**

- (133) One (1) waste dust tank, and one (1) CKD2FM surge system, collectively identified as EU406.
- (134) One (1) CKD2FM recycling storage tank system, identified as EU902.
- (135) One (1) CKD2FM #1 FM recycling system, identified as EU903.
- (136) One (1) CKD2FM #2 FM recycling system, identified as EU904.

- (c) Upon startup of the CKD2FM project, silo 15 (EU905) will not be subject to the provision of 40 CFR 63, Subpart LLL (NESHAP for Portland Cement Plants). The CKD stored in silo 15 is destined for disposal or sale and it is not considered a raw material. Furthermore, the chain of applicability stops after the first conveying system transfer point from an affected source when transferring material to a non-affected source. The waste dust tank and surge system (EU902) transfer CKD into a pneumatic conveyance system prior to conveyance into silo 15. Therefore, the transfer of material into silo 15 is not subject to 40 CFR 63, Subpart LLL.

A summary of the applicable requirements is as follows:

- (a) Pursuant to this rule the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply except when otherwise specified in 40 CFR Part 63, Subpart LLL.
- (b) Pursuant to this rule the following conditions shall apply to all the affected facilities:
  - (1) The visible emissions from each facility shall not exceed ten percent (10%) opacity.
  - (2) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for the affected facilities before start-up. The plan shall include the following information:
    - (A) Procedures for proper operation and maintenance of these facilities and associated air pollution control device(s).
    - (B) Procedures to be used to periodically monitor the affected facilities, 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 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.

The requirement to conduct Method 22 visible emissions monitoring under this paragraph [40 CFR 63.1350(a)(4)] 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.

For any partially enclosed or unenclosed conveying system transfer point 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 40 CFR 63.1350(a)(4)(i) through (iv) for each such conveying system transfer point located within the building, or for the building itself [according to paragraph 40 CFR 63.1350(a)(4)(vii)]. If visible emissions from a building are monitored, the requirements of paragraphs 40 CFR 63.1350(a)(4)(i) through (iv) apply to the monitoring of the building, and the Permittee must also do the following: 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.

- (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) The operations and maintenance plan shall be submitted to IDEM, OAQ and U.S. EPA before start-up.
  - (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.

- (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.

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
CKD2FM Recycling Storage Tank System (EU902) - PM	Baghouse	Y	44.15	0.09	100	N	N
Silo #15 CKD Storage (EU905) - PM	Baghouse	Y	34.70	0.07	100	N	N
CKD2FM #1 Recycling System (EU903) - PM	Baghouse	Y	0.22	Neg.	100	N	N
CKD2FM #2 Recycling System (EU904) - PM	Baghouse	Y	0.05	Neg.	100	N	N

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

### State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

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

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

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

- (a) The allowable PM emission rate from the waste CKD disposal operations (EU405 and EU907) shall not exceed 39.96 pounds per hour (total for all units combined) when operating at a combined process weight rate of 30 tons per hour.
- (b) The allowable PM emission rate from the waste dust tank, and CKD2FM surge system (EU406) shall not exceed 39.96 pounds per hour when operating at a process weight rate of 30 tons per hour.
- (c) The allowable PM emission rate from the CKD2FM recycling storage tank system, and CKD2FM #1FM and #2FM shall not exceed 24.03 pounds per hour (total for all units combined) when operating at a process weight rate of 14 tons per hour.

The pounds per hour limitations were calculated with the following equations:

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

$$E = 4.1 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

### Compliance Determination and Monitoring Requirements

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

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

period.

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

- (a) The baghouses for particulate control shall be in operation and control emissions at all times the associated facilities are in operation.
- (b) No later than 90 days after startup, the Permittee shall demonstrate initial compliance with the limits established in 40 CFR 63.1348 by conducting a test in accordance with 40 CFR 63.1349, Method 9 of 40 CFR Part 60, Appendix A, and Section C - Performance Testing for the following emission units:

**Kiln #1 Waste CKD Operations**

- (38) five (5) discharge hopper screws, identified as EU402.
- (39) one (1) covered 16" cross screw, identified as EU403.
- (40) One (1) #1 waste dust elevator, identified as EU404.
- (41) One (1) 9" cross screw, identified as EU405.

**Kiln #2 Waste CKD Operations**

- (46) five (5) discharge hopper screws, identified as EU414.
- (47) 16" covered cross screws, identified as EU415.
- (48) #2 waste dust elevator, identified as EU416.

**CKD –To-Finish Mill (CKD2FM) Recycling Operations**

- (133) One (1) waste dust tank, and one (1) CKD2FM surge system, identified as EU406.
- (134) One (1) CKD2FM recycling storage tank system, identified as EU902.
- (135) One (1) CKD2FM #1 FM recycling system, identified as EU903.
- (136) One (1) CKD2FM #2 FM recycling system, identified as EU904.

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

- (a) Visible emission notations of each of the baghouse stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether visible emissions are present. 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 visible emissions for that specific process. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The Permittee shall record the pressure drop across each baghouse, at least once per day when the associated facility is in operation. When for any one reading, 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, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside of the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit. The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (c) The Permittee shall maintain records of visible emission notations of the baghouse stack exhausts once per day, and of the pressure drop once per day during normal operation when venting to the atmosphere.
- (d) No later than 90 day after start-up, the Permittee shall demonstrate initial compliance with the limits established in Condition D.2.4 by conducting a test in accordance with 40 CFR 63.1349, Method 9 of 40 CFR Part 60, Appendix A, and Section C - Performance Testing.

These monitoring conditions are necessary because the baghouses must operate properly to ensure compliance with 40 CFR 63.1348 (Standards for Affected Sources) and 326 IAC 2-7 (Part 70).

### Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 017-6033-00005. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

#### Change No. 1:

IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Section B – Preventive Maintenance, and has amended the Section B – Emergency Provisions condition as follows:

#### 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) remains the same
- ~~(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.~~
- ~~(b)~~ **(b)** A copy of the PMP's 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 PMPs ~~does~~ not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- ~~(c)~~ **(c)** To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operations and Maintenance (O&M) 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) through (d) remain the same
- (e)** **The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions.** IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) and (g) remain the same

Change No. 2:

IDEM has clarified the Section B - Operational Flexibility condition as follows:

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

- (a) remains the same
  - (1) remains the same
  - (2) remains the same
  - (3) The changes do not result in emissions which exceed the ~~emissions allowable under limitations provided in~~ this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) remains the same
  - (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions ~~trading trades~~ that are subject to 326 IAC 2-7-20(b), (c), or (e). ~~and makes~~ **The Permittee shall make** 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), (c)(1), and (e)(2).
- (b) remains the same
- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade **emissions** increases and decreases ~~in emissions in~~ at 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) remains the same

Change No. 3:

IDEM has clarified the Section C- Maintenance of Continuous Opacity Monitoring Equipment condition as follows:

C.12 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~~ **COMS** 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 event that a breakdown of a ~~continuous opacity monitoring systems~~ **COMS** occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.

Change No. 4:

IDEM realizes that these specifications can only be practically applied to analog units, and has therefore clarified the condition to state that the condition only applies to analog units. Upon further review, IDEM has also determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the accuracy requirements have been removed from the condition.

C.15 ~~Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]~~

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- (a) ~~Whenever a condition in this permit requires the measurement of pressure drop, voltage, current, or temperature across any part of the unit or its control device, the gauge or instrument employed~~ **When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected normal maximum reading for the normal range shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.**
- (b) ~~The Permittee may request that the IDEM, OAQ approve the use of a pressure gauge or other an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other the parameters.~~

Change No. 5:

IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan. The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. The Section D conditions that refer to this condition have been revised to reflect the new condition title, and the following changes have been made to the Section C condition:

C.18 ~~Compliance Response Plan – Preparation, Implementation, Records, and Reports Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]~~

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- (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 Operations and Maintenance (O&M) Plan under 40 CFR 63, such plans shall be deemed to satisfy the requirements of a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP may consist of information contained within the Preventive Maintenance Plan(s) described in Section B – Preventive Maintenance Plan, of this permit. 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 time frame 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 or O&M Plan and the Permittee documents such response in accordance with subsection (c) below, the~~

~~Permittee shall amend its Compliance Response Plan or O&M Plan to include such response steps taken.~~

~~The O&M Plan shall be submitted within the time frames specified by the applicable 40 CFR 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 or O&M Plan; or~~
  - ~~(2) If none of the reasonable response steps listed in the Compliance Response Plan or O&M 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 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 status of the applicable compliance monitoring parameter with respect to normal, and the results of the 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 or;~~
  - ~~(3) An automatic measurement was taken when the process was not operating; or~~
  - ~~(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.~~

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

Change No. 6:

During the review process of the submitted modification, existing emission units were determined to be affected sources under 40 CFR 63, Subpart LLL. These affected sources were listed in Section D.1, which does not contain the requirements applicable under 40 CFR 63, Subpart LLL. Since Section D.2 conditions cite the applicable requirements of 40 CFR 63, Subpart LLL, the affected sources have been removed from Section D.1 and have been listed in Section D.2. The 326 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) requirements applicable to the affected sources were also removed from Section D.1 and were placed in Section D.2.

The line identification numbers in Sections D.1 (Facility Description) and D.2 (Facility Description)

have been corrected to correspond to the with the line identification numbers in Condition A.2 for each emission unit and silo 8 has been moved to EU711.

To reflect these modifications and the modifications associated with the CKD2FM Project, the Part 70 Operating Permit has been revised as follows:

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

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

**Quarry Activities**

(1) remains the same

**Raw Material / Clinker Stockpile Operations**

(2) through (21) remain the same

**Raw Material Sizing Operations**

(22) through (33) remain the same

**Kiln #1 and kiln #2 Recycled CKD Operations**

(34) through (37) remain the same

**Kiln #1 and kiln #2 Waste CKD Operations**

(38) through (41) remain the same

**Kiln #2 Recycled CKD Operations**

(42) through (45) remain the same

**Kiln #2 Waste CKD Operations**

(46) through (48) remain the same

**CKD –Silo Storage Facilities**

(49) One (1) silo, Silo 15, identified as EU905, constructed in 1965, with particulate emissions controlled by one (1) baghouse, identified as baghouse 144 and CE905, and exhausting to one (1) stack, identified as EP905

**Waste CKD Disposal Operations**

~~(49) One (1) waste dust tank, identified as EU406, constructed in 1962.~~

(50) Truck unloading, identified as EU407, commenced operation in 1962.

(51) One (1) cement kiln dust haul road system, identified as EU422, constructed in 1962.

(52) One (1) cement kiln dust pile, identified as EU423, commenced operation in 1962.

**Clay Processing Operations**

(53) through (57) remain the same

**Crane Storage Facilities**

(58) through (74) remain the same

**Raw Mill Facilities**

(75) through (82) remain the same

**Unloading Station Facilities**

(83) through (87) remain the same

**Fossil Fuel Facilities**

(88) through (95) remain the same

**Kiln #1 and kiln #2 Clinker Handling Facilities**

(96) through (99) remain the same

**Kiln #2 Clinker Handling Facilities**

(100) through (103) remain the same

**Finish Mill #1 Facilities**

(104) through (109) remain the same

**Finish Mill #2 Facilities**

(110) through (115) remain the same

**Finish Product Silo Storage Facilities**

(116) Silos 11/12/13/14/15/16/17/18, identified as EU704, constructed in 1965, with emissions controlled by a baghouse, identified as baghouse 126 and CE704, and exhausting to one (1) stack identified as EP704.

(117) Silos 1/ 2/3/4/5/6/7/8, identified as EU709, constructed in 1961, with emissions controlled by a baghouse, identified as baghouse 122 and CE709, and exhausting to one (1) stack identified as EP709.

(118) Silos 8/9/10, identified as EU711, constructed in 1961, with emissions controlled by a baghouse, identified as baghouse 124 and CE711, and exhausting to one (1) stack identified as EP711.

**Finish Product Silo Transfer Operations**

(119) remains the same

**Finish Product Loadout Old Silos (West) Operation**

(120) and (121) remain the same

**Finish Product Loadout New Silos (East) Operation**

(122) remains the same

**Finish Product Masonry Packing**

(123) through (125) remains the same

**Finish Product Portland Packing**

(126) through (128) remain the same

**Kiln #1 and Kiln #2 Facilities**

(129) and (130) remain the same

**Clinker Cooler #1 Facilities**

(131) remains the same

**Clinker Cooler #2 Facilities**

(132) remains the same

**CKD –To-Finish Mill (CKD2FM) Recycling Operations**

(133) One (1) waste dust tank, constructed in 1962, modified in 2005 with the addition of one (1) CKD2FM surge system, collectively identified as EU406, with emissions controlled by a baghouse, constructed in 2005, identified as baghouse 142 and

**CE901, and exhausting to one (1) stack identified as EP901.**

- (134) One (1) CKD2FM recycling storage tank system, identified as EU902, constructed in 2005, with particulate emissions controlled by one (1) baghouse, identified as baghouse 143 and CE902, and exhausting to one (1) stack, identified as EP902.**
- (135) One (1) CKD2FM #1 FM recycling system, identified as EU903, constructed in 2005.**
- (136) One (1) CKD2FM #2 FM recycling system, identified as EU904, constructed in 2005.**

**SECTION D.1**

**FACILITY OPERATION CONDITIONS**

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Facility Description [326 IAC 2-7-5(15)] Note: Complete Descriptions are shown in Section A.2.

**Quarrying and Raw Material/Clinker Stockpile Operations**

(1) through (21) remain the same

**Raw Material Sizing Operations**

(22) through (33) remain the same

**~~Kiln #1 Recycled CKD Operations~~**

- ~~(34) — #1 recycled dust elevator, identified as EU408.~~
- ~~(35) — One (1) recycled dust holding tank, identified as EU409.~~
- ~~(36) — One (1) feeder screw and F K pump, identified as EU410.~~
- ~~(37) — #1 recycled dust scoop/insufflation system, identified as EU411.~~

**~~Kiln #1 Waste CKD Operations~~**

- ~~(38) — five (5) discharge hopper screws, identified as EU402.~~
- ~~(39) — one (1) covered 16" cross screw, identified as EU403.~~
- ~~(40) — One (1) #1 waste dust elevator, identified as EU404.~~
- ~~(41) — One (1) 9" cross screw, identified as EU405.~~

**~~Kiln #2 Waste CKD Operations~~**

- ~~(42) — five (5) discharge hopper screws, identified as EU414.~~
- ~~(43) — 16" covered cross screws, identified as EU415.~~
- ~~(44) — #2 waste dust elevator, identified as EU416.~~

**CKD –Silo Storage Facilities**

- (49) One (1) silo, Silo 15, identified as EU905.**

**Waste CKD Disposal Operations**

- ~~(45) — One (1) waste dust tank, identified as EU406.~~
- ~~(46) (50) Truck unloading, identified as EU407.~~
- ~~(47) (51) One (1) cement kiln dust haul road system, identified as EU422.~~
- ~~(58) (52) One (1) cement kiln dust pile, identified as EU423.~~

**~~Kiln #2 Recycled CKD Operations~~**

- ~~(49) — #2 recycled dust elevator, identified as EU417.~~
- ~~(50) — One (1) recycled dust holding tank, identified as EU418.~~
- ~~(51) — One (1) feeder screw and F K pump, identified as EU419.~~
- ~~(52) — #2 recycled dust scoop system/insufflation system, identified as EU420.~~

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

**D.1.1 PSD Minor Limits [326 IAC 2-2]**

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) The PM emission rate from Silo 15, identified as EU905, shall not exceed 0.72 pounds per ton of CKD throughput.**
- (b) The PM10 emission rate from Silo 15, identified as EU905, shall not exceed 0.46 pounds per ton of CKD throughput.**

- (c) **The Permittee shall limit the throughput of CKD per twelve consecutive month period, with compliance determined at the end of each month, according to the following:**

Emission Unit	CKD Throughput (tons)
Silo 15 (EU905) Described in Section D.1	65,000 (combined)
CKD2FM recycling storage tank system (EU902) Described in Section D.2	

**Compliance with the above limits, along with the limits in Condition D.2.1, will ensure that total PM and PM10 emissions from Minor Source Modification 017-22319-00005 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable.**

D.1.12 Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

- (a) The allowable PM emission rate from the raw material sizing facilities (EU112, EU114 through EU122, and EU201) shall not exceed 70.1 pounds per hour when operating at a process weight rate of 550 tons per hour.
- ~~(b) The allowable PM emission rate from the kiln #1 recycled CKD operations (EU408 through EU411) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a process weight rate of 15 tons per hour.~~
- ~~(c) The allowable PM emission rate from the kiln #1 waste CKD operations (EU402 through EU405) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a combined process weight rate of 15 tons per hour.~~
- ~~(d) The allowable PM emission rate from the kiln #2 waste CKD operations (EU414 through EU416) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a combined process weight rate of 15 tons per hour.~~
- ~~(e)(b)~~ (b) The allowable PM emission rate from the waste CKD disposal operations (EU406 5 and EU407) shall not exceed 39.96 pounds per hour (total for all units combined) when operating at a combined process weight rate of 30 tons per hour.
- ~~(f) The allowable PM emission rate from the kiln #2 recycled CKD operations (EU417 through EU420) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a process weight rate of 15 tons per hour.~~

## SECTION D.2

## FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] Note: Complete Descriptions are shown in Section A.2.

### **Kiln #1 Recycled CKD Operations**

(34) through (37) remain the same

- (35) One (1) recycled dust holding tank, identified as EU409.
- (36) One (1) feeder screw and F-K pump, identified as EU410.
- (37) #1 recycled dust scoop/insufflation system, identified as EU411.

### **Kiln #1 Waste CKD Operations**

- (38) five (5) discharge hopper screws, identified as EU402.
- (39) one (1) covered 16" cross screw, identified as EU403.
- (40) One (1) #1 waste dust elevator, identified as EU404.
- (41) One (1) 9" cross screw, identified as EU405.

### **Kiln #2 Recycled CKD Operations**

- ~~(49)~~ (42) #2 recycled dust elevator, identified as EU417.
- ~~(50)~~ (43) One (1) recycled dust holding tank, identified as EU418.
- ~~(51)~~ (44) One (1) feeder screw and F-K pump, identified as EU419.
- ~~(52)~~ (45) #2 recycled dust scoop system/insufflation system, identified as EU420.

### **Kiln #2 Waste CKD Operations**

- ~~(42)~~ (46) five (5) discharge hopper screws, identified as EU414.
- ~~(43)~~ (47) 16" covered cross screws, identified as EU415.
- ~~(44)~~ (48) #2 waste dust elevator, identified as EU416.

### **Clay Processing Operations**

(53) through (57) remain the same

### **Crane Storage Facilities**

(58) through (74) remain the same

### **Raw Mill Facilities**

(75) through (82) remain the same

### **Unloading Station Facilities**

(83) through (87) remain the same

### **Fossil Fuel Facilities**

(88) through (95) remain the same

### **Kiln #1 Clinker Handling Facilities**

(96) through (99) remain the same

### **Kiln #2 Clinker Handling Facilities**

(100) through (103) remain the same

### **Finish Mill #1 Facilities**

(104) through (109) remain the same

### **Finish Mill #2 Facilities**

(110) through (115) remain the same

**Finish Product Silo Storage Facilities**

- (116) Silos 11/12/13/14/15/16/17/18, identified as EU704.
- (117) Silos 1/2/3/4/5/6/7/8, identified as EU709.
- (118) Silos 8/9/10, identified as EU711.

**Finish Product Silo Transfer Operations**

- (119) remains the same

**Finish Product Loadout Old Silos (West) Operation**

- (120) and (121) remain the same

**Finish Product Loadout New Silos (East) Operation**

- (122) remains the same

**Finish Product Masonry Packing**

- (123) through (125) remain the same

**Finish Product Portland Packing**

- (126) through (128) remains the same

**CKD –To-Finish Mill (CKD2FM) Recycling Operations**

- (133) One (1) waste dust tank, and one (1) CKD2FM surge system, identified as EU406.
- (134) One (1) CKD2FM recycling storage tank system, identified as EU902.
- (135) One (1) CKD2FM #1 FM recycling system, identified as EU903.
- (136) One (1) CKD2FM #2 FM recycling system, identified as EU904.

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

**D.2.1 PSD Minor Limits [326 IAC 2-2]**

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) PM and PM10 emissions shall be limited as follows:

Emission Unit	PM	PM10
CKD2FM recycling storage tank system (EU902)	0.72 (lb/ton of CKD)	0.46 (lb/ton of CKD)
CKD2FM #1 FM recycling system (EU903)	0.003 (lb/ton of CKD)	0.0011 (lb/ton of CKD)
CKD2FM #2 FM recycling system (EU904)	0.003 (lb/ton of CKD)	0.0011 (lb/ton of CKD)

- (b) The Permittee shall limit the throughput of CKD per twelve consecutive month period, with compliance determined at the end of each month, according to the following:

Emission Unit	CKD Throughput (tons)
Silo 15 (EU905) Described in Section D.1	65,000 (combined)

Emission Unit	CKD Throughput (tons)
CKD2FM recycling storage tank system (EU902)	
CKD2FM #1 FM recycling system (EU903)	65,000 (combined)
CKD2FM #2 FM recycling system (EU904)	

**Compliance with the above limits, along with the limits in Condition D.1.1, will ensure that total PM and PM10 emissions from Minor Source Modification 017-22319-00005 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable.**

**D.2.42 Particulate Emissions [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following conditions shall apply:

- (a) The allowable PM emission rate from the kiln #1 recycled CKD operations (EU408 through EU411) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a process weight rate of 15 tons per hour.**
- (b) The allowable PM emission rate from the kiln #1 waste CKD operations (EU402 through EU405) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a combined process weight rate of 15 tons per hour.**
- (c) The allowable PM emission rate from the kiln #2 waste CKD operations (EU414 through EU416) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a combined process weight rate of 15 tons per hour.**
- (d) The allowable PM emission rate from the kiln #2 recycled CKD operations (EU417 through EU420) shall not exceed 25.16 pounds per hour (total for all units combined) when operating at a process weight rate of 15 tons per hour.**
- ~~(e)~~ The allowable PM emission rate from the clay processing facilities (EU123 through EU125, and EU127) shall not exceed 39.96 pounds per hour (total for all units combined) when operating at a process weight rate of 30 tons per hour.
- ~~(2)(f)~~ The allowable PM emission rate from the raw material storage process (EU202, EU204, EU210, EU211, EU213 and EU214) shall not exceed 58.51 pounds per hour (total for all units combined) when operating at a process weight rate of 200 tons per hour.
- ~~(3)(g)~~ The allowable PM emission rate from the process for transferring clinker from storage bins to finish mills (EU505 through EU509, EU511, EU520, EU521, and EU523 through EU525) shall not exceed 43.6 pounds per hour (total for all units combined) when operating at a process weight rate of 45 tons per hour.
- ~~(4)(h)~~ The allowable PM emission rate from the raw mill facilities (EU205-209 and EU212, and EU215 and EU216) shall not exceed 57.07 pounds per hour (total for all units combined) when operating at a process weight rate of 175 tons per hour.
- ~~(5)(i)~~ The allowable PM emission rate from the unloading station facilities (EU307 through EU311) shall not exceed 58.51 pounds per hour (total for all units combined) when

operating at a process weight rate of 200 tons per hour.

- ~~(6)~~(j) The allowable PM emission rate from the fossil fuel facilities (EU314 through EU324) shall not exceed 58.51 pounds per hour (total for all units combined) when operating at a process weight rate of 200 tons per hour.
- ~~(7)~~(k) The allowable PM emission rate from the kiln #1 clinker handling facilities (EU501 through EU504) shall not exceed 42.97 pounds per hour (total for all units combined) when operating at a process weight rate of 42 tons per hour.
- ~~(8)~~(l) The allowable PM emission rate from the kiln #2 clinker handling facilities (EU516 through EU519) shall not exceed 42.97 pounds per hour (total for all units combined) when operating at a combined process weight rate of 42 tons per hour.
- ~~(9)~~(m) The allowable PM emission rate from the finish mill #1 (EU601 through EU603) shall not exceed 43.6 pounds per hour (total for all units combined) when operating at a process weight rate of 45 tons per hour.
- ~~(10)~~(n) The allowable PM emission rate from the finish mill #2 (EU604 through EU606) shall not exceed 43.6 pounds per hour (total for all units combined) when operating at a process weight rate of 45 tons per hour.
- ~~(11)~~(o) The allowable PM emission rate from the silos (EU703 through EU705 and EU707 through EU711) shall not exceed 66.89 pounds per hour (total for all units combined) when operating at a process weight rate of 420 tons per hour.
- ~~(12)~~(p) The allowable PM emission rate from the west bulk truck loadout (EU712) shall not exceed 67.7 pounds per hour when operating at a process weight rate of 450 tons per hour.
- ~~(13)~~(q) The allowable PM emission rate from the east bulk truck loadout (EU706) shall not exceed 67.7 pounds per hour when operating at a process weight rate of 450 tons per hour.
- ~~(14)~~(r) The allowable PM emission rate from the truck/RR car unloading process and internal transfer to silos (EU701 and EU702) shall not exceed 51.28 pounds per hour (total for both units combined) when operating at a process weight rate of 100 tons per hour.
- ~~(15)~~(s) The allowable PM emission rate from the bulk RR loadout process (EU713) shall not exceed 51.28 pounds per hour when operating at a process weight rate of 100 tons per hour.
- ~~(16)~~(t) The allowable PM emission rate from the finish product masonry packing (EU801 through EU803) shall not exceed 43.4 pounds per hour (total for all units combined) when operating at a process weight rate of 44 tons per hour.
- ~~(17)~~(u) The allowable PM emission rate from the finish product portland packing (EU804 through EU806) shall not exceed 43.4 pounds per hour (total for all units combined) when operating at a process weight rate of 44 tons per hour.
- (v) The allowable PM emission rate from the waste dust tank, and CKD2FM surge**

**system (EU406) shall not exceed 39.96 pounds per hour when operating at a process weight rate of 30 tons per hour.**

- (w) **The allowable PM emission rate from the CKD2FM recycling storage tank system, and CKD2FM #1FM and #2FM shall not exceed 24.03 pounds per hour (total for all units combined) when operating at a process weight rate of 14 tons per hour.**

D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 63, Subpart LLL]

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- (a) **For affected sources existing on or before June 14, 2002:**

No later than 180 days after June 14, 2002, which is the compliance date for the Portland Cement Manufacturing Industry NESHAP, the Permittee shall demonstrate initial compliance with the limits established in Condition D.2.4 by conducting a test in accordance with 40 CFR 63.1349, Method 9 of 40 CFR Part 60, Appendix A, and Section C - Performance Testing.

- (b) **For affected sources modified or constructed after June 14, 2002:**

**No later than 90 day after start-up, the Permittee shall demonstrate initial compliance with the limits established in Condition D.2.4 by conducting a test in accordance with 40 CFR 63.1349, Method 9 of 40 CFR Part 60, Appendix A, and Section C - Performance Testing.**

- ~~(b)~~ (c) In order to demonstrate compliance with Condition D.2.2, the Permittee shall perform PM testing on the Finish mill #1 (EU601 through EU603), Finish mill #2 (EU604 through EU606), and Raw Mills (EU205 through EU209, EU212, EU215, and EU216) utilizing methods as approved by the Commissioner. These tests shall be conducted within 180 days after issuance of this Part 70 permit. These tests shall be repeated at least once every five years. Testing shall be conducted in accordance with Section C- Performance Testing. All associated facilities exhausting to a single stack must all be operating when determining compliance with the limit.

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

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- (a) 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 before startup for affect sources modified or constructed after June 14, 2002.** The plan shall include the following information:

D.2.14 Reporting Requirements

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- (a) remains the same

- (1) The plan required by Condition D.2.9 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 before startup for affect sources modified or constructed after June 14, 2002.**

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

### Part 70 Quarterly Report for CKD Throughput EU902 to EU905

Source Name: ESSROC Cement Corporation  
 Source Address: State Road 25 South, 3084 W. C.R. 225 South, Logansport, Indiana  
 Mailing Address: State Road 25 South, 3084 W. C.R. 225 South, Logansport, Indiana  
 Part 70 Permit No.: T017-6033-00005  
 Facility: Silo 15 (EU905) and CKD2FM recycling storage tank system (EU902)  
 CKD2FM #1 FM (EU903) and CKD2FM #2 FM (EU904)  
 Parameter: Cement Kiln Dust (CKD) throughput  
 Limit: 65,000 tons per twelve (12) consecutive month period for EU905 and EU902  
 combined.  
 65,000 tons per twelve (12) consecutive month period for EU905 and EU902  
 combined.

FACILITY: \_\_\_\_\_ YEAR: \_\_\_\_\_

Monthly CKD throughput (tons)					
Silo 15 (EU905) and CKD2FM recycling storage tank system (EU902) (combined)			CKD2FM #1 FM (EU903) and CKD2FM #2 FM (EU904) (Combined)		
This Month	Previous 11 Months	12 Month Total	This Month	Previous 11 Months	12 Month Total

- 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.

Change No. 7:

Upon further review, IDEM has determined that it is the Permittee's responsibility to include routine control device inspection requirements in the applicable preventive maintenance plan. Since the Permittee is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control device should be inspected, the conditions requiring control device inspections have been removed from the permit. In addition, the requirement to keep records of the inspections has been removed.

Modifications to the recordkeeping requirements are shown in "Change No. 11".

~~D.1.34 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 the **emission** control devices listed in this section.~~

~~D.1.7 Baghouse Inspections~~

~~An inspection shall be performed during every major maintenance outage, but no less than once every fourteen (14) months, of all bags controlling the facilities listed in this section. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

~~D.2.56 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 the **emission** control devices listed in this section.~~

~~D.2.11 Baghouse Inspections~~

~~An inspection shall be performed during every major maintenance outage, but no less than once every fourteen (14) months, of all bags controlling the facilities listed in this section. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

~~D.3.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]~~

~~(a) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and the **their emission** control devices.~~

~~(b) The PMP for an electrostatic precipitator shall include the following inspections, performed according to the indicated schedules:~~

~~(1) Plate and electrode alignment, every major maintenance outage, but no less than every 14 months;~~

~~(2) ESP TR set components, performed whenever there is an ESP outage of any nature lasting more than five days, unless such inspections have been performed within the last six months. At a minimum, the following inspections shall be performed:~~

~~(A) Internal inspection of shell for corrosion (including but not limited to doors, hatches, insulator housings, and roof area).~~

~~(B) Effectiveness of rapping (including but not limited to buildup of dust on discharge electrodes and plates).~~

~~(C) Gas distribution (including but not limited to buildup of dust on distribution plates and turning vanes).~~

- ~~(D) — Dust accumulation (including but not limited to buildup of dust on shell and support members that could result in grounds or promote advanced corrosion).~~
- ~~(E) — Major misalignment of plates (including but not limited to a visual check of plate alignment).~~
- ~~(F) — Rapper, vibrator and TR set control cabinets (including but not limited to motors and lubrication)~~
- ~~(G) — Rapper assembly (including but not limited to loose bolts, ground wires, water in air lines, and solenoids).~~
- ~~(H) — Vibrator and rapper seals (including but not limited to air in-leakage, wear, and deterioration).~~
- ~~(I) — TR set controllers (including but not limited to low voltage trip point, over current trip point, and spark rate).~~
- ~~(J) — Vibrator air pressure settings.~~
- ~~(3) — Air and water infiltration, once per month. The recommended method for this inspection is for audible checks around ash hoppers/hatches, duct expansion joints, and areas of corrosion.~~

~~Appropriate response steps for any failures, malfunctions, or abnormal conditions in the above list found during the inspection shall be taken 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.4.4 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 their **emission** control devices.

#### ~~D.4.10 Baghouse Inspections~~

~~An inspection shall be performed during every major maintenance outage, but no less than once every fourteen (14) months, of all bags controlling the clinker coolers. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

#### Change No. 8:

Upon further review, IDEM has determined that once per day monitoring of the control device and of visible emission notations is generally sufficient to ensure proper operation of the control device. IDEM has also determined that monitoring these parameters once per day is sufficient to satisfy the requirements of the Part 70 rules at 326 IAC 2-7-5 and 326 IAC 2-7-6.

Modifications to the recordkeeping requirements are shown in "Change No. 11".

#### D.1.56 Visible Emissions Notations

(a) through (d) remain the same

- (e) If **abnormal** visible emissions are **observed** present at any baghouse stack, the Permittee shall implement appropriate procedures as set out in its Compliance Response Plan for such facility **take reasonable response steps in accordance with Section C-**

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

#### D.1.67 Parametric Monitoring

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The Permittee shall record the ~~total static~~ pressure drop across each baghouse, at least once per day when the associated facility is in operation. When for any one reading, 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, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside of 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~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - ~~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.2.910 Visible Emissions Notations

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(a) through (d) remain the same

(e) On days that the NESHAP monitoring required in Condition D.2.89 is performed, the Permittee may use those results to satisfy the requirements of this condition for the units subject to the NESHAP.

(f) If **abnormal** visible emissions are **observed present at any baghouse stack**, the Permittee shall ~~implement appropriate procedures as set out in its Compliance Response Plan for such facility~~ **take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

#### D.2.1011 Parametric Monitoring

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The Permittee shall record the ~~total static~~ pressure drop across each baghouse, at least once per day when the associated facility is in operation. When for any one reading, 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, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside of 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~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - ~~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.3.14 ESP Parametric Monitoring and ESP Inspections

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(a) The ability of the ESP to control particulate emissions shall be monitored ~~continuously~~ **once per day**, when the kilns are in operation, by measuring and recording the number of

T-R sets in service and the ESP total power.

- (b) Reasonable response steps shall be taken in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances** whenever the percentage of T-R sets in service falls below 90 percent (90%).

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

- (c) 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 twelve (12) months.

#### D.4.9 Parametric Monitoring

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The Permittee shall record the ~~total static~~ pressure drop across each baghouse, at least once per day when the associated facility is in operation. When for any one reading, 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, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside of 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~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - ~~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.

#### Change No. 9:

Paragraph (a) of the Broken or Failed Baghouse condition has been deleted. For multi-compartment baghouses, the permit will not specify what actions the Permittee needs to take in response to a broken bag. However, a requirement has been added to Condition D.1.45, D.2.78, and D.3.10, requiring the Permittee to notify IDEM if a broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition.

IDEM has determined that for processes equipped with a COM, the requirement to notify IDEM if a broken bag is detected and the control device will not be repaired for more than ten (10) days is not required. The clinker coolers #1 and #2 are equipped with COMS; therefore, the requirement will not be added to Condition D.4.7.

Paragraph (b) of the Broken or Failed Baghouse condition has been revised for those processes that operate in batch mode. The condition required an emission unit to be shut down immediately in case of baghouse failure. However, IDEM is aware there can be safety issues with shutting down a process in the middle of a batch. IDEM also realizes that in some situations, shutting down an emissions unit mid-process can cause equipment damage. Therefore, since it is not always possible to shut down a process with material remaining in the equipment, IDEM has revised the condition to state that in the case of baghouse failure, the feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable.

IDEM has determined that for processes equipped with a COM, the Broken or Failed Baghouse

condition is not required. The clinker coolers #1 and #2 are equipped with COMS; therefore, Condition D.4.11 will be removed from the permit.

**D.1.45 Particulate Matter (PM) Control [326 IAC 2-7-6(6)]**

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~~Except as otherwise provided by statute, rule, or this permit, in order to comply with the limits in Conditions D.1.1 and D.1.3, each baghouse for PM control shall be in operation at all times when its associated facility is in operation.~~

- (a) **In order to comply with D.1.2 and D.1.4, the baghouses for particulate control shall be in operation and control emissions at all times its associated facility is in operation.**
- (b) **In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

**D.1.8 Broken or Failed Bag Detection**

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~~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) (a) **For a single compartment baghouses controlling emissions from a process operated continuously, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then a failed units and the associated process shall be shut down immediately until the failed units have has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).**
- (b) **For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).**

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

**D.2.78 Particulate Matter (PM) Control [326 IAC 2-7-6(6)]**

~~Except as otherwise provided by statute, rule, or this permit, in order to comply with conditions D.2.1 and D.2.3, each baghouse for PM control shall be in operation at all times when its associated facility is in operation.~~

- (a) In order to comply with D.2.1 and D.2.3, the baghouses for particulate control shall be in operation and control emissions at all times their associated facility is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

**D.2.12 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) (a) For a single compartment baghouses **controlling emissions from a process operated continuously**, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then a failed units and the associated process **shall** be shut down immediately until the failed units have **has** been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse **controlling emissions from a batch process**, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency

**Provisions).**

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

**D.3.10 Particulate Matter (PM)-Control [326 IAC 2-7-6(6)]**

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~~Except as otherwise provided by statute, rule, or this permit, in order to comply with the limits in Conditions D.3.3 and D.3.4, the ESP for PM control shall be in operation at all times when either of the kilns is in operation, except as otherwise provided by statute, rule or this permit.~~

- (a) **In order to comply with D.3.3 and D.3.4, the ESP for particulate control shall be in operation and control emissions from either kiln at all times either kiln is in operation.**
- (b) **In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

**D.4.7 Particulate Matter (PM)-Control [326 IAC 2-7-6(6)]**

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~~In order to comply with Condition D.4.2, each baghouse for PM **particulate** control shall be in operation **and control emissions from its associated clinker cooler** at all times when its associated clinker cooler is in operation, except as otherwise provided by statute, rule or this permit.~~

**D.4.11 Broken or Failed Bag Detection**

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~~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, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process 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).~~

Change No. 10:

Upon further review, IDEM has determined that no additional monitoring will be required during COM downtime, until the COM has been down for twenty-four (24) hours. This allows the Permittee to focus on the task of repairing the COM during the first twenty-four (24) hour period. After twenty-four (24) hours of COM downtime, the Permittee will be required to conduct Method 9 readings for thirty (30) minutes. Once Method 9 readings are required to be performed, the readings should be performed twice per day at least 4 or 6 hours apart, rather than once every four (4) hours, until a COMS is back in service.

Modifications to the recordkeeping requirements are shown in "Change No. 11".

D.3.15 Visible Emissions Notations

- (a) ~~Whenever a continuous opacity monitor (COM) COMS is malfunctioning or will be down for calibration, maintenance, or repairs for a period of one (1) hour~~ **twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMs**, and the process is operating, ~~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)(1) ~~If a COM is not online within twenty-four (24) hours, the~~ **The** Permittee shall provide ~~a~~ **an** certified opacity reader(s), who may be ~~an~~ **an** employees of the Permittee or ~~an~~ **an** 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~~ **twice per day** during daylight operations, **with at least four (4) hours between each set of readings**, until ~~such time that a COMS is in operation~~ **online**.
- (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~~

- (b) 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 and 40 CFR 63, Subpart EEE.

**D.4.4210** Visible Emissions Notations

- (a) Whenever a ~~continuous opacity monitor (COM)~~ COMS is malfunctioning or ~~will be down for calibration, maintenance, or repairs for a period of one (1) hour~~ **twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMs**, and the process is operating, ~~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)~~**(1)** If a COM is not online within ~~twenty four (24) hours~~, the **The** Permittee shall provide a certified opacity reader(s), who may be ~~an~~ employees of the Permittee or ~~an~~ 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~~ **twice per day** during daylight operations, **with at least four (4) hours between each set of readings**, until ~~such time that~~ a COMS is in operation **online**.

(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~~

- (b) 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 and 40 CFR 63, Subpart EEE.

Change No. 11:

Modifications to Recordkeeping Requirements are as follows:

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.56, the Permittee shall maintain records of visible emission notations of the baghouse stack exhausts once per day and of the visible emission notations of the quarry activities once per day.
- (b) To document compliance with Condition D.1.67, the Permittee shall maintain records of the pressure drop once per day during normal operation when venting to the atmosphere:
- ~~(c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7.~~
- ~~(d) To document compliance with Condition D.1.34, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- ~~(e)~~(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.13 Record Keeping Requirements

- (a) To document compliance with Condition D.2.910, the Permittee shall maintain records of visible emission notations of the baghouse stack exhausts once per day.
- (b) To document compliance with Condition D.2.4011, the Permittee shall maintain records of the pressure drop once per day during normal operation when venting to the atmosphere:
- ~~(c) To document compliance with Condition D.2.11, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11.~~
- ~~(d)~~ (c) To document compliance with the NESHAP 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 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.
- ~~(f) To document compliance with Condition D.2.56, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- ~~(g)~~(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.3.16 Record Keeping Requirements

- (a) To document compliance with Condition D.3.1 and D.3.11, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken on a calendar month average and shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limits established in D.3.1.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual coal and fuel oil usage since last compliance determination period;
  - (3) Sulfur content and heat content of both the coal and the fuel oil;
  - (4) Sulfur dioxide emission rates.
- (b) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.
- (c) To document compliance with Conditions D.3.9, D.3.12, D.3.14, and D.3.15, 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 Conditions D.3.3 and D.3.4.
  - (1) Data and results from the most recent stack test.
  - (2) All continuous emissions monitoring data.
  - (3) All ESP parametric monitoring readings.
  - (4) **The results of all All visible emission readings and Method 9 visible emission opacity readings whenever required by D.3.15.**
  - (5) All preventive maintenance measures taken.
  - (6) All response steps taken and the outcome for each.
- (d) To document compliance with the HWC 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 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).
- (e) The Permittee shall maintain the following records:
  - (1) 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 kilns.
  - (2) Pursuant to 40 CFR 61.356(e)(2), if engineering calculations are used, the Permittee shall maintain all records necessary to demonstrate the cement kiln performance as specified in 40 CFR 61.356(e)(2).
  - (3) Pursuant to 40 CFR 61.356(e)(3), if performance tests are used, 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).
  - (4) Pursuant to 40 CFR 61.356(i), the Permittee shall maintain documentation that includes the following information regarding the cement kiln operation:
    - (A) Dates of startup and shutdown of the units.
    - (B) 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.
    - (C) Periods when the units are not operated as designed.
- ~~(f) To document compliance with Condition D.3.8, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- ~~(g)~~(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.4.1311** Record Keeping Requirements

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- (a) To document compliance with Conditions D.4.5 and D.4.6, the Permittee shall maintain records in accordance with (1) and (2) below.
  - (1) Data and results from the most recent stack test.

- (2) All continuous emissions monitoring data.
- (b) To document compliance with Condition D.4.12~~10~~, whenever ~~visible emission readings or~~ Method 9 opacity readings are required, the Permittee shall maintain records of the readings.
- (c) To document compliance with Condition D.4.9, the Permittee shall maintain records of the pressure drop once per day during normal operation when venting to the atmosphere:
- ~~(d) To document compliance with Condition D.4.10, the Permittee shall maintain records of the results of the inspections required under Condition D.4.10.~~
- ~~(e)~~ **(d)** To document compliance with the NESHAP 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 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) To document compliance with Condition D.4.4, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- ~~(g)~~ **(e)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Change No. 12:

A statement was added to B.8 Certification in order to clarify that the certification form may cover more than one document that is submitted.

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

- (a) remains the same
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. **One (1) certification may cover multiple forms in one (1) submittal.**
- (c) remains the same

Change No. 13:

The section's name that collects operating fees has changed. Section B - Annual Fee Payment has been updated to reflect the new name and new local phone number.

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]**

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- (a) remains the same
- (b) remains the same
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 **4230** (ask for OAQ, Technical Support and Modeling **Billing, Licensing, and Training** Section), to determine the appropriate permit fee.

Change No. 14:

Indiana was required to incorporate credible evidence provisions into state rules consistent with the SIP call published by U.S. EPA in 1997 (62 FR 8314). Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule is effective March 16, 2005; therefore, the condition reflecting this rule will be incorporated into your permit as follows:

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

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

Change No. 15:

The 326 IAC 6-3 revisions that became effective on June 12, 2002 were approved into the State Implementation Plan on September 23, 2005. These rules replace the previous version of 326 IAC 6-3 (Process Operations) that had been part of the SIP; therefore, the requirements of the previous version of 326 IAC 6-3-2 are no longer applicable to this source. Condition C.1 has been revised to remove (a) which contained these requirements, and since the requirements of the 326 IAC 6-3-2(d) that were effective June 12, 2002 are now federally enforceable, the last statements from C.1 has been removed.

**C.1 Particulate Matter 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]**

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- ~~(a) Pursuant to 40 CFR 52 Subpart P, particulate matter 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), the particulate emissions from any process not already 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.~~

Change No. 16:

The following revisions were made to the Emission Statement condition to incorporate the revisions to 326 IAC 2-6 that became effective March 27, 2004. The revised rule was published in the April 1, 2004 Indiana Register.

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]

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~~(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6(a)(1), 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:~~

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of ~~criteria~~ **all** pollutants ~~from the source, listed in compliance with 326 IAC 2-6-4(a); (Emission Reporting);~~
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant which is used 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:~~

**The statement must be submitted to:**

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

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

~~(b)~~ (b) 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.

Change No. 17:

Section C - General Record Keeping Requirements and Section C - General Reporting Requirements have been revised to reflect NSR reform provisions at the major sources.

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

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(a) remains the same

(b) remains the same

(c) **If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit, other than projects at a Clean Unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr)), the Permittee shall comply with**

**following:**

- (1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit, document and maintain the following records:**
  - (A) A description of the project.**
  - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.**
  - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:**
    - (i) Baseline actual emissions;**
    - (ii) Projected actual emissions;**
    - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and**
    - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.**
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and**
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.**

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

(a) through (d) remain the same

- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.**
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:**
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx), for that regulated NSR pollutant, and**
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).**
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:**

- (1) **The name, address, and telephone number of the major stationary source.**
- (2) **The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.**
- (3) **The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3)).**
- (4) **Any other information that the Permittee deems fit to include in this report,**

**Reports required in this part shall be submitted to:**

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

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

Change No. 18:

The mailing address of IDEM, Office of Air Quality (OAQ) has changed. All references in the permit to "100 North Senate Ave, Post Office Box 6015, Indianapolis, Indiana 46206-6015" have been changed to "100 North Senate Ave, Indianapolis, Indiana 46204-2251".

Change No. 19:

The table of contents has been modified to reflect all changes made to the permit. Where conditions were deleted, subsequent conditions were renumbered as appropriate.

### **Conclusion and Recommendation**

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 017-22319-00005 and Significant Permit Modification No. 017-22539-00005. The staff recommend to the Commissioner that this Part 70 Minor Source and Significant Permit Modification be approved.

**Appendix A: Emissions Calculations**

**Company Name:** ESSROC Cement Corporation  
**SPM Permit No.:** 017-22319-00005  
**MSM Permit No.:** 017-22549-00005  
**Part 70 Permit No.:** 017-6033-00005  
**Reviewer:** Jenny Acker  
**Date:** 12/6/2005

PTE from CKD2FM										
EU No.	EU Description	Factor				Process			PM	PM10
		Type	Value		Units	Throughput [tons/yr]	Notes	Hours		
			[PM (lb/ton)]	[PM10 (lb/ton)]					[tpy]	
EU406	Waste CKD Tank & CKD2FM Surge System	AP-42 Emission Factor 5th ed., Sec. 11.12-2.	Loading into the CKD tank emissions are already accounted for. The screw conveyors located at the bottom of the CDK tank are completely enclosed. Any emissions are contained							
EU902	CKD2FM Recycling Storage Tank System	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.7200	0.4600	lbs/ton	122640	14 tph (max capacity)	8,760	44.15	28.21
EU905	Silo #15 CKD Storage	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.7200	0.4600	lbs/ton	96360	11 tph (max capacity)	8,760	34.69	22.16
EU903	CKD2FM #1 FM Recycling System	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.0030	0.0011	lbs/ton	144540	16.5 tph (max capacity)	8,760	0.22	0.08
EU904	CKD2FM #2 FM Recycling System	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.0030	0.0011	lbs/ton	30660	3.5 tph (max capacity)	8,760	0.05	0.02
<b>Totals</b>									<b>79.10</b>	<b>50.47</b>

PTE from CKD2FM - Limited Material Throughput										
EU No.	EU Description	Factor				Process			PM	PM10
		Type	Value		Units	Throughput [tons/yr]	Notes	Hours		
			[PM (lb/ton)]	[PM10 (lb/ton)]					[tpy]	
EU902	CKD2FM Recycling Storage Tank System	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.7200	0.4600	lbs/ton	65,000		8,760	23.40	14.95
EU905	Silo #15 Storage	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.7200	0.4600	lbs/ton					
EU903	CKD2FM #1 FM Recycling System	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.0030	0.0011	lbs/ton	65,000		8,760	0.10	0.04
EU904	CKD2FM #2 FM Recycling System	AP-42 Emission Factor 5th ed., Sec. 11.12-2	0.0030	0.0011	lbs/ton					
<b>Totals</b>									<b>23.50</b>	<b>14.99</b>

PTE from CKD2FM								
EU No.	EU Description	Unlimited PTE		Limited Throughput PTE		Limited Throughput PTE after Controls		
		PM (tpy)	PM10 (tpy)	PM (tpy)	PM10 (tpy)	Baghouse Eff (%)	PM (tpy)	PM10 (tpy)
EU902	CKD2FM Recycling Storage Tank System	44.150	28.207	23.4000	14.9500	99.8%	0.0468	0.0299
EU905	Silo #15 Storage	34.690	22.163			99.8%		
EU903	CKD2FM #1 FM Recycling System	0.217	0.079	0.0975	0.0358	99.8%	0.0002	0.0001
EU904	CKD2FM #2 FM Recycling System	0.046	0.017			99.8%		
<b>Totals:</b>		<b>79.10</b>	<b>50.47</b>	<b>23.50</b>	<b>14.99</b>		<b>0.05</b>	<b>0.03</b>