



## ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

### AIR QUALITY CLASS I PERMIT

**COMPANY:** *Drake Cement, LLC*  
**FACILITY:** *Drake Cement, LLC*  
**PERMIT #:** *1001770*  
**DATE ISSUED:** **April 12, 2006**  
**EXPIRY DATE:** **April 12, 2011**

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#### SUMMARY

This Class I, Title V permit is issued to Drake Cement, LLC, the Permittee, for construction and operation of a Portland cement plant located in Drake, Arizona.

This permit is issued in accordance with Title 49, Chapter 3 of the Arizona Revised Statutes. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code (A.A.C.) R18-2-101 et. seq., Arizona State Implementation Plan (SIP), Code of Federal Regulations (CFR) Title 40 - Parts 60, 63, and 70 except as otherwise defined in this permit. All terms and conditions in this permit are enforceable by the Administrator of the U.S. Environmental Protection Agency.

The potential emission rates of the following pollutants are greater than major source thresholds: (i) nitrogen oxides, (ii) carbon monoxide, (iii) hydrogen chloride, and (iv) total hazardous air pollutants. Therefore, the facility is classified as a major source as defined in A.A.C. R18-2-101(64), and requires a Class I permit pursuant to A.A.C. R18-302(B)(1)(a).

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## ATTACHMENT "A": GENERAL PROVISIONS

### Air Quality Control Permit No. 1001770 for Drake Cement, LLC

#### I. PERMIT EXPIRATION AND RENEWAL [ARS § 49-426.F, A.A.C. R18-2-304.C.2, and -306.A.1]

- A. This permit is valid for a period of five years from the date of issuance.
- B. The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months, prior to the date of permit expiration.

#### II. COMPLIANCE WITH PERMIT CONDITIONS [A.A.C. R18-2-306.A.8.a and b]

- A. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona air quality statutes and air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B. It shall not be a defense for a 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.

#### III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

[A.A.C. R18-2-306.A.8.c, -321.A.1, and -321.A.2]

- A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- B. The permit shall be reopened and revised under any of the following circumstances
  1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless an application for renewal has been submitted pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term.
  2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit.

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
- C. Proceedings to reopen and reissue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.

**IV. POSTING OF PERMIT** [A.A.C. R18-2-315]

- A. The Permittee shall post this permit or a certificate of permit issuance where the facility is located in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:
1. Current permit number; or
  2. Serial number or other equipment ID number that is also listed in the permit to identify that piece of equipment.
- B. A copy of the complete permit shall be kept on site.

**V. FEE PAYMENT** [A.A.C. R18-2-306.A.9 and -326]

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

**VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE** [A.A.C. R18-2-327.A and B]

- A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.
- B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

**VII. COMPLIANCE CERTIFICATION** [A.A.C. R18-2-309.2.a, -309.2.c-d, and -309.5.d]

- A. The Permittee shall submit a compliance certification to the Director semiannually, which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15<sup>th</sup>, and shall report the compliance status of the source during the period between October 1<sup>st</sup> of the previous year and March 31<sup>st</sup> of the current year. The second certification shall be submitted no later than November 15<sup>th</sup>, and shall report the compliance status of the source during the period between April 1<sup>st</sup> and September 30<sup>th</sup> of the current year.

The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;
  2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period,
  3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.A.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;
  4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;
  5. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and
  6. Other facts the Director may require to determine the compliance status of the source.
- B. A copy of all compliance certifications shall also be submitted to the EPA Administrator.
- C. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above.

#### **VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS**

[A.A.C. R18-2-304.H]

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

#### **IX. INSPECTION AND ENTRY** [A.A.C. R18-2-309.4]

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

- A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
- B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;

- C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
- E. Record any inspection by use of written, electronic, magnetic and photographic media.

**X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD** [A.A.C. R18-2-304.C]

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

**XI. ACCIDENTAL RELEASE PROGRAM** [40 CFR Part 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

**XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING**

A. Excess Emissions Reporting [A.A.C. R18-2-310.01.A and -310.01.B]

1. Excess emissions shall be reported as follows:

a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

- (1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.
- (2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.(1) above.

b. The report shall contain the following information:

- (1) Identity of each stack or other emission point where the excess emissions occurred;
- (2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

- (3) Date, time and duration, or expected duration, of the excess emissions;
- (4) Identity of the equipment from which the excess emissions emanated;
- (5) Nature and cause of such emissions;
- (6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and
- (7) Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above.

[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting [A.A.C. R18-2-306.A.5.b]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to an emergency or within two working days of the time when the owner or operator first learned of the occurrence of a deviation from a permit requirement.

C. Emergency Provision [A.A.C. R18-2-306.E]

1. An “emergency” means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was being properly operated at the time;
  - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. Compliance Schedule [ARS § 49-426.I.5]

For any excess emission or permit deviation that cannot be corrected with 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown  
[A.A.C. R18-2-310]

1. Applicability

This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

- a. Promulgated pursuant to Sections 111 or 112 of the Act;
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;
- d. Contained in A.A.C. R18-2-715.F; or

- e. Included in a permit to meet the requirements of A.A.C. R18-2-406(A)(5).

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;
- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
- i. All emissions monitoring systems were kept in operation if at all practicable; and
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- (1) The excess emissions could not have been prevented through careful and prudent planning and design;
- (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
- (3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- (7) All emissions monitoring systems were kept in operation if at all practicable; and
- (8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XII.E.2 above.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or XII.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

**XIII. RECORD KEEPING REQUIREMENTS** [A.A.C. R18-2-306.A.4]

- A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:
1. The date, place as defined in the permit, and time of sampling or measurements;
  2. The date(s) analyses were performed;
  3. The name of the company or entity that performed the analyses;
  4. A description of the analytical techniques or methods used;
  5. The results of such analyses; and
  6. The operating conditions as existing at the time of sampling or measurement.
- B. The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
- C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

**XIV. REPORTING REQUIREMENTS** [A.A.C. R18-2-306.A.5.a]

The Permittee shall submit the following reports:

- A. Compliance certifications in accordance with Section VII of Attachment "A".
- B. Excess emission; permit deviation, and emergency reports in accordance with Section XII of Attachment "A".
- C. Other reports required by any condition of Attachment "B".

**XV. DUTY TO PROVIDE INFORMATION** [A.A.C. R18-2-304.G and -306.A.8.e]

- A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the

Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

- B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

**XVI. PERMIT AMENDMENT OR REVISION** [A.A.C. R18-2-318, -319, and -320]

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVII, as follows:

- A. Administrative Permit Amendment (A.A.C. R18-2-318);
- B. Minor Permit Revision (A.A.C. R18-2-319); and
- C. Significant Permit Revision (A.A.C. R18-2-320)

The applicability and requirements for such action are defined in the above referenced regulations.

**XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION** [A.A.C. R18-2-306.A.4 and -317]

- A. The Permittee may make changes at the permitted source without a permit revision if all of the following apply:
  - 1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(19);
  - 2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
  - 3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
  - 4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A; and
  - 5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
- B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVII.A and XVII.C of this Attachment.
- C. For each change under Conditions XVII.A and XVII.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the

replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change, as possible or, if advance notification is not practicable, as soon after the change as possible.

- D. Each notification shall include:
  - 1. When the proposed change will occur;
  - 2. A description of the change;
  - 3. Any change in emissions of regulated air pollutants; and
  - 4. Any permit term or condition that is no longer applicable as a result of the change.
- E. The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate to Conditions XVII.A and XVII.B above.
- F. Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section.
- G. Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, do not satisfy Condition XVII.A above.

#### **XVIII. TESTING REQUIREMENTS** [A.A.C. R18-2-312]

- A. The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.
- B. Operational Conditions during Testing

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

- C. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.
- D. Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

1. Test duration;
2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect test results.

E. Stack Sampling Facilities

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platform(s);
3. Safe access to sampling platform(s); and
4. Utilities for sampling and testing equipment.

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

G. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

**XIX. PROPERTY RIGHTS** [A.A.C. R18-2-306.A.8.d]

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

**XX. SEVERABILITY CLAUSE** [A.A.C. R18-2-306.A.7]

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

**XXI. PERMIT SHIELD** [A.A.C. R18-2-325]

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield." The permit shield shall not apply to minor revisions pursuant to Condition XVI.B of this Attachment and any facility changes without a permit revision pursuant to Section XVII of this Attachment.

**XXII. PROTECTION OF STRATOSPHERIC OZONE** [40 CFR part 82]

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

**XXIII. APPLICABILITY OF NSPS GENERAL PROVISIONS** [40 CFR 60 subpart A]

For all equipment subject to a New Source Performance Standard, the Permittee shall comply with all applicable requirements contained in subpart A of title 40, part 60 of the Code of Federal Regulations.

**XXIV. APPLICABILITY OF NESHAP GENERAL PROVISIONS** [40 CFR 63 subpart A]

For all equipment subject to a National Emission Standard for Hazardous Air Pollutants, the Permittee shall comply with all applicable requirements contained in subpart A of title 40, parts 61 and 63 of the Code of Federal Regulations.

**ATTACHMENT “B”: SPECIFIC CONDITIONS**

**Air Quality Control Permit No. 1001770  
for  
Drake Cement, LLC**

**I. KILN, CLINKER COOLER, RAW MILL, AND COAL MILL**

A. List of Emission Units

Emission Unit Name (Equipment ID Number)	Emission Unit Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Raw Mill (BM-5.16)	164 tons raw meal per hour	Baghouse (BH-5.30)	Main Stack (MS-5.38)
Rotary Kiln (RK-9.1)	Dry process, 83.33 tons clinker per hour	Selective Non-Catalytic Reduction Baghouse (BH-5.30)	Main Stack (MS-5.38)
Clinker Grate Cooler (CGC-10.1)	83.33 tons clinker per hour	Baghouse (BH-10.13)	Cooler Stack (CS-10.16)
Coal Mill (VM-12.9)	14 tons coal per hour	Baghouse (BH-12.18)	Main Stack (MS-5.38)

B. Emission Limits and Standards

1. Operational Limitations

- a. Cement clinker produced in the Rotary Kiln shall not exceed 83.33 tons per hour based on an hourly rolling 3-hour average.  
[A.A.C. R18-2-306(A)(2)]
- b. Cement clinker produced in the Rotary Kiln shall not exceed 660,000 tons per year based on a monthly rolling 12-month sum.  
[A.A.C. R18-2-306(A)(2)]
- c. *The Rotary Kiln shall not be equipped with an alkali bypass.*  
[A.A.C. R18-2-306(A)(2) and R18-2-331(A)(3)(a)]  
Material Permit Conditions are indicated with underline and italics.

2. Particulate Matter Emission Standards

- a. The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain PM<sub>10</sub> in excess of 0.010 grains per dry standard cubic feet.  
[A.A.C. R18-2-406(A)(4)]
- b. The Permittee shall not cause or allow to be emitted into the atmosphere from the Cooler Stack any gases which contain PM<sub>10</sub> in excess of 0.005 grains per dry standard cubic feet.  
[A.A.C. R18-2-406(A)(4)]

c. The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain PM<sub>10</sub> in excess of 5.967 lbs/hr.

[A.A.C. R18-2-406(A)(5)]

d. The Permittee shall not cause or allow to be emitted into the atmosphere from the Cooler Stack any gases which contain PM<sub>10</sub> in excess of 2.223 lbs/hr.

[A.A.C. R18-2-406(A)(5)]

e. The Permittee shall not cause or allow to be emitted into the atmosphere from the Rotary Kiln and Raw Mill any gases which contain particulate matter (PM) in excess of 0.30 lb per ton of feed (dry basis) to the Rotary Kiln.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1343(c)(1)}]

f. The Permittee shall not cause or allow to be emitted into the atmosphere from the Clinker Grate Cooler any gases which contain particulate matter (PM) in excess of 0.10 lb per ton of feed (dry basis) to the Rotary Kiln.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1345(a)(1)}]

g. The Permittee shall not cause or allow to be emitted into the atmosphere from the Coal Mill any gases which contain particulate matter (PM) in excess of 0.031 grains per dry standard cubic feet.

[A.A.C. R18-2-901(32) {40 CFR § 60.252(a)(1)}]

h. *The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which exhibit opacity greater than 20 percent, based on a 6-minute block average.*

[A.A.C. R18-2-331(A)(3)(f), R18-2-901(32) {40 CFR § 60.252(a)(2)}, and R18-2-1101(B)(49) {40 CFR § 63.1343(c)(2)}]  
Material Permit Conditions are indicated with underline and italics.

i. *The Permittee shall not cause or allow to be emitted into the atmosphere from the Cooler Stack any gases which exhibit opacity greater than 10 percent, based on a 6-minute block average.*

[A.A.C. R18-2-331(A)(3)(f) and R18-2-1101(B)(49) {40 CFR § 63.1345(a)(2)}]  
Material Permit Conditions are indicated with underline and italics.

### 3. Sulfur Dioxide Emission Standard

*The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain sulfur dioxide (SO<sub>2</sub>) emissions in excess of 21.9 tons per year based on a daily rolling 365-day sum.*

[A.A.C. R18-2-306.01(A) and R18-2-331(A)(3)(a)]

Material Permit Conditions are indicated with underline and italics.

### 4. Nitrogen Oxides Emission Standards

a. The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain NO<sub>x</sub> in excess of 95 lbs/hr based on an hourly rolling 24-hour average.

[A.A.C. R18-2-406(A)(5)]

- b. Except as provided in Condition I.B.4.c, the Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain NO<sub>x</sub> in excess of 1.95 lbs per ton of clinker based on a daily rolling 30-day average.

[A.A.C. R18-2-406(A)(4)]

- c. For the first 180 operating days after initial startup of the Rotary Kiln, the Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain NO<sub>x</sub> in excess of 2.45 lbs per ton of clinker based on a daily rolling 30-day average.

[A.A.C. R18-2-406(A)(4)]

5. Carbon Monoxide Emission Standard

The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain CO in excess of 3.6 lbs per ton of clinker based on an hourly rolling 3-hour average.

[A.A.C. R18-2-406(A)(4)]

6. Volatile Organic Compounds and Organic HAP Emission Standards

- a. The Permittee shall not cause or allow to be emitted into the atmosphere from the Rotary Kiln and Raw Mill any gases which contain total hydrocarbon (THC) emissions in excess of 50 ppmvd as propane, corrected to seven percent oxygen, based on a 30-day block average.

[A.A.C. R18-2-1101(B)(49) {40 CFR §§ 63.1343(c)(4), 63.1346(c)(1)}, and 63.1350(h)(3)}]

- b. *The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain total hydrocarbon (THC) emissions in excess of 39.0 tons per year, based on a daily rolling 365-day sum.*

[A.A.C. R18-2-306.01(A) and R18-2-331(A)(3)(a)]

Material Permit Conditions are indicated with underline and italics.

7. Dioxins/Furans Emission Standards

- a. The Permittee shall not cause or allow to be emitted into the atmosphere from the Rotary Kiln and Raw Mill any gases which contain dioxins/furans (D/F) in excess of:

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1343(c)(3)}]

- (1) 0.20 ng per dscm ( $8.7 \times 10^{-11}$  gr/dscf) (toxicity equivalent (TEQ)) corrected to seven percent oxygen; or

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1343(c)(3)(i)}]

- (2) 0.40 ng per dscm ( $1.7 \times 10^{-10}$  gr per dscf) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 400 °F or less.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1343(c)(3)(ii)}]

b. The Permittee shall operate the Rotary Kiln and Raw Mill such that:  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1344(a)}]

(1) When the Raw Mill is operating, the temperature of the gas at the inlet to Baghouse BH-5.30 does not exceed the applicable temperature limit, determined in accordance with Condition I.E.5.a(9) and established during the performance test when the Raw Mill was operating.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1344(a)(1)}]

(2) When the Raw Mill is not operating, the temperature of the gas at the inlet to Baghouse BH-5.30 does not exceed the applicable temperature limit, determined in accordance with Condition I.E.5.a(9) and established during the performance test when the Raw Mill was not operating.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1344(a)(2)}]

8. Ammonia Emission Standards

The Permittee shall not cause or allow to be emitted into the atmosphere from the Main Stack any gases which contain ammonia in excess of 19.8 tons per year, based on a rolling 12-month sum.

[A.A.C. R18-306.A.2]

C. Air Pollution Control Requirements

1. *At all times when the Rotary Kiln is in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate the Selective Non-Catalytic Reduction system in a manner consistent with good air pollution control practice for minimizing NO<sub>x</sub> emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

2. *At all times when the Rotary Kiln or Raw Mill is in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate Baghouse BH-5.30 in a manner consistent with good air pollution control practice for minimizing PM and PM10 emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

3. *At all times when the Clinker Grate Cooler is in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate Baghouse BH-10.13 in a manner consistent with good air pollution control practice for minimizing PM and PM10 emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

4. *At all times when the Coal Mill is in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install,*

maintain and operate Baghouse BH-12.18 in a manner consistent with good air pollution control practice for minimizing PM and PM10 emissions.

[A.A.C. R18-2-331(A)(3)(d) and (e), R18-2-406(A)(4), and R18-2-901(1) {40 CFR § 60.11(d)}]  
Material Permit Conditions are indicated with underline and italics.

D. Monitoring, Recordkeeping, and Reporting Requirements

1. Monitoring and Recordkeeping for Operational Limitations

a. The Permittee shall install, calibrate, maintain, and operate monitoring devices for measuring and recording the process weights of total kiln feed and clinker produced in the Rotary Kiln. Two monitoring devices shall be employed: one for measuring total feed rate to the Rotary Kiln and one for measuring clinker production rate.

[A.A.C. R18-2-306(A)(3)(c) and R18-2-331(A)(3)(c)]  
Material Permit Conditions are indicated with underline and italics.

b. Each monitoring device shall have an accuracy of  $\pm 2\%$  over its operating range.

[A.A.C. R18-2-306(A)(3)(c)]

c. The calibration of each monitoring device shall be verified at least once every three months.

[A.A.C. R18-2-306(A)(3)(c)]

d. The Permittee shall maintain daily records of rolling 365-day total clinker production.

[A.A.C. R18-2-306(A)(3)(c)]

2. Monitoring and Recordkeeping for Opacity of Visible Emissions

a. The Permittee shall install, calibrate, maintain, and operate continuous opacity monitoring systems (COMS) to continuously monitor the opacity of visible emissions from the Main Stack and the Cooler Stack.

[A.A.C. R18-2-331(A)(3)(c) and R18-2-1101(B)(49) {40 CFR §§ 63.1350(c) and (d)}]  
Material Permit Conditions are indicated with underline and italics.

b. Each COMS required by Condition I.D.2.a shall meet the requirements of Performance Specification 1, *Specifications and test procedures for opacity continuous emission monitoring systems in stationary sources*, in appendix B to 40 CFR Part 60.

[A.A.C. R18-2-1101(B)(49) {40 CFR §§ 63.1350(c) and (d)}]

c. For each COMS required by Condition I.D.2.a, the Permittee shall maintain all records required by 40 CFR § 63.10(c).

[A.A.C. R18-2-1101(B)(49) {40 CFR §§ 63.1355(c) }]

d. If the average opacity for any 6-minute block period exceeds 20 percent, this shall constitute a period of excess emissions and a violation of Condition I.B.2.h.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(c)(3)}]

- e. If the average opacity for any 6-minute block period exceeds 10 percent, this shall constitute a period of excess emissions and a violation of Condition I.B.2.i.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350 (d)(3)}]

- f. The Permittee shall report excess emissions and deviations in accordance with Sections XII.A and XII.B, respectively, in Attachment “A” of this permit.

[A.A.C. R18-2-306(A)(5)(b)]

3. Monitoring and Recordkeeping for SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions

- a. *The Permittee shall install, calibrate, maintain, and operate continuous emission rate monitoring systems (CERMS) for monitoring and recording the SO<sub>2</sub>, NO<sub>x</sub>, CO and ammonia emission rates to the atmosphere from the Main Stack.*

[A.A.C. R18-2-331(A)(3)(c)]

Material Permit Conditions are indicated with underline and italics.

- b. The CERMS required by Condition I.D.3.a shall meet the following requirements:

(1) 40 CFR Part 60, Appendix B, “Performance Specifications”

- (a) The SO<sub>2</sub> and NO<sub>x</sub> CERMS shall meet the requirements of Performance Specification 2, *Specifications and test procedures for SO<sub>2</sub> and NO<sub>x</sub> continuous emission monitoring systems in stationary sources*, in Appendix B to 40 CFR Part 60.

- (b) The CO CERMS shall meet the requirements of Performance Specification 4a, *Specifications and test procedures for carbon monoxide continuous emission monitoring systems in stationary sources*, in Appendix B to 40 CFR Part 60.

- (c) The ammonia CERMS shall be maintained and operated in accordance with performance specifications approved by the Director prior to startup of the Rotary Kiln. The proposed performance specifications shall be substantially equivalent to those set forth in Performance Specification 5 in Appendix B to 40 CFR Part 60.

- (d) The SO<sub>2</sub>, NO<sub>x</sub>, CO and ammonia CERMS shall meet the requirements of Performance Specification 6, *Specifications and test procedures for continuous emission rate monitoring systems in stationary sources*, in Appendix B to 40 CFR Part 60.

- (2) 40 CFR Part 60, Appendix F, "Quality Assurance Procedures."
- (3) The Permittee shall submit a Quality Assurance/Quality Control Plan to the Director 30 days prior to the instrument start-up including procedures for dealing with data gaps based on the procedures contained in 40 CFR 75, Subpart D (§ 75.30). When approved by the Director, this plan shall be implemented.

[A.A.C. R18-2-306(A)(4), -406(A)(4)]

- c. The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4)]

- d. Each continuous monitoring system shall be installed and operational prior to conducting required initial performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of these devices. Notification of the operational status of the continuous monitoring system shall be provided to the Director within 30 days after the system becomes operational, or by the date on which the initial performance test is conducted, whichever occurs first.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4)]

- e. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, the Permittee shall meet minimum frequency of operation requirements as follows: the continuous monitoring system shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4)]

- f. For continuous monitoring system measurements, one-hour arithmetic averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this condition.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4)]

- g. For the purposes of demonstrating compliance with emission standards expressed as mass emissions per unit of clinker production, averages shall be calculated as the total emission rate over the averaging period, as measured and recorded in accordance with Conditions I.D.3.a through

I.D.3.f, divided by the total clinker production rate over the averaging period, as measured and recorded in accordance with Condition I.D.1.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4)]

h. The following shall be considered periods of excess emissions:

(1) All 365-day periods for which the SO<sub>2</sub> emission rate to the atmosphere as determined in accordance with Condition I.D.3 exceeds the emission standard in Condition I.B.3.

[A.A.C. R18-2-306(A)(3)]

(2) All 24-hour periods for which the NO<sub>x</sub> emission rate to the atmosphere as determined in accordance with Condition I.D.3 exceeds the emission standard in Condition I.B.4.a.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4)]

(3) All 30-day periods for which the NO<sub>x</sub> emission rate to the atmosphere as determined in accordance with Condition I.D.3 exceeds the applicable emission standard in either Condition I.B.4.b. or Condition I.B.4.c.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(5)]

(4) All 3-hour periods for which the CO emission rate to the atmosphere as determined in accordance with Condition I.D.3 exceeds the emission standard in Condition I.B.5.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4)]

(5) All 365-day periods for which the ammonia emission rate to the atmosphere as determined in accordance with Condition I.D.3 exceeds the emission standard in Condition I.B.5.

[A.A.C. R18-2-306(A)(3)]

i. The Permittee shall report excess emissions and deviations in accordance with Sections XII.A and XII.B, respectively, in Attachment "A" of this permit.

[A.A.C. R18-2-306(A)(5)(b)]

4. Monitoring and Recordkeeping for VOC and Organic HAP.

a. *The Permittee shall install, calibrate, maintain, and operate a continuous emission rate monitoring system (CERMS) for monitoring and recording the concentration by volume (dry basis, corrected to 7.0 percent oxygen) and the rate of THC emissions into the atmosphere from the Rotary Kiln and Raw Mill.*

[A.A.C. R18-2-306(A)(3), R18-2-331(A)(3)(c), and R18-2-1101(B)(49) {40 CFR § 63.1350(h)(1)}]  
Material Permit Conditions are indicated with underline and italics.

b. The CERMS required by Condition I.D.4.a shall meet the following requirements:

(1) 40 CFR Part 60, Appendix B, “Performance Specifications”

(a) The CERMS shall meet the requirements of Performance Specification 8a, *Specifications and test procedures for total hydrocarbon continuous monitoring systems in stationary sources*.

[A.A.C. R18-2-306(A)(3) and R18-2-1101(B)(49) {40 CFR § 63.1350(h)(1)}]

(b) The Permittee is not required to calculate hourly rolling averages in accordance with section 4.9 of Performance Specification 8A.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(h)(2)}]

(c) The CERMS shall meet the requirements of Performance Specification 6, *Specifications and test procedures for continuous emission rate monitoring systems in stationary sources*.

[A.A.C. R18-2-306(A)(3)]

(2) 40 CFR Part 60, Appendix F, “Quality Assurance Procedures.”

[A.A.C. R18-2-306(A)(3)]

(3) The Permittee shall submit a Quality Assurance/Quality Control Plan to the Director 30 days prior to the instrument start-up including procedures for dealing with data gaps based on the procedures contained in 40 CFR Part 75, Subpart D (§ 75.30). When approved by the Director, this plan shall be implemented.

[A.A.C. R18-2-306(A)(3)]

c. For the CERMS required by Condition I.D.4.a, the Permittee shall maintain all records required by 40 CFR § 63.10(c).

[A.A.C. R18-2-1101(B)(49) {40 CFR §§ 63.1355(c)}]

d. Any thirty-day block average THC concentration in any gas discharged from the Rotary Kiln or Raw Mill, exceeding 50 ppmvd, reported as propane, corrected to seven percent oxygen, this shall constitute a period of excess emissions and a violation of Condition I.B.6.b.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1350(h)(3)}]

e. Any 365-day period for which the THC emission rate to the atmosphere as determined in accordance with Condition I.D.4.a, reported as propane, exceeds the emission standard in Condition I.B.6.a shall constitute a period of excess emissions.

[A.A.C. R18-2-306(A)(3), R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1350(h)(3)}]

f. The Permittee shall report excess emissions and deviations in accordance with Sections XII.A and XII.B, respectively, in Attachment “A” of this permit.

[A.A.C. R18-2-306(A)(5)(b)]

5. Monitoring and Recordkeeping for Dioxin/Furan Emissions

- a. The Permittee shall install, calibrate, maintain, and operate a continuous monitor to record the temperature of the exhaust gases from the Rotary Kiln and Raw Mill at the inlet to, or upstream of, Baghouse BH-5.30.

[A.A.C. R18-2-331(A)(3)(c) and R18-2-1101(B)(49) {40 CFR § 63.1350(f)(1) and (f)(2)}]

Material Permit Conditions are indicated with underline and italics.

- (1) The recorder response range must include zero and 1.5 times either of the average temperatures established according to the requirements in Condition I.E.5.a(8).

[R18-2-1101(B)(49) {40 CFR § 63.1350(f)(1)(i)}]

- (2) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Director.

[R18-2-1101(B)(49) {40 CFR § 63.1350(f)(1)(ii)}]

- b. The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.

[R18-2-1101(B)(49) {40 CFR § 63.1350(f)(3)}]

- c. Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

[R18-2-1101(B)(49) {40 CFR § 63.1350(f)(4)}]

- d. When the operating status of the Raw Mill is changed from off to on, or from on to off, the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.

[R18-2-1101(B)(49) {40 CFR § 63.1350(f)(5)}]

- e. The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

[A.A.C. R18-2-331(A)(3)(c) and R18-2-1101(B)(49) {40 CFR § 63.1350(f)(6)}]

Material Permit Conditions are indicated with underline and italics.

- f. For the continuous temperature monitoring system required by Condition I.D.5.a, the Permittee shall maintain all records required by 40 CFR § 63.10(c).

[A.A.C. R18-2-1101(B)(49) {40 CFR §§ 63.1355(c) }]

- g. The Permittee shall conduct an inspection of the components of the combustion system of the Rotary Kiln at least once per year.

[R18-2-1101(B)(49) {40 CFR § 63.1350(i)}]

6. Monitoring and Recordkeeping for Baghouses BH-5.30 and BH-10.13
- a. For the purpose of demonstrating compliance with Conditions I.B.2.a through I.B.2.d, and in accordance with the requirements of 40 CFR Part 64, the Permittee shall maintain and implement the approved Compliance Assurance Monitoring (CAM) Plans for Baghouses BH-5.30 and BH-10.13.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM} and R18-2-406(A)(4)]
- b. Prior to startup of the Rotary Kiln, Raw Mill, or Clinker Grate Cooler, the Permittee shall obtain the Director's written approval of the CAM Plans for Baghouses BH-5.30 and BH-10.13 and shall submit an application for revising the permit to include the monitoring and analysis procedures in the approved CAM Plans. These monitoring and analysis procedures shall be incorporated into the permit through a significant permit revision, which includes a 30-day public notice period and a 45-day EPA review period per A.A.C. R18-2-320(D).  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}]
- c. Operation of approved monitoring in accordance with 40 CFR 64.7 shall commence upon startup of the Rotary Kiln, Raw Mill, and Clinker Grate Cooler.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR part 64 - CAM} and R18-2-406(A)(4)]
- d. The CAM Plans shall describe in detail the maintenance procedures for Baghouses BH-5.30 and BH-10.13.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR part 64 - CAM} and R18-2-406(A)(4)]
- e. The Permittee shall install, calibrate, operate, and maintain, according to the manufacturer's specifications, continuous parameter monitoring systems capable of measuring pressure drop across Baghouses BH-5.30 and BH-10.13.  
[A.A.C. R18-2-306(A)(3)(b) & (4) -331(A)(3)(c){40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- f. The Permittee shall continuously monitor and record the pressure drop across Baghouses BH-5.30 and BH-10.13. The output of the pressure drop continuous parameter monitoring systems shall be recorded on circular charts or other permanent format and shall be maintained on site readily available for inspection.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- g. The pressure drop continuous parameter monitoring systems shall meet the performance criteria contained in the approved CAM plans.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- h. Each time the pressure drop across Baghouse BH-5.30 falls outside the range established pursuant to Condition I.E.4.g shall constitute an excursion.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]

- i. Each instance of visible emissions from the Main Stack with opacity, as determined in accordance with Condition I.D.2.a, in excess of the value established pursuant to Condition I.E.4.g shall constitute an excursion.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- j. Each time the pressure drop across Baghouse BH-10.13 falls outside the range established pursuant to Condition I.E.4.h shall constitute an excursion.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- k. Each instance of visible emissions from the Cooler Stack with opacity, as determined in accordance with Condition I.D.2.a, in excess of the value established pursuant to Condition I.E.4.h shall constitute an excursion.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- l. The Permittee shall take corrective action following each pressure drop or opacity excursion as defined in Conditions I.D.6.h through I.D.6.k. Corrective action to restore the baghouse(s) to normal operation shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and in all cases shall be initiated within 24 hours following detection of an excursion.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- m. The Permittee shall perform monthly inspections of Baghouses BH-5.30 and BH-10.13 and the associated pressure drop continuous parameter monitoring systems in accordance with the manufacturers' recommended procedures. The Permittee shall take corrective action following the discovery of any abnormal operation or required maintenance of Baghouses BH-5.30 and BH-10.13 or the associated pressure drop continuous parameter monitoring systems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, but no later than within 24 hours following detection.  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]
- n. Annual inspections, maintenance, excursions, and corrective action measures for Baghouses BH-5.30 and BH-10.13 and the associated COMS and pressure drop continuous parameter monitoring systems shall be recorded and reported in accordance with Condition XII.B of Attachment "A."  
[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, and R18-2-406(A)(4)]

7. Monitoring and Recordkeeping for the Coal Mill and Baghouse BH-12.18:

- a. The Permittee shall install, calibrate, maintain, and continuously operate a device for monitoring the temperature of the gas stream at the exit of the Coal Mill.

[A.A.C. R18-2-331(A)(3)(c) and R18-2-901(32) {40 CFR § 60.253(a)}]

- (1) The temperature monitoring device is to be certified by the manufacturer to be accurate within  $\pm 3$  °F.

[A.A.C. R18-2-901(32) {40 CFR § 60.253(a)}]

(2) The temperature monitoring device shall be recalibrated annually in accordance with procedures under 40 CFR § 60.13(b).

[A.A.C. R18-2-331(A)(3)(c) and R18-2-901(32) {40 CFR § 60.253(b)}]

b. The Permittee shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a device for monitoring and recording the pressure drop across Baghouse BH-12.18.

[A.A.C. R18-2-331(A)(3)(c) and R18-2-406(A)(4)]

c. The Permittee shall perform monthly inspections of Baghouse BH-12.18 and the associated pressure drop continuous parameter monitoring system in accordance with the manufacturers' recommended procedures. The Permittee shall take corrective action following the discovery of any abnormal operation or required maintenance of Baghouse BH-12.18 or the associated pressure drop continuous parameter monitoring system as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, but no later than within 24 hours following detection.

[A.A.C. R18-2-406(A)(4)]

d. If the pressure drop across Baghouse BH-12.18 is outside the range  $\pm 20$  percent from the average pressure drop measured during the most recent performance test, the Permittee shall initiate investigation of the control equipment within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, the Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the emission standards in Conditions I.B.2.a and I.B.2.b. If the pressure drop remains outside of the range for 72 consecutive hours after the first occurrence, the Permittee shall submit a compliance schedule to the Director in accordance with Condition XII.D of Attachment "A."

[A.A.C. R18-2-406(A)(4)]

## 8. Operations and Maintenance Plan

a. The Permittee shall prepare written operations and maintenance plans for the Rotary Kiln and Raw Mill, the Clinker Grate Cooler, and the Coal Mill.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)}]

(1) Each plan required by Condition I.D.8.a shall be submitted to the Director for review and approval.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)}]

(2) Prior to startup of the Rotary Kiln, Raw Mill, or Clinker Grate Cooler, the Permittee shall obtain the Director's written approval for the corresponding operations and maintenance plan and shall submit an application for revising the permit to include the monitoring procedures in the approved plan. These monitoring procedures shall be incorporated into the permit through a

significant permit revision, which includes a 30-day public notice period and a 45-day EPA review period per A.A.C. R18-2-320(D).

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)}]

- b. Each plan required by Condition I.D.8.a shall include procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of Conditions I.B.2.e, I.B.2.f, I.B.2.h, I.B.6, I.B.7.a, and I.B.7.b.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(1)}]

- c. Each plan required by Condition I.D.8.a shall include procedures to be used during an inspection of the components of the combustion system of the Rotary Kiln and Raw Mill at least once per year; and

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(3)}]

- d. Failure to comply with any provision of the operations and maintenance plan approved by the Director in accordance with Condition I.D.8.a(2) shall be a violation.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(b)}]

9. Recordkeeping, Reporting, and Notification Requirements for HAP Emission Standards

- a. The Permittee shall maintain the following records:

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)}]

- (1) All records as required by 40 CFR §§ 63.10(b)(2) and (b)(3).

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)}]

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

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)(1)}]

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

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)(2)}]

- (4) If the Permittee has been granted a waiver under 40 CFR § 63.8(f)(6), any information demonstrating whether the source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)(3)}]

- b. The Permittee shall comply with the reporting requirements specified in 40 CFR § 63.10 as follows:

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)}]

- (1) As required by 40 CFR § 63.10(d)(2), the Permittee shall report the results of performance tests as part of the notification of compliance status.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(1)}]

- (2) As required by 40 CFR § 63.10(d)(3), the Permittee shall report the opacity results from tests required by Conditions I.E.4.a and I.E.4.b.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(2)}]

- (3) As required by 40 CFR § 63.10(d)(5), if actions taken by a Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the Permittee's startup, shutdown, and malfunction plan specified in 40 CFR § 63.6(e)(3), the Permittee shall state such information in a semi-annual 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.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(4)}]

- (4) 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 make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (fax) transmission. The immediate report shall be followed by a letter, 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.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(5)}]

- (5) As required by 40 CFR § 63.10(e)(2), the Permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by 40 CFR § 63.8(e). The Permittee shall submit the report simultaneously with the results of the performance test.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(6)}]

- (6) As required by 40 CFR § 63.10(e)(2), when a COMS is used to determine opacity compliance during any performance test required under 40 CFR § 63.7 and described in 40 CFR § 63.6(d)(6), the Permittee shall report the results of the COMS performance evaluation conducted under 40 CFR § 63.8(e).

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(7)}]

- (7) As required by 40 CFR § 63.10(e)(3), the Permittee shall submit an excess emissions and continuous monitoring system performance report for any event when the data provided by the continuous monitoring system indicate the source is not in

compliance with the applicable emission limitation or operating parameter limit.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(8)}]

- (8) The Permittee shall submit a summary report semiannually, along with the compliance certification, which contains the information specified in 40 CFR § 63.10(e)(3)(vi). In addition, the summary report shall include:

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(9)}]

- (a) All exceedances of maximum baghouse inlet gas temperature limits specified in Conditions I.B.7.b(1) and I.B.7.b(2);

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(9)(i)}]

- (b) All failures to calibrate thermocouples and other temperature sensors as required under Condition I.D.5.e;

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(9)(ii)}]

- (c) The results of any combustion system component inspections conducted within the reporting period as required under Condition I.D.5.g; and

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(9)(iv)}]

- (d) All failures to comply with any provision of the operation and maintenance plan required by Condition I.D.8.a.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(9)(v)}]

- (9) If the total continuous monitoring system downtime for any continuous monitoring system for the reporting period is 10 percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report required by Condition I.D.9.b(8).

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(10)}]

- c. The Permittee shall comply with the notification requirements in 40 CFR § 63.9 as follows:

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)}]

- (1) Notification of performance tests, as required by 40 CFR §§ 63.7 and 63.9(e).

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)(2)}]

- (2) Notification of opacity and visible emission observations required by Condition I.E.4.c in accordance with 40 CFR §§ 63.6(h)(5) and 63.9(f).

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)(3)}]

- (3) Notification, as required by 40 CFR § 63.9(g), of the date that the CEMS or COMS performance evaluation required by 40 CFR § 63.8(e) is scheduled to begin.

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)(4)}]

- (4) Notification of compliance status, as required by 40 CFR § 63.9(h).

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)(5)}]

- d. The Permittee shall maintain files of all information (including all reports and notifications) required in a form suitable and readily available for inspection and review as required by 40 CFR § 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(a)}]

#### E. Testing Requirements

1. The Permittee shall perform initial and periodic performance tests in accordance with Conditions I.E.2 through I.E.6. Initial performance tests shall be performed within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility.

[A.A.C. R18-2-406(A)(4), R18-2-901(1) {40 CFR 60.8(a)}, and R18-2-1101(B)(1) {40 CFR § 63.7(a)}]

2. For each performance test required pursuant to Condition I.E.1, the Permittee shall submit a test plan to the Director in accordance with Condition XVIII.D of Attachment "A."

[A.A.C. R18-2-312(B) and R18-2-1101(B)(49) {40 CFR § 63.1349(a)}]

3. Performance test results shall be documented in complete test reports that contain the information required by Conditions I.E.3.a through I.E.3.k.

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)}]

- a. A brief description of the process and the air pollution control system;

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(1)}]

- b. Sampling location description(s);

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(2)}]

- c. A description of sampling and analytical procedures and any modifications to standard procedures;

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(3)}]

- d. Test results;

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(4)}]

- e. Quality assurance procedures and results;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(5)}]
- f. Records of operating conditions during the test, preparation of standards, and calibration procedures;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(6)}]
- g. Raw data sheets for field sampling and field and laboratory analyses;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(7)}]
- h. Documentation of calculations;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(8)}]
- i. All data recorded and used to establish parameters for compliance monitoring;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(9)}]
- j. Any other information required by the test method; and  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(10)}]
- k. All other relevant information.  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)}]

4. Test Methods and Procedures for Particulate Matter and Opacity of Visible Emissions

- a. The Permittee shall demonstrate initial compliance with Condition I.B.2.e using the test methods and procedures in Conditions I.E.4.a(1) through I.E.4.a(7).  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)}]
- (1) The Permittee shall demonstrate initial compliance by conducting two separate performance tests: 1) while the Raw Mill is under normal operating conditions, 2) while the Raw Mill is not operating.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)}]
- (2) EPA Reference Method 5 in Appendix A to 40 CFR Part 60 shall be used to determine particulate matter emissions.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]
- (3) Each performance test shall consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 40 CFR § 63.7(e).  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]
- (4) Each run shall be conducted for at least one hour, and the minimum sample volume shall be 30 dscf.  
[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]

- (5) The average of the three runs shall be used to determine compliance.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]

- (6) Suitable methods shall be used to determine the Rotary Kiln feed rate, except for fuels, for each run.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(ii)}]

- (7) The emission rate, E, shall be computed for each run using the following equation:

$$E = \frac{C_s \times Q_{sd}}{P}$$

Where:

E = emission rate of particulate matter, lb per ton of Rotary Kiln feed.

C<sub>s</sub> = concentration of PM, lb/dscf.

Q<sub>sd</sub> = volumetric flow rate of effluent gas, dscf/hr.

P = total Rotary Kiln feed (dry basis), tons/hr.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(iii)}]

- b. The Permittee shall demonstrate initial compliance with Condition I.B.2.f using the test methods and procedures in Conditions I.E.4.b(1) through I.E.4.b(6).

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)}]

- (1) The performance test shall consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 40 CFR § 63.7(e).

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]

- (2) EPA Reference Method 5 in Appendix A to 40 CFR Part 60 shall be used to determine particulate matter emissions.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]

- (3) Each run shall be conducted for at least one hour, and the minimum sample volume shall be 30 dscf.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]

- (4) The average of the three runs shall be used to determine compliance.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(i)}]

- (5) Suitable methods shall be used to determine the Rotary Kiln feed rate, except for fuels, for each run.

- (6) The emission rate, E, shall be computed for each run using the following equation:

$$E = \frac{C_s \times Q_{sd}}{P}$$

Where:

E = emission rate of particulate matter, lb per ton of Rotary Kiln feed.

C<sub>s</sub> = concentration of PM, lb/dscf.

Q<sub>sd</sub> = volumetric flow rate of effluent gas, dscf/hr.

P = total Rotary Kiln feed (dry basis), tons/hr.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(iii)}]

- c. The opacity exhibited during the period of the EPA Reference Method 5 performance tests required by Conditions I.E.4.a and I.E.4.b shall be determined through the use of the COMS required by Condition I.D.2.a. The maximum six-minute average opacity during the three EPA Reference Method 5 test runs shall be determined during each EPA Reference Method 5 test run, and used to demonstrate initial compliance with Condition I.B.2.h.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(1)(v)}]

- d. The Permittee shall determine compliance with Condition I.B.2.g using the test methods and procedures in Conditions I.E.4.d(1) through I.E.4.d(3).

[A.A.C. R18-2-901(32) {40 CFR § 60.254(b)}]

- (1) EPA Reference Method 5 in appendix A to 40 CFR part 60 shall be used to determine the particulate matter concentration.

[A.A.C. R18-2-901(32) {40 CFR § 60.254(b)(1)}]

- (2) The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf.

[A.A.C. R18-2-901(32) {40 CFR § 60.254(b)(1)}]

- (3) Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin.

[A.A.C. R18-2-901(32) {40 CFR § 60.254(b)(1)}]

- e. The Permittee shall determine compliance with Condition I.B.2.i using EPA Reference Method 9 in appendix A to 40 CFR part 60 and the procedures in 40 CFR § 60.11 to determine opacity.

[A.A.C. R18-2-901(32) {40 CFR § 60.254(b)(2)}]

- f. The Permittee shall demonstrate initial compliance with Conditions I.B.2.a through I.B.2.d using the test methods and procedures in Conditions I.E.4.f(1) through I.E.4.f(6).
- (1) The Permittee shall demonstrate initial compliance with Conditions I.B.2.a and I.B.2.c by conducting two separate performance tests as follows.
    - (a) One performance test shall be performed under the conditions that exist when the Rotary Kiln, Raw Mill, and Coal Mill all are operating at the highest load or capacity level reasonably expected to occur.  
[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]
    - (b) One performance test shall be performed under the conditions that exist when the Raw Mill is not operating and the Rotary Kiln and Coal Mill are operating at the highest load or capacity level reasonably expected to occur.  
[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]
  - (2) The Permittee shall use any of the following test methods to determine the PM<sub>10</sub> concentration:
    - (a) EPA Reference Method 5 in Appendix A to 40 CFR Part 60 in conjunction with EPA Reference Method 202 in Appendix M to 40 CFR Part 51;
    - (b) EPA Reference Method 201 in Appendix M to 40 CFR Part 51 in conjunction with EPA Reference Method 202 in Appendix M to 40 CFR Part 51;
    - (c) EPA Reference Method 201a in Appendix M to 40 CFR Part 51 in conjunction with EPA Reference Method 202 in Appendix M to 40 CFR Part 51; or
    - (d) EPA Conditional Test Method Number CTM-039, included as Attachment "D" to this permit.  
[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]
  - (3) Each performance test shall consist of three separate runs.  
[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]
  - (4) Each run shall be conducted for at least one hour, and the minimum sample volume shall be 30 dscf.  
[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]
  - (5) The average of the three runs shall be used to determine compliance.  
[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

- (6) Suitable methods shall be used to determine the Rotary Kiln feed rate and clinker rate, except for fuels, for each run. Kiln feed and clinker production rates shall be confirmed by a material balance over the production system.

[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

- g. For each pair of performance tests conducted at the Main Stack under Condition I.E.4.f(1), the Permittee shall determine a range of pressure drop values for Baghouses BH-5.30 and BH-12.18 and a range of opacity values for the Main Stack using the following procedures:

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (1) During each performance test run, continuously monitor and record the pressure drop across each baghouse as required under Conditions I.D.6.e and I.D.7.a;

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (2) During each performance test run, continuously monitor and record the opacity of visible emissions from the Main Stack as required under Condition I.D.2.a;

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (3) For each baghouse, determine a range of pressure drop values and associated averaging time, based on the pressure drop data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations, as applicable;

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (4) Determine a range of opacity values and associated averaging time, based on the opacity data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations, as applicable; and

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (5) Provide for the Director's approval the rationale for the selected ranges of pressure drop values and opacity values and the associated averaging times. Include data and calculations used to develop these ranges and a description of why the ranges, monitoring frequencies, and averaging times demonstrate continuous compliance with the emission standards in Conditions I.B.2.a and I.B.2.c.

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- h. For each performance test conducted at the Cooler Stack under Condition I.E.4.f, the Permittee shall determine a range of pressure drop values for Baghouse BH-10.13 and a range of opacity values for the Cooler Stack using the following procedures:

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (1) During each performance test run, continuously monitor and record the pressure drop across Baghouse BH-10.13 as required under Condition I.D.6.e;

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (2) During each performance test run, continuously monitor and record the opacity of visible emissions from the Cooler Stack as required under Condition I.D.2.a;

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (3) Determine a range of pressure drop values and associated averaging time, based on the pressure drop data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations, as applicable; and

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (4) Determine a range of opacity values and associated averaging time, based on the opacity data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations, as applicable; and

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- (5) Provide for the Director's approval the rationale for the selected ranges of pressure drop values and opacity values and the associated averaging times. Include data and calculations used to develop these ranges and a description of why the ranges, monitoring frequencies, and averaging times demonstrate continuous compliance with the emission standards in Conditions I.B.2.b and I.B.2.d.

[A.A.C. R18-2-306(A)(3) & (4) {40 CFR Part 64 - CAM}, R18-2-406(A)(4), and R18-2-406(A)(5)]

- i. If the Permittee plans to undertake a change in operations that may adversely affect compliance with Condition I.B.2.e or I.B.2.h, the Permittee must conduct a performance test as specified in Conditions I.E.4.a and I.E.4.c.

[R18-2-1101(B)(49) {40 CFR § 63.1349(e)(2)}]

## 5. Test Methods and Procedures for Dioxins/Furans Emissions

- a. The Permittee shall demonstrate initial compliance with Condition I.B.7.a using the test methods and procedures in Conditions I.E.5.a(1) through I.E.5.a(9).

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)}]

- (1) The Permittee shall demonstrate initial compliance by conducting two separate performance tests: 1) while the Raw Mill is under normal operating conditions, 2) while the Raw Mill is not operating.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)}]

- (2) EPA Reference Method 23 in appendix A to 40 CFR part 60 shall be used to determine D/F emissions.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)}]

- (3) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e).

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)(i)}]

- (4) The duration of each run shall be at least 3 hours, and the sample volume for each run shall be at least 88.3 dscf.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)(i)}]

- (5) The concentration shall be determined for each run, and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)(i)}]

- (6) The temperature at the inlet to Baghouse BH-5.30 must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)(ii)}]

- (7) One-minute average temperatures must be calculated for each minute of each run of the test.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)(iii)}]

- (8) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report. The average of the run average temperatures will determine the applicable temperature limit in accordance with Condition I.E.5.a(9).

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(3)(iv)}]

- (9) The temperature limits for the Rotary Kiln and Raw Mill in Conditions I.B.7.a(1) and I.B.7.a(2) are determined in accordance with I.E.5.a(8).

[R18-2-1101(B)(49) {40 CFR § 63.1344(b)}]

- b. Performance tests required under Condition I.E.5.a shall be repeated every 30 months.

[R18-2-1101(B)(49) {40 CFR § 63.1349(d)}]

- c. If the Permittee plans to undertake a change in operations that may adversely affect compliance with the D/F standard under Condition I.B.7.a, the Permittee must conduct a performance test and establish new temperature limit(s) as specified in Conditions I.E.5.a(1) through I.E.5.a(8).

[R18-2-1101(B)(49) {40 CFR § 63.1349(e)(1)}]

- d. In preparation for and while conducting a performance test required in Condition I.E.5.c, the Permittee may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that Conditions I.E.5.d(1) through (4) are met. The source shall submit temperature and other monitoring data that are recorded during the pretest operations.

[R18-2-1101(B)(49) {40 CFR § 63.1349(e)(3)}]

- (1) The Permittee shall provide the Director written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under this subpart, or as soon as practicable where 60 days advance notice is not feasible. This notice shall include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under Condition I.E.5.c, including when the planned operational change period would begin.

[R18-2-1101(B)(49) {40 CFR § 63.1349(e)(3)(i)}]

- (2) The performance test results must be documented in a test report according to Condition I.E.3.

[R18-2-1101(B)(49) {40 CFR § 63.1349(e)(3)(ii)}]

- (3) A test plan must be made available to the Director prior to testing, if requested.

[R18-2-1101(B)(49) {40 CFR § 63.1349(e)(3)(iii)}]

- (4) The performance test must be conducted, and it must be completed within 360 hours after the planned operational change period begins.

[R18-2-1101(B)(49) {40 CFR § 63.1349(e)(iv)}]

6. Test Methods and Procedures for Total Hydrocarbons Emissions

- a. The Permittee shall demonstrate initial compliance with Condition I.B.6 using the test methods and procedures in Conditions I.E.6.b through I.E.6.d.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(4)}]

- b. The Permittee shall demonstrate initial compliance by operating a CEMS in accordance with Performance Specification 8A in appendix B to 40 CFR part 60.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(4)}]

- c. The Permittee shall demonstrate initial compliance by conducting two separate performance tests: 1) while the Raw Mill is under normal operating conditions, 2) while the Raw Mill is not operating.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(4)}]

- d. The duration of the performance test shall be three hours, and the average THC concentration (as calculated from the one-minute averages) during the three hour performance test shall be calculated.

[R18-2-1101(B)(49) {40 CFR § 63.1349(b)(4)}]

F. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: 40 CFR § 63.1343(c), 40 CFR § 63.1344(a), 40 CFR § 63.1344(b), 40 CFR § 63.1345(a), 40 CFR § 60.252(a)(1), 40 CFR § 60.252(a)(2), 40 CFR § 63.1349(a), 40 CFR § 63.1349(b)(1), 40 CFR § 63.1349(b)(3), 40 CFR § 63.1349(b)(4), 40 CFR § 63.1349(d), 40 CFR § 63.1349(e), 40 CFR § 63.1350(c), 40 CFR § 63.1350(d), 40 CFR § 63.1350(f), 40 CFR § 63.1350(i), 40 CFR § 63.1350(h), 40 CFR § 63.1350(k), 40 CFR § 60.253(a), 40 CFR § 63.1353(a), 40 CFR § 63.1353(b), 40 CFR § 63.1354(a), 40 CFR § 63.1354(b), 40 CFR § 63.1355(a), and 40 CFR § 63.1355(b).

**II. FINISH MILLS, STORAGE BINS, BULK LOADING AND UNLOADING SYSTEMS, AND CONVEYING SYSTEM TRANSFER POINTS SUBJECT TO 40 CFR 63 SUBPART LLL**

**A. List of Emission Units and Affected Sources**

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge of Belt Conveyor for Collecting Limestone from Stockpile (BC-2.4)	Transfer Point, 495 tons per hour	Dust Collector (DC-2.5)	DC-2.5
Discharge of Belt Conveyors (BC-2.8 and BC-2.12) to Limestone Silos (RMS-3.1 and RMS-3.3)	Transfer Point, 495 tons per hour	Dust Collector (DC-2.9)	DC-2.9
Discharge of Belt Conveyors (BC-2.8 and BC-2.13) to Limestone Silos (RMS-3.2) and Iron Ore Silo (RMS-3.4)	Transfer Point, 495 tons per hour	Dust Collector (DC-2.10)	DC-2.10
High Limestone Silo 1 (RMS-3.1)	Storage Bin, 550 tons	n/a	n/a
High Limestone Silo 2 (RMS-3.2)	Storage Bin, 450 tons	n/a	n/a
Low Limestone Silo (RMS-3.3)	Storage Bin, 550 tons	n/a	n/a
Iron Ore Silo (RMS-3.4)	Storage Bin, 510 tons	n/a	n/a
Gypsum Silo (RMS-3.5)	Storage Bin, 450 tons	n/a	n/a
Clinker Silo (RMS-3.6)	Storage Bin, 550 tons	n/a	n/a
Aluminum Source Silo (RMS-3.7)	Storage Bin, 330 tons	n/a	n/a
Raw Coal Silo (RMS-3.8)	Storage Bin, 300 tons	n/a	n/a
Receiving Hopper for Railroad Cars (RHR-4.1)	Bulk Unloading System (250 tons per hour)	Water Dedusting System (WD-4.4)	FE-11
Receiving Hopper for Trucks (RHT-4.5)	Bulk Unloading System (150 tons per hour)	Water Dedusting System (WD-4.6)	FE-12
Discharge of Belt Conveyor under Coal and Iron Ore Stockpile (BC-4.11) to Belt Conveyor (BC-4.15)	Transfer Point, 400 tons per hour	Dust Collector (DC-4.18)	DC-4.18

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge of Belt Conveyor (BC-4.15) to Coal Silo (RMS-3.8) and Aluminum Silo (RMS-3.7)	Transfer Point, 400 tons per hour	Dust Collector (DC-4.19)	DC-4.19
Discharge of Reversible Belt Conveyor (BC-4.17) to Coal Silo (RMS-3.8) and Aluminum Silo (RMS-3.7)	Transfer Point, 400 tons per hour	Dust Collector (DC-4.19)	DC-4.19
Discharge of Belt Conveyor under Rail Car and Truck Discharge (BC-4.8) to Belt Conveyors (BC-4.9 and BC-4.22)	Transfer Point, 400 tons per hour	Dust Collector (DC-4.20)	DC-4.20
Discharge of 1st Belt Conveyor for Limestone Unloaded from Rail Cars (BC-4.22) to Belt Conveyor (BC-4.24)	Transfer Point, 400 tons per hour	Dust Collector (DC-4.23)	DC-4.23
Discharge of 2nd Belt Conveyor for Limestone Unloaded from Rail Cars (BC-4.24) to Belt Conveyor (BC-4.26)	Transfer Point, 400 tons per hour	Dust Collector (DC-4.25)	DC-4.25
Discharge of 3rd Belt Conveyor for Limestone Unloaded from Rail Cars (BC-4.26) to Stockpile	Transfer Point, 495 tons per hour	Dust Collector (DC-1.11)	DC-1.11
Discharge from Weighfeeder for High Limestone (WF-5.1.1) to Belt Conveyor (BC-5.6)	Transfer Point, 150 tons per hour	Dust Collector (DC-5.5)	DC-5.5
Discharge from Weighfeeder for High Limestone (WF-5.1.2) to Belt Conveyor (BC-5.6)	Transfer Point, 150 tons per hour	Dust Collector (DC-5.5)	DC-5.5
Discharge from Weighfeeder for Low Limestone (WF-5.2) to Belt Conveyor (BC-5.6)	Transfer Point, 100 tons per hour	Dust Collector (DC-5.5)	DC-5.5
Discharge from Weighfeeder for Iron Ore (WF-5.3.1) to Belt Conveyor (BC-5.4)	Transfer Point, 10 tons per hour	Dust Collector (DC-5.5)	DC-5.5
Discharge from Weighfeeder for Aluminum Source (WF-5.3.2) to Belt Conveyor (BC-5.4)	Transfer Point, 10 tons per hour	Dust Collector (DC-5.5)	DC-5.5
Discharge from Belt Conveyor for Iron Ore and Aluminum Source (BC-5.4) to Belt Conveyor (BC-5.6)	Transfer Point, 20 tons per hour	Dust Collector (DC-5.5)	DC-5.5
Discharge of Screw Conveyor for Raw Meal (SC-5.18.1)	Transfer Point, 90 tons per hour	Dust Collector (DC-5.22)	DC-5.22

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge of Screw Conveyor for Raw Meal (SC-5.18.2)	Transfer Point, 90 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of First Airslide for Raw Meal (SC-5.19)	Transfer Point, 180 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of Second Airslide for Raw Meal (SC-5.21)	Transfer Point, 180 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of Screw Conveyor under Baghouse (SC-5.31.1)	Transfer Point, 6 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of Screw Conveyor under Baghouse (SC-5.31.2)	Transfer Point, 6 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of Screw Conveyor under Baghouse (SC-5.31.3)	Transfer Point, 6 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of Screw Conveyor which Collects Dust from Baghouse (SC-5.32)	Transfer Point, 18 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of Screw Conveyor for Taking Dust to Blending Silo (SC-5.33)	Transfer Point, 18 tons per hour	Dust Collector (DC-5.22)	DC-5.22
Discharge of Bucket Elevator to Blending Silo (BE-6.1)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Discharge of Airslide for Raw Meal on Top of Blending Silo (AS-6.2)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Discharge of Short Airslide on Top of Blending Silo (AS-6.4.1)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Discharge of Short Airslide on Top of Blending Silo (AS-6.4.2)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Discharge of Long Airslide on Top of Blending Silo (AS-6.5.1)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Discharge of Long Airslide on Top of Blending Silo (AS-6.5.2)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Discharge of Long Airslide on Top of Blending Silo (AS-6.5.3)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Discharge of Long Airslide on Top of Blending Silo (AS-6.5.4)	Transfer Point, 180 tons per hour	Dust Collector (DC-6.10)	DC-6.10
Blending Silo (SI-6.7)	Storage Bin, 9000 tons	n/a	n/a

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge of Raised Airslide from Blending Silo (AS-7.4)	Transfer Point, 170 tons per hour	Dust Collector (DC-7.16)	DC-7.16
Discharge of Base Airslide from Blending Silo (AS-7.5)	Transfer Point, 170 tons per hour	Dust Collector (DC-7.16)	DC-7.16
Discharge of Airslide (AS-7.12)	Transfer Point, 170 tons per hour	Dust Collector (DC-7.16)	DC-7.16
Feed of Bucket Elevator for Feeding Pre-Heater Tower (BE-7.15.1)	Transfer Point, 170 tons per hour	Dust Collector (DC-7.16)	DC-7.16
Feed of Bucket Elevator for Feeding Pre-Heater Tower (BE-7.15.2)	Transfer Point, 170 tons per hour	Dust Collector (DC-7.16)	DC-7.16
Discharge of Airslide (AS-7.17)	Transfer Point, 170 tons per hour	Dust Collector (DC-7.23)	DC-7.23
Discharge of Recirculating Airslide (AS-7.22)	Transfer Point, 170 tons per hour	Dust Collector (DC-7.23)	DC-7.23
Discharge of Screw Conveyor for Clinker Dust (SC-10.12)	Transfer Point, 6 tons per hour	Dust Collector (DC-11.2)	DC-11.2
Discharge of Screw Conveyor for Clinker Dust (SC-10.14)	Transfer Point, 6 tons per hour	Baghouse (BH-10.13)	CS-10.16)
Discharge of Clinker Cooler to Hot Pan Conveyor (HPC-11.1)	Transfer Point, 83.33 tons per hour	Dust Collector (DC-11.2)	DC-11.2
Discharge of Hot Pan Conveyor (HPC-11.1) to Storage Dome (CDO-11.3) and Belt Conveyor (BC-11.5)	Transfer Point, 83.33 tons per hour	Dust Collector (DC-11.6.1)	DC-11.6.1
Discharge of Belt Conveyor (BC-11.5) to Emergency Clinker Silo (SI-11.7)	Transfer Point, 83.33 tons per hour	Dust Collector (DC-11.6.2)	DC-11.6.2
Clinker Storage Dome (CDO-11.3)	Storage Bin, 50,000 tons	Dust Collector (DC-11.11)	DC-11.11
Emergency Clinker Silo (SI-11.7)	Storage Bin, 13,800 tons	Dust Collector (DC-11.11)	DC-11.11
Discharge from Clinker Storage Dome (CDO-11.3) to Belt Conveyor (BC-11.8)	Transfer Point, 400 tons per hour	Dust Collector (DC-11.11)	DC-11.11
Discharge from Clinker Silo (SI-11.7) to Belt Conveyor (BC-11.8)	Transfer Point, 400 tons per hour	Dust Collector (DC-11.11)	DC-11.11
Discharge from Belt Conveyor under Clinker Dome and Clinker Silo (BC-11.8) to Belt Conveyor (BC-11.10)	Transfer Point, 400 tons per hour	Dust Collector (DC-11.11)	DC-11.11

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge of Belt Conveyor (BC-11.10) to Reversible Belt Conveyor (BC-11.14)	Transfer Point, 400 tons per hour	Dust Collector (DC-11.15)	DC-11.15
Discharge of Reversible Belt Conveyor (BC-11.14) to Finish Mill Clinker Silo (RMS-3.6)	Transfer Point, 400 tons per hour	Dust Collector (DC-11.15)	DC-11.15
Discharge of Reversible Belt Conveyor (BC-11.10) to Finish Mill Gypsum Silo (RMS-3.5)	Transfer Point, 400 tons per hour	Dust Collector (DC-11.15)	DC-11.15
Discharge from Coal Mill Baghouse (BH-12.18) to Pneumatic Coal Conveying System	Transfer Point, 20 tons per hour	Dust Collector (DC-12.7.2)	DC-12.7.2
Discharge from Pneumatic Coal Conveying System to Pulverized Coal Silo	Transfer Point, 20 tons per hour	Dust Collector (DC-12.26)	DC-12.26
Pulverized Coal Silo with incorporated dust collector (DC-12.26)	Storage Bin, 240 tons	Dust Collector (DC-12.26)	DC-12.26
Discharge from Rotor Weighfeeder (RWF-12.35.1) to Pneumatic Conveying Pipe (PCP-12.37)	Transfer Point, 7.0 tons per hour	Dust Collector (DC-12.26)	DC-12.26
Discharge from Rotor Weighfeeder (RWF-12.35.2) to Pneumatic Conveying Pipe (PCP-12.38)	Transfer Point, 7.0 tons per hour	Dust Collector (DC-12.26)	DC-12.26
Discharge from Pneumatic Conveying Pipe (PCP-12.37) to Calciner (CAL-8.13)	Transfer Point, 7.0 tons per hour	Dust Collector (DC-12.26)	DC-12.26
Discharge from Pneumatic Conveying Pipe (PCP-12.38) to Rotary Kiln	Transfer Point, 7.0 tons per hour	Dust Collector (DC-12.26)	DC-12.26
Finish Mill Clinker Feed Silo (RMS-3.6)	Storage Bin, 550 tons	n/a	n/a
Discharge from Weighfeeder for Clinker (WF-13.1.1) to Belt Conveyor (BC-13.3)	Transfer Point, 143 tons per hour	Dust Collector (DC-13.4)	DC-13.4
Finish Mill Gypsum Feed Silo (RMS-3.5)	Storage Bin, 450 tons	n/a	n/a
Discharge from Weighfeeder for Gypsum (WF-13.1.2) to Small Belt Conveyor (BC-13.2)	Transfer Point, 10 tons per hour	Dust Collector (DC-13.4)	DC-13.4
Finish Mill Limestone Feed Silo (RMS-3.2)	Storage Bin, 450 tons	n/a	n/a

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge from Weighfeeder for Limestone (WF-13.1.3) to Small Belt Conveyor (BC-13.2)	Transfer Point, 10 tons per hour	Dust Collector (DC-13.4)	DC-13.4
Discharge from Small Belt Conveyor (BC-13.2) to Belt Conveyor (BC-13.3)	Transfer Point, 50 tons per hour	Dust Collector (DC-13.4)	DC-13.4
Discharge from Belt Conveyor (BC-13.3) to Bucket Elevator (BE-13.5)	Transfer Point, 143 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Bucket Elevator (BE-13.5) to Belt Conveyor (BC-13.6)	Transfer Point, 143 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Belt Conveyor (BC-13.6) to Special Chute (RP-13.9.1)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Special Chute (RP-13.9.1) to Roller Press (RP-13.10)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Roller Press (RP-13.10)	Finish Mill, 517 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Roller Press (RP-13.10) to Special Chute (CH-13.10.1)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Special Chute (CH-13.10.1) to Disagglomerator (DIS-13.11)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Disagglomerator (DIS-13.11) to Belt Conveyor (BC-13.12)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Belt Conveyor (BC-13.12) to Special Chute (CH-13.12.1)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Special Chute (CH-13.12.1) to Bucket Elevator (BE-13.13)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Bucket Elevator (BE-13.13) to Special Chute (CH-13.13.1)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Special Chute (CH-13.13.1) to High-Efficiency Separator (HES-13.15)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
High-Efficiency Separator (HES-13.15)	Finish Mill, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge from High-Efficiency Separator (HES-13.15) to Special Chute (CH-13.16)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Special Chute (CH-13.16) to Airslides (AS-13.17.1 through AS-13.17.4)	Transfer Point, 578 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from High-Efficiency Separator (HES-13.15) to Screw Conveyors (SC-13.21 and SC-13.22)	Transfer Point, 17 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Screw Conveyor (SC-13.21) to By-Pass Hopper (BPH-13.30)	Transfer Point, 17 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Screw Conveyors (SC-13.21 and SC-13.22) to Belt Conveyor (BC-13.31)	Transfer Point, 17 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Belt Conveyor (BC-13.31) to Transfer Chute (CH-13.34)	Transfer Point, 17 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Transfer Chute (CH-13.34) to Belt Conveyor (BC-13.6)	Transfer Point, 17 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Discharge from Airslides (AS-13.17.1 through AS-13.17.4) to Ball Mill (BM-13.39)	Transfer Point, 240 tons per hour	Dust Collectors (DC-13.19 and DC-13.20)	DC-13.19 and DC-13.20
Ball Mill (BM-13.39)	Finish Mill, 100 tons per hour	Dust Collector (DC-13.40)	DC-13.40
Discharge from Ball Mill (BM-13.39) to Airslide (AS-13.42)	Transfer Point, 100 tons per hour	Dust Collector (DC-13.40)	DC-13.40
Discharge from Ball Mill Dust Collector (DC-13.40) to Screw Conveyor (SC-13.41)	Transfer Point, 5 tons per hour	Dust Collector (DC-13.40)	DC-13.40
Discharge from Screw Conveyor (SC-13.41) to Airslide (AS-13.42)	Transfer Point, 5 tons per hour	Dust Collector (DC-13.40)	DC-13.40
Discharge from Airslide (AS-13.42) to Bucket Elevator (BE-14.1)	Transfer Point, 143 tons per hour	Dust Collector (DC-13.40)	DC-13.40
Discharge from Bucket Elevator (BE-14.1) to Airslide (AS-14.2)	Transfer Point, 180 tons per hour	Dust Collector (DC-14.10)	DC-14.10
Discharge from Airslide (AS-14.2) to Airslides (AS-14.4.1 through AS-14.4.4)	Transfer Point, 180 tons per hour	Dust Collector (DC-14.10)	DC-14.10

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge from Airslides (AS-14.4.1 through AS-14.4.4) to Cement Silo (SI-14.6)	Transfer Point, 240 tons per hour	Dust Collector (DC-14.10)	DC-14.10
Cement Silo (SI-14.6)	Storage Bin, 10,000 tons	n/a	n/a
Discharge from Cement Silo (SI-14.6) to Airslide (AS-14.13)	Transfer Point, 400 tons per hour	Dust Collector (DC-14.10)	DC-14.21
Discharge from Airslide (AS-14.13) to Bucket Elevator (BE-14.14)	Transfer Point, 400 tons per hour	Dust Collector (DC-14.10)	DC-14.21
Discharge from Bucket Elevator (BE-14.14) to Airslide (AS-14.15)	Transfer Point, 400 tons per hour	Dust Collector (DC-14.10)	DC-14.21
Discharge from Airslide (AS-14.15) to Cement Metallic Silo (CMS-14.17.1)	Transfer Point, 400 tons per hour	Dust Collector (DC-14.10)	DC-14.21
Discharge from Airslide (AS-14.15) to Cement Metallic Silo (CMS-14.17.2)	Transfer Point, 400 tons per hour	Dust Collector (DC-14.10)	DC-14.21
Cement Metallic Silo (CMS-14.17.1)	Storage Bin, 125 m <sup>3</sup>	n/a	n/a
Cement Metallic Silo (CMS-14.17.2)	Storage Bin, 125 m <sup>3</sup>	n/a	n/a
Discharge from Cement Metallic Silo (CMS-14.17.1) to Double Mobile Articulated Screw Conveyor (ASC-14.20.1)	Transfer Point, 330 tons per hour	Dust Collector (DC-14.21)	DC-14.21
Discharge from Cement Metallic Silo (CMS-14.17.2) to Double Mobile Articulated Screw Conveyor (ASC-14.20.2)	Transfer Point, 330 tons per hour	Dust Collector (DC-14.21)	DC-14.21
Double Mobile Articulated Screw Conveyor (ASC-14.20.1)	Bulk Loading, 330 tons per hour	Dust Collector (DC-14.21)	DC-14.21
Double Mobile Articulated Screw Conveyor (ASC-14.20.2)	Bulk Loading, 330 tons per hour	Dust Collector (DC-14.21)	DC-14.21
Discharge from Cement Metallic Silo (CMS-14.17.1) to Pneumatic Conveying Pipe (PCP-14.27)	Transfer Point, 165 tons per hour	Dust Collector (DC-14.29)	DC-14.29
Cement Metallic Silo for Train Bulk Loading (CMS-14.28)	Storage Bin, 450 m <sup>3</sup>	n/a	n/a

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Discharge from Cement Metallic Silo (CMS-14.28) to Loading Head (LBR-14.32)	Transfer Point, 330 tons per hour	Dust Collector (DC-14.29)	DC-14.29
Loading Head for Rail Cars (LBR-14.32)	Bulk Loading, 330 tons per hour	Dust Collector (DC-14.29)	DC-14.29

B. Emission Standards

1. Operational Limitations

- a. The Permittee shall not cause or allow the amount of material unloaded at the Receiving Hopper for Railroad Cars to exceed 750 tons in any 3-hour period.

[A.A.C. R18-2-306(A)(2)]

- b. The Permittee shall not cause or allow the amount of material unloaded at the Receiving Hopper for Trucks to exceed 450 tons in any 3-hour period.

[A.A.C. R18-2-306(A)(2)]

- c. Except as provided in Condition II.B.1.e, the Permittee shall not cause or allow the amount of material unloaded at the Receiving Hopper for Railroad Cars to exceed 2,000 tons in any 24-hour period.

[A.A.C. R18-2-306(A)(2)]

- d. Except as provided in Condition II.B.1.e, the Permittee shall not cause or allow the amount of material unloaded at the Receiving Hopper for Trucks to exceed 600 tons in any 24-hour period.

[A.A.C. R18-2-306(A)(2)]

- e. Alternate Operating Scenario

- (1) When operating under the Alternate Operating Scenario, the Permittee shall not cause or allow the amount of material unloaded at the Receiving Hopper for Railroad Cars to exceed 3,000 tons in any 24-hour period.

[A.A.C. R18-2-306(A)(11)]

- (2) When operating under the Alternate Operating Scenario, the Permittee shall not cause or allow the amount of material unloaded at the Receiving Hopper for Trucks to exceed 900 tons in any 24-hour period.

[A.A.C. R18-2-306(A)(11)]

2. Particulate Matter Emission Standards

- a. *The Permittee shall not cause or allow to be emitted into the atmosphere from Dust Collectors DC-13.19, DC-13.20, or DC-13.40 any gases which exhibit opacity greater than 10 percent.*

[A.A.C. R18-2-331(A)(3)(f) and R18-2-1101(B)(49) {40 CFR § 63.1347}]  
Material Permit Conditions are indicated with underline and italics.

- b. The Permittee shall maintain and operate Dust Collectors DC-13.19, DC-13.20, or DC-13.40 such that the alarm of the associated Bag Leak Detection System, as required by Condition II.D.2.a(1), is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month block period.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(9)}]

- c. *The Permittee shall not cause or allow to be emitted into the atmosphere from any Storage Bin, Conveying System Transfer Point, Bulk Unloading System, or Bulk Loading System, listed in Condition II.A, any gases which exhibit opacity greater than 10 percent.*

[A.A.C. R18-2-331(A)(3)(f) and R18-2-1101(B)(49) {40 CFR § 63.1348}]  
Material Permit Conditions are indicated with underline and italics.

- d. The Permittee shall not cause or allow to be emitted into the atmosphere from any Dust Collector listed in Condition II.A any gases which contain particulate matter (PM) in excess of 0.008 gr/dscf.

[A.A.C. R18-2-406(A)(4)]

- e. The Permittee shall not cause or allow to be emitted into the atmosphere from any Dust Collector gases which contain particulate matter (PM) in excess of the following emission rates, based on a 3-hour average.

Emission Point ID Number	PM Emission Limit (lbs/hr)
DC-1.11	0.305
DC-2.5	0.153
DC-2.9	0.411
DC-2.10	0.411
DC-4.18	0.120
DC-4.19	0.439
DC-4.20	0.257
DC-4.23	0.120
DC-4.25	0.120
DC-5.5	0.451
DC-5.22	0.253
DC-6.10	0.268
DC-7.16	0.167
DC-7.23	0.121

Emission Point ID Number	PM Emission Limit (lbs/hr)
DC-11.2	0.201
DC-11.6.1	0.129
DC-11.6.2	0.148
DC-11.11	0.487
DC-11.15	0.421
DC-12.7.2	0.018
DC-12.26	0.102
DC-13.4	0.136
DC-13.19	0.875
DC-13.20	0.875
DC-13.40	1.040
DC-14.10	0.142
DC-14.21	0.360
DC-14.29	0.236

[A.A.C. R18-2-406(A)(5)]

C. Air Pollution Control Requirements

1. *At all times when any Finish Mills, Conveying System Transfer Points, or Bulk Loading Systems listed in Condition II.A are in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate the associated Dust Collector(s) in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

2. *At all times when the Receiving Hoppers for Trucks or Railroad Cars are in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate the associated Water Dedusting System in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

D. Monitoring, Recordkeeping, and Reporting Requirements

1. Monitoring and Recordkeeping for Operational Limitations

- a. *The Permittee shall install, calibrate, maintain, and operate monitoring devices for measuring and recording the weight of material unloaded at the Receiving Hoppers for Trucks and Railroad Cars.*

[A.A.C. R18-2-306(A)(3)(c) and R18-2-331(A)(3)(c)]  
Material Permit Conditions are indicated with underline and italics.

- b. Each weighing device shall have an accuracy of  $\pm 2\%$  over its operating range.  
[A.A.C. R18-2-306(A)(3)(c)]
- c. The calibration of each weighing device must be verified at least once every three months.  
[A.A.C. R18-2-306(A)(3)(c)]
- d. The Permittee shall maintain hourly records of the weight of material unloaded at each Receiving Hopper.  
[A.A.C. R18-2-306(A)(3)(c)]
- e. Contemporaneously with making a change from the Primary Operating Scenario to the Alternate Operating Scenario or vice versa, the Permittee shall make a record of the scenario under which it is operating.  
[A.A.C. R18-2-306(A)(11)]

2. Operations and Maintenance Plans

- a. The Permittee shall prepare written operations and maintenance plans for each Finish Mill, Storage Bin, Conveying System Transfer Point, Bulk Unloading System, and Bulk Loading System listed in Condition II.A.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)}]
  - (1) Each plan required by Condition II.D.2.a shall be submitted to the Director for review and approval.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)}]
  - (2) Prior to startup of each Finish Mill, Storage Bin, Conveying System Transfer Point, Bulk Unloading System, and Bulk Loading System listed in Condition II.A, the Permittee shall obtain the Director's written approval for the corresponding operations and maintenance plan and shall submit an application for revising the permit to include the monitoring procedures in the approved plan. These monitoring procedures shall be incorporated into the permit through a significant permit revision, which includes a 30-day public notice period and a 45-day EPA review period per A.A.C. R18-2-320(D).  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)}]
- b. Each plan required by Condition II.D.2.a shall include procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits of Conditions II.B.2.a and II.B.2.c.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(1)}]
- c. For each Storage Bin, Conveying System Transfer Point, Bulk Unloading System, and Bulk Loading System listed in Condition II.A, the plan required by Condition II.D.2.a shall include procedures to be used to periodically monitor the affected source. Such procedures must include the provisions of Condition II.D.4.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)}]

- d. Failure to comply with any provision of an operations and maintenance plan approved by the Director in accordance with Condition II.D.2.a(2) shall be a violation.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(b)}]

3. Monitoring and Recordkeeping for Finish Mill Dust Collectors

- a. *The Permittee shall install, calibrate, maintain, and operate Bag Leak Detection Systems for detecting leaks in Dust Collectors DC-13.19, DC-13.20, and DC-13.40.*

[A.A.C. R18-2-331(A)(3)(c) and R18-2-1101(B)(49) {40 CFR § 63.1350(m)}]  
Material Permit Conditions are indicated with underline and italics.

- b. Each Bag Leak Detection System required by Condition II.D.3.a shall meet the requirements of Conditions II.D.3.b(1) through II.D.3.b(11).

- (1) Each Bag Leak Detection System must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 0.0044 grains per actual cubic foot or less. “Certify” shall mean that the instrument manufacturer has tested the instrument on gas streams having a range of particle size distributions and confirmed by means of valid filterable PM tests that the minimum detectable concentration limit is 0.0044 grains per actual cubic foot or less.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(1)}]

- (2) The sensor on each Bag Leak Detection System must provide output of relative PM emissions.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(2)}]

- (3) Each Bag Leak Detection System must have an alarm that will activate automatically when it detects a significant increase in relative PM emissions greater than a preset level.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(3)}]

- (4) The presence of an alarm condition should be clearly apparent to facility operating personnel.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(4)}]

- (5) For a positive-pressure fabric filter, each compartment or cell must have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector must be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(5)}]

- (6) Each Bag Leak Detection System must be installed, operated, adjusted, and maintained so that it is based on the manufacturer’s written specifications and recommendations.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(6)}]

(7) The baseline output of each Bag Leak Detection System must be established as follows:

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(7)}]

(a) Adjust the range and the averaging period of the device; and

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(7)(i)}]

(b) Establish the alarm set points and the alarm delay time.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(7)(ii)}]

(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations and maintenance plan required by Condition II.D.2.a. In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 1 calendar year period unless a responsible official as defined in 40 CFR § 63.2 certifies in writing to the Director that the Dust Collector has been inspected and found to be in good operating condition.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(8)}]

(9) The Permittee shall continuously record the output from the Bag Leak Detection System during periods of normal operation. Normal operation does not include periods when the Bag Leak Detection System is being maintained or during startup, shutdown or malfunction.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(9)}]

(10) Except as provided in Condition II.D.3.b(11), each time the alarm activates, alarm time will be counted as the actual amount of time taken by the Permittee to initiate corrective actions.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(9)}]

(11) If inspection of the Dust Collector demonstrates that no corrective actions are necessary, no alarm time will be counted.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(m)(9)}]

c. Each 6-month block period for which the Bag Leak Detection System alarm time, as determined in accordance with Conditions II.D.3.b(9) through II.D.3.b(11), exceeds the limit established in Condition II.B.2.b shall be considered a period of excess emissions.

[A.A.C. R18-2-306(A)(3)]

d. The Permittee shall report excess emissions and deviations in accordance with Sections XII.A and XII.B, respectively, in Attachment "A" of this permit.

[A.A.C. R18-2-306(A)(5)(b)]

4. Periodic Visible Emissions Observations

For each Storage Bin, Conveying System Transfer Point, Bulk Unloading System, and Bulk Loading System listed in Condition II.A, the Permittee shall conduct periodic visible emissions observations in accordance with Conditions II.D.4.a through II.D.4.g.

- a. Except as provided in Condition II.D.4.e, the Permittee must conduct a monthly 1-minute visible emissions test of the affected source in accordance with Method 22 of appendix A to 40 CFR part 60. The test must be conducted while the affected source is in operation.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)(i)}]

- b. If no visible emissions are observed in six consecutive monthly tests for an 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 must 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.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)(ii)}]

- c. If no visible emissions are observed during the semi-annual test for an 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 must 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.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)(iii)}]

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

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)(iv)}]

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

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)(v)}]

- f. If any partially enclosed or unenclosed conveying system transfer point is located in a building, the Permittee shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of Conditions II.D.4.a through II.D.4.d for each such

conveying system transfer point located within the building, or for the building itself, according to Condition II.D.4.g.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)(vi)}]

- g. If visible emissions from a building are monitored pursuant to Condition II.D.4.f, the requirements of Conditions II.D.4.a through II.D.4.d apply to the monitoring of the building, and the Permittee must also test visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1350(a)(4)(vii)}]

5. Recordkeeping, Reporting, and Notification Requirements for HAP Emission Standards

- a. The Permittee shall maintain the following records:

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)}]

- (1) All records as required by 40 CFR §§ 63.10(b)(2) and (b)(3).

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)}]

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

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)(1)}]

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

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)(2)}]

- (4) If the Permittee has been granted a waiver under 40 CFR § 63.8(f)(6), any information demonstrating whether the source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(b)(3)}]

- b. The Permittee shall comply with the reporting requirements specified in 40 CFR § 63.10 as follows:

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)}]

- (1) As required by 40 CFR § 63.10(d)(2), the Permittee shall report the results of performance tests as part of the notification of compliance status.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(1)}]

- (2) As required by 40 CFR § 63.10(d)(3), the Permittee shall report the opacity results from tests required by Conditions II.E.4.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(2)}]

- (3) As required by 40 CFR § 63.10(d)(5), if actions taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the Permittee's startup, shutdown, and

malfunction plan specified in 40 CFR § 63.6(e)(3), the Permittee shall state such information in a semi-annual 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.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(4)}]

- (4) 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 make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (fax) transmission. The immediate report shall be followed by a letter, 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.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(5)}]

- (5) As required by 40 CFR § 63.10(e)(2), the Permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by 40 CFR § 63.8(e). The Permittee shall submit the report simultaneously with the results of the performance test.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(6)}]

- (6) As required by 40 CFR § 63.10(e)(3), the Permittee shall submit an excess emissions and continuous monitoring system performance report for any event when the data provided by the continuous monitoring system indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(8)}]

- (7) The Permittee shall submit a summary report semiannually, along with the compliance certification, which contains the information specified in 40 CFR § 63.10(e)(3)(vi). In addition, the summary report shall include all failures to comply with any provision of any operation and maintenance plan required by Condition II.D.2.a.

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(9)}]

- (8) If the total continuous monitoring system downtime for any continuous monitoring system for the reporting period is 10 percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report required by Condition II.D.5.b(7).

[R18-2-1101(B)(49) {40 CFR § 63.1354(b)(10)}]

c. The Permittee shall comply with the notification requirements in 40 CFR § 63.9 as follows:

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)}]

(1) Notification of performance tests, as required by 40 CFR §§ 63.7 and 63.9(e).

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)(2)}]

(2) Notification of opacity and visible emission observations required by Condition II.E.4 in accordance with 40 CFR §§ 63.6(h)(5) and 63.9(f).

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)(3)}]

(3) Notification of compliance status, as required by 40 CFR § 63.9(h).

[R18-2-1101(B)(49) {40 CFR § 63.1353(b)(5)}]

d. The Permittee shall maintain files of all information (including all reports and notifications) required in a form suitable and readily available for inspection and review as required by 40 CFR § 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1355(a)}]

## E. Testing Requirements

1. The Permittee shall perform initial and periodic performance tests in accordance with Conditions II.E.2 through II.E.5. Initial performance tests shall be performed within 60 days after achieving the maximum production rate at which the affected source will be operated, but not later than 180 days after initial startup of such affected source.

[A.A.C. R18-2-406(A)(4) and R18-2-1101(B)(1) {40 CFR § 63.7(a)}]

2. For each performance test required pursuant to Condition II.E.1, the Permittee shall submit a test plan to the Director in accordance with Condition XVIII.D of Attachment "A."

[A.A.C. R18-2-312(B) and R18-2-1101(B)(49) {40 CFR § 63.1349(a)}]

3. Performance test results shall be documented in complete test reports that contain the information required by Conditions II.E.3.a through II.E.3.k.

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)}]

a. A brief description of the process and the air pollution control system;

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(1)}]

b. Sampling location description(s);

[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(2)}]

- c. A description of sampling and analytical procedures and any modifications to standard procedures;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(3)}]
- d. Test results;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(4)}]
- e. Quality assurance procedures and results;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(5)}]
- f. Records of operating conditions during the test, preparation of standards, and calibration procedures;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(6)}]
- g. Raw data sheets for field sampling and field and laboratory analyses;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(7)}]
- h. Documentation of calculations;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(8)}]
- i. All data recorded and used to establish parameters for compliance monitoring;  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(9)}]
- j. Any other information required by the test method; and  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)(10)}]
- k. All other relevant information.  
[A.A.C. R18-2-406(A)(4), R18-2-1101(B)(49) {40 CFR § 63.1349(a)}]

4. Test Methods and Procedures for Opacity of Visible Emissions

- a. The Permittee shall demonstrate initial compliance with Conditions II.B.2.a and II.B.2.c by conducting tests in accordance with Method 9 of Appendix A to 40 CFR Part 60.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(2)}]
- b. Each performance test required by Condition II.E.4.a shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 40 CFR § 63.7(e).  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(2)}]
- c. The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the opacity standard.  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(2)}]
- d. The duration of the Method 9 performance test shall be 3 hours (thirty 6-minute averages), except that the duration of the Method 9 performance

test may be reduced to 1 hour if Conditions II.E.4.d(1) and II.E.4.d(2) are met:

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(2)}]

- (1) There are no individual readings greater than 10 percent opacity;  
[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(2)(i)}]
- (2) There are no more than three readings of 10 percent for the first 1-hour period.

[A.A.C. R18-2-1101(B)(49) {40 CFR § 63.1349(b)(2)(ii)}]

5. Test Methods and Procedures for Particulate Matter

- a. The Permittee shall demonstrate initial compliance with Conditions II.B.2.d and II.B.2.e by conducting performance tests as follows.

[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

- (1) Performance tests shall be conducted using Method 5 of Appendix A to 40 CFR Part 60.
- (2) Each performance test shall consist of three separate runs.
- (3) Each test run shall be conducted for at least one hour, and the minimum sample volume shall be 30 dscf.

[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

- (4) The average of the three runs shall be used to determine compliance.

[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

- b. The performance tests required by Condition II.E.5.a shall be repeated once at least 6 months, but not more than 18 months, prior to the date of permit expiration.

[A.A.C. R-18-406(A)(4) and R-18-406(A)(5)]

F. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: 40 CFR § 63.1347, 40 CFR § 63.1348, 40 CFR § 63.1349(b)(2), 40 CFR § 63.1350(b), 40 CFR § 63.1353(a), 40 CFR § 63.1353(b), 40 CFR § 63.1354(a), 40 CFR § 63.1354(b), 40 CFR § 63.1355(a), and 40 CFR § 63.1355(b), and 40 CFR § 63.1350(e).

### III. LIMESTONE PROCESSING PLANT

#### A. List of Emission Units

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Impact Primary Crusher (IPC-1.3)	Limestone Crusher, 495 tons per hour	Dust Collector (DC-1.6)	DC-1.6
First Overland Belt Conveyor (OC-1.5)	Belt Conveyor, 500 tons per hour	Dust Collector (DC-1.8)	DC-1.8
Second Overland Belt Conveyor (OC-1.7)	Belt Conveyor, 500 tons per hour	Dust Collector (DC- 1.10)	DC-1.10
Third Overland Belt Conveyor (OC-1.9)	Belt Conveyor, 500 tons per hour	Dust Collector (DC- 1.11)	DC-1.11
Belt Conveyor with Tripper (BC-2.1)	Belt Conveyor, 500 tons per hour	Dust Collector (DC- 1.11)	DC-1.11
Limestone Covered Stockpile Building (CS- 2.2)	Storage Building, 51,000 tons	n/a	n/a

#### B. Emission Limits/Standards

##### 1. Operating Limitation

The Permittee shall not cause or allow the Impact Primary Crusher or any belt conveyor listed in Condition III.A to operate for more than 3,120 hours in any consecutive 365-day period.

[A.A.C. R18-2-306(A)(2)]

##### 2. Particulate Matter Emission Standards

a. Except as provided in Condition III.B.2.d, the Permittee shall not cause or allow to be emitted into the atmosphere from any transfer point on a belt conveyor any stack emissions which contain particulate matter (PM) in excess of 0.008 gr/dscf, based on a 3-hour average.

[A.A.C. R18-2-406(A)(4) and R18-2-901(66) {40 CFR § 60.672(a)(1)}]

b. Except as provided in Condition III.B.2.d, the Permittee shall not cause or allow to be emitted into the atmosphere from any transfer point on a belt conveyor any visible stack emissions which exhibit opacity greater than 7 percent, based on a 6-minute average.

[A.A.C. R18-2-331(A)(3)(f) and R18-2-901(66) {40 CFR § 60.672(a)(2)}]

c. Except as provided in Condition III.B.2.d, the Permittee shall not cause or allow to be emitted into the atmosphere from any transfer point on a belt conveyor any fugitive emissions which exhibit opacity greater than 10 percent, based on a 6-minute average.

[A.A.C. R18-2-331(A)(3)(f) and R18-2-901(66) {40 CFR § 60.672(b)}]

d. Conditions III.B.2.a through III.B.2.c shall not apply to any transfer point that is located within the Limestone Covered Stockpile Building.

[A.A.C. R18-2-406(A)(4) and R18-2-901(66) {40 CFR § 60.672(e)}]

e. The Permittee shall not cause or allow to be emitted into the atmosphere from the Impact Primary Crusher any stack emissions which contain particulate matter (PM) in excess of 0.008 grains per dry standard cubic feet, based on a 3-hour average.

[A.A.C. R18-2-406(A)(4) and R18-2-901(66) {40 CFR § 60.672(a)(1)}]

f. The Permittee shall not cause or allow to be emitted into the atmosphere from the Impact Primary Crusher any visible stack emissions which exhibit opacity greater than 7 percent, based on a 6-minute average.

[A.A.C. R18-2-331(A)(3)(f) and R18-2-901(66) {40 CFR § 60.672(a)(2)}]

Material Permit Conditions are indicated with underline and italics.

g. The Permittee shall not cause or allow to be emitted into the atmosphere from the Impact Primary Crusher any visible fugitive emissions which exhibit opacity greater than 10 percent, based on a 6-minute average.

[A.A.C. R18-2-331(A)(3)(f) and R18-2-901(66) {40 CFR § 60.672(b)}]

Material Permit Conditions are indicated with underline and italics.

h. The Permittee shall not cause or allow to be emitted into the atmosphere from the Limestone Covered Stockpile Building any visible fugitive emissions.

[A.A.C. R18-2-406(A)(4) and R18-2-901(66) {40 CFR § 60.672(e)(1)}]

i. The Permittee shall not cause or allow to be emitted into the atmosphere from any Dust Collector gases which contain particulate matter (PM) in excess of the following emission rates, based on a 3-hour average.

Emission Point ID Number	PM Emission Limit (lbs/hr)
DC-1.6	0.810
DC-1.8	0.153
DC-1.10	0.153
DC-1.11	0.305

[A.A.C. R18-2-406(A)(5)]

3. Alternate Operating Scenario

During any calendar day in which the facility operates under the Alternate Operating Scenario, as described in Condition II.B.1.e herein, the following emissions units shall not be operated:

- a. Impact Primary Crusher (IPC-1.3);
- b. First Overland Belt Conveyor (OC-1.5);
- c. Second Overland Belt Conveyor (OC-1.7); and
- d. Third Overland Belt Conveyor (OC-1.9).

[A.A.C. R18-2-306(A)(11)]

C. Air Pollution Control Requirements

*At all times when the Impact Primary Crusher or any Belt Conveyors listed in Condition III.A are in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate the associated Dust Collector(s) in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

D. Monitoring, Recordkeeping, and Reporting Requirements

1. Monitoring and Recordkeeping for Operational Limitation

The Permittee shall maintain daily records of the operating time for the Impact Primary Crusher and for each belt conveyor listed in Condition III.A.

[A.A.C. R18-2-306(A)(3)(c)]

2. Monitoring and Recordkeeping for Dust Collectors:

- a. *The Permittee shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, devices for monitoring and recording the pressure drop across each dust collector listed in Condition III.A.*

[A.A.C. R18-2-331(A)(3)(c) and R18-2-406(A)(4)]

- b. The Permittee shall perform monthly inspections of each dust collector listed in Condition III.A, and the associated pressure drop continuous parameter monitoring systems, in accordance with the manufacturers' recommended procedures. The Permittee shall take corrective action following the discovery of any abnormal operation or required maintenance of any dust collector pressure drop continuous parameter monitoring system as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, but no later than within 24 hours following detection.

[A.A.C. R18-2-406(A)(4)]

- c. If the pressure drop across any dust collector is outside the range  $\pm 20$  percent from the average pressure drop measured during the most recent performance test for that dust collector, the Permittee shall initiate investigation of the dust collector within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, the Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the emission standards in Conditions III.B.2.a, III.B.2.b, III.B.2.e, III.B.2.f, and III.B.2.i. If the pressure drop remains outside of the range for 72 consecutive hours after the first occurrence, the Permittee shall submit a compliance schedule to the Director in accordance with Condition XII.D of Attachment "A."

[A.A.C. R18-2-406(A)(4)]

### 3. Reporting of Performance Test Results

The Permittee shall submit written reports of the results of all performance tests required by Conditions III.E.1 and III.E.2.

[A.A.C. 406(A)(4) and R18-2-901(66) {40 CFR § 60.676(f)}]

### 4. Notifications Required by New Source Performance Standards

- a. The requirement under 40 CFR § 60.7(a)(2) for notification of the anticipated date of initial startup of the affected facilities listed in Condition III.A.

[A.A.C. R18-2-901(66) {40 CFR § 60.676(h)}]

- b. A notification of the actual date of initial startup of each affected facility listed in Condition III.A shall be submitted to the Director.

[A.A.C. R18-2-901(66) {40 CFR § 60.676(i)}]

- c. If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any performance test required by Conditions III.E.1 and III.E.2, the Permittee shall submit a notice to the Director at least 7 days prior to any rescheduled performance test.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(g)}]

## E. Testing Requirements

- 1. The Permittee shall perform initial and periodic performance tests in accordance with Condition III.E.2. Initial performance tests shall be performed within 60 days after achieving the maximum production rate at which the affected source will be operated, but not later than 180 days after initial startup of such affected source.

[A.A.C. R18-2-406(A)(4) and R18-2-901(1) {40 CFR 60.8(a)}]

### 2. Test Methods and Procedures for Particulate Matter

- a. The Permittee shall determine compliance with Conditions III.B.2.a, III.B.2.e, and III.B.2.i as follows:

- (1) EPA Reference Method 5 or EPA Reference Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 60 dscf.

[A.A.C. R18-2-406(A)(4) and R18-2-901(66) {40 CFR § 60.675(b)(1)}]

- (2) For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 250 °F, to prevent water condensation on the filter.

[A.A.C. R18-2-406(A)(4) and R18-2-901(66) {40 CFR § 60.675(b)(1)}]

- b. The Permittee shall determine compliance with Conditions III.B.2.b and III.B.2.f using EPA Reference Method 9 and the procedures in 40 CFR § 60.11.

[A.A.C. R18-2-406(A)(4) and R18-2-901(66) {40 CFR § 60.675(b)(2)}]

- c. The Permittee shall determine compliance with Conditions III.B.2.c and III.B.2.g as follows:

- (1) Except as provided in Conditions III.E.2.c(4) and III.E.2.c(5), the Permittee shall use EPA Reference Method 9 and the procedures in 40 CFR § 60.11.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(c)(1)}]

- (2) The minimum distance between the observer and the emission source during Method 9 tests shall be 4.57 meters (15 feet).

[A.A.C. R18-2-901(66) {40 CFR § 60.675(c)(1)(i)}]

- (3) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(c)(1)(ii)}]

- (4) The duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

[A.A.C. R18-2-901(66) {40 CFR § 60.675(c)(3)}]

- (a) There are no individual readings greater than 10 percent opacity; and

[A.A.C. R18-2-901(66) {40 CFR § 60.675(c)(3)(i)}]

- (b) There are no more than 3 readings of 10 percent for the 1-hour period.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(c)(3)(ii)}]

- (5) If emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected

facility cannot be read, either of the following procedures may be used:

[A.A.C. R18-2-901(66) {40 CFR § 60.675(e)(1)}]

- (a) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(e)(1)(i)}]

- (b) Separate the emissions so that the opacity of emissions from each affected facility can be read.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(e)(1)(ii)}]

d. The Permittee shall determine initial compliance with Condition III.B.2.h as follows.

- (1) The Permittee shall use EPA Reference Method 22 to determine fugitive emissions.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(d)}]

- (2) The performance test shall be conducted while all conveyor belts inside the Limestone Covered Stockpile Building are operating.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(d)}]

- (3) The performance test shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

[A.A.C. R18-2-901(66) {40 CFR § 60.675(d)}]

e. The performance tests required by Conditions III.E.2.a through III.E.2.d shall be repeated once at least 6 months, but not more than 18 months, prior to the date of permit expiration.

[A.A.C. R-18-406(A)(4)]

## F. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-901(66) {40 CFR § 60.672, 40 CFR § 60.675(b)(1), 40 CFR § 60.675(c), 40 CFR § 60.675(d), 40 CFR § 60.675(e), 40 CFR § 60.675(g), 40 CFR § 60.675(h), 40 CFR § 60.676(a), 40 CFR § 60.676(f), and 40 CFR § 60.676(g)}.

#### IV. OTHER MATERIAL HANDLING ACTIVITIES

##### A. List of Emission Units

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
First Belt Conveyor for Transporting Coal to Mill (BC-12.3)	Belt Conveyor, 20 tons per hour	Dust Collector (DC-12.7.1)	DC-12.7.1
Second Belt Conveyor for Transporting Coal to Mill (BC-12.4)	Belt Conveyor, 20 tons per hour	Dust Collector (DC-12.7.1)	DC-12.7.1
High-Calcium Limestone Storage Pile (FE1)	Storage Pile, 495 tons per hour	Permanent Total Enclosure (CS-2.2)	FE1
Low-Calcium Limestone Storage Pile (FE2)	Storage Pile, 495 tons per hour	Permanent Total Enclosure (CS-2.2)	FE2
Coal Storage Pile (FE3)	Storage Pile, 400 tons per hour	Permanent Total Enclosure (CS-4.10)	FE3
Iron Ore Storage Pile (FE4)	Storage Pile, 400 tons per hour	Permanent Total Enclosure (CS-4.10)	FE4
Aluminum Source Storage Pile (FE5)	Storage Pile, 400 tons per hour	Permanent Total Enclosure (CS-4.10)	FE5
Front End Loader Dump - Coal Reclaim (FE6)	Reclaim Operation, 250 tons per hour	Permanent Total Enclosure (CS-4.10)	FE6
Front End Loader Dump - Iron Ore Reclaim (FE7)	Reclaim Operation, 250 tons per hour	Permanent Total Enclosure (CS-4.10)	FE7
Front End Loader Dump - Aluminum Reclaim (FE8)	Reclaim Operation, 250 tons per hour	Permanent Total Enclosure (CS-4.10)	FE8
End Dump Transport Truck to Gypsum Storage Pile (FE9)	Storage Pile, 100 tons per hour	n/a	FE9
Front End Loader Dump - Gypsum Reclaim (FE10)	Reclaim Operation, 250 tons per hour	n/a	FE10

B. Emission Limits/Standards

1. Operating Limitations

a. The Permittee shall not cause or allow the amount of material transferred to the Gypsum Storage Pile to exceed any of the following rates:

- (1) 300 tons in any 3-hour period;
- (2) 400 tons in any 24-hour period; nor
- (3) 124,800 tons in any 365-day period.

[A.A.C. R18-2-306(A)(2)]

b. The Permittee shall not cause or allow the amount of material reclaimed from the Gypsum Storage Pile to exceed any of the following rates:

- (1) 750 tons in any 3-hour period;
- (2) 1,000 tons in any 24-hour period; nor
- (3) 312,000 tons in any 365-day period.

[A.A.C. R18-2-306(A)(2)]

2. Particulate Matter Emission Standards

a. The Permittee shall not cause or allow to be emitted into the atmosphere from any transfer point on any belt conveyor listed in Section IV.A any gases which contain particulate matter (PM) in excess of 0.008 grains per dry standard cubic feet, based on a 3-hour average.

[A.A.C. R18-2-406(A)(4)]

b. The Permittee shall not cause or allow to be emitted into the atmosphere from any transfer point on any belt conveyor listed in Section IV.A any gases which contain particulate matter (PM) in excess of 0.104 lbs per hour, based on a 3-hour average.

[A.A.C. R18-2-406(A)(5)]

c. The Permittee shall not cause or allow to be emitted into the atmosphere from any enclosed storage pile or reclaim operation listed in Condition IV.A any visible fugitive emissions.

[A.A.C. R18-2-406(A)(4)]

C. Air Pollution Control Requirements

*At all times when any belt conveyor listed in Section IV.A is in operation, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate the associated Dust Collector(s) in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

D. Monitoring, Recordkeeping, and Reporting Requirements

1. Monitoring and Recordkeeping for Operational Limitations

The Permittee shall maintain hourly and daily records of the amount of material transferred to and reclaimed from the Gypsum Storage Pile.

[A.A.C. R18-2-306(A)(3)(c)]

2. Monitoring and Recordkeeping for Particulate Matter Emission Standards

a. The Permittee shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a device for monitoring and recording the pressure drop across Dust Collector DC-12.7.1.

[A.A.C. R18-2-331(A)(3)(c) and R18-2-406(A)(4)]

b. The Permittee shall perform monthly inspections of Dust Collector DC-12.7.1, and the associated pressure drop continuous parameter monitoring system, in accordance with the manufacturers' recommended procedures. The Permittee shall take corrective action following the discovery of any abnormal operation or required maintenance of the dust collector pressure drop continuous parameter monitoring system as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, but no later than within 24 hours following detection.

[A.A.C. R18-2-406(A)(4)]

c. If the pressure drop across Dust Collector DC-12.7.1 is outside the range  $\pm 20$  percent from the average pressure drop measured during the most recent performance test, the Permittee shall initiate investigation of the dust collector within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, the Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the emission standards in Conditions IV.B.2.a and IV.B.2.b. If the pressure drop remains outside of the range for 72 consecutive hours after the first occurrence, the Permittee shall submit a compliance schedule to the Director in accordance with Condition XII.D of Attachment "A."

[A.A.C. R18-2-406(A)(4)]

d. Periodic Visible Emissions Observations

For each building or enclosure listed in Condition IV.A, the Permittee shall conduct periodic visible emissions observations in accordance with Conditions IV.D.2.d(1) through IV.D.2.d(7).

(1) Except as provided in Condition IV.D.2.d(5), the Permittee must conduct a monthly 1-minute visible emissions test of the affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation.

[A.A.C. R18-2-406(A)(4)]

- (2) If no visible emissions are observed in six consecutive monthly tests for an 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 must 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.

[A.A.C. R18-2-406(A)(4)]

- (3) If no visible emissions are observed during the semi-annual test for an 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 must 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.

[A.A.C. R18-2-406(A)(4)]

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

[A.A.C. R18-2-406(A)(4)]

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

[A.A.C. R18-2-406(A)(4)]

- (6) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the Permittee shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of Conditions IV.D.2.d(1) through IV.D.2.d(4) for each such conveying system transfer point located within the building, or for the building itself, according to Condition IV.D.2.d(7).

[A.A.C. R18-2-406(A)(4)]

- (7) If visible emissions from a building are monitored pursuant to Condition IV.D.2.d(6), the requirements of Conditions IV.D.2.d(1) through IV.D.2.d(4) apply to the monitoring of the building, and the Permittee must also test visible emissions from

each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.

[A.A.C. R18-2-406(A)(4)]

E. Testing Requirements

1. The Permittee shall perform initial and periodic performance tests in accordance with Condition IV.E.2. Initial performance tests shall be performed within 60 days after achieving the maximum production rate at which the Belt Conveyor to Coal Grinding Department will be operated, but not later than 180 days after initial startup of such affected source.

[A.A.C. R18-2-406(A)(4)]

2. Test Methods and Procedures for Particulate Matter

- a. The Permittee shall determine initial compliance with Conditions IV.B.2.a and IV.B.2.b as follows:

- (1) Except as provided in Condition IV.E.2.a(2), EPA Reference Method 5 shall be used to determine the particulate matter concentration. The sample volume shall be at least 60 dscf.

[A.A.C. R18-2-406(A)(4)]

- (2) If the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 250 °F, to prevent water condensation on the filter.

[A.A.C. R18-2-406(A)(4)]

- b. The performance test required by Condition IV.E.2.a shall be repeated once at least 6 months, but not more than 18 months, prior to the date of permit expiration.

[A.A.C. R-18-406(A)(4)]

F. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-406(A)(4)

**V. EMERGENCY GENERATOR**

**A. List of Emission Units**

Emission Unit Name (Equipment ID Number)	Emission Unit Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Emergency Generator (DEG-9.11)	Reciprocating internal combustion engine, diesel fuel-fired, driving emergency electrical generator, 210 kW output	Not applicable	DEG-9.11

**B. Emission Limits/Standards**

1. The Permittee shall not cause or allow to be combusted in the Emergency Generator any fuel other than No. 2 diesel fuel.

[A.A.C. R18-2-306(A)(2)]

2. The Permittee shall not cause or allow the operation of the Emergency Generator to exceed the limits listed in Conditions V.B.2.a and V.B.2.b.

[A.A.C. R18-2-306(A)(2)]

- a. The Permittee shall not cause or allow the fuel usage in the Emergency Generator to exceed 4,533 gallons per year. Compliance with this fuel usage limit shall be determined on a monthly rolling 12-month sum basis and shall exclude fuel burned during periods of emergency situations.

[A.A.C. R18-2-306(A)(2)]

- b. The Permittee shall not cause or allow the Emergency Generator to operate in excess of 50 hours per year. The following shall be excluded from consideration in determining compliance with this limitation:

- (1) Operation for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine.

- (2) Operation in emergency situations.

[A.A.C. R18-2-306.01(A)]

3. The Permittee shall design, install, maintain, and operate the Emergency Generator internal combustion engine in such a manner as to ensure the following:

[A.A.C. R-18-406(A)(4)]

- a. The internal combustion engine shall be certified by the manufacturer to be compliant with the following non-road engine emission standards, for engines with rated power not less than 130 kilowatts and nor more than 225 kilowatts, as codified at 40 CFR § 89.112:

- (1) For NO<sub>x</sub> plus nonmethane hydrocarbons, the “Tier 3” emission standard of 4.0 grams per kilowatt-hour.
- (2) For CO, the “Tier 3” emission standard of 3.5 grams per kilowatt-hour.
- (3) For PM, the “Tier 2” emission standard of 0.20 grams per kilowatt-hour.

[A.A.C. R-18-406(A)(4)]

- b. The internal combustion engine shall be installed, maintained, and operated in accordance with manufacturer’s instructions and recommendations.

[A.A.C. R-18-406(A)(4)]

4. The Permittee shall not cause or allow to be emitted to the atmosphere from the Emergency Generator smoke for any period greater than 10 consecutive seconds which exceeds 40 percent opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

[A.A.C. R18-2-719(E)]

5. Except as provided by Conditions V.B.5.a and V.B.5.b, fuel shall not be combusted in the Emergency Generator except during periods when a valid visible emissions observation can be conducted in accordance with EPA Reference Method 9.

- a. Condition V.B.5 shall not apply to periods of emergency usage.
- b. Operation of an internal combustion engine may occur during periods when a valid visible emissions observation in accordance with EPA Reference Method 9 is not possible, provided that the requirements of Conditions V.C.1.a and V.C.1.b are met for that calendar day.

[A.A.C. R18-2-306(A)(3)]

C. Monitoring, Recordkeeping, and Reporting Requirements

1. The Permittee shall demonstrate compliance with the opacity limitation in Condition V.B.4 as follows:
  - a. A certified EPA Reference Method 9 observer shall conduct visible emissions observations on the Emergency Generator. All visible emissions observations shall be conducted in accordance with EPA Reference Method 9.
  - b. Except as provided by Conditions V.C.1.c and V.C.1.d, visible emissions observations required by Condition V.C.1.a shall be conducted for the Emergency Generator for at least one six-minute period each calendar day.

- c. Visible emissions observations shall not be required for the Emergency Generator for any calendar day on which no fuel is combusted in the Emergency Generator.
- d. Visible emissions observations shall not be required for the Emergency Generator for any calendar day on which the only fuel combustion in the Emergency Generator occurs during emergency operation.

[A.A.C. R18-2-306(A)(3)]

- 2. The Permittee shall maintain on-site, and readily available for inspection, a record of each visible emissions observation conducted as required by Conditions V.C.1.a and V.C.1.b. Each visible emissions observation record shall include the following:

- a. The emissions unit for which the visible emissions observation was performed;
- b. Location, date, and time of the visible emissions observation;
- c. The results of the visible emissions observation;
- d. The operating conditions existing at the time of the visible emissions observation; and
- e. The name of the observer.

[A.A.C. R18-2-306(A)(4)]

- 3. The Permittee shall maintain readily available records of the following:

- a. Records of the type and quantity of fuel combusted in the Emergency Generator.
  - (1) Records required by Condition V.C.3.a shall be created and maintained for each calendar day on which fuel is combusted in the Emergency Generator.
  - (2) Records required by Condition V.C.3.a shall indicate the sulfur content of the fuel combusted and the method of determination.
  - (3) At the end of each calendar month, the Permittee shall calculate and record the rolling 12-month fuel usage for the Emergency Generator. This value shall be calculated as the sum of the monthly fuel usage for the most recent month and the 11 previous months, and shall be recorded within three calendar days after the end of each calendar month.
- b. Records of the manufacturer's certification of conformity, demonstrating compliance with Condition V.B.3.a or V.B.3.b, as applicable. These records shall be maintained for the life of the Emergency Generator.

- c. Records of the manufacturer's instructions and recommendations relating to operation and maintenance. These records shall be maintained for the life of the Emergency Generator.
- d. Records of all maintenance performed on the internal combustion engine. These records shall be created and maintained for each calendar day on which maintenance is performed on the Emergency Generator.

[A.A.C. R18-2-306(A)(3)]

4. The Permittee shall submit the initial notification in 40 CFR §§ 63.9 (b) by the date specified. The notification should include the following:

- a. The information in 40 CFR §§ 63.9(b)(2)(i) through (v).
- b. A statement that the internal combustion engine has no additional requirements.
- c. An explanation of the basis of the exclusion (i.e., that it operates exclusively as an emergency, stationary, reciprocating internal combustion engine).

[40 CFR 63.6590(b), 40 CFR 63.6645(d)]

D. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-406(A)(4), R18-2-719(E).

[A.A.C. R18-2-325]

## VI. QUARRY OPERATIONS AND VEHICLE TRAFFIC

### A. List of Emission Units

Emission Unit/Affected Source Name (Equipment ID Number)	Emission Unit/ Affected Source Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Wet Drilling (DR-1)	Drilling of limestone	n/a	DR-1
Limestone Blasting (BL-1)	Blasting with Ammonium Nitrate/Fuel Oil mixture	n/a	BL-1
Truck Loading with Payloader (QE-1)	495 tons per hour	n/a	QE-1
Truck Unloading (QE-2) into Primary Crusher Hopper	495 tons per hour	Water Dedusting System (WD-1.4)	QE-2
Unpaved roads	Used by Payloader, haul trucks, and water truck	Water application	n/a
Paved roads	Used by plant maintenance trucks, gypsum trucks, and customer cement trucks	Water application and vacuuming	n/a

### B. Emission Limits/Standards

#### 1. Operational Limitations

- a. The Permittee shall not cause or allow blasting in the quarry to exceed 1 blast per day nor 48 blasts per year.

[A.A.C. R18-2-306(A)(2)]

- b. The Permittee shall not cause or allow the use of any explosive other than Ammonium Nitrate/Fuel Oil mixture in the quarry.

[A.A.C. R18-2-306(A)(2)]

- c. The Permittee shall not cause or allow explosive usage in the quarry to exceed 5.26 tons per blast.

[A.A.C. R18-2-306(A)(2)]

- d. The Permittee shall not cause or allow the amount of limestone quarried and processed to exceed 8,123.1 tons per calendar day nor 1,056,000 tons per 365-day period.

[A.A.C. R18-2-306(A)(2)]

2. Particulate Matter Emission Standards

- a. All roads within the Cement Plant Process Area Boundary shall be paved and shall be maintained in a paved condition.

[A.A.C. R18-2-306(A)(2)]

b. Dust Control Procedures for Paved Roads

- (1) All paved roads shall be watered and vacuumed on all operating days except when roads are damp due to normal precipitation.

[A.A.C. R18-2-406(A)(4)]

- (2) The maximum speed on paved roads shall be restricted to 20 miles per hour;

[A.A.C. R18-2-406(A)(4)]

c. Dust Control Procedures for Unpaved Roads

- (1) All unpaved roads subject to vehicle traffic shall be watered on all operating days except when roads are damp due to normal precipitation.

[A.A.C. R18-2-406(A)(4)]

- (2) The maximum speed on unpaved roads shall be restricted to 15 miles per hour;

[A.A.C. R18-2-406(A)(4)]

- (3) The roadways shall be watered frequently enough to assure compliance;

[A.A.C. R18-2-406(A)(4)]

- (4) Berms shall be installed around the areas which are not used by traffic to restrict usage;

[A.A.C. R18-2-406(A)(4)]

- (5) Spilled materials shall be removed within eight hours of occurrence. This material shall be collected either manually or by using a vacuum equipped truck.

[A.A.C. R18-2-406(A)(4)]

3. Alternate Operating Scenario

During any calendar day in which the facility operates under the Alternate Operating Scenario, as described in Condition II.B.1.e herein, no emissions units or emitting activities listed in Condition VI.A shall be operated, except that vehicle traffic on paved roads within the Cement Plant Process Area Boundary may continue.

[A.A.C. R18-2-306(A)(11)]

C. Air Pollution Control Requirements

*At all times when material is being unloaded into the Primary Crusher Hopper, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain and operate the Water Dedusting System in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[A.A.C. R18-2-331(A)(3)(d) and (e) and R18-2-406(A)(4)]  
Material Permit Conditions are indicated with underline and italics.

D. Monitoring, Recordkeeping, and Reporting Requirements

1. Monitoring and Recordkeeping for Operational Limitations

a. The Permittee shall maintain daily records of the number of blasts performed in the quarry.

[A.A.C. R18-2-306(A)(2)]

b. The Permittee shall maintain daily records of the quantity and type of explosive used.

[A.A.C. R18-2-306(A)(2)]

c. The Permittee shall maintain daily records of the amount of limestone quarried.

[A.A.C. R18-2-306(A)(2)]

2. Recordkeeping for Particulate Matter Emission Standards

a. The Permittee shall maintain daily records of watering and vacuuming performed at all paved roads.

b. The Permittee shall maintain monthly records of maintenance activities conducted on paved roads within the Cement Plant Process Area Boundary.

c. The Permittee shall maintain daily records of watering performed at all unpaved roads.

[A.A.C. R18-2-306(A)(3)(c)]

E. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-602, A.A.C. R18-2-604, A.A.C. R18-2-605, A.A.C. R18-2-606, A.A.C. R18-2-607, A.A.C. R18-2-612, and A.A.C. R18-2-804.

[A.A.C. R18-2-325]

## VII. MISCELLANEOUS SOURCES

### A. List of Emission Units

This section of the permit presents requirements that are applicable to miscellaneous activities throughout the quarry and plant. This section of the permit does not cover a specific process unit or emission unit.

### B. Emission Limits and Standards

#### 1. Requirements for All Fugitive Dust Sources

##### a. General

(1) As used in Conditions VII.B.1.a through VII.B.1.c, all terms shall have the meaning given in A.A.C. R18-2-101.

(2) Conditions VII.B.1.b and VII.B.1.c shall apply only to fugitive dust sources.

[A.A.C. R18-2-601]

(3) For the purposes of Condition VII.B.1.a(2), fugitive dust sources are sources of air contaminants which, due to lack of an identifiable emission point or plume, cannot be considered point sources.

[A.A.C. R18-2-601]

(4) In applying the criterion in Condition VII.B.1.a(3), such items as air-curtain destructors, heater-planers, and conveyor transfer points shall be considered to have identifiable plumes.

[A.A.C. R18-2-601]

##### b. Visible Emissions

The Permittee shall not cause, allow or permit visible emissions from fugitive dust sources in excess of 40 percent opacity measured in accordance with the Arizona Testing Manual, Reference Method 9. Open fires permitted under Condition VII.B.2 are exempt from this requirement.

[A.A.C. R18-2-612]

##### c. Work Practice Requirements

The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

(1) Use approved dust suppressants, adhesive soil stabilizer, paving, covering, detouring, or wetting agents on, or bar access to open areas during construction operations, repair operations,

demolition activities, clearing operations, and leveling operations, or when any earth is moved or excavated.

[A.A.C. R18-2-604(A)]

- (2) Use approved dust suppressants, adhesive soil stabilizer, or paving on, or bar access to driveways, parking areas, and vacant lots where motor vehicular activity occurs.

[A.A.C. R18-2-604(B)]

- (3) Use approved dust suppressants, temporary paving, detouring or wetting agents when a roadway is repaired, constructed, or reconstructed.

[A.A.C. R18-2-605(A)]

- (4) Use dust suppressants, spray bars, hoods, wetting agents, or cover the load adequately when transporting material likely to give rise to airborne dust.

[A.A.C. R18-2-605(B) and R18-2-606]

- (5) Use spray bars, hoods, wetting agents, dust suppressants, or cover when crushing, handling, or conveying material that is likely to give rise to airborne dust.

[A.A.C. R18-2-606]

- (6) Adequately cover, or use wetting agents, chemical stabilization, or dust suppressants when stacking, piling, or otherwise storing organic or inorganic dust producing material.

[A.A.C. R18-2-607(A)]

- (7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and with the use of spray bars and wetting agents.

[A.A.C. R18-2-607(B)]

2. Additional Requirements for Certain Fugitive Dust Sources

- a. The Permittee shall not cause, allow, or permit bulk material to be hauled, either on-site or off-site, except in accordance with Conditions VII.B.2.b(1) through VII.B.2.b(3).

[A.A.C. R18-2-406(A)(4)]

- (1) All haul trucks shall be loaded such that the freeboard is not less than three inches.

[A.A.C. R18-2-406(A)(4)]

- (2) All haul trucks shall be loaded in such a manner as to prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, or tailgate(s).

[A.A.C. R18-2-406(A)(4)]

- (3) No bulk material shall be transported in haul trucks unless the cargo compartment is covered with a tarp or other suitable closure.

[A.A.C. R18-2-406(A)(4)]

- b. The Permittee shall not cause, allow, or permit any empty haul truck to leave the site unless the interior of the cargo compartment has been cleaned or the cargo compartment is covered with a tarp or other suitable closure.

[A.A.C. R18-2-406(A)(4)]

- c. The Permittee shall not cause, allow, or permit any haul truck to leave the site without first utilizing a device that removes from its tires and exterior surfaces mud, dirt, debris, or other accumulation that may cause particulate matter emissions. Acceptable devices include:

- (1) Wheel wash system.
- (2) Gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep.
- (3) Paved roadway at least 20 feet wide and 100 feet long.
- (4) Rails, pipes, or grates of sufficient width and length to remove debris effectively.

[A.A.C. R18-2-406(A)(4)]

- d. The Permittee shall operate at all times in conformance with the current Dust Control Plan prepared pursuant to Condition VII.C.1.a.

[A.A.C. R18-2-406(A)(4)]

### 3. Open Burning

- a. Except as provided in Condition VII.B.3.b, and except when permitted to do so by either the Director or the local officer delegated the authority for issuance of open burning permits, the Permittee shall not ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire.

[A.A.C. R18-2-602(A)]

- (1) "Open outdoor fire," as used in Condition VII.B.3.a, means any combustion of combustible material of any type outdoors, in the open where the products of combustion are not directed through a flue.

[A.A.C. R18-2-602(B)]

- (2) "Flue," as used in Condition VII.B.3.a(1), means any duct or passage for air, gases or the like, such as a stack or chimney.

[A.A.C. R18-2-602(B)]

- b. The following fires are excepted from the prohibition in Condition VII.B.3.a:

[A.A.C. R18-2-602(C)]

(1) Fires used only for cooking of food or for providing warmth for human beings or for recreational purposes or the branding of animals or the use of orchard heaters for the purpose of frost protection in farming or nursery operations.

[A.A.C. R18-2-602(C)(1)]

(2) Any fire set or permitted by any public officer in the performance of official duty, if such fire is set or permission given for the purpose of weed abatement, the prevention of a fire hazard, or instruction in the methods of fighting fires.

[A.A.C. R18-2-602(C)(2)]

(3) Fires set by or permitted by the state entomologist or county agricultural agents of the county for the purpose of disease and pest prevention.

[A.A.C. R18-2-602(C)(3)]

(4) Fires set by or permitted by the federal government or any of its departments, agencies or agents, the state or any of its agencies, departments or political subdivisions, for the purpose of watershed rehabilitation or control through vegetative manipulation.

[A.A.C. R18-2-602(C)(4)]

4. Point Sources

a. General

(1) As used in Conditions VII.B.4.a through VII.B.4.e, all terms shall have the meaning given in A.A.C. R18-2-101 and R18-2-701.

(2) Conditions VII.B.4.b through VII.B.4.e shall apply only to sources that are all of the following:

[A.A.C. R18-2-702(A)]

(a) Existing sources;

[A.A.C. R18-2-702(A)(1)]

(b) Point sources. For the purposes of this condition, “point source” means a source of air contaminants that has an identifiable plume or emissions point; and

[A.A.C. R18-2-702(A)(2)]

(c) Stationary sources.

[A.A.C. R18-2-702(A)(3)]

b. Visible Emissions

The Permittee shall not cause, allow, or permit visible emissions in excess of 20 percent opacity as determined by Reference Method 9 in appendix A to 40 CFR part 60.

[A.A.C. R18-2-406(A)(4), R18-2-702(B)]

c. Abrasive Blasting

The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include, but are not limited to, wet blasting and the use of effective enclosures with necessary dust collecting equipment.

[A.A.C. R18-2-726]

d. Spray Painting Operations

While performing spray painting operations the Permittee shall comply with the following requirements:

(1) The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.

[A.A.C. R18-2-727(A)]

(2) The Permittee shall not employ, apply, evaporate or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes.

[A.A.C. R18-2-727(B), R18-2-727(B)(1)]

(3) The Permittee shall not thin or dilute any architectural coating with a photochemically reactive solvent.

[A.A.C. R18-2-727(B), R18-2-727(B)(2)]

(4) For the purposes of Conditions VII.B.4.d(2) and VII.B.4.(3), a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Conditions VII.B.4.d(4)(a) through VII.B.4.d(4)(c), or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

[A.A.C. R18-2-727(C)]

(a) A combination of the following types of compounds having an olefinic or cycle-olefinic type of unsaturation - hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: five percent.

[A.A.C. R18-2-727(C)(1)]

(b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: eight percent.

[A.A.C. R18-2-727(C)(2)]

- (c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

[A.A.C. R18-2-727(C)(3)]

- (5) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups or organic compounds described in Conditions VII.B.4.d(4)(a) through VII.B.4.d(4)(c), it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C. R18-2-727(D)]

e. Solvent Cleaning / Degreasing / Dipping Operations

The Permittee shall process, store, use, and transport materials including solvents or volatile compounds in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged into the atmosphere so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage, or discharge, the installation and usage of such control methods, devices, or equipment shall be mandatory.

[A.A.C. R18-2-730(F)]

f. Air Pollution

- (1) The Permittee shall not cause, allow, or permit gaseous or odorous materials to be emitted from equipment, operations or premises under its control in such quantities or concentrations as to cause air pollution.

[A.A.C. R18-2-730(D)]

- (2) Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730(G)]

5. Mobile Sources

a. General

- (1) The requirements of Conditions VII.B.5.b and VII.B.5.c are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or are agricultural equipment used in normal farm operations.

[A.A.C. R18-2-801]

- (2) The requirements of Conditions VII.B.5.b and VII.B.5.c shall not apply to portable sources.

[A.A.C. R18-2-801]

b. Off-road Machinery

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than ten consecutive seconds, the opacity of which exceeds 40 percent. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. Off-road machinery shall include trucks, graders, scrapers, rollers and other construction and mining machinery not normally driven on a completed public roadway.

[A.A.C. R18-2-802]

c. Roadway and Site Cleaning Machinery

- (1) The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than ten consecutive seconds, the opacity of which exceeds 40 percent. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes.

[A.A.C. R18-2-804(A)]

- (2) The Permittee shall not cause, allow, or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

[A.A.C. R18-2-804(B)]

6. Demolition/Renovation

The Permittee shall comply with all applicable requirements of 40 CFR part 61, subpart M.

[A.A.C. R18-2-1101(A)(8) {40 CFR 61 subpart M by ref.}]

7. Nonvehicle Air Conditioner Maintenance and/or Services

The Permittee shall comply with all applicable requirements of 40 CFR part 82, subpart F.

[40 CFR 82 subpart F]

C. Monitoring, Recordkeeping, and Reporting Requirements

1. Fugitive Dust Control Plan

- a. The Permittee shall prepare a Dust Control Plan and shall submit the plan to the Department for its approval at least 180 days prior to beginning any site clearing activities or on-site construction of the refinery. The Permittee shall maintain at all times a copy of the approved plan, readily available for inspection.

[A.A.C. R18-2-306(A)(4)]

- b. The Dust Control Plan shall contain, at a minimum, all of the following information:

- (1) Names, address(es), and phone numbers of person(s) responsible for the preparation, maintenance, and implementation of each element of the Dust Control Plan.

[A.A.C. R18-2-306(A)(4)]

- (2) Control measures or a combination thereof to be applied to all actual and potential fugitive dust sources, before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. The control measures specified in the Dust Control Plan shall address and shall be sufficient to ensure compliance with Conditions VII.B.1 and VII.B.2.

[A.A.C. R18-2-306(A)(4)]

- (3) A drawing that shows:

- (a) Entire project site boundaries;
- (b) Acres to be disturbed with linear dimensions;
- (c) Nearest public roads;
- (d) North arrow; and
- (e) Planned exit locations onto paved public roadways.

[A.A.C. R18-2-306(A)(4)]

- (4) Dust suppressants to be applied, including product specifications or label instructions for approved usage and other information required by Conditions VII.C.1.b(4) through VII.C.1.b(4).

- (a) Method, frequency, and intensity of dust suppressant application.
- (b) Type, number, and capacity of dust suppressant application equipment.
- (c) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application of dust suppressants.

[A.A.C. R18-2-306(A)(4)]

- (5) Specific surface treatment(s) or other control measures utilized to control material trackout and sedimentation where unpaved or access points join paved public roadways.

[A.A.C. R18-2-306(A)(4)]

- c. The Permittee shall maintain records of each instance of operation not consistent with the Dust Control Plan. Each such instance shall be considered a period of excess emissions.

[A.A.C. R18-2-306(A)(4)]

- d. The Permittee shall report excess emissions and deviations in accordance with Sections XII.A and XII.B, respectively, in Attachment "A" of this permit.

[A.A.C. R18-2-306(A)(5)(b)]

## 2. Abrasive Blasting

Each time an abrasive blasting project is conducted, the Permittee shall log in ink or in an electronic format, a record of the following:

- a. The date the project conducted;
- b. The duration of the project; and
- c. Type of control measures employed.

[A.A.C. R18-2-306(A)(4)]

## 3. Spray Painting Operations

- a. Except as provided in Condition VII.C.3.b, each time a spray painting project is conducted, the Permittee shall log in ink or in an electronic format, a record of the following:

- (1) The date the project was conducted;
- (2) The duration of the project;
- (3) Type of control measures employed; and
- (4) Material Safety Data Sheets for all paints and solvents used in the project.

- b. Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of part a. above.

[A.A.C. R18-2-306(A)(4)]

## 4. Mobile Sources

The Permittee shall keep a record of all emissions-related maintenance activities performed on all mobile sources subject to Condition VII.B.5.

[A.A.C. R18-2-306(A)(4)]

5. Demolition/Renovation

The Permittee shall comply with all applicable monitoring, recordkeeping, and reporting requirements of 40 CFR part 61, subpart M.

[A.A.C. R18-2-1101(A)(8) {40 CFR 61 subpart M by ref.}]

6. Nonvehicle Air Conditioner Maintenance and/or Services

The Permittee shall comply with all applicable monitoring, recordkeeping, and reporting requirements of 40 CFR part 82, subpart F.

[40 CFR 82 subpart F]

D. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-406(A)(4), R18-2-601, R18-2-602, R18-2-604, R18-2-605, R18-2-606, R18-2-607, R18-2-612, R18-2-702(A), R18-2-702(B), R18-2-726, R18-2-727, R18-2-730(D), R18-2-730(F), R18-2-730(G), R18-2-730(H), R18-2-801, R18-2-802, R18-2-804.

[A.A.C. R18-2-325]

**VIII. AMBIENT AIR QUALITY MONITORING**

A. The Permittee shall submit to the Director for approval an Ambient Monitoring Plan to monitor PM<sub>10</sub>, PM<sub>2.5</sub>, and ambient contributors to nitrogen deposition. This submittal shall occur by the date that actual construction begins, or the date 6 months after permit issuance, whichever is later.

[A.A.C. R18-2-306.B.2]

B. The monitoring plan shall include the number and location of monitors or sampling stations, and a description of the proposed monitoring systems. At a minimum, the Permittee should propose to operate monitors at two locations; one location within the facility and one offsite location to assess plant impacts in the Sycamore Canyon area. The plan should also contain a proposed date or milestone for terminating all requirements pertaining to the ambient air quality monitoring network.

[A.A.C. R18-2-306.B.2]

C. The Permittee shall implement the approved Ambient Monitoring Plan beginning at least 12 months prior to initial startup of the Rotary Kiln.

[A.A.C. R18-2-306.B.2]

D. The Permittee shall continue the monitoring activities for at least three years after the start of operations.

[A.A.C. R18-2-306.B.2]

**ATTACHMENT “C”: EQUIPMENT LIST**

**Air Quality Control Permit No. 1001770  
for  
Drake Cement, LLC**

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
<i>Department 1</i>						
IPC-1.3	Impact Primary Crusher	495 tph	Titan	TBD	TBD	TBD
WD-1.4	Water Dedusting System (Truck Unloading)	4 gpm	TBD	TBD	TBD	TBD
OC-1.5	First Overland Belt Conveyor	500 tph	TBD	TBD	TBD	TBD
DC1.6	Dust Collector for Primary Crusher	14,619 acfm	TBD	TBD	TBD	TBD
OC-1.7	Second Overland Belt Conveyor	500 tph	TBD	TBD	TBD	TBD
DC1.8	Dust Collector for Belt Conveyor Transfer	2,757 acfm	TBD	TBD	TBD	TBD
OC-1.9	Third Overland Belt Conveyor	500 tph	TBD	TBD	TBD	TBD
DC1.10	Dust Collector for Belt Conveyor Transfer	2,757 acfm	TBD	TBD	TBD	TBD
DC1.11	Dust Collector for Belt Conveyor Transfer	5,515 acfm	TBD	TBD	TBD	TBD
<i>Department 2</i>						
BC-2.1	Belt Conveyor with Tripper for Limestone	500 tph	TBD	TBD	TBD	TBD
CS-2.2	Limestone Covered Stockpile	51,000 tons	TBD	TBD	TBD	TBD
PS-2.3	Portal Scraper	500 tph	TBD	TBD	TBD	TBD
BC-2.4	Belt Conveyor for Collecting Limestone from Stockpile	500 tph	TBD	TBD	TBD	TBD
DC2.5	Dust Collector for Belt Conveyor Transfer	2,757 acfm	TBD	TBD	TBD	TBD
BC-2.8	Belt Conveyor to Raw Material Silos	500 tph	TBD	TBD	TBD	TBD
DC2.9	Dust Collector for Belt Conveyor Transfer to Silos	7,418 acfm	TBD	TBD	TBD	TBD
DC2.10	Dust Collector for Belt Conveyor Transfer to Silos	7,418 acfm	TBD	TBD	TBD	TBD
BC-2.12	Reversible Conveyor on Top of Raw Material	500 tph	TBD	TBD	TBD	TBD

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
	Silo					
BC-2.13	Reversible Conveyor on Top of Raw Material Silo	500 tph	TBD	TBD	TBD	TBD
<i>Department 3</i>						
RMS-3.1	High Limestone Silo 1	550 tons	TBD	TBD	TBD	TBD
RMS-3.2	High Limestone Silo 2	450 tons	TBD	TBD	TBD	TBD
RMS-3.3	Low Limestone Silo	550 tons	TBD	TBD	TBD	TBD
RMS-3.4	Iron Ore Silo	510 tons	TBD	TBD	TBD	TBD
RMS-3.5	Gypsum Silo	450 tons	TBD	TBD	TBD	TBD
RMS-3.6	Clinker Silo	550 tons	TBD	TBD	TBD	TBD
RMS-3.7	Aluminum Source Silo	330 tons	TBD	TBD	TBD	TBD
RMS-3.8	Raw Coal Silo	300 tons	TBD	TBD	TBD	TBD
<i>Department 4</i>						
RHR-4.1	Receiving Hopper for Railroad Cars	26' x 14'	TBD	TBD	TBD	TBD
VF-4.3	Vibrating Feeder	400 tph	TBD	TBD	TBD	TBD
WD-4.4	Water Dedusting System (Rail Car Discharge)	4 gpm	TBD	TBD	TBD	TBD
RHT-4.5	Receiving Hopper for Trucks	approx. 16.4' x 10'	TBD	TBD	TBD	TBD
WD-4.6	Water Dedusting System (Truck Discharge)	2 gpm	TBD	TBD	TBD	TBD
VF-4.7	Vibrating Feeder	400 tph	TBD	TBD	TBD	TBD
BC-4.8	Belt Conveyor under Rail Car and Truck Discharge	400 tph	TBD	TBD	TBD	TBD
BC-4.9	Belt Conveyor with Tripper for Coal, Iron Ore, etc.	400 tph	TBD	TBD	TBD	TBD
CS-4.10	Coal, Iron Ore, and Aluminum Covered Stockpile	8,300 tons	TBD	TBD	TBD	TBD
BC-4.11	Belt Conveyor under Coal and Iron Ore Stockpile	400 tph	TBD	TBD	TBD	TBD
VF-4.12.1	Vibrating Feeder under Covered Stockpile	400 tph	TBD	TBD	TBD	TBD
VF-4.12.2	Vibrating Feeder under Covered Stockpile	400 tph	TBD	TBD	TBD	TBD
VF-4.12.3	Vibrating Feeder under Covered Stockpile	400 tph	TBD	TBD	TBD	TBD

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
VF-4.12.4	Vibrating Feeder under Covered Stockpile	400 tph	TBD	TBD	TBD	TBD
VF-4.12.5	Vibrating Feeder under Covered Stockpile	400 tph	TBD	TBD	TBD	TBD
VF-4.12.6	Vibrating Feeder under Covered Stockpile	400 tph	TBD	TBD	TBD	TBD
BC-4.15	Belt Conveyor to Raw Material Silos	400 tph	TBD	TBD	TBD	TBD
BC-4.17	Reversible Conveyor on Top of Raw Material Silo	400 tph	TBD	TBD	TBD	TBD
DC4.18	Dust Collector for Belt Conveyor Transfer	2,158 acfm	TBD	TBD	TBD	TBD
DC4.19	Dust Collector for Belt Conveyor Transfer to Silos	7,925 acfm	TBD	TBD	TBD	TBD
DC4.20	Dust Collector for Belt Conveyor Transfer	4,640 acfm	TBD	TBD	TBD	TBD
BC-4.22	1st Belt Conveyor for Limestone Unloaded from Rail Cars	400 tph	TBD	TBD	TBD	TBD
DC4.23	Dust Collector for Belt Conveyor Transfer	2,158 acfm	TBD	TBD	TBD	TBD
BC-4.24	2nd Belt Conveyor for Limestone Unloaded from Rail Cars	400 tph	TBD	TBD	TBD	TBD
DC4.25	Dust Collector for Belt Conveyor Transfer	2,158 acfm	TBD	TBD	TBD	TBD
BC-4.26	3rd Belt Conveyor for Limestone Unloaded from Rail Cars	400 tph	TBD	TBD	TBD	TBD
<i>Department 5</i>						
WF-5.1.1	Weighfeeder for High Limestone	15-150 tph	TBD	TBD	TBD	TBD
WF-5.1.2	Weighfeeder for High Limestone	15-150 tph	TBD	TBD	TBD	TBD
WF-5.2	Weighfeeder for Low Limestone	10-100 tph	TBD	TBD	TBD	TBD
WF-5.3.1	Weighfeeder for Iron Ore	1-10 tph	TBD	TBD	TBD	TBD
WF-5.3.2	Weighfeeder for Aluminum Source	1-10 tph	TBD	TBD	TBD	TBD
BC-5.4	Small Belt Conveyor for Iron Ore and Aluminum Source	50 tph	TBD	TBD	TBD	TBD
DC5.5	Dust Collector for Weighfeeders	8,135 acfm	TBD	TBD	TBD	TBD
BC-5.6	Belt Conveyor to Raw Grinding Building	180 tph	TBD	TBD	TBD	TBD
TIHM-5.10	Tandem Impact Hammer Mill	180 tph	KHD	TBD	TBD	TBD
SS-5.11	Static Separator	6.0 m dia.	ARPL	TBD	TBD	
BC-5.13	Belt Conveyor to Ball Mill	210 tph	TBD	TBD	TBD	TBD

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
BM-5.16	Ball Mill 14' x 23' 9", 2500 hp	164 tph	Hardinge	TBD	TBD	TBD
C-5.17.1	Cyclone	2.8 m dia.	Duda	TBD	TBD	TBD
C-5.17.2	Cyclone	2.8 m dia.	Duda	TBD	TBD	TBD
C-5.17.3	Cyclone	2.8 m dia.	Duda	TBD	TBD	TBD
C-5.17.4	Cyclone	2.8 m dia.	Duda	TBD	TBD	TBD
SC-5.18.1	Screw Conveyor for Raw Meal	90 tph	TBD	TBD	TBD	TBD
SC-5.18.2	Screw Conveyor for Raw Meal	90 tph	TBD	TBD	TBD	TBD
AS-5.19	First Airslide for Raw Meal	180 tph	TBD	TBD	TBD	TBD
AS-5.21	Second Airslide for Raw Meal	180 tph	TBD	TBD	TBD	TBD
DC5.22	Dust Collector for Raw Grinding System	5,334 acfm	TBD	TBD	TBD	TBD
BH 5.30	Baghouse for Raw Mill and Kiln	108,341-165,325 acfm	TBD	TBD	TBD	TBD
SC-5.31.1	Screw Conveyor under Baghouse	6 tph	TBD	TBD	TBD	TBD
SC-5.31.2	Screw Conveyor under Baghouse	6 tph	TBD	TBD	TBD	TBD
SC-5.31.3	Screw Conveyor under Baghouse	6 tph	TBD	TBD	TBD	TBD
SC-5.32	Screw Conveyor which Collects Dust from Baghouse	18 tph	TBD	TBD	TBD	TBD
SC-5.33	Screw Conveyor for Taking Dust to Blending Silo	18 tph	TBD	TBD	TBD	TBD
MS5.38	Main Stack	118,956-165,325 acfm	TBD	TBD	TBD	TBD
GAN-5.39	Gas Analyzer on Main Stack (O <sub>2</sub> , CO, NO <sub>x</sub> , and SO <sub>2</sub> )	Not Applicable	TBD	TBD	TBD	TBD
CPM-5.40	Continuous Particulate Monitor on Main Stack (PM and PM <sub>10</sub> )	Not Applicable	TBD	TBD	TBD	TBD
THCGAN-5.41	Total Hydrocarbon Gas Analyzer on Main Stack (THC)	Not Applicable	TBD	TBD	TBD	TBD
<i>Department 6</i>						
BE-6.1	Bucket Elevator to Blending Silo	180 tph	TBD	TBD	TBD	TBD
AS-6.2	Airslide for Raw Meal on Top of Blending Silo	180 tph	TBD	TBD	TBD	TBD
PDAS-6.3	Pneumatic Parallel Distribution for Airslides	830 mm dia.	TBD	TBD	TBD	TBD

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
AS-6.4.1	Short Airslide on Top of Blending Silo	180 tph	TBD	TBD	TBD	TBD
AS-6.4.2	Short Airslide on Top of Blending Silo	180 tph	TBD	TBD	TBD	TBD
AS-6.5.1	Long Airslide on Top of Blending Silo	180 tph	TBD	TBD	TBD	TBD
AS-6.5.2	Long Airslide on Top of Blending Silo	180 tph	TBD	TBD	TBD	TBD
AS-6.5.3	Long Airslide on Top of Blending Silo	180 tph	TBD	TBD	TBD	TBD
AS-6.5.4	Long Airslide on Top of Blending Silo	180 tph	TBD	TBD	TBD	TBD
SI-6.7	Blending Silo	9,000 tons	TBD	TBD	TBD	TBD
DC6.10	Dust Collector on Top of Blending Silo	5,632 acfm	TBD	TBD	TBD	TBD
<i>Department 7</i>						
AS-7.4	Raised Airslide from Blending Silo	170 tph	TBD	TBD	TBD	TBD
AS-7.5	Base Airslide from Blending Silo	170 tph	TBD	TBD	TBD	TBD
MWB-7.8	Metallic Weighing Bin	33 m <sup>3</sup>	TBD	TBD	TBD	TBD
FPD-7.10	Fluidization and Pneumatic Discharge of Bin	TBD	TBD	TBD	TBD	TBD
AS-7.12	Airslide	170 tph	TBD	TBD	TBD	TBD
BE-7.15.1	Bucket Elevator for Feeding Pre-Heater Tower	170 tph	TBD	TBD	TBD	TBD
BE-7.15.2	Bucket Elevator for Feeding Pre-Heater Tower	170 tph	TBD	TBD	TBD	TBD
DC7.16	Dust Collector	3,519 acfm	TBD	TBD	TBD	TBD
AS-7.17	Airslide	170 tph	TBD	TBD	TBD	TBD
AS-7.22	Recirculating Airslide	170 tph	TBD	TBD	TBD	TBD
DC7.23	Dust Collector on Top of Preheater Tower	2,548 acfm	TBD	TBD	TBD	TBD
<i>Department 8</i>						
PRE-8.3	Six-Stage Preheater	5.2/5.0 m dia.	TBD	TBD	TBD	TBD
CAL-8.13	Calciner ( 6.0 m diameter )	83.33 tph	TBD	TBD	TBD	TBD
GAN-8.16	Gas Analyzer for Kiln Inlet (O <sub>2</sub> , CO, and NO <sub>x</sub> )	Not Applicable	TBD	TBD	TBD	TBD
GAN-8.17	Gas Analyzer for Preheater (O <sub>2</sub> and CO)	Not Applicable	TBD	TBD	TBD	TBD
TAD-8.18	Tertiary Air Duct	1.8 m dia.	TBD	TBD	TBD	TBD
SNCR-8.19	SNCR Equipment inc. Pumps, Tanks, etc. for NH <sub>3</sub> aqueous solution	200 lph	TBD	TBD	TBD	TBD
<i>Department 9</i>						

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
RK-9.1	Rotary Kiln 12' x 143' with 2 Supports	83.33 tph	TBD	TBD	TBD	TBD
DEG-9.11	Diesel Emergency Generator	210 kW	TBD	TBD	TBD	TBD
<i>Department 10</i>						
CGC-10.1	Clinker Grate Cooler	83.33 tph	TBD	TBD	TBD	TBD
CRC-10.3	Cooler Roller Crusher with 4 Rollers	TBD	TBD	TBD	TBD	TBD
SC-10.12	Screw Conveyor for Clinker Dust	6 tph	TBD	TBD	TBD	TBD
BH10.13	Baghouse for Cooler	105,932 acfm	TBD	TBD	TBD	TBD
SC-10.14	Screw Conveyor for Clinker Dust	6 tph	TBD	TBD	TBD	TBD
CS10.16	Cooler Stack	105,932 acfm	TBD	TBD	TBD	TBD
CPM-10.17	Continuous Particulate Matter Monitor on Cooler Stack (PM and PM <sub>10</sub> )	Not Applicable	TBD	TBD	TBD	TBD
<i>Department 11</i>						
HPC-11.1	Hot Pan Conveyor	83.33 tph	TBD	TBD	TBD	TBD
DC11.2	Dust Collector	4,164 acfm	TBD	TBD	TBD	TBD
CDO-11.3	Clinker Dome	50,000 tons	TBD	TBD	TBD	TBD
BC-11.5	Belt Conveyor to Emergency Clinker Silo	83.33 tph	TBD	TBD	TBD	TBD
DC11.6.1	Dust Collector for Belt Transfer	2,564 acfm	TBD	TBD	TBD	TBD
DC11.6.2	Dust Collector for Emergency Clinker Silo	2,935 acfm	TBD	TBD	TBD	TBD
SI-11.7	Emergency Clinker Silo	13,800 tons	TBD	TBD	TBD	TBD
BC-11.8	Belt Conveyor under Clinker Dome and Clinker Silo	400 tph	TBD	TBD	TBD	TBD
BC-11.10	Belt Conveyor for Transporting Clinker and Gypsum to Silos	400 tph	TBD	TBD	TBD	TBD
DC11.11	Dust Collector for Belt Transfer	8,792 acfm	TBD	TBD	TBD	TBD
OS-11.12	Open Stockpile for Gypsum	2,000 tons	TBD	TBD	TBD	TBD
HGP-11.13	Hopper with Grid to be Fed by Payloader	10 m <sup>3</sup>	TBD	TBD	TBD	TBD
BC-11.14	Reversible Belt Conveyor for Clinker and Gypsum	400 tph	TBD	TBD	TBD	TBD
DC11.15	Dust Collector for Clinker and Gypsum Silos	7,592 acfm	TBD	TBD	TBD	TBD
<i>Department 12</i>						

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
WF-12.1	Weighfeeder for Coal	2-20 tph	TBD	TBD	TBD	TBD
BC-12.3	First Belt Conveyor for Transporting Coal to Mill	20 tph	TBD	TBD	TBD	TBD
BC-12.4	Second Belt Conveyor for Transporting Coal to Mill	20 tph	TBD	TBD	TBD	TBD
DC12.7.1	Dust Collector for Coal Belt Transfer	1,883 acfm	TBD	TBD	TBD	TBD
DC12.7.2	Dust Collector for Coal Pump	388 acfm	TBD	TBD	TBD	TBD
VM-12.9	Vertical or Bowl Mill for Coal	14 tph	TBD	TBD	TBD	TBD
C-12.14	Cyclone	1.6 m dia.	Duda	TBD	TBD	TBD
RV-12.15	Rotary Valve below the Dedusting Cyclone	1.6 m dia.	Duda	TBD	TBD	TBD
BH12.18	Baghouse for Coal Mill	17,878 acfm	TBD	TBD	TBD	TBD
SC-12.20	Screw Conveyor for Coal Dust	20 tph	TBD	TBD	TBD	TBD
PPU-12.22.1	Pneumatic Pump for Coal	20 tph	TBD	TBD	TBD	TBD
PPU-12.22.2	Pneumatic Pump for Coal	20 tph	TBD	TBD	TBD	TBD
PCP-12.24	Pneumatic Conveying Pipe	6 in. dia.	TBD	TBD	TBD	TBD
DC12.26	Pulverized Silo with Dust Collector	1,835 acfm	TBD	TBD	TBD	TBD
PH-12.33.1	Pre-Hopper	3 m <sup>3</sup>	TBD	TBD	TBD	TBD
PH-12.33.2	Pre-Hopper	3 m <sup>3</sup>	TBD	TBD	TBD	TBD
RWF-12.35.1	Rotor Weighfeeder	0.7- 7.0 tph	TBD	TBD	TBD	TBD
RWF-12.35.2	Rotor Weighfeeder	0.7- 7.0 tph	TBD	TBD	TBD	TBD
PCP-12.37	Pneumatic Conveying Pipe to Calciner	6 in. dia	TBD	TBD	TBD	TBD
PCP-12.38	Pneumatic Conveying Pipe to Kiln Hood	6 in. dia	TBD	TBD	TBD	TBD
<i>Department 13</i>						
WF-13.1.1	Weighfeeder for Clinker	14-143 tph	TBD	TBD	TBD	TBD
WF-13.1.2	Weighfeeder for Gypsum	1-10 tph	TBD	TBD	TBD	TBD
WF-13.1.3	Weighfeeder for Limestone	1-10 tph	TBD	TBD	TBD	TBD
BC-13.2	Small Belt Conveyor for Transporting	50 tph	TBD	TBD	TBD	TBD

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
	Limestone and Gypsum					
BC-13.3	Belt Conveyor to Cement Mill	143 tph	TBD	TBD	TBD	TBD
DC13.4	Dust Collector for Belt Transfer	2,451 acfm	TBD	TBD	TBD	TBD
BE-13.5	Bucket Elevator	143 tph	TBD	TBD	TBD	TBD
BC-13.6	Belt Conveyor to Roller Press	578 tph	TBD	TBD	TBD	TBD
CH-13.9.1	Special Transfer Chute of Gate	578 tph	TBD	TBD	TBD	TBD
RP-13.10	Roller Press	517 tph	Polysius	TBD	TBD	TBD
CH-13.10.1	Special Chute of Roller Press	578 tph	TBD	TBD	TBD	TBD
DIS-13.11	Dissagglomerator	792 tph	Polysius	TBD	TBD	TBD
BC-13.12	Belt Conveyor under Dissagglomerator	578 tph	TBD	TBD	TBD	TBD
CH-13.12.1	Special Chute of Dissagglomerator	578 tph	TBD	TBD	TBD	TBD
BE-13.13	Recirculating Bucket Elevator	578 tph	TBD	TBD	TBD	TBD
CH-13.13.1	Special Chute of Bucket Elevator	578 tph	TBD	TBD	TBD	TBD
HES-13.15	High Efficiency Separator	578 tph	TBD	TBD	TBD	TBD
CH-13.16	Special Chute of High Efficiency Separator	578 tph	TBD	TBD	TBD	TBD
AS-13.17.1	Airslide	60 tph	TBD	TBD	TBD	TBD
AS-13.17.2	Airslide	60 tph	TBD	TBD	TBD	TBD
AS-13.17.3	Airslide	60 tph	TBD	TBD	TBD	TBD
AS-13.17.4	Airslide	60 tph	TBD	TBD	TBD	TBD
DC13.19	Dust Collector	18,924 acfm	TBD	TBD	TBD	TBD
DC13.20	Dust Collector	18,924 acfm	TBD	TBD	TBD	TBD
SC-13.21	Screw Conveyor	5 MT/h	TBD	TBD	TBD	TBD
SC-13.22	Screw Conveyor	10 MT/h	TBD	TBD	TBD	TBD
BPH-13.30	By-Pass Hopper	15 m <sup>3</sup>	TBD	TBD	TBD	TBD
BC-13.31	Small Belt Conveyor	17 tph	TBD	TBD	TBD	TBD
CH-13.34	Transfer Chute	17 tph	TBD	TBD	TBD	TBD
MWB-13.35	Metallic Weighing Silo or Bin	70 m <sup>3</sup>	TBD	TBD	TBD	TBD
FPD-13.37	Fluidization and Pneumatic Discharge of Bin or Silo	TBD	TBD	TBD	TBD	TBD
BM-13.39	Ball Mill 14' x 23' 9", 2500 hp	100 tph	Hardinge	TBD	TBD	TBD

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
DC13.40	Dust Collector for Ball Mill	22,499 acfm	TBD	TBD	TBD	TBD
SC-13.41	Screw Conveyor	5 tph	TBD	TBD	TBD	TBD
AS-13.42	Airslide for Transporting Final Cement Product	143 tph	TBD	TBD	TBD	TBD
BBD-13.44	Broken Bag Detection System for Dust Collector DC13.19	0-100% scale	TBD	TBD	TBD	TBD
BBD-13.45	Broken Bag Detection System for Dust Collector DC13.20	0-100% scale	TBD	TBD	TBD	TBD
BBD-13.46	Broken Bag Detection System for Dust Collector DC13.40	0-100% scale	TBD	TBD	TBD	TBD
<i>Department 14</i>						
BE-14.1	Bucket Elevator for Feeding Cement Silo	180 tph	TBD	TBD	TBD	TBD
AS-14.2	Airslide on Top of Cement Silo	180 tph	TBD	TBD	TBD	TBD
PDAS-14.3	Pneumatic Parallel Distribution for Airslides	830 mm dia.	TBD	TBD	TBD	TBD
AS-14.4.1	Airslide on Top of Cement Silo	30-60 tph	TBD	TBD	TBD	TBD
AS-14.4.2	Airslide on Top of Cement Silo	30-60 tph	TBD	TBD	TBD	TBD
AS-14.4.3	Airslide on Top of Cement Silo	30-60 tph	TBD	TBD	TBD	TBD
AS-14.4.4	Airslide on Top of Cement Silo	30-60 tph	TBD	TBD	TBD	TBD
SI-14.6	Cement Silo	10,000 tons	TBD	TBD	TBD	TBD
DC14.10	Dust Collector on Top of Cement Silo	2,988 acfm	TBD	TBD	TBD	TBD
AS-14.13	Airslide	400 tph	TBD	TBD	TBD	TBD
BE-14.14	Bucket Elevator	400 tph	TBD	TBD	TBD	TBD
AS-14.15	Airslide for Feeding 2 Metallic Silos	400 tph	TBD	TBD	TBD	TBD
CMS-14.17.1	Cement Metallic Silo	125 m <sup>3</sup>	TBD	TBD	TBD	TBD
CMS-14.17.2	Cement Metallic Silo	125 m <sup>3</sup>	TBD	TBD	TBD	TBD
ASC-14.20.1	Double Mobile Articulated Screw Conveyor for Bulk Cement	330 tph	TBD	TBD	TBD	TBD
ASC-14.20.2	Double Mobile Articulated Screw Conveyor for Bulk Cement	330 tph	TBD	TBD	TBD	TBD
DC14.21	Dust Collector for Bulk Loading	7,561 acfm	TBD	TBD	TBD	TBD

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>
ETBL-14.23	Emergency Truck Bulk Loading	165 tph	TBD	TBD	TBD	TBD
SD-14.24	Metallic Silo Side Discharge	165 tph	TBD	TBD	TBD	TBD
PPU-14.25	Pneumatic Pump for Transporting Cement to Railroad Silo	165 tph	TBD	TBD	TBD	TBD
PCP-14.27	Pneumatic Conveying Pipe	6 in. dia.	TBD	TBD	TBD	TBD
CMS-14.28	Cement Metallic Silo for Train Bulk Loading	450 m <sup>3</sup>	TBD	TBD	TBD	TBD
DC14.29	Dust Collector for Train Bulk Loading	4,964 acfm	TBD	TBD	TBD	TBD
LBR-14.32	Loading Head to Bulk Loading of Rail Cars	TBD	TBD	TBD	TBD	TBD