

**EASTERN KERN AIR POLLUTION CONTROL DISTRICT  
TECHNICAL SUPPORT DOCUMENT FOR  
NATIONAL CEMENT COMPANY OF CALIFORNIA, INC.  
2011 TITLE V PERMIT RENEWAL NO: 1128-V-2000**

2700 "M" Street, Suite 302  
Bakersfield, California 93301  
Telephone: 661-862-5250

APPLICATION RECEIVED FROM: **NATIONAL CEMENT COMPANY OF CALIFORNIA, INC.  
15821 VENTURA BVLD, SUITE 475  
ENCINO, CALIFORNIA 91436**

PLANT SITE LOCATION: **5 Miles East of I-5 on Hwy. 138)  
Lebec, California 93243**

SECTION/TOWNSHIP/RANGE: **SE35/T09N/R18W**

APPLICATION PROCESSED BY: **Jeremiah Cravens, Air Quality Specialist II**

APPLICATION REVIEWED BY: **David L. Jones, Air Pollution Control Officer  
Glen Stephens, Senior Air Quality Engineer**

NATURE OF BUSINESS: **Portland Cement Manufacturing**

SIC Code: **3241**

RESPONSIBLE OFFICIAL: **Jerry Stefanik  
Title: Environmental Manager  
Telephone: (661) 324-3121**

FACILITY CONTACT PERSON: **Jerry Stefanik  
Title: Environmental Manager  
Telephone: (661) 324-3121**

## **TABLE OF CONTENTS**

I.	INTRODUCTION.....	1
	Attainment Classification .....	1
II.	FACILITY LOCATION .....	1
III.	BACKGROUND .....	1
IV.	FACILITY DESCRIPTION.....	2
V.	POTENTIAL EMISSIONS .....	4
VI.	EQUIPMENT LISTING.....	5
VII.	APPLICABLE FEDERAL REQUIREMENTS.....	6
	A. Excluded NSPS Subpart F .....	20
	B. Excluded NESHAP Subpart LLL .....	20
VIII.	NEW AND MODIFIED EQUIPMENT .....	20
IX.	COMPLIANCE .....	22
	A. Notice of Violation.....	22
	B. Variance .....	24
	C. Breakdown .....	26
X.	MONITORING AND RECORDKEEPING.....	32
	A. Monitoring and Recordkeeping Requirements .....	32
	B. Additional Recordkeeping Requirements .....	33
	C. Compliance Assurance Monitoring Requirements.....	33
	D. Periodic Monitoring Requirements .....	33
XI.	REPORTING REQUIREMENTS .....	34

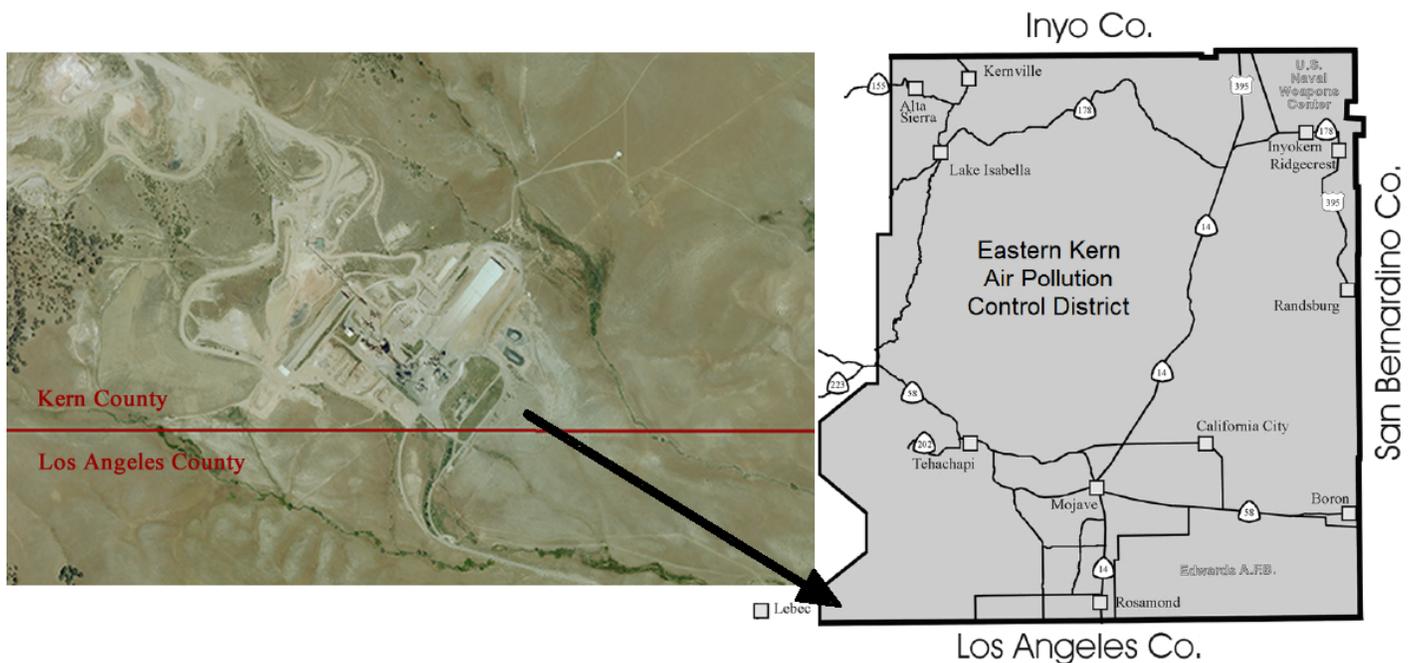
## I. INTRODUCTION

This Technical Support Document (TSD) pertains to the National Cement Company of California, Inc.'s 2011 Title V renewal of Permit No. 1128-V-2000. Renewal of Permit No. 1128-V-2000 will allow National Cement to continue operation of a limestone quarry and a dry process cement kiln operation following the requirements of Eastern Kern Air Pollution Control District's (EKAPCD) Rule 201.1, Permits to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990.

### **Attainment Classification**

The facility is located in an area of EKAPCD designated nonattainment for the Ozone (8-hour) NAAQS. The major source threshold is 50 tons per year for VOCs and NO<sub>x</sub> (as ozone precursors in an area formerly designated as a serious 1-hour ozone nonattainment area). The District is designated attainment or unclassifiable for the NAAQS for the pollutants NO<sub>2</sub>, SO<sub>2</sub>, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead, these major source thresholds are 100 tons per year.

## II. FACILITY LOCATION



## III. BACKGROUND

Pursuant to EKAPCD Rule 201.1, Permits to Operate for Sources Subject to Title V (Title V) of the Federal Clean Air Act Amendment of 1990, a Federal Part 70 Permit Renewal has been proposed for National Cement Company of California. EKAPCD issued the initial Federal Part 70 Title V Permit to Operate to National Cement in 2001.

National Cement applied for a Title V Permit renewal in 2005 and EKAPCD issued the renewal Title V Permit in 2006. National Cement applied for a second Title V Permit renewal in 2010. EKAPCD has reviewed National Cement's 2010 Title V renewal

application and found that no significant modifications have occurred to the facility in the past 5 years. EKAPCD staff made minor revisions to the facility's previous Title V Permit which include adding Greenhouse Gas (GHG) provisions and updating NSPS and NESHAP requirements.

District submitted proposed National Cement Title V renewal permit to EPA for 45-day review on January 13, 2012. The EPA deemed the proposed Title V permit incomplete during its 45-day review period. After a series of conversations with EPA, the District has proposed the following draft Title V permit renewal for National Cement. There were no public comments during the initial 30-day public review period which began February 2, 2012.

App. Rec.:	10/04/2010	
60-Days:	12/02/2010	
Req. Info. (Deem Incomplete):	10/26/2010	
Deemed Complete:	12/02/2010	
Current Title V Permit Expiration:	03/29/2011	Under Permit Shield
Facility 45-Day Review:	Start: 12/15/2011	End: 01/30/2012
Initial EPA 45-Day Review:	Start: 01/13/2012	End: 02/27/2012
Initial 30 Day Public Notice:	Start: 02/02/2012	End: 03/03/2012
Second EPA 45-Day Review:	Start: 09/20/2012	End: 11/03/2012
Second 30 Day Public Notice:	Start: 09/20/2012	End: 10/19/2012

#### **IV. FACILITY DESCRIPTION**

The plant consists of a limestone quarry and a dry process cement kiln operation. The cement kiln produces clinker which is used to make cement. The kiln system functions as a counter-current heat exchanger and is composed of two basic sections: the preheater/precalciner tower and the rotary kiln. The preheater/precalciner tower is a structure approximately 300 feet high and includes 5 cyclones (stages) and a precalciner section where a percent of the total fuel in the kiln is burned. The rotary kiln is sloped and rotates to move the feed stock from the upper end of the kiln down to the discharge end. The portion of the fuels that are not burned at the precalciner are burned at the kiln discharge end. The primary fuel is petroleum coke, but the system has the capability to burn natural gas, tire-derived fuel (TDF) and diesel fuel as well. The combustion gases produced are drawn up the kiln length and into the preheater/precalciner tower by the induced draft fan. As the feed material moves down the system, it undergoes several reactions at different temperatures; drying of residual moisture, dehydration of clay minerals, calcination, and clinkerization.

The drying of residual moisture is the removal of free moisture from the raw materials. The dehydration reaction is the removal of bound water from the compounds. The calcination reaction is the breakdown of carbonates to the oxides plus carbon dioxide. The clinkerization reaction is the conversion of the oxides to calcium silicates, calcium aluminates, and calcium alumino-ferrites.

The combustion gases in the rotary kiln reach a peak flame temperature of approximately 3,500 F and gradually cool as they progress up the kiln. The gases are cooled by a water spray at the conditioning tower, upstream of the fabric filter

baghouse. The gases then pass through the air pollution control device before exhausting to the atmosphere.

The fuels enter the kiln at the burner. The raw feed enters at the top of the tower and cascades through the stages, contacting the hot gases from the kiln and precalciner countercurrently. The calcined materials enter the kiln at the upper end of the kiln (opposite the burner). The primary fuel of the kiln is petroleum coke. The coke is a solid material obtained from various sources in the region. It is pulverized onsite and air-conveyed to the burners.

The raw feed to the kiln is a mixture of limestone, shale, clay, silica, and iron. The raw materials are mined onsite or imported from offsite. The raw materials are crushed, pulverized, and mixed to the desired concentrations in the raw feed that produce the proper clinker quality. The raw feed is transferred to the kiln by a system of bucket elevators and airslide conveyors.

Clinker is produced from the kiln and passes through a clinker cooler, last modified in 1999, before being stockpiled. Clinker is ground into a fine powder and mixed with appropriate portions of imported gypsum and other materials to become product cement. The product is stored in silos before being loaded into the customer's delivery trucks.

The exhaust gases leaving the kiln are cooled by a water spray in the conditioning tower. The quantity of water sprayed is determined by the temperature of the gases entering the baghouse. The baghouse inlet temperature is set to the desired value in the control room and the computer control system automatically adjusts the water spray rate to achieve the set point temperature. The dust is collected in the baghouse and returned to the raw material feed stream. Differential pressure indicators are used on the dust collectors for leak detection along with water and dust suppressant sprays to control dust emissions. Furthermore, all conveyors used to transfer the kiln dust are covered.

The exit gases are drawn by a system of induced draft (ID) fans, and pass either through the roller mill and/or the baghouse. The clean exhaust from the baghouse is released to the atmosphere. The dust that is collected from the bags is returned to the raw material feed stream. The baghouse is used only by the kiln and roller mill exhaust gases.

Several parameters are monitored continuously at various locations in the kiln system. These are temperature, combustion gas flow, gas chemical composition (NO<sub>x</sub>, CO, O<sub>2</sub>) and fuel rates. The combustion gas flow is monitored by direct measurement of pressure drop across a multiple orifice pitot tube and gas temperature.

The Continuous Emission Monitoring System (CEMS) consists of a sample probe, heated sample line, sample chiller/condenser and emissions monitors for NO<sub>x</sub>, CO, SO<sub>x</sub>, VOC and opacity. The plant does not have CEMS for PM. The sample probe is located on the gas exhaust stack at the 6<sup>th</sup> level of the preheater/precalciner tower. All monitors are located inside an environmentally controlled enclosure. The opacity meter is located on the gas exhaust stack at the 4<sup>th</sup> level of the preheater/precalciner tower.

## V. POTENTIAL EMISSIONS

Tables 1, 2, and 3 below list National Cement's total plant-wide (stationary source) emissions.

**Table 1**

<b>Criteria Pollutant Emissions</b> (tons per year)						
Pollutant:	PM <sub>10</sub>	NOx	SOx as SO <sub>2</sub>	PM <sub>2.5</sub>	HC	CO
Potential Emissions:	658.55	2110.92	299.43		53.46	5281.25
Pre-Modification Emissions:	634.28	2109.00	260.41		53.34	5281.00
<sup>1</sup> Actual Emissions:	462	998	N/A	298	N/A	N/A

<sup>1</sup>Recorded from ARB 2009 Almanac [http://www.arb.ca.gov/aqd/almanac/almanac09/excel/tableA\\_8.xls](http://www.arb.ca.gov/aqd/almanac/almanac09/excel/tableA_8.xls)  
There is no alternative limit for PM.

**Table 2**

<b>Other Regulated Air Pollutant Emissions</b> (tons per year)						
Pollutant:	HAPs					
Potential Emissions:	3.34					

**Table 3**

<b>Greenhouse Gas Emissions</b> (tons per year)							
Pollutant:	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>	Total
Emissions (tpy):	417,936	4.3	0.8	N/A	N/A	N/A	
<sup>2</sup> GWP:	1	21	310	<sup>3</sup>	<sup>3</sup>	23,900	
CO <sub>2</sub> e (tpy):	417,936	90.3	248	N/A	N/A	N/A	418,274.3

Reported for year 2009

### **Greenhouse Gases:**

Carbon dioxide (CO<sub>2</sub>),  
Nitrous oxide (N<sub>2</sub>O),  
Methane (CH<sub>4</sub>),  
Hydrofluorocarbons (HFCs),  
Perfluorocarbons (PFCs), and  
Sulfur Hexafluoride (SF<sub>6</sub>).

<sup>2</sup>Global Warming Potential (GWP): The capacity to heat the atmosphere, calculated as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram (kg) of a substance relative to that of 1 kg of CO<sub>2</sub>. GWP shall be calculated according to the factors for a 100-year time horizon, as stated in 40 CFR Part 98 Subpart A Table A-1 (Global Warming Potentials).

<sup>3</sup>GWP varies based on each pollutant.

**VI. EQUIPMENT LISTING**

<b><u>Emission Unit</u></b>	<b><u>Description of Source</u></b>
001	Primary Crushing & Ore Storage
002	Secondary Crushing & Ore Storage
003	Raw Material Reclaiming, Grinding, & Storage
005	Petroleum Coke Fuel System
006	Clinker Cooling & Storage System
007	Finish Mill #1 & Storage
008	Finish Mill #2
009	Gypsum Truck Off-Loading Operation
010	Cement Storage & Shipping
017	Quarry Operation
018	Gasoline Storage & Dispensing System
019	Piston Engine with Air Compressor #E90004
020	Piston Engine with Air Compressor #E90006
025	Emergency Use Piston Engine with Generator #E90777
026	Emergency Use Piston Engine with Generator #51ED01
028	Truck-Mounted Vacuum #90707
033	Vacuum Type Fugitive Dust Yard Sweeper
034	Synthetic Gypsum Receiving & Storage
035	Truck-Mounted Vacuum
036	Cement Finish Mill #3
037	Emergency Piston Engine with Generator
038	Screening Plant
039	Tire Derived Fuel Storage, Receiving, and Handling Equipment
040	Solid Fuel Receiving/Handling System
041	Truck Mounted Vacuum
042	Preheater/Precalciner Cement Kiln System

## VII. APPLICABLE FEDERAL REQUIREMENTS

Sources are subject to the most recently Board approved version of an adopted rule. Most of the rules this facility is subject to are part of the State Implementation Plan (SIP) and a few are considered “local only” meaning that it is not part of the SIP. In some instances a current rule will differ from those in the SIP due to a revision. This is called a SIP gap and happens when EPA has not yet acted on a SIP submittal.

Enforcement of a rule awaiting SIP approval should guarantee compliance with its SIP approved counterpart. This is because the pending rule will be at least as stringent as the SIP rule. The table below lists all rules and regulations this facility is subject to. Rules listed as “Local Only” or “SIP Pending” are not federally enforceable. SIP approved rules list their approval date along with the current revision date, thus making them federally enforceable.

### EKAPCD Rule    Title and Description Conditions

Rule 108 SIP Approved 2004	<b><u>Stack Monitoring</u></b> Upon the request of and as directed by the Control Officer, the owner shall provide, install, and operate continuous monitoring equipment on such operations as directed. The owner shall maintain, calibrate, and repair the equipment and shall keep the equipment operating at design capabilities.
Rule 108.1 SIP Approved 2001	<b><u>Source Sampling</u></b> Upon the request of the Control Officer and as directed by him the owner of any source operation which emits or may emit air contaminants, for which emission limits have been established, shall provide the necessary and proper facilities for source sampling.  The applicable test method, if not specified in the rule, shall be conducted in accordance with Title 40 CFR, Subpart 60, Appendix A - Reference Methods, except particulate matter (PM <sub>10</sub> ) for compliance with Rule 210.1 requirements shall be conducted in accordance with Title 40 CFR, Subpart 51, Appendix M, Method 201 or 201A. Where no test method exists in the preceding references for a source type source sampling shall be conducted in accordance with California Air Resources Board (CARB) approved methods.
Rule 111 SIP Approved (1980)  Revised 1996	<b><u>Equipment Breakdown</u></b> An occurrence which constitutes a breakdown condition, and which persists only until the end of the production run or 24-hours, whichever is sooner (except for continuous monitoring equipment, for which the period shall be ninety-six (96) hours), shall constitute a violation of any applicable emission limitation or restriction prescribed by these Rules and Regulations; however, no enforcement action may be taken provided the owner or operator demonstrates to the Control Officer that a breakdown condition exists and the proper requirements are met.

**EKAPCD Rule**    **Title and Description Conditions**

Rule 114  
SIP Approved  
1999

**Severability**

If any provision, clause, sentence, paragraph, section or part of these Regulations or application thereof to any person or circumstance shall for any reason be adjudged by a court of competent jurisdiction to be unconstitutional or invalid, such judgment shall not affect or invalidate the remainder of this Regulation and the application of such provision to other persons or circumstances, but shall be confined in its operation to the provision, clause, sentence, paragraph, section or part thereof directly involved in the controversy in which such judgment shall have been rendered and to the person or circumstance involved, and it is hereby declared to be the intent of the Eastern Kern Air Pollution Control Board that these Regulations would have been issued in any case had such invalid provision or provisions not been included.

Rule 201.1  
Title V Rule  
  
Revised 2012

**Permit Fees**

Annually on the anniversary of issuance of a Permit to Operate, the permittee shall pay a renewal fee as prescribed in Rule 301. Fees collected pursuant to Rule 201.1, Section VIII.B. shall supplement applicable Rules 301 and 301.3 fee requirements.

**Payment of Supplemental Fee**

An owner or operator, or his designee, shall pay an annual supplemental fee for a permit to operate pursuant to Rule 201.1 as determined by the calculation method in Subsection VIII.B.3., to provide a District-wide fee rate of \$25 per ton of fee-based emissions (CPI-adjusted) for all facilities subject to Rule 201.1, unless Rule 201.1 VIII.B.2. applies.

**Compliance with Permit Conditions**

- A. Permittee shall comply with all permit conditions;
- B. Permit does not convey any property rights or any exclusive privilege;
- C. Non-compliance with any permit condition shall be grounds for permit termination, revocation and reissuance, modification, enforcement action or denial of permit renewal;
- D. Permittee shall not use “need to halt or reduce a permitted activity in order to maintain compliance” as a defense for non-compliance with any permit condition;
- E. Pending permit action or notification of anticipated non-compliance does not stay any permit condition; and
- F. Within a reasonable time period, permittee shall furnish any information requested by the APCO, in writing, for purpose of determining: 1) compliance with the permit, or 2) whether or not cause exists for a permit or enforcement action.

**EKAPCD Rule**    **Title and Description Conditions**

Rule 201.1

**Emergency Provisions**

- A. The permittee shall comply with the requirements of Rule 111 and the emergency provisions contained in all permit streamlining requirements imposed in accordance with Subsection VI.J. all District-only rules which apply in accordance with Subsection VI.K.1. and all applicable federal requirements not subsumed by such permit streamlining requirement(s) or District-only rules;
  
- B. Within two weeks of an emergency event, an owner or operator of the source shall submit to the District a properly signed, contemporaneous log or other relevant evidence which demonstrates that:
  - 1) An emergency occurred;
  - 2) The permittee can identify the cause(s) of the emergency;
  - 3) The facility was being properly operated at the time of the emergency;
  - 4) All steps were taken to minimize the emissions resulting from the emergency; and
  - 5) Within two working days of the emergency event, the permittee provided the District with a description of the emergency and any mitigating or corrective actions taken;
  
- C. In any enforcement proceeding, the permittee has the burden of proof for establishing that an emergency occurred.

**Record Keeping**

- A. Recording of maintenance of all monitoring and support information associated with all permit streamlining requirements imposed in accordance with Rule 201.1, Subsection VI.J., all District-only rules which apply in accordance with Rule 201.1, Subsection VI.K.1., and all applicable federal requirements not submitted by such permit streamlining requirement(s) or District-only rules, including:
  - 1.) Date, place, and time of sampling;
  - 2.) Operating conditions at time of sampling;
  - 3.) Date, place, and method of analysis; and
  - 4.) Results of analysis;
  
- B. Retention of records of all required monitoring data and support information for a period of at least five years from the date of sample collection, measurement, report, or application; and
  
- C. Any other record keeping deemed necessary by the APCO to ensure compliance with all permit streamlining requirements imposed in accordance with Rule 201.1, Subsection VI.J., all District-only rules which apply in accordance with Rule 201.1, Subsection VI.K.1., and all applicable federal requirements not subsumed by such permit streamlining requirement(s) or District-only rules.

**EKAPCD Rule**    **Title and Description Conditions**

Rule 201.1

**Reporting**

- A. Any non-conformance with permit requirements, including any attributable to emergency conditions (as defined in Rule 201.1) shall be promptly reported to the APCO and in accordance with Rule 111;
- B. Monitoring report shall be submitted at least every six months identifying any non-conformance with permit requirements, including any previously reported to the APCO;
- C. All reports of non-conformance with permit requirements shall include probable cause of non-conformance and any preventative or corrective action taken;
- D. Progress report shall be made on a compliance schedule at least semi-annually and including:
  - 1) Date when compliance will be achieved,
  - 2) Explanation of why compliance was not, or will not be achieved by the scheduled date, and
  - 3) Log of any preventative or corrective action taken; and
- E. Each monitoring report shall be accompanied by a written statement from the responsible official certifying the truth, accuracy, and completeness of the report.

**Referencing of District and Applicable Requirements**

Pursuant to Rule 201.1.VII.C. District hereby references the following documents which are clearly identified and available to the District and to the public:

- A. Plant modernization project; and
- B. Each Authority to Construct file for new equipment and each Authority to Construct file to modify existing equipment.

These files contain title, document number, applicant, and date received. Also included in these files are rule citations, engineering evaluations, and final documents all related to the existing permit conditions and emissions limits set forth in this permit.

**EKAPCD Rule**    **Title and Description Conditions**

Rule 201.1

**Right of Entry**

The source shall allow entry of District, CARB, or U.S. EPA officials for purpose of inspection and sampling, including:

- A. Inspection of the stationary source, including equipment, work practices, operations, and emission-related activity;
- B. Inspection and duplication of records required by the permit to operate; and
- C. Source sampling or other monitoring activities.

**Permit Life**

The life of this permit shall be five years from the date of issuance.

**Administrative Permit Amendment and Minor Permit Modification**

Administrative Permit Amendment and Minor Permit Modification are those actions taken by the District as defined in Rule 201.1.

**Applicability of Federally Enforceable Conditions**

Federally Enforceable Conditions **do not apply** to the following permit sections: Equipment Descriptions, and any Design Conditions, Operational Conditions, Special Conditions, or Compliance Testing Requirements designated as District only. Federally Enforceable Conditions **shall apply** to Design Conditions, Operational Conditions, Special Conditions, Compliance Testing Requirements, and Emission Limits except as noted above.

**Periodic Monitoring**

**Non-Point**

National Cement shall conduct testing semi-annually, in accordance with the methodology contained in EPA Method 22 for all non-point sources. This testing will be the basis for determining compliance with the visible emission standard in District Rule 401. If no emissions are observed utilizing Method 22, the non-point source shall be deemed to be in compliance with the visible emission standard. If emissions are observed from any non-point source and that source is not operating under breakdown condition as defined in and allowed for in District Rule 111, National Cement shall conduct testing on that non-point source within 24 hours of the Method 22 testing in accordance with EPA Method 9 to verify compliance with the visible emission standard.

NOTE: This requirement does not apply to fugitive emissions resulting from activities not covered by a permit to operate unless the source is subject to District Rule 210.1 (NSR) requirements.

**EKAPCD Rule**    **Title and Description Conditions**

Rule 201.1

**Point**

National Cement shall conduct testing semi-annually, in accordance with the methodology contained in EPA Method 22 for all point sources. This testing will be the basis for determining compliance with the visible emission standard in District Rule 401. If no emissions are observed utilizing Method 22, the point source shall be deemed to be in compliance with the visible emission standard. If emissions are observed from any point source and that point source is not operating under breakdown condition as defined in and allowed for in District Rule 111, National Cement shall conduct testing on that point source:

- A. Within 24 hours of the Method 22 testing in accordance with EPA Method 9 to verify compliance with the visible emission standard. If compliance is not documented:
- B. Within 30 days of the Method 9 testing in accordance with EPA Method 5 or 5D to verify compliance with the requirements of District Rules 404.1, 405, 406 and/or 210.1.

**Additional Monitoring**

Diesel standby and emergency piston engines do not require opacity monitoring if utilizing California diesel or other low-sulfur, low aromatic fuel. Fuel records shall be kept for verification purposes and an operational log for hours of operation.

All control equipment shall be inspected annually for proper operation. National Cement shall maintain all records of control equipment maintenance for a period of five years.

Monitoring shall be the responsibility of the source; however, a visible emissions inspection or Method 9 conducted by a District inspector may be counted as meeting the requirement for the source to conduct same if the information and records generated by the inspector meets the requirements of the permit and a copy of the records are maintained by the source for a period of five years.

Record keeping provisions associated with all monitoring requirements shall include the following information:

- A. Identification of stack or emission point being monitored;
- B. Operational conditions at the time of monitoring;
- C. Records of any monitoring conducted, including records of emission or operational parameter values and the date, place and time of sampling or measurement; and
- D. Where corrective action is triggered, description of the corrective action and the date, time and results of any corrective action.

**EKAPCD Rule Title and Description Conditions**

Rule 201.1

**Testing**

National Cement shall conduct stack testing annually and at other times as specified by U.S. EPA or the District, in accordance with the methodology outlined in EPA Methods 5-8, 7E, 10, 18 or equivalent, to verify compliance with emission limits and the accuracy of any continuous in-stack monitors. The District and U.S. EPA shall be notified at least 30 days in advance of the testing to allow an observer to be present and the report of results shall be transmitted to the District as soon as they are available. (PSD Permit #SE95-01 and District Rule 210.1)

**Monitoring, Testing, Record Keeping Requirements** (Applies to EU 004)  
(Portland Cement Kilns - Oxides of Nitrogen)

Continuous NO<sub>x</sub> emissions monitoring system records and clinker production records for the cement kiln shall be maintained at the facility for a period of at least five years and made readily available to District personnel.

Oxides of nitrogen stack testing for purposes of this requirement shall be conducted using EPA Test Method 7E.

Stack gas flow rate testing for purposes of this requirement shall be conducted using EPA Test Method 2.

The following formula shall be used to convert uncorrected observed NO<sub>x</sub> concentration in ppm to tons per day at standard conditions of 68° F and a gas pressure of 29.92 inches of mercury:

$$\frac{\text{Tons} \cdot \text{NO}_x}{\text{day}} = (\text{ppmv} \cdot \text{NO}_x) \times \left( \frac{46 \text{ grams}}{\text{mole}} \right) \times (1.56 \times 10^{-7}) \left( \frac{\text{dscf}}{\text{min}} \right) \times (0.0120)$$

Rule 209  
SIP Approved  
(1972)

Revised  
1995

**Conditional Approval**

The Control Officer shall issue an Authority to Construct or a Permit to Operate, subject to conditions to insure compliance of the operation of any article, machine, equipment or other contrivance within the standards of Rule 208 and 208.1, in which case the conditions shall be specified in writing. Commencing work under such Authority to Construct or operation under such Permit to Operate shall be deemed acceptance of all conditions so specified. The Control Officer shall issue an Authority to Construct or Permit to Operate with revised conditions upon receipt of a new application, if the applicant demonstrates the article, machine, equipment or other contrivance can be operated within the standards of Rule 208 and 208.1 under the revised conditions.

**EKAPCD Rule**

**Title and Description Conditions**

Rule 210.1  
SIP Approved  
(1981)

**Standards for Authority to Construct**

Revised  
2000

- A. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:
- 1) The Permittee has obtained all permits and approvals required by District Rules 201 and 210.1 (unless the change is exempt under District Rule 202);
  - 2) The change is not subject to any requirements under Title IV of the Clean Air Act;
  - 3) The change is not a Title I modification; and
  - 4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of this permit.
- B. For a change that qualified under this section, the Permittee shall provide contemporaneous written notice to the District and the U.S. EPA (except for a change that is exempt under District Rule 202). This written notice shall describe the change, including the date it was made, and shall contain other information as required to determine new applicable requirements of the Clean Air Act that apply as a result of the change;
- C. Upon satisfying the requirements of paragraph B above, the Permittee may make the proposed change;
- D. Changes that qualify under this section are not subject to the requirements for Part 70 revisions;
- E. The Permittee shall include each off-permit change made under this section in the application for renewal of this Part 70 permit; and
- F. The permit shield(s) provided in this permit do not apply to off-permit changes made under this section.

Rule 210.4  
SIP Pending

**Prevention of Significant Deterioration (PSD)**

Source will be subject to District Rule 210.4, Prevention of Significant Deterioration (PSD) if major modifications are made.

All conditions of National Cement PSD permit # NSR 4-4-11, SJ 95-01 continue to apply. See Appendix A, PSD Permit Conditions of National Cement Title V Permit.

<b><u>EKAPCD Rule</u></b>	<b><u>Title and Description Conditions</u></b>
Rule 401 SIP Approved 2001	<p><b><u>Visible Emissions</u></b></p> <p><b><u>Limits</u></b> A person shall not discharge into the atmosphere, from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:</p> <p>A. As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or</p> <p>B. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Subsection A.</p>
Rule 404.1 SIP Approved 2008	<p><b><u>Particulate Matter Concentration - Desert Basin</u></b></p> <p>A. A person shall not discharge into the atmosphere from any single source operation, in service on the date this Rule is adopted, particulate matter in excess of 0.2 grains per cubic foot of gas at standard conditions.</p> <p>B. A person shall not discharge into the atmosphere from any single source operation, the construction or modification of which commenced after the adoption of this Rule, particulate matter in excess of 0.1 grains per cubic foot of gas at standard conditions.</p>
Rule 405 SIP Approved 1984  Revised 1997	<p><b><u>Particulate Matter - Emission Rate</u></b> A person shall not discharge into the atmosphere from any source operation, particulate matter in excess of the limits set forth in the allowable particle emissions based on process weight rate table included in Rule 405.</p>
Rule 406 SIP Approved 1972	<p><b><u>Process Weight - Portland Cement Kilns</u></b> This rule applies because cement kilns were constructed or modified after August 17, 1971. Cement kilns, the construction or modification of which is commenced after August 17, 1971, shall not discharge into the atmosphere particulate matter in excess of the Environmental Protection Agency Standards of Performance. Cement kilns regulated by this Rule are not subject to other process weight Rules.</p>
Rule 407 SIP Approved 1972	<p><b><u>Sulfur Compounds</u></b> A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 percent by volume calculated as sulfur dioxide (SO<sub>2</sub>).</p>

<b><u>EKAPCD Rule</u></b>	<b><u>Title and Description Conditions</u></b>
Rule 409 SIP Approved 1999	<b><u>Fuel Burning Equipment - Combustion Contaminants</u></b> Fuel burning equipment, the construction or modification of which is commenced after August 17, 1971, shall not discharge into the atmosphere particulate matter, sulfur dioxide or nitrogen oxides in excess of the Environmental Protection Agency Standard of Performance.
Rule 410 SIP Approved (1977)  Revised 1979	<b><u>Organic Solvents</u></b> A person shall not discharge into the atmosphere more organic materials in any one day from any article, machine, equipment or other contrivance in which any organic solvent or any material containing organic solvent is utilized unless the emissions are controlled or reduced as outlined in the organic solvent rule (410). See EKAPCD Rule 410 for complete requirements.  <b><u>Disposal and Evaporation of Solvents</u></b> A person shall not during any one day disposed of a total of more than 1½ gallons of any photochemically reactive solvent as defined in Section X of EKAPCD Rule 410., or of any material containing more than 1½ gallons of any such photochemically reactive solvent into the atmosphere.
Rule 410.3 SIP Approved 1999	<b><u>Organic Solvent Degreasing Operation</u></b> A person shall not operate any organic solvent degreasing operation unless the equipment utilized complies with all applicable requirements of Rule 410.3.
Rule 411 SIP Approved 1998	<b><u>Storage of Organic Liquids</u></b> A person shall not use equipment to store organic liquids and petroleum distillates with a true vapor pressure greater than 1.5 psia unless provisions are made for controlling organic vapors.
Rule 412 SIP Approved 1995	<b><u>Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants</u></b> A person shall not transfer gasoline into storage or delivery vessels unless provisions are made to recover 95% of the displaced vapors.  <b><u>Monitoring, Testing, Record Keeping Requirements</u></b> (Applies to EU 018) (Gasoline Storage - Phase I)  A. Compliance with the vapor recovery requirements of District Rule 412 shall be demonstrated using California Air Resources Board (CARB) Method 201.1 or 201.1a upon installation and as directed by the Air Pollution Control Officer;  B. True vapor pressure shall be determined using Reid vapor pressure ASTM Method No. D-323-82 at storage temperature; and  C. The test method to determine vapor tightness of delivery vessels shall be EPA Method 27.

<u><b>EKAPCD Rule</b></u>	<u><b>Title and Description Conditions</b></u>
<p>Rule 412.1 SIP Approved 1996</p>	<p><u><b>Transfer of Gasoline into Vehicle Fuel Tanks</b></u> No person shall transfer gasoline into vehicle fuel tanks unless CARB-Certified Phase II dispensing equipment is utilized and maintained in correct working order.</p> <p><u><b>Monitoring, Testing, Record Keeping Requirements</b></u> (Applies to EU 018) (Gasoline Storage &amp; Dispensing - Phase II)</p> <p>Verification that each CARB-certified Phase II Vapor Recovery System meets or exceeds the requirements of tests specified in District Rule 412.1, Subsection V.C. shall be maintained. These test results shall be dated and shall contain the names, addresses, and telephone numbers of person(s) responsible for system installation and testing.</p> <p>Facility shall be pressure tested to determine proper installation and function before startup, and thereafter as directed by the Control Officer if not consistently operated leak-free or a major modification is implemented.</p> <p>Tests shall be conducted in accordance with test procedures found in CARB's "Test Procedures for Determination of the Efficiency of Gasoline Vapor Recovery Systems at Service Stations".</p>
<p>Rule 419 SIP Approved 1972</p>	<p><u><b>Nuisance</b></u> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.</p>
<p>Rule 422 SIP Approved 1977  Revised 2011</p>	<p><u><b>Federal New Source Performance Standards (NSPS)</b></u> Provisions of Part 60, Chapter 1, Title 40, Code of Federal Regulations, in effect September 5, 1996, are hereby adopted by reference and made a part hereof. All new and modified sources shall comply with standards, criteria and requirements set forth therein.</p> <p>All applicable requirements of 40 CFR Part 60, Subparts A, General Provisions and F, Standards of Performance for Portland Cement Plants apply to this facility.</p> <p>Subpart F, Standards of Performance for Portland Cement Plants Provisions of this subpart apply to the kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.</p>

**Regulation**

**Title and Description Conditions**

Rule 423  
SIP Approved  
1977

**National Emission Standards for Hazardous Air Pollutants and Source Categories (NESHAPS)**

Provisions of Title 40, Chapter 1, Parts 61 and 63, Code of Federal Regulations, in effect September 5, 1996, are hereby adopted by reference and made a part hereof. All sources of hazardous air pollution shall comply with applicable standards, criteria and requirements set forth herein.

Revised  
2011

All applicable requirements of 40 CFR Part 61, Subpart M and 40 CFR Part 63, Subparts A, General Provisions; LLL, Standards for Hazardous Air Pollutants Portland Cement Manufacturing Industry; and ZZZZ, Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines apply to this facility.

For the purposes of 40 CFR Part 63, Subpart LLL, "Significant Change" is defined as the use by the facility of a fuel or alternate raw material that is a Federally regulated hazardous waste. The normal use of District approved fuels and/or fuel blends and District approved raw materials or raw material blends does not constitute a "significant change" in operation of the facility.

For the purposes of 40 CFR Part 63, Subpart ZZZZ, "Stationary Reciprocating Internal Combustion Engines" You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

CAA Section  
112(r)(7)

**Clean Air Act**

Should this stationary source, as defined in 40 C.F.R. section 68.3, become subject to the accidental release prevention regulations in part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in section 68.10 and shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 C.F.R. part 70 or 71.

<u>Regulation</u>	<u>Title and Description Conditions</u>
40 CFR 60 NSPS Subpart F	<p data-bbox="358 191 1179 222"><b><u>Standards of Performance for Portland Cement Plants</u></b></p> <p data-bbox="358 226 1430 258">This facility is subject to the following requirements of 40 CFR 60 Subpart F.</p> <p data-bbox="358 302 1443 369">Particulate matter limits for kilns constructed, reconstructed, or modified after August 17, 1971 but on or before June 16, 2008. §60.62(a)(1)(i)</p> <p data-bbox="358 413 1463 518">Opacity limits for kilns constructed, reconstructed, or modified after August 17, 1971 but on or before June 16, 2008 that do not use a PM continuous emissions monitoring system (CEMS). §60.62(a)(2)</p> <p data-bbox="358 562 1459 630">Particulate matter limits for clinker coolers constructed, reconstructed, or modified after August 17, 1971 but on or before June 16, 2008. §60.62(b)(1)(i)</p> <p data-bbox="358 674 1443 779">Opacity limits for clinker coolers constructed, reconstructed, or modified after August 17, 1971 but on or before June 16, 2008 that do not use a PM continuous emissions monitoring system (CEMS). §60.62(b)(2)</p> <p data-bbox="358 823 1479 919">Opacity limits for raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems. §60.62(c)</p>
40 CFR 61, Subpart M	<p data-bbox="358 961 987 993"><b><u>National Emission Standard for Asbestos</u></b></p> <p data-bbox="358 997 1438 1100">Permittee shall comply with the requirements of Sections 61.145 through 61.147 of the National Emission Standard for Asbestos for all demolition and renovation projects.</p>
40 CFR 63 NESHAPS Subpart LLL	<p data-bbox="358 1142 1240 1209"><b><u>National Emission Standards for Hazardous Air Pollutants Portland Cement Manufacturing Industry</u></b></p> <p data-bbox="358 1213 1484 1394">If an affected facility subject to this subpart has a different emission limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emission limit or requirement and is exempt from the less stringent requirement. §63.1356</p>
40 CFR 63 NESHAPS Subpart ZZZZ	<p data-bbox="358 1436 1474 1503"><b><u>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</u></b></p> <p data-bbox="358 1507 1455 1612">Source is subject to this subpart if a stationary RICE is owned or operate at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. §63.6585</p> <p data-bbox="358 1656 1463 1761">Emission limitations for new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions? §63.6601</p> <p data-bbox="358 1806 1471 1864">Emission limitations for existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions. §63.6602</p>

**Regulation**

**Title and Description Conditions**

40 CFR 70.5d

**Compliance Certification**

The owner/operator shall comply with the following procedures for compliance certification:

- A. Submittal of a compliance certification by the owner or operator to the U.S. EPA and copy to the APCO within 60 days after end of compliance certification period;
- B. Compliance certification period shall begin April 1 of each year and end March 31 of the following year;
- C. Such compliance certification shall identify the basis for each permit term or condition, e.g., specify the emissions limitation, standard or work practice, and a means of monitoring compliance with the term or condition;
- D. Such compliance certification shall include compliance status and method(s) used to determine compliance for the current time period and over entire reporting period; and
- E. Such compliance certification shall include any additional inspection, monitoring or entry requirement promulgated pursuant to Sections 114(a) and 504(b) of the CAA.

Any application form, report, or compliance certification submitted pursuant to these regulations shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

40 CFR 82

**Protection of Stratospheric Ozone**

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

Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR §82.158.

Persons performing maintenance, service, repair or disposal of appliances must be certified by a certified technician pursuant to 40 CFR §82.161.

PSD Permit

**PSD Permit NSR4-4-1, SJ 95-01**

PSD Permit conditions in Appendix A of National Cement's Title V permit apply to this facility.

#### **A. NSPS Subpart F, Portland Cement Plants exclusions**

The following provisions of NSPS Subpart F have been excluded for the Title V permit because they do not apply to this facility:

1. Sections 60.62(a)(1)(ii), 60.62(a)(3), 60.62(a)(4), and 60.62(b)(1)(ii) do not apply because the facility stated that the kiln and the clinker cooler were last modified in 1999, not after June 16, 2008.
2. Section 60.62(b)(3) does not apply because the source has no alternative particulate matter limits for kilns in which the kiln and clinker cooler exhaust have been combined for energy efficiency purposes and sent to a single control device.
3. The source does not use PM CEMS but uses a COMS on the kiln and the cooler stacks. The facility uses a baghouse leak detection system (BLDS) according to the requirements under its site-specific monitoring plan.

#### **B. NESHAP Subpart LLL, Portland Cement Manufacturing Industry exclusions**

The following provisions of NESHAP Subpart LLL have been excluded for the Title V permit because they do not apply to this facility:

1. The source is not major source or greenfield (hence not subject to HCl limits), but is a brownfield area source (subject to PM, HC, Mercury, and dioxin/furan limits).
2. The source is not using activated carbon or sorbent/carbon injections as controls.

### **VIII. NEW AND MODIFIED EQUIPMENT UNITS**

Very few Equipment Units have been modified at the National Cement Company of California facility since the previous Title V permit renewal (March 2006). All modifications have been considered minor modifications; therefore, public noticing of each minor modification was not required.

Actions qualifying as minor modifications that do not constitute as a significant modification under District Rule 201.1 include those:

1. Involving any modification under Section 112(g) of Title I of the CAA or under EPA regulations promulgated pursuant to Title I of the CAA, including 40 CFR Parts 51, 52, 60, 61, and 63;
2. Significantly changing monitoring conditions;
3. Providing for relaxation of any reporting or recordkeeping conditions;
4. Involving a permit term or condition allowing a source to avoid an applicable federal requirement, including: 1) a federally-enforceable voluntary emissions cap

established to avoid triggering a modification requirement of Title I of the CAA, or 2) an alternative HAP emission limit pursuant to Section 112(i)(5) of the CAA;

5. Involving a case-by-case determination of any emission standard or other requirement;
6. Involving a source-specific determination for ambient impacts, visibility analysis, or increment analysis for portable sources;
7. Involving permit streamlining; or
8. Involving use of a District-only rule in satisfaction of a requirement in the SIP.

A summary of modified emissions units are as follows:

### **003: Raw Material Reclaiming, Grinding & Storage**

Modified to include the following special condition: This source is exempt from PSD review because of PM<sub>10</sub> emission reductions made from existing operations concurrently with new equipment installation. Any relaxation in this limit which increases your potential to emit above the applicable PSD threshold will require a full PSD review of the affected source as if construction had not yet commenced.

### **034: Synthetic Gypsum Receiving & Storage**

Modified by adding dust pump (52-CX-01) with discharge to clinker storage silo 71-SL-04 or 71-SL-07 (ATC 1128006O).

### **038: Screening Plant**

Modified to include the following additional operating conditions:

1. Indoor clinker screening and associated processes shall occur only within clinker storage building. (Rule 210.1 BACT Requirement)
2. Indoor clinker screening throughput shall not exceed 35,000 tons per year without prior District approval. (Rule 210.1)
3. Outdoor screening shall be limited to only petroleum coke storage pile. No other outdoor material shall be screened without prior District approval. (Rule 210.1)
4. Outdoor petroleum coke storage pile shall contain at least 8% moisture content. (Rule 210.1)
5. Dust suppressant or water shall be applied to petroleum coke if visible emissions exceed 10%. (Rule 210.1)

## **042: Preheater/Precalciner Cement Kiln System**

Modified by adding air conveyor (42-AC-19) and rotary valve (51-RV-29). Compliance testing requirements were also added in addition to VOC limits of 240.00 lbm/day (43.80 ton/yr) from Kiln Fabric Collector (51-BH-02).

### **IX. COMPLIANCE**

A summary of Violations filed against National Cement because on non-compliance and Variances filed by National Cement to maintain compliance are summarized below.

#### **A. Notice of Violation (NOV)**

##### **2006 Violations**

<b><u>Violation Date</u></b>	<b><u>Compliance Date</u></b>	<b><u>Violation Description</u></b>	<b><u>NOV Number</u></b>
2/4-6/06	2/6/06	CEMs Out-of-Control period. HPV criterion 7, monitoring	22306b/GB
8/12/06	8/12/06	Failure to report Breakdown	82206/GB
8/28/06	8/28/06	Failure to report equipment breakdown in timely manner	82806/DLK
9/8/06	9/11/06	Equipment Breakdown not reported in timely manner	90806/DLK
9/8/06	9/8/06	NOx Emissions Limit violation	92106/GB
11/21/06	11/21/06	Sox exceedance 3-hr rolling average	12406/GB
11/6/06	Down graded to NOV 6/29/07	Silt Content Limitation of raw material	12406A/GB
12/18/06	12/19/06	SO2 Exceedance	010207/GB

##### **2007 Violations**

<b><u>Violation Date</u></b>	<b><u>Compliance Date</u></b>	<b><u>Violation Description</u></b>	<b><u>NOV Number</u></b>
1/3/07	1/4/07	NOx Exceedance	11707/GB

<u>Violation Date</u>	<u>Compliance Date</u>	<u>Violation Description</u>	<u>NOV Number</u>
3/16/07	3/17/07	Rule 422 subpart F, Opacity Exceedance	40407/GB
4/18/07	5/1/07	SO2 Exceedance	50107/GB
5/14/07	5/14/07	CO Exceedance 24 hr. PSD Limit	60407a/GB
5/26/07	5/26/07	Nox Exceedance 24 hr. PSD Limit	60607/GB
9/20/07	9/20/07	Failure to maintain CEMS according to District rules 422 and 425.3	92507/GB
10/4/07	10/4/07	Failure to maintain appropriate baghouse inlet Temperature	110607A/GB
10/28/07	11/28/07	NOx exceedance	112607/GB
11/15/07	11/15/07	Failure to report breakdown in timely manner	112607A/GB

### **2008 Violations**

<u>Violation Date</u>	<u>Compliance Date</u>	<u>Violation Description</u>	<u>NOV Number</u>
6/6/08	6/6/08	CO exceedance 24hr PSD Limit	061808/DLK
6/12/08	6/12/08	Opacity exceedance kiln	062508/DLK
7/10/08	7/10/08	Failure to maintain appropriate baghouse inlet temperature	072108/DLK
7/22/08	7/22/08	Failure to provide a written report for breakdown w/in 10 days	072208/JH

### **2009 Violations**

None

**2010 Violations**

<b><u>Violation Date</u></b>	<b><u>Compliance Date</u></b>	<b><u>Violation Description</u></b>	<b><u>NOV Number</u></b>
9/30/10	10/4/10	Late Title V renewall application submittal	102010A/GB

**B. Variance****2006 Variances**

<b><u>Hearing Date</u></b>	<b><u>Completion Date</u></b>	<b><u>Operation Requiring Variance</u></b>	<b><u>Variance Number</u></b>
1/19/06	2/6/06	Rules 209 and 210.1: Emergency Variance for Dust Collectors 71DC01 and 71DC02.	06-02
1/19/06	1/26/06	Rule 401: Emergency Variance for Hot clinker conveyor	06-03
1/31/06	2/7/06	Rules 209 and 210.1: Emergency Variance for CEM Computer Delay.	06-05
2/23/06	4/6/06	Rules 210.4, 422, and 425.3: 90 Day Short Variance for CEM Monitor (SO2).	06-07
5/26/06	6/1/06	Rule 401: Emergency Variance for Kiln Baghouse excess emissions 30% opacity.	06-14
6/1/06	6/12/06	Rules 210.1 and 210.4: Emergency Variance for TDF Computer Link.	06-15
7/20/06	8/7/06	Rule 401: Emergency Variance for Clinker storage belt excess emissions 50% opacity (PM- 0.06).	06-20
9/8/06	9/5/06	Rule 401: Emergency Variance for Stacker boom excess emissions 70% opacity (PM- 0.15).	06-22
9/22/06	9/8/06	Rule 401: Emergency Variance for Main Clinker storage belt (62BC12) excess emissions 70% opacity (PM- 0.01).	06-24

### 2007 Variances

<u>Hearing Date</u>	<u>Completion Date</u>	<u>Operation Requiring Variance</u>	<u>Variance Number</u>
2/28/07	5/29/07	Rule 209.1: Interim Variance for Silt Content Raw material.	07-03int
5/15/07	6/14/07	Rule 201: Emergency Variance for Screw Conveyor - Clinker Storage.	07-11
10/3/07	10/18/07	Rule 401: Emergency Variance for Clinker Storage <1ton (PM).	07-15
12/13/07	1/28/08	Rule 209.1: Interim Variance for Clinker Storage 6.59 PM/ 80% opacity.	07-16 int

### 2008 Variances

<u>Hearing Date</u>	<u>Completion Date</u>	<u>Operation Requiring Variance</u>	<u>Variance Number</u>
1/28/08	9/30/08	Rules 209.1 and 401: Regular Variance for Clinker Storage 6.59 PM/ 80% opacity.	07-16
7/24/08	7/24/09	Rules 209.1 and 401: Modification of final completion date Variance for Modification of 07-16.	08-07a

### 2009 Variances

None

### 2010 Variances

None

**C. Breakdown**

**2006 Occurrences**

<b><u>Date</u></b>	<b><u>Equipment Involved</u></b>	<b><u>Permit #</u></b>
1/16/06	Opacity Monitor	1128004
1/27/06	Plant Control Room	1128004X
1/29/06	NOx Analyzer	1128004X
1/31/06	Dust Collector 61DC03 (Top of Clinker silo #4)	1128006J
2/6/06	Stack Analyzer	1128004X
2/9/06	NOx Analyzer (stack)	1128004X
2/20/06	SO2 Analyzer at Stack	1128004X
2/28/06	Plant's Main Computer	1128004X
4/26/06	Water Truck	1128017
5/1/06	Quarry water Truck	1128017
5/1/06	Kiln Gas exit conditioner tower	1128004X
5/2/06	NOX analyzer at kiln system stack	1128004X
5/4/06	Rental Water Truck	1128017
5/15/06	Rental Water Truck	1128017
5/21/06	SO2 Analyzer at Stack	1128004X
5/25/06	Kiln Baghouse 51-BH-02	1128004X
5/30/06	Calciner coke metering data	1128004X
7/26/06	Dust Collector 71DC07	1128007F
7/28/06	Kiln Stack	1128004
8/1/06	Dust Collector 71DC02	1128007
8/8/06	Kiln baghouse 51BH02	1128004

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
8/8/06	Dust Collector 81DC06	1128010
8/9/06	Clinker Stack 62BS02	1128006
8/13/06	Dust Collector 71DC06	1128008
8/18/06	Kiln Baghouse	1128004
8/22/06	Clinker belt 62-BC-12	1128006
8/25/06	Coke Mill Fan #14	1128005
8/26/06	Solenoid that feeds air bags for kiln	1128004X
8/28/06	Quarry water truck	1128017
8/30/06	Quarry Water Truck	1128017
9/8/06	Kiln baghouse comp #3	1128004X
10/3/06	Kiln Conditioning Tower air compresor 51CP06	1128004X
10/4/06	Water pump 51PU09	1128004X
10/27/06	Quarry Water Truck	1128017
10/30/06	Cleanout Screw Conveyor 71SC01	1128007
11/2/06	Water Truck - Broke right rear shock absorber	1128017
12/29/06	Kiln Stack Analyzers	1128004X

### **2007 Occurrences**

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
1/4/07	Coke fuel system	1128005
1/8/07	Plant Computer	1128004X
1/29/07	NMHC Analyzer	1128004X
3/17/07	Stack Analyzer	1128004X
3/29/07	Dust Collector 62-DC-07	1128036

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
4/4/07	Stack gas Flow Meter	1128004X
4/5/07	Water Truck	1128017
4/13/07	Petroleum Coke Unloading	1128005
4/17/07	Kiln and Precalciner tower	1128004X
4/24/07	Stack Analyzers	1128004X
5/13/07	Water Truck	1128017
6/7/07	Feed Drive for Coke Mill #1	1128004X
6/29/07	Dust Suppressant foam system	1128001
9/20/07	Dust Collector 71DC04	1128007
9/20/07	NMHC Analyzer	1128004
10/2/07	Belt Conveyor 62BC11	1128006
10/8/07	Dust Collector 71DC02	1128007
10/10/07	Kiln gas exit stack	1128004
10/18/07	Water Truck	1128017
10/24/07	NMHC Analyzer	1128004
11/9/07	Opacity Meter	1128004
11/13/07	TDF System	1128004
11/30/07	Clinker Stacker Belt 62BS02	1128006I
12/23/07	#12 Fan - Baghouse Roller Mill	1128004X

### **2008 Occurrences**

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
1/4/08	Baghouse inlet gas temp thermocouple	1128004
2/12/08	Sodium Hydroxide Pump	1128004
2/27/08	NMHC Analyzer	1128004

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
2/27/08	Water Pump	1128004
3/18/08	Silo	1128036
4/20/08	Opacity Monitor	1128004
4/22/08	SOx Exceedance	1128004
5/1/08	Opacity Monitor	1128004
5/22/08	Opacity Monitor	1128004
5/14/08	Kiln Gas Exit Stack	1128004
6/12/08	Water Truck down/xfer pump	1128017
6/13/08	Opacity Monitor	1128004
7/7/08	Opacity Monitor	1128004
7/7/08	Water Truck	1128017
7/18/08	NMHC Analyzer	1128004
7/20/08	NMHC Analyzer	1128004
7/30/08	Water Truck	1128017
8/7/08	Hydrocarbon Analysis	1128004X
8/11/08	Water Truck	1128017
8/20/08	Stack Analyzer	1128004
8/25/08	Finish Mill #3 Opacity	1128007
9/5/08	Pre-heater tower	1128004X
9/15/08	Kiln went down, opacity	112004
9/17/08	SOx Exceedance	112004
10/27/08	Water Truck	1128017
11/8/08	VOC Analyzer	1128004A

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
11/15/08	VOC Analyzer	1128004A
11/20/08	Water Truck	1128017
11/24/08	VOC Analyzer	1128004A
12/3/08	Water Truck	1128017

### 2009 Occurrences

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
1/12/09	Quarry Water Truck Rear Brakes	1128017
1/18/09	Stack Analyzer	1128004
1/20/09	Stack Analyzer	1128004
1/21/09	Finish Mill #3 Opacity Dust Collector	1128036
1/22/09	SO2 Analyzer	1128004
1/23/09	All Analyzers Down for Repair (Above)	1128004
1/26/09	Stack Analyzer	1128004
2/21/09	Clinker Stacker/Haul from Silo 4 to Barn	1128006O
6/19/09	Baghouse Opacity	1128004Y
6/20/09	Exceedence of VOC Limits	1128004Y
6/25/09	Baghouse inlet temp exceedence	1128004X
7/13/09	Stack Analyzer	1128004
8/19/09	Dust Collector 34DC06	1128002
8/21/09	Sodium Hydroxide Pump	1128004
8/23/09	Kiln Feed Dust Collector Bearing	1128004
11/4/09	Kiln Baghouse 51BH02	1128004x

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
11/16/09	Primary Crusher Dust Collector	1128001
11/20/09	CO Analyzer	1128004X
12/5/09	CEMs	1128004
12/8/09	Opacity Spike	1128004

### 2010 Occurrences

<u>Date</u>	<u>Equipment Involved</u>	<u>Permit #</u>
2/8/10	71 DC 13 Dust Coll. for Finish Mill # 3	1128036
3/20/10	Analyzer	1128004
3/21/10	SO2 Analyzer giving negative readings	1128004
3/28/10	Non Methane Hydrocarbon Analyzer failed the drift check	1128004
4/2/10	SO2 Analyzer	1128004
4/9/10	Stack Opacity F. Mill #1	1128007
5/7/10	62 BC 11 Belt failed	1128006
5/20/10	71BC01 Belt Dusting (FM 1 system)	1128007
6/24/10	Quarry Water Truck	1128017
7/6/10	Sox Exceedence	1126042
8/2/10	Quarry Water Truck,	1128017
9/21/10	Finish Mill 3 Dust collector fan failed	1128036
11/1/10	62 DC 07 dusting, damaged bags	1128006
11/9/10	Kiln ID Fan Failed (bearings)	1128003
11/10/10	Sodium Hydroxide pump failed	1128004

## **X. MONITORING AND RECORDKEEPING**

### **A. Monitoring and Recordkeeping Requirements**

The permittee will conduct routine inspections on all required control equipment. The following monitoring procedures will be used.

1. Conduct daily visual observations of emission control equipment (excluding kiln and cooler stacks) (Visual observations will be conducted by employees pursuant to standard instructions and reporting procedures.):
  - a. If visual observations detect emissions, conduct EPA Method 22 (opacity/visual emissions readings);
  - b. If visual emissions are confirmed by EPA Method 22, conduct EPA Method 9 (6 minute visual emissions readings) as soon as practicable; and
  - c. Record results of EPA Method 9 compliance monitoring.
2. Conduct semi-annual visible emissions survey EPA Method 22 (excluding kiln and cooler stacks) on all control equipment. Record results for compliance monitoring;
3. Kiln and clinker cooler exhaust stacks will be equipped with continuous monitors/recorders for opacity;
4. Kiln exhaust stack will be equipped with continuous monitors/recorders for nitrogen oxides;
5. Diesel engines listed in this permit will be fired on diesel fuel with sulfur content not to exceed 0.05%;
6. Comply with all applicable opacity and PM limits as specified in 40 CFR 60, Subpart F;
7. Opacity monitor (CEM.) will be calibrated, maintained, and operated as directed in 40 CFR 60, Subpart F;
8. Develop and maintain a Startup, Shutdown, and Malfunction Plan as required by 40 CFR Part 63, Subpart A;
9. Comply with all applicable monitoring requirements of 40 CFR Part 63, Subpart LLL;
10. Develop and maintain an Operations and Maintenance Plan as required by 40 CFR Part 63, Subpart LLL; and
11. Comply with monitoring, installation, collection, operation, maintenance notification, reporting, and record requirements of 40 CFR 63, Subpart ZZZZ.

**B. Additional Recordkeeping Requirements**

1. Recording of maintenance of all monitoring and support information associated with all permit streamlining requirements imposed in accordance with Rule 201.1, Subsection V.J., all District-only rules which apply in accordance with Rule 201.1, Subsection V.K.1., and all applicable federal requirement not submitted by such permit streamlining requirement(s) or District-only rules, including:
  - a. Date, place, and time of sampling;
  - b. Operating conditions at time of sampling;
  - c. Date, place, and method of analysis; and
  - d. Results of analysis;
2. Retention of records of all required monitoring data and support information for a period of at least five years from the date of sample collection, measurement, report, or application; and
3. Any other recordkeeping deemed necessary by the APCO to ensure compliance with all permit streamlining requirements imposed in accordance with Rule 201.1, Subsection V.J., all District-only rules which apply in accordance with Rule 201.1, Subsection V.K.1., and all applicable federal requirements not subsumed by such permit streamlining requirement(s) or District-only rules.

**C. Compliance Assurance Monitoring (CAM) Requirements**

In accordance with 40 CFR Part 64 Section 64.2,(b)(i), packhouse, loading operation, pyroprocessing, and clinker cooler are all emissions units subject to Section 112 (National Emission Standards for Hazardous Air Pollutants) of the Clean Air Act proposed after 1990 (specifically 40 CFR Part 63, Subpart LLL, adopted June 1999). Therefore, CAM plan is not required.

This facility does not use coal in its production, therefore 40 CFR 60, Subpart Y is not applicable.

**D. Periodic Monitoring Requirements**

The Title V permit includes periodic monitoring requirements sufficient to yield reliable data from the relevant time period(s) that are representative of the source's compliance with the permit (40 CFR 70.6(a)(3)), and includes provisions sufficient to assure compliance with the terms and conditions of the permit (40 CFR 70.6(c)(1)).

## **XI. REPORTING REQUIREMENTS**

1. Any non-conformance with permit requirements, including any attributable to emergency conditions (as defined in Rule 201.1) will be promptly reported to the APCO and in accordance with Rule 111;
2. Monitoring report will be submitted at least every six months identifying any non-conformance with permit requirements, including any previously reported to the APCO;
3. All reports of non-conformance with permit requirements will include probable cause of non-conformance and any preventative or corrective action taken;
4. Progress report will be made on a compliance schedule at least semi-annually and including:
  - a. Date when compliance will be achieved;
  - b. Explanation of why compliance was not, or will not be achieved by the scheduled date; and
  - c. Log of any preventative or corrective action taken; and
5. Each monitoring report will be accompanied by a written statement from the responsible official certifying the truth, accuracy, and completeness of the report.

*Remainder of Page Intentionally Left Blank*