

**EASTERN KERN AIR POLLUTION CONTROL DISTRICT
TECHNICAL SUPPORT DOCUMENT FOR
LEHIGH SOUTHWEST CEMENT COMPANY
2016 TITLE V PERMIT RENEWAL NO: 1147-V-2000**

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APPLICATION RECEIVED FROM: **LEHIGH SOUTHWEST CEMENT COMPANY
13573 E. TEHACHAPI BLVD
TEHACHAPI, CALIFORNIA 93561**

PLANT SITE LOCATION: **13573 E. Tehachapi Blvd
Tehachapi, California 93561**

SECTION/TOWNSHIP/RANGE: **NE30/T32S/R34E**

APPLICATION PROCESSED BY: **Wunna Aung, Air Quality Engineer I**

APPLICATION REVIEWED BY: **Glen Stephens, Air Pollution Control Officer**
Date: _____

NATURE OF BUSINESS: **Portland Cement Manufacturing**

SIC CODE: **3241**

RESPONSIBLE OFFICIAL: **Gideon Sarpong**
TITLE: **Environmental Manager**
TELEPHONE NUMBER: **(661) 822-4445**

FACILITY CONTACT PERSON: **Gideon Sarpong**
TITLE: **Environmental Manager**
TELEPHONE NUMBER: **(661) 822-4445**

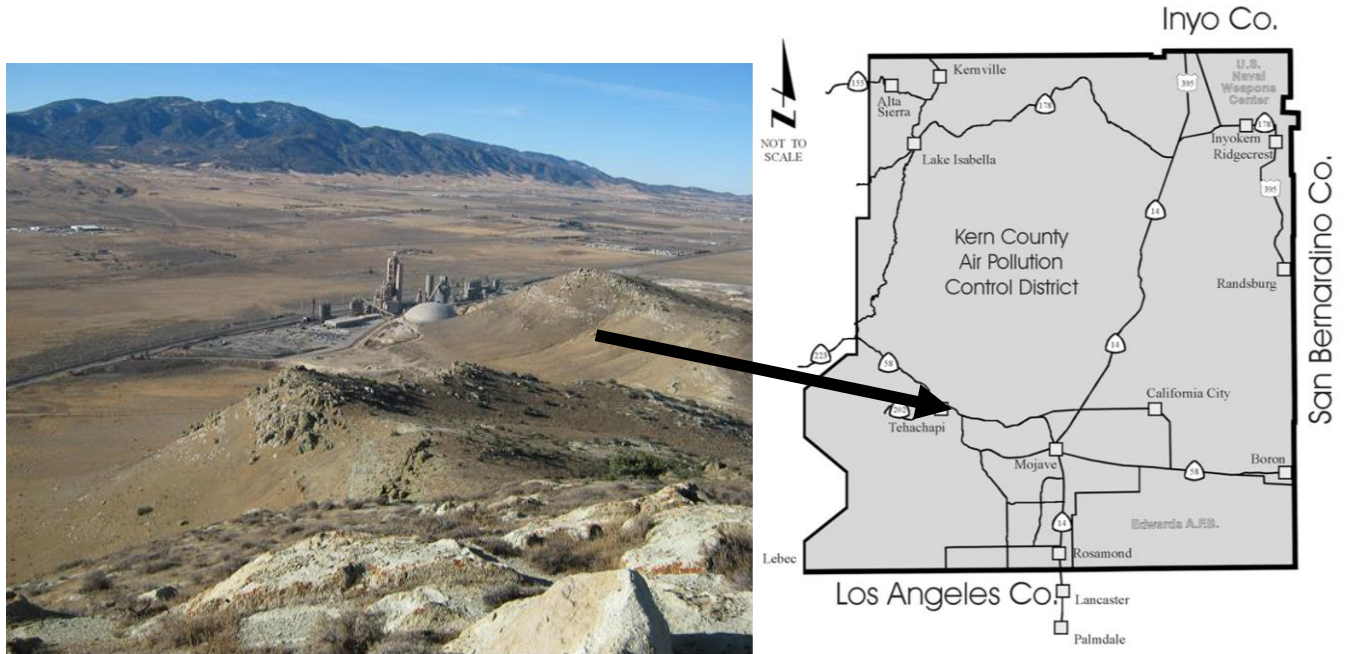
TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	FACILITY LOCATION.....	3
III.	BACKGROUND	3
IV.	FACILITY DESCRIPTION.....	4
V.	POTENTIAL EMISSIONS	8
VI.	EQUIPMENT LISTING.....	9
VII.	APPLICABLE FEDERAL REQUIREMENTS.....	10
VIII.	NEW, MODIFIED AND CANCELED EMISSION UNITS.....	22
IX.	COMPLIANCE	23
X.	MONITORING AND RECORDKEEPING.....	31
XI.	REPORTING REQUIREMENTS.....	33

I. INTRODUCTION

This Technical Support Document (TSD) pertains to Lehigh Southwest Cement Company (Lehigh) 2016 Title V renewal of Permit No. 1147-V-2000. Renewal of Permit No. 1147-V-2000 allows Lehigh 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 (District) Rule 201.1, Permit to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990.

II. FACILITY LOCATION:



III. BACKGROUND:

Pursuant to District Rule 201.1, Permit 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 issued to Lehigh. District issued the initial Federal Part 70 Title V Permit to Operate to Lehigh in 2001.

Lehigh applied for a Title V Permit renewal in 2005 and 2010. District issued the first and second Title V Permit renewal in 2006 and 2011. Upon review of Lehigh's 2016 Title V renewal application, District found that no significant modifications have occurred to the facility in the past 5 years. District staff made minor revisions to the facility's previous Title V Permit which includes NSPS and NESHAP requirements.

On January 27, 2016, Eastern Kern Air Pollution Control District (District) published a public notice for Lehigh's proposed draft Title V renewal permit that allowed a 30-day public review period. District also submitted a copy of the proposed draft permit to EPA for the required 45-day review which began on January 19, 2016. On December 22, 2015, the District gave Lehigh 45-day facility review. Lehigh took actions very quickly on the 45-day facility review; therefore, the 45-day facility was completed on January 12, 2016.

<u>App. Rec.:</u>	11/23/2015	
<u>60-Days:</u>	05/23/2016	
<u>Req. Info. (Deem Incomplete):</u>	NA	
<u>Deemed Complete:</u>	11/30/2015	
<u>Current Title V Permit Expiration:</u>	03/29/2016	
<u>Facility 45-Day Review:</u>	Start: 12/22/2015	End: 02/05/2016
<u>EPA 45-Day Review:</u>	Start: 01/19/2016	End: 03/04/2016
<u>30 Day Public Notice:</u>	Start: 01/27/2016	End: 02/26/2016

IV. FACILITY DESCRIPTION

Portland cement essentially consists of compounds of calcium oxide with silica, alumina and iron oxide in defined proportions. These oxides are found in raw materials that are mined from deposits on the property or purchased from outside sources. All the raw materials are stored at the plant prior to their use in the process. The raw materials at the Tehachapi Plant are stored either in a geodesic dome with automatic stacking and reclaiming equipment, several bins equipped with proportioning devices or outdoor storage piles at various locations.

The overland belt conveyor brings raw materials from the crusher area to the plant for storage and subsequent use. Material from the overland belt conveyor can be discharged to the ground for mobile equipment reclaim, transferred to the preblend dome or discharged onto the tripper belt to ground discharge. These options are controlled by diverter gates. Material from the surge bin B2-020 passes through the Gamma Metrics analyzer, at a controlled rate, allowing for on-line analysis of the material chemistry.

Limestone is transported by the C3-200 belt conveyor to the preblend dome, where it is blended, stored and reclaimed. Material can be removed from the preblend dome by mobile equipment, for outdoor storage. Located outside the preblend dome, the D2-010 unloading hopper allows raw materials, such as but not limited to iron, silica, limestone or reject material, to be fed to the four raw material storage bins. The bins are filled with the appropriate material via diverter gates and belt conveyors.

The Homogenizing and Kiln Feed System is a continuous process to blend the raw meal to achieve chemical uniformity, to feed the blended material to the preheater at a controlled rate, and to store or buffer material, to compensate for accidental or planned shutdown of preceding departments. The major pieces of equipment included in this process unit are the blending silo, belt conveyor elevators, impact flow meters and the flow control gates.

The blending silo consists of a large outer chamber for storage and a smaller inner chamber for mixing. The sloping silo chamber floor surrounding the mixing chamber is covered with open-type airslides. When the airslides in a section of the outer ring are aerated, the air penetrates and fluidizes just enough to keep the material flowing. The inner chamber floor is also covered with open-type airslides and the floor area is divided into quadrants. Activation of the quadrants allows material to be fed out of the silo.

The kiln feeding equipment consists of a kiln feed bin that is fed by one of two airslides that discharge from the homogenizing silo. The kiln feed bin is mounted on load cells to constantly weigh the amount of material in the bin. The kiln feed bin discharges through one of two

airslides. The airslides feed a flow impact scale that measures the flow of feed out of the kiln feed bin. The impact scales discharge into an airslides that transports the kiln feed to a rotary air lock, and then to the preheater between the first and second stages.

The kiln feed bin is mounted on load cells and the kiln feed impact scales. Periodically the calibration is verified by discharging the material into a truck for a measured period of time weighing the truck and then comparing the results with the weight measured by the load cell devices.

The bottom of the kiln feed bin is covered with woven fabric as is the bottom of each airslide conveyor. The life of the fabric varies depending on a number of circumstances such as the location in the system, the abrasiveness of the material, exposure to moisture, and time of service. The system will not operate with damaged aeration media. Major maintenance, however, is required on a very infrequent basis. Generally complete emptying of the silo is done for aeration pad fabric replacement every 5-6 years. Extraordinary situations can result in shorter periods between complete emptying of the silo.

The fuels used at the Tehachapi Plant are coal, petroleum coke and natural gas. The natural gas is delivered to the plant by a pipe line. The coal and petroleum coke are delivered to the plant by rail or truck, depending on the source. Before the coal and coke can be used to fuel the manufacturing of Portland Cement, it is dried, pulverized into a process oriented size and stored in indirect-fired surge bins.

All coal and coke railcars are discharged into track hoppers; whereas the trucks may either discharge to the hoppers or to outdoor storage. Mobile equipment can move material from outside storage to the track hoppers. The track hoppers are located in a partially enclosed building. From the track hoppers, the material is transported via belt conveyor and bucket elevator, to storage bins or to outdoor storage, depending on the position of a diverter gate.

Cement raw materials are transformed into clinker by subjecting the materials to high temperature, pressure and retention time, allowing the reaction to take place between the various oxides. The resulting product of the reacted material is commonly referred to as clinker. The preheater/precalciner/rotary kiln produces the required conditions to form clinker. The main equipment at the Tehachapi Plant consists of a six stage cyclone preheater, a precalciner that functions as a second combustion chamber, a 12' x 195' long rotary kiln and a tertiary air duct supplying combustion air from the clinker cooler.

The chemically homogeneous raw meal is fed into the six stage preheater between the first and second preheater cyclone stages. In each cyclone stage, the material contacts hot gases, heating the material and cooling the gases in a counter current flow. The cyclone's centrifugal action in the preheater vessel, separates gases from the material. A swirl type precalciner, G2-125 is positioned between the fifth and sixth stages of the preheater flow. A tertiary duct supplies heated combustion air to the system from the clinker cooler. By the time the material passes through all the stages and reaches the kiln inlet, it is to a large degree calcined. A substantial amount of the heat required for the calcination is furnished by the fuel added at the precalciner.

The final reactions take place in the rotary kiln, G2-150 at high temperatures where reactions are both exothermic and endothermic. The rotary kiln completes the calcination and clinkering processes. The hot clinker is discharged from the kiln into the clinker cooler. A Kiln I.D. (Induced Draft) Fan, G6-150 keeps a negative pressure throughout the kiln and preheater

tower, thus allowing counter flow and maximum heat exchange between the material and gas streams.

The gases exiting the preheater are utilized in the raw mill process and the coal mill system, to take advantage of the remaining heat for drying. The low oxygen content of the gases from the preheater have the added benefit of providing inert gases for the coal mill drying and grinding system. Preheater exit gases are vented either directly through dust collector S3-160, through the raw mill system and later exiting S3-160 dust collector or through the coal mill system and exiting the coal mill system's dust collectors and stack.

The major functions of the Clinker Cooler System is to rapidly cool the clinker by quenching to enhance the mineralogical quality of the clinker by fixing the crystalline structure and to recover energy, in the form of heat for combustion air for the preceding process steps. The Tehachapi Plant Clinker Cooler System consists of an eight compartment grate cooler, an air-to-air heat exchanger, a dust collector and a variable speed vent fan. The clinker that has been cooled by the grate cooler is transported to a steel silo via a deep pan conveyor.

The reciprocating grate cooler consists of alternating rows of immobile and mobile perforated grates, arranged in overlapping, angled rows. The interior of the cooler is divided into two major areas separated by the grate line: (1) the overgrate area where the material is cooled and the hot gases handled, and (2) the compartment undergrate where the cooling air enters and small clinker particles are collected in hoppers. Cooling is accomplished by forcing ambient air upward through the material as it is being conveyed along the length of the cooler by the reciprocating action of the grates. The undersize clinker particles passing through the grate plates enter the air compartment hoppers, from where they are discharged to a drag conveyor. The grate ends and discharges the clinker to an inclined grate, where a breaker breaks agglomerations into a more process oriented size.

An air-to-air heat exchanger cools the hot waste gases vented from the cooler. Six fans blow ambient air across the heat exchanger, which removes the heat from the hot gases before entering the dust collector. Both the heat exchanger and the dust collector discharge particle material that is transported by screw conveyors, to the deep pan conveyor.

Portland cement is produced by milling a predetermined amount of clinker, calcium sulfate (gypsum) and possibly other cement additives including but not limited to Pozzolanic, limestone, tufa, slag or inert fillers. The provisions for storage and reclaim of clinker gypsum and cement additives allows for the cement grinding production to be independent of kiln operations, gypsum delivery inconsistencies and various material compositions. The Tehachapi Plant utilizes both enclosed and outdoor storage for clinker and gypsum.

Clinker production is a continuous operation, with interruptions due to maintenance, power failure, lack of demand or unavoidable conditions. The clinker discharged from the clinker cooler is transported by a steel deep pan conveyor to the clinker silo. The clinker is reclaimed from the clinker silo with three dustless feeders, and deposited on an apron conveyor for transport to either the finish mill feed bins or to a loadout spout for transport to outdoor clinker storage or for shipment.

Clinker to be stored directly into the mill feed bin is transferred from the apron conveyor to belt conveyor E1-230 by a diverter gate. Clinker for outdoor storage or shipment is removed from the system by trucks through an open stacking spout. The trucks can transport the clinker to the clinker storage area, where it is reclaimed by front end loader and transferred into hopper

E1-104. Clinker, gypsum or other cement additives can be conveyed by belt conveyor and a rotary distributor to any of the three mill feed storage bins.

The cement grinding consists of intergrinding cement clinker with calcium sulfate (gypsum) and other additive components including but not limited to pozzolanic, limestone, tufa, slag or other inert fillers, depending on the final product's desired properties. The manner in which this operation is conducted determines the quality of the cement. The B-3 Finish Mill System is a closed circuit system which includes a two compartment ball mill with a mill motor, an air separator, dust collectors and a cement cooler.

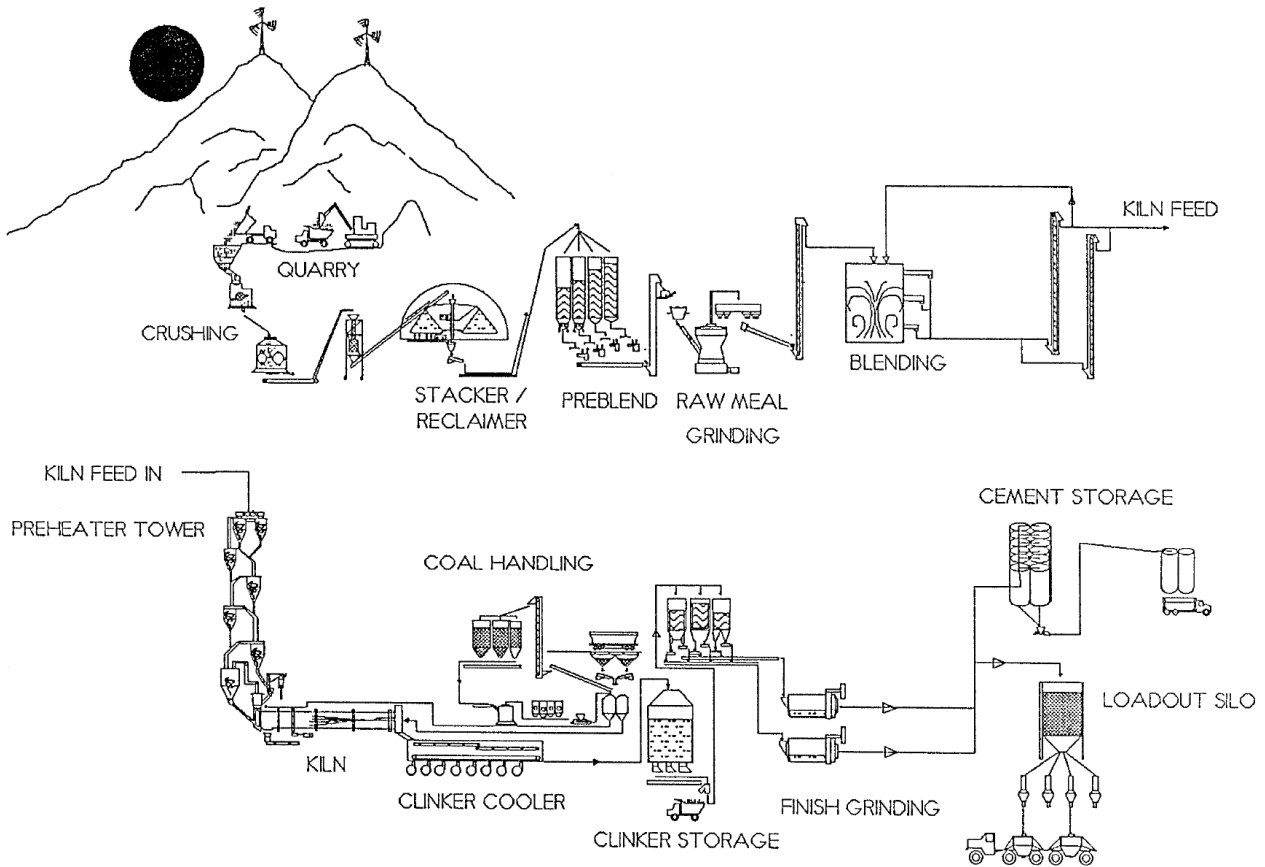
Clinker, gypsum and other cement additives are stored in bins as described in District issued Permit to Operate #1147019. Material from these bins is withdrawn by weight feeders controlling the proportion of the material to be fed to the grinding system. The weight feeder discharge to a belt conveyor, which in turn feeds the finish mill. A controlled amount of grinding aid may also be added to the system.

The finish mill discharges the cement, by airslides and a bucket elevator to the separator. The separator classifies the material into fine and oversized categories. Oversized cement not passing the classifying action of the separator is returned to the finish mill for further size reduction. The fines, or finished cement, pass the classifying and can either be diverted to or bypass the cement cooler. The finished cement is pneumatically pumped to storage.

Cement is shipped from Lehigh Southwest Cement Company's Tehachapi Plant by train or truck. The bulk Cement Storage and Loadout Operation includes a cement silo, two truck scales and loading spouts, each equipped with individual airslides and dust collectors.

Cement is transferred to the J1-300 cement silo from the finish mill systems through an inlet box located on top of the silo. Cement is stored here until it is unloaded into enclosed trucks for shipment. Material is moved from the silo through airslides, each equipped near the bottom with a manual slide gate. The airslides feed the four loading spouts.

The two truck scales are also used to calibrate some of the other plant weighing equipment by comparing the weight of a weight feeder or weigh bin to that registered at the scales.



V. POTENTIAL EMISSIONS

Tables 1 and 2 below list Lehigh’s total plant-wide (stationary-source) emissions.

Table 1

Criteria Pollutant Emissions (tons per year)					
Pollutants:	PM ₁₀	SO _x	NO _x	HC	CO
Potential Emissions:	161.80	1296.14	1288.74	203.32	3967.59
Pre-Modification Emissions:	157.72	1296.13	1283.26	202.53	3960.84

Table 2 (Reported for year 2014. Numbers below are in units of short tons)

Greenhouse Gas Emissions (tons per year)							
Pollutants:	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	Total
Emissions:	630,939.10	25.20	3.61	N/A	N/A	N/A	
*GWP:	1	21	310	**	**	23,900	
CO ₂ e (tpy)	630,939.10	529.26	1,120.21	N/A	N/A	N/A	632,588.56

Greenhouse Gases:

Carbon dioxide (CO₂), Nitrous oxide (N₂O), Methane (CH₄), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF₆).

*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 CO₂. 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).

**GWP varies based on each pollutant.

VI. EQUIPMENT LISTING:

<u>Emission Unit</u>	<u>Description of Source</u>
009	Bulk & Sack Cement Loadout Operation
010	Truck Loadout Station
013	Raw Material Storage & Handling Operation
014	Raw Mill System
015	Homogenizing & Kiln Feed System
016	Coal Drying & Pulverizing System
017	Preheater/Precalciner Portland Cement Kiln
018	Clinker Cooler
019	Clinker Storage & Reclaim Operation
020	B-3 Finish Mill
021	B-4 Finish Mill
022	Cement Storage Silo & Loadout Operation
024	Outdoor Storage & Reclaim Operation
026	Quarry Operation
027	Piston Engine with Welder #R5-508
028	Emergency Use Piston Engine with Generator #M2-101
030	Emergency Use Piston Engine with Generator
032	Truck-Mounted Vacuum
036	Vacuum Truck #2
040	Quarry Drilling Operation
041	Aboveground Gasoline Storage & Dispensing Operation
042	Kiln Fabric Collector Dust Transfer System
044	Quarry Drilling Operation
045	Alternative Fuel Storage & Cement Processing

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.

<u>District Rule</u>	<u>Title and Description Conditions</u>
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Rule 107	<p><u>Inspections</u></p> <p>Inspections shall be made by the enforcement agency for the purpose of obtaining information necessary to determine whether air pollution sources are in compliance with applicable rules and regulations, including authority to require record keeping and to make inspections and conduct tests of air pollution sources.</p>
Rule 108 SIP Approved 2004	<p><u>Stack Monitoring</u></p> <p>Upon the request of and as directed by the Control Officer, the owner of a source operation shall provide, install, operate and maintain 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.</p>
Rule 108.1 SIP Approved 2001	<p><u>Source Sampling</u></p> <p>Upon the request by the Control Officer, the owner of any source operation that emits or may emit air contaminants, for which emission limits have been established, shall provide the necessary and proper facilities for source sampling.</p> <p>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 (PM₁₀) 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.</p>

Rule 111
SIP Approved
(1980)

Revised 1996

Equipment Breakdown
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 96-hours), shall constitute a violation of any applicable emission limitation or restriction prescribed by these Rules and Regulations; however, no enforcement action will be taken if the owner or operator demonstrates to the Control Officer that a breakdown condition exists and the proper requirements are met.

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.

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

Rule 201.1

- 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.

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.

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

Lehigh 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.

Point

Lehigh 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, Lehigh 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. Lehigh 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.

Rule 201.1

Testing

Lehigh 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 #SE94-01 and District Rule 210.1)

Monitoring, Testing, Record Keeping Requirements (Applies to EU 017)
(Portland Cement Kilns - Oxides of Nitrogen)

Continuous NOX 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 NOX concentration in ppm to tons per day at standard conditions of 68° F and a gas pressure of 29.92 inches of mercury:

$$\frac{Tons \cdot NOx}{day} = (ppmv \cdot NOx) \times \left(\frac{46 \text{ grams}}{mole} \right) \times (1.56 \times 10^{-7}) \left(\frac{dscf}{min} \right) \times (0.0120)$$

Rule 209

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.

Rule 210.1

Standards for Authority to Construct

- 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

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 Lehigh PSD permit #NSR 4-4-11 and SE 94-01 continue to apply. See Appendix A, PSD Permit Conditions from Lehigh Title V Permit.

Rule 401

Visible Emissions

A person shall not discharge into the atmosphere emissions as dark or darker than Ringelmann 1 or 20% opacity for more than 3 minutes in any one hour.

Rule 404.1

Particulate Matter Concentration - Desert Basin

A person shall not discharge 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.

- Rule 405 **Particulate Matter - Emission Rate**
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.
- Rule 406 **Process Weight - Portland Cement Kilns**
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.
- Rule 407 **Sulfur Compounds**
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 (SO₂).
- Rule 409 **Fuel Burning Equipment - Combustion Contaminants**
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 U.S. EPA Standards of Performance. Additionally, combustion contaminants at point of discharge shall not exceed 0.1 grain per standard cubic foot of gas calculated to 12 percent of carbon dioxide (CO₂) at standard conditions.
- Rule 410 **Organic Solvents**
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 District Rule 410 for complete requirements.
- Rule 410.2 **Disposal and Evaporation of Solvents**
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 Rule 410.2, or of any material containing more than 1½ gallons of any such photochemically reactive solvent into the atmosphere.
- Rule 411 **Storage of Organic Liquids**
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 **Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants**
A person shall not transfer gasoline into storage or delivery vessels unless provisions are made to recover 95% of the displaced vapors.

- Rule 412.1 **Transfer of Gasoline into Vehicle Fuel Tanks**
No person shall transfer gasoline into vehicle fuel tanks unless CARB-Certified Phase II dispensing equipment is utilized and maintained in correct working order.
- Rule 419 **Nuisance**
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.
- Rule 422 **Federal New Source Performance Standards (NSPS)**
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.
- All applicable requirements of 40 CFR Part 60, Subparts A (General Provisions), Subpart F (Standards of Performance for Portland Cement Plants), Subpart Y (Standards of Performance for Coal Preparation and Processing Plants), Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), and Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) apply to this facility.

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.

All applicable requirements of 40 CFR Part 61, Subpart M (National Emission Standard for Asbestos) and 40 CFR Part 63, Subpart A (General Provisions); Subpart LLL (National Emission Standards for Hazardous Air Pollutants From Portland Cement Manufacturing Industry); and Subpart ZZZZ (National Emissions 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.

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.

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 SE 94-01

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

VIII. NEW, MODIFIED AND CANCELED EMISSION UNITS:

Only 3 Emission Units have been modified and 2 new Emission Units have been installed at Lehigh since the previous issuance of Title V permit (March 2011). As described below, all new and modified emission units have been considered minor facility modifications and do not increase plant-wide emissions to an amount that will exceed the daily maximum; therefore, public noticing of each modification was not required.

New and modified emission units has contributed to the following ton per year (ton/yr) for potential to emit in emission: PM₁₀ – 4.08, SO₂ – 0.01, NO₂ – 5.48, VOC – 0.79. Summary of the modified and new emissions units are below.

Modified Units:

<u>Emissions Unit</u>	<u>Modification</u>
017F	<u>Preheater/Precalciner Portland Cement Kiln</u> was modified by replacing ID fan wheel with new unit. <i>No significant change in emissions</i>
017G	<u>Preheater/Precalciner Portland Cement Kiln</u> was modified by addition of Activated Carbon Injection (ACI) System. <i>Potential emission increase ton/yr: PM₁₀ - 0.07</i>
017H	<u>Preheater/Precalciner Portland Cement Kiln</u> was modified by addition of alternative fuel to kiln system. <i>No significant change in emissions</i>
019E	<u>Clinker Storage & Reclaim Operation</u> was modified by addition of clinker conveying system. <i>Potential emission increase ton/yr: PM₁₀ – 2.10</i>
040A	<u>Quarry Drilling Operation</u> was modified by reducing operation hours. <i>No significant change in emissions</i>

New Units:

<u>Emission Unit</u>	<u>Description</u>
044	<u>Quarry Drilling Operation</u> <i>Potential emission increase ton/yr: PM₁₀ – 0.32, SO₂ – 0.01, NO₂ – 5.48, VOC – 0.79</i>
045	<u>Alternative Fuel Storage & Cement Processing</u> <i>Potential emission increase ton/yr: PM₁₀ – 1.59</i>

Canceled Units:

<u>Emission Unit</u>	<u>Description</u>
037	<u>Street Sweeper</u>

IX. COMPLIANCE:

A summary of Violations filed against Lehigh based on non-compliance and Variances filed by Lehigh to maintain compliance are summarized below.

A. Notice of Violations (NOV):

2011 Violations

<u>Violation Date</u>	<u>Compliance Date</u>	<u>Violation Description</u>	<u>NOV Number</u>
1/31/2011	1/31/2011	Rule 210.1 and Rule 422 NSPS, Subpart F – Exceeded visible emission limit of 10% for more than 3 minutes from railcar loadout – EU 1147009	013111/DLK
4/1/2011	4/1/2011	Dusting stopped during VEE	040411/GB
6/15/2011	6/15/2011	Rule 422, Subpart F – Visible emissions greater than 10% over a 3 minutes period in one hour at E4 conveyor belt	061511/DLK
6/16/2011	6/17/2011	Rule 422, Subpart F and Rule 401 – Visible emissions greater than 20% over a 3 minutes period in one hour at Precalciner Tower	061611/DLK
6/22/2011	6/22/2011	Rule 401 – Visible Emissions greater than 20% for a period of 6 minutes	062311/GB
6/29/2011	6/29/2011	Rule 401 – Visible emissions greater than 20% for a period of 6 minutes.	062911/GB
11/1/2010	10/24/2011	Rule 201, Subsection II - operating in production with permit Rule 201 – Failure to obtain a permit for limestone screening operation	103111/DLK
12/1/2011	12/1/2011	Rule 422, Subpart F – Visible emissions greater than 10% over a 3 minutes period in one hour at the tripper belt (c3-026) on the raw mill feeding system (EU 1147013)	120111/DLK

2012 Violations

<u>Violation Date</u>	<u>Compliance Date</u>	<u>Violation Description</u>	<u>NOV Number</u>
6/12/2012	6/12/2012	Rule 401 – Discharging emissions into the atmosphere 20% opacity or greater	061812/GB

10/30/2012	10/30/2012	Rule 401 – Discharging emissions into the atmosphere 20% opacity or greater of an air contaminant. Rule 422, Subpart F – Discharging emissions into the atmosphere 10% opacity or greater of an air contaminant.	103012/GB
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2013 Violations

<u>Violation Date</u>	<u>Compliance Date</u>	<u>Violation Description</u>	<u>NOV Number</u>
8/15/2013	8/15/2013	Rule 401 – Visible emissions from a screen greater than 20% for 3 minutes in one hour	081512/GB

2014 Violations

<u>Violation Date</u>	<u>Compliance Date</u>	<u>Violation Description</u>	<u>NOV Number</u>
8/12/2014	7/1/2014	Rule 422 & 423 – Failure to maintain CEMS downtime in second quarter 2014. Not to exceed 5% of the total operating time in any quarter	081214/JC
9/5/2014	10/30/2014	Rule 210.1 Clinker Cooler stack opacity in excess of 10%	090914/JH

2015 Violations

<u>Violation Date</u>	<u>Compliance Date</u>	<u>Violation Description</u>	<u>NOV Number</u>
2/3/2015	4/21/2015	Rule 401 – Visible emissions from Clinker Storage Area in excess of 20%	020315/BGS
3/27/2015	6/1/2015	Rule 401 & 422 – Visible emissions from Raw Mill System Area in excess of 20% and 10% respectively	032715/BGS

B. Variances:

2011 Variances

<u>Hearing Date</u>	<u>Completion Date</u>	<u>Operation Requiring Variance</u>	<u>Variance Number</u>
1/28/2011	3/28/2011	Quarry Crusher	11-01(l)

2012 Variances

None

2013 Variances

None

2014 Variances

None

2015 Variances

None

C. Breakdown

2011 Occurrences

<u>Date</u>	<u>Equipment Involved</u>	<u>Emission Unit</u>
1/8/2011	S4105 Air Slide Leaking	1147004
1/17/2011	Kiln Baghouse	1147017
1/21/2011	S3160 Baghouse Fan	1147017
1/31/2011	Expansion Belt Leaking Coal Mill Intake Duct	1147016
2/1/2011	Baghouse Opacity	1147017
2/3/2011	Main Baghouse Stack Opacity	1147017
2/10/2011	Main Baghouse Stack Opacity	1147017
3/1/2011	Main Baghouse Stack Opacity	1147017
3/9/2011	B-3 Finish Mill, Elevator and Belt Control	1147020
3/10/2011	Raw Mill Dusting	1147014
3/11/2011	Cooler Baghouse Opacity	1147018
3/12/2011	Stage 4 Plug	1147018
3/18/2011	Rail Loadout Dust Collector	1147009
3/19/2011	Cooler Baghouse Dusting	1147018

4/4/2011	Cooler Baghouse Opacity	1147018
4/5/2011	Kiln Baghouse	1147017
4/7/2011	Cooler Baghouse Opacity	1147018
4/10/2011	Kiln Baghouse	1147017
4/11/2011	Kiln Baghouse	1147017
4/14/2011	Kiln Baghouse	1147017
4/14/2011	J3-200 Dust Collector Loaded Up	1147009
4/28/2011	S3160 Baghouse Fan	1147017
5/2/2011	Cooler Baghouse Opacity	1147018
5/7/2011	Cooler Baghouse Compartment #4	1147018
5/18/2011	Kiln Baghouse	1147017
5/23/2011	Cooler Baghouse	1147018
5/30/2011	Cooler Baghouse	1147018
5/31/2011	Kiln Baghouse	1147017
6/10/2011	Kiln Baghouse	1147017
6/10/2011	Kiln Baghouse	1147017
7/6/2011	Pyroprocessing Power Loss	1147017
7/10/2011	Cooler Baghouse	1147018
7/26/2011	Kiln Baghouse	1147017
7/28/2011	Lost Plant Air-Kiln Global	1147017
7/29/2011	B-3 Mill Dusting	1147020
8/31/2011	S3187 Baghouse Fan	1147017
9/26/2011	Coal Mill Stack Opacity	1147016
10/5/2011	E1-232 DC Not Functioning	1147019
10/6/2011	G6202 Screw Dusting	1147018
10/12/2011	Preheater Tower Dusting	1147017

10/14/2011	G6202 Screw Conveyor Dusting	1147017
10/18/2011	Kiln Baghouse Dust Flushing	1147017
11/21/2011	Kiln Baghouse	1147017
11/23/2011	Raw Mill Dusting	1147014
11/30/2011	Kiln Baghouse Opacity	1147017
12/21/2011	S3160 Main Baghouse Opacity	1147017
12/22/2011	S3160 Main Baghouse Opacity	1147017

2012 Occurrences

<u>Date</u>	<u>Equipment Involved</u>	<u>Emission Unit</u>
3/4/2012	B-3 Finish Mill Dusting	1147020
3/11/2012	Cooler Stack Opacity	1147018
3/11/2012	Main Stack Opacity	1147017
3/17/2012	Kiln Baghouse	1147017
4/2/2012	Cooler Baghouse Dusting	1147018
4/6/2012	Cooler Baghouse Opacity	1147018
4/6/2012	Raw Mill Area	1147016
4/16/2012	Main Baghouse Opacity	1147017
4/16/2012	Cooler Baghouse Opacity	1147018
5/9/2012	Main Baghouse Opacity	1147017
5/10/2012	Main Baghouse Opacity	1147017
5/15/2012	Stack Opacity	1147017
5/15/2012	Stack Opacity	1147017
5/16/2012	Raw Mill Area	1147014
6/4/2012	Cooler Baghouse Stack	1147018
6/18/2012	S3160 Kiln Baghouse	1147017

6/22/2012	G6-210 Cooler Baghouse Opacity	1147018
6/29/2012	A Silos	1147009
7/5/2012	J6-411 Silo Dusting	1147009
7/12/2012	Stack Opacity	1147017
8/19/2012	Stack Opacity	1147017
11/20/2012	Cooler Baghouse Opacity	1147008

2013 Occurrences

<u>Date</u>	<u>Equipment Involved</u>	<u>Emission Unit</u>
3/4/2013	Main Baghouse Opacity	1147017
3/15/2013	Main Baghouse Opacity	1147017
5/3/2013	Main Baghouse Dusting	1147017
6/5/2013	Main Baghouse Opacity	1147017
6/21/2013	Coal Mill Dusting	1147016
7/26/2013	Kiln Baghouse	1147017
8/30/2013	Main Baghouse Dusting (Lost Power)	1147017
9/5/2013	S2112 Belt Raw Mill Dusting	1147014
9/10/2013	Kiln Baghouse Dusting	1147017
9/24/2013	S1301 Bin Dusting	1147014
10/18/2013	Plugged Burner Fuel Pipe	1147017
11/08/2013	Clinker Transport System Dusting	1147018
12/16/2013	Kiln Stack Opacity Monitor	1147017
12/23/2013	Cooler Baghouse Stack Opacity	1147018

2014 Occurrences

<u>Date</u>	<u>Equipment Involved</u>	<u>Emission Unit</u>
2/25/2014	Kiln Baghouse Opacity	1147017
2/25/2014	Kiln Baghouse Opacity	1147017

2/26/2014	Kiln Baghouse Opacity	1147017
3/16/2014	Cooler Baghouse Opacity	1147018
4/9/2014	Kiln Baghouse Opacity	1147018
4/9/2014	Kiln Baghouse Opacity	1147018
4/13/2014	Electrical Failure Causing Global	1147017
4/26/2014	Cooler Baghouse Opacity	1147018
4/30/2014	Cooler Baghouse Dusting	1147018
5/6/2014	Flow Meter	1147017
5/12/2014	Cooler Baghouse Opacity	1147018
5/28/2014	Impact Flow Meter	1147017
6/6/2014	S3160 Kiln Baghouse Opacity	1147017
6/12/2014	Cooler Baghouse Opacity	1147018
6/23/2014	Cooler Baghouse Dusting	1147018
6/25/2014	Cooler Baghouse Dusting	1147018
7/20/2014	Cooler Baghouse	1147018
7/22/2014	Cooler Baghouse Opacity Exceedance	1147018
8/1/2014	Cooler Baghouse Opacity Exceedance	1147018
8/21/2014	Cooler Breakdown/ Kiln Shutdown	1147018
9/15/2014	Global Process Breakdown	1147017
9/19/2014	Cooler Baghouse Opacity	1147018
10/17/2014	Cooler Baghouse Opacity	1147018
10/20/2014	Cooler Baghouse	1147018
11/18/2014	Dust Collector Bag Failure Com. #4	1147018
11/26/2014	Cooler Baghouse	1147018
11/29/2014	Cooler Baghouse	1147018
12/8/2014	High DP at Cooler Baghouse	1147018

12/10/2014	Cooler Baghouse G6-210	1147018
12/25/2014	Cooler Baghouse Stack Opacity	1147018
12/31/2014	Clinker Cooler Opacity	1147018

2015 Occurrences

<u>Date</u>	<u>Equipment Involved</u>	<u>Emission Unit</u>
1/5/2015	S4-104 Air Slide Plugged	1147018
1/5/2015	Kiln Baghouse ID Fan Failure	1147017
1/13/2015	Cooler Baghouse Dusting	1147015
1/27/2015	G6-210 Cooler Baghouse	1147018
1/28/2015	B-3 Finish Mill Dusting	1147020
1/29/2015	Cooler Baghouse Dusting	1147016
1/30/2015	Cooler Baghouse Dusting	1147016
3/30/2015	Raw Mill	1147014
4/1/2015	Cooler Baghouse Dusting	1147018
4/1/2015	Raw Mill System Dusting	1147014
4/6/2015	Cooler Baghouse Dusting	1147016
4/8/2015	B-3 Finish Mill Plugged-Up	1147020
4/24/2015	Kiln Seal Leak	1147017
5/20/2015	Cooler Baghouse Opacity	1147018
7/2/2015	Raw Mill ID Fan Failure	1147014
9/13/2015	Cooler Baghouse Opacity	1147018
9/25/2015	Cooler Baghouse Opacity	1147018
10/15/2015	Cooler Baghouse Opacity	1147018

X. MONITORING AND RECORDKEEPING REQUIREMENTS:

A. Monitoring and Recordkeeping Requirements

The permittee shall conduct routine inspections on all required control equipment. The following monitoring procedures shall 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/recorder 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 0.0015%;
6. Comply with all applicable opacity and PM limits as specified in 40 CFR Part 60, Subpart F;
7. Opacity monitor (CEM) will be calibrated, maintained, and operated as directed in 40 CFR Part 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 Part 63, Subpart ZZZZ.

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.

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.

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.

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".

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
2. 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 and Rule 201.1, all emissions units subject to CAM, shall upon permit renewal, or significant permit modification to a Title V permit:

1. Describe the indicators to be monitored [Section 64.4(a)(1)];
2. Describe the ranges or the processes to set indicator ranges [Section 64.4(a)(2)];
3. Describe the performance criteria for monitoring [Section 64.4(a)(3)] including;
 - a. Specification for obtaining representative data;
 - b. Verification procedures to confirm the monitoring operational status;
 - c. Quality assurance and control procedures;
 - d. Monitoring frequency
 - i. 4 times per hour (minimum) if post control emissions are \geq MST1; or
 - ii. 1 time per day (minimum) if post control emissions are $<$ MST.
4. Describe indicator ranges and performance criteria for a CEMS2, COMS3, or PEMS4 [Section 64.3(a)(4)];
5. Describe justification for use of parameters, ranges and monitoring approach [Section 64.4(b)];
6. Provide emissions test data [Section 64.4(c)]; and, if necessary
7. Provide an implementation plan for installing, testing, and operating the monitoring [Section 64.4(d)].

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) shall be promptly reported to the APCO and in accordance with Rule 111;
2. Monitoring report shall 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 shall include probable cause of non-conformance and any preventative or corrective action taken;

4. 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
5. Each monitoring report shall be accompanied by a written statement from the responsible official certifying the truth, accuracy, and completeness of the report.