EASTERN KERN AIR POLLUTION CONTROL DISTRICT
TECHNICAL SUPPORT DOCUMENT FOR
TEHACHAPI CEMENT PLANT
2024 TITLE V PERMIT RENEWAL NO: 1221-V-2000

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

APPLICATION RECEIVED FROM:	**TEHACHAPI CEMENT PLANT** **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:	**Miguel Sandoval, Air Quality Engineer I**
APPLICATION REVIEWED BY:	**Gary Ray, Jr., Air Pollution Control Officer**
	_____Date:_____
NATURE OF BUSINESS:	**Portland Cement Manufacturing**
SIC CODE:	**3241**
RESPONSIBLE OFFICIAL: TELEPHONE NUMBER:	**David Chavez** **(661) 822-4445**
FACILITY CONTACT PERSON: TITLE: TELEPHONE NUMBER:	**Richard Stemen** **Environmental Manager** **(661) 221-1503**

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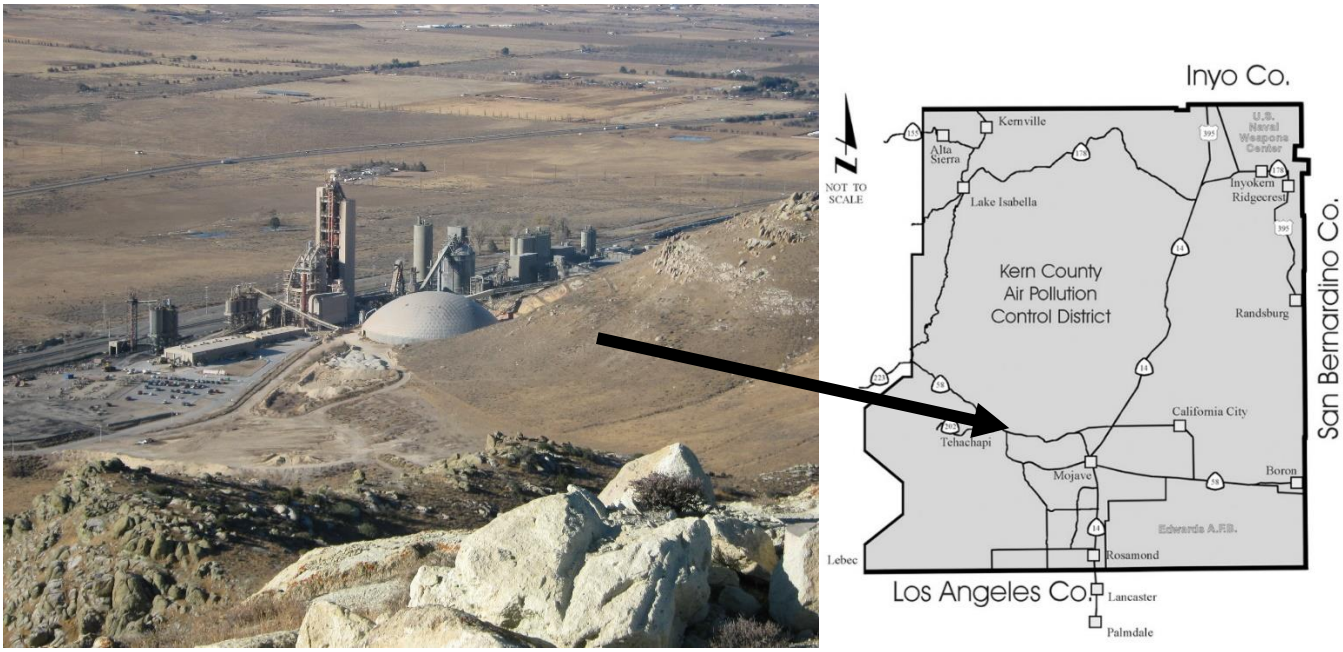
I. INTRODUCTION

This Technical Support Document (TSD) pertains to the 2024 Title V renewal of Permit No. 1221-V-2000 for Tehachapi Cement Plant (Facility). Renewal of Permit No. 1221-V-2000 allows Facility 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 Facility. District issued the initial Federal Part 70 Title V Permit to Operate to Facility in 2001.

Facility applied for a Title V Permit renewal in 2005, 2010, and 2015. District issued the first Title V Permit renewal in 2006, the second in 2011, and the third in 2016. Facility submitted current application for Title V renewal in 2019. Upon review of Facility's Title V renewal application, District found that no significant modifications have occurred to the facility in the past 5 years that trigger NSPS or NESHAP requirements. Additionally, modified or new emission units did not trigger a Title I modification or "significant modification" in the last 5 years.

District staff made minor changes to the Title V permit including the following:

- Facility transfer of ownership (previous owner Lehigh Southwest Cement Company and Lehigh Cement West)
- Re-assignation of local facility emission unit No(s).

- Incorporation of applicable requirements resulting from local District permit modifications (see section VIII for details)
- Incorporation of GHG fee requirements calculated in accordance with 40 CFR part 98
- Addition of insignificant air pollution equipment (exempt equipment)
- Addition of permit shield from 40 CFR par 60 Subpart IIII
- Addition of new emission units 1221026 and 1221027 to the renewed Title V permit. New emission unit did exceed district significance levels and did not result in major modification. Additionally, general permit conditions were separated between federally enforceable rules included in the State Implementation Plant (SIP) and district (local only) rules.
- Revised CAM Plan and incorporation of CAM applicability condition for CAM affected units.

As described in the current Title V permit, Facility is subject to the following Federal regulations: 40 CFR Subpart F, Subpart Y, OOO, 40 CFR Part 61 Subpart M, 40 CFR Part 63 Subpart LLL, and ZZZ. Only Part 60 Subpart F and Part 63 Subpart LLL have been updated in federal register since the issuance of the current Title V Permit. No amendments made to 40 CFR Part 60 Subpart F resulted in new emission limits or requirements. As such, no changes need to be made to the operating conditions or emissions limits contained in the current Title V permit. Part 60 Subpart F and Part 63 Subpart LLL are referenced in the Federal Regulations sections of the Title V permit and will be updated to incorporate the corrections and clarifications made to these regulations.

On June 23, 2021, Eastern Kern Air Pollution Control District (District) published a public notice for the facility's proposed draft Title V renewal permit that allowed a 30-day public review period. No public comments were made during 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 June 11, 2021 and ended July 26, 2021. During EPA's 45-day review period, EPA provided comments requiring facility to provide updated Compliance Assurance Monitoring (CAM) plan in accordance with 40 CFR Part 64. Facility was given an additional time to develop the requested CAM plan. After nine iterations of a CAM plan, the ninth version was approved by the District on February 28, 2024. A second EPA comment period started May 21 and ended July 03, 2024. EPA commented that permit conditions shall indicate that units are subject to CAM plan for affected units. The facility has been operating under application shield since permit expiration date of May 10, 2021. A second public comment period will start July 19. Project timeline is listed below:

App. Rec.:	12/17/2019	
60-Days:	02/15/2020	
Req. Info. (Deem Incomplete):	NA	
Deemed Complete:	02/10/2020	
Current Title V Permit Expiration:	05/10/2021	
Facility 45-Day Review:	Start: 03/29/2021	End: 05/09/2021
EPA 45-Day Review:	Start: 06/11/2021	End: 07/26/2021
30 Day Public Notice:	Start: 06/23/2021	End: 07/26/2021
(Second)Facility 45-Day Review:	Start: 2/27/2024	End: 4/19/2024
(Second) EPA 45-Day Review:	Start: 5/21/2024	End: 7/03/2024
30 Day Public Notice:	Start: 7/19/2024	End: 8/19/2024

IV. FACILITY DESCRIPTION

Portland cement 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 of 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 primary 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 grateline: (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 sufate (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 #1221019. 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

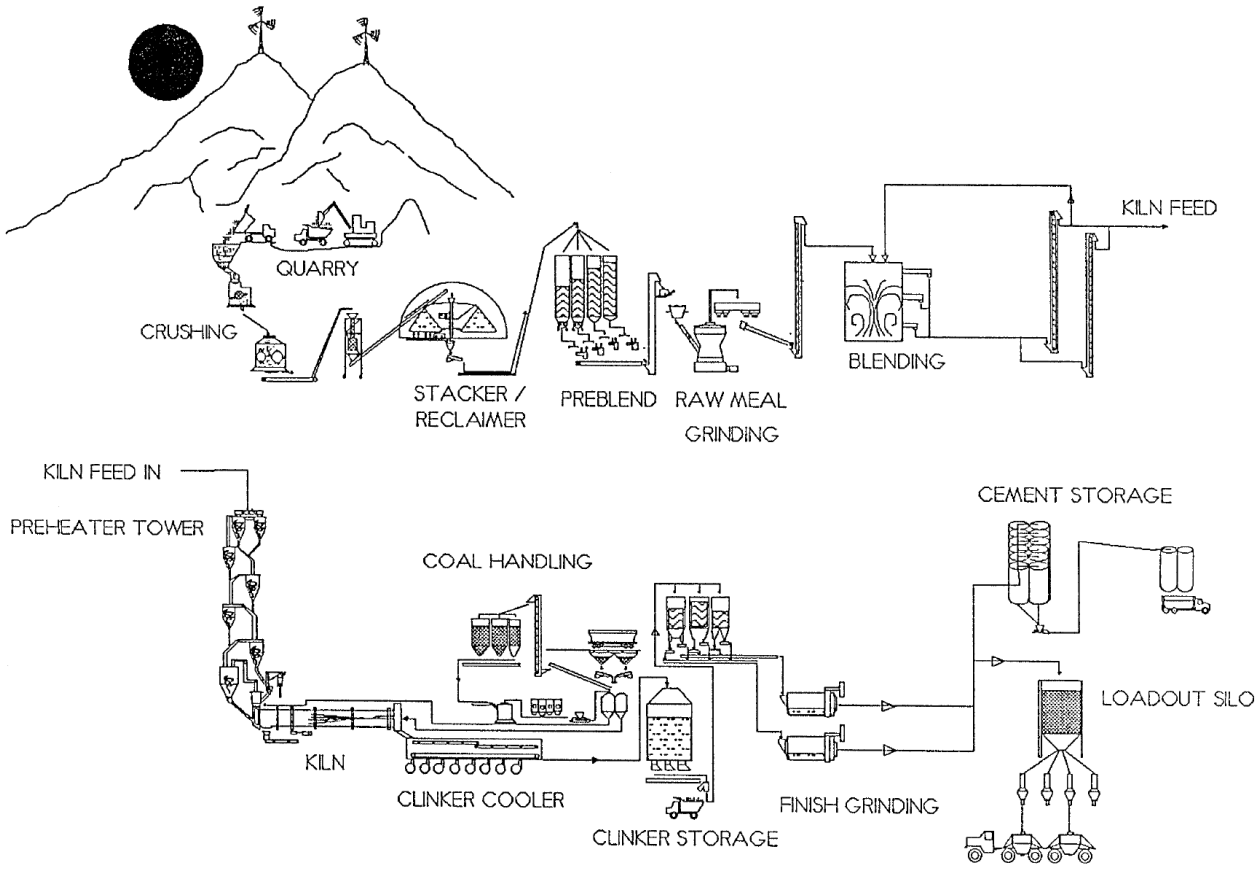
discharge to a belt conveyor, which in turn feeds the finish mill. A controlled amount of grinding aid may also be added to the system.

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 Tehachapi Cement Plant'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. Process flow diagram is represented below:



V. POTENTIAL EMISSIONS

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

Table 1

Criteria Pollutant Emissions (tons per year)					
Pollutants:	PM_{10}	SOx	NOx	HC	CO
*Potential Emissions:	169.22	1296.14	1288.74	203.32	3967.59
Pre-Modification Emissions:	161.80	1296.14	1288.74	203.32	3967.59

*Estimated by source

Table 2 (Reported for year 2018. Numbers below are in units of short tons)

Greenhouse Gas Emissions (tons per year)							
Pollutants:	CO_2	CH_4	N_2O	HFCs	PFCs	SF_6	Total
Emissions:	627,581	26.23116	3.76499	N/A	N/A	N/A	
*GWP:	1	21	310	**	**	23,900	
CO2e (tpy)	627,581	550.85	1167.147	N/A	N/A	N/A	629,418.75

Greenhouse Gases:
Carbon dioxide (CO_2), Nitrous oxide (N_2O), Methane (CH_4), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF_6).

*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:

Emission Unit	Description of Source
001	Bulk & Sack Cement Loadout Operation
002	Truck Loadout Station
003	Raw Material Storage & Handling Operation
004	Raw Mill System
005	Homogenizing & Kiln Feed System
006	Coal Drying & Pulverizing System
007	Preheater/Precalciner Portland Cement Kiln
008	Clinker Cooler

009	Clinker Storage & Reclaim Operation
010	B-3 Finish Mill
011	B-4 Finish Mill
012	Cement Storage Silo & Loadout Operation
013	Outdoor Storage & Reclaim Operation
014	Quarry Drilling Operation
015	Piston Engine with Welder #R5-508
016	Emergency Use Piston Engine with Generator #M2-101
017	Emergency Use Piston Engine with Generator
019	Primary and Secondary Crusher
021	Quarry Drilling Operation
022	Aboveground Gasoline Storage & Dispensing Operation
023	Kiln Fabric Collector Dust Transfer System
024	Quarry Drilling Operation
025	Alternative Fuel Storage & Cement Processing
026	Roller Press System-NEW
027	Vacuum Truck with Dust Collector -NEW

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.

District Rule	Title and Description Conditions
Rule 107 (Local Only)	**Inspections** 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.
Rule 108 SIP Approved 2004	**Stack Monitoring** 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.
Rule 108.1 SIP Approved 2001	**Source Sampling** 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. 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_{10}) 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 (Local Only)

Equipment Breakdown (Amended 5/2/96)

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.

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

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.

Rule 201.1 **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.

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 V.J. all District-only rules which apply in accordance with Subsection V.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.

Rule 201.1 **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.

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.

Rule 201.1 **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.

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.

Rule 201.1 **Permit Life**

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

Rule 201.1 **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.

Rule 201.1 **Testing**

Tehachapi Cement Plant 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)

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. Facility 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.

Monitoring, Testing, Record Keeping Requirements (Applies to EU 007) (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:

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

Monitoring, Testing, Record Keeping Requirements (Applies to EU 041) (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".

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

Rule 301 **Permit Fees**

Every applicant for an Authority to Construct or a Permit to Operate shall pay a filing fee. For issuance of an Authority to Construct, or an initial Permit to Operate, the applicant shall pay fees as prescribed in Rule 301. For issuance of an Authority to Construct, application processing fees shall also be paid as prescribed in Rule 303.

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.

Rule 301.4 **Greenhouse Gas Fee (Adopted 1/12/2012)**

Any stationary source that has actual GHG emissions, in the prior calendar year, greater than or equal to 100,000 tons of CO2e, as calculated in accordance with 40 CFR Part 98, shall pay a Consumer Price Index (CPI) adjusted GHG fee per ton of CO2e being emitted. Sources subject to this Rule shall submit an annual report of GHG emissions to the District no later than the thirty-first day of March.

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 (CO_2) 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 (Local Only)

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.

The following Federal New Source Performance Standards (NSPS) rules apply to this facility.

1) 40 CFR Part 60, Subpart A (General Provision);

2) 40 CFR Part 60, Subpart F (Standards of Performance for Portland Cement Plants);

3) 40 CFR Part 60, Subpart Y (Standards of Performance for Coal Preparation and Processing Plants);

4) 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants); and

Pursuant to 40 CFR 70.6 (f), the Eastern Kern Air Pollution Control District expressly states that a Permit Shield is incorporated herein that determined 40 CFR part 60 subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is not applicable to this Source. This permit shield does not apply if the source meets the following criteria in accordance with 40 CFR § 60.4200:

a. Source owner or operator commences construction or reconstruction of compression ignition (CI) Internal Combustion Engine (s) (ICE) in accordance with § 60.4200 (a) (2) – (4).

Nothing in this permit shall alter or effect the following:

a. The provisions of section 303 of the Clean Air Act (emergency orders), including the authority of the Administrator under that section.
b. The liability of an owner or operator for any violation of applicable requirements prior to or at the time of permit issuance.

Rule 423 **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.

The following Federal National Emission Standards for Hazardous Air Pollutants and Source Categories (NESHAPS) rules apply to this facility.

1) 40 CFR Part 61, Subpart M (National Emission Standard for Asbestos);

2) 40 CFR Part 63, Subpart A (General Provision);

3) 40 CFR Part 63, Subpart LLL (National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry); and

4) 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines).

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.

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 Facility's Title V permit apply to this facility.

VIII. NEW, MODIFIED AND CANCELED EMISSION UNITS:

Only three Emission Units have been modified and one new Emission Unit has been installed at Facility since the previous issuance of Title V permit (May 2016). 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 established limits; therefore, public noticing of each modification was not required.

New and modified emission units have contributed to the following increase in the potential to emit (ton/year): PM_{10} – 7.42. Summary of modified and new emissions units are below.

Modified Units:

Emissions Unit	Modification
006E	Coal Drying & Pulverizing System was modified by routing ducting from coal mill exhaust to Preheater/Precalciner/kiln baghouse. Kiln baghouse is equipped with Activated Carbon Injection (ACI) system which is able to better control mercury emissions originating from coal mill stack. This modification also allowed for compliance with NESHAP subpart LLL due September 2015. *No change in permitted emissions. Emissions were redistributed from coal mill emission unit to preheater/precalciner emission unit.*
007I	Preheater/Precalciner Portland Cement Kiln was modified to incorporate the addition of ducting from the coal mill stack. *No change in permitted emissions. Emissions were redistributed from coal mill emission unit to preheater/precalciner emission unit*
007J	Preheater/Precalciner Portland Cement Kiln was modified by addition of new emission control technology (hydrated lime injection system). Lime injection system represents a reduction in SOx emissions. However, addition of dust control for lime injection system represented an increase in PM_{10} emissions. *Potential emission increase ton/yr: PM_{10} – 0.12*
007K	Preheater/Precalciner Portland Cement Kiln was modified to incorporate replacement of Continuous Emission Monitoring system (CEMS). PM CPMS was installed in lieu of COMS in accordance with requirements of 40 CFR § 60.63 and 40 CFR § 63.1349. *No change in permitted emissions*
007L	Preheater/Precalciner Portland Cement Kiln was modified to incorporate lb/ton NOx emission limit in accordance with amended District Rule 425.3. Amendments to Rule 425.3 reduced required cement kiln NOx emission limit from 6.4 to 3.4 lb/ton of clinker produced. *No change in permitted emissions*

007L	Preheater/Precalciner Portland Cement Kiln was modified to allow for installation of Selective Non Catalytic Reduction (SNCR) NOx control system. SNCR was installed in part to ensure compliance with new emission limit listed in Rule 425.3. *No change in permitted criteria emissions, increase in NH_3 emissions only.*
007M	Preheater/Precalciner Portland Cement Kiln was modified to incorporate lb/ton NOx emission limit in accordance with 2021 consent decree. Consent decree required NOx cement kiln emission limit from 3.4 to 1.5 lb/ton of clinker produced.
008D	Clinker Cooler permit was modified to replace cyclone control equipment with a baghouse. Cyclone collector did not previously constitute an emission point as exhaust was recirculated back into the enclosed clinker cooler and ultimately controlled by main clinker cooler baghouse. New baghouse was vented straight to atmosphere which constitutes a new emission point. No increase in clinker throughput or process rates was proposed for this modification. *Potential emission increase ton/yr: PM_{10} – 0.85*
008E	Clinker Cooler was modified to incorporate replacement of Continuous Emission Monitoring system (CEMS). PM CPMS was installed in lieu of COMS in accordance with requirements of 40 CFR § 60.63 and 40 CFR § 63.1349. *No change in permitted emissions*
021B	Blast Hole Drilling Rig Replace mobile diesel engine exempt emissions with drilling emissions. *Potential emission increase ton/yr: PM_{10} –0.05 Emissions Decrease ton/yr: SOx -0.00, NOx(– 2.38), VOC(-0.79), CO(-2.78)*
024A	Blast Hole Drilling Rig Replace mobile diesel engine exempt emissions with drilling emissions. *Emissions Decrease ton/yr: PM_{10} (-0.15), SOx (-0.01), NOx(– 5.48), VOC(-0.79), CO(-6.75)*
025A	Biomass Handling System Install New Conveyor and Hydraulic Power Unit *Potential emission increase ton/yr: PM_{10} – 0.30*
025B	Biomass Handling System Increase Throughput of Pistachio Shell Biomass *Potential emission increase ton/yr: PM_{10} – 0.37*
025C	Biomass Handling System Addition of Biomass Grinder *No net emissions increase*

New Units:

Emission Unit	Description
026	Roller Press Unit: New roller press unit was installed as pre-grind for finish mills, thus, reducing burden on finish mills and improving overall process efficiency. Five new dust collectors were installed to control emissions from roller press unit. No increase in overall finish mill process throughput was proposed. Addition of new emission unit did not result in exceedance of District offset thresholds. Therefore, project was not considered a major modification. *Potential emission increase ton/yr: PM_{10} – 6.45*
027	New Vacuum Truck*:* Installation of new vacuum truck replacing two existing vacuum trucks under emission units 018 and 020. *No facility wide emissions increase.*

Canceled Units:

Emission Unit	Description
018	Vacuum Truck
020	Vacuum Truck

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IX. COMPLIANCE:

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

A. Notice of Violations (NOV) 2016-2024:

None

2020 Violations

Violation Date	Compliance Date	Violation Description	NOV Number
10/01/2020	10/01/2020	Exceedance in NOx emission limits (Annual Stack Test)	031521-1
2/18/2022	02/18/2022	Third Party Inadvertently Corrupted Emission Data Handling System Leading to CO lb/hr Emissions Exceedance	062722MA1

B. Variances:

2016 -2024 Variances

None

C. Breakdown

2016 Occurrences

Date	Equipment Involved	Emission Unit
2/9/2016	Kiln ID Fan Shutdown. ID fan global.	1221007
2/26/2016	Raw Mill System-positive air pressure. Power Outage	1221007
2/27/2017	Cement Truck Load-out silo (Main). Exhaust vent plugged.	1221012
2/29/2016	S4227 vent valve stuck open. Dusting	1221007
4/7/2016	G-7210 bin and belt dusting. Dust collector compartment failure.	1221006
4/12/2016	SAM 4-185-BE. Dust collector bag replacement.	1221005
6/13/2016	CEMS Analyzer malfunction. Analyzer replaced with rental unit.	1221007

10/13/2016	Main Baghouse fan (electrical) (GLOBAL E -stop). Lost power.	1221007
11/17/2016	Dusting at top of tower. ID fan caused global.	1221007
12/1/2016	Kiln Baghouse dust event GLOBAL. Raw mill system crash.	1221007

2017 Occurrences

Date	**Equipment Involved**	**Emission Unit**
2/21/17	E 4500 cement silo dusting. Dust collector not evacuating properly.	1221012
2/27/17	Cement Truck Loadout silo (Main). Exhaust vent plugged.	1221012
3/4/2017	Dust collector breakdown. Dust collector loaded up due to discharge chute malfunction.	1221009
3/10/2017	B3 Finish Mill Dusting. B3 mill shut down (bucket elevator interlock).	1221010
4/12/2017	SAM 4-185-BE dust collector. Replaced bags.	114005
7/6/2017	Fuel delivery system shut down. Global. Nitrogen generator shut down causing global interlock.	1221007
7/24/2017	Stack dusting. Kiln Shutdown. Opened up baghouse for cooling.	1221007
8/17/2017	Dust collector malfunction. Fugitive dust while repairing HPDC.	1221006
9/19/2017	B-4 FK pump. Flopper failure. Dust.	1221011
10/22/2017	Tkiln ID fan was sterted and system went positive. Test run of the fan. Kiln door was opened.	1221007
12/11/2017	B4 Finish Mill dusting. FK pump flapper became stuck.	
12/14/2017	Baghouse structural failure. Repaired involved ducting.	1221007
12/21/2017	E2-040 Roller Press dust collector chute plug. Cleared the plug. Emptied dust collector.	1221046

2018 Occurrences

Date	Equipment Involved	Emission Unit
02/20/2018	Kiln Baghouse. Broken glycol line caused ID fan to go down causing a global failure of pyro-process.	1221007
4/5/2018	Kiln Baghouse. Kiln ID fan and Raw Mill Fan out of speed sync. Went positive.	1221007
04/21/2018	Dust collector on top of truck loader. Baghouse clogged, Pulse-Jet pressure increased	1221012
04/22/2018	Blending silo fan blew apart. Bucket elevator filter fan bearings failed	1221005
05/08/2018	KILN SURGE BIN. Defective seal in surge bin repaired.	1221007
5/24/2018	Global. No emissions. Dusting at start up.	1221007
5/27/2018	E2-040 dust collector plugged. Cleared dust collector.	1221046
5/29/2018	E2-040 dust collector plugged. Cleared dust collector. Mechanically (maintenance fixed problem).	1221046
6/21/2018	HYDRAULIC ROLLER PRESS. Plug in process caused system to go positive.	1221047
6/26/2018	Positive @ top of preheater tower. Seal failed. Repaired.	1221007
7/12/2018	Broken Bag alarm. Dusting out of main stack. Isolated kiln baghouse compartment.	1221007
7/20/2018	Raw Mill went down. Damper would not open--raw mill shutdown to correct	1221004
9/7/2018	E3 392 Air Slide for the B3 mill. Hole in slide - patched	1221010
10/8/2018	F1-235 dust collector. Bad bags replaced	1221007
10/30/2018	Raw Mill @ Center of plant. Raw mill dust flush	1221004
11/26/2018	Coal storage pile smoldering. Spontaneous combustion of coal after rain	1221013

2019 Occurrences

Date	Equipment Involved	Emission Unit
01/04/19	Fugitive Dust. Plug in surge bin, had to be emptied causing dusting.	1221004
01/10/19	s3110 Raw Mill. Dust flush, causing the roller mill to go positive.	1221004
01/27/19	Finish Mill B3 area. Dusting issue caused by maintenance (crane)	1221010
1/28/2019	B-3 Finish Mill dusting, shut down	1221010
02/05/19	B4 Finish Mill. FK Pump flapper became stuck.	1221011
02/08/19	Kiln. mcc breaker tripped, shutting down baghouse fan	1221007
02/11/19	B3 Finish Mill Damper. Damper was opened prior to starting fan (should have been closed).	1221010
02/15/19	B4 Finish Mill. Material buildup broke loose when door was opened.	1221011
02/22/19	Dust collector J6431. Dust collector hopper filled up. Emission occurrence when doors were opened.	1221001
4/11/2019	E3322 Airslide conveyor dusting. Hole in airslide/Repaired.	1221010
05/09/19	Entire Electrical Room	1221007/ 1221004
06/06/19	Main Kiln Baghouse Stack	1221007
06/08/19	B4 Mill	1221011
08/06/19	Raw Mill	1221004
09/22/19	D2100 in Tower	1221007
10/16/19	B4 Finish Mill. Air slide for finish mill was plugged.	1221011
11/06/19	Discharge E4305 Bucket; B4 finish mill	1221011

2020 Occurrences

Date	Equipment Involved	Emission Unit
05/06/20	G6210 Compartment 3 hopper full and not discharging through rotary valve	1221008
05/07/20	G6-150 Kiln fan process upset fault-dusting condition	1221007
07/17/20	Kiln Baghouse-bucket elevator on baghouse fault	1221007
07/28/20	Raw Mill Cooler and Kiln—Loss of communication with kiln baghouse	1221004 & 007
08/06/20	Kiln Baghouse	1221007
08/07/20	Clinker conveying system. Loss of hardwire communication	1221009
08/08/20	Baghouse duct drive. Dusting condition	1221007
08/17/20	Kiln Baghouse fan circuit fault, shutting down baghouse	1221007
08/26/20	Kiln - dust flash unexpected shutdown of gas panel	1221007
09/28/20	ID Fan fault-causing dusting	1221033
10/21/20	Kiln Baghouse shutdown, causing dusting	1221007
12/12/20	Moisture analyzer failed calibration check due to cracked tube	1221007

2021 Occurrences

Date	Equipment Involved	Emission Unit
4/3/2021	Main Kiln Baghouse Malfunction	1221007
04/20/21	Ongoing Mercury Exceedance	1221007
04/22/21	Electrical issue; east end of plant	1221007
04/30/21	B4 finish mill fault	1221011
05/06/21	B4 finish mill fault	1221011
06/21/21	Kiln inlet for baghouse motor fault	1221007
05/07/21	Dust collector E1-245 motor fault	1221009
06/18/21	Kiln Baghouse motor fault	1221007

06/21/21	Kiln inlet for baghouse	1220007M
7/10/21	Kiln Baghouse motor fault	1220007
07/19/21	Kiln Baghouse	1220007
07/22/21	Kiln Baghouse	1220007
08/31/21	B-3 finish mill baghouse	1220010
12/21/21	Rotary Kiln (G7503)	1220007

2022 Occurrences

Date	**Equipment Involved**	**Emission Unit**
03/01/22	Preheater Tower	1220007
03/18/22	Raw Mill System	1220004
03/23/22	E1104 Hopper	1220009
05/11/22	Kiln	1220007
05/24/22	Kiln	1220007
05/31/22	G2-200	
06/20/22	Kiln CEM	1220007
06/22/22	B4	1220011
07/06/22	B4 Mill	1220011
07/14/22	Coal Mill	1220006
08/14/22	Ammonia analyzer	1220007
08/15/22	B4 Finish	1121011A
08/31/22	Kiln baghouse	1221023
10/08/22	Ammonia exceedeance	1220007
11/11/22	Kiln/Process CEM	1220007
03/01/22	Preheater Tower	1220007
03/18/22	Raw Mill System	1220004
03/23/22	E1104 Hopper	1220009
05/11/22	Kiln	1220007
05/24/22	Kiln	1220007

05/31/22	G2-200	
06/20/22	Kiln CEM	1220007
06/22/22	B4	1220011
07/06/22	B4 Mill	1220011
07/14/22	Coal Mill	1220006

2023 Occurrences

Date	**Equipment Involved**	**Emission Unit**
04/19/23	Kiln ID Fan	1221007L
05/11/23	Kiln Baghouse	1221007L
05/16/23	Bad Unit on the Dust Collector (53-177)	1221007L
05/18/23	Kiln Baghouse (53-170)	1221007L
05/25/23	Kiln	1221007L
07/01/23	Kiln/Baghouse Power Outage	1221007L
07/10/23	Kiln Baghouse Power Outage	1221007L
08/04/23	Ammonia	1221007L
09/01/23	Kiln	1221007L

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. Kiln and clinker cooler exhaust stacks will be equipped with continuous monitors/recorder for opacity;

3. Kiln exhaust stack will be equipped with continuous monitors/recorders for nitrogen oxides;

4. Diesel engines listed in this permit will be fired on diesel fuel with sulfur content not to exceed 0.0015%;

5. Comply with all applicable opacity and PM limits as specified in 40 CFR Part 60, Subpart F;

6. PM CPMS (CEM) will be calibrated, maintained, and operated as directed in 40 CFR Part 60, Subpart F;

7. Develop and maintain a Startup, Shutdown, and Malfunction Plan was required by 40 CFR Part 63, Subpart A;

8. Comply with all applicable monitoring requirements of 40 CFR Part 63, Subpart LLL;

9. Develop and maintain an Operations and Maintenance Plan as required by 40 CFR Part 63, Subpart LLL; and

10. 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 ≥ 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.