

**Bay Area Air Quality Management District**

939 Ellis Street  
San Francisco, CA 94109  
(415) 771-6000

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**Permit Evaluation  
and  
Statement of Basis  
for  
RENEWAL of**

**MAJOR FACILITY REVIEW PERMIT**

**for  
Lehigh Southwest Cement Company  
Facility #A0017**

**Facility Address:**

24001 Stevens Creek Boulevard  
Cupertino, CA 95014

**Mailing Address:**

24001 Stevens Creek Boulevard  
Cupertino, CA 95014

Application Engineers: Kathleen Truesdell/Thu Bui  
Site Engineer: Thu Bui

Application: 17947

April 2012

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## **Title V Statement of Basis**

### **A. Background**

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit” (as defined by BAAQMD Regulation 2-6-218) more than 100 tons per year of a regulated air pollutant. It is also a major facility because it has the potential to emit more than 10 tons per year of a hazardous air pollutant (HAP) or more than 25 tons per year of combined HAPs.

Major Facility Review permits (Title V permits) must meet specifications contained in 40 CFR, Part 70 as delineated in BAAQMD Regulation 2, Rule 6. The permits must contain all “applicable requirements” (as defined in BAAQMD Regulation 2-6-202), including emission limits and standards, monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all required monitoring at least every six months and compliance certifications at least every year.

Pursuant to Regulation 2-6-416, the District has reviewed the terms and conditions of Lehigh’s Major Facility Review permit at the conclusion of the five-year term of the permit in the same way as an application for an initial Major Facility Review permit. This review includes an analysis of applicability determinations for all sources, including those that have been modified or permitted since the issuance of the initial Major Facility Review permit. The review also includes an assessment of all monitoring in the permit for sufficiency to determine compliance. This Statement of Basis the Statement of Basis for Lehigh’s Title V Permit Revision 1, and the Statement of Basis for all Lehigh Title V revisions after Revision 1 document for permit revisions that have occurred since the initial Major Facility Review permit was issued and are hereby incorporated by reference and are available upon request.

In the Bay Area, State and District requirements are also “applicable requirements” and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A0017.

This facility received its initial Title V permit on November 5, 2003. This application is for a permit renewal. Although the current permit expired on October 31, 2008, it continues in force until the District takes final action on the permit renewal. The standard sections of the permit have been updated to include new standard language used in all Title V permits. The proposed permit shows all changes to the existing permit in strikeout/underline format.

On May 9, 2006, the District issued a Title V minor revision under Application # 9687, which included these actions, as follows:

- Updated capacities in Table II-A based on updated documentation from the facility
- Added reactivated Roll Press Clinker Surge Bin and Feeder S-21 to Title V permit
- Added existing Quarry Blasting and Mobile Operations S-600 to Title V permit
- Added new Finish Mill Building Conveyor S-415 to Title V permit

- Removed Schedule of Compliance with the installation of updated Bag Leak Detection Systems
- Updated tables for S-1 Gasoline Station for EPA approved BAAQMD Regulation 8-7 instead of the SIP Regulation 8-7
- Updated version dates for newly modified regulations
- Updated tables and permit conditions to reflect the additions of permitted equipment.

On February 25, 2008, the District proposed a Title V minor revision under Application # 16867 for (1) adding an emergency clinker conveyor (S-444, 230 tons per hour, abated by a water spray) as a separate source, having been originally considered part of the clinker transfer area (S-17) and clinker transfer system (S-165); (2) correcting the Title V permit to reflect the current updated sources, and (3) modifying condition 603, part 2 to increase its allowable coke usage from 8 tons per hour to 20 tons per hour. The coke is used as fuel for the S-154 Precalciner Kiln for cement clinker production.

On May 11, 2007, the District allowed the facility to increase petroleum coke burning capacity at the calciner kiln from 8 ton/hr to 20 ton/hr (New Source Review (NSR) Application #15398). EPA has an ongoing investigation regarding whether there were emissions increases associated with the increased usage of petroleum coke that triggered additional air pollution control requirements under the Prevention of Significant Deterioration (PSD) regulations in 40 CFR Part 52.21. The EPA is also looking at other physical modifications or operational changes made at the facility. Upon the conclusion of this investigation, additional requirements may be determined to be applicable to the facility.

On March 9, 2010, a Notice of Violation (NOV) was issued by EPA to Lehigh concerning a series of physical modifications made to the facility between 1996 and 1999. EPA alleges that these modifications should have undergone pre-construction PSD permit review, and that the owners of the facility at the time failed to apply for a PSD permit, which may have required additional emissions controls for NOx and SO<sub>2</sub>. The NOV issued by EPA does not contain a detailed listing of the specific projects involved, as these were all claimed confidential by Lehigh. The NOV issued to Lehigh was the result of a national enforcement effort focused on cement plants. Similar enforcement actions were taken against various cement plants in other states. The NOV issued to Lehigh remains an active enforcement case without final resolution. EPA recently requested additional information from Lehigh as a part of their continued investigation.

On August 12, 2009, the proposed Title V permit renewal for Lehigh was placed on public notice and submitted to EPA for comments. The District also conducted a public hearing in Cupertino on September 17, 2009 to solicit additional comments. Approximately one hundred individuals or groups provided comments on the proposed permit renewal covering a wide variety of topics including concern over emissions of mercury and other HAPs. The public comment period ended on October 1, 2009. The District received a total of 44 emails, 10 written letters, 10 phone calls and testimony from 30 speakers at the public hearing.

On January 5, 2010, the District withdrew the proposed Title V permit renewal for the Lehigh facility. This was done because EPA was preparing to adopt significantly more stringent standards for mercury and other HAPs from cement plants in amendments to 40 CFR 63, Subpart LLL, National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry. The proposed EPA rule amendments were published on May 6, 2009, and the final rule was expected to be adopted within one year of this date. Adoption of the final rule was delayed until September 9, 2010. The requirements of the amended NESHAP have now been incorporated into this proposed Title V permit renewal, and the District is now releasing it for public comment. The District will send the proposed

permit to EPA for review after the public notice period has ended and after considering all public comments.

Changes to this revision of the Title V permit renewal include:

1. New Standard and Monitors for the Kiln and Clinker Coolers

The District added new requirement of NESHAP Subpart LLL to all appropriate source specific tables. The deadline to meet the new emissions limits below is September 9, 2013.

<b>Pollutant</b>	<b>Existing Kilns</b>	<b>Monitor</b>
Mercury	55 pounds per million tons of clinker, averaged over 30 days	Continuous mercury monitor system (CEMS) or sorbent trap-based integrated monitoring system
Total Hydrocarbons	24 parts per million by volume (ppmv), averaged over 30 days, or alternatively 9 ppmv of total organic HAP	Total hydrocarbon CEMS
Particulate Matter (as a surrogate for toxic metals other than mercury)	0.04 pounds per ton of clinker, averaged over 30 days	Particulate Matter CEMS
Hydrochloric acid (major sources only)	3 ppmv, averaged over 30 days	Hydrochloric acid CEMS
<b>Pollutant</b>	<b>Existing Clinker Coolers</b>	<b>Monitor</b>
Particulate Matter (as a surrogate for toxic metals other than mercury)	0.04 pounds per ton of clinker, averaged over 30 days	Particulate Matter CEMS
<b>Pollutant</b>	<b>Existing Raw Material Dryers (Mills)</b>	<b>Monitor</b>
Total Hydrocarbons	24 parts per million by volume (ppmv), averaged over 30 days, or alternatively 9 ppmv of total organic HAP	Total hydrocarbon CEMS

The amended NESHAP establishes emission limits for mercury and other HAPs that constitute the Maximum Achievable Control Technology (MACT). These technology-based emission limits are substantially more stringent than the existing “health risk based” emission standards established under the State Air Toxics Hot Spots Program.

Compliance with the new mercury emission limit in the amended NESHAP will reduce mercury emissions from Lehigh’s cement kiln by over 90 percent. The amended NESHAP establishes an emission limit for organic HAPs, such as benzene, toluene and styrene, by using total hydrocarbons (THC) as a surrogate. Lehigh might not need to reduce the THC since Lehigh is closed to meeting the 9 ppmv of organic HAP standard. Compliance with the new hydrochloric acid emission limit in the amended NESHAP will result in hydrochloric acid emission reductions from Lehigh’s cement kiln of approximately 57 percent. The amended NESHAP establishes an emission limit for metallic HAPs other than mercury, such as chromium and nickel, using particulate matter (PM) as a surrogate. Compliance with this new PM emission limit should reduce PM emissions from Lehigh’s cement kiln. Reductions in other metallic HAP emissions

are expected to occur; however, new emission controls must be used to meet limits for mercury and hydrochloric acid.

2. Control Technologies

The above standards may be achieved by using additional control technologies, modifying or replacing the kiln dust collector and combining the multiple exhaust stacks into a single stack. Lehigh is committed to complying with the newly adopted standards ahead of the proposed 2013 deadline. Therefore, Lehigh is pro-actively making changes to the cement process at the kiln.

Lehigh has recently installed a control system that transfers the dust in the Kiln Mill Dust Collector (KMDC) into the finish mills at the plant to reduce the mercury emissions by at least 25%. The request for this permit modification has been submitted via new source review (NSR) Application # 21217. Lehigh conducted test trials with activated carbon injection (ACI) and is installing a permanent ACI system to further reduce mercury emissions up to approximately another 50%-60%. The installation of the permanent ACI system has been submitted under NSR Application # 22953. Lehigh expects the ACI and the kiln mill dust recycle processes together can achieve approximately 80-90% mercury removal when used with a dust collector as tested in the coal fire power industry. The level of mercury removal is managed by controlling the amount of activated carbon to be injected.

For hydrochloric acid emission reduction, Lehigh has pro-actively installed the hydrated lime slurry injection system to the kiln system under NSR Application # 21753. The hydrated lime reacts with HCl to form calcium chloride dihydrate ( $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ ) or calcium chloride ( $\text{CaCl}_2$ ). The HCl removal efficiencies using hydrated lime range from 20-30 percent. The hydrated lime injection system will also absorb the oxidized  $\text{SO}_2$  (resulting  $\text{SO}_3$ ) in the vapor phase into a liquid droplet in which lime hydrate is dispersed. The  $\text{SO}_2$  removal efficiencies using lime ranges from 15-35 percent depending on the sulfur concentration in the raw materials. In addition, by removing the HCl and  $\text{SO}_2$  emissions, lime injection serves as the secondary (detached) plume abatement. The secondary plume is a fine but very visible particulate that results from the condensation of the gas stream in the stack discharge.

3. Fugitive Dust Control Plan and Operating and Maintenance (O&M) Plan

Since the first public notice of the TV permit renewal, Lehigh has volunteered to implement the "Fugitive Dust Control Plan" to monitor and maintain dust control for sources that are not in the O&M plan, including trucks' activities and stockpiles within the facility. As detailed in the attached October 5, 2010, compliance review, Lehigh continues to experience a significant number of opacity violations. While these violations typically have different root causes, they exhibit an overall pattern that the District believes may be addressed by a more comprehensive systematic approach to dust control. For this reason, a permit condition is being added that requires the facility to maintain and comply with a Dust Control Plan. The authority for this permit condition is Health & Safety Code section 42301.10, which allows a District to establish "emission limits, standards, and other requirements that ensure compliance with all . . . applicable requirements." The District's opacity standard is an "applicable requirement" as defined in 40 CFR Part 70. The District believes that that history of opacity violations at Lehigh, typically originated from a variety of sources and causes, justifies the establishment of the Dust Control Plan requirement to ensure compliance with the opacity standard.

This "Fugitive Dust Control Plan" is intended to increase employee awareness of dust emissions and its effect on the environment and surrounding community. It covers plans for preventing dust emissions, guidelines for training of employees, and procedures to be used during operations and

maintenance. This plan is part of the mitigation measures for controlling the fugitive dust emissions at Lehigh.

The O&M Plan has also been revised to add a check list for each source with detailed monthly visual inspection. The O&M Plan contains procedures for proper operations and maintenance of process and pollution control equipment to minimize emissions during normal operations, startup, shutdown and malfunction events. Lehigh is required to maintain this plan and use it as a guideline for preventive maintenances and corrective actions for sources that are subject to NESHAP Subpart LLL requirement. Lehigh has been maintaining the O&M Plan at the Cupertino plant since the implementation of the NESHAP Subpart LLL. The plan dated October 1, 2009 was submitted to the District for approval and updated on August 31, 2010. This plan can be accessed by all operators and remains in the environmental manager's office at Lehigh.

4. District's New Regulation

The District is currently working on a new regulation to further reduce NO<sub>x</sub> and SO<sub>2</sub> emissions from this cement manufacturing plant as indicated in the District's 2010 Clean Air Plan (CAP) Rule. Therefore, in addition to the amended NESHAP standards, Lehigh will also be subject to new and lower NO<sub>x</sub> and SO<sub>2</sub> limits. The new rule is anticipated to be adopted in 2011. Once the new rule is adopted, the District will open the Title V permit to incorporate the new NO<sub>x</sub> and SO<sub>2</sub> limits.

5. AB2588 Health Risk Assessment Report

Lehigh is currently revising the health risk assessment (HRA) that was prepared for the Air Toxics Hot Spot (AB2588) Program; the revised report is expected in January, 2011. The HRA is based on a comprehensive emissions inventory report (CEIR), which was submitted to the BAAQMD on March 30, 2009 and updated emission data as they became available. These data represent toxic air contaminants emitted directly from stationary sources and fugitive emissions, from both permitted and un-permitted sources. The District will submit the updated HRA to the Office of Environmental Health Hazard Assessment (OEHHA) for further review once the BAAQMD has completed our review and is satisfied that the HRA was prepared using standard risk assessment procedures and adequately represents health risks associated with emissions of toxic air contaminants from the cement plant. The BAAQMD will also post the HRA on the BAAQMD website.

Lehigh has been reducing the mercury emissions on an average of approximately 25%-30% on a monthly basis since the installation of the KMDC transferring system. Lehigh will install an activated carbon injection system to increase the mercury control up to about 50%-60% under District's NSR Application # 22953. Lehigh is motivated to install, utilize and refine the effectiveness of the control technologies as part of the commitment to further reduce mercury emissions on a voluntary basis in advance of the NESHAP compliance date.

6. Ambient Air Monitoring

Because of concerns over elevated hexavalent chromium air concentrations found near some cement plants, the U.S. EPA and the District installed ambient air monitoring equipment at Stevens Creek Elementary School, located approximately two miles from Lehigh, to measure hexavalent chromium as part of EPA's School Air Toxics Monitoring Initiative. The monitoring commenced on July 30, 2009 and ended in August 2010. The hexavalent chromium air concentrations that were measured at this site are considered to be typical of background levels present in urban areas.

On October 28, 2008, the District began operating an ambient air monitor in the vicinity of the Lehigh facility adjacent to Stevens Creek Boulevard (near the intersection of Prado Vista Drive) to determine if truck traffic and dust associated with the facility were having an adverse impact on PM levels in the nearby community. This monitor continuously records particulate matter of 10 microns or less (PM<sub>10</sub>) in the air. The PM<sub>10</sub> concentrations measured at the Cupertino site are on average lower than the PM<sub>10</sub> concentrations measured at the nearest permanent District monitoring site (located in San Jose about 10 miles east of the Cupertino site), and are similar to the PM<sub>10</sub> concentrations measured at other Bay Area locations.

The District has established a comprehensive air monitoring site located about three quarters of a mile from the Lehigh facility at Monta Vista Park near the intersection of South Foothill Boulevard and Voss Avenue in Cupertino. Sampling at the site began on September 1, 2010. The site will operate for a period of at least one year and will measure a broad array of criteria air pollutants (e.g., PM<sub>2.5</sub>, PM<sub>10</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, and ozone), TACs (e.g., a variety of metals including mercury, and a variety of organic gases including benzene), and meteorological conditions (e.g., wind speed, wind direction, and temperature). Benzene and mercury have been identified by the District as being the primary contributors to health risk resulting from TAC emissions from the Lehigh facility.

7. Continuous Air Emission (CEM) Monitors and a Single Kiln Stack at the Facility

The cement kiln at Lehigh is currently equipped with four volumetric flow meters, one NO<sub>x</sub> and one SO<sub>2</sub> continuous monitor. Lehigh is currently in the process of installing two sets of CEMs, one for each side of the 16 stacks. The CEMS measure total hydrocarbon (THC), hydrochloric acid (HCl), ammonia (NH<sub>4</sub>), NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>O and O<sub>2</sub> monitors to demonstrate compliances with the upcoming requirements.

Lehigh is planning to upgrade the kiln baghouse and merge the configuration of the 32 stacks into one tall, single stack. This change will enhance the dispersion of emissions from the stacks as well as simplify and improve the continuous monitoring systems.

In the future, Lehigh will install and maintain the same set of CEMs mentioned above and add a mercury CEM system at the kiln's new single stack prior to the compliance date of the NESHAP Subpart LLL (September 9, 2013). In addition, Lehigh will also install a PM CEM at the existing clinker cooler's exhaust and a total hydrocarbon carbon CEM at the existing raw mills.

8. New Conditions

As part of the TV permit review and response to the public, the District added Condition #24621, Part 1 requiring Lehigh to operate and maintain a District-approved Fugitive and Dust Control Plan for sources that are not regulated under NESHAP Subpart LLL.

As part of the TV permit review and response to EPA, the District added Condition #24621, Part 2 requiring Lehigh to perform a source test at least once every five years on abatement devices that currently have pressure monitors or baghouse leak detection systems. The sources are identified in the condition. Some sources are not subject to the Continuous Assurance Monitoring (CAM) Regulation (40 CFR Part 64). However, they are subject to the periodic monitoring requirements under EPA Title V, Part 70.6(1)(3).

9. Compliance Assurance Monitoring

As part of the TV permit review and response to EPA, the CAM analyses has been updated to address the applicability and incorporate the new Condition #24781, specifically for four sources



that are subject to the CAM plan. This condition covers the two pronged monitoring approach, monitoring methods, exceedance, excursion, maintenance of monitoring equipment, and reporting procedures. The details of the CAM analysis are provided below under the CAM analysis section.

10. Clinker Storage and Handling Requirements

According to the new NESHAP standards, sections 63.1343(c) and 63.1343(d), the facility that stores and handles clinker materials, occurs more than 1000 feet away from the facility property-line must comply with the three-sided barrier or wind fences with roof, and the facility that stores and handles activities within 1000 feet or less from the property line must be in an enclosure that meets the 10% opacity limit, respectively. Lehigh is committed to meet these requirements before the standards become effective on September 9, 2013. Lehigh has already met the clinker storage requirement because all clinkers are being stored in dedicated silos, which are abated by dust collectors.

11. The revision of this TV permit renewal addressed all EPA comments and the permit was modified accordingly. Please refer to the attached District responses to EPA comments.

12. This Title V renewal includes the following applications:

Application Number(s) (Title V/New Source Review (NSR))	Description
NSR 15216	Emission Reduction Credit application for the shutdown of Mineral Aggregate Plant sources 204 through 206, 215, 440 through 443.
16867/15217	Addition of existing S-444 Emergency Clinker Conveyor and its abatement by A-444 Water Spray
16867/15398	A change in permit condition for the following sources: S-173 Kiln Coke System abated by A-175 Dust Collector S-174 Precalciner Coke System abated by A-174 Dust Collector Modification of condition 603, part 2 to increase its allowable coke usage from 8 tons per hour to 20 tons per hour. The coke is used as fuel for the S-154 Precalciner Kiln for cement clinker production.
17734/15342	Addition of S-100 Precalciner Kiln Fuel Handling System and its abatement by A-100 Water Sprays
None/15572	Relocation of Crusher (S-202); Relocation and renumbering of Vibrating Screen S-203 to S-604 abated by A-4502 Baghouse; Replacement of Primary Crusher S-201 with S-605 Primary Crusher abated by A-4503 Baghouse; Permit existing sources S-601 Hopper abated by water spray A-4501, S-602 Conveyor System abated by A-4502, A-4503, A-4504 Baghouses, and S-603 Vibrating Grizzly abated by A-4503 Baghouse. (The permits to operate for grandfather sources S-601, S-602 and S-603 were granted. S-605, S-606, A-4502, A-4503 and A-4504 were not built because this application was submitted under the old owner (Hanson Permanente). Lehigh will submit new changes when it is appropriate. S-203 was shut down along with the aggregate plant).
22334/17534	Replacement of existing abatement devices (A-216, A-221, A-242)
22334/18535	Condition change on toxics limits
22334/19385	Addition of existing source S-606 Storage Piles (Area 1) abated by

Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
24001 Stevens Creek Boulevard Cupertino, CA 95014

Application Number(s) (Title V/New Source Review (NSR))	Description
	A-606 Water Spray and new source S-607 Storage Piles (Area 2) abated by A-607 Water Spray
22334/20199	Enhanced Vapor Recovery upgrade per CARB requirement
22334/21217	Kiln Mill Dust Collector Dust Recycled into the Finish Mills
22334/ 21387	Loss of Exemption - Portable Compressor and Pump Drivers
22334/21573	Hydrated Lime Slurry Injection System
22954/22953	Activated Carbon Injection System
23663/23594	Synthetic Gypsum Feeders, S-223 and S-246

The above applications are minor modifications and administrative changes that correct and reflect Lehigh operations such as equipment shut down, relocating crushers, replacing and adding baghouses, correcting toxics limits, and adding new sources. None of the above applications resulted in emissions increases with the exception of NSR Application 15217/TV 16867, that permitted a small PM10 increase from an existing conveyor and NSR Application 19385 that permitted a small PM10 increase due to outdoor storage piles (aggregate/slag). Furthermore, the revisions do not involve a relaxation of any applicable monitoring, reporting, or recordkeeping condition.

- NSR Application 15216 was to bank emission reduction credits from the shutdown of the mineral aggregate plant (S-204 through S-206, S-215, S-440 through S-443). There was no emission increase or addition of any new requirements from this minor revision.
- NSR Application 15217/TV 16867 was to add an existing conveyor (S-444 Emergency Clinker Conveyor abated by A-444 Water Sprays) that was not previously identified as a separate source. Condition # 23416 was added to S-444. There was an increase of 0.012 ton/year of PM10 emissions from this minor revision and Lehigh used emission reduction credits (ERCs) to offset the increase.
- NSR Application 15342/TV 17734 was to add two hoppers and a conveyor system (S-100 Precalciner Kiln Fuel Handling System abated by A-100 Water Sprays) for fuel and additive handling. Condition # 23942 was added to S-100. No emission increase resulted from this minor revision.
- NSR 15572 was to replace a jaw crusher (S-201) with a new jaw crusher (S-605), add a baghouse on an existing cone crusher (S-202), and add the following existing grandfathered sources:
  - S-601 Rock Hopper (9-DH-1) abated by Water Spray A-4501
  - S-602 Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2) abated by Torit Shaking Baghouse Filters A-4502, A-4503, A-4504
  - S-603 Vibrating Grizzly (9-VG-1) abated by Torit Shaking Baghouse Filter A-4503
Condition # 23896 was modified to reflect these changes. No emission increase resulted from this minor revision.

Lehigh will not relocate or replace the existing source with a new one at this time since this application was submitted before Lehigh became the new owner. However, the permits to operate were granted to sources (S-601, S-602 and S-603) under the loss of exemption provision in this application.

- NSR 17534 was to replace three existing baghouses with new ones (A-216, A-221, A-242). No emission increase resulted from this minor revision.
- NSR 18535 was to correct the hexavalent chromium emission limit as a result of increasing the fuel usage from 8 tons/hr to 20 tons/hrof coke. Condition # 603 was modified to require installation of four flow meters at the pre-calcining kiln (S-154) baghouse outlet and two flow meters at the fuel mill baghouses. Annual source testing for toxic metals was added to S-154.

Condition # 11780 Part D.3 is for calculating the exhaust gas flow rate. It was replaced with an equation to calculate the flow rate from 32 stacks after four new flow meters were installed and after reviewing the measured exhaust flow rates. No emission increase resulted from this minor revision.

- NSR 19385 was to separate the existing storage pile (S-606 for coal, coke, bauxite, iron ore) from S-111 Rail Unloading System Area and to add one new storage pile (S-607 for aggregate, slag). Condition # 24274 was added. There was an increase of 0.456 ton/year of PM10 emissions from this minor revision and Lehigh used emission reduction credits (ERCs) to offset the increase.
- NSR 20199 was to upgrade the nozzles to meet Enhanced Vapor Recovery (EVR) CARB Phase II requirement. Condition # 24297 and # 24298 were added.
- NSR 21217 was to install a pipe line that connects the Kiln Mill Dust Collector (KMDC) to the Finish Mills. This allows Lehigh to send the Kiln Mill Dust Collector's Dust to the Finish Mills for cement blending instead of using haul trucks. In addition, Lehigh has increased the KMDC Dust from 24,000 tons/yr to 42,775 tons/yr to reduce the Mercury emissions at the kiln.
- NSR 21387 was to include three loss of exemption portable compressor and pump drivers. These are small IC engines that were installed before 1995 and were previously exempt. Permits are now required since the District changed the exemption rule on May 17, 2000 to exempt only engines that are less than 50 hp.
- NSR 21753 was to install the hydrated lime slurry injection system to reduce the HCl emissions at the kiln's exhaust.
- NSR 22953 was to install a powder activated carbon (ACI) system to control mercury emissions at the kiln. This is a voluntary interim action that is intended to reduce mercury emissions below levels which the District has established for public notification under the Air Toxics Hot Spots Program. The ACI system is a part of Lehigh's overall efforts to control mercury emissions from their facility. Lehigh will subsequently be making additional modifications, including adding a single stack, to further reduce public exposures to mercury and other toxic air contaminants.
- NSR 23594 was to obtain the permits to operate for two synthetic gypsum feeders (S-223 and S-246). Both synthetic gypsum feeders were installed in 1994, but were not placed in synthetic gypsum services until March of 2010. The synthetic gypsum is used to partially replace the permitted natural gypsum that Lehigh blends with clinker to produce cement.

## **B. Facility Description**

The Lehigh Southwest Cement (Lehigh) facility produces Portland cement – a fine gray powder that binds sand and aggregate into concrete. Portland cement is the generic term for hydraulic cement (cement that hardens with the addition of water) used in virtually all concrete. Raw materials used in Portland cement manufacturing are comprised of calcium, silica, alumina, and iron. Although cement can be formed from a wide variety of materials, one of the most common combinations is of limestone, clay and sand. At the Lehigh facility, materials containing these minerals are mined in a quarry, ground to a fine powder, and blended in specific proportions needed for the final cement product. The finely ground mixture of raw materials are heated until partially molten (to temperatures of 2550 to 2750°F) in a cement kiln to produce a pellet-shaped, glass-hard material called clinker. The clinker is then ground with gypsum to an extremely fine powder, Portland cement.

The Portland cement manufacturing process at the Lehigh facility consists of mining and handling of raw materials, raw milling and kiln feed preparation, pyroprocessing, coal and petroleum coke preparation, clinker cooling, and finish milling. The principal operations at Lehigh consist of:

- Quarry Operations
- Primary Storage Piles
- Tertiary Crushing/Preblending

- Raw Milling
- Homogenizing
- Pyroprocessing
- Clinker Storage/Finish Milling
- Finish Product Storage and Load Out
- Fuel Preparation
- Concrete Aggregate Products (Rock Plant)

Primary emissions in the manufacturing of Portland cement at the Lehigh facility are combustion emissions, point-type particulate, and fugitive particulate. Plant operations are monitored and controlled by computer. The real-time computer system monitors feed rates and other parameters to optimize combustion control. Combustion emissions are generated in the pyroprocessing operation. Particulate emissions are generated throughout the facility from numerous stationary and mobile operations.

Baghouses are installed to recover product and control dust emissions from the kiln, mills, clinker cooler, fuel mill, belt conveyor transfer points, bulk unloading stations and at numerous other locations at the facility. Water is sprayed on haul roads and uncovered storage piles to control fugitive dust generation. Facility maintenance activities and practices such as watering of road surfaces and enforcement of the speed limits reduce the quantity of fugitives generated on-site and limit their transport off-site.

### **C. Permit Content**

The legal and factual basis for the permit follows. The permit sections are described in the order presented in the permit.

#### **I. Standard Conditions**

This section contains administrative requirements and conditions that apply to all facilities. If the Title IV (Acid Rain) requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. Many of these conditions are derived from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

#### Changes to permit:

The dates of adoption and approval of rules in Standard Condition 1.A have been updated.

BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants has been added to Standard Condition 1.A.

SIP Regulation 2, Rule 6-Permits, Major Facility Review has been added to Standard Condition 1.A.

The following language was added to Standard Condition I.B.1: “If the permit renewal has not been issued by [ ], but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application.” This is the “application shield” pursuant to BAAQMD Regulation 2-6-407.

The Basis Regulation 2-6-409.20 was added to Standard Condition I.B.11.

The following language was added as Standard Condition I.B.12: “The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307).” The purpose

is to reiterate that the Permit Holder is responsible for ensuring that all activities at the facility comply with all applicable requirements.

The Basis Regulation 3 and Cumulative increase were replaced with Regulation 2-6-501 for Standard Condition I.E.2.

The dates of the reporting periods and reporting deadlines in Standard Conditions I.F and I.G have been changed to align with the calendar year as requested by the applicant.

The Basis Regulation 3 was deleted from Standard Condition I.F.

## **II. Equipment**

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S-24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit of more than 2 tons per year of a “regulated air pollutant” (as defined in BAAQMD Rule 2-6-222) or 400 pounds per year of a “hazardous air pollutant” (as defined in BAAQMD Rule 2-6-210).

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device having a primary function to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as an engine used to control VOC emissions, it will be listed in the abatement device table, but will have an “S” number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or “A”) device. If the primary function of a device is a non-control function, the device is considered to be a source (or “S”).

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District’s regulations. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

Following are explanations of the differences in the equipment list between the time that the facility originally applied for a Title V permit and the permit proposal date:

### **Table II-A – Permitted Sources**

- S-1 EVR upgrade for gasoline dispensing operation, per NSR # 20199
- S-56 Cement Packer #3, deleted, removed from service
- S-57 Cement Packer #4, deleted, removed from service
- S-100 Precalciner Kiln Fuel Handling System, added per TV # 17734/NSR # 15342
- S-154 Calciner Kiln, coke added to list of fuels used since it was previously omitted
- S-166 Bulk Clinker Rail Car Loadout System, deleted, removed from service
- S-167 Lime Bin, added per NSR A/N 21753 for Slurry Lime Injection System
- S-168 Activated Carbon Storage Silo, added per NSR 22953 for Activated Carbon Injection System
- S-169 Activated Carbon Feed Bin, added per NSR 22953 for Activated Carbon Injection System

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- S-173, deleted, removed from service
- S-174, deleted, removed from service
- S-204 Tunnel Conveyor (8BC1) with 2 Belt Conveyors (8BC2&8BC8), deleted, removed from service
- S-205 Conveying System w/10 Belt Conveyors, deleted, removed from service
- S-206 5 Sand and Aggregate Piles, deleted, removed from service
- S-207, S-208, S-209 Cold Cleaners have been exempted per Regulation 2-1-118.4 for low VOC content and were deleted from Table II-A. Table II-C – Exempt Sources was added for these sources
- S-214 Rock Crusher 8CRI, deleted, removed from service
- S-215 Vibrating Screen (7-SC-1), deleted, removed from service
- S-223 Synthetic Gypsum Feeder (6WF12), added per NSR # 23594
- S-231 Description deleted “Concrete Storage Silo”
- S-240 Description deleted “Concrete Storage Silo”
- S-246 Synthetic Gypsum Feeder (6WF11), added per NSR # 23594
- S-440 Surge Bin Feeder, deleted, removed from service
- S-441 Texas VSI Impact Crusher, deleted, removed from service
- S-442 Triple Deck Vibrating Screen, deleted, removed from service
- S-443 Conveyor, deleted, removed from service
- S-444 Emergency Clinker Conveyor, added per TV # 16867/NSR #15217
- S-503 Portable Compressor Driver, added per NSR # 21387 for Loss of Exemption equipment
- S-504 Portable Compressor Driver, added per NSR # 21387 for Loss of Exemption equipment
- S-505 Portable Pump Driver, added per NSR # 21387 for Loss of Exemption equipment
- S-601 Rock Hopper (9-DH-1), added per NSR # 15572
- S-602 Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2), added NSR # 15572
- S-603 Vibrating Grizzly (9-VG-1), added NSR # 15572
- S-606 Storage Piles Area 1, added per NSR # 19385
- S-607 Storage Piles Area 2, added per NSR # 19385

**Devices with Changed Permit Status**

- S-207, S-208, S-209 Cold Cleaners have been exempted per Regulation 2-1-118.4 for low VOC content. Table II-C – Exempt Sources was added for this purpose.

**Corrections to Devices Shown in Application**

- S-121, S-134, S-135, S-151, S-164, S-171 through S-174, S-231, S-240, S-243, S-245, S-342 through S-350, S-360, S-380, S-383, S-384, S-390 descriptions corrected
- A-10, A-13, A-141, A-142, A-161, A-211, A-243, A-245 descriptions corrected
- A-350, A-360 and A-370 operating parameters corrected from water flow not less than 3 or 4 gallons/min to complete “surface wet” condition

**Table II-B – Abatement Devices**

- Operating parameters were updated and corrected for some abatement devices
- BAAQMD Regulation 6 changed to BAAQMD Regulation 6, Rule 1
- BAAQMD Regulation 6-1-310 emission limit was deleted from fugitive sources (S-300, S-350, S-360, S-370) since outlet grain loading does not apply
- BAAQMD Regulation 6-1-311 emission limit has been added to all particulate control devices

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- BAAQMD Regulation 6-1-311 operating parameter was modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required an annual source test
- A-100 Water Spray at Hopper Loading, added per TV # 17734/NSR # 15342
- A-111 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-111 in the condition
- A-112 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-112 in the condition
- A-113 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-113 in the condition
- A-114 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-114 in the condition
- A-115 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-115 in the condition
- A-121 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-121 and S-122 in the condition
- A-122 and A-123 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-122 and S-123 in the condition
- A-131 through A-135 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-131 through S-135 in the condition
- A-141 and A-142 PM Annual Source Test Operating Parameters were added
- A-143 and A-144 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-143 and S-144 in the condition
- A-151 through A-153 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-151 and S-153 in the condition
- A-154 Lime Slurry Injection System, added per NSR A/N 21753 for Slurry Lime Injection System
- A-156 Activated Carbon Injection System, added per NSR A/N 22953 for Activated Carbon Injection System
- A-162 through A-165 BAAQMD condition # 2786 part B, 0.02 gr/dscf was deleted because this limit does not apply to S-162 through S-165 in the condition
- A-166 Dust Collector DC144-10 Pulse Jet, deleted, removed from service
- A-167 Lime Bin Dust Collector, added per NSR A/N 21753 for Slurry Lime Injection System
- A-168 Dust Collector, added per NSR A/N 22953 for Activated Carbon Storage Silo
- A-169 Dust Collector, added per NSR A/N 22953 for Activated Carbon Feed Bin
- A-171 and A-172 Limit of 3.3 lb/hr for BAAQMD Regulation 6-310 was deleted because it was an incorrect limit from BAAQMD condition # 2786 part B. BAAQMD condition # 2786 part B limit was corrected to 6.6 lb PM/hr total for A-171 and A-172 and PM Annual Source Test Operating Parameters were added and hourly mass limits were added
- A-174 Dust Collector DCE Volks, deleted, removed from service
- A-190 Dust Collector is abating S-165, not S-161 correction
- A-190 PM Source Test every 5 years Operating Parameters were added and Condition #2786, Part B and basis for hourly mass limit was deleted for correction
- A-203 deleted along with the mineral aggregate plant
- A-214 Dust Collector 8-DC-2, deleted, removed from service
- A-215 Dust Collector 8-DC-1, deleted, removed from service
- A-216 Dust Collector 6DC13, A-221 Dust Collector 6DC6, A-242 Dust Collector 6DC11 were replaced and the outlet grain loading emission limit was lowered from 0.006 gr/dscf to 0.0013 gr/dscf per NSR # 17534

- A-221, added S-223 to the source controlled column and BAAQMD Condition #24621, Part 2 to the applicable requirement
- A-243, added S-246 to the source controlled column and BAAQMD Condition #24621, Part 2 to the applicable requirement
- A-370 The description was corrected from “Water Spray System” to “Haul Road Sprinkler System” for accuracy. Added S-380, S-381 and S-382 to the source controlled column
- For A-342, BAAQMD 6-310 was deleted because it was listed twice
- A-413 replaces A-414 per NSR A/N 21217
- A-414 is removed per NSR A/N 21217
- For A-422, BAAQMD condition # 16109, part 3 was added to Applicable Requirement description because it was previously omitted
- A-432 Dust Collector 7-PDC-03, deleted, removed from service
- A-441 Dust Collector 8-DC-4, deleted, removed from service
- A-442 Dust Collector 8-DC-5, deleted, removed from service
- A-444 Water Spray, added per NSR #15217
- For A-448: BAAQMD, 0.006 gr/dscf was deleted because the source/baghouse was mistakenly listed
- A-451 Dust Collector 7-PDC-04, deleted, removed from service
- A-606 Water Spray, added per NSR # 19385
- A-607 Water Spray, added per NSR # 19385
- A-2030 Water Sprays, deleted, removed from service
- A-2040 Water Sprays, deleted, removed from service
- A-2050 Water Sprays, deleted, removed from service
- A-2140 Water Sprays, deleted, removed from service
- A-2150 Water Sprays, deleted, removed from service
- A-4400 Water Sprays, deleted, removed from service
- A-4430 Water Sprays, deleted, removed from service
- A-4501 Water Spray System, added per NSR # 15572

#### **Table II-C – Exempt Sources**

- This table was added for exempt sources S-207, S-208, S-209 Cold Cleaners, S-60 and S-62 Diesel Storage Tanks, Low volatility solvent storage tanks, laboratories – hoods and testing equipment, and < 10 MMBTU/hr boiler

### **III. Generally Applicable Requirements**

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered “significant sources” as defined in BAAQMD Rule 2-6-239.



Changes to permit:

The note regarding SIP information from the Rule Development Section has been deleted since the SIP standards are now found on the EPA website.

Table III has been updated by adding the following rules and standards to conform to current practice:

- SIP 2-1-429, Federal Emissions Statement
- BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- BAAQMD Regulation 6, Particulate Matter and Visible Emissions has been designated as SIP Regulation 6, and the BAAQMD rule has been renamed and renumbered as Regulation 6, Rule 1, Particulate Matter, General Provisions
- BAAQMD and SIP Regulation 8, Rule 2, Miscellaneous Operations
- SIP Regulation 8, Rule 3 has been deleted since BAAQMD Regulation 8, Rule 3 has been SIP approved
- BAAQMD Regulation 8, Rule 4 Organic Compounds – General Solvent and Surface Coating Operations
- BAAQMD Regulation 8, Rule 15 Organic Compounds – Emulsified and Liquid Asphalts
- BAAQMD and SIP Regulation 8, Rule 40 Aeration of Contaminated Soil and Removal of Underground Storage Tanks
- BAAQMD and SIP Regulation 8, Rule 47, Air Stripping and Soil Vapor Extraction Operations
- BAAQMD and SIP Regulation 9, Rule 1 Inorganic Gaseous Pollutants – Sulfur Dioxide
- California Health and Safety Code Section 41750 et seq., Portable Equipment
- California Health and Safety Code Section 93115 et seq., Airborne Toxic Control Measure for Stationary Compression Ignition Engines
- California Health and Safety Code Section 93116 et seq., Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater
- Compliance Assurance Monitoring (CAM), 40 CFR, Part 64
- Mandatory Green House Gas Reporting, 40 CFR Part 98, Subpart A and H
- Mandatory Green House Gas Reporting, CA Code of Regulation, Title 17, Subchapter 10, Article 2

The dates of adoption or approval of the rules and their “federal enforceability” status in Table III have also been updated.

#### **IV. Source-Specific Applicable Requirements, Applicable Limits & Compliance Monitoring Requirements**

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan. SIP rules are “federally enforceable” and a “Y” (yes) indication will appear in the “Federally Enforceable” column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the “Federally Enforceable” column will have a “Y” for “yes”. If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.
- Other District requirements, such as the Manual of Procedures, as appropriate.

- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District or EPA websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV.

Previous Section VII: Applicable Limits and Compliance Monitoring Requirements section of the permit has been deleted and combined with Section IV in this Title V permit renewal.

Section IV and Section VII have been combined in this permit renewal. A discussion of monitoring is included in Section VII of this permit evaluation/statement of basis.

***Complex applicability determinations in this Title V Permit Renewal***

NESHAPs 40 CFR, Part 63, Subpart LLL supersedes the NSPS, Standards of Performance for Portland Cement Plants for many of the sources as noted in Table IV& VII of the permit because Subpart LLL was more stringent than the NSPS (40 CFR 60, Subpart F) for existing sources.

The District has determined the monitoring of PM emissions from the raw mills (S-141, S-142), precalciner kiln (S-154), clinker cooler (S-161), and fuel mill systems (S-171, S-172) was inadequate. Therefore, with this Title V renewal, the District is imposing an annual PM source test requirement in BAAQMD Condition # 2786, Part B and metal HAPs source test requirement in BAAQMD Condition # 603, Part 8.

The District added Condition #24621, Part 1 to require Lehigh to operate and maintain a District's approved Fugitive and Dust Control Plan for sources that are not regulated under NESHAP Subpart LLL. Also, Condition #24621, Part 2 was added to require Lehigh to perform source tests at least once every five years on any abatement device that currently has a pressure monitor or a baghouse leak detection system.

Condition # 24781 was added to the TV permit for sources that are subject to the Compliance Assurance Monitoring plan. EPA prefers that the District incorporate the CAM plan into the Title V permit instead of having the CAM plan as an attachment in the previously proposed public notice version.

The District replaced all mentioning of Ringelmann 0.5 with Ringelmann 1.0 in all conditions with Ringelmann requirements to conform with the District Regulation 6-1-301 standard.

***Applicability of 40 CFR, Part 64, Compliance Assurance Monitoring (CAM)***

The Compliance Assurance Monitoring (CAM) regulation in 40 CFR, Part 64 was developed to provide assurance that facilities comply with applicable emissions limitations by adequately monitoring control devices. The CAM rule became effective on November 21, 1997. However, most facilities are not affected by CAM requirements until they submit applications for Title V permit renewal. As required, Lehigh has conducted an applicability analysis for CAM as part of this renewal application. The applicable requirements have been incorporated in Table III-General.

CAM applies to a source of criteria pollutant or hazardous air pollutant (HAP) emissions if all the following requirements are met:

- The source is located at a major source for which a Title V permit is required; and
- The source is subject to a federally enforceable emission limitation or standard for a criteria pollutant or HAP; and
- The source uses a control device to comply with the federally enforceable emission limitation or standard; and
- The source has potential pre-control emissions of the regulated pollutant that are equal to or greater than the major source threshold for the pollutant (in BAAQMD, the major source thresholds are 100 tons per year for each criteria pollutant, 10 tons per year for a single HAP, and 25 tons per year for two or more HAPs); and
- The source is not otherwise exempt from CAM.

The applicability of 40 CFR, Part 64, Compliance Assurance Monitoring, was reviewed for the sources at this facility. The detailed Potential to Emit (PTE) Calculations (Attachment 1) and CAM analysis (Attachment 2) are in Appendix D.

- All sources subject to 40 CFR, Part 63, Subpart LLL: National Emissions Standards for Hazardous Air Pollutants (NESHAPs) from the Portland Cement Manufacturing Industry are exempt from CAM per 64.2(b)(1)(i) because the NESHAPs standards were proposed by the U.S. EPA after November 15, 1990. After calculating the PTE for these sources, it was determined that 28 sources that are subject to CAM. These sources are subject to BAAQMD Condition #24781 parts 1 through 11, and 23 through 44 for Compliance Assurance Monitoring.
- Condition # 24781 was created to impose the monitoring requirements on all affected sources in accordance with the CAM requirements of 40 CFR, Part 64.6 through 64.9. The monitoring requirements are summarized below.

Source No.	Dust Collector No.	CAM Condition # 24781	Visual Inspection Frequency	Pressure Drop Monitoring Frequency	Dust Collector Inspection	Source Test Frequency
S-17	A-436	Parts 1 thru 11	M22 - P/M	0.5- 10 inches water – P/Q	P/A	P/every 5 years
S-19	A-10, A-447, A-448, A-449 & A-450	Parts 1 thru 11	M22 - P/M	0.5- 10 inches water – P/Q	P/A	P/every 5 years
S-21	A-13					
S-45	A-433	Parts 1 thru 11	M22 - P/Q	0.5- 10 inches water – P/Q	P/A	P/every 5 years
S-46	A-434					
S-47	A-435					
S-48	A-420, A-421, A-422 & A-428	Parts 1 thru 11	M22 - P/M	0.5- 10 inches water – P/Q	P/A	P/every 5 years
S-49	A-423, A-424, A-427 & A-429					
S-50	A-425, A-426, A-427 & A-429					
S-74	A-58					
S-151	A-151 & A-152					
S-153	A-153					

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Source No.	Dust Collector No.	CAM Condition # 24781	Visual Inspection Frequency	Pressure Drop Monitoring Frequency	Dust Collector Inspection	Source Test Frequency
S-162 S-163 S-164 S-165 S-414	A-162 A-163 A-164 A-165 & A-190 A-413					

Source No.	Dust Collector No.	CAM Condition # 24781	Visual Inspection Frequency	Pressure Drop Monitoring Frequency	Dust Collector Inspection	Source Test Frequency
S-141 S-142 S-154 S-161	A-141 A-142 A-141, A-142, A-171 & A-172 A-161	Parts 23 thru 33	M22 - P/D	0.5- 10 inches water – P/W	P/A	P/A

Source No.	Dust Collector No.	CAM Condition # 24781	Visual Inspection Frequency	PM Concentration	Dust Collector Inspection	Source Test Frequency
S-143 S-144	A-143 A-144	Parts 34 thru 44	Broken Bag Leak Detector instead of Visual Inspection - P/C	< 10 milligrams per cubic meter - P/C	P/A P/A	P/A
S-210 S-211 S-218 S-220 S-230	A-210 A-211 A-218 A-220 A-230	Parts 34 thru 44				P/every 5 years

- M22: EPA Method 22, P/M: Periodic per month, P/Q: Periodic per quarter, P/M: Periodic per month, P/W: Periodic per week, P/C: Periodic/continuous
- Monthly visual inspection is based on the NESHAP Subpart LLL requirement
- Pressure drop monitoring is based on the recommended monitoring for generally applicable requirement in Significant Impact Prevention (SIP) guideline dated June 24, 1999. For dust collectors:  
If the uncontrolled PTE is between 25 to 300 TPY, quarterly monitoring frequency is recommended  
If the uncontrolled PTE is > 300 to 1,300 TPY, Monthly monitoring frequency is recommended  
If the uncontrolled PTE is > 1,300 TPY, Weekly monitoring frequency is recommended
- All sources subject to 40 CFR, Part 60, Subpart OOO: Standards of Performance for Nonmetallic Mineral Processing Plants are not exempt from CAM per 64.2(b)(1)(i) because the amended standards proposed by the U.S. EPA after November 15, 1990, did not include the monitoring system for a baghouse. After calculating the potential to emit (PTE) for these sources, it was determined that these sources had a PTE less than 100 tons per year except for 3 sources, which are abated by dust collectors. These sources are subject to BAAQMD Condition #24781 parts 12 through 22 for CAM.

Source No.	Dust Collector No.	CAM Condition # 24781	Visual Inspection Frequency	Pressure Drop Monitoring Frequency	Dust Collector Inspection	Source Test Frequency
S-121 S-122	A-121 A-122	Parts 12 thru 22	M22 - P/Q	0.5- 8 inches water – P/Q	P/A	P/every 5 years

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S-384	A-384					
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- All sources subject to 40 CFR, Part 60, Subpart Y: Standards of Performance for Coal Preparation Plants are not exempt from CAM per 64.2(b)(1)(i) because the amended standards proposed by the U.S. EPA after November 15, 1990 did not include monitoring provisions for the sources. After conducting the CAM analysis for these sources, it was determined that these sources had a PTE less than 100 ton per year prior except for 2 sources (S-171 and S-172, Fuel Mills). However, the abatement from S-171 and S-172 are being shared with S-154 Calciner Kiln; therefore, the CAM requirement of Dust Collectors A-171 and A-172 are subject to NESHAP 40 CFR Part 60 Subpart LLL, the most stringent standards, as shown in the table below.

Source No.	Dust Collector No.	CAM Condition # 24781	Visual Inspection Frequency	Pressure Drop Monitoring Frequency	Dust Collector Inspection	Source Test Frequency
S-171	A-172	Parts 23	M22 - P/D	0.5- 14 inches	P/A	P/A
S-172	A-172	thru 33		water – P/W		

- All other sources abated by dust collectors are exempt from CAM per 64.2(a)(3) because the PTE are less than 100 ton/yr. They are required to take quarterly pressure drop readings per Condition # 20751, Part 3 and a source test every 5 years per Condition # 24621, Part 2 to make sure they are in compliance with the Title V permit.
- S-176 Rock Plant 1 Storage Pile, S-187 Sand Hopper and Storage Bin, S-201 Primary Crusher, S-202 Secondary Crusher, S-501 and S-502 Emergency Diesel Engines and S-600 Quarry Blasting and Mobile Operations, are exempt from CAM per 64.2(a)(2) because they do not use a control device.
- S-154 Kiln fuel combustion pollutants such as NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC do not use control devices; therefore, CAM is not applicable per 64.2(a)(2).
- S-1, Gasoline Dispensing Station, is exempt from CAM per 64.2(a)(3) because the potential pre-control emissions are not greater than 100 ton/yr as required by CAM.

District permit applications not included in this proposed permit

This facility submits a large number of permit applications to the District every year. Evaluation of the following permit application was not completed in time for the result to be included in this Title V permit renewal. The Title V permit will be revised during the five-year term of the permit to incorporate revisions following the procedures in Regulation 2, Rule 6, Major Facility Review.

Application #	Project Description
TBD/NSR 16612	Alternate Biofuels to reduce Greenhouse Gases – on hold until further notice from Lehigh.

Changes to permit:

- Table IV and Table VII have been combined.
- The description of Section VII has been added to Section IV Source-Specific Applicable Requirements, Emission Limits & Compliance Monitoring Requirements. For periodic monitoring, the frequency of the monitoring has also been shown, either annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation

is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

- A column for Recordkeeping Protocol, R, has been added to Table IV & Table VII for completeness.
- The dates of adoption or approval of the rules and their “federal enforceability” status in the combined Table IV & Table VII have been updated.
- The “Toxic Risk [Management] Policy” basis for permit conditions has been updated to District Regulation 2-5 New Source Review Regulation for Toxic Air Contaminants because the regulation was adopted.
- BAAQMD Regulation 6, Particulate Matter and Visible Emissions has been designated as SIP Regulation 6, and the BAAQMD rule has been renamed and renumbered as Regulation 6, Rule 1, Particulate Matter, General Provisions
- The description of the BAAQMD 6-1-301 and SIP 6-301 and limit has been corrected to say “for < 3 min/hr.”
- The “type of limit” has been changed to “Opacity” for BAAQMD Regulation 6-1-301, since it is an opacity standard.
- The “type of limit” has been changed to “Filterable Particulate” for BAAQMD Regulation 6-1-310 and 6-1-311, since it is a filterable particulate standard.
- All BAAQMD Regulation 10 was modified from “N” for Federal Enforceable (FE) to “Y”.
- Visible inspection by Method 9 or Method 22 is visible emission observations.
- All conditions with Ringelmann 0.5 were changed to Ringelmann 1.0 for consistency with Regulation 6-1-301.

#### Table IV & Table VII – Facility Wide

- Added Facility Wide, Condition #24621 Part 1 to require Lehigh to operate and maintain a District approved Fugitive Dust Control Plan for sources that are not regulated under NESHAP Subpart LLL. Added Condition #24621, Part 2 to require Lehigh to perform source tests at least once every five years on abatement devices that currently have a pressure monitor or a baghouse leak detection system
- Added the clinker storage requirements of 63.1343(c) and 63.1343(d) when occurs more and less than 1000 feet from the facility property line
- Added continuous emission monitoring and recordkeeping procedures
- Added parametric emission monitoring and recordkeeping procedures

#### Table IV & Table VII – A, S-1 Gasoline Dispensing Facility

- BAAQMD 8-7-116 was deleted. Periodic testing exemption does not apply to S-1 per NSR Application # 20199
- BAAQMD 8-7-301.6 Monitoring Type was corrected to “Annual Check for Vapor Tightness and Proper Operation of Vapor Recovery System”
- BAAQMD 8-7-302.5 (Leak free and vapor tight) Emission Limit, Monitoring Requirement Citation, Monitoring Frequency, and Monitoring Type requirements were deleted and replaced with Condition # 24298 in NSR Application # 20199
- Future effective dates (1/1/09) for BAAQMD 8-7-302.12: Liquid Retain Limitation and 8-7-302.13: Nozzle Spitting Limitation were deleted since the dates have passed
- BAAQMD 8-7-302.14 (backpressure) Emission Limit, Monitoring Requirement Citation, Monitoring Frequency, and Monitoring Type requirements were replaced with Condition # 24298 in NSR Application # 20199
- BAAQMD 8-7-316 was deleted, aboveground storage tank requirement does not apply to underground storage tank per NSR Application # 20199

- BAAQMD Condition # 20666 Part 2 was separated into two sections for clarity. The limit and Monitoring Citations were updated to be consistent with NSR Application # 20199.
- BAAQMD Condition # 24297 was added per NSR Application # 20199
- BAAQMD Condition # 24298 was added per NSR Application # 20199

Table IV & Table VII – B, S-17 Clinker Transfer Area abated by A-436 Dust Collector

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(7) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted.
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted.
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition #16109. Part 5 description was corrected from cement loads < 70,000 trucks/year to cement loads < 70,000 trucks/rolling 12 month period.

- BAAQMD Condition# 16109 part 2 was deleted as a monitoring citation since it is redundant to BAAQMD Condition # 20751 Part 3b
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – C, S-19 Clinker Storage Area Abated by A-10, A-447, A-448, A-449, and A-450 Dust Collectors

- BAAQMD Regulation 6-302 was deleted because this source is not required to have an opacity sensing device and is not subject to this requirement
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures were added since they were previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(a) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348(b)(1) (i) Continuous compliance general requirements was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted



- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A-Standard of Performance for New Stationary Sources, General Provisions
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – D S-21 Roll Press Clinker Surge Bin (6-SS-1) and Feeder (6-WF-1) abated by A-13 Dust Collector (renumbered from Table IV & Table VII – C-1)

- BAAQMD 6-302 and 6-501 were deleted since this source does not require an opacity sensing device
- Monitoring Citation for BAAQMD 6-1-301 and SIP 6-301 monitoring citation, monitoring protocol and frequency, reporting protocol were added since they were previously omitted. S-21/A-13 were added to Condition# 20751 and 20753
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to conduct an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(a) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1342 Standards: General, was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348 Opacity Limit, was added since it was previously omitted
- NESHAP 40 CFR Part 63.1348(b)(1)(i) Continuous compliance general requirements was added per EPA comment on March 23, 2012

- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1349(b)(2) Opacity initial performance tests was added since it was previously omitted
- NESHAP 40 CFR Part 63.1349(c) Opacity periodic performance tests was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(a) Operations and malfunction (O&M) plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(b) Compliance with operations and maintenance plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(3) Opacity test notification was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(2) Opacity observation reporting was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1355 Recordkeeping Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1356(a) Exemption from 40 CFR, Part 60, subpart F was added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV – D and Table VII – D were split into two tables, Table IV & VII – E for silos and Table IV&VII- F for cement loadout and packers

- S-56 Cement Packer #3 was deleted because the source was removed from service

Table IV & Table VII – E, S-45 West Silo Top Cement Distribution Tower abated by A-433 Dust Collector, S-46 Middle Silo Top Distribution Tower abated by A-434 Dust Collector, S-47 East Silo Top Distribution Tower abated by A-435 Dust Collector

- Opacity limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added to BAAQMD Regulation 6-1-301 and SIP Regulation 6-301 since they were previously omitted
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(8) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- Opacity limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added to NESHAP 40 CFR, Part 63.1348 since there were previously omitted
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added

- BAAQMD Condition# 16109 part 2 was deleted as a monitoring citation since it is redundant to BAAQMD Condition # 20751 Part 3b
- BAAQMD Condition# 16109 part 5 was deleted since S-45, S-46, and S-47 are used for onsite delivery of cement to silos and not subject to the facility export throughput limit of 70,000 cement trucks/year
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – F, S-48 Bulk Cement Loadout Tank #1 & 2 abated by A-420, A-421, A-422, and A-428 Dust Collectors, S-49 Bulk Cement Loadout Tank #28 abated by A-423, A-424, A-427, and A-429 Dust Collectors, S-50 Bulk Cement Loadout Tank #29 abated by A-425, A-426, A-427, and A-429 Dust Collectors, S-54 Cement Packer #1 abated by A-430 Dust Collector, S-55 Cement Packer #2 abated by A-431 Dust Collector

- Opacity limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added to BAAQMD Regulation 6-1-301 and SIP Regulation 6-301 since they were previously omitted
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(8) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- Opacity limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added to NESHAP 40 CFR, Part 63.1348 since there were previously omitted
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted

- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added for S-48, S-49 and S-50
- BAAQMD Condition# 16109 part 2 was deleted as a monitoring citation since it is redundant to BAAQMD Condition # 20751 Part 3
- BAAQMD Condition # 20751 Part 2, operating range was added
- BAAQMD Condition # 20751 Part 3~~b~~ was added since it was previously omitted, specify this condition only apply to S-54 and S-55
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM) for S-48, S-49 and S-50

Table IV – E & Table VII – E, S-57 Cement Packer #4 abated by A-451 Dust Collector was deleted because the source was removed from service

Table IV & Table VII – G (renumbered from Table IV – F & Table VII – F), S-74 Type II Mechanical transfer System abated by A-58 Dust Collector

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable

- NESHAP 40 CFR Part 63.1340(b)(8) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- Opacity limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added to NESHAP 40 CFR, Part 63.1348 since there were previously omitted
- NESHAP 40 CFR Part 63.1348(b)(1)(i) General requirements for monitor and collect data was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 6655 Part 8 cement throughput limit was corrected from 1.6 million tons/year to 1.44 million tons/year
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – H, S-100 Precalciner Kiln Fuel Handling System abated by A-100 Water Sprays

- Table of requirements was added for this new source (NSR Application # 15342)

Table IV & Table VII – I (renumbered from Table IV & Table VII – G), S-111 Rail Unloading System abated by A-111 Dust Collector, S-112 Additive Hopper Transfer System abated by A-112 Dust Collector, S-113 Additive Bin Transfer Facilities abated by A-113 and A-114 Dust Collectors, S-115 Additive Storage abated by A-115 Dust Collector

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted

- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- NESHAP 40 CFR Part 60 Subpart A, General Provisions: Sections 60.18 General Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 60 Subpart Y 60.252(c), Monitoring citation frequency and reporting were added since these sources are required to be monitored by BAAQMD Conditions
- BAAQMD Condition # 20751 Part 2, operating range was added
- BAAQMD Condition # 20751 Part 3b was added since it was previously omitted
- BAAQMD Condition # 20753 Part 1. Deleted description of condition “for A-10” since it applies to all abatement devices in this table.
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV & Table VII – J (renumbered from Table IV & Table VII – H and I),

S-121 Tertiary Scalping Screen (2-VS-1, 2-VS-2) abated by A-121 Dust Collector,

S-122 Tertiary Crusher (2-cr-1) abated by A-121 and A-122 Dust Collectors,

S-123 Rock Conveying System abated by A-122 and A-123 Dust Collectors,

S-131 Rock Sampling System abated by A-131 Dust Collector,

S-132 Preblend abated by A-132 and A-133 Dust Collectors,

S-134 Preblend Storage Bin (4-S-1, 4-S-2) abated by A-134 Dust Collector

S-135 High Grade Storage Bin (4-S-3, 4-S-4) abated by A-135 Dust Collector

- S-121 and S-122 were moved to Table IV & Table VII – J – 1 because they are subject to 40 CFR, Part 64 CAM
- Descriptions of S-134 was corrected
- A-133 was added to S-132 since it was previously omitted
- Added S-135 to Table IV & Table VII – J because it is subject to the same regulations and permit conditions as the sources already in this table
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- NSPS 40 CFR Part 60 Subpart A General Provisions, Sections 60.7 Notification and Recordkeeping, 60.8 Performance Testing Requirements, 60.10 State Authority and Delegation, 60.11 Compliance with Standards and Maintenance Requirements, 60.12 Circumvention, 60.13 Monitoring Requirements, 60.19 Recordkeeping Requirements were added since they were previously omitted
- NSPS 40 CFR Part 60 Subpart F Section 60.62(c), Monitoring citation frequency and reporting were added since these sources are required to demonstrate compliance by initial performance test
- NESHAP 40 CFR 63 Subpart LLL was added for S-132, S-134 and S-135 only per EPA’s comment on the letter dated March 23, 2012
- BAAQMD Condition # 20751 Part 2, operating range was added
- BAAQMD Condition # 20751 Part 3b was added since it was previously omitted
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV & Table VII – J - 1

S-121 Tertiary Scalping Screen (2-VS-1, 2-VS-2) abated by A-121 Dust Collector,

S-122 Tertiary Crusher (2-cr-1) abated by A-121 and A-122 Dust Collectors

- Table of requirements were added because these sources are subject to 40 CFR, Part 64 CAM
- Description of S-121 was corrected
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “annual source test” per Condition # 24781 as part of the TV permit renewal review and per EPA comment
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- NSPS 40 CFR Part 60 Subpart A General Provisions, Sections 60.7 Notification and Recordkeeping, 60.8 Performance Testing Requirements, 60.10 State Authority and Delegation, 60.11 Compliance with Standards and Maintenance Requirements, 60.12 Circumvention, 60.13 Monitoring Requirements, 60.19 Recordkeeping Requirements were added since they were previously omitted
- NSPS 40 CFR Part 60 Subpart F Section 60.62(c), Monitoring citation frequency and reporting were added since these sources are required to demonstrate compliance by initial performance test
- 40 CFR Part 64 CAM requirements and CAM plan were added
- BAAQMD Condition #20751 Parts 2-6 and #20753 Part 1 & 3 were replaced by Condition #24781
- BAAQMD Condition # 24781 was added to incorporate the CAM requirement per TV permit renewal review

Table IV & Table VII – K (renumbered from Table IV & Table VII – J)

S-141 Raw mill (4-GM-1) abated by A-141 Dust Collector,

S-142 Raw mill 2 (4-GM-2) abated by A-142 Dust Collector

- BAAQMD Regulation 6-1-301 and 310 and SIP 6-301 and 310 Monitoring citation BAAQMD condition #11780, part E was removed since this condition does not apply to opacity
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and 310 and SIP 6-311 and 310 monitoring citation BAAQMD Condition # 2786 B was added for annual source test requirement per Title V permit review
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 9-1-301 monitoring citation was deleted and the monitoring citation was added to 9-1-304 since the CEM is in the kiln/inline raw mills baghouse exhaust stack, and not required to monitor ground level concentration of SO<sub>2</sub> at the fencelines
- BAAQMD Regulation 9-1-302 was deleted since the source is subject to 9-1-304 instead.
- BAAQMD Regulation 9-1-304 Correct reporting of SO<sub>2</sub> CEM data to once per month
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).



- Added the annual source test requirement in Condition #603, Part 8 as a way to demonstrate compliance with the lead limit of Regulation 11-1
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(1) Applicability (in-line kiln/raw mill) was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1343(a) General was added since it was previously omitted
- NESHAP 40 CFR Part 63.1343(b)(1) description of limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1343(b)(3) D/F description of limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 (a) and (b) monitoring protocol & frequency was changed from every 2.5 years to continuous with a thermocouple
- NESHAP 40 CFR Part 63.1343(e) 7% O<sub>2</sub> was added to the D/F limit since it was previously omitted
- NESHAP 40 CFR Part 63.1344 (f) Good Combustion Practices to minimize THC from fuel combustion since it was previously omitted
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1349(b)(3) D/F initial performance test was added since it was previously omitted
- NESHAP 40 CFR Part 63.1349(c) description was changed to add periodic performance testing for PM<sub>10</sub>
- NESHAP 40 CFR Part 63.1349(d) D/F periodic source test requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(c)(3) Compliance with opacity limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351(a) and (b) compliance dates were added since they were previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b) replaced specific subsections because the facility is subject to the whole section
- NESHAP 40 CFR Part 63.1356(a) Exemption from NSPS 40 CFR, Part 60 Subpart F and Subpart OOO was added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 603 was added per NSR Application # 18535 and was removed because Condition #603 was added by mistake
- BAAQMD Condition # 2786 Part A1 description was detailed to include limit of 423 lb SO<sub>2</sub>/hr if coal emissions are not monitored. Monitoring protocol was corrected to CEM from in stack monitoring
- BAAQMD Condition # 2786 Part A3 description was corrected to continuous from in-stack monitoring

- BAAQMD Condition # 2786 Part B PM Annual Source Test was added per Title V renewal review
- BAAQMD Condition # 2786 Part B1 Monitoring citation was changed from pressure drop monitoring to PM Annual Source Test per Title V renewal review
- BAAQMD Condition # 2786 Part F requirement for broken bag leak detection device was removed because Part F is not applicable to S-141 or S-142. Part F is applicable to A-143 and A-144.
- BAAQMD Condition # 11780 Part C(1) limit was corrected from “or” to “and.”
- BAAQMD Condition # 11780 Part C basis was corrected from Cumulative Increase to RACT
- BAAQMD Condition # 11780 Part D(3) was updated with the Exhaust Flow Rate calculation for enhanced monitoring since Lehigh installed and certified four new flow meters in December 2009
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – L (renumbered from Table IV & Table VII – K)

S-143 Raw mill 1 Separator system (4-SE-3) abated by A-143 Dust Collector,

S-144 Raw mill 2 Separator Circuit (4-SE-4) abated by A-144 Dust Collector

- BAAQMD Regulation 6-1-301 and 6-1-310 and SIP Regulation 6-301 and 6-310 monitoring citation was corrected from BAAQMD condition #2786 part F and BAAQMD condition # 13900 parts 1&4 to BAAQMD condition #2786 part F, part 1 because condition 13900 does not apply to these sources
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(3) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1347 monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol updated to reflect compliance with 63.1350(m)
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted

- NESHAP 40 CFR Part 63.1350(e), (e)(1), and (e)(2) were deleted because CFR 63.1350(m) exempts these daily Method 22 testing requirements
- NESHAP 40 CFR Part 63.1350(m) Daily M22 opacity testing exemption because S-143 and S-144 are equipped with bag leak detection systems was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 2786 Part D and Part F limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – M (renumbered from Table IV & Table VII – I)

S-151 Homogenizer (5-S-1, 5-S-2) abated by A-151 and A-152 Dust Collectors,

S-153 Kiln Feed System abated by A-153 Dust Collector

- S-135 was moved to Table IV & Table VII – J
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- BAAQMD Condition # 20751 Part 2 limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- BAAQMD Condition # 20753 Part 1 limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted

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- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(a) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348(b)(1)(i) General requirements for monitor and collect data was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 2786 Part D Monitoring citation was changed to Condition # 11780, Part E(2)
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – N (renumbered from Table IV & Table VII – L)

S-154 Precalciner Kiln abated by A-141 and A-142 Dust Collectors, and A-171 and A-172 Baghouses

- BAAQMD and SIP Regulation 1-522 and 1-523 were added
- BAAQMD Regulation 6-1-301 and 310 and SIP 6-301 and 310 Monitoring citation BAAQMD condition #11780 part E was removed since this condition does not apply to opacity and Monitoring citation was corrected for A-141, A-142, A-171, and A-172
- BAAQMD Regulation 6-1-311 and 310 and SIP 6-311 monitoring citation BAAQMD Condition # 2786 B was added for annual source test requirement per Title V permit review
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 9-1-301 monitoring citation was deleted and the monitoring citation was added to 9-1-304 since the CEM is in the kiln/inline raw mills baghouse exhaust stack, and not required to monitor ground level concentration of SO<sub>2</sub> at the fence lines
- BAAQMD Regulation 9-1-302 was deleted since the source is subject to 9-1-304 instead
- BAAQMD Regulation 9-1-304 Correct reporting of SO<sub>2</sub> CEM data to once per month
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a)
- Added the annual source test requirement in Condition #603, Part 8 as a way to demonstrate compliance with the lead limit of Regulation 11-1
- Added 40 CFR 60, Appendix B, Performance Specification 2 (Specifications and Test Procedures for SO<sub>2</sub> and NO<sub>x</sub> CEM) and Performance Specification 3 (Specifications and Test Procedures for O<sub>2</sub> CEM and 40 CFR 60, Appendix F, Procedure 1 (Quality Assurance Requirements for gas CEM). The plant does not currently operate an O<sub>2</sub> monitor, but will be with the regulatory acceptance of the new CEM in 2013
- NESHAP 40 CFR, Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63 Subpart LLL, Portland Cement Manufacturing Industry, was updated since it was revised on September 9, 2010
- NESHAP 40 CFR Part 63.1349(b)(2) Opacity Tests was added per EPA comment on March 23, 2012
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 603 was assigned to S-154 and added per Application # 18535
- BAAQMD Condition #603, Part 6 sulfur and trace metal content analysis of coke required quarterly was deleted and replaced with Part 8 annual source test requirement at the kiln exhaust
- BAAQMD Condition # 603, Parts 11-15 were added per NSR A/N 21753 Lime Slurry Injection System
- BAAQMD Condition # 603, Parts \*14b, \*15b, \*16-20 were added per NSR A/N 22953 Activated Carbon Injection System
- BAAQMD Condition # 2786, Part A(1) emission limit description was abbreviated, and monitoring type was corrected to CEM
- BAAQMD Condition # 2786 Part A3 description was corrected to continuous from in-stack monitoring
- BAAQMD Condition # 2786 Part B PM Annual Source Test was added per Title V renewal review
- BAAQMD Condition # 2786 Part B1 Monitoring citation was changed from pressure drop monitoring to PM Annual Source Test per Title V renewal review
- Throughput Condition # 11780 was corrected from Part D to Part B
- BAAQMD Condition # 20751 Part 2 limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition

- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – O (renumbered from Table IV & Table VII – M)

S-161 Clinker Cooler (5-CC-1) ABATED BY A-161 DUST COLLECTORS

- Remove all references of A-190 Dust Collector because A-190 is abating the Clinker Transfer Systems (S-165) not the Clinker Cooler (S-161)
- BAAQMD Regulation 6-1-301 and 310 and SIP Regulation 6-301 and 310 Monitoring citation was corrected to BAAQMD condition # 20751, part 3a for A-161
- BAAQMD Regulation 6-1-311 and 310 and SIP 6-311 and 310 monitoring citation BAAQMD Condition # 2786 B was added for annual source test requirement per Title V permit review
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(2) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1343(a) General was added since it was previously omitted
- NESHAP 40 CFR Part 63.1348(b)(1) Continuous compliance general requirements was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1349(b)(2) Opacity Tests was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351(a) compliance date was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirement was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirement of Subpart A was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b) replaced specific subsections because the facility is subject to the whole section
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 2786 Part B PM Annual Source Test was added per Title V renewal review
- BAAQMD Condition # 2786 Part B3 Monitoring citation was changed from pressure drop monitoring to PM Annual Source Test per Title V renewal review

- BAAQMD Condition # 2786 Part D Monitoring citation was changed to Condition # 11780, Part E(2)
- Throughput Condition # 11780 was corrected from Part D to Part B
- BAAQMD Condition # 20753 Part 2 was added since it was previously omitted
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – P (renumbered from Table IV & Table VII – N)

S-162 Clinker Silo (5-S-11) abated by A-162 Dust Collector,

S-163 Clinker Silo (5-S-12) abated by A-163 Dust Collector,

S-164 Free lime Storage Bin abated by A-164 Dust Collector

S-165 Clinker Transfer System abated by A-165 and A-190 Dust Collectors

- Added all references of A-190 Dust Collector because A-190 is abating the Clinker Transfer Systems (S-165)
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348(b)(1)(i) General requirements for monitor and collect data was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012

- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 2786 Part D Monitoring citation was changed to Condition # 11780, Part E(2)
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – P-1

S-167 Lime Bin abated by A-167 Dust Collector

- New table, added per NSR A/N 21753 Lime Slurry Injection System

Table IV & Table VII – P-2

S-168 Activated Carbon Storage Silo abated by A-168 Dust collector

S-169 Activated Carbon Feed Bin abated by A-169 Dust Collector

- New table, added per NSR A/N 22953 Activated Carbon Injection System

Table IV & Table VII – Q (renumbered from Table IV & Table VII – O and P)

S-171 Kiln Fuel Mill System abated by A-171 Baghouse, Pulse Jet Dust Collector

S-172 Precalciner Fuel Mill System abated by A-172 Baghouse, Pulse Jet Dust Collector

- Added S-172 to this table because these are related systems subject to the same requirements
- Description of S-172 changed to Precalciner Fuel Mill System
- BAAQMD Regulation 6-1-311 and 310 and SIP 6-311 monitoring citation BAAQMD Condition # 2786 B was added for annual source test requirement per Title V permit review
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted



- Added the annual source test requirement in Condition #603, Part 8 as a way to demonstrate compliance with the lead limit for S-171 and S-172
- NSPS 40 CFR Part 60 Subpart A General Provisions, Sections 60.7 Notification and Recordkeeping, 60.8 Performance Testing Requirements, 60.10 State Authority and Delegation, 60.11 Compliance with Standards and Maintenance Requirements, 60.12 Circumvention, 60.13 Monitoring Requirements, 60.19 Recordkeeping Requirements were added since they were previously omitted
- NSPS 40 CFR Part 60 Subpart Y Section 60.252(c) Monitoring citation frequency and reporting were added since these sources are required to be monitored by BAAQMD Conditions
- NSPS 40 CFR Part 60 Subpart Y Section 60.253 Monitoring of Operations was deleted because this section does not apply to this source
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 603 was added per NSR Application # 18535
- BAAQMD Condition # 804 was deleted because Part 1 (abatement requirement) is redundant with Condition # 603 Part 1 and Condition # 804 Part 2 (PM mass limit) is redundant with Condition # 2786 Part B
- BAAQMD Condition # 1004 was deleted and the S-172 was added to Condition # 603 with the same conditions
- BAAQMD Condition # 2786 Part B PM Annual Source Test was added per Title V renewal review
- BAAQMD Condition # 2786 Part B2 Monitoring citation was changed from pressure drop monitoring to PM Annual Source Test per Title V renewal review
- BAAQMD Condition # 2786 Part D Monitoring citation was changed to Condition # 11780, Part E(2)
- BAAQMD Condition # 20751 Parts 2-6 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 20753 Parts 1 & 3 were removed since the requirements were consolidated into the CAM Condition
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV –Q and Table VII – Q

- Deleted S-173 since sources S-173 Kiln Fuel System abated by A-175 and S-174 Precalciner Fuel System abated A-174 DCE Volks Dust Collector were removed from service

Table IV & Table VII – S (renumbered from Table IV & Table VII – R)

S-176 Rock Plant 1 Storage Pile

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD 6-310 and 6-311 were deleted since these are fugitive dust sources not subject to these requirements

Table IV & Table VII – T (renumbered from Table IV & Table VII – S)

S-187 (aka S-387) Hopper and Storage Bin

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted

- BAAQMD Regulation 10 (Standards of Performance for New Stationary Sources), Part 1(Subpart A) and Part 66 (Subpart OOO) was deleted because this source is not subject to this regulation or NSPS since the date of original construction or last modification was prior to the effective date (August 31, 1983) of this regulation S-187 is included in the Permit Shield Table IX A-1.

Table IV & Table VII – U (renumbered from Table IV & Table VII – T)

S-201 Primary Crusher

S-202 Secondary Crusher

(The permits to operate for grandfather sources S-601, S-602 and S-603 were granted under A/N 15572. S-605, S-606, A-4502, A-4503 and A-4504 were not built because this application was submitted under the old owner (Hanson Permanente). Lehigh will submit new changes when it is appropriate. S-203 was shut down along with the mineral aggregate plant).

Table IV—U and Table VII – U for S-103, S-104, S-205, S-206, S-214, S-215 were deleted since these sources were removed

Table IV—V and Table VII – V for S-207, S-208, and S-209 Solvent cold cleaners were deleted since the facility now uses exempt solvents, and these sources were move to Table II-C

Table IV & Table VII – V (renumbered from Table IV & Table VII – W)

S-210 Finish Mill (6-GM-1) abated by A-210 Dust Collector

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(4) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1347 monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol updated to reflect compliance with 63.1350(m)
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(e), (e)(1), and (e)(2) were deleted because CFR 63.1350(m) exempts these daily Method 22 testing requirements
- NESHAP 40 CFR Part 63.1350(m) Daily M22 opacity testing exemption because S-210 is equipped with bag leak detection system was added since it was previously omitted

- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1350(p) Development and submittal of monitoring plans requirement was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 779, Part 3 monitoring citation was added to detail where clinker production is required to be monitored
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – W (renumbered from Table IV & Table VII – X)

S-211 Separator (6-SE-2) abated by A-211 Dust Collector

- Description of source changed by capitalizing “se.”
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a)
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(4) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1347 monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol updated to reflect compliance with 63.1350(m)
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(e), (e)(1), and (e)(2) were deleted because CFR 63.1350(m) exempts these daily Method 22 testing requirements

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- NESHAP 40 CFR Part 63.1350(m) Daily M22 opacity testing exemption because S-211 is equipped with bag leak detection system was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1350(p) Development and submittal of monitoring plans requirement was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 4996 Parts 3, 4, 5, and 6 were updated to reflect changes made in NSR Application # 17354
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – X (renumbered from Table IV & Table VII – Y)

S-216 Clinker Cake Conveyor (6-BC-13) abated by A-216 Dust Collector,

S-217 Clinker Cake Conveyor (6-BC-15) abated by A-217 Dust Collector,

S-221 Clinker Cake Feeder (6-WF-2) abated by A-221 Dust Collector,

S-223 Synthetic Gypsum Feeder (6-WF-12) abated by A-221 Dust Collector,

S-231 Pressed Cake Bin (6-SS-2) abated by A-231 Dust Collector,

S-242 Clinker Cake Feeder (6-WF-3) abated by A-242 Dust Collector

- Description (6-SS-2) moved to describe S-231
- BAAQMD Regulation 6-1-301 and SIP 6-301 description of monitoring protocol changed from manometer to monitoring for consistency
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a)
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted

- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348(b)(1)(i) General requirements for monitor and collect data was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted.
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- BAAQMD Condition # 4995 Parts 7 and 8 were added to include the throughput limits of two synthetic gypsum feeders per NSR Application #23594
- BAAQMD Condition # 4996 Part 3 monitoring citation was corrected to reflect the right condition # 23621 and source test every 5 years is required
- BAAQMD Condition # 4996 was updated to reflect changes made in NSR Application #17534
- BAAQMD Condition # 20751 Part 2, operating range was added
- BAAQMD Condition # 20751 Part 3b was added since it was previously omitted
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV & Table VII – Y (renumbered from Table IV & Table VII – Z)

S-218 Air Separator (6-SE-1) abated by A-218 Dust Collector

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a)

- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(4) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1347 monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol updated to reflect compliance with 63.1350(m)
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(e), (e)(1), and (e)(2) were deleted because CFR 63.1350(m) exempts these daily Method 22 testing requirements
- NESHAP 40 CFR Part 63.1350(m) Daily M22 opacity testing exemption because S-210 is equipped with bag leak detection system was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1350(p) Development and submittal of monitoring plans requirement was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- Added BAAQMD condition # 20751 because it was previously omitted
- BAAQMD condition # 4997, part 5 monitoring citation for recordkeeping of clinker production was corrected from continuous to daily
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – Z (renumbered from Table IV & Table VII – AA)  
S-220 Finish Mill (6-GM-2) abated by A-220 Dust Collector

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781

- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a)
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(4) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1347 monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol updated to reflect compliance with 63.1350(m)
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(e), (e)(1), and (e)(2) were deleted because CFR 63.1350(m) exempts these daily Method 22 testing requirements
- NESHAP 40 CFR Part 63.1350(m) Daily M22 opacity testing exemption because S-220 is equipped with bag leak detection system was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1350(p) Development and submittal of monitoring plans requirement was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – AA (renumbered from Table IV & Table VII – BB)

S-222 Gypsum feeder (6-WF-4) abated by A-222 Dust Collector,

S-223 Synthetic Gypsum Feeder (6WF-12) abated by A-221 Dust Collector,

S-240 Additive Conveyor/bins abated by A-240 Dust Collector,

S-243 6-GM-1 Gypsum Feeder (6-WF-9) abated by A-243 Dust Collector,

S-244 Pozzolan Feeder (6-WF-7) abated by A-244 Dust Collector,

S-245 6-GM-1 Clay Feeder (6-WF-5) abated by A-245 Dust Collector

S-246 Synthetic Gypsum Feeder (6WF-11) abated by A-243 Dust Collector,

- BAAQMD Regulation 6-1-301 and SIP Regulation 6-301 monitoring citation added BAAQMD condition # 20751, part 3b since it was previously omitted

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a)
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348(b)(1)(i) General requirements for monitor and collect data was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted.
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- BAAQMD Condition # 4995 Part 3 monitoring citation was corrected to reflect the right condition # 23621 and source test every 5 years is required
- BAAQMD Condition # 4995 Parts 7 and 8 were added to include the throughput limits of two synthetic gypsum feeders per NSR Application #23594
- BAAQMD Condition # 20751 Part 2 operating range was added
- BAAQMD Condition # 20751 Part 3b was added since it was previously omitted
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review



Table IV & Table VII – BB (renumbered from Table IV & Table VII –CC)  
S-230 Hydraulic Roller Press (6-RP-1) abated by A-230 Dust Collector

- Description of source changed by capitalizing “RP”
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR, Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a)
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(4) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1347 monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol updated to reflect compliance with 63.1350(m)
- NESHAP 40 CFR Part 63.1348(b)(1)(i) General requirements for monitor and collect data was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(e), (e)(1), and (e)(2) were deleted because CFR 63.1350(m) exempts these daily Method 22 testing requirements
- NESHAP 40 CFR Part 63.1350(m) Daily M22 opacity testing exemption because the source is equipped with bag leak detection system was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 4999 Part 5 Monitoring Type changed from “Hours of Operation” to “record keeping” for consistency
- BAAQMD Condition # 4999 Part 6 deleted from Table IV & VII because it was a startup condition for an initial source test that was completed

- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – CC (renumbered from Table IV & Table VII –DD)

S-300 Rockplant Wet Aggregate Storage Piles abated by A-300 Water Spray System

- BAAQMD 6-310 and 6-311 were deleted since this is a fugitive dust source not subject to these requirements
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- NSPS 40 CFR Part 60 Subpart OOO Section 60.670(f) was placed as a separate requirement to identify applicable Subpart A requirements
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(c) Standard for Particulate Matter limit for fugitive emissions from any crusher was replaced with 60.672(b) for fugitive emissions from a transfer point or other affected facility
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(a)(1) Standard for Particulate Matter limit was deleted because it applied to stack emissions
- Changed monitoring citation to BAAQMD Condition #7252 Part 6 where record keeping of compliance with surface wet and throughput limitation is monitored

Table IV & Table VII – DD (renumbered from Table IV & Table VII –EE)

S-301 Rail Loadout System abated by A-301 Rail Loadout Dust Collector

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required an annual source test
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1348 future effective date (6/14/02) was deleted since the date has passed
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted

- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted.
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- BAAQMD Condition # 7837 Part 1 and Part 2 reporting protocol changed to annually
- BAAQMD Condition # 20751 Part 2 limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- BAAQMD Condition # 20751 Part 3b was added since it was previously omitted
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV & Table VII – EE (renumbered from Table IV & Table VII –FF)

S-340 Coarse Rock Withdrawal System abated by A-340 Baghouse,

S-341 Screens abated by A-341 Baghouse,

S-343 Crushed Rock Conveyors abated by A-341 Baghouse,

- S-390 Conveyor abated by A-390 Baghouse was moved to Table IV & Table VII – EE-1 since it is not subject to NSPS 40 CFR Part 60 Subpart OOO because it was constructed prior to Aug. 31, 1983
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required an annual source test
- NSPS 40 CFR Part 60 Subpart OOO Section 60.670(f) was placed as a separate requirement to identify applicable Subpart A requirements
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(a)(1) was updated to 60.672(a) and the monitoring citation was updated to 60.11 and 60.675 for specificity
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(c) fugitive emissions opacity limitation was replaced with Section 60.672(b), and Section 60.672(a) opacity limitation from stack emissions was added since these sources are abated by baghouses and have stack emissions
- NSPS 40 CFR Part 60.672, Monitoring citation frequency and reporting were added since these sources are required to demonstrate compliance by initial performance test
- Changed description of BAAQMD Condition 7247 Part 7 from Hour of Operation to Hours of Operation
- BAAQMD Condition # 20751 Part 2 limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- BAAQMD Condition # 20751 Part 3b was added since it was previously omitted
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV & Table VII – EE-1

S-390 Conveyor abated by A-390 Baghouse

- S-390 Conveyor abated by A-390 Baghouse was separated from Table IV & Table VII – FF since it is not subject to NSPS 40 CFR Part 60 Subpart OOO because it was constructed prior to Aug. 31, 1983
- S-390 has been granted a Permit Shield from NSPS 40 CFR Part 60 Subpart OOO because it was constructed prior to Aug. 31, 1983
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV & Table VII – FF (renumbered from Table IV & Table VII –GG)

S-342 Rock Crushers abated by A-342 Baghouse

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required an annual source test
- NSPS 40 CFR Part 60 Subpart OOO Section 60.670(f) was placed as a separate requirement to identify applicable Subpart A requirements
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(a)(1) was updated to Section 60.672(a) and monitoring citation was updated to 60.11 and 60.675 for specificity
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(b) is replaced with 60.672(a) opacity limitation since the source is abated by a baghouse and has stack emissions
- Corrected Basis for BAAQMD Condition # 7246 Part 10 from NESHAPs to NSPS
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV & Table VII – GG (renumbered from Table IV & Table VII –HH)

S-344 Rockplant Wet Screen Feed Conveyor abated by A-350 Water Spray System

- BAAQMD 6-310 and 6-311 were deleted since this is a fugitive dust source not subject to these requirements
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- NSPS 40 CFR Part 60 Subpart OOO Section 60.670(f) was placed as a separate requirement to identify applicable Subpart A requirements
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(a)(1) was deleted since this source does not have stack emissions
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(c) fugitive emissions opacity limitation from crushers was replaced with Section 60.672(b) fugitive emissions opacity limitation for other sources since this is not a crusher and monitoring citation was updated to 60.11 and 60.675

Table IV & Table VII – HH (renumbered from Table IV & Table VII –II)

S-350 Rockplant Wet Screen and Conveying abated by A-350 Water Spray System

- BAAQMD 6-310 and 6-311 were deleted since these are fugitive dust sources not subject to these requirements
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- NSPS 40 CFR Part 60 Subpart OOO Section 60.670(f) was placed as a separate requirement to identify applicable Subpart A requirements
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(a)(1) was deleted since this source does not have stack emissions
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(c) fugitive emissions opacity limitation from crushers was replaced with Section 60.672(b) fugitive emissions opacity limitation for other sources since this is not a crusher and monitoring citation was updated to 60.11 and 60.675

Table IV & Table VII – II (renumbered from Table IV & Table VII – JJ)

S-360 Rockplant Wet Aggregate Loadout System abated by A-360 Water Spray System

- BAAQMD 6-310 and 6-311 were deleted since these are fugitive dust sources not subject to these requirements
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- NSPS 40 CFR Part 60 Subpart OOO Section 60.670(f) was placed as a separate requirement to identify applicable Subpart A requirements
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(a)(1) was deleted since this source does not have stack emissions
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(c) fugitive emissions opacity limitation from crushers was replaced with Section 60.672(b) fugitive emissions opacity limitation for other sources since this is not a crusher and monitoring citation was updated to 60.11 and 60.675

Table IV & Table VII – JJ (renumbered from Table IV & Table VII – KK)

S-380 Sand Transfer Hopper,

S-381 Sand Storage Pile,

S-382 Water Clarifier Fines System

S-380, S-381, And S-382 Also Abated by A-370 Haul Road Sprinkler System

- S-370 Aggregate Additive Transfer System with Silo abated by A-370 Haul Road Sprinkler System was moved to Table IV & Table VII – JJ-1 since it is not subject to NSPS 40 CFR Part 60 Subpart OOO because it was constructed prior to Aug. 31, 1983
- BAAQMD 6-310, 6-311 were deleted since these are fugitive dust sources not subject to these requirements
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- NSPS 40 CFR Part 60 Subpart OOO Section 60.670(f) was placed as a separate requirement to identify applicable Subpart A requirements
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(a)(1) was deleted since this source does not have stack emissions
- NSPS 40 CFR Part 60 Subpart OOO Section 60.672(c) fugitive emissions opacity limitation from crushers was replaced with Section 60.672(b) fugitive emissions opacity limitation for other sources since this is not a crusher and monitoring citation was updated to 60.11 and 60.675

- The abatement description was corrected from “Water Spray” to “A-370 Haul Road Sprinkler System”

Table IV & Table VII – JJ-1

S-370 Aggregate Additive Transfer System with Silo abated by A-370 Haul Road Sprinkler System

- S-370 Aggregate Additive Transfer System with Silo abated by A-370 Haul Road Sprinkler System was separated from Table IV & Table VII – KK since it is not subject to NSPS 40 CFR Part 60 Subpart OOO because it was constructed prior to Aug. 31, 1983
- S-370 has been granted a Permit Shield from NSPS 40 CFR Part 60 Subpart OOO because it was constructed prior to Aug. 31, 1983
- S-370, The abatement description was corrected from “Water Spray” to Haul Road Sprinkler System”

Table IV & Table VII – KK (renumbered from Table IV & Table VII –LL)

S-383 Rock Plant 2 Conveyors abated by A-384 Baghouse,

S-384 Rock Plant 2 Screens abated by A-384 Baghouse

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “annual source test” per Condition # 24781 as part of the TV permit renewal review and per EPA comment
- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- NSPS 40 CFR Part 60 Subpart OOO was deleted because the sources were constructed prior to Aug. 31, 1983
- S-383 and S-384 have been granted a Permit Shield from NSPS 40 CFR Part 60 Subpart OOO because they were constructed prior to Aug. 31, 1983
- 40 CFR Part 64 CAM requirements and CAM plan were added for S-384
- BAAQMD condition # 20751 Parts 2 to 6 and # 20753 Parts 1 & 3 were deleted and replaced by Condition #24781
- BAAQMD Condition # 24781 was added to incorporate the CAM requirement

Table IV & Table VII – LL (renumbered from Table IV & Table VII –MM)

S-412 FINISH MILL (6-GM-3) ABATED BY A-218 DUST COLLECTOR

- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).

- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b)(4) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1347 monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol updated to reflect compliance with 63.1350(m)
- NESHAP 40 CFR Part 63.1347 monitoring citation corrected from BAAQMD condition # 139000 to 13900
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(e), (e)(1), and (e)(2) were deleted because CFR 63.1350(m) exempts these daily Method 22 testing requirements
- NESHAP 40 CFR Part 63.1350(m) Daily M22 opacity testing exemption because S-412 is equipped with bag leak detection system was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1350(p) Development and submittal of monitoring plans requirement was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- BAAQMD Condition # 20751 Part 2 limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- BAAQMD Condition # 20751 Part 3a was added since it was previously omitted
- BAAQMD Condition # 24621 Part 2 was added to require source test every 5 years per TV permit renewal review

Table IV & Table VII – MM (renumbered from Table IV & Table VII – NN)  
S-414 Kiln Dust Additive Bin abated by A-413 Dust Collector

- For Monitoring Protocol, Pressure Drop Manometer was changed to Pressure Drop Monitoring for consistency
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test

Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
24001 Stevens Creek Boulevard Cupertino, CA 95014

- BAAQMD Regulation 6-1-301, 310, 311 and SIP 6-301, 310, 311 monitor citation were modified to add CAM Condition #24781
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.1 Applicability, 63.2 Definitions, 63.3 Units and Abbreviations, 63.5 Preconstruction review and notification requirements, 63.9 Notification Requirements were added since they were previously omitted
- NESHAP 40 CFR Part 63 Subpart A, General Provisions: Sections 63.11 Control Device Requirement was deleted because the abatement device is not a flare; therefore, it is not applicable
- NESHAP 40 CFR Part 63.1340(b) Applicability was added since it was previously omitted
- NESHAP 40 CFR Part 63.1341 Definitions was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348(b)(1)(i) Continuous compliance general requirements was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1349(a) Initial Compliance with emission limit was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(j) Monitor opacity according to O&M plan was added since it was previously omitted
- NESHAP 40 CFR Part 63.1350(o) Alternate Monitoring Requirement Approval was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1351 Compliance date June 14, 2002 was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(a) Notification Requirements was added since it was previously omitted
- NESHAP 40 CFR Part 63.1353(b)(5) Notification of Compliance Status for affected sources that become subject to a relevant standard was added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(a) Reporting Requirements of Subpart A
- NESHAP 40 CFR Part 63.1354(b)(4) Semiannual reporting of O&M and SSM (startup, shutdown, malfunction) actions consistent with the plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1354(b)(5) Notification of actions not consistent with O&M and SSM plans reporting requirements added since it was previously omitted
- NESHAP 40 CFR Part 63.1358 Implementation and Enforcement was added since it was previously omitted
- 40 CFR Part 64 Compliance Assurance Monitoring requirements were added
- BAAQMD Condition # 13982 Part 1 Ringelmann limit citation was corrected to 1.0 and the monitor frequency is changed from quarterly to monthly per NSR A/N 21217
- BAAQMD Condition # 13982 Part 2 emission limit citation was corrected to outlet grain loading limitation and the monitor frequency is changed from quarterly to monthly per NSR A/N 21217
- BAAQMD Condition #13982 Part 4 throughput limit was changed from 24,000 tpy of kiln dust to 42,755 tpy per NSR A/N 21217
- BAAQMD Condition # 13982 Part 5 the monitor frequency is changed from quarterly to monthly per NSR A/N 21217
- BAAQMD Condition # 13982 Part 6,7,8 and 9 added the pressure drop inspection, inspection record, initial and every five year source test per NSR A/N 21217



- BAAQMD Condition # 20751 was removed because Condition #13982 replaced it per NSR A/N 21217
- BAAQMD Condition # 24781 was added to require Compliance Assurance Monitoring (CAM)

Table IV & Table VII – NN (renumbered from Table IV & Table VII –WW)  
S-415 Finish Mill Building Conveyor abated by A-415 Dust Collector

- BAAQMD Regulation 6-1-301 and 3-1-310, and SIP 6-301 and 6-310 limit, monitoring citation, protocol & frequency, reporting protocol, recordkeeping protocol were added since they were previously omitted
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD Regulation 6-1-311 and SIP 6-311 operating parameters were modified from “none” to “source test every 5 yrs” per Condition # 24621 as part of the TV permit renewal review and per EPA comment for sources that are not required to perform an annual source test
- BAAQMD Regulation 10: Standards of Performance for New Stationary Sources Part 1 and Part 10 were removed because this source is exempt from NSPS 40 CFR Part 60 Subpart F per NESHAP 40 CFR Part 63.1356(a).
- 40 CFR Part 60 Subpart OOO: Standards of Performance for Nonmetallic Mineral Processing Plants was removed because this source is not subject to this regulation.
- NESHAP 40 CFR Part 63 Subpart A, General Provisions was added since this source is subject to NESHAPs
- NESHAP 40 CFR Part 63 Subpart LLL, National Emissions Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry was added since it was previously omitted
- NESHAP 40 CFR Part 63.1344 Affirmative defense for exceedance of emissions limit during malfunction was added per EPA comment on March 23, 2012
- NESHAP 40 CFR Part 63.1348(b)(1)(i) General requirements for monitor and collect data was added per EPA comment on March 23, 2012
- BAAQMD Condition # 20751 was added to require installation of manometer and quarterly pressure drop recordkeeping per Title V renewal review
- BAAQMD Condition # 21345 Part 1 description abbreviated and throughput limit moved to Limit column
- BAAQMD Condition # 21345 Part 3 description changed and “outlet” grain loading. Monitoring citation, monitoring protocol & frequency, reporting protocol, and recordkeeping protocol were added since the facility is required to have pressure drop monitoring for this baghouse per BAAQMD Condition # 21345 Part 2
- BAAQMD Condition # 24621 Part 2 was added to require a source test every 5 years per TV permit renewal review

Table IV – OO, PP, QQ, RR and Table VII – OO, PP, QQ, RR were removed because sources S-440, 441, 442, and 443 were removed.

Table IV & Table VII – OO is a newly permitted source  
S-444 Emergency Clinker Conveyor abated by A-444 Water Spray

- This table was added for existing source per NSR Application # 15217

Table IV & Table VII – PP (renumbered from Table IV & Table VII –SS)

S-501 Emergency Diesel Generator

S-502 Emergency Diesel Generator

- BAAQMD Regulation 9-1-301 Ground Level Concentration (SO<sub>2</sub>) was added since it was previously omitted
- BAAQMD Regulation 9-8-330 sections were added since the regulation was amended on 7/25/2007 and these sections are now applicable. Monitoring citations were updated
- SIP Regulation 9-8 was added for the federally enforceable section. This regulation excluded emergency standby engines
- Applicable requirement of CARB Stationary Diesel ATCM is added since it was omitted
- Condition # 18855 was deleted and replaced with Condition # 22820 since these engines are subject to the CARB Stationary Diesel ATCM

Table IV & Table VII – PP-1

S-503 Portable Compressor Driver

S-504 Portable Compressor Driver

S-505 Portable Pump Driver

- New table, added per NSR # 21387 for Loss of Exemption and low use equipment

Table IV – TT and Table VII – TT were removed because the source (S-166) was removed.

Table IV & Table VII – QQ (renumbered from Table IV & Table VII –VV)

S-600 Quarry Blasting and Mobile Operations

- BAAQMD Regulation 1 – 301 was added since it was previously omitted.
- BAAQMD Regulation 6-1-601 and SIP Regulation 6-601: Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions, which refers to the Manual of Procedures was added since it was previously omitted
- BAAQMD and SIP Regulation 6-1-310 and 6-1-310 were deleted because the source does not discharge particulate matter from an emission stack. The source is considered as a fugitive source
- BAAQMD Regulation 10 Parts 1 and 10 (NSPS Subpart A and F) were deleted since this source is not subject to this regulation
- Monitoring citation for BAAQMD Condition # 21025 Part 3 was removed because it was repetitive (Part 3 is a recordkeeping requirement)

Table IV & Table VII – RR

S-601 Rock Hopper (9-DH-1) abated by Water Spray A-4501

- S-601 was a grandfathered source that was permitted in NSR Application # 15572
- This source was constructed prior to August 31, 1983, therefore it is not subject to NSPS 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants
- BAAQMD Regulation 6-1 and SIP Regulation 6 were added
- BAAQMD Condition # 23896 Part 1: Abatement requirement, Part 2: Ringelmann 1.0 limitation, Part 4: Recordkeeping requirements, Part 6: Records retention requirement

Table IV & Table VII – SS

S-602 Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2)

S-603 Vibrating Grizzly (9-VG-1)

- S-602 and S-603 were grandfathered sources that were permitted in NSR Application # 15572
- BAAQMD Regulation 6-1 and SIP Regulation 6 were added
- BAAQMD Regulation 10 Standards of Performance for New Stationary Sources, Part 1: Subpart A – General Provisions, and Part 66 Subpart OOO – Standards of Performance for Non-metallic Mineral Processing Plants was added since the sources are now abated by the same baghouse and emissions cannot be distinguished between the sources. S-202 was listed in the Permit Shield from NSPS requirements
- NSPS 40 CFR Part 60 Subpart OOO: Standards of Performance for Non-metallic Mineral Processing Plants was added

Table IV & Table VII – TT

S-606 Storage Piles Area 1 abated by A-606 Water Spray

S-607 Storage Piles (Area 2) abated by A-607 Water Spray

- Table of requirements was added for these new sources (NSR Application # 19385)

Table IV & Table VII – UU

P-111 for S-111 Rail Unloading System,

P-112 for S-112 Additive Hopper Transfer System,

P-113 and P-114 for S-113 additive Bin Transfer Facilities,

P-115 for S-115 Additive Storage,

- S-173 and S-174, A-175 and A-174 were removed from service
- Reg. 11-1 lead requirements for P-141 and P-142 for S-141 and S-142 Raw Mills were moved to Table IV & VII – K
- Reg. 11-1 lead requirements for P-141, P-142, P-171, and P-172 for S-154 Precalciner Kiln were moved to Table IV & VII – N
- Reg. 11-1 lead requirements for P-171 and P-172 for S-171 and S-172 Kiln Fuel Mill System and Precalciner Fuel Mill System were moved to Table IV & VII – Q
- SIP Regulation 11, Rule 1 was added for completeness

**V. Schedule of Compliance**

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

“409.10A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the

facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

The BAAQMD Compliance and Enforcement Division has conducted a review of compliance over the past year and there is no evidence of on-going non-compliance and recurring pattern of violations that would warrant consideration of a Title V permit compliance schedule. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

#### **V. Permit Conditions**

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting requirements have been added to the permit.

All changes to existing permit conditions are clearly shown in “strike-out/underline” format in the proposed permit. When the permit is issued, all “strike-out” language will be deleted and all “underline” language will be retained, subject to consideration of comments received.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

The District has reviewed and, where appropriate, revised or added new annual and daily throughput limits on sources so as to help ensure compliance with District rules addressing preconstruction review. The applicability of preconstruction review depends on whether there is a “modified source” as defined in District Rule 2-1-234. Whether there is a modified source depends in part on whether there has been an “increase” in “emission level.” 2-1-234 defines what will be considered an emissions level increase, and takes a somewhat different approach depending on whether a source has previously permitted by the District.

Sources that were modified or constructed since the District began issuing new source review permits will have permits that contain throughput limits, and these limits are reflected in the Title V permit. These limits have previously undergone District review, and are considered to be the legally binding “emission level” for purposes of 2-234.1 and 2-1-234.2. By contrast, for older sources that have never been through preconstruction review (commonly referred to as “grandfathered” sources), an “increase” in “emission level” is addressed in 2-1-234.3. A grandfathered source is not subject to preconstruction review unless its emission level increases above the highest of either: 1) the design capacity of the source, 3) the capacity listed in a permit to operate, or 3) highest capacity demonstrated prior to March 2000. However,

if the throughput capacity of a grandfathered source is limited by upstream or downstream equipment (i.e., is “bottlenecked”), then the relaxing of that limitation (“debottlenecking”) is considered a modification.

The District has written throughput limits into the Title V permit for grandfathered sources. As discussed above, these limits are written for the purpose of determining whether an increase in emission levels has occurred. The purpose of these limits is to facilitate implementation of preconstruction review program. If these limits are exceeded, the facility would be expected to report the exceedance, and the District would treat the reported exceedance as presumptively establishing the occurrence of a modification. The facility would then be expected to apply for a preconstruction permit addressing the modification and the District would consider whether an enforcement action was appropriate.

It is important to note the presumptive nature of throughput limits for grandfathered sources that are created in the Title V permit. These limits are generally based upon the District’s review of information provided by the facility regarding the design capacity or highest documented capacity of the grandfathered source. To verify whether these limits reflect the true design, documented, or “bottlenecked” capacity (pursuant to 2-10234.1) of each source is beyond the resource abilities of the District in this Title V process. Moreover, the District cannot be completely confident that the facility has had time or resources necessary to provide the most accurate information available in this regard. Creating throughput limits in the Title V permit for grandfathered sources is not required by either Part 70 or the District’s Major Facility Review rules. Despite the lack of such a requirement, and despite the resource and information challenges presented in the Title V process, the District believes that writing presumptive limits for grandfathered sources into the Title V permit will provide a measure of predictability regarding the future applicability of the preconstruction review program, and that this increased predictability is universally beneficial.

It follows from the presumptive nature of these throughput limits for grandfathered sources that exceedance of these limits is not per se a violation of the permit. *Failure to report an exceedance would be a permit violation.* In this sense, the throughput limits function as monitoring levels, and are imposed pursuant to the District’s authority to required monitoring that provide a reasonable assurance of compliance. If an exceedance occurs, the facility would have an opportunity to demonstrate that the throughput limit in fact did not reflect the appropriate limit for purposes of 2-1-234.3. If the facility can demonstrate this, no enforcement action would follow, and the permit would be revised at the next opportunity. It also follows that compliance with these limits is not a “safe harbor” for the facility. If evidence clearly shows that a grandfathered source has undergone a “modification” as defined in 2-1-234.3, the District would consider that a preconstruction review-triggering event, notwithstanding compliance with the throughput limit in the Title V permit. In other words, the protection afforded the facility by complying with the throughput limit in the Title V permit is only as strong as the information on which it was based. There is no Title V “permit shield” associated with throughput limits for grandfathered sources, as they are being proposed. A shield may be provided if the District determines with certainty that a particular limit is appropriate for purposes of 2-1-234.3.

Conditions that are obsolete or that have no regulatory basis have been deleted from the permit.

Conditions have also been deleted due to the following:

- Redundancy in recordkeeping requirements.
- Redundancy in other conditions, regulations and rules.
- The condition has been superseded by other regulations and rules.
- The equipment has been taken out of service or is exempt.
- The event has already occurred (i.e. initial or start-up source tests).

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- Regulation 2-5 or Toxics: This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Regulation 2, Rule 5.

Parametric monitoring requirement(s) has been added for each new abatement device (A- 4502, A-4503, A-4504, A-216, A-221, A-242) to assure compliance with the applicable requirements. The parametric monitoring for these devices is a Triboflow broken bag leak detector or a manometer, which measures pressure drop across the baghouse.

Changes to permit:

- Language in each permit condition was changed to identify the owner/operator as the persons subject to the condition
- Condition # 603 was modified per NSR # 18535. Added "at the exhaust dust collectors (A-141, A-142, A-171 and A-172)" for clarification in Part 8
- Condition # 603 was modified per NSR # 21753. Added Parts 11 through 15
- BAAQMD Condition # 603, Parts \*14b, \*15b, \*16-20 were added per NSR A/N 22953 Activated Carbon Injection System
- Condition # 804 was deleted because Part 1 (abatement requirement) is redundant with Condition # 603 Part 1 and Condition # 804 Part 2 (PM mass limit) is redundant with Condition # 2786 Part B.
- Condition # 805 – included explanation that Condition # 805 will be replaced by Condition # 23896 with the startup of S-605 (which will replace S-201); S-202 will also be subject to Condition #23896
- Condition # 1004 was deleted and S-172 was combined in Condition # 603
- Condition # 1545 description of A-211 was corrected
- Condition # 1720 was deleted since all sources subject to this condition were deleted
- Condition # 2786 B was added PM annual source test requirement for Title V review completeness and descriptions of sources were changed from "Feed Mills" to "Raw Mills" for S-141 and S-142 and "Coal Drying" to "Fuel Drying" for S-171 and S-172.

Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
24001 Stevens Creek Boulevard Cupertino, CA 95014

- Condition # 2786 source descriptions were corrected, Part A.1. Basis was added as Cumulative Increase, Part A.4. “Kaiser” was deleted
- Condition #4995 Part 1 was modified to add S-246 per NSR Application # 23594 for the synthetic gypsum feeder
- Condition #4995 Parts 7 and 8 were added to include the throughput limits per NSR Application # 23594 for the synthetic gypsum feeders
- Condition #4996 Part 1 was modified to add S-223 per NSR Application # 23594 for the synthetic gypsum feeder
- Condition #4996 Part 3 was corrected to limit PM10 from existing baghouses A-217 and A-231
- Condition #4996 Part 4 was added to limit PM10 from new baghouses abating S-216, S-221, and S-242 to BACT level of 0.0013 gr/dscf per NSR Application # 17534
- Condition #4996 Part 5 was added per NSR Application # 17534
- Condition #4996 Part 6 was modified to require recordkeeping of pressure drop across each baghouse along with hours of operation per NSR Application # 17534 and amended by Application # 23594
- Condition #7246, Part 1 was added per EPA comment to require emission units with control shall not operate unless the control equipment is also operating
- Condition # 11780 name of facility was changed to Lehigh Southwest Cement Company, NOx was written out, Part C.2. “effected” was corrected to “affected”, Part E.1. reference to Part (d)(1) was corrected to Part D.1. in NSR Application # 18535, Part B.1 was added per EPA comment to require emission units with control shall not operate unless the control equipment is also operating
- BAAQMD Condition # 13982 Parts 1 through 5 was modified and added parts 6 through 9 per NSR A/N 21217
- Condition # 16109: S-56 was deleted. Part 2a was changed to Part 2. Part 2b was deleted since these requirements are redundant to Condition # 20751 Parts 1, 2, and 3b. Part 5 was detailed to include source numbers for cement loadout sources (S-45, S-46, and S-47 are used for onsite delivery of cement to silos).
- Condition # 16109: S-167 Lime Bin was added and Parts 5 and 6 were modified per NSR A/N # 12753
- Condition # 16109: S-168 and S-169 Activated Carbon Storage Silo and Bin were added and Parts 5 and 6 were modified per NSR A/N # 22953
- Condition # 17352 was deleted since the sources subject to this condition are now exempt
- Condition # 17918 was deleted since all sources subject to this condition were deleted
- Condition # 18474 was deleted since the source was deleted
- Condition # 18855 was deleted and replaced with Condition # 24375 since these emergency standby diesel engines are subject to California Health and Safety Code Title 17, Section 93115: Airborne Toxic Control Measure for Stationary Compression Ignition Engines
- Condition # 20026 was deleted since the source was deleted
- Condition # 20751:
  - S-111, 112, 113, 115, 123, 131, 132, 134, 135, were added since they were previously omitted
  - S-415/A-415 was added to part 1 and Part 3b to require installation of manometer and quarterly pressure drop recordkeeping per Title V renewal review
  - S-56, S-57, S-166, S-173, S-174, S-203, S-214, S-215, S-441, S-442 and their abatement devices were deleted since the sources were deleted
  - A-10, A-13, A-58, A-121, A-122, A-141, A-142, A-143, A-144, A-151, A-152, A-161, A-165, A-190, A-218, A-414, A-420 to A-431, A-433 to A-436, A-447 to 450 were

- removed from Parts 2, 3a, 3b and 3c because Condition # 24781 replaced the CAM requirements
- Part 1 was added per EPA comment to require emission units with control shall not operate unless the control equipment is also operating
- Part 2 was replaced with the pressure drop limits for each baghouse
- Condition # 20753
  - S-173, S-174, S-203, S-214, S-215, were deleted since the sources were deleted
  - S-414 was deleted since Condition # 13982 has duplicated requirements per NSR A/N 21217
  - S-19, S-21, S-112, S-122, S-143, S-144, S-151, S-153, S-154, S-162, S-163, S-164, S-165, S-171 and S-172 were deleted because Condition # 24781 replace the CAM requirements
- Condition # 21345 Part 2 requirement to equip baghouse with manometer was deleted and moved to Condition # 20751 Part 1 for consistency per Title V renewal review
- Condition # 23416 was added per TV # 16867/NSR # 15217
- Condition # 23896 was added per NSR #15572
- Condition # 23942 was added per TV # 17734/NSR #15342
- Condition # 24375 replaces Condition # 18855
- Condition # 24297 was added per NSR# 20199
- Condition # 24298 was added per NSR# 20199
- Condition #24557 was added for S-503, S-504 and S-505 Portable Drivers per NSR A/N 21387
- Condition #24621, Facility Wide, Part 1 was added to require Lehigh operates and maintains a District's approved Fugitive and Dust Control Plan for sources that are not regulated under NESHAP Subpart LLL.
- Condition #24621, Part 2 to require Lehigh performs source tests at least once every five years for abatement devices that currently have pressure monitors or baghouse leak detection system
- Condition #24621, Part 2 to add S-223 into the existing A-221 and S-246 into the existing A-243
- Condition #24626 was added per NSR # 21754 Lime Slurry Injection System
- Condition #24626 Part 5 was modified to include the powdered activated carbon trucks in the existing total truck allowance
- Condition # 24781 was added to incorporate CAM requirement for S-17, S-19, S-21, S-45, S-46, S-47, S-48, S-49, S-50, S-74, S-121, S-122, S-141, S-142, S-143, S-144, S-151, S-153,S-154, S-161, S-162, S-163, S-164, S-165,S-171, S-172, S-210, S-211, S-218, S-220, S-230, S-384 and S-414
- Condition #24899 was added to incorporate the requirements for S-168 and S-169 per NSR A/N 22953.

## **VII. Applicable Limits and Compliance Monitoring Requirements**

This section was deleted and combined with Section IV.

The combined Section IV and VII of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring.

The District has reviewed all monitoring and has determined the existing monitoring is adequate with the following exceptions.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined



that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided in the discussion when no monitoring is proposed due to the size of a source.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements. It follows that, although Title V calls for a re-examination of all monitoring, there is a presumption that these factors have been appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation. Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring requirements only when it can support a conclusion that existing monitoring is inadequate. No additional criteria pollutant monitoring was required for the pre-calciner kiln (S-154), however, to quantify the emissions of NO<sub>x</sub>, CO, and SO<sub>2</sub>, the District required installation of six new flow meters for S-141, S-142, S-154, S-171 and S-172.

### PM Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-141, S-142, 154, S-161, S-171, S-172	SIP 6-311	FILTERABLE PARTICULATE 4.10P <sup>0.67</sup> lb/hr where P is process weight, ton/hr	Annual Source Test
S-141, S-142, 154, S-161, S-171, S-172	BAAQMD Condition # 2786 B	S-141, S-142, S-154 = 36 lbs/hr & 0.02 gr/dscf; S-161 = 8 lbs/hr & 0.01 gr/dscf; S-171, S-172 = 6.6 lbs/hr & 0.02 gr/dscf	Annual Source Test
S-100, S-444, S-600, S-606, S-607	SIP 6-301	OPACITY Ringelmann 1.0 for < 3 min/hr	N-Water Spray
S-501 and S-502	SIP 6-303	OPACITY Ringelmann 2.0 for < 3 min/hr	N-Water Spray
S-17, S-19, S-21, S-45, S-46, S-47, S-48, S-49, S-50, S-54, S-55, S-74,	SIP 6-310 and		Source Test Every

**PM Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-111, S-112, S-113, S-115, S-121, S-122, S-123, S-131, S-132, S-134, S-135, S-143, S-144, S-151, S-153, S-162, S-163, S-164, S-165, S-210, S-211, S-216, S-217, S-218, S-220, S-221, S-222, S- 223, S-230, S- 231, S-240, S-242, S-243, S-244, S-245, S-246, S- 301, S-340, S-341, S-342, S-343, S-383, S-384, S-390, S-412, S-414, S-415, S-501, S- 502, S-600, S- 602, S-603	SIP 6-311	FILTERABLE PARTICULATE 0.15 gr/dscf  FILTERABLE PARTICULATE 4.10P <sup>0.67</sup> lb/hr where P is process weight, ton/hr	Five Years per Condition # 24621, part 2

**PM Discussion:**

The addition of annual PM source test for sources S-141, S-142, S-154, S-161, S-171 and S-172 were required as a result of the Title V renewal review. The annual source test requirement is adequate because previous source tests have consistently demonstrated compliance with the applicable requirement.

S-100, S-176, S-187, S-201, S-202, S-444, S-601, S-606, S-607 are subject to opacity standards in SIP 6-301. No monitoring is required since these sources are abated by water sprays and are expected to continue to comply with the opacity standards.

Particulate Weight Limitation and Allowable Rate of Emissions Based on Process Weight Rate. BAAQMD Regulation 6-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. These are the “grain loading” standards.

S-17, S-19, S-45, S-46, S-47, S-48, S-49, S-50, S-54, S-55, S-111, S-112, S-113, S-115, S-121, S-122, S-123, S-131, S-132, S-134, S-135, S-143, S-144, S-151, S-153, S-162, S-163, S-164, S-165, S-210, S-211, S-216, S-217, S-218, S-220, S-221, S-222, S-223, S-230, S-231, S-240, S-242, S-243, S-244, S-245, S-246, S-340, S-341, S-342, S-343, S-383, S-384, S-390, S-412, S-414, S-415, S-501, S-502, S-602, and S-603 are subject to particulate weight limitations in SIP 6-310 and SIP 6-311. These sources are abated by baghouses/dust collectors, which typically comply with the grain loading of 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume in SIP 6-310 and the particulate weight limitations in SIP 6-311. Pressure drop monitoring and/or broken bag leak detection are used to monitor baghouse function and a source test every five years is expected to be adequate for compliance with the particulate weight limitations in SIP 6-310 and SIP 6-311. Some of these sources are subject to CAM condition # 24781, which satisfied the CAM requirement of 40 CFR Subpart 64.

S-600 is subject to opacity standards in SIP 6-301 and particulate weight limitations in SIP 6-310 and SIP 6-311. The source is expected to be in compliance with these requirements because the blasting operation is below surface level and the plume is contained within the pit. No visible emissions can be viewed above surface level.

**Diesel Backup Generators (S-501 and S-502) Monitoring for Regulation 6-310**

Reference: Order Item III.G.5.c on page 38 of the order.

BAAQMD Regulation 6-310 limits grain loading to 0.15 grains per dry standard cubic foot. As discussed below, periodic monitoring is not justified for the engines. Diesel engines S-501 and S-502 are for emergency backup purposes. S-501 and S-502 provide emergency electrical power to the control room.

No periodic monitoring is justified for these engines for three reasons: (1) potential to emit is low, (2) grain loading is unlikely to exceed the Regulation 6-310 limit, and (3) CAPCOA/CARB/EPA Region IX guidance does not recommend periodic monitoring for this type of source. Each of these reasons is discussed in greater detail below.

First, the potential to emit (PTE) for particulate for these engines is low. The following table shows the emissions using the factor of 0.0022 lb PM10/hp-hr for diesel engines in Chapter 3, Stationary Internal Combustion Engines, of AP-42, Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Area Sources, Fifth Edition. Each engine is assumed to operate for 500 hours, using the guidance in John Seitz' memo of September 6, 1995 entitled Calculating Potential to Emit (PTE) for Emergency Generators, which states that "...500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-case conditions."

Diesel Engine Potential to Emit – Particulate Matter			
Source #	HP	lb/yr @ 500 hr/yr	tons/yr @ 500 hr/yr
501	1100	1,210	0.605
502	2168	2,385	1.192
Total			1.797

The emissions would likely be lower than the above estimates because engines in California generally use low-sulfur fuel containing less than 0.05% S, which lowers emissions, but by an unknown amount. In addition, all four engines are subject to BAAQMD Regulation 9-8-330 that limits the non-emergency hours of operation to no more than 100 hours. (EPA makes the point on page 39 of the order that the

limit on hours of operation is not federally enforceable. It should be noted that in the 1995 *National Mining Association v. EPA* case, the court decided that limits did not have to be federally enforceable to limit potential to emit. EPA's treatment of a state-only limit as ineffective is contrary to case law.) Moreover, the recently enacted California Air Resources Board Airborne Toxics Control Measure for Stationary Compression Ignition Engines will significantly reduce the S-243 engine hours of operation for maintenance and reliability purposes. In a good year (i.e. one with no fires or power outages), total engine operation could be 20% (or less) of the 500 hours per year used in the Potential to Emit calculations above.

Second, grain loading is not likely to exceed the limit in BAAQMD Regulation 6-310. BAAQMD Regulation 6-310 limits PM emissions to 0.15 gr/dscf. If it is assumed that the Diesel engine exhaust gases contain 15% excess oxygen under normal operating conditions, the BAAQMD Regulation 6-310 limit can be compared to the AP-42 PM emission factor as follows:

From 40 CFR 60, Appendix A, Method 19, Table 19-1, a stoichiometric dry gas combustion factor of 9,190 dscf/MMBTU is given for distillate oil combustion. At 15% excess O<sub>2</sub> this factor becomes:

$$9,190 \times [21\% / (21\% - 15\%)] = 32,165 \text{ dscf (combustion products) / MMBTU}$$

The conversion of 0.15 gr/dscf @ 15% O<sub>2</sub> to lb/MMBTU is then:

$$(32,165 \text{ dscf / MMBTU}) \times (0.15 \text{ gr / dscf}) \times (1 \text{ lb} / 7,000 \text{ gr}) = 0.689 \text{ lb / MMBTU}$$

In the absence of actual emissions data for these engines, the District considers the AP-42 PM<sub>10</sub> emission factor for diesel IC engines to be representative. From AP-42 Table 3.3-1, "Emission Factors For Uncontrolled Gasoline And Diesel Industrial Engines", the PM<sub>10</sub> emission factor (based on fuel consumption) is 0.31 lb/MMBTU. Since this assumed emission factor is well below the converted BAAQMD Regulation 6-310 emission rate, compliance is assumed.

Third, the "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources" dated July 2001 recommends that the only monitoring necessary for grain-loading for non-utility distillate-oil-fueled emergency piston-type IC engines is recordkeeping for fuel usage, which is already required for these engines.

**SO<sub>2</sub> Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-154, S-501, S-502	BAAQMD 9-1-301	Ground level concentrations of SO <sub>2</sub> shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	N

**SO<sub>2</sub> Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-501, S-502	BAAQMD 9-1-304	Sulfur content of fuel < 0.5% by weight	N

**SO<sub>2</sub> Discussion:**

**BAAQMD Regulation 9-1-301**

Area monitoring to demonstrate compliance with the ground level SO<sub>2</sub> concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). S-501 and S-502 Emergency Standby Diesel Generators are required by the California Air Resources Board to use diesel with a sulfur limit of 0.0015% by weight. These engines are only run periodically and with ultra low sulfur diesel, so compliance with 9-1-301 and 9-1-304 is expected.

This facility has a CEM to monitor SO<sub>2</sub> from S-154 Precalciner Kiln, and compliance with permit condition # 2786 (limiting SO<sub>2</sub> emissions). The fuel used at S-154 is subject to Regulation 9-1-304 (limiting sulfur content of fuel), which requires an annual source test at the exhaust. Therefore, compliance with 9-1-301 ground level concentrations of SO<sub>2</sub> is expected.

**Lead Discussion:**

**Lead Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
P-111, P-112, P-113, P-115	BAAQMD 11-1-301	Lead from emission points ≤15 pounds per day	N

P-111, P-112, P-113, P-115 are subject to lead standards in BAAQMD Regulation 11-1-301. These sources are abated by baghouses/dust collectors, which typically perform with a grain loading less than 0.02 gr/dscf. With this level of control efficiency, lead emissions are not expected to be greater than 15 pounds per day. Lehigh is subject to the annual source test for lead in Condition # 603.

**THC Discussion:**

**THC Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-154	NESHAP 40 CFR Part 63, Subpart LLL Section 63.1344(f)	24 parts per million by volume (ppmv), averaged over 30 days, or alternatively 9 ppmv of total organic HAP	CEMS (Effective 9/9/2013)

**THC Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
		(Effective 9/9/2013)  Minimize THC from fuel combustion	N

S-154 is expected to be in compliance with NESHAP 40 CFR Part 63, Subpart LLL Section 63.1344(f) since the source is inspected as part of NESHAP requirements under §63.1350(i) and reported semi-annually per §63.1354(b)(9)(iv). Lehigh is conducting the following Annual Combustion System Inspection to ensure good combustion: Inspect the combustion system of the kilns (S-154) and in-line kiln/raw mills (S-141 and S-142) at least once per year to ensure the specific components of the combustion system are sufficient for maintaining good combustion practices. Inspect burner pipe for erosion, corrosion, plugging, or other alterations that may adversely affect performance. Inspect the closed-loop milling systems grinding balls, grinding rings, and other parts for wear.

**VII. Test Methods**

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not “applicable requirements” as defined by Regulation 2-6-202.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

Changes to Permit:

- Test method citations were corrected from MOP, Volume VI to Volume IV
- Test method for 8-7-302 (Vapor Tight) was added since it was previously omitted
- Condition # 804 was deleted because Part 1 (abatement requirement) is redundant with Condition # 603 Part 1 and Condition # 804 Part 2 (PM mass limit) is redundant with Condition # 2786 Part B.
- Condition # 1720 was deleted because the sources were deleted
- Condition # 16109 Part 2 was deleted from Test Methods because the condition was redundant to Condition # 20751
- Condition # 17918 were deleted because the sources were deleted
- Condition # 18474 was deleted because the sources were deleted
- Condition # 20026 was deleted because the sources were deleted
- Condition # 24298 was added with CARB Executive Order VR-203 for test methods for vapor integrity requirements for Phase II Vapor Recovery System
- Added EPA test method, performance specifications and quality assurance requirements for continuous emission monitoring systems

**VIII. Permit Shield:**

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review

permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA’s “White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program.” The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District’s program does not allow other types of streamlining in Title V permits.

This facility has the first type of permit shield.

This permit has no streamlining.

Following is the detail of the permit shields that were requested by the applicant.

1. The following permit shields are allowed:

<b>Table VIII A-1</b> <b>Permit Shield for Non-applicable Requirements</b> <b>S-176 ROCK PLANT 1 STORAGE PILE, S-187 (AKA S-187) HOPPER AND STORAGE BIN,</b> <b>S-201 PRIMARY CRUSHER, S-202 SECONDARY CRUSHER, S-370 Aggregate Additive</b> <b>Transfer System with Silo abated by A-370 Water Spray , S-383 Rock Plant 2 Conveyors</b> <b>abated by A-384 Baghouse, S-384 Rock Plant 2 Screens abated by A-384 Baghouse, S-390</b> <b>Conveyor abated by A-390 Baghouse, S-601 Rock Hopper (9-DH-1) abated by Water</b> <b>Spray A-4501</b>	
Citation	Title or Description (Reason not applicable)
<b>NSPS 40 CFR,</b> <b>Part 60,</b> <b>Subpart OOO</b>	<b>Standards of Performance for Nonmetallic Mineral Processing Plants</b> (Date of original construction or last modification prior to the effective date (August 31, 1983) of this regulation.)

<b>Table VIII A-2</b> <b>Permit Shield for Applicable Requirements</b>	
<b>S-17 CLINKER TRANSFER AREA, S-19 CLINKER STORAGE AREA, S-21 ROLL PRESS CLINKER SURGE BIN AND FEEDER, S-45 WEST SILO TOP CEMENT DISTRIBUTION TOWER, S-46 MIDDLE SILO TOP DISTRIBUTION TOWER, S-47 EAST SILO TOP DISTRIBUTION TOWER, S-48 BULK CEMENT LOAD OUT TANK #1 &amp; 2, S-49 BULK CEMENT LOADOUT TANK #28, S-50 BULK CEMENT LOADOUT TANK #29, S-54 CEMENT PACKER #1, S-55 CEMENT PACKER #2, S-74 TYPE II MECHANICAL TRANSFER SYSTEM, S-141 RAW MILL (4-GM-1), S-142 RAWMILL 2 (4-GM-2), S-143 RAWMILL 1 SEPARATOR SYSTEM (4-SE-3), S-144 RAWMILL 2 SEPARATOR CIRCUIT (4-SE-4), S-151 HOMONGENIZER (5-S-1-2), S-153 KILN FEED SYSTEM, S-162 CLINKER SILO (5-S-11), S-163 CLINKER SILO (5-S-12), S-164 FREE LIME STORAGE BIN, S-165 CLINKER TRANSFER SYSTEM, S-210 FINISH MILL, S-211 SEPARATOR (6-SE-2), S-216 CLINKER CAKE CONVEYOR (6-GM-1), S-217 CLINKER CAKE CONVEYOR (6-GM-1), S-218 AIR SEPARATOR (6-GM-1), S-220 FINISH MILL (6-GM-2), S-221 CLINKER CAKE FEEDER (6-GM-2), S-222 6-GM-2 GYPSUM FEEDER (6-WF-4), S-230 HYDRAULIC ROLLER PRESS (6-RP-1), S-231 CLINKER CEMENT PRESSED CAKE BIN, 240 ADDITIVE CONVEYOR/BINS, S-242 CLINKER CAKE FEEDER (6-GM-1), S-S-243 GYPSUM FEEDER (6-GM-1), S-244 POZZOLAN FEEDER, S-245 CLAY FEEDER (6-WF-9), S-301 RAIL LOADOUT SYSTEM, S-412 FINISH MILL ADDITIVE BIN (6-GM-3), S-414 KILN DUST ADDITIVE BIN. S-415 FINISH MILL BUILDING CONVEYOR, S-444 EMERGENCY CLINKER CONVEYOR</b>	
<b>Citation</b>	<b>Title or Description (Reason not applicable)</b>
<b>NSPS 40 CFR, Part 60 Subpart F et.al</b>	<b>Standards of Performance for Portland Cement Plants (NESHAP 40 CFR, Part 63 Subpart LLL et.al.is more stringent than_ NSPS )</b>

Changes to permit:

- The standard language in the Section IX, Permit Shield, was updated.
- Table VIII A-1:
  - S-201 was deleted from Permit Shield because the source was deleted.
  - S-202 was deleted from Permit Shield because the source shares an abatement device with a new source and emissions cannot be distinguished between the sources. S-202 was listed in the Permit Shield from NSPS requirements, however, since emissions will be emitted through the same stack as S-604, which is subject to NSPS, S-202 will now be subject to NSPS Subpart OOO requirements.
  - S-370, S-383, S-384, S-390, and S-601 were added since they are grandfathered sources and the dates of original construction were prior to the effective date of NSPS Subpart OOO (August 31, 1983)
- Table VIII A-2:
  - S-21, S-415 were added since they were previously omitted
  - S-444 was added because it was a new source
  - S-56 and S-57 were deleted because the sources were deleted
  - S-154 and S-161 were deleted because the PM standards of NSPS Subpart F apply to S-541 and S-161 until 9/9/2013 when the new PM standards of NESHAP Subpart LLL become effective



## **IX. Glossary**

### Changes to permit:

- Added definition of Recordkeeping, R: The owner/operator shall keep the records onsite for at least five years and shall make the records available to District staff upon request.
- Added definition of CARB E.O. = California Air Resources Board Executive Order

## **X. Revision History**

### Changes to permit:

- Application 16867, Title V Minor Revision was added
- Application 17947, Title V renewal was added
- Application 22954, Title V Minor Revision was added
- Application 23663, Title V Minor Revision was added

## **XII. State Implementation Plan**

### Changes to permit:

This section has been deleted. The address for EPA's website is now found in Sections III and IV.

## **D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

## **E. Compliance Status:**

An inter-office memorandum from the Director of Compliance and Enforcement, to the Director of Engineering Division, presents a review of the compliance record of Lehigh Southwest Cement Company (Site #A0017). The Compliance and Enforcement Division staff has reviewed the records for Lehigh Southwest Cement Company for the period between July 1, 2004 and October 31, 2011. This review was initiated as part of the District evaluation of an application by Lehigh Southwest Cement Company for a Title V permit renewal. During the period subject to review, activities known to the District include:

- There were 27 Notices of Violation (33 violations) issued over 7 seven years review period.
- The District received 78 alleged air pollution complaints. Fourteen of these complaints were confirmed for visible emissions.
- The District received 15 notifications for reportable compliance activities.
- The facility is not operating under a Variance or an Order of Abatement from the District Board.

The owner certified that all equipment was operating in compliance on November 26, 2008, and amended by Lehigh on October 31, 2011. There is no evidence of on-going non-compliance and no recurring pattern of violations that would warrant consideration of a Title V compliance schedule.

Please refer to Appendix A for the attached, updated Review of Compliance Records from the Compliance and Enforcement Division for details.

**F. Differences between the Application and the Proposed Permit:**

None.

Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
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**APPENDIX A –  
BAAQMD COMPLIANCE REPORT**

**COMPLIANCE & ENFORCEMENT DIVISION**

**Inter-Office Memorandum**

**December 21, 2011**

TO: JOHN CHILADAKIS – DIRECTOR OF ENGINEERING

FROM: BRIAN BATEMAN – DIRECTOR OF ENFORCEMENT

SUBJECT: UPDATED REVIEW OF COMPLIANCE RECORD OF:

**LEHIGH SOUTHWEST CEMENT CO. - PERMANENTE PLANT, SITE #A0017**

*John Chiladakis 12/21/11*  
*Brian Bateman 12/21/11*

**Background**

This review was initiated as part of the District evaluation of an application by Lehigh Southwest Cement Co. - Permanente Plant for a Title V Permit Renewal. It is standard practice of the Compliance and Enforcement Division to undertake a compliance review in advance of a renewal of a Title V Permit to Operate. The purpose of this review is to assure that any non-compliance problems identified during the prior 7 year permit term have been adequately addressed by returning the facility to compliance, or, if non-compliance persists, that a schedule of compliance is properly incorporated into the Title V permit compliance schedule. In addition, the review checks for patterns of recurring violation that may be addressed by additional permit terms. Finally, the review is intended to recommend, if necessary, any additional permit conditions and limitations to improve compliance.

**Compliance Review**

Staff reviewed Lehigh Southwest Cement Co. – Permanente Plant Annual Compliance Certifications for July 1, 2004 to October 31, 2011 and found no ongoing non-compliance and no recurring pattern of violations. Facts surrounding the most recent violations suggest that additional monitoring or permit conditions might improve compliance.

Staff conducted a compliance review of 27 Notices of Violation (NOVs) issued to Lehigh Southwest Cement Co. from July 1, 2004 through October 31, 2011. While the cement manufacturing facility received a number of violations over this 7 year period, for facilities as large, complex, and heavily regulated as a cement manufacturing facility within the Bay Area Air Quality Management District's jurisdiction, violations are likely to occur. It is important to note that all of the violations associated with the NOVs were in compliance at the time of this review; furthermore, the District's analysis of the NOVs for the 7 year period indicated that there is no ongoing violation or pattern of recurring violation that would require a compliance schedule.

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REVIEW OF COMPLIANCE RECORD OF:  
**LEHIGH SOUTHWEST CEMENT CO. – PERMANENTE PLANT SITE #A0017**

December 7, 2011

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Understanding how the District handles the violations associated with the NOVs is important to understanding how the District evaluated the facility's compliance status. Whenever the District discovers a violation, it begins a two-step process. The first step is to end the violation and bring the alleged violator back into compliance. Once compliance is achieved, the second step is to proceed with penalty assessment. It is District policy to not proceed with penalty assessment until compliance has been achieved. If a facility has not achieved compliance in a timely fashion, the District proceeds with additional enforcement action. The vast majority of Notice of Violation penalties are resolved through settlement negotiations.

The results of the District's compliance review are shown in Table I. As stated above, the violations associated with the 27 NOVs were in compliance at the time of this review. In 93% of the violations, compliance was achieved prior to or within 1 day of issuance of the NOV. In the remaining 7% of the violations, the violations achieved compliance after issuance but did not represent ongoing violation that would require a compliance schedule in a Title V permit. There were multiple violations at two of the sources (S#165 & S#154) but causal analysis indicated different causes for the violations and there was no recurrent pattern, the prevention of which might be addressed by new monitoring or other permit conditions for these sources. Of the 27 NOVs issued, 11% of the violations resulted from the facility self-reporting, pursuant to Title V requirements. Several recent visible emissions violations might have been prevented had improved plans been in place to self-monitor compliance. Based on this review and analysis of all the violations for the 7 year period, the Compliance and Enforcement Division has concluded that no schedule of compliance is necessary for the Title V permit as the record showed that the violations returned to compliance, were intermittent or did not indicate on-going non-compliance, there was no pattern of recurring violation, and the facility was in compliance at the time of this review. However, future compliance could be improved and particulate matter emissions reduced by the addition of a facility-wide permit condition requiring a fugitive dust control plan for sources not already subject to the operation and maintenance plan required under NESHAPS for Portland Cement Facilities, and a permit condition to require periodic performance tests for sources abated by dust collectors not currently subject to these requirements.

The violation details associated with the 27 Notices of Violation (33 violations) are summarized here and detailed in Table 1.

#### Emissions Violations

- Six visible emissions violations occurred on the Clinker Handling System (Source #165) for unrelated reasons such as polyester bag problems, damaged Kevlar skirting, a damaged access door gasket, and excessive dust accumulation around the source.
- One visible emissions violation occurred at the Clinker Handling System during an emergency diversion of clinker.
- One visible emissions violation occurred at the Kiln Mill dust collectors (A141/A142) from 2 broken bags.

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REVIEW OF COMPLIANCE RECORD OF:

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- One visible emissions violation occurred at the Clinker Cooler (Source #161) during a startup after a power outage shutdown, which resulted in fine raw clinker material flushing from the precalcining tower through the kiln into the Clinker Cooler.
- One excess emission violation occurred at the kiln (Source #154) for NOx limits for a two-hour period.
- One permit condition throughput violation occurred at the Rock Plant for excessive combined throughput of aggregate at several sources.
- One visible emissions violation occurred at the Preblend Dome (Source #132) when wind blew fugitive emissions through door openings, while a front loader drove into and out of the dome.
- One visible emissions violation occurred at the roll press mill (Source #230) when fine clinker dust overloaded the dust collection system, resulting in clogged dust collector bags.
- Two visible emission violations occurred at the kiln baghouse when a detached plume formed above baghouse.
- One visible emissions violation occurred at the rock plant belt conveyor turning point when dry materials were being processed without water spray abatement to prevent excessive dust.
- One visible emissions violation occurred between the primary and secondary crushers when dry materials were dumped into the upstream rock hopper without water spray abatement to prevent excessive dust.
- One visible emissions violation occurred at clinker storage silo A (Source #162) when clinker dust partially clogged the dust collection system intake vent reducing the dust collector's ability to collect and abate fine clinker dust.
- One visible emissions violation occurred at the synthetic gypsum weigh feeder 6-WF-11 during a material transfer operation when the dust collection system was not turned on.

Administrative Violations

- One violation occurred for failure to maintain quarterly manometer readings on the Cement Packers (Source #54/55).
- One violation occurred for missing visible emission inspection forms.
- One violation occurred for missing visible emission, pressure drop and surface moisture condition records.
- One violation occurred for missing visible emission inspection forms, pressure drop records, and late Title V deviation reporting.
- Two violations occurred for late reporting of Reportable Compliance Activity (RCA)<sup>1</sup>: for a NOx excess and late reporting of an inoperative monitor.
- Two violations occurred for failure to submit Title V deviation reports as required in their Title V permit.

<sup>1</sup> Reportable Compliance Activity (RCA) is the reporting of compliance activities involving a facility or company as outlined in District Regulations 1, 8-28, 9-1&2, and State Law. Reporting covers breakdown relief, continuous emission monitoring excesses, ground level monitoring excesses, parametric monitoring excesses, inoperative monitors, and pressure relief device releases.

REVIEW OF COMPLIANCE RECORD OF:  
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Permit Violations

- Two permit violations occurred for several stockpiles of material that did not have permits when moisture content was determined to be below 5%. The permit application was subsequently received and the permit issued.
- Four permit violations occurred for two synthetic gypsum weigh feeders (6-WF-11 & 6-WF-12) that did not have permits. The permit application was subsequently received and the permits issued.

Staff also reviewed additional District compliance records for Lehigh Southwest Cement Co. - Permanente Plant for July 1, 2008 through October 31, 2011. During this period Lehigh Southwest Cement Co. - Permanente Plant activities known to the District include:

The District received 78 air pollution complaints alleging Lehigh Southwest Cement Co. - Permanente Plant as the source. Fourteen of these complaints were confirmed for visible emissions.

The District received 15 notifications for Reportable Compliance Activities (RCA): Five indicated SO<sub>2</sub> excesses, one inoperative SO<sub>2</sub> monitor, five inoperative NOx monitors, and four requests for breakdown relief. The five indicated SO<sub>2</sub> excesses and one inoperative SO<sub>2</sub> monitor are under investigation. None of the other RCAs resulted in NOVs.

There are no enforcement agreements, open variances, or open abatement orders for Lehigh Southwest Cement Co. - Permanente Plant.

**Conclusion**

The Compliance and Enforcement Division has made a determination that for the seven year period, July 1, 2004 to October 31, 2011, Lehigh Southwest Cement Co. - Permanente Plant was in intermittent compliance. There is no evidence of on-going non-compliance and no recurring pattern of violations that would warrant consideration of a Title V permit compliance schedule. To improve compliance and reduce dust emissions, the Division recommends additional facility-wide permit conditions for the Title V Permit under consideration; to require a fugitive dust control plan for sources not subject to an operation and maintenance plan per NESHAP 40 CFR 63 Subpart LLL and to require periodic source tests for sources abated by dust collectors not currently subject to source test requirements. These additional permit conditions have been incorporated into the draft Title V permit.

JLK:TG:JMM:KJW:BB

Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
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BAAQMD Notices of Violation

**Lehigh Southwest Cement Co.-Permanente Plant (Site #A0017)**  
**TABLE 1**

July 1, 2004 - October 31, 2011

V#	S#	Occur	Issued	Reg	Violation Comments	Compliance Achieved	Basis for no compliance schedule
A48540	55	7/11/2002	9/25/2007	2-6-307	No quarterly manometer reading usage record.	9/25/2007	This administrative violation was for missing quarterly manometer readings for cement bag packing machines for 13 quarters. Compliance was achieved following staffing changes and the quarterly manometer recordkeeping resumed.
A11835	203	8/12/2004	7/21/2005	2-1-307	Condition ID #1720.3 - 4,200 Tons/Day	8/19/2004	This violation occurred when combined throughput at several sources at the Rock Plant exceeded the permit condition limit of 4,200 tons/day for 4 days. Compliance was achieved within 7 days and combined throughputs remain below the amount limited by the permit condition.
A48536	141	11/1/2005	1/25/2007	2-6-307	Missing visible emission records for 12 sources	10/30/2006	This administrative violation was for missing visible emission inspection forms for 12 sources over an 11-month period caused by staffing changes and turnovers. The violation was identified and self-reported by the facility. Compliance was achieved when the facility resumed maintaining daily visible emission inspection forms, instituted additional quality assurance and control procedures, and incorporated new procedures into personnel objectives.
A47925	N/A	5/9/2006	5/24/2006	6-301	Exceeded Ringelmann 1 visible emission	5/11/2006	This violation of excessive dust emissions occurred during an emergency diversion from the main clinker bucket conveyor. Compliance was achieved within two days by expediting repairs of the main clinker bucket conveyor so that emergency diversion was no longer necessary.
A48527	165	8/10/2006	8/22/2006	2-6-307	Visible Emission Ringelmann 1.5 thru 3 for 14.5 Minutes	8/11/2006	This violation of excessive dust emissions occurred due to an abatement device problem involving polyester bags in the baghouse. Compliance was achieved within 1 day when the polyester bags in the baghouse were replaced with Teflon bags and adjustments were made to airflow dampers.
A48528	165	8/21/2006	8/22/2006	2-6-307	Visible Emission Ringelmann 1.5 thru 3 for 15.25 Minutes	8/22/2006	This violation occurred at the Clinker Handling System bucket conveyor and was caused by fine clinker material sticking to the side of the buckets. Compliance was achieved within 1 day when the fine material deposited at the ground adjacent to the bucket turnaround point was cleaned up. The facility incorporated new inspection procedures into the Operation & Maintenance plan and enhanced housekeeping around the source. This violation was unrelated to a previous violation at this source.
A48529	165	9/18/2006	9/25/2006	2-6-307	Non-Compliance Major Facility Visible Emission Exceeding Ringelmann 1.5 thru 3 for 15 Minutes	9/25/2006	This violation occurred at the Clinker Handling System bucket conveyor and was caused by damaged Kevlar skirting on the outside of the bucket conveyor. It was corrected within 7 days when the damaged Kevlar skirting on the outside of the bucket conveyor was replaced. Skirting inspection was added to the inspection check list and enhanced inspection details were added to newly designed compliance software that has since been implemented at the facility.
A48534	165	5/18/2006	12/1/2006	2-6-307	Covers 4 NOV Issued Bet. 5/18/06 to 9/18/06	12/1/2006	This administrative violation was for failure to submit 10 and 30-day deviation reports as required in the Title V permit, resulting from the issuance of NOVs A47925, A48527-A48529. The violation was corrected on the date that the NOV was issued when the required reports were submitted.



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**TABLE 1**

V#	S#	Occur	Issued	Reg	Violation Comments	Compliance Achieved	Basis for no compliance schedule
A48543	350	1/6/2006	2/22/2008	2-6-307	Missing visible emission, pressure drop and surface wet condition monitoring records at 70 sources	2/22/2008	This administrative violation was for missing visible emission inspection forms, pressure drop readings and surface moisture condition monitoring for 70 sources over a 12-month period, caused by staffing changes and turnovers. The violation was identified and self-reported by the facility. Compliance was achieved when the facility resumed maintaining the visible emission inspection forms, pressure drop and surface moisture condition records and instituted additional quality assurance and control procedures.
A48541	165	8/20/2007	9/25/2007	2-6-307	Visible Emission > Ringelmann 1	8/25/2007	This violation of excessive dust emissions occurred at the Clinker Handling System when the access door gasket developed a gap. Compliance was achieved within 5 days when the gasket and casing at the access door were repaired.
A48550	154	11/1/2007	7/31/2008	2-6-307	Missing visible emission and pressure drop records at 20 sources & failure to notify deviation	8/8/2008	This administrative violation was for missing visible emission inspection forms and pressure drop readings for 20 sources over a 6-month period and late deviation reporting, caused by staffing changes and turnovers. The violation was identified and self-reported by the facility. Compliance was achieved when the facility resumed maintaining the visible emission inspection forms, pressure drop records and instituted additional quality assurance and control procedures.
A48545	154	1/30/2008	5/22/2008	2-6-307, 1-522.7	NOx excess of 821 ppm (limit<=615ppm) and late reporting of indicated excesses	5/22/2008	This violation occurred for 2 hours of excessive NOx emissions from the kiln, as recorded on the continuous emission monitor. Compliance was achieved when NOx emissions dropped below the level limited by the permit condition. The administrative violation was related to the late reporting of the NOx excess.
A50005	new 607	10/16/2008	11/20/2008	2-1-301, 2-1-302	Moisture content <5% therefore permit req'd	1/13/2009	This violation was for no Authority to Construct or Permit to Operate unpermitted stockpiles. Compliance was achieved when a permit application was received by the District and the Permit issued.
A50006	154	10/11/2008	2/4/2009	1-522.4	Failure to report equipment inoperation	10/20/2008	This administrative violation was for the late reporting of an inoperative NOx continuous emission monitor.
A50008	154	3/5/2009	4/7/2009	2-6-307	Exceed Ringelmann 1 visible emission	3/5/2009	This violation of excessive dust emissions occurred due to an abatement device problem involving 2 fiberglass bags in the baghouse. Compliance was achieved the same day when the bags were replaced with new ePTFE membrane bags. Prior to restarting the unit, all bags in that compartment were fully inspected and prioritized for June 2009 replacement.
A50009	165	3/5/2009	4/7/2009	2-6-307	Exceeded Ringelmann 1 visible emission	3/5/2009	This violation of excessive dust emissions occurred for a short period at the clinker cooler bucket elevator discharge point the day that kiln operations resumed after a 2-1/2 month shutdown. Compliance was achieved during the investigation when the violation ended.
A50010	161	3/23/2009	4/7/2009	2-6-307	Exceeded Ringelmann 1 visible emission	3/23/2009	This violation of excessive dust emissions occurred when operations restarted following a power outage shutdown which resulted in fine, raw clinker material flushing from the precalcining tower through the kiln into the clinker cooler. Compliance was achieved when the fine materials were flushed through the process.

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BAAQMD Notices of Violation

Lehigh Southwest Cement Co.-Permanente Plant (Site #A0017)  
 TABLE 1

July 1, 2004 - October 31, 2011

V#	S#	Occur	Issued	Reg	Violation Comments	Compliance Achieved	Basis for no compliance schedule
A50011	165	3/26/2009	4/7/2009	2-6-307	Exceeded Ringelmann 1 visible emission	3/27/2009	This violation of excessive dust emissions occurred when the wind entrained fine clinker dust that had accumulated around the conveyor system. Compliance was achieved when plant personnel removed the accumulated material, watered down the immediate area and instituted enhanced housekeeping procedures.
A50013	132	8/27/2009	9/8/2009	2-6-307	Exceeded Ringelmann 1 visible emission	8/27/2009	This violation of excessive dust emissions occurred when the wind blew fugitive emissions through door openings on the Preblend Dome while a front loader drove into and out of the dome. Compliance was achieved when the operation stopped.
A50014	230	11/16/2009	12/17/2009	2-6-307	Exceeded Ringelmann 1 visible emission	11/19/2009	This violation of excessive dust emissions occurred when fine clinker dust overloaded the dust collection system, resulting in clogged dust collector bags. Compliance was achieved when the roll press mill was immediately shut down and new bags were installed.
A50016	154	3/29/2010	4/26/2010	2-6-307	Exceeded Ringelmann 1 visible emission	4/26/2010	This violation of excessive visible emissions occurred when a detached plume formed above the kiln baghouses by a chemical process. Compliance was achieved the following day. A lime slurry injection system was permitted and installed and when operational is expected to reduce compounds contributing to secondary plume formation when raw mills are down.
A50019	383	5/25/2010	6/29/2010	2-6-307	Exceeded Ringelmann 1 visible emission	5/25/2010	This violation of excessive visible emissions occurred at the rock plant belt conveyor turning point when dry raw materials were not sufficiently moist to prevent excessive dust. Compliance was achieved when the water sprayer was turned on.
A50020	202	6/3/2010	6/29/2010	2-6-307	Exceeded Ringelmann 1 visible emission	6/3/2010	This violation of excessive visible emissions occurred between the primary and secondary crushers when dry raw materials were dumped into the upstream hopper without water spray abatement. Compliance was achieved when the water sprayer at the hopper was turned-on the same day.
A51555	162	6/15/2011	7/22/2011	2-6-307	Exceeded Ringelmann 1 visible emission	6/15/2011	This violation of excessive visible emissions occurred at silo (A) due to an abatement device problem involving a partially clogged intake vent caused by material buildup. Compliance was achieved the same day when the excess emissions were ceased. The material buildup on the intake vent was removed.
A51556	246	6/27/2011	7/22/2011	2-6-307	Exceeded Ringelmann 1 visible emission	6/27/2011	This violation of excessive visible emissions occurred when the dust collection system for synthetic gypsum weigh feeder was not operating during material transfer operations. Compliance was achieved by shutting down the operation.
A51557	223,246	6/27/2011	7/22/2011	2-1-301 & 2-1-302	No permit to operate on the two synthetic gypsum silos	7/22/2011	This violation was for no Authority to Construct or Permit to Operate for two (2) unpermitted synthetic gypsum weigh feeders. A permit application was subsequently received by the District and the permits issued.
A51558	154	7/18/2011	7/22/2011	2-6-307	Exceeded Ringelmann 1 visible emission	7/18/2011	This violation of excessive visible emissions occurred when a detached plume formed above the kiln baghouse by a chemical process. Compliance was achieved within 15 minutes when a raw mill came online. A lime slurry injection system was permitted and installed and when operational is expected to reduce compounds contributing to secondary plume formation when raw mills are down.

**APPENDIX B –  
GLOSSARY**

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**Basis**

The underlying authority which allows the District to impose requirements.

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CAM**

Compliance Assurance Monitoring per 40 CFR, Part 64

**CAPCOA**

California Air Pollution Control Officers Association

**CEM**

Continuous Emission Monitor

**CEQA**

California Environmental Quality Act

**CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

**CO**

Carbon Monoxide

**Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Cumulative increase is used to determine whether threshold-based requirements are triggered.

**District**

The Bay Area Air Quality Management District

**EPA**

The federal Environmental Protection Agency.

**Excluded**

Not subject to any District regulations.

**Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR, Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

**FP**

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

**HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR, Part 63.

**Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

**MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

**MOP**

The District's Manual of Procedures.

**NAAQS**

National Ambient Air Quality Standards

**NESHAPS**

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR, Parts 61 and 63.

**NMHC**

Non-methane Hydrocarbons (Same as NMOC)

**NMOC**

Non-methane Organic Compounds (Same as NMHC)

**NO<sub>x</sub>**

Oxides of nitrogen.

**NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR, Part 60 and District Regulation 10.

**NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR, Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

**Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

**Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR, 72 from Titles IV and V of the Clean Air Act.

**POC**

Precursor Organic Compounds

**PM**

Particulate Matter

**PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

**PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR, Part 52 and District Regulation 2, Rule 2.

**PTE**

Potential to Emit as defined by BAAQMD Regulation 2-6-218

**SIP**

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

**SO<sub>2</sub>**

Sulfur dioxide

**THC**

Total Hydrocarbons (NMHC + Methane)

**Title V**

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

**TOC**

Total Organic Compounds (NMOC + Methane, Same as THC)

**TPH**

Total Petroleum Hydrocarbons

**TRMP**

Toxic Risk Management Plan

**TSP**

Total Suspended Particulate

**VOC**

Volatile Organic Compounds

**Units of Measure:**

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cu. ft.	=	cubic foot
cfm	=	cubic feet per minute
dscf	=	dry standard cubic foot
dscfm	=	dry standard cubic foot per minute
g	=	gram
gal	=	gallon
gpm	=	gallons per minute
gr	=	grain
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inch
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
tpy	=	tons per year
yr	=	year

**APPENDIX C –  
NSR Permit Evaluations**



**ENGINEERING EVALUATION  
Hanson Permanente Cement Co.  
Banking Application # 15216 - Plant #17**

I. Introduction

Hanson Permanente Cement Co. (Hanson) has applied for Emission Reduction Credits (ERCs) for the following equipment:

<b>S-204</b>	<b>Tunnel Conveyor with 2 Belt Conveyors</b>
<b>S-205</b>	<b>Conveying System with 10 Belt Conveyors</b>
<b>S-206</b>	<b>5 Sand and Aggregate Piles</b>
<b>S-215</b>	<b>Screen</b>
<b>S-440</b>	<b>Surge Bin/Belt Feeder</b>
<b>S-441</b>	<b>Crusher</b>
<b>S-442</b>	<b>Screen</b>
<b>S-443</b>	<b>Conveying System with 6 Belt Conveyors</b>

The above sources (S-204, S-205, S-206, S-215, S-440, S-441, S-442, S-443) at Hanson have been permanently shutdown due to the closure of the Mineral Aggregate Plant. These sources were permanently shut down on January 1, 2006.

Hanson has requested the following emission reduction credits:

Emissions Reduction Credits Requested (tons/year)

Source #	PM10
204	0.0393
205	0.0077
206	0.0210
215	0.1123
440	0.0700
441	0.5580
442	0.9290
443	0.1610
<b>Total</b>	<b>1.8983</b>

II. Emissions

Per Regulation 2-2-605:

**2-2-605 Emission Calculation Procedures, Emission Reduction Credits:** The following methodology shall be used to calculate emission reduction credits.

- 605.1 The baseline period consists of the 3 year period immediately preceding the date that the application is complete (or shorter period if the source is less than 3 years old). The applicant must have sufficient verifiable records of the source's operation to substantiate the emission rate and throughput during the entire baseline period.
- 605.2 Baseline throughput is the lesser of:
  - 2.1 actual average throughput during the baseline period; or
  - 2.2 average permitted throughput during the baseline period, if limited by permit condition.
- 605.3 Baseline emission rate, expressed in the units of mass of emissions per unit of throughput, is the average actual emission rate during the baseline period.

Periods where the actual emission rate exceeded regulatory or permitted limits shall be excluded from the average.

- 605.4 Baseline Throughput and Emission Rate - Fully Offset Source: For a source which has, contained in a permit condition, an emission cap or emission rate which has been fully offset by the facility (without using emission reductions from the Small Facility Banking Account), the baseline throughput and baseline emission rate shall be based on the levels allowed by the permit condition.
- 605.5 The adjusted baseline emission rate shall be determined by adjusting the baseline emission rate downward, if necessary, to comply with the most stringent of RACT, BARCT, and District rules and regulations in effect or contained in the most recently adopted Clean Air Plan.
- 605.6 Emission reduction credits shall be the difference between the adjusted baseline emission rate times the baseline throughput, and the emission cap or emission rate accepted by the applicant as a federally enforceable limiting conditions.

(Amended 6/15/94; 5/17/00)

All fees were paid on May 9, 2008 and the application was deemed complete. As a result, the 3-year baseline period is May 1, 2005 through April 30, 2008. The applicant has provided sufficient verifiable records of the sources' operation to substantiate the emission rate and throughput during the entire baseline period.

**S-204 Tunnel Conveyor with 2 Belt Conveyors**  
**S-205 Conveying System with 10 Belt Conveyors**

*The emission factor for determining any allowable PM10 credit for S-204 and S-205 came from:*

EPA AP-42, August 2004, Table 11.19.2-2 "Emission Factors for Crushed Stone Processing Operations"

The sources were abated by water sprays A-2040 and A-2050, respectively. The controlled conveyor transfer point emission factor of 4.6E-5 lb PM10/transfer point/ton aggregate was used. The monthly throughput data are shown in Appendix A. The annual average PM10 emissions for the 3-year baseline period are 0.0077 TPY and 0.0210 TPY, respectively. No adjustment for any stricter local, state, or federal requirement per Regulation 2-2-605.5 is needed.

**S-206 5 Sand and Aggregate Piles**

*The emission factor for determining any allowable PM10 credit for S-206 came from:*

EPA AP-42, November 2006, Section 13.2.4.3 "Aggregate Handling and Storage Piles: Predictive Emission Factor Equations"

The sources were abated by water sprays A-2140, A-2150, A-2030, A-2040 and A-2050 as needed per condition# 1720. To be consistent with Application 7183 in which offsets were surrendered for an increase in throughput at this source, the calculated emission factor assuming a wind speed of 15 mph, a moisture content of 1%, and 80% abatement from water sprays was 2.46E-3 lb PM10/ton aggregate was used. The monthly throughput data are shown in Appendix A. The annual average PM10 emissions for the 3-year baseline period are 0.1123 TPY. No adjustment for any stricter local, state, or federal requirement per Regulation 2-2-605.5 is needed.

### S-215 Screen

The PM10 emissions for the 3-year baseline period (May 2005 to April 2008) are 0.0393 TPY for S-215. The source was abated by baghouse A-215. The baghouse had an air flow rate of 1000 cfm and was assumed to have an outlet grain loading of 0.015 gr/dscf to be consistent with District practice for old baghouses without source test data (see Application 1753 Evaluation Report, page 5). PM emissions were calculated using operating hours for the mineral aggregate plant provided by Hanson, which are shown in Appendix A. No adjustment for any stricter local, state, or federal requirement per Regulation 2-2-605.5 is needed.

<b>S-440</b>	<b>Surge Bin/Belt Feeder</b>
<b>S-441</b>	<b>Crusher</b>
<b>S-442</b>	<b>Screen</b>
<b>S-443</b>	<b>Conveying System with 6 Belt Conveyors</b>

Sources S-440 through S-443 were fully offset with contemporaneous emission reductions in Application 1753. Permit condition 17918 contains an annual throughput limit for these sources, which is a surrogate for an emissions rate. Per Regulation 2-2-605.4, the baseline throughput and baseline emission rate shall be based on the levels allowed by the permit condition, which totaled 1.718 TPY for these four sources. No adjustment for any stricter local, state, or federal requirement per Regulation 2-2-605.5 is needed.

### Summary of Emission Reduction Credits

Emissions Reduction Credits (tons/year)

Source #	PM10
204	0.0393
205	0.0077
206	0.0210
215	0.1123
440	0.0700
441	0.5580
442	0.9290
443	0.1610
<b>Total</b>	<b>1.8983</b>

### Statement of Compliance

Per the February 1, 2008 letter from Hanson, informed the District that sources S-203, S-204, S-205, S-206, S-215, S-440, S-441, S-442, S-443 of the Mineral Aggregate Plant ceased operation with the closure of the plant in January 2006. Hence, in accordance with Regulation 2-4-302:

**2-4-302 Bankable Reductions for Closures:** Emission reduction credits not prohibited by Section 2-4-303 are bankable. The following restrictions apply:

- 302.1 Closure of sources, where the reduction is permanent at the source, but it is unclear whether the reduction will be replaced by an emissions increase elsewhere within the District, are bankable only if the applicant accepts a condition restricting use of the deposits to offsetting emission increases in the same or closely related industries. For example, the closure of public utility power generation facilities could be bankable if use is restricted to offsetting emission increases from other power generation facilities (including resource recovery and cogeneration facilities). Closure of petroleum or petroleum product storage tanks at refineries could be bankable if use is restricted to offsetting emission increases at other petroleum or petroleum products storage tanks, or to offset emission increases at the associated refinery.

302.2 Issuance of a Banking Certificate for emission reductions resulting from a closure cancels the permit to operate. The reduction shall be enforceable through a condition in the Banking Certificate and through enforcement of Regulation 2-1-302 pertaining to operating without a permit.

302.3 The permanency of closures shall be demonstrated through removal of the source from the District, rendering it inoperative, destruction of the source, or by inclusion of appropriate conditions in the Banking Certificate providing for automatic cancellation of the Banking Certificate if emissions resume and replacement by the applicant of the emission reduction credit if the deposit has been transferred or withdrawn.

*(Amended 7/17/91; 6/15/94; 5/17/00)*

A banking certificate can be issued to Hanson Permanente Cement because the emission reduction is permanent.

### **CEQA**

This application is considered exempt from the California Environmental Quality Act per the following regulation:

**Regulation 2-1-312.10** Applications to deposit emission reductions in the emissions bank pursuant to Regulation 2, Rule 4 or Regulation 2, Rule 9.

### **Condition**

These emission reduction credits shall only be used to offset emission increases at quarries or mineral processing operations. (Basis: Regulation 2-4-302.1)

### **Recommendation**

I recommend that Hanson Permanente Cement Co. be issued a conditional banking certificate for the following total amount due to the permanent shutdown of the Mineral Aggregate Plant at the Hanson Permanente Cement facility in Cupertino, CA:

Emissions Reduction Credits (tons/year)

Source #	PM10
204	0.0393
205	0.0077
206	0.0210
215	0.1123
440	0.0700
441	0.5580
442	0.9290
443	0.1610
<b>Total</b>	<b>1.8983</b>

\_\_\_\_\_  
Kathleen Truesdel  
Date  
Air Quality Engineer I

Appendix A

1. Hours of Operation for 2005 (used to determine emissions from baghouses that abated S-203 and S-215)
2. Throughput data for S-204
3. Throughput data for S-205 and S-206
4. Offsets Bank Number for S-440, S-441, S-442, S-443
5. EPA AP-42, August 2004, Table 11.19.2-2 “Emission Factors for Crushed Stone Processing Operations”
6. EPA AP-42, November 2006, Section 13.2.4.3 “Aggregate Handling and Storage Piles: Predictive Emission Factor Equations”
7. Emissions calculations spreadsheet

**Title V Permit Evaluation, Plant #17  
24001 Stevens Creek Blvd, Cupertino 94566  
Application # 15217**

**BACKGROUND**

Title V Permit Evaluation (HPC) has submitted this application for a Permit to Operate for the following source:

**S-444 Emergency Clinker Conveyor, 230 tph abated by  
A-444 Water Spray**

S-444 has operated at HPC since 1981, when the plant was last modernized. HPC has always considered this conveyor as part of its S-17, Clinker Transfer Area and S-165, Clinker Transfer System and did not identify it as a separate source for its Title V permit. After a discussion with the Compliance and Enforcement Division and the Permit Division on 6/12/06, HPC has agreed to identify S-444 as a separate source, independent of S-17 and S-165. Since this is not a new source with new emissions, S-444 will be added to HPC's Title V permit when it is renewed or modified.

**EMISSIONS SUMMARY**

Basis: Permit condition limit of 75,000 tons of cement clinker per year  
AP-42 Chapter 11.19.2 (Crushed Stone Processing) for conveyor emission  
Assume 70% water spray control efficiency  
maximum capacity of 230 tons/hr

$(75,000 \text{ tons/yr}) (0.0011 \text{ lb/ton}) (1-0.70) = 24.75 \text{ lb/yr} = 0.012 \text{ tpy PM}_{10}$

$(230 \text{ tons/hr}) (24 \text{ hr/day}) (0.0011 \text{ lb/ton}) (1-0.70) = 1.82 \text{ lb/highest day PM}_{10}$

**PLANT CUMULATIVE INCREASE (Post 4/5/91):**

The cumulative increase including this application is  $0.000$  (existing) +  $0.012$  (new) =  $0.012$  tpy PM<sub>10</sub>.

**TOXIC RISK SCREENING ANALYSIS**

The cement clinker dust at S-415 is not expected to contain any chemical that exceeds its toxic risk trigger level listed Table 2-1-316 in Regulation 2-1. A toxic risk screen is not needed for this application.

**BACT ANALYSIS**

Per Regulation 2-2-301.1, this source does not trigger BACT because, even if operated at 24 hours per day, it emits less than 10.0 pound per day.

**OFFSET ANALYSIS**

Per Regulation 2-2-303, since the Post 4/5/91 PM-10 Cumulative Increase ( $0.000 + 0.012 = 0.012$  tpy) is less than 1.0 tpy, emission offsets are not required.

**STATEMENT OF COMPLIANCE**

Because S-444, Emergency Clinker Conveyor is abated by A-444, Water Spray, it is expected to comply with the requirements of Regulations 6-301 (Ringelmann No. 1 limitation) and 6-302 (Opacity).

This project is considered to be ministerial under the District's CEQA Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors and therefore is not discretionary as defined by CEQA (Permit Handbook chapter 11.7).

This project is over 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg 2-1-412.

BACT, PSD, NSPS, and NESHAPS are not triggered in this project.

**CONDITIONS**

***For S-444 Emergency Clinker Diversion Conveyor***

1. Visible particulate emissions from S-444 shall not exceed Ringelmann 1.0 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: Regulation 1-301)
2. All of the particulate emissions emitted from the handling of clinker for S-444 shall be abated by water spray system A-444. (Basis: Regulation 2-2-212 Cumulative Increase)
3. The total throughput of clinker processed at S-444 shall not exceed 75,000 tons in any rolling 365 consecutive day period. (Basis: Regulation 2-2-212 Cumulative Increase)
4. The owner/operator of S-444 shall record, on a daily basis, the total throughput of clinker to demonstrate compliance with part 3. These records shall be entered in a District approved log and retained for a period of at least five years from date of entry. These logs shall be kept on site and made available to the District upon request. (Basis: Cumulative Increase)  
(Cumulative Increase)

**RECOMMENDATION**

Issue a Permit to Operate for the following equipment:

**S-444 Emergency Clinker Conveyor, 230 tph abated by  
A-444 Water Spray**

S-444 and A-444 will be added to the Title V permit in its next renewal or modification permit.

By: \_\_\_\_\_

\_\_\_\_\_  
**Eric Y. W. Chan**  
**Air Quality Engineer II**

**Date**

**ENGINEERING EVALUATION**  
**Lehigh Southwest Cement**  
**Application #15342- Plant #17**

**I. BACKGROUND**

Lehigh Southwest Cement has applied for an Authority to Construct/Permit to Operate for the following equipment:

**S-100 Precalciner Kiln Fuel Handling System abated by A-100 Water Sprays**

**A-100 Water Sprays at Hopper loading abate S-100 Precalciner Kiln Fuel Handling System**

Lehigh is proposing to build a Precalciner Kiln Fuel Handling System, S-100, consisting of two new hoppers, an existing hopper (currently part of S-112) and an extension of an existing conveyor in the Lehigh coal yard. S-100 is designed to allow the facility to better manage the fuel for the precalciner kiln, which includes petroleum coke and coal and separate raw material additives (bauxite, iron, and limestone). The system would allow separation of coal in one hopper, coke in another hopper, and raw mill additives in the existing hopper to more effectively control the mixture ratios of the fuel components. The existing hopper would be reassigned from S-112 to S-100 so throughput data and emissions can be calculated more accurately. S-112 also consists of a downstream transfer point that is abated by baghouse A-112. Unloading from the front-end loaders into the hoppers will be abated by automatic water sprays with sensors. Transfer points from the hoppers with enclosed belts to the conveyor are not abated.

**II. EMISSION CALCULATIONS**

Particulate emissions from S-100 have been calculated using AP42 emission factors from Section 11.19.2, Crushed Stone Processing. The PM emissions from the handling of coal and coke were assumed to be equivalent. If the kiln is fired on coal, the maximum throughput of coal is 36 tons/hr. The maximum throughput of coke is less than coal due to the heat input limit to the kiln, so 36 tons coal/hr will be used to calculate maximum PM emissions from S-100.

Existing emissions from S-112

Basis:

Maximum throughput = 36 tons/hour coal or 20 tons/hr coke

Operating Schedule: 24 hrs/day, 365 day/yr

Emission Factors (AP-42, Section 11.19.2)

Unloading/loading (1 source) = 0.0001 lb PM10/ton/source

Conveyor Transfer Points (uncontrolled) = 0.0011 lb PM10/ton/source

Unloading and transfer to conveyors points are not abated.



Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company, 24001 Stevens Creek Boulevard Cupertino, CA 95014

		# of Points	Emission Factor	Daily Emissions (lb PM10/day)	Annual Emissions (TPY)
COAL 36 ton/hr	Unloading	1	0.0001	0.09	0.0158
	Transfers	1	0.0011	0.95	0.1734
	TOTAL			1.04	0.1892
COKE 20 ton/hr	Unloading	1	0.0001	0.05	0.0088
	Transfers	1	0.0011	0.53	0.0964
	TOTAL			0.58	0.1051
ADDITIVES 30 ton/hr	Unloading	1	0.0001	0.07	0.0131
	Transfers	1	0.0011	0.79	0.1445
	TOTAL			0.86	0.1577
<b>TOTAL</b>				<b>1.90</b>	<b>0.3469</b>

S-112 PM emissions from unloading and transfer to conveyor  
(FUEL (coal) + ADDITIVES)

Emissions from Proposed Project S-100

Basis:

Maximum throughput = 36 tons/hour coal or 27 tons/hr coke

The maximum District permitted throughput of coke to the kiln is currently 20 tons/hr, however the facility has applied for an increase in throughput of coke to 27 tons/hr (Application# 16848, currently under review). Therefore, the maximum emissions from coke will be calculated using 27 tons/hr of coke to account for the possibility that 27 tons/hr of coke may be used in the future.

Operating Schedule: 24 hrs/day, 365 day/yr

Emission Factors (AP-42, Section 11.19.2)

Unloading/loading (1 source) = 0.0001 lb PM10/ton/source

Conveyor Transfer Points (uncontrolled) = 0.0011 lb PM10/ton/source

Unloading is abated by water sprays. Transfer from enclosed belts to conveyor is not abated.

		# of Points	Emission Factor	Abatement Efficiency	Daily Emissions (lb PM10/day)	Annual Emissions (TPY)
COAL 36 ton/hr	Unloading	1	0.0001	70%	0.03	0.0047
	Transfers	1	0.0011		0.95	0.1734
	TOTAL				0.98	0.1782
COKE 27 ton/hr	Unloading	1	0.0001	70%	0.02	0.0035
	Transfers	1	0.0011		0.71	0.1301
	TOTAL				0.73	0.1336
ADDITIVES 30 ton/hr	Unloading	1	0.0001	70%	0.02	0.0039
	Transfers	1	0.0011		0.79	0.1445
	TOTAL				0.81	0.1485
<b>TOTAL</b>	<b>S-100 PM emissions</b>				<b>1.79</b>	<b>0.3267</b>

Change in emissions = S-100 emissions minus S-112 emissions from unloading and transfer to conveyor

$$(0.3267 \text{ TPY PM10}) - (0.3469 \text{ TPY PM10}) = -0.0202 \text{ TPY PM10}$$

PM10 emissions will decrease with the proposed project due to abatement with water sprays.

### III. PLANT CUMULATIVE INCREASE SINCE 4/5/1991

There will be no increase in emissions with this project.

	Current (TPY)	New (TPY)	New Total (TPY)
POC =	1.405	0	1.405
NO <sub>x</sub> =	0	0	0
SO <sub>2</sub> =	0.029	0	0.029
CO =	0	0	0
PM <sub>10</sub> =	0.012	0	0.012

### IV. OFFSETS

Offsets are not required per Regulation 2-2-303 because there is no increase in emissions.

### V. TOXIC SCREENING ANALYSIS

A Health Risk Screening Analysis was not conducted because emissions of toxic air contaminants were below the trigger levels in Regulation 2, Rule 5 as seen in the Table below. Emissions from the additives are not new emissions and are not subject to Regulation 2-5.

Hourly emissions were calculated to determine whether S-100 exceeds an acute trigger level. PM10 emissions were calculated assuming maximum throughput from the front-end loaders to the hoppers and from the hoppers to the conveyor. The conveyor maximum capacity is 400 ton/hr.

Material ton/hr	Unloading EF lb PM/ton	Transfer EF lb PM/ton	Emissions lb PM10/hr
400	0.00003	0.0011	0.452

Toxic Air Contaminant Emissions from Coal

Maximum hourly emissions of TACs were calculated based on the capacity of the conveyor (400 ton material/hr). As seen above, at 400 tons of material per hour, 0.452 lb PM10 per hour is emitted. Annual emissions were based on 36 ton/hour of coal. Assuming the composition of PM10 is similar to the composition of the coal, the emissions of TACs are seen below.

TAC	concentration (ppm)	Emissions (lb/hr)	Acute Trigger level (lb/hr)	Risk Screen Triggered?	Emissions (lb/yr)	Chronic Trigger level (lb/hr)	Risk Screen Triggered?
Antimony	3	1.356E-06	-	no	7.20E-05	7.70E+00	no
Arsenic	62.4	2.82E-05	4.20E-04	no	1.50E-03	1.20E-02	no
Barium	248	0.0001121	-	no	5.95E-03	-	no
Beryllium	0.1	4.52E-08	-	no	2.40E-06	8.00E-02	no
Cadmium	2	9.04E-07	-	no	4.80E-05	4.50E-02	no
Chromium	0.4	1.808E-07	-	no	9.60E-06	-	no
Hexavalent Cr (assume 1/7 Cr)		2.583E-08	-	no	1.37E-06	1.30E-03	no
Lead	2	9.04E-07	-	no	4.80E-05	5.40E+00	no
Mercury	1.26	5.695E-07	4.00E-03	no	3.02E-05	5.60E-01	no
Nickel	60.9	2.753E-05	1.30E-02	no	1.46E-03	7.30E-01	no
Selenium	50.4	2.278E-05	-	no	1.21E-03	7.70E+02	no
Silver	0.1	4.52E-08	-	no	2.40E-06	-	no
Thallium	684	0.0003092	-	no	1.64E-02	-	no
Vanadium	17.1	7.729E-06	6.60E-02	no	4.10E-04	-	no
Cobalt	4.3	1.944E-06	-	no	1.03E-04	-	no
Copper	4.46	2.016E-06	2.20E-01	no	1.07E-04	9.30E+01	no
Zinc	11.4	5.153E-06	-	no	2.74E-04	1.40E+03	no
Molybdenum	21.9	9.899E-06	-	no	5.26E-04	-	no
Fluoride	117	5.288E-05	5.30E-01	no	2.81E-03	5.00E+02	no

Toxic Air Contaminant Emissions from Coke

Maximum hourly emissions of TACs were calculated based on the capacity of the conveyor (400 ton material/hr). As seen above, at 400 tons of material per hour, 0.452 lb PM10 per hour is emitted. Annual emissions were based on 27 ton/hour of coke. Assuming the composition of PM10 is similar to the composition of the coke, the emissions of TACs are seen below.

TAC	concentration (ppm)	Emissions (lb/hr)	Acute Trigger level (lb/hr)	Risk Screen Triggered?	Emissions (lb/yr)	Chronic Trigger level (lb/hr)	Risk Screen Triggered?
Arsenic	3.5	0.000001582	4.20E-04	no	6.30E-05	1.20E-02	no
Barium	83.1	3.75612E-05	-	no	1.50E-03	-	no
Beryllium	5.6	2.5312E-06	-	no	1.01E-04	8.00E-02	no
Cadmium	0.5	0.000000226	-	no	9.00E-06	4.50E-02	no
Chromium	9.5	0.000004294	-	no	1.71E-04	-	no
Hexavalent Cr (assume 1/7 Cr)		6.13429E-07	-	no	2.44E-05	1.30E-03	no
Nickel	2700	0.0012204	1.30E-02	no	4.86E-02	7.30E-01	no
Lead	2.5	0.00000113	-	no	4.50E-05	5.40E+00	no
Zinc	24.5	0.000011074	-	no	4.41E-04	1.40E+03	no

**VI. BEST AVAILABLE CONTROL TECHNOLOGY**

Per Regulation 2-2-301.1, S-100 does not trigger BACT because emissions are not in excess of 10.0 pound per highest day.

**VII. NSPS**

The coal preparation and handling sources at this facility are subject to 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants. Section 60.252(c) requires that on and after the sixtieth day after achieving maximum production, but not later than 180 days after initial startup, the owner/operator may not cause any gases to be discharged greater than 20 percent opacity from S-100.

Per Section 60.8, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the owner/operator shall conduct performance tests. The owner/operator shall provide the Administrator of EPA at least 30 days prior notice of any performance test to afford the Administrator the opportunity to have an observer present. Per Section 60.254(b)(2), Method 9 and the procedures in Section 60.11 shall be used to determine opacity to determine compliance with Section 60.252(c).

**VIII. STATEMENT OF COMPLIANCE**

The owner/operator of S-100 is subject and expected to comply with Regulation 6: Particulate Matter. The owner/operator is not expected to allow S-100 to emit any visible emission of three minutes per hour at Ringelmann 1 (Regulation 6-301) or results in fallout on adjacent property in such quantities as to cause public nuisance per Regulation 6-301 and Regulation 1-301.

The project is considered to be ministerial under the District's CEQA regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emissions factors and therefore is not discretionary as defined by CEQA. (Permit Handbook Chapter 11.7)

This project will not to operate within 1,000 ft from the nearest school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

Pursuant to Regulation 2-2-304, this project is not subject to PSD review because this is not a major modification resulting in an increase of 15 tons per year of PM10.

S-100 is subject to and expected to comply with NSPS 40 CFR 60 Subpart Y. The owner operator is not expected to emit any PM emissions greater than 20 percent opacity from S-100.

BACT, NESHAPS are not triggered.

## **CONDITIONS**

Condition #23942

S-100 Precalciner Fuel Handling System abated by A-100 Water Sprays

1. The owner/operator shall not discharge an air contaminant into the atmosphere for a period or periods aggregating more than 3 minutes in any hour, which is as dark or darker than a Ringelmann 1.0. (basis: Regulation 6-301)
2. The owner/operator shall abate S-100 with A-100 water sprays when material is loaded into the hoppers at this source. (basis: Cumulative Increase)
3. All control equipment shall be maintained and kept in good operating condition at all times. (basis: Cumulative Increase)
4. The owner/operator shall maintain records of monthly throughput at S-100 for the following materials in a District approved log:
  - a. Coal
  - b. Coke
  - c. Raw Material Additives

The owner/operator shall keep this log on site for at least five years from the date of entry and make it available to District staff upon request. (basis: Cumulative Increase)

## **IX. RECOMMENDATION**

Issue a conditional Authority to Construct to Lehigh Southwest Cement for the following equipment:

**S-100 Precalciner Kiln Fuel Handling System abated by A-100 Water Sprays**

**A-100 Water Sprays at Hopper loading abate S-100 Precalciner Kiln Fuel Handling System**

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Kathleen Truesdell  
Air Quality Engineer I

**Hanson Permanente Cement, Plant #17  
24001 Stevens Creek Blvd, Cupertino 94566  
Application 15398**

**BACKGROUND**

Hanson Permanente Cement (HPC) has submitted this application for a change in permit condition the following sources:

**S-173 Kiln Coke System abated by A-175 Dust Collector  
S-174 Precalciner Coke System abated by A-174 Dust Collector**

HPC is applying to modify condition 603 part 2 to increase its allowable coke usage from 8 tons per hour to 20 tons per hour. The coke is used as fuel for the S-154 Precalciner Kiln for cement clinker production.

**EMISSIONS SUMMARY**

The criteria pollutant emissions should not increase since the coke and coal have similar emission factors. Permit condition #2786 limits the SO<sub>2</sub> emission from the pre-calciner kiln (S-154) to 481 lb/hr and condition #11780 limits the NO<sub>x</sub> emission from S-154 to 1158 lb/hr. HPC monitors these emissions with continuous emission monitors.

**PLANT CUMULATIVE INCREASE (Post 4/5/91):**

The Databank shows the following cumulative increase for this plant.

	tons/year		
	current	new	total
POC	0	0	0
NO <sub>x</sub>	0	0	0
SO <sub>x</sub>	0.029	0	0.029
CO	0	0	0
NPOC	0	0	0
PM <sub>10</sub>	0.012	0	0.012

**TOXIC RISK SCREENING ANALYSIS**

S-154's petroleum coke combustion emission may contain additional toxic metals as described in the 4/23/07 Toxic Risk Screen Memo. If 100% of the chromium emission is in the form of hexavalent chromium, the cancer risk is 1.2 in a million. As long as the hexavalent chromium emission is limited to 2.84E-05 lb/hr or if the hexavalent chromium content of the petroleum coke is less than 76.6% of the total chromium, the risk would be less than 1 in a million. The chronic hazard index is less than 0.01.

Hanson has submitted a 2001 emission test report for its kiln using petroleum coke. The test results show that the hexavalent chromium only makes up 12% of the total chromium. However, per the attached 6/11/1999 "Total and Hexavalent Chromium Results" for Plant #3243 (GWF Power Systems),

the percent hexavalent chromium as total chromium may be as high as 70% in combustion in a power plant using petroleum coke. This is still lower than the 76.6% limit that will raise the risk to above 1 in a million for this project. HPC has scheduled an extensive toxics source testing program later this year for NESHAPs compliance purposes. It will also test for the hexavalent chromium content from S-154 at this time.

HPC has accepted a permit condition (#603) to limit the hexavalent chromium emission to 2.84E-5 lb/hr. HPC has one primary supplier, ConocoPhillips out of Santa Maria. Within the first 6 months of the issuance of this permit condition change, HPC will perform monthly testing of the coke supply six times to verify the range of chromium content in the coke. Thereafter, it will test for the chromium content quarterly.

### **BACT ANALYSIS**

Since the criteria pollutant emission does not increase, per Regulation 2-2-301.1, this source does not trigger BACT.

### **OFFSET ANALYSIS**

HPC does not have any existing POC or NOx cumulative increase and no new increase as a result of this project. Per Regulation 2-2-303, since the Post 4/5/91 PM-10 cumulative increase (0.012 + 0.000 = 0.012 tpy) and SO2 cumulative increase (0.029 + 0.000 = 0.029) are each less than 1.0 tpy, emission offsets are not required.

### **STATEMENT OF COMPLIANCE**

Because S-173 (Kiln Coke System) is abated by A-175 Dust Collector, S-174 (Preheater System) is abated by A-174 Dust Collector, and S-154 (Preheater Kiln) is abated by Dust Collectors A-141 and A-142 and by Baghouses A-171 and A-172, they are expected to comply with the requirements of Regulations 6-301 (Ringelmann No. 1 limitation) and 6-302 (Opacity).

This project is considered to be exempt from CEQA (California Environmental Quality Act) review because it has no potential for causing a significant adverse environmental impact per Regulation 2-1-312.11.4. It satisfies the "no net emission increase" provisions of District Regulation 2, Rule 2. Permit Condition 603 will limit the hexavalent chromium emission to 2.84e-5 lb/hr so that the project cancer risk will be less than 1.0 in a million. The chronic cancer risk is less than 0.01, much lower than the 0.20 threshold of Reg 2-1-312.11.4. With the higher coke usage, it will be more economical for HPC to bring in the coke via railroad trains rather than trucks, thereby reducing the truck diesel emission. Applicant has submitted a CEQA Environmental Information Form for the project. No potential significant impacts were identified.

This project is over 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg 2-1-412.

BACT, PSD, NSPS, and NESHAPS are not triggered in this project.

**CONDITIONS**

**COND# 603**

For S-173 Kiln Coke System and S-174 Precalciner Coke System

1. The pneumatic system from trucks to storage shall not be operated unless it is vented to a dust collection system. The S-173 Kiln Coke System shall be abated by A-175 Dust Collector and the S-174 Precalciner Coke System shall be abated by the A-174 Dust Collector. (Basis: Regulation 2-2-212 Cumulative Increase)
2. The owner/operator of S-173 and S-174 shall not use more than a total of eight (8) twenty (20) tons per hour of petroleum coke combined in the Pre-calciner and Kiln. (Basis: Regulation 2-2-212 Cumulative Increase).
3. The emissions of lead while coke is used shall not exceed 3.2 lbs/day. (Basis: Regulation 2-2-306 Non-Criteria Pollutant Analysis, PSD)
4. The emissions of beryllium while coke is used shall not exceed 0.04 lbs/day. (Basis: Regulation 2-2-306 Non-Criteria Pollutant Analysis, PSD)
5. The emission of hexavalent chromium while coke is used shall not exceed 0.0000284 (2.84E-5) lbs/hr. (Basis: Non-Criteria Pollutant Analysis, Toxics)
65. Each shipment of coke shall be sampled for sulfur and trace metal content. The results of this composite analysis shall be submitted to the District once each quarter. (Basis: Regulation 2-1-403).
7. For the first 6 months from issuance of Application #15398, the chromium content shall be sampled each month to verify the range of hexavalent chromium and chromium content in the petroleum coke. (Basis: Toxics)
8. The owner/operator shall test for the hexavalent chromium and total chromium emission as part of its NESHAPS compliance program (Basis: Toxics)

**RECOMMENDATION**

Issue a Change in Permit Condition for the following equipment:

**S-173 Kiln Coke System abated by A-175 Dust Collector**  
**S-174 Precalciner Coke System abated by A-174 Dust Collector**

HPC will submit a separate application to modify its Title V permit to reflect this condition change.

By: \_\_\_\_\_

5-11/07  
**Eric Y. W. Chan**  
**Air Quality Engineer II**  
**Date**



**Hanson Permanente Cement, Plant #17  
24001 Stevens Creek Blvd, Cupertino 94566  
Application # 15572**

**BACKGROUND**

Hanson Permanente Cement (HPC) has submitted this application for a Permit to Operate for the following sources that make up its non-metallic rock crushing facility:

- S-202 Symmons 7' Cone Crusher (9-CR-13) abated by Torit Shaking Baghouse Filter A-4502**  
(This is an existing source with new baghouse)
- S-601 Rock Hopper (9-DH-1) abated by Water Spray A-4501**
- S-602 Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2)**  
**abated by Torit Shaking Baghouse Filters A-4502, A-4503, A-4504**
- S-603 Vibrating Grizzly (9-VG-1) abated by Torit Shaking Baghouse Filter A-4503**  
(S-601, 602, and 603 are existing sources that have operated at the site since prior to 1972, but for some reason were not listed as sources when the plant was first permitted. Back fees have been charged for these grandfathered sources)
- S-604 Vibrating Screen (9-VS-2) abated by Torit Shaking Baghouse Filter A-4502**  
(This is the existing source S-203 relocated from another part of the plant – HPC has requested a new source number for it)
- S-605 Jaw Crusher (9-CR-1) abated by Torit Shaking Baghouse Filter A-4503**  
(This will replace the existing S-201)

HPC is relocating the non-metallic rock crushing facility to another area within its plant boundaries. HPC will replace the existing S-201 with a new jaw crusher (S-605) and relocate the existing S-202 cone crusher. While planning for the relocation of its rock crushing facility, HPC discovered that it had three additional sources (S-601, S-602 and S-603) in need of a permit. These sources have been in operation prior to 1972 and will be treated as grandfathered sources.

HPC will also relocate another existing source, S-203 (vibrating screen) from its mineral aggregate processing facility to the non-metallic rock crushing facility. HPC has requested that the source number for S-203 be changed to S-604.

This project is not part of the quarry relocation project. That project is undergoing an Environmental Impact Report being prepared by the County of Santa Clara.

**EMISSIONS SUMMARY**

Two sets of calculations are presented. The first set uses the AP42 Chapter 11-19 emission factors. The second uses the grain-loading limit for the baghouse filters.

AP-42 factors: Based on maximum equipment throughput and 24 hr/day, 365 day/yr operation, and AP-42 Table 11-19-2-2 emission factors for Crushed Stone Processing Operations. Use 99.5% PM-10 removal efficiency per filter manufacturer and assume 70% abatement efficiency for water spray A-4501. Per note “n” in Table 11-19-2-2, use the tertiary crusher emission factor as the upper limit emission for S-605 and S-202, although it is expected that the larger particles at the primary and secondary crushers will result in less PM-10 emissions.

Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
24001 Stevens Creek Boulevard Cupertino, CA 95014

Source #	Source	emiss. fac. lb/ton	Throughput t Tph	Abatement t	Controlled lb/day	Controlled tpy
202	Secondary Crusher (moved)	0.0024	1135	0.005	0.33	0.060
601	Hopper (unpermitted)	0.000016	1800	0.3	0.21	0.038
602	Conveyors (4) (unpermitted)	0.0044	1800	0.005	0.95	0.173
603	Vibrating Grizzly (unpermitted)	0.0087	1800	0.005	1.88	0.343
604	Vibrating Screens (was S-203)	0.0087	1800	0.005	1.88	0.343
605	Primary Crusher (new)	0.0024	1135	0.005	0.33	0.060
Total					5.57	1.017

Grain-loading limit: Based on maximum grain-loading factor per permit condition

grain loading: 0.0013gr/dscf

Abatement Device	Sources abated	cfm	lb/hr	lb/day PM10	TPY PM10
4501	601 (Hopper)	Water Spray	0.009	0.21	0.038
4502	202 (Sec Crusher), 602 (Conveyors), 604 (Screens)	10000	0.11	2.67	0.488
4503	605 (Pri Crusher), 602 (Conveyors), 603 (Grizzly)	9000	0.10	2.41	0.439
4504	602 (Conveyors)	1500	0.02	0.40	0.073
	total from A-4501, A-4502, 4503, 4504			5.69	1.038

There is a not much difference in emissions calculated between the two methods. Since the grain loading from the baghouse filters can be measured and has greater accuracy, it is the method that will be used to estimate the emissions in this application.

Emission factors based on throughput are required to complete the District's data forms. To back calculate the emission factors prior to abatement for S-202, S-602, S-603, S-604, and S-605 assume the emissions from S-602 is spread out evenly among each baghouse filter and use the ratios from expected emissions from the first table. (For S-605, use the AP42 Table 11-19-2-2 factor for hopper S-601, which is abated by water spray A-4501).

Source #	PM10 tpy	PM10 lb/day	EmFac lb/ton
202	0.063	0.35	0.003
601	0.038	0.21	4.8 E-6
602	0.190	1.04	0.005
603	0.327	1.79	0.008
604	0.364	1.99	0.009
605	0.057	0.31	0.002
Total	1.038	5.69	

Only S-201 will be replaced in this application. The S-201 primary crusher will be replaced with a new one (S-605). Per the attached Databank emission calculations and Title V application tables, neither S-

201 nor S-202 had abatement devices. The latest Databank emission calculation (effective 12/31/04) is 5.5 lb/day for either S-201 or S-202 with a throughput of 3,741,990 tons per year, or 427 ton per hour. Since the relocated S-202 and the new replaced crusher S-605 will be abated with new efficient filters (A-4502, and A-4503) that can remove 99.5% or more of PM-10 from these sources, there will be a net decrease in PM10 emissions due to this application.

The existing S-202 crusher is currently not abated. The existing un-permitted S-601, 602, and 603 are currently abated by water spray A-4501. Once relocated, the S-202 crusher will be abated by a new baghouse filter (A-4502). The S-601 rock hopper will continue to be abated by A-4501 water spray. Sources S-602 and S-603 will be abated by new baghouse filters (A-4502, and A-4503) with at least 99.5% PM10 removal efficiency, so their emission will also decrease.

The existing S-203 (to be renumbered as S-604), is currently abated by a dust collector. Once relocated, its old dust collector will also be replaced abated by a new baghouse filter (A-4504) with at least 99.5% PM10 removal efficiency. Its emissions should not increase because of the higher control efficiency baghouse.

There will not be any net emission increase due to this permit application. The emission increase from the new source S-605 will be fully offset by the onsite emission reduction credit from the shutdown of the old source S-201. The emission reduction calculation is shown under the Offset Analysis section below.

#### **PLANT CUMULATIVE INCREASE (Post 4/5/91):**

The new S-605 (1135 tph) has a smaller capacity than source S-201, the existing one (1500 tph). The existing S-201 is not abated by a baghouse. The new crusher, S-605, is abated by a baghouse filter, A-4503. There is a net emission reduction of 10,196 lbs PM10/yr from replacing the old crusher (S-201) with the new crusher (S-605).

Source S-202 has been unabated and will now be abated with a baghouse filter, A-4502. S-601 will continue to be abated by water spray. S-602 and 603 will be abated by baghouse filters instead of water sprays, which will decrease their emissions. S-604 will continue to be abated by a baghouse filter, and the new baghouse filter will be more efficient than the old one. (Since sources S-601, S-602 and S-603 are grandfathered, they are not subject to the cumulative increase.)

#### **TOXIC RISK SCREENING ANALYSIS**

A toxic risk screen is not required for this project per Regulation 2-5 because: (1) there are no toxic emission increases from S-202, S-604 and S-605 and (2) Sources S-601, S-602 and S-603 are grandfathered sources that continue to operate without any changes of toxic emissions.

#### **BACT ANALYSIS**

Per Regulation 2-2-301.1, S-605 does not trigger BACT because, even if operated for 24 hours per day, it would emit less than 10.0 pound per day.

The other sources (S-202, S-601, S-602, S-603 and S-604) are not subject to BACT because they are not new or modified.

### **OFFSET ANALYSIS**

The emissions from the new source S-605 replacing S-201 need to be offset since it is a new source. The emission reduction credit comes from the shutdown of S-201 using a 3-year baseline from the throughput information provided to the District along with EPA AP-42 emission factors.

#### **Contemporaneous Emission Reduction Credits:**

<u>S-201</u>	2007 rock throughput	1,423,851 tons/yr
	2006 rock throughput	4,255,779 tons/yr
	2005 rock throughput	<u>7,208,113 tons/yr</u>
Average		4,295,914 tons/yr

Annual emissions = 4,295,914 tons/yr X 0.0024 lb PM10/ton = 10,310 lb PM10/yr

#### **Net Emission Decreases**

Net emission decreases are the emissions from the new source minus any onsite contemporaneous emission reduction credits.

$$114 \text{ lb PM10/yr} - 10,310 \text{ lb PM10/yr} = -10,196 \text{ lb PM10/yr}$$

Offsets are not required for PM10 emissions per Regulation 2, Rule 2-303 because there is an emission reduction in this application.

### **STATEMENT OF COMPLIANCE**

Because the sources at the non-metallic rock crushing facility (S-202, S-601, S-602, S-603, S-604 and S-605) are abated by baghouse filters or water spray, they are expected to comply with the requirements of Regulations 6-301 (Ringelmann No. 1 limitation) and 6-302 (Opacity). Regulation 10 incorporates Federal New Source Performance Standards (NSPS) by reference. One of these standards applies to this project:

Nonmetallic Mineral Processing Plants - 40 CFR, Part 60 Subpart OOO: the opacity limits, which are usually met with water spray or other abatement, and delineates requirements for visual inspection, recordkeeping, and reporting. The opacity limit of 15% for crushers S-202 and S-605 should be easily met through the use of the A-4502 and A-4503 baghouse filter abatement systems.

This project is considered to be ministerial under the District's CEQA Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors and therefore is not discretionary as defined by CEQA (Permit Handbook chapter 11.7).

This project is over 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg 2-1-412.

BACT, PSD, and NESHAPS are not triggered for this project.

**CONDITION # 23896**

**For:**

**S-202 Symmons 7' Cone Crusher (9-CR-13) abated by Torit Shaking Baghouse Filter A-4502**

**S-601 Rock Hopper (9-DH-1) abated by Water Spray A-4501**

**S-602 Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2)**

**abated by Torit Shaking Baghouse Filters A-4502, A-4503, A-4504**

**S-603 Vibrating Grizzly (9-VG-1) abated by Torit Shaking Baghouse Filter A-4503**

**S-604 Vibrating Screen (9-VS-2) abated by Torit Shaking Baghouse Filter A-4502**

**S-605 Jaw Crusher (9-CR-1) abated by Torit Shaking Baghouse Filter A-4503**

1. The owner/operator shall abate each of these sources with their respective abatement devices as listed above. (Basis: Regulation 2-2-212 Cumulative Increase)
2. Visible particulate matter emissions from these sources shall not exceed Ringelmann 1.0 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: Cumulative Increase, Regulation 6, Regulation 1-301)
3. The outlet grain loading for A-4503 Baghouse shall not exceed 0.0013 grain/dscf. (Basis: Cumulative Increase)
4. The owner/operator of these sources shall maintain daily records, in a District approved log, for the total throughput of ground material and hours of operation. These records shall be retained for a period of at least five years from date of first entry. This log shall be kept on site and made available to the District's staff upon request. (Basis: Cumulative Increase)
5. A-4502, A-4503, and A-4504 shall each be equipped with a District-approved broken bag detection device, equivalent to a Triboflow leak detector, which shall include an alarm that is triggered when the device signals the current has exceeded the allowable limit established in Part #8. If the alarm is triggered, the owner/operator shall perform a Method 22 test within one hour of the alarm. Except for a 20-minute period after equipment startup and shutdown, if emissions are observed per Method 22, then the owner/operator shall record the event as an exceedance in a District-approved log. Any exceedance shall also be reported to the Director of Compliance and Enforcement in accordance with the requirements in Standard Condition I.F. (NESHAPS, Regulation 2-6-501, BAAQMD MOP Volume II, Part 3, §4.7)
6. The owner/operator shall keep the exceedance records for at least 5 years and shall make the records available to District staff upon request. (Regulation 2-6-501)
7. To demonstrate compliance with the emission limit in Part #3, the owner/operator shall perform a PM10 source test using CARB Method 501, USEPA Method 201/201A, or District approved equivalent at A-4503 within 45 days of startup of the source. The results shall be delivered to the District no later than 30 days from the date of the test. (basis: Regulation 2-1-403)

8. Within 45 days of startup of these sources, the owner/operator shall determine the maximum allowable current for each baghouse filter (A-4502, A-4503, and A-4504) for broken bag detection. The owner/operator shall report the limit to the District for inclusion of the limit into this permit condition. During this time period, Method 22 tests shall be performed at each baghouse daily to ensure that they are operating properly. (basis: NESHAPS, Regulation 2-6-501, BAAQMD MOP Volume II, Part 3, §4.7)

**RECOMMENDATION**

Issue a conditional Authority to Construct for the following equipment:

- S-202 Symmons 7' Cone Crusher (9-CR-13) abated by Torit Shaking Baghouse Filter A-4502**
- S-602 Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2)  
abated by Torit Shaking Baghouse Filters A-4502, A-4503, A-4504**
- S-603 Vibrating Grizzly (9-VG-1) abated by Torit Shaking Baghouse Filter A-4503**
- S-604 Vibrating Screen (9-VS-2) abated by Torit Shaking Baghouse Filter A-4502**
- S-605 Jaw Crusher (9-CR-1) abated by Torit Shaking Baghouse Filter A-4503**

Issue a conditional Permit to Operate for the following equipment:

- S-601 Rock Hopper (9-DH-1) abated by Water Spray A-4501**

Add these changes into HPC's Title V permit during its next minor revision.  
Renumber S-203 to S-604.

By: \_\_\_\_\_  
**Thu H. Bui**  
**Senior Air Quality Engineer**

\_\_\_\_\_ **Date**

**EVALUATION REPORT  
HANSON PERMANENTE CEMENT  
Application #17534 - Plant #17**

**24001 Steven Creek Blvd.  
Cupertino, CA 95014**

I. BACKGROUND

Hanson Permanente Cement (HPC) has applied for an Authority to Construct/Permit to Operate for the following abatement equipment:

- A-216        Dust Collector 6DC13, GE, 2,400 cfm to abate existing S-216, 6-GM-1 Cake Conveyor (6-BC-13)**
- A-221        Dust Collector 6DC6, GE, 2,400 cfm to abate existing S-221, 6-GM-2 Cake Feeder (6-WF-2)**
- A-242        Dust Collector 6DC11, GE, 2,400 cfm to abate existing S-242, 6-GM-1 Cake Feeder (6-WF-3)**

HPC has replaced its existing A-216, A-221 and A-242 Baghouses that were abating S-216, S-221 and S-242 Cake feeders and conveyor with three new Dust Collectors for better dust collection and safety. These new horizontal pulse jet dust collectors have a specified particulate control efficiency of 99.99% from the manufacturer, and will be larger than the one that they replaced. The existing dust collectors are designed at 1,500 cfm (A-242), 1,325 cfm (A-221), and 875 cfm (A-216). The existing dust collectors are conditioned to meet the outlet grain loading of 0.006 grain/dscf each, while the new ones are designed at 2,400 cfm and 0.0013 grain/dscf each. HPC submitted the manufacturer's warranty of the dust collector emission performance (0.0013 grain/dscf) from GE Energy's letter dated April 14, 2008, and zero visible emission observations. There will not be any increase in throughput. This application will result in emission reduction of PM10 since the new dust collectors are expected to perform better than the old ones. HPC will submit the application for this minor revision to its TV permit at a later time.

II. EMISSION CALCULATIONS

No emission increases due to replacement of the above abatement devices. The following emissions are calculated just for information. Emission factors are based on the applicant proposed outlet grain loading of 0.0013 grain/dscf and 2,400 cfm for each dust collector.

S-216 Existing PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.006 gr/dscf X 1 lb/7000 grain X 875 ft<sup>3</sup>/min X (60 X 24 X 7 X 52) min/yr = 393 lb/yr

S-221 Existing PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.006 gr/dscf X 1 lb/7000 grain X 1,325 ft<sup>3</sup>/min X (60 X 24 X 7 X 52) min/yr = 595 lb/yr

S-242 Existing PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.006 gr/dscf X 1 lb/7000 grain X 1,500 ft<sup>3</sup>/min X (60 X 24 X 7 X 52) min/yr = 674 lb/yr

S-216 or S-221 or S-242 Future PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.0013 gr/dscf X 1 lb/7000 grain X 2,400 ft<sup>3</sup>/min X (60 X 24 X 7 X 52) min/yr = 234 lb/yr

S-216 or S-221 or S-242 Future PM10 Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.0013 gr/dscf X 1 lb/7000 grain X 2,400 ft<sup>3</sup>/min X 60 min/hr  
X 24 hr/day = 0.64 lbs/day

**III. PLANT CUMULATIVE INCREASE SINCE 4/5/91**

No emissions are added to the plant's cumulative increase for this permit application. No new emissions of any pollutant will be generated as a result of replacement of the new dust collectors, A-216, A-221 and A-242.

**IV. TOXIC SCREENING ANALYSIS**

A risk screen is not required for this project because there is no increase in emissions of toxic substances from this application.

**V. BEST AVAILABLE CONTROL TECHNOLOGY**

The replacement of an abatement device does not trigger BACT since there are no PM10 emission increases.

**VI. OFFSETS**

N/A

**VII. STATEMENT OF COMPLIANCE**

Sources S-216, S-221 and S-242 should continue to comply with the requirements of District Regulation 1-301 "Public Nuisance" and District Regulation 6 "Particulate Matter and Visible Emissions". The sources that are abated by the replaced baghouses are conditionally permitted to meet these requirements.

Sources S-216, S-221 and S-242 are expected to continue to comply with NSPS Subpart F, Portland Cement Plants and NESHAP Subpart LLL, National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry.

This project is considered to be categorically exempt from CEQA under Regulation 2-1-312.7 for replacement or reconstruction of existing sources or facilities where the new source or facility will be located on the same site as the source or facility replaced and will have substantially the same purpose and capacity as the source or facility replaced.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

A toxic risk screening analysis is not required.

Offsets, PSD, NSPS, and NESHAPS are not triggered.



## VIII. CONDITIONS

### COND# 4996

#### **For S-216 Clinker Cake Conveyor (6-BC-13), S-217 Clinker Cake Conveyor (6-BC-15), S-221 Clinker Cake Feeder (6-WF-2), S-231 Clinker Cake Storage Silo (6-SS-2), S-242 Clinker Cake Feeder (6-WF-3)**

1. Visible particulate emissions from each source (S-216, S-217, S-221, S-231, S-242) shall not exceed Ringelmann 1.0 for more than 3 minutes in any hour, or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: Regulation 6, Regulation 1-301)
2. All of the particulate emissions emitted from the handling of cement for the sources identified in Part #1 shall flow under negative pressure to a Baghouse, (A-216 (6-DC-13), A-217 (6-DC-15), A-221 (6-DC-6), A-231 (6-DC-3), A-242 (6-DC-11), respectively). Each Baghouse shall be equipped with a District approved manometer for measuring the pressure drop across the Baghouse. (Basis: Regulation 2-2-212 Cumulative Increase)
3. The outlet grain loading for each Baghouse shall not exceed 0.0013 grain/dscf. (Basis: Cumulative Increase)
4. To demonstrate compliance with the emission limit in Part #3, the owner/operator shall perform a PM10 source test using CARB Method 501, USEPA Method 201/201A, or District approved equivalent at one of these abatement devices (A-216, A-221, or A-242), within 45 days of receiving the condition change for these sources. If the test result shows a failure to meet the limit in Part #3, then source tests shall also be performed on the other two abatement devices. The results shall be delivered to the District no later than 30 days from the date of the test. (basis: Regulation 2-1-403)
5. The owner/operator shall maintain daily records of the hours of operation and of the pressure drop across each baghouse, in a District approved log. This log shall be retained for a period of at least five years from date of first entry. This log shall be kept on site and made available to the District's staff upon request. (Basis: Cumulative Increase)

## IX. RECOMMENDATION

Issue a conditional change to the Permit to Operate to Hanson Permanente Cement for the following abatement devices:

**A-216 Dust Collector 6DC13, GE, 2,400 cfm to abate existing S-216, 6-GM-1 Cake Conveyor (6-BC-13)**

**A-221 Dust Collector 6DC6, GE, 2,400 cfm to abate existing S-221, 6-GM-2 Cake Feeder (6-WF-2)**

**A-242 Dust Collector 6DC11, GE, 2,400 cfm to abate existing S-242, 6-GM-1 Cake Feeder (6-WF-3)**

*Thu H. Bui*

*Air Quality Engineer II*

*Permit Services Division*

*Date: \_\_\_\_\_*

THB:disk-h\Hanson\17534\17534e\4/28/08

**EVALUATION REPORT**  
**Lehigh Southwest Cement Company**  
 Application #18535- Plant #17

24001 Stevens Creek Blvd.  
 Cupertino, CA 95014

**I. BACKGROUND**

Lehigh Southwest Cement Company has applied for a change in permit condition for the following equipment:

- S-154 Pre-Calciner Kiln abated by A-141 and A-142 baghouses**
- S-171 Kiln Mill System abated by A-171, Baghouse, Pulse Jet Dust Collector 5-DC-5**
- S-172 Pre-Calciner Mill abated by A-172, Baghouse, Pulse Jet Dust Collector 5-DC-6**

Lehigh is applying to modify Condition # 603, Part 5 that understated the hexavalent chromium emissions by limiting it to 2.84 E-5 lb/hr under Application # 15398. The application allowed a coke usage increase from 8 ton/hr to 20 ton/hr. Based on the District's toxic risk screen results, 2.84 E-5 lb/hr of hexavalent chromium was the incremental increase of 1 in a million cancer risk, not the total hexavalent chromium emissions.

Lehigh currently has data from two (2) source tests on toxic metals. The first one was performed by Delta Air Quality Services to establish the baseline emissions for toxic metals on April 4, 2001. Lehigh used 0.6 ton/hr of coke and 24.7 ton/hr of coal as fuel during the first test. After increasing the coke usage in May 2007, the Avogadro Group performed the second source test for metals in December 10, 2007 for Lehigh at the maximum 21.5 ton/hr of coke and no coal as fuel.

In the 2001 source test, Delta Air Quality Services originally miscalculated the average of the hexavalent chromium emissions. The corrected values should be 5.22 E-5 lb/hr when the mill is on and 3.99E-5 lb/hr when the mill is off as reported on the attached letter dated April 3, 2008. Assuming the raw mill is on 70% and the raw mill is off 30% of the time, the corrected hexavalent chromium baseline (before switching to coke as the total fuel) emission should be 4.85E-5 lb/hr.

At this time, the District is re-running the toxic risk screen analysis to correct the hexavalent chromium emission limit. Permit Condition 603 will limit the hexavalent chromium emission to a threshold level, so the project cancer incremental risk will be less than 1.0 in a million and the chronic hazard index is less than 0.20 to qualify for CEQA's categorical exemption of Regulation 2-1-312.11.4. Table I below shows an example of total emissions of hexavalent chromium at 1.0 in a million cancer risk.

**Table I**

Toxic Air Contaminants	2001 Baseline Emissions lbs/hr (lbs/yr)	Allowable Emission Increases (lbs/yr)	Total Emissions lbs/hr (lbs/yr)	Determinant Risk Value
Hexavalent Chromium	5.22E-5 (0.457)	0.602 @ 1 in a million	1.21E-4 (1.059)	1.0 in a million cancer

Permit Condition 603 will limit the hexavalent chromium emission to 2.90E-3 lbs/day (1.21E-4 lbs/hr x 24 hrs/day) so the project cancer incremental risk will be less than one equal to 1.0 in a million. See attached toxic risk screening analysis results dated November 20, 2008.

The District is currently evaluating the benzene emission at S-154, which is one of the main driving components for chronic cancer risk. Benzene emission is associated with raw feed materials' compositions. Although the benzene emission is not expected to increase due to coal

to coke fuel switching in this application, the District required Lehigh to perform the benzene analysis on a monthly basis for one year to establish the long-term emissions for AB-2588. Condition #603, Part 9 was added to impose the benzene source test requirement until AB-2588 is satisfied.

The District will also compare the 2007 emissions with the 2001 baseline emissions to make sure the non-criteria pollutants did not trigger the PSD analysis as required in Regulation 2-2-306. Table II below lists the non-criteria pollutants and compares the emission increase versus the trigger level for PSD analysis. The N/A (not applicable) indicates that the pollutant is not present at the source.

(i) *Table II*

Pollutant	Baseline 2001 Emissions lbs/day	2007 Emissions lbs/day	Increment 2007-2001 Emissions lbs/day	Trigger Incremental levels ton/yr (lbs/day)
Lead	8.68E-3	3.08E-3	no increase	0.6 (3.2)
Asbestos	N/A	N/A	N/A	0.007 (0.04)
Beryllium	5.84E-4	1.43E-3	0.000753	0.0004 (0.002)
Mercury	4.08	0.76	no increase	0.1 (0.5)
Fluorides	N/A	N/A	N/A	3 (16)
Sulfuric Acid Mist	N/A	N/A	N/A	7 (38)
Hydrogen Sulfide	N/A	N/A	N/A	10 (55)
Total Reduced Sulfur	N/A	N/A	N/A	10 (55)
Reduced Sulfur	N/A	N/A	N/A	10 (55)

The District will remove the current permit Condition 603, Parts 3 and 4 that limited lead and beryllium emissions to not exceed 3.2 lbs/day and 0.04 lbs/day, respectively. Again, these were incremental levels that trigger PSD analysis and were inappropriately imposed as total emissions. The District has determined that the project to increase the fuel coke usage from 8 tons/hr to 20 tons/hr did not trigger the non-criteria pollutant PSD analysis per Regulation 2-2-306 as shown on Table II above.

The District will also remove the current permit Condition 603, Part 6 that required a quarterly composition analysis of coke because the new Part 8 replaces Part 6. Condition 603, Part 8 requires an annual source test and reports of metals (Sb, As, Be, Cd, Cr<sup>+6</sup>, total Cr, Cu, Hg, Mn, Ni, P, Pb, Se, V, Zn), benzene, Hydrochloric Acid (HCL) and total hydrocarbon (THC) at least once per calendar year at the kiln's exhaust. This is a more practical and enforceable approach than the quarterly analysis of coke's composition.

The District also proposed that Lehigh install volumetric flow meters on 4 of the 32 pyro-processing exhaust dust collectors and on both of the fuel grinding mills exhaust ducts. The airflow rates are needed to calculate NOx, and SO2 emissions from existing CEM data. Lehigh agreed to the proposal and will submit protocols for installation of these volumetric flow meters upon approval of the District's Source Test Section. Lehigh will install the flow meters within 180 days of the permit issuance or protocol approval.

In addition, the District will clarify the coal and coke burning rates so there will be a limit to how much each of the fuels Lehigh can use. Since Lehigh was limited to 1.6 million tons of clinker production (Condition 2786, Part D), the District did not think the coal fuel rate limit was necessary in the past because the higher heating value of coal (12,500 BTU/lb) and coke (14,500 BTU/lb) are known. Lehigh would like to switch to 100% of coke as fuel, but still requests to have the option of using coal if there is a supply problem with petroleum coke. The daily fuel

input for coke (20 tons/hr) is already limited by permit Condition # 603, Part 2 under Application # 15398. The daily fuel input for coal is limited by the maximum daily production capacity of the facility. The annual fuel input is limited to 1.6 millions tons of clinker production. Calculations of fuel throughputs are shown under Emission Calculations below.

Lehigh has withdrew its request to increase coke usage from 20 ton/hr to 27 ton/hr. Lehigh submitted a written request on October 20, 2008 via email to cancel Application # 16848. The condition change of this application will be incorporated into Lehigh's TV permit renewal under Application # 17947.

## II. EMISSION CALCULATIONS

The criteria pollutant emissions should not increase since this application involves only administrative changes. Lehigh will not increase its current throughput of 1.6 MM tons/yr of clinker. Permit condition #2786 also limits the SO<sub>2</sub> emission from the pre-calciner kiln (S-154) to 481 lb/hr, and condition #11780 limits the NO<sub>x</sub> emission from S-154 to 1,158 lb/hr. Lehigh continues to monitor these emissions with existing continuous emission monitors.

Basis:

Clinker rate = 1,600,000 short ton per year

Clinker heat content = 3.1 MMBtu/ton (Specified on the letter dated October 31, 2008 from Lehigh to EPA regarding PSD applicability analysis)

Heat required = 1,600,000 tons/yr x 3.1 MMBtu/ton = 4,960,000 MMBtu/yr

Coke heat content = 29 MMBtu/ton (Specified on the letter dated October 31, 2008 from Lehigh to EPA regarding PSD applicability analysis)

Coal heat content = 25 MMBtu/ton (Specified on the letter dated October 31, 2008 from Lehigh to EPA regarding PSD applicability analysis)

Estimated annual Coke throughput = 4,960,000 MMBtu/yr / 29 MMBtu/ton = 171,034 ton/yr

Estimated annual Coal throughput = 4,960,000 MMBtu/yr / 25 MMBtu/ton = 198,400 ton/yr

Maximum daily coke allowed = 20 tons/hr x 24 hrs/day = 480 tons/day  
 (existing Condition 603, Part 2)

Maximum daily coal allowed = 29 tons/hr x 24 hrs/day = 696 tons/day  
 (Maximum = 29 tons/hr coal, will be imposed in Condition 603, Part 2)

## III. PLANT CUMULATIVE INCREASE SINCE 4/5/91

The Databank shows the following cumulative increase for this plant.

	<u>Current</u> <u>Ton/yr</u>	<u>New</u> <u>Ton/yr</u>	<u>New Total</u> <u>Lbs/yr</u>	<u>Tons/yr</u>
POC =	0.00	0.00	0.00	0.00
NO <sub>x</sub> =	0.00	0.00	0.00	0.00
SO <sub>2</sub> =	0.00	0.00	0.00	0.00
CO =	0.00	0.00	0.00	0.00
NPOC =	0.00	0.00	0.00	0.00
PM <sub>10</sub> =	0.00	0.00	0.00	0.00

#### IV. TOXIC SCREENING ANALYSIS

A Toxic Risk Screening Analysis is required with this application since the District is re-evaluating the toxic limits for hexavalent chromium, benzene, and mercury. Detailed findings are discussed in the background section above. See the attached toxic memorandum dated November 20, 2008.

#### V. STATEMENT OF COMPLIANCE

Because S-171 (Kiln Coal Mill System) is abated by A-171 Dust Collector, S-172 (Precalciner Coal Mill) is abated by A-172 Dust Collector, and S-154 (Precalciner Kiln) is abated by Dust Collectors A-141 and A-142 and by Baghouses A-171 and A-172, they are expected to comply with the requirements of Regulations 6-301 (Ringelmann No. 1 limitation) and 6-302 (Opacity).

Sources S-171, S-172 are expected to continue to comply with NSPS Subpart Y, Standard Performance for Coal Preparation Plants. S-154 is expected to continue to comply with NESHAP Subpart LLL, National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry.

Best Available Control Technology (BACT) of Regulation 2-2 does not apply to these changes. There is no emission increase for the criteria pollutants.

Lehigh does not have to provide any emission offsets since this project does not have any emission increases per Regulation 2-2-302.

This project is considered to be exempt from CEQA (California Environmental Quality Act) review. It is not subject to CEQA since it is not a new or modified source requiring an Authority to Construct pursuant to Regulation 2-1-310. Also, it satisfies the "no net emission increase" provisions of District Regulation 2, Rule 2. The applicant has submitted a CEQA Environmental Information Form H for the project, and has not identified any potential significant impacts.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

BACT, PSD are not triggered.

#### VI. CONDITIONS

##### **Condition # 603**

**S-154 Calciner Kiln**

**S-171 Kiln Fuel Mill System**

**S-172 Precalciner Fuel Mill System**

**Amended by A/N 15398 and A/N 18535**

Any condition that is preceded by an asterisk is not federally enforceable.

- 1. The Owner/Operator shall not operate the pneumatic system from trucks to storage unless it is vented to a dust collection system. The S-171 Kiln Mill System shall be abated by A-171 Dust Collector, and the S-172 Precalciner Mill shall be abated by the A-172 Dust Collector. (Basis: Regulation 2-2-212 Cumulative Increase)*

2. The owner/operator of S-171 and S-172, shall not exceed the following usage limits in the Pre-calciner and Kiln (S-154):  
Operation with 100 % coal at maximum 29 tons/hr; or  
Operation with 100% Petroleum Coke at maximum 20 tons/hr  
  
The Owner/Operator may use any combination of coal and petroleum coke other than specified above, provided that the owner/operator can demonstrate that the total fuel consumption does not exceed 4,960,000 MMBTU/yr (1,600,000 tons/yr clinker x 3.1 MMBtu/ton).  
For calculation purposes, the coal's heat content is assumed to be 25 MMBTU/ton and coke's heat content is assumed to be 29 MMBTU/ton. The values may change depending on each shipment received.  
(Basis: Cumulative Increase).
3. Deleted, (inappropriate PSD analysis trigger level for lead per Regulation 2-2-306)  
Deleted, (inappropriate PSD analysis trigger level for beryllium per Regulation 2-2-306)
- \*5. The Owner/Operator of S-154 shall not exceed 1.06 pounds of hexavalent chromium per any consecutive 12-month. (Basis: Toxics)
6. Deleted, (Part 8 replaces quarterly composition analysis of coke)
7. The Owner/Operator of S-171 and S-172 shall calibrate, maintain, and operate District-approved continuous volumetric flow meters on 4 of the 32 kiln (S-154) exhaust dust collectors (A-141, A-142) and on the fuel grinding mills exhaust dust collectors (A-171 and A-172) as suggested by the manufacturer's recommendation. [Basis: Regulation 2-6-503]
- \*8. The Owner/Operator of S-154 shall conduct a source test at least once per calendar year to demonstrate subsequent compliance with Part 5. The test should be conducted with the raw mill on and the raw mill off. The Owner/Operator shall also test for trace metals contents (Sb, As, Be, Cd, total Cr, Cr<sup>6+</sup>, Cu, Hg, Mn, Ni, P, Pb, Se, V, Zn), benzene, Hydrochloric Acid (HCL) and total hydrocarbon (THC) at least once per calendar year. The Owner/Operator shall submit the source test results to the District Source Test Section and Engineering Divisions no later than 60 days after the source test. [Basis: Periodic Monitoring, Regulation 1-502]
9. The Owner/Operator shall obtain approval for all source test procedures from the District's Source Test Manager prior to conducting any tests. The Owner/Operator shall comply with all applicable testing requirements for continuous emissions monitors as approved by the District's Source Test Manager. The Owner/Operator shall notify the District's Source Test Manager, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. [Basis: Source test compliance verification and accuracy]
10. The owner/operator shall maintain daily records (calendar day), in a District approved log, for: (1) the amount of coke and coal usage, each separately (2) the coke's heat content and the coal's heat content. The daily throughput of fuel used and daily average volumetric flow rates shall be submitted to the District once each quarter. All records shall be retained for a period of at least five years from the date of entry. This log shall be kept on site and made available to District staff upon request. [Basis: Recordkeeping]

**COND# 11780**  
**For Source 154 Cement Kiln, Plant 17**

The following federally enforceable conditions limit the emissions of nitrogen oxides (NO<sub>x</sub>) from the cement manufacturing facility operated by the owner/operator, Lehigh Southwest Cement Company (previously Hanson Permanente Cement, Inc.) located at 24001 Stevens Creek Boulevard, Cupertino, Cal. 95014, for the purpose of complying with Section 182(f) of the Federal Clean Air Act. These conditions represent reasonably available control technology for this activity.

A) Definitions: (Basis: CAA Section 182(f) – RACT)

1. Breakdowns shall be handled according to provisions established in BAAQMD, Regulation 1, Section 112 and Section 431 through 434. (Basis: RACT)
2. Cement Kiln is a device for the calcining and clinkering of limestone, clay and other raw materials in the manufacture of cement. (Basis: Applicability)
3. Clinker is a mass of fused material produced in a cement kiln from which the finished cement is manufactured by milling and grinding. (Basis: Applicability)
4. Start-up is that period of time during which a cement kiln is heated to operating temperature from a lower temperature not to exceed 36 hours. (Basis: RACT)
5. Short ton is equivalent to 2000 pounds. (Basis: Compliance Verification Component)
6. Shut-down is that period of time during which a cement kiln is allowed to cool from operating temperature to a lower temperature not to exceed 36 hours. (Basis: RACT)

B) Production Limits: (Basis: Regulation 2-2-212)

1. The owner/operator shall not process more than 1.6 million short tons per year of clinker. (Basis: Regulation 2-2-212 Cumulative Increase)

C) Emission Limits: (Basis: Regulation 2-2-212)

1. The maximum allowable emission rate for Nitrogen Oxides from all kiln emission points shall not exceed both (i) 1158 lb/hr and (ii) a maximum concentration of 615 ppm (dry basis) without correction for oxygen, both measured as an average over a 2 hour period. (Basis: RACT)
2. The kiln emission points effected include the stacks venting the kiln-mill system (dust collector 4-DC-7 through 4-DC-38), the kiln coal mill exhaust (dust collector 5-DC-5) and the precalciner coal mill exhaust (dust collector 5-DC-6). Basis: RACT)
3. The emission of Nitrogen Oxides into the atmosphere shall not exceed 6.4 lb/ton of clinker as determined on a 24-hour basis and averaged over any 30 consecutive days of operation. (Basis: RACT)

D) Compliance Determination: (Basis: RACT)

1. All emission determinations shall be made in the as-found operating condition, except no compliance determination shall be established during or using periods of start-up, shut-down, or under breakdown conditions. (Basis: RACT)
2. For the purposes of mass emission limits, Nitrogen Oxides (NO<sub>x</sub>) shall be calculated as NO<sub>2</sub> on a dry basis. (Basis: RACT)
3. The following expression shall be used to convert uncorrected observed volume in parts per million of NO<sub>x</sub> to pounds of NO<sub>x</sub> per hour produced at standard conditions of 70 degrees F. and 29.92 inches of mercury: (Basis: RACT)

$$[(\text{PPMvNO}_x)(46\text{lb/lb mole})(263000 \text{ scfm})(60 \text{ min/hr})] / [386 \text{ cf/lb mole} * 1\text{E}6] = \text{lbs NO}_x/\text{hr}$$

Exhaust flow rate was modified to 263,000 scfm on 9/17/97.

This part will be deleted after the flow meters are installed and data are reviewed. The assumed air flow rate is no longer applicable since the actual air flow rate will be measured by the flow meters.

E) Monitoring and Records: (Basis: RACT)

1. The owner/operator shall maintain in good working order and operate an in-stack continuous emission monitoring system (CEMS) to demonstrate compliance with the emission limit in Part C.1. by measuring the emission of nitrogen oxides (NO<sub>x</sub>). The in-stack continuous emission monitoring system shall be located on an emission point of one of the Kiln-Mill baghouses and shall continuously monitor and record NO<sub>x</sub> emissions in a manner approved by the APCO and the EPA Administrator whenever the kiln is operating as defined in Part (d)(1) above. (Basis: Cumulative Increase)
2. The owner/operator shall maintain daily records of clinker production and heat input including the type of fuel burned and the quantity of fuel burned expressed as millions of BTU per ton of clinker. The amount of clinker produced shall be totaled so that the limit in Part B is not exceeded. (Basis: RACT)
3. The owner/operator shall maintain hourly continuous emission monitoring records for the monitoring system in a form suitable for inspection and approved by the APCO and the EPA administrator. Such records shall include, but are not limited to: (Basis: RACT)
  - (i) The continuous emission monitoring measurements for NO<sub>x</sub> expressed in ppm;
  - (ii) The date, time, and duration of any start-up, shutdown or malfunction in the operation of any of the kiln systems or the emission monitoring equipment; and,
  - (iii) The results of performance testing, evaluation, calibration, checks, adjustments, and maintenance of the continuous emission monitoring system.
4. The CEMS records as well as records of clinker production and heat input shall be maintained at the facility for five years and shall be available to the APCO or the EPA Administrator upon request. (Basis: Cumulative Increase)



F) Manual of Procedures

1. Determination of Nitrogen Oxides: The methods by which samples of exhaust gases are collected and analyzed to determine concentrations of nitrogen oxides are set forth in the District Manual of Procedures, Volume IV, ST-13A or 13B. EPA Method 7E may also be used to determine compliance. A source shall be considered in violation if the emissions measured by any of the referenced test methods exceed the standards of this rule. (Basis: Manual of Procedures, Volume IV)
2. The CEMS must meet the requirements of District Manual of Procedures, Volume V, Continuous Emission Monitoring, Policy and Procedures. (Basis: Regulation 1-522, 1-602; Manual of Procedures, Volume V)

**VII. RECOMMENDATION**

Issue a change in Permit Condition for the following equipment:

**S-154 Calciner Kiln**

**S-171 Kiln Mill System abated by A-171, Baghouse, Pulse Jet Dust Collector 5-DC-5**

**S-172 Pre-Calciner Mill abated by A-172, Baghouse, Pulse Jet Dust Collector 5-DC-6**

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*Thu H. Bui*  
*Senior Air Quality Engineer*  
*Engineering Division*

*Date:* \_\_\_\_\_

THB:disk-h\Lehigh\16849e\

**EVALUATION REPORT**  
**Lehigh Southwest Cement Company**  
Application #19385- Plant #17

**24001 Stevens Creek Blvd.**  
**Cupertino, CA 95014**

**I. BACKGROUND**

Lehigh Southwest Cement Company has applied for an Authority to Construct/Permit to Operate for the following equipment:

**S-606 Storage Piles Area #1 (coal, coke, bauxite, iron ore), abated by Water Spray A-606**  
**S-607 Storage Piles Area # 2 (aggregates, slag), abated by Water Spray A-607**

Lehigh submitted this application as a result of failing to maintain a minimum 5% moisture content at the storage piles. On November 20, 2008, Lehigh received the Violation Notice # A50005 for two storage piles areas mentioned above.

S-606 the storage piles area #1 (coal, bauxite and iron ore storage piles), located next to the rail unloading section, have been used at Lehigh ever since 1981 when the plant modernized its operation. Lehigh replaced some of the coal with coke materials in the same area after Lehigh received a permit to use up to 8 ton/hr of coke as fuel in 1986. Lehigh has always considered the storage piles as part of its Rail Unloading System Area, S-111, and did not identify it as a separate source for its Title V permit. According to District's Regulation 2-1-115.1.4, these storage piles would be exempt if the storage material is more than or equal to 5% moisture content, by weight.

On October 16, 2008, the District inspector collected five samples from four different storage piles (coal, coke, bauxite, iron ore) at S-606. Four out of five samples showed that the moisture contents are less than 5% by weight. Therefore, S-606 required a permit since Lehigh cannot maintain the stockpile at a minimum of 5% moisture content.

S-607 the stockpile area # 2 (1", 1/4" aggregates and slag) at the entrance's gate is new. These storage piles are exempt if the material has a moisture content more than or equal to 5% by weight. On October 16, 2008, the District inspector collected three samples from three different storage piles (aggregates and slag storage piles). All samples showed that the moisture contents are less than 5% by weight. Therefore, S-607 required a permit since Lehigh cannot maintain the stockpile at a minimum of 5% moisture content.

In the past, Lehigh sprayed the storage piles with water daily using the drive around water trucks. Lehigh has moved the outside materials inside the storage structure as much as possible. However, to maintain operations against inventory and market fluctuations, Lehigh stores two months worth of fuels at the plant. Lehigh has been testing every shipment of petroleum coke that comes into the plant. The moisture results are all higher than 5% by weight. However, over time, the storage piles located outside became drier. Lehigh did not want to over-water the fuel material storage piles for fear that the run off water might flow into the Permanente Creek, and the wet fuels and raw materials may result in use of more energy.

The Authority to Construct/Permit to Operate of this application will be incorporated into Lehigh's TV permit renewal under Application # 17947.

**II. EMISSION CALCULATIONS**

Table I – Summary of Throughput and Area of Stockpiles

Sources	Materials	Annual Throughput (short tons)	Daily Throughput (short tons)	Acres
S-606	Coal	198,400	696	0.2
	Coke	171,034	480	0.5
	Bauxite	60,000	380	0.3
	Iron Ore	50,000	275	0.2
S-607	1" Aggregate	20,000	3,500	0.3
	1/4" Aggregate	200,000	1,000	2
	GBF Slag	20,000	1,440	0.4

S-606 Storage piles Area # 1

*S-606 Emission from drop operation into storage piles*

- Equation for uncontrolled PM10 emissions for Aggregate Handling and Storage Piles used is in AP-42, Section 13.2.4 (dated 1/95)
- Loading of aggregate onto the storage piles and loadout of aggregate for return to the process stream (2 transfer points)

Coal, Coke Bauxite and Iron Ore piles:

$$E = k(0.0032) [U/5]^{1.3} / [M/2]^{1.4} = 0.35 \times 0.0032 [0.41/5]^{1.3} / [0.7/2]^{1.4} = 0.000188 \text{ lb/ton per transfer point}$$

E = particulate emissions 10 microns size

k = particle size multiplier = 0.35

U = mean wind speed = 0.41 mile/hr (Meteorological Assimilation Data Ingest System (MADIS) provided by Lehigh)

M = moisture content = 0.7% (assumed all material have moisture content of crushed limestone (AP-42, Table 13.2.4-1))

Maximum Annual throughput = 479,434 ton/yr x 0.000188 lb/ton x 2 transfer points = 180.3 lb/yr

Maximum Daily throughput = 1,831 ton/day x 0.000188 lb/ton x 2 transfer points x = 0.69 lb PM<sub>10</sub>/highest day

*S-606 Emission from wind erosion of storage piles*

- Emission factors for wind erosion for storage piles at crushing and grinding plants may be taken from AP-42, Fourth Edition, Section 8.19, Table 8.19.1-1. These emission factors include emissions from wind erosion. Assuming the 3.5 lb/acre/day emission is for TSP emissions, the wind blown PM10 emissions would be approximately 50% or:
- PM10 emissions = 1.7 lb/acre/day – BAAQMD Handbook Chapter 11.7
- Water Spray = 70% control efficiency
- S-606 occupies 1.2 acre

Wind Erosion (Coal, Coke Bauxite and Iron Ore Piles)

Annual Emissions = 1.7 lb/acre/day x 1.2 acre x 365 day/yr x (1-0.7) = 223.4 lb/yr PM<sub>10</sub>

Daily Emissions = 1.7 lb/acre/day x 1.2 acre x (1-0.7) = 0.61 lb/day PM<sub>10</sub>

S-607 Storage piles Area # 2

*S-607 Emission from drop operation into storage piles*

- Equation for uncontrolled PM10 emissions for Aggregate Handling and Storage Piles used is in AP-42, Section 13.2.4 (dated 1/95)
- Loading of aggregate onto the storage piles and loadout of aggregate for return to the process stream (2 transfer points)
- The two aggregate limestone piles (1" and ¼") both have a 0.0% silt percentage (< 200 mesh). However, since AP-42's batch drop equation does not include the silt content, the District will assume a higher moisture content of 7% as a correction parameter in estimating the aggregate emissions.
- The Granulated Blast Furnace (GBF) Slag has a silt content of 2.0%

Slag pile:

$E = k(0.0032) [U/5]^{1.3}/[M/2]^{1.4} = 0.35 \times 0.0032 [0.41/5]^{1.3} / [0.7/2]^{1.4} = 0.000188 \text{ lb/ton per transfer point}$

E = particulate emissions 10 microns size

k= particle size multiplier = 0.35

U = mean wind speed = 0.41 mile/hr (Meteorological Assimilation Data Ingest System (MADIS) provided by Lehigh)

M = moisture content = 0.7% (assumed all material have moisture content of crushed limestone (AP-42, Table 13.2.4-1))

Maximum Annual throughput = 20,000 ton/yr x 0.000188 lb/ton x 2 transfer points = 2.26 lb/yr

Maximum Daily throughput = 1,440 ton/day x 0.000188 lb/ton x 2 transfer points x = 0.16 lb PM<sub>10</sub>/highest day

Aggregate piles:

$E = k(0.0032) [U/5]^{1.3}/[M/2]^{1.4} = 0.35 \times 0.0032 [0.41/5]^{1.3} / [7/2]^{1.4} = 7.5E-6 \text{ lb/ton per transfer point}$

E = particulate emissions 10 microns size

k= particle size multiplier = 0.35

U = mean wind speed = 0.41 mile/hr (Meteorological Assimilation Data Ingest System (MADIS) provided by Lehigh)

M = moisture content = 7% (assumed higher moisture content to correct for 0% silt content.)

Maximum Annual throughput = 220,000 ton/yr x 7.5E-6 lb/ton x 2 transfer points = 3.3 lb/yr

Maximum Daily throughput = 4,500 ton/day x 7.5E-6 lb/ton x 2 transfer points x = 0.068 lb PM<sub>10</sub>/highest day

*S-607 Emission from wind erosion of storage piles*

- Emission factors for wind erosion for storage piles at crushing and grinding plants may be taken from AP-42, Fourth Edition, Section 8.19, Table 8.19.1-1. These emission factors include emissions from wind erosion. Assuming the 3.5 lb/acre/day emission is for TSP emissions, the wind blown PM10 emissions would be approximately 50% or:
  - PM10 emissions = 1.7 lb/acre/day – BAAQMD Handbook Chapter 11.7
  - Water Spray = 70% control efficiency
  - S-607 occupies 2.7 acre

Wind Erosion (Slag and Aggregate Piles)

Annual Emissions = 1.7 lb/acre/day x 2.7 acre x 365 day/yr x (1-0.7) = 502.6 lb/yr PM<sub>10</sub>

Daily Emissions = 1.7 lb/acre/day x 2.7 acre x (1-0.7) = 1.38 lb/day PM<sub>10</sub>

**Total Annual Emissions** = 180.3 + 223.4 + 2.26 + 3.3 + 502.6 lbs/yr = 911.9 lbs/yr  
**Total Daily Emissions** = 0.69 + 0.61 + 0.16 + 0.068 + 1.38 lbs/day = 2.9 lbs/day

For emissions from equipment traffic (trucks, front-end loaders, etc.) traveling on paved road between piles, it is recommended that the emissions not be included as part of S-606 and S-607 because emissions are small and already included in the plant's activities. The aggregates and slag piles have very little throughput and activity. The slag is placed there for storage for small slag-cement order and when the aggregate cannot be sold because of poor market conditions.

### III. PLANT CUMULATIVE INCREASE SINCE 4/5/91

The Databank shows the following cumulative increase for this plant.

	<u>Current</u> Ton/yr	<u>New</u> Ton/yr	<u>New Total</u>	
			Lbs/yr	Tons/yr
POC =	0.00	0.00	0.00	0.00
NO <sub>x</sub> =	0.00	0.00	0.00	0.00
SO <sub>2</sub> =	0.00	0.00	0.00	0.00
CO =	0.00	0.00	0.00	0.00
NPOC =	0.00	0.00	0.00	0.00
PM <sub>10</sub> =	0.012	0.456	936	0.468

### IV. TOXIC SCREENING ANALYSIS

A Toxic Risk Screening Analysis is not required with this application since emissions of toxic compounds are below the health risk screening analysis trigger levels in Regulation 2-5, Table 1.

For source S-606, Storage Piles Area #1, the new source review of toxic air contaminants Regulation 2-5 does not apply since the source was constructed prior to January 1, 1987, before the District Rules and Regulations and Risk Management Policy in effect per Regulation 2-5-112.

For source S-607, the following toxic compositions were based on the Comprehensive Emission Inventory Report (CEIR) prepared by AMEC Geomatrix on March 27, 2009 and submitted by Lehigh on the slag pile. The District does not anticipate any toxic emissions from the aggregate piles because of their specific sizing requirements. The District will not perform the toxic analysis at this time for crystalline silica since there is no trigger level and emissions are low, but the whole area source will be included in the analysis for the AB2588 update.

PM10 emissions =	0.067	lb/hr	508	lb/yr	
	Concentration of Compound in Slag	Emission of Compound from Slag	Acute Trigger level	Emission of Compound from Slag	Chronic Trigger Level
Compound	mg/Kg	lb/hr	lb/hr	lb/yr	lb/yr
Antimony	2.5	N/A	N/A	1.27E-03	7.70E+00
Arsenic	1.3	8.72E-08	4.20E-04	6.60E-04	1.20E-02
Beryllium	4.7	N/A	N/A	2.39E-03	8.00E-02
Cadium	1.3	N/A	N/A	6.60E-04	4.50E-02
Copper	2.5	1.68E-07	2.20E-01	1.27E-03	9.30E+01
Lead	1.25	N/A	N/A	6.35E-04	5.40E+00
Mercury	1.1	7.38E-08	4.00E-03	5.59E-04	5.60E-01
Molybdenum	2.5	N/A	N/A	N/A	N/A

PM10 emissions =	0.067	lb/hr	508	lb/yr	
Nickel	3	2.01E-07	1.30E-02	1.52E-03	7.30E-01
Selenium	2.5	N/A	N/A	1.27E-03	7.70E+02
Vanadium	18	1.21E-06	6.60E-02	N/A	N/A
Zinc	25	N/A	N/A	1.27E-02	1.40E+03
Hex Chromium	0.1	N/A	N/A	5.08E-05	1.30E-03
Crystalline Silica	10.2	6.84E-7	N/A	5.18E-3	N/A

**V. BEST AVAILABLE CONTROL TECHNOLOGY**

Sources S-606 and S-607 did not trigger BACT because the PM10 emissions are below 10 pounds per highest day for each source per Regulation 2-2-301.

**VI. OFFSETS**

Offsets are required since the facility's PM10 emissions are more than 100 ton/yr per Regulation 2-2-303. At this time, Lehigh will also provide offsets for Application 15217, which was deferred because the PM10 emission increase was less than 1 ton/yr.

		Ton/yr
		<b>PM10</b>
<b>A/N 19385</b>	S-606, S-607 Stock Piles	0.456
<b>A/N 15217</b>	S-444 Emergency Clinker Conveyor	0.012
<b>Total</b>		0.468

The company used the Certificate of Deposit # 1125 to provide offsets with the ratio of 1:1 for PM10 per Regulation 2-2-303. The original certificate has 1.898 ton of PM10. Thus, the Banking Certificate # 1125 will be reissued to Lehigh in the amount of 1.430\_tons PM10/yr.

**VII. STATEMENT OF COMPLIANCE**

S-606 and S-607 are subject to and expected to comply with the requirements of Regulations 6-1-301 (Ringelmann No. 1 limitation), 6-1-302 (Opacity), and 6-1-311 (General Operations)

Sources S-606 is exempt from NSPS Subpart Y, Coal operation with open storage piles.

Source S-606 is considered to be categorical under the District's CEQA Regulation 2-1-312-4 for existing source pursuant to a loss of a previously valid exemption from the District permitting requirements, and therefore is not subject to CEQA review.

Source S-607 of this application is considered to be ministerial under the District's CEQA Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 11.7.

New Source Performance Standards (NSPS)

S-607 are expected to continue to comply with NSPS Subpart\_OOO for nonmetallic mineral processing, which includes regulations for emissions from operating equipment that was manufactured, modified or reconstructed after August 31, 1983. Processing equipment regulated under Subpart OOO affecting the crushed stone, sand and gravel industry includes crushers, grinding mills, screens, bucket elevators, bagging operations, storage bins, enclosed truck and railcars and transfer points on belt conveyors.

Under Subpart OOO, aggregate facilities are required to conduct performance testing on stationary equipment in accordance with EPA Reference Method 9. Method 9 is a visual emissions test that determines opacity or the percentage of the light that is prevented from passing through a plume or fugitive emission. Individuals performing the opacity readings are required to be trained and certified in accordance with the method. EPA has set specific limits for the aggregates industry based on opacity readings designated to various processing equipment ranging from 7-15 percent (%). Among the requirements of Method 9 is determining the average of twenty-four readings over a six-minute period for a total of one hour for each piece of equipment that falls under the purview of NSPS.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

PSD is not triggered because the increase of PM10 emission is below 15 tons/yr per Regulation 2-2.304.3. Table I below lists the non-criteria pollutants and compares the emission increase versus the trigger level for PSD analysis. The N/A (not applicable) indicates that the pollutant is not present at the source.

(ii) *Table I*

Pollutant	Emission Increases lbs/day	Trigger Incremental levels lbs/day	Emission Increases tons/yr	Trigger Incremental levels ton/yr
Lead	4.89E-6	3.2	8.93E-7	0.6
Asbestos	N/A	0.04	N/A	0.007
Beryllium	7.80E-6	0.002	1.42E-6	0.0004
Mercury	1.56E-6	0.5	2.84E-7	0.1
Fluorides	N/A	16	N/A	3
Sulfuric Acid Mist	N/A	38	N/A	7
Hydrogen Sulfide	N/A	55	N/A	10
Total Reduced Sulfur	N/A	55	N/A	10
Reduced Sulfur	N/A	55	N/A	10

**VI. CONDITIONS**

**Condition # 24274**

**For S-606 Storage Piles Area #1, S-607 Storage Piles Area #2.**

1. The owner/operator shall not exceed the following throughput limits in any consecutive 12-month period:  
S-606 198,400 short tons/yr coal  
171,034 short tons/yr coke  
60,000 short tons/yr Bauxite  
50,000 short tons/yr Iron Ore  
  
S-607 20,000 short tons/yr 1" aggregate  
200,000 short tons/yr 1/4" aggregate  
20,000 short tons/yr slag  
(basis: Cumulative Increase)
2. The owner/operator shall not discharge an air contaminant into the atmosphere for a period or periods aggregating more than 3 minutes in any hour, which is as dark or darker than a Ringelmann 1.0. (basis: Regulation 6-301)
3. The owner/operator shall abate S-606 and S-607 Storage Piles as necessary with A-606 and A-607 Water Sprays, respectively, to maintain compliance with Part 2 of this condition. (basis: Cumulative Increase)
4. The owner/operator shall maintain a District approved log on a monthly basis for material throughput at each source. The owner/operator shall keep this log on site for at least five years from the date of entry and make it available to District staff upon request. (basis: Cumulative Increase)

**VII. RECOMMENDATION**

Issue a conditional Permit to Operate for the following equipment:

<b>S-606</b>	<b>Storage Piles Area #1</b>
<b>S-607</b>	<b>Storage Piles Area # 2</b>

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*Thu H. Bui*  
*Senior Air Quality Engineer*  
*Engineering Division*

Date: \_\_\_\_\_

THB:disk-h\Lehigh\19385e\



**Evaluation Report**  
**A/N 20199**  
**G# 9200 (Plant 17, Source 1)**  
**Lehigh Southwest , 24001 Stevens Creek Blvd., Cupertino**

**Background**

Armour Petroleum on behalf of Lehigh Southwest has applied for an A/C to replace the Phase II vapor recovery on the existing GDF at the Cupertino cement plant with an EVR certified Phase II system. No other work is proposed under this application.

Lehigh Southwest currently operates one 10K tank and 2 single product nozzles with OPW EVR 2-point Phase I and balance Phase II vapor recovery equipment. They also operate a 10K diesel nozzle tank with two nozzles that is exempt from permit and vapor recovery requirements. This project is limited to replacing the hanging hardware with VR-203 certified equivalents and installing the Veeder Root Vapor Polisher and other components of the VST EVR Phase II system without ISD.

Proposed Phase II equipment consists of the VST EVR Phase II system with the Veeder-Root Vapor Polisher pursuant to CARB Executive Order VR-203. ISD controls have not been proposed.

**Emissions**

No change in permitted throughput has been requested.

As the EVR Phase II equipment is certified to slightly more stringent standards than the existing balance Phase II vapor recovery equipment, there should be no increase in emissions per unit throughput.

The net emission increase under this A/N will be zero.

**Statement of Compliance**

As there will be no net emissions increase from this project, this application is not subject to the BACT and offset requirements of Regulation 2, Rule 2.

The proposed VST EVR Phase II equipment is certified under VR-203. Plans submitted with this application verify that the installation will satisfy the requirements of this Executive order:

- Each dispenser will each be equipped with VST-EVR-NB nozzles (one per side) and VST hoses.
- The site has a V-R TLS 350 console and will be equipped with the proper software and controls for operation of the VST EVR Phase II system with the V-R Vapor Polisher
- A Vapor Pressure Sensor will be installed in the dispenser nearest the tanks.
- This site is not equipped with vapor pots or condensate traps. This site has not modified their underground piping since April 1, 2003 and thus is not subject the piping size requirements of VR-203
- The outlet of the V-R Vapor Polisher will be 12' above grade, and the vent pipes will be adequately supported

Lehigh Southwest is currently conditions to 400,000 gal/yr under cond #7523. They are thus not subject to ISD requirements.

Use of CARB certified equipment satisfies all requirements of District Regulation 8, Rule 7.

## **Permit Conditions**

### ***Authority to Construct Conditions:***

#### **COND # 24297**

1. The VST EVR Phase II Vapor Recovery System with the Veeder-Root Vapor Polisher, including all associated underground plumbing, shall be installed, operated, and maintained in accordance with the most recent revision of the California Air Resources Board (CARB) Executive Order (E.O.). VR-203. Section 41954(f) of the California Health and Safety Code prohibits the sale, offering for sale, or installation of any vapor control system unless the system has been certified by the state board.
2. Only CARB-certified EVR Phase I vapor recovery systems shall be used in conjunction with the VST EVR Phase II Vapor Recovery System.
3. The owner/operator of the facility shall maintain records in accordance with the following requirements. Records shall be maintained on site and made available for inspection for
  - a. period of 24 months from the date the record is made. a. Monthly throughput of gasoline pumped, summarized on an annual basis
  - b. A record of all testing and maintenance as required by E.O. VR-203, Exhibit 2. The records shall include the maintenance or test date, repair date to correct test failure, maintenance or test performed, affiliation, telephone number, name and Certified Technician Identification Number of individual conducting maintenance or test.
4. All applicable components shall be maintained to be leak free and vapor tight. Leak Free, as per BAAQMD (District) Regulation 8-7-203, is a liquid leak of no greater than three drops per minute. Vapor Tight is as defined in District Manual of Procedures, Volume IV, ST-30.
5. Start-up notification: applicant must contact the assigned Permit Engineer, listed in the correspondence section of this letter, by phone, by fax [(415) 749-4949], or in writing at least three days before the initial operation of the equipment is to take place. Operation includes any start-up of the source for testing or other purposes. Operation of equipment without notification being submitted to the District, may result in enforcement action. Please do not send start-up notifications to the Air Pollution Control Officer.
6. The following performance tests shall be successfully conducted at least ten (10) days, but no more than thirty (30) days after start-up. For the purpose of compliance with this Condition, all tests shall be conducted after back- filling, paving, and installation of all required Phase I and Phase II components.
  - a. Static Pressure Performance Test using CARB Test Procedure TP-201.3 (3/17/99) in accordance with E.O. VR-203, Ex. 4. If the tank size is 500 gallons or less, the test shall be performed on an empty tank.
  - b. Dynamic Back Pressure Test using CARB Test Procedure TP-201.4 (7/3/02) in accordance with the condition listed in item 1 of the Vapor Collection Section of E.O. VR-203, Exhibit 2. The dynamic back pressure shall not exceed 0.35" WC @ 60 CFH and 0.62" WC @ 80 CFH.
  - c. Liquid Removal Test using E.O. VR-203, Exhibit 5.
  - d. Vapor Pressure Sensor Verification Test using E.O. VR-203, Exhibit 8
  - e. Nozzle Bag Test on all nozzles in accordance with E.O. VR-203, Exhibit 10.
  - f. Veeder-Root Vapor Polisher Operability Test in accordance with E.O. VR-204, Exhibit 11.
  - g. Veeder-Root Vapor Polisher Emissions Test in accordance with E.O. VR-204, Exhibit 12.
7. The VST EVR Phase II system with the Veeder-Root Vapor Polisher shall be capable of demonstrating on-going compliance with the vapor integrity requirements of CARB Executive Order

- E.O. VR-203. The owner or operator shall conduct and pass the following tests at least once in each consecutive 12-month period following successful completion of start-up testing. Tests shall be conducted and evaluated using the above referenced test methods and standards.
- a. Static Pressure Performance Test - TP-201.3
  - b. Dynamic Back Pressure Test - TP-201.4
  - c. Liquid Removal Test - E.O. VR-203, Exhibit 5
  - d. Vapor Pressure Sensor Verification Test - E.O. VR-203, Exhibit 8
  - e. Veeder-Root Vapor Polisher Operability Test in accordance with E.O. VR-204, Exhibit 11.
  - f. Veeder-Root Vapor Polisher Emissions Test in accordance with E.O. VR-204, Exhibit 12.
8. The applicant shall notify Source Test by email at [gdfnotice@baaqmd.gov](mailto:gdfnotice@baaqmd.gov) or by FAX at (510) 758-3087, at least 48 hours prior to any testing required for permitting. Test results for all performance tests shall be submitted in a District-approved format within thirty days of testing. Start-up tests results submitted to the District must include the application number and the GDF number. (For annual test results submitted to the District, enter "Annual" in lieu of the application number.) Test results may be submitted by email ([gdfresults@baaqmd.gov](mailto:gdfresults@baaqmd.gov)), FAX (510) 758-3087) or mail (BAAQMD Source Test Section, Attention Hiroshi Doi, 939 Ellis Street, San Francisco CA 94109).
  9. The maximum length of the coaxial hose assembly, including breakaway, swivels, and whip hoses, shall be fifteen (15) feet.
  10. The dispensing rate shall not exceed ten (10.0) gallons per minute (gpm), nor be less than six (6.0) gpm with the trigger at the highest setting. Compliance with this condition shall be verified using the applicable provisions of E.O. VR-203, Ex. 5. Flow limiters may not be used.
  11. A Vapor Pressure Sensor shall be installed in the dispenser closest to the underground tanks.
  12. The TLS console controlling the Veeder-Root Vapor Polisher shall be equipped with a printer and have an open RS232 port that is accessible to District staff during operating hours.
  13. Except when necessary for testing and maintenance, the Veeder-Root Vapor Polisher shall be on and in automatic vapor processor mode with the inlet valve in the open position per E.O. VR-203, Ex. 2. The handle shall not be removed for any reason.
  14. The outlet of the Veeder-Root Vapor Polisher shall be at least 12 feet above grade.
  15. The station shall maintain OSHA-approved access to the Veeder-Root Vapor Polisher. This access should be provided immediately upon request by District personnel.
  16. The VST EVR Phase II Vapor Recovery System shall be maintained and operated in accordance with E.O. VR-203 and the System Operating Manual approved by CARB.
  17. Security tags shall be installed and maintained on the Veeder-Root Vapor Polisher. A Veeder-Root Vapor Polisher Operability Test and a Veeder-Root Vapor Polisher Emissions Test shall be performed after the replacement of any damaged or missing tags using the above referenced test methods and subject to the above notification and reporting requirements.
  18. The headspace of all underground tanks connected to VST EVR Phase II Vapor Recovery System shall be connected by a manifold below grade at the tanks and/or a manifold between the vent lines.
  19. For stations installed or performing a major modification of underground vapor piping after April 1, 2003, all vapor recovery piping shall be a minimum of 2" from the vent stack or dispensers to the first

manifold and a minimum of 3" in diameter from the manifold to the underground tanks, with the headspace of all tanks connected by a below-grade manifold. The following piping shall slopedown towards the lowest octane tank with a minimum slope of 1/8" per linear foot:

- a) Any manifold piping connecting the storage tank headspaces.
- b) All vapor recovery piping between the dispenser and storage tank.
- c) Vent piping from the base of the vent pipe to the storage tank(s). A major modification is considered a project that adds to, replaces, or removes more than 50% of the underground vapor piping.

20. Condensate traps or knock-out pots are prohibited.
21. Each storage tank vent pipe shall be equipped with a CARB certified pressure/vacuum relief valve as required by the applicable Phase I E.O.. Vents pipes may be manifolded to reduce the number of relief valves needed. No relief valve shall be installed on the Veeder-Root Vapor Polisher outlet.
22. The Veeder-Root EVR system and TLS console may only be installed and serviced by contractors that have completed the Veeder-Root training program. Installation and start-up shall be in accordance with VR-203 and the Veeder Root installation manual.

**COND# 7523**  
**For S-1 Gasoline Dispensing Station**

1. Pursuant to BAAQMD Regulation 2-5, the owner/operator shall ensure the facility's annual gasoline throughput does not exceed 400,000 gallons in any consecutive 12-month period. (Basis: Regulation 2-5)

**COND# 20666**

1. The OPW EVR Phase I Vapor Recovery System, including all associated plumbing and components, shall be operated and maintained in accordance with the most recent version of California Air Resources Board (CARB) Executive Order VR-102. Section 41954(f) of the California Health and Safety Code prohibits the sale, offering for sale, or installation of any vapor control system unless the system has been certified by the state board.
2. The owner or operator shall conduct and pass a Rotatable Adaptor Torque Test (CARB Test Procedure TP201.1B) and either a Drop Tube/Drain Valve Assembly Leak Test (TP201.1C) or, if operating drop tube overfill prevention devices ("flapper valves"), a Drop Tube Overfill Prevention Device and Spill Container Drain Valve Leak Test (TP201.1D) at least once in each 36- month period. Measured leak rates of each component shall not exceed the levels specified in VR-102.

The applicant shall notify Source Test by email at [gdfnotice@baaqmd.gov](mailto:gdfnotice@baaqmd.gov) or by FAX at (510) 758-3087, at least 48 hours prior to any testing required for permitting. Test results for all performance tests shall be submitted within fifteen (15) days of testing. Start-up tests results submitted to the District must include the application number and the GDF number. (For annual test results submitted to the District, enter "Annual" in lieu of the application number.) Test results may be submitted by email ([gdfresults@baaqmd.gov](mailto:gdfresults@baaqmd.gov)), FAX (510) 758-3087) or mail (BAAQMD Source Test Section, Attention Hiroshi Doi, 939 Ellis Street, San Francisco CA 94109).

**COND# 24298**

1. The VST EVR Phase II Vapor Recovery System with the Veeder-Root Vapor Polisher without ISD, including all associated underground plumbing, shall be installed, operated, and maintained in accordance with the most recent revision of the California Air Resources Board (CARB) Executive Order (E.O.). VR-203. Section 41954(f) of the California Health and Safety Code prohibits the sale, offering for sale, or installation of any vapor control system unless the system has been certified by the state board.
2. The owner/operator of the facility shall maintain records in accordance with the following requirements. Records shall be maintained on site and made available for inspection for a period of 24 months from the date the record is made.
  - a. Monthly throughput of gasoline pumped, summarized on an annual.
3. All applicable components shall be maintained to be leak free and vapor tight. Leak Free, as per BAAQMD (District) Regulation 8-7-203, is a liquid leak of no greater than three drops per minute. Vapor Tight, as per District Regulation 8-7-206, is a leak of less than 100 percent of the lower explosive limit on a combustible gas detector measured at a distance of 1 inch from the source or absence of a leak as determined by the District Manual of Procedures, Volume IV, ST-30 or CARB Method TP-201.3.
4. The VST EVR Phase II system with the Veeder-Root Vapor Polisher without ISD shall be capable of demonstrating on- going compliance with the vapor integrity requirements of CARB Executive Order E.O. VR-203. The owner or operator shall conduct and pass the following tests at least once in each consecutive 12-month period following successful completion of start-up testing. Tests shall be conducted and evaluated using the below referenced test methods and standards.
  - a. Static Pressure Performance Test - TP-201.3
  - b. Dynamic Back Pressure Test - TP-201.4 (7/3/02) in accordance with the condition listed in item 1 of the Vapor Collection Section of E.O. VR-203, Exhibit 2. The dynamic back pressure shall not exceed 0.35" WC @ 60 CFH and 0.62" WC @ 80 CFH
  - c. Liquid Removal Test - E.O. VR-203, Exhibit 5, Option 1 (Only test hoses containing more than 25 ml liquid)
  - d. Vapor Pressure Sensor Verification Test - E.O. VR-203, Exhibit 8,
  - e. Veeder-Root Vapor Polisher Operability Test. E.O. VR-203, Exhibit 11
  - f. Veeder-Root Vapor Polisher Emissions Test - E.O. VR-203, Exhibit 12.
5. The applicant shall notify Source Test by email at [gdfnotice@baaqmd.gov](mailto:gdfnotice@baaqmd.gov) or by FAX at (510) 758-3087, at least 48 hours prior to any testing required for permitting. Test results for all performance tests shall be submitted in a District-approved format within thirty days of testing. Start-up tests results submitted to the District must include the application number and the GDF number. (For annual test results submitted to the District, enter "Annual" in lieu of the application number.) Test results may be submitted by email ([gdfresults@baaqmd.gov](mailto:gdfresults@baaqmd.gov)), FAX (510) 758-3087) or mail (BAAQMD Source Test Section, 939 Ellis Street, San Francisco CA 94109).
6. The maximum length of the coaxial hose assembly, including breakaway, swivels, and whip hoses, shall be fifteen (15) feet.
7. The dispensing rate shall not exceed ten (10.0) gallons per minute (gpm), nor be less than six (6.0) gpm with the nozzle trigger at the highest setting. Compliance with this condition shall be verified using the applicable provisions of E.O. VR-203, Ex. 5. Flow limiters may not be used.

8. The TLS console controlling the Veeder-Root Vapor Polisher shall be equipped with a printer and have an open RS232 port that is accessible to District staff during operating hours.
9. Except when necessary for testing and maintenance, the Veeder-Root Vapor Polisher shall be on and in automatic vapor processor mode with the inlet valve in the open position per E.O. VR-203, Ex. 2. The handle shall not be removed for any reason.
10. The station shall maintain OSHA-approved access to the Veeder-Root Vapor Polisher. This access should be provided immediately upon request by District personnel.
11. Security tags shall be installed and maintained on the Veeder-Root Vapor Polisher. A Veeder-Root Vapor Polisher Operability Test and a Veeder-Root Vapor Polisher Emissions Test shall be performed after the replacement of any damaged or missing tags using the above referenced test methods and subject to the above notification and reporting requirements.
12. Each storage tank vent pipe shall be equipped with a CARB certified pressure/vacuum relief valve as required by the applicable Phase I E.O.. Vents pipes may be manifolded to reduce the number of relief valves needed. No relief valve shall be installed on the Veeder-Root Vapor Polisher outlet.

### **Title V Permit Revisions**

This plant has a Title V permit. This project will require a minor revision of the Title V permit.

Proposed revisions to the Title V permit are attached.

### **Recommendation**

All fees have been paid. Recommend that an A/C be issued for the above project.

By \_\_\_\_\_ date \_\_\_\_\_  
Scott Owen  
Supervising AQ Engineer

<b>Table IV - A</b>			
<b>Source-specific Applicable Requirements</b>			
<b>S-1 GASOLINE DISPENSING FACILITY</b>			
<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 8, Rule 7</b>	<b>Organic Compounds, Gasoline Dispensing Facilities (11/6/2002)</b>		
8-7-113	Tank Gauging and Inspection Exemption	Y	
8-7-114	Stationary Tank Testing Exemption	Y	
8-7-301	Phase I Requirements		
8-7-301.1	Requirements for Transfers into Stationary Tanks, Cargo Tanks, and Mobile Refuelers	Y	
8-7-301.2	CARB Certification Requirements	Y	
8-7-301.3	Submerged Fill Pipe Requirement	Y	
8-7-301.5	Maintenance and Operating Requirement	Y	
8-7-301.6	Leak-Free and Vapor Tight Requirement for Components	Y	
8-7-301.7	Fitting Requirements for Vapor Return Line	Y	
8-7-301.10	Vapor Recovery Efficiency Requirements for New and Modified Systems	Y	
8-7-301.13	Annual Vapor Tightness Test Requirement	Y	
8-7-302	Phase II Requirements		
8-7-302.1	Requirements for Transfers into Motor Vehicle Fuel Tanks	Y	
8-7-302.2	Maintenance Requirement	Y	
8-7-302.3	Proper Operation and Free of Defects Requirements	Y	
8-7-302.4	Repair Time Limit for Defective Components	Y	
8-7-302.5	Leak-Free and Vapor Tight Requirement for Components	Y	
8-7-302.6	Requirements for Bellows Nozzles	Y	
8-7-302.7	Requirements for Vapor Recovery Nozzles on Balance Systems	Y	
8-7-302.8	Minimum Liquid Removal Rate	Y	
8-7-302.9	Coaxial Hose Requirement	Y	
8-7-302.10	Construction Materials Specifications	Y	
8-7-302.12	Liquid Retain Limitation	Y	
8-7-302.13	Nozzle Spitting Limitation	Y	
8-7-302.14	Annual Back Pressure Test Requirements for Balance Systems	Y	
8-7-303	Topping Off	Y	
8-7-304	Certification Requirements	Y	
8-7-306	Prohibition of Use	Y	
8-7-307	Posting of Operating Instructions	Y	
8-7-308	Operating Practices	Y	
8-7-309	Contingent Vapor Recovery Requirement	Y	

<b>Table IV - A</b> <b>Source-specific Applicable Requirements</b> <b>S-1 GASOLINE DISPENSING FACILITY</b>			
<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
8-7-313	Requirements for New or Modified Phase II Installations	Y	
8-7-401	Equipment Installation and Modification	Y	
8-7-406	Testing Requirements, New and Modified Installations	Y	
8-7-407	Periodic Testing Requirements	Y	
8-7-408	Periodic Testing Notification and Submission Requirements	Y	
8-7-501	Burden of Proof	Y	
8-7-502	Right of Access	Y	
8-7-503	Record Keeping Requirements	Y	
8-7-503.1	Gasoline Throughput Records	Y	
8-7-503.2	Maintenance Records	Y	
8-7-503.3	Records Retention Time	Y	
<b>Condition #7523</b>			
Part 1	Annual Gasoline throughput shall not exceed 400,000 gallons in any consecutive 12 month period (Basis: Toxic Risk Policy)	N	

<b>Table VII - A</b> <b>Applicable Limits and Compliance Monitoring Requirements</b> <b>S-1 GASOLINE DISPENSING STATION</b>							
<b>Type of Limit</b>	<b>Emission Limit Citation</b>	<b>FE Y/N</b>	<b>Future Effective Date</b>	<b>Emission Limit</b>	<b>Monitoring Requirement Citation</b>	<b>Monitoring Frequency (P/C/N)</b>	<b>Monitoring Type</b>
Throughput	BAAQMD cond # 7523, part 1	N		Gasoline Dispensing throughput <400,000 gallons/year	BAAQMD 8-7-503.1 & 8-7-503.2	P/M	Record keeping
Exempt Throughput	BAAQMD 8-7-114	Y		Maximum amount exempt from Phase 1 is: 1000 gallons per facility for tank integrity leak checking	BAAQMD 8-7-501 and 8-7-503.2	P/E	Records



**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 GASOLINE DISPENSING STATION**

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Organic Compounds	BAAQMD 8-7-301.6	Y		All Phase I Equipment (except components with allowable leak rates) shall be leak free ( $\leq 3$ drops/minute) and vapor tight	BAAQMD 8-7-301.13 and 8-7-407	P/A	Annual Check for Vapor Tightness and Proper Operation of Vapor Recovery System
Organic Compounds	BAAQMD Cond #24298 pt. 4	Y		Back Pressure for Vapor Balance, per Executive Order VR-203 shall not exceed 0.35" WC @ 60 CFH and 0.62" WC @ 80 CFH measured using CARB TP201.4 (7/3/02)	BAAQMD 8-7-302.14 and 8-7-407	P/A	Annual Back Pressure Test of Balance Vapor Recovery System
POC	Cond #24298 pt. 4	Y		Liquid Removal Test per CARB E.O. VR-203, Exhibit 5, Option 1	CARB E.O. VR-203	P/A	Annual Liquid Removal Test
POC	Cond #24298 pt. 4	Y		Vapor Pressure Sensor Verification Test per E.O. VR-203, Exhibit 8,	CARB E.O. VR-203	P/A	Annual Vapor Pressure Sensor Verification
POC	Cond #24298 pt. 4	Y		Veeder-Root Vapor Polisher Operability Test. E.O. VR-203, Exhibit 11	CARB E.O. VR-203	P/A	Annual Vapor Pressure Operability Test
POC	Cond #24298 pt. 4	Y		Veeder-Root Vapor Polisher Emissions Test - E.O. VR-203, Exhibit 12	CARB E.O. VR-203	P/A	Annual Vapor Polisher Emissions Test
POC	Cond #20666 pt. 2	Y		Drob Tube Test per CARB TP 201.1C or 201.1D	CARB E.O. 102	P/3A	Triennial droop tube test

**EVALUATION REPORT**  
**Lehigh Southwest Cement Company**  
Application #21217 - Plant #17

**24001 Steven Creek Blvd.**  
**Cupertino, CA 95014**

**I. BACKGROUND**

Lehigh Southwest Cement Company has applied for an Authority to Construct/Permit to Operate for the following abatement equipment:

**A-413 Dust Collector, Torit PowerCore CPV8, 3,500 scfm to abate existing Kiln Dust Additive Bin (6-SS-13) (S-414) and its associated pneumatic conveyor**

Equipment to archive:

**A-414 Dust Collector, 528 SCFM**

Lehigh requests to install a pneumatic conveyor system to recycle a portion of the kiln dust from the Kiln Mill Dust Collectors (A-141 and A-142) to the existing Kiln Dust Additive Bin (S-414). The pneumatic conveyor will transfer the Kiln Mill Dust Collector (KMDC) dust through 1,421 feet of 10" to 12" enclosed pipeline by an air blower. Normally, Lehigh recycles the entire KMDC dust collected from the kiln baghouse back to the kiln feed. Now, Lehigh wants to recycle a portion of the KMDC directly into the final cement product, especially when the raw mill is not in operation. In the past, Lehigh used trucks to haul the KMDC dust to the existing Kiln Dust Additive Bin (S-414) then blended the KMDC dust along with other additives into the cement product. Lehigh adds up to 2.5% (Caltrans allows up to 5%) of the KMDC dust and/or limestone into its cement as part of the green house gas reduction programs, which allows for lower CO<sub>2</sub> emission per-ton of cement without a decline in product performance.

The use of KMDC dust in the final cement product also results in a reduction of mercury emissions at the kiln exhaust. In anticipation of the revised Maximum Achievable Control Technology (MACT) standards for Portland Cement Manufacturing Industry (NESHAP - 40 CFR Parts 60 and 63), which will be adopted in June 2010, the project allows for better use and ease of handling of KMDC dust. Lehigh is committed to comply with the proposed mercury standard ahead of the proposed 2013 deadline. This is one of several proposals that Lehigh plans to take to reduce the mercury emission. In the near future, Lehigh may submit other applications for test trials of activated carbon and lime injection into the kiln to further reduce the mercury and chloride emissions, respectively, at the kiln.

The addition of the pneumatic conveyor system will require a higher air flow rate than the existing truck transfer; therefore, Lehigh will also need to replace its existing A-414 Baghouse that is currently abating S-414 with a new, larger dust collector. The new dust collector will be designed at 3,500 scfm and 0.0013 grain/dscf (current BACT), while the existing dust collector is designed at 528 scfm and 0.01 grain/dscf. Lehigh submitted the manufacturer's warranty of the dust collector emission performance (0.0013 grain/dscf) as described in the Torit Power Core letter dated November 25, 2009.

There will be an increase in the Kiln Dust Additive Bin (S-414) throughput from 24,000 ton/yr to 42,775 ton/yr. However, this application will result in emission reduction of PM<sub>10</sub> since the new dust collector will perform better than the old one, and the baghouse emission is not a function of throughput, but of flow rate and grain loading. In addition, adding the KMDC dust into the

cement will reduce the vaporized mercury at the kiln and encapsulate the inorganic mercury in concrete. Lehigh will submit the application for this minor revision to its TV permit at a later time.

## II. EMISSION REDUCTION CALCULATIONS

### A-413 Dust Collector

No emission increases due to replacement of the above abatement device. Emission factors are based on the applicant proposed outlet grain loading of 0.0013 grain/dscf and 3,500 scfm for the new dust collector. There is a decrease in PM10 emission because using the pneumatic conveyor (enclosed pipe) for transferring material is much cleaner than using trucks.

#### A-414 Existing PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.01 gr/dscf x 1 lb/7000 grain x 528 ft<sup>3</sup>/min X (60 x 24 X 7 X 52) min/yr = 395.4 lb/yr

#### A-413 New PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 3,500 ft<sup>3</sup>/min x (60 X 24 X 7 X 52) min/yr = 340.7 lb/yr

#### A-414 Existing PM10 Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.01 gr/dscf X 1 lb/7000 grain X 528 ft<sup>3</sup>/min X 60 min/hr X 24 hr/day = 1.09 lbs/day

#### A-413 New PM10 Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.0013 gr/dscf X 1 lb/7000 grain X 3,500 ft<sup>3</sup>/min X 60 min/hr X 24 hr/day = 0.94 lbs/day

### Application Emission Reduction

PM10 reduction = Existing A-414 – New A-413

PM10 = 395.4 lb/yr – 340.7 = (54.7 lb/yr reduction)

## III. PLANT CUMULATIVE INCREASE SINCE 4/5/91

No emissions are added to the plant's cumulative increase for this permit application. No new emissions of any pollutant will be generated as a result of adding a pneumatic conveyor system and replacing the new dust collector, A-413.

## IV. TOXIC SCREENING ANALYSIS

A risk screen is not required for this project because there are toxic emission decreases at the kiln dust additive bin.

The toxic emission reductions are calculated based on the reported concentration of the Comprehensive Emission Inventory Report (CEIR) submitted by AMEC Geomatrix, Inc. dated March 27, 2009 for AB2588 update, Table 5A. The total emission reduction from the calculation of Section II is equal to 54.7 lb/yr of KMDC dust.

**Table I: Toxic reduction at the Kiln Dust Additive Bin (S-414)**

	<b>Kiln Mill Dust (KMDC)</b>	<b>Emission Reduction</b>
<i>Metals</i>	<i>PPM</i>	<i>lb/yr</i>
Antimony	2.5	-0.27
Arsenic	5.5	-0.06
Barium	850	-92.99
Beryllium	0.75	-0.08
Cadmium	1.3	-0.14
Chromium	38	-4.16
Cobalt	6.5	-0.71
Copper	31	-3.39
Lead	4.2	-0.46
Mercury	19	-2.08
Molybdenum	6.9	-0.75
Nickel	59	-6.45
Selenium	2.5	-0.27
Silver	1.25	-0.14
Thallium	860	-94.08
Vanadium	280	-30.63
Zinc	82	-8.97
Hex Chrome	0.38	-0.04

**V. BEST AVAILABLE CONTROL TECHNOLOGY**

This application does not trigger BACT since S-414 particulate emission is below the 10 lb/highest day trigger level per Regulation 2-2-301.

**VI. OFFSETS**

This application does not require any offsets since there is no emission increase from adding a conveyor system and replacing a dust collector per Regulation 2-1-302.

**VII. STATEMENT OF COMPLIANCE**

The owner/operator of source S-414 is expected to continue to comply with the requirements of District Regulation 1-301 “Public Nuisance” and District Regulation 6 “Particulate Matter and Visible Emissions”. The sources that are abated by the replaced baghouses are conditionally permitted to meet these requirements.

The owner/operator of source S-414 is expected to continue to comply with NSPS Subpart F, Portland Cement Plants and NESHAP Subpart LLL, National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

**California Environmental Quality Act**

This project is considered to be categorically exempt from CEQA under Regulation 2-1-312.3 for permit applications for projects undertaken for the sole purpose of bringing an existing facility into compliance with newly adopted regulatory requirements of the District or of any other local, state or federal agency. Although, the NESHAP 40 CFR 60, Subpart LLL for Portland Cement will not be amended until June 2010, the District decided to issue this permit

due to the need for early compliance. The amended NESHAP rule will require at least 85% reduction in mercury at the kiln exhaust. Lehigh submitted a completed Appendix H Form for this proposed project. It indicated that there will not be any significant adverse environmental impacts from this project.

In August 10, 2009, EPA has issued a consent decree to allow Lehigh Cement's Union Bridge plant in Maryland to reduce the mercury emissions by using the activated carbon injection (ACI) technology and recycling a portion of the KMDC dust into the final cement product. Since recycling the KMDC dust into the cement is one of the effective control methods approved by the EPA, Lehigh Southwest Cement wants to use the same practice to reduce the mercury in Cupertino, California plant. For more information, please see the consent decree at: [http://www.environmentalintegrity.org/news\\_reports/news\\_09\\_08\\_11.php](http://www.environmentalintegrity.org/news_reports/news_09_08_11.php)

The toxic metals in the cement will vary when the KMDC dust is added into the cement. The increase or decrease is the difference of concentration between the KMDC dust and clinker or limestone. Whether the toxic metals increase or decrease in the product, it will be less volatile as compared to toxics in the kiln stack emissions. These metals will be imbedded into the concrete in solid form at a cooler temperature. Consequently, the evaporation of volatile toxics, such as mercury in the air from the cement product, is not anticipated. The metals' concentration differences are quantified in Table II below.

**Table II: Metal Concentration Increase or Decrease if KMDC is used as additive to the Cement**

	<b>Clinker Dust</b>	<b>Limestone Dust</b>	<b>Kiln Mill (KMDC) Dust</b>	<b>Δ (LS - clk) @ 2.5% addition rate</b>	<b>Δ (KMDC - clk) @ 2.5% addition rate</b>	<b>Δ (KMDC - LS) @ 2.5% addition rate</b>
<i>Units</i>	ppm	ppm	ppm	ppm	ppm	ppm
<b>Antimony</b>	2.5	2.5	2.5	0	0	0
<b>Arsenic</b>	4.6	4.5	5.5	-0.0025	0.0225	0.025
<b>Barium</b>	1200	2000	850	20	-8.75	-28.75
<b>Beryllium</b>	1	0.75	0.75	-0.00625	-0.00625	0
<b>Cadmium</b>	1	2.7	1.3	0.0425	0.0075	-0.035
<b>Chromium</b>	78	44	38	-0.85	-1	-0.15
<b>Cobalt</b>	4.7	7	6.5	0.0575	0.045	-0.0125
<b>Copper</b>	19	35	31	0.4	0.3	-0.1
<b>Lead</b>	3.5	2.5	4.2	-0.025	0.0175	0.0425
<b>Mercury</b>	0.01	0.56	19	0.01375	0.47475	0.461
<b>Molybdenum</b>	7.1	7	6.9	-0.0025	-0.005	-0.0025
<b>Nickel</b>	75	53	59	-0.55	-0.4	0.15
<b>Selenium</b>	2.5	2.5	2.5	0	0	0
<b>Silver</b>	1.3	1.25	1.25	-0.00125	-0.00125	0
<b>Thallium</b>	1.3	9	860	0.1925	21.4675	21.275
<b>Vanadium</b>	407	180	280	-5.675	-3.175	2.5
<b>Zinc</b>	33	110	82	1.925	1.225	-0.7
<b>Hex Chrome</b>	12	0.89	0.38	-0.27775	-0.2905	-0.01275

Table II is generated by AMEC GeoMatrix for AB2588, Table 5A submitted to BAAQMD by Lehigh

Δ (KMDC - clk) @ 2.5% addition rate = ppm increase or decrease per ton of cement in comparison to clinker if KMDC dust is used

Δ (KMDC - LS) @ 2.5% addition rate = ppm increase or decrease per ton of cement in comparison to limestone if KMDC dust is used

### Mercury and Hexavalent Chromium

From the Mercury Study Report to Congress prepared by the US EPA in 1997, mercury emitted into the air is more readily reacted with other organic compounds and deposited in water and soil than the captured and encapsulated inorganic mercury in the cement. Mercury cycles between the atmosphere, land, and water undergoes chemical and physical transformations. Mercury accumulates most efficiently in the aquatic food web as methylmercury, which can be found in fish. The Mercury Study Report to Congress has indicated that “dietary methylmercury is almost completely absorbed into the blood and distributed to all tissues including the brain” while “the inorganic mercury, which is less efficiently absorbed and more readily eliminated from the body than methylmercury, does not tend to bioaccumulate”. This EPA report is posted at <http://www.epa.gov/hg/reportover.htm>. Thus, adding the KMDC dust into the cement should actually reduce the health impact to the community.

The hexavalent chromium concentration decreases in this project because the hexavalent chromium concentration in limestone and the clinker dusts are greater than the KMDC dust.

### Propensity for the metals to leach from Cement and KMDC Dust by the Toxicity Characteristic Leaching Procedure (TCLP) method

Table III below summarizes the toxicity of the cement KMDC dust from the 1992 study title “An Analysis of Selected Trace Metals in Cement and Kiln Dust” from the Portland Cement Association for leachable concentrations. The study compared the leachable metals in cement and KMDC dust using the (TCLP) method with the maximum concentration (regulatory level) of contaminants for the toxicity characteristic regulated in 40 CFR 261.24 under the Resource Conservation and Recovery Act (RCRA).

Portland cement and KMDC dust are not wastes; however, it is useful to determine how the cement and KMDC dust compare with other materials. Table III below shows over 1100 TCLP tests for 12 different metals, only 2 cases exceed lead and 2 cases exceed selenium in the KMDC dust. These 4 cases are from the two kiln systems that used hazardous waste as fuel. No sample of cement and KMDC dust exceeded the RCRA limits from 40 CFR Part 260 - Hazardous Waste Management System and Part 261- Identification and Listing of Hazardous Waste for any metal when burning non-hazardous waste. Lehigh Southwest Cement Company in Cupertino does not use hazardous waste as fuel in the kiln. Therefore, from the leachable metals study, the District staff can draw the same conclusion that Lehigh’s metals in the cement with addition of 2.5% of KMDC dust will also stay below the regulatory level of RCRA level of toxicity.

**Table III – Leachable Metals in Cement and Kiln Mill Dust Collector Dust**

	TCLP in Cement, mg/L				TCLP in KMDC Dust, mg/L				Regulatory Level, mg/L
	Min.	Avg.	Max.	No.	Min.	Avg.	Max.	No.	
Mercury	0.0001	0.0006	0.005	32	0.0002	0.0018	0.0223	61	0.2 <sup>a</sup>
Selenium	0.001	0.011	0.025	17	0.006	0.152	1.711 <sup>c</sup>	38	1.0 <sup>a</sup>
Thallium	0.002	0.010	0.028	16	0.01	0.38	4.5	84	NS <sup>b</sup>
Cadmium	0.0003	0.0019	0.0123	29	0.0001	0.0288	0.22	24	1.0 <sup>a</sup>
Lead	0.002	0.009	0.029	41	0.002	0.349	9.718 <sup>c</sup>	70	5.0 <sup>a</sup>
Antimony	0.003	NM	0.063	7	0.003	0.012	0.031	25	NS <sup>b</sup>
Silver	0.003	0.07	0.12	93	0.03	0.007	0.17	95	5.0 <sup>a</sup>
Arsenic	0.005	0.027	0.084	19	0.003	0.066	0.636	26	5.0 <sup>a</sup>
Nickel	0.06	NM	0.17	8	0.06	0.13	0.32	19	NS <sup>b</sup>
Barium	0.49	1.35	4.27	92	0.12	1.04	9.19	90	100 <sup>a</sup>
Beryllium	0.0001	0.0005	0.003	61	0.0001	0.0004	0.0029	42	NS <sup>b</sup>
Chromium	0.07	0.54	1.54	92	0.01	0.10	1.29	78	5.0 <sup>a</sup>

NM = not meaningful

NS = not specified

No. = Number of sample that can be detected

<sup>a</sup> Arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver regulatory levels are taken from 40 CFR Part 261- Identification and listing of hazardous waste, Subpart C-Toxicity, 40 CFR Part 261.24(b), Table 1 at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=4990e762d7b81851bef18f82dc851826;rgn=div5;view=text;node=40%3A25.0.1.1.2;idno=40;cc=ecfr#40:25.0.1.1.2.3.1.5>

<sup>b</sup> Antimony, beryllium, thallium and nickel are not regulated under RCRA

<sup>c</sup> Two cases exceed lead and two cases exceed selenium are from the two kiln systems that used hazardous waste as fuel

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

BACT, Offsets, and PSD are not triggered.

## VIII. CONDITIONS

### COND# 13982

#### For S-414 Finish Mill Additive Bin (6-SS-13), abated by A-413 dust collector

1. The owner/operator shall ensure visible particulate emissions from S-414 shall not exceed Ringelmann 1.0 for more than 3 minutes in any hour or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: BACT, Regulation 6, Rule 1, Regulation 1-301)
2. The owner/operator shall ensure all of the particulate emissions emitted from S-414 flow under negative pressure to Baghouse A-413 (6-DC-25). The owner/operator shall equip this Baghouse with a District approved manometer for measuring the pressure drop across the Baghouse. Each manometer shall be checked for proper operation at least once every month. (Basis: Regulation 6-301, 6-310, 6-311, Regulation 2-1-403)
3. The owner/operator shall ensure the outlet grain loading for Baghouse A-413 does not exceed 0.0013 grain/dscf. (Basis: Regulation 2-2-212 Cumulative Increase, BACT)
4. The owner/operator shall ensure the total throughput of additives and Kiln Mill Dust Collector (KMDC) dust from S-414 to the S-210 Finish Mill does not exceed 42,775 tons in any calendar year. (Basis: Regulation 2-2-212 Cumulative Increase)
5. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:
  - a. Total monthly hours of operation.
  - b. The monthly hours of operation shall be totaled on a yearly basis.
  - c. The total monthly throughput of KMDC dust and/or other additives.All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase)
6. The owner/operator shall inspect Baghouse, A-413 monthly to ensure proper operation. The following items shall be checked:
  - a. The pressure drop across the baghouse shall be checked monthly. The pressure drop shall be no lower than 0.5 inches of water and no greater than 8 inches of water.

- b. The baghouse exhaust shall be checked monthly for evidence of particulate breakthrough. If breakthrough is evident from plume observations, dust buildup near the stack outlet, or abnormal pressure drops, the filter bags shall be checked for any tears, holes, abrasions, and scuffs, and replaced as needed.
- c. All hoppers shall be discharged in a timely manner to maintain compliance with 6(a) above.
- d. The pulsejet, shaker cleaning system shall be maintained and operated at sufficient intervals to maintain compliance with 6(a) above.

(Basis: Regulation 2-1-403)

- 7. In order to demonstrate compliance with the above permit conditions, the following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made.
  - a. Records of all inspections and all maintenance work including bag replacement for the baghouse. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspects the baghouses.(Basis: Regulation 1-441)
- 8. Not later than 60 days from the startup of A-413, and once every five years thereafter, the owner/operator shall conduct an initial District approved source tests to determine compliance with the limit in Part 3. The owner/operator of A-413 shall analyze for all toxic metals present in the KMDC dust initially and annually, thereafter. The owner/operator shall submit the source test results to the District staff no later than 60 days after the source test. (Basis: BACT, Cumulative Increase)
- 9. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. (Basis: Cumulative Increase)

#### **IX. RECOMMENDATION**

Issue a conditional Authority to Construct to Lehigh Southwest Cement Company for the following abatement device:

**A-413 Dust Collector, Torit PowerCore CPV8, 3,500 scfm to abate existing Kiln Dust Additive Bin (6-SS-13) (S-414) and its associated pneumatic conveyor**

and archive:

**A-414 Dust Collector, 528 SCFM**

*Thu H. Bui*  
*Senior Air Quality Engineer*  
*Engineering Division*

Date: \_\_\_\_\_



**ENGINEERING EVALUATION**  
**Lehigh Southwest Cement Company**  
**Application #21387 - Plant #17**

**24001 Stevens Creek Blvd.**  
**Cupertino, CA 95014**

**I. BACKGROUND**

Lehigh has applied for Permits to Operate due to loss of exemption of the following equipment:

**S-503 Portable Compressor Driver – IR P185 (871-031), John Deere, Model 4239, 80 HP, 0.57 MMBtu/hr**

**S-504 Portable Compressor Driver – IR P185 (871-032), John Deere, Model 4039, 80 HP, 0.57 MMBtu/hr**

**S-505 Portable Pump Driver – Guzzler (731-069), John Deere, Model 6059, 143 HP, 1.02 MMBtu/hr**

Source S-503 was installed in July 1990 and S-504 was installed in December 1992. They are used to supply the plant's air requirement to move products, clean dust collectors, etc...when the primary equipment is not working due breakdown or under maintenance. Source S-505 was installed in October 1995 and is used to pump liquid or water during storm water at the quarry. Each of these engines has been used less than 65 hours per year in the past. Lehigh applied for "Loss-of-Exemption" permits as emergency diesel engines; however, under the California Air Resources Board Stationary Diesel ATCM., these portable engines are categorized as low use engines. These engines are used fewer than 80 hours per year; therefore, they qualify for ATCM section 93116.2(a)(22) as portable, low use diesel fueled engines. The ATCM for portable engines used exclusively in emergency applications or qualifying as low-use engines are subject to satisfying Section 93116.3(b)(1)(B)(2) of the portable ATCM by replacing each portable diesel-fueled engine so identified within two years of the first engine being offered for sale that satisfies the Tier 4 emission standards.

These engines have been in service before 1995 when they were either excluded or lost of exemption from District regulation in accordance with Regulation 1-110.2 or Regulation 2-1-114.2, respectively. Because Regulation 1-110.2 and Regulation 2-1-114.2 was deleted or amended on May 17, 2000, these engines require permits, although these are neither "new" nor "modified" source as defined in Regulations 2-1-232 and 2-1-234. Therefore, these sources are not subject to New Source Review requirements (BACT, cumulative increase, offsets, toxic review, public notification requirements triggered by proximity to a K-12 school.)

**II. EMISSION**

Annual emissions from S-503 through S-505 engines, using 80 hrs/yr for low-use engines at full load, will be quantified for information only.

Basis:

S-503 and S-504 = 80 hp output rating each  
Diesel usage = 4.19 gallons/hr max fuel use rate

S-505 = 143 HP output rating  
Diesel usage = 7.45 gallons/hr maximum fuel use rate

**Emissions from engine (S-503 or S-504):** (based on AP-42 emission factors- Table 3.3-1 for uncontrolled diesel industrial engine)

POC:	(0.35 lb/MMbtu)(0.57 MMBtu/hr)(80 hr/yr) = 16 lb/yr
NOx:	(4.41 lb/MMbtu)(0.57 MMBtu/hr)(80 hr/yr) = 201 lb/yr
CO:	(0.95 lb/MMbtu)(0.57 MMBtu/hr)(80 hr/yr) = 43 lb/yr
PM10:	(0.31 lb/MMbtu)(0.57 MMBtu/hr)(80 hr/yr) = 14 lb/yr
*SO2:	(0.001515 lb/MMbtu)(0.57 MMBtu/hr)(80 hr/yr) = 0.07 lb/yr

**Emissions from engine (S-505):** (based on AP-42 emission factors- Table 3.3-1 for uncontrolled diesel industrial engine)

POC:	(0.35 lb/MMbtu)(1.02 MMBtu/hr)(80 hr/yr) = 29 lb/yr
NOx:	(4.41 lb/MMbtu)(1.02 MMBtu/hr)(80 hr/yr) = 360 lb/yr
CO:	(0.95 lb/MMbtu)(1.02 MMBtu/hr)(80 hr/yr) = 78 lb/yr
PM10:	(0.31 lb/MMbtu)(1.02 MMBtu/hr)(80hr/yr) = 25 lb/yr
*SO2:	(0.001515 lb/MMbtu)(1.02 MMBtu/hr)(80 hr/yr) = .012 lb/yr

\* SO2 emissions are quantified based on the full conversion of 0.0015 wt% (~ 15 ppm) sulfur in the ULS diesel fuel. The SO2 emission factor was derived from EPA AP-42, Table 3.4-1.

**III. PLANT CUMULATIVE INCREASE SINCE 4/5/1991**

As discussed on page 1 (Background), the emissions from these sources are not included in the Plant Cumulative Increase.

**IV. TOXIC SCREENING ANALYSIS**

As discussed on page 1 (Background), these engines are not subject to the New Source Review of Toxic Air Contaminants of Regulation 2-5.

**V. BEST AVAILABLE CONTROL TECHNOLOGY**

In accordance with Regulation 2, Rule 2, Section 301, BACT is triggered for any new or modified source with the potential to emit 10 pounds or more per highest day of POC, NPOC, NOx, CO, SO<sub>2</sub> or PM<sub>10</sub>. BACT is not required because S-1 and S-2 are neither new or modified sources pursuant to Regulation 2-1 and 2-2.

**VI. OFFSETS**

Offsets must be provided for any new or modified source at a facility that emits more than 10 tons/yr of POC or NOx per Regulation 2-2-302. Offsets are not required because S-503 through S-505 are neither new or modified sources pursuant to Regulation 2-1 and 2-2.

**VII. NSPS**

The engines are not subject to 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines because they were manufactured prior to April 1, 2006, as required by Section 60.4200(a)(2)(i).

**VIII. NESHAP**

These engines are not subject to the emission or operating limitations in 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, and of subpart A of this part and no initial notification is necessary because they are not stationary internal combustion engines. Stationary internal combustion is

not a nonroad engine as defined at 40 CFR 1068.30 and is not used to propel a motor vehicle or a vehicle used solely for competition. Section 1068.30 defined nonroad as “That, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another.

## **IX. CARB STATIONARY DIESEL ENGINE ATCM**

The State Office of Administrative Law approved the Airborne Toxic Control Measure (ATCM) on September 12, 2007 for portable IC engines. State law requires the local Air Districts to implement and enforce the requirements of the portable ATCM. Effective September 12, 2007, there is a prohibition on the operation of new diesel emergency standby engines greater than 50 bhp unless the following operating requirements and emission standards are met:

A “low-use” engine is defined as an engine, which is operated for 80 hours or less in a calendar year. “Low-use” engines are subject to the amended CARB Portable Diesel ATCM Section 93116.3(b)(1)(B)(2).

Section 93116.3(b)(1) required the owners of portable diesel-fueled engines used exclusively in emergency applications or portable diesel fueled engines that qualify as low-use engines may commit to replacing these engines with Tier 4 engines, subject to the requirements below:

- (1) The Responsible Official shall submit written notification identifying the specific portable diesel-fueled engine intended to be replaced with portable diesel fueled engines certified to Tier 4 emission standards;
- (2) for engines that power functions that will continue after the Tier 4 emission standards take effect, each class and category of nonroad engine, replace each portable diesel-fueled engine so identified within two years of the first engine being offered for sale that satisfies the Tier 4 emission standards;
- (3) for engines that will not continue operating until the Tier 4 emission standards take effect, the owner of the engine shall submit written notification to the applicable regulatory agency within 30 days of the engine ceasing operation, and is subject to the requirements below:
  - a. for functions that will not continue for business or economic reasons, the owner shall retire the engine without replacement; and
  - b. for engines that irreparably break down, the replacement engine shall be subject to the requirements of section 93116.3(b)(2).

These engines are also subject to portable ATCM, Section 93116.3(a) Diesel-fueled portable engines shall only use one of the following fuels:

- (1) CARB diesel fuel; or
- (2) alternative diesel fuel that has been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines; or
- (3) CARB diesel fuel utilizing fuel additives that have been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

Lehigh is currently using CARB diesel fuel for these engines and will comply with the requirement of portable ATCM Section 93116.3(b)(1)(B) two year after the first engine being offered for sale that satisfies the Tier 4 emission standards.

## **X. STATEMENT OF COMPLIANCE**

S-503 through S-505 will be operated as low-use engines and therefore are not subject to the emission rate limits in Regulation 9, Rule 8 ("NO<sub>x</sub> and CO from Stationary Internal Combustion Engines"). S-503 through S-505 are exempt from the requirements of Sections 9-8-301 through 305 per Reg. 9-8-111 (Limited Exemption for Low Usage – 100 hours). S-503 through S-505 are subject to and expected to comply with monitoring and record keeping requirements of 9-8-502.1 and 9-8-530. Regulation 9-8-502.1 and 9-8-530 requirements are incorporated into the proposed permit conditions. S-503 through S-505 are also subject to and expected to comply with the SO<sub>2</sub> limitations of 9-1-301 (ground-level concentration) and 9-1-304 (0.5% by weight in fuel). Compliance with Regulation 9, Rule 1 is very likely since diesel fuel with a 0.0015% by weight sulfur is mandated for use in California. Like all combustion sources, S-503 through S-505 are subject to Regulation 6, Rule 1 ("Particulate Matter"). Regulation 6-1-303.1 limits opacity from internal combustion engines to Ringelmann 2. These engines are not expected to produce visible emissions or fallout in violation of this regulation and will be assumed to be in compliance with Regulation 6-1.

This application is considered to be ministerial under the District's Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 2.3.

This facility is greater than 1,000 feet from the nearest school and therefore is not subject to the public notification requirements of Regulation 2-1-412.

NSR, NESHAP and PSD are not applicable.

## **XI. PERMIT CONDITIONS**

CONDITION 24557

*S-503 Portable Compressor Driver – IR P185 (871-031), John Deere, Model 4239, 80 HP, 0.57 MMBtu/hr*

*S-504 Portable Compressor Driver – IR P185 (871-032), John Deere, Model 4039, 80 HP, 0.57 MMBtu/hr*

*S-505 Portable Pump Driver – Guzzler (731-069), John Deere, Model 6059, 143 HP, 1.02 MMBtu/hr*

1. The owner/operator of the low-use engines shall not operate each engine for more than 80 hours per year.  
[Basis: "Portable Diesel Engine ATCM" section 93116.2(a)(22)]
2. The owner/operator of the low-use engines shall not discharge into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour, which is as dark or darker than Ringelmann 2 or equivalent to 40% opacity. [Basis: Regulation 6, Rule 1]
3. The owner or operator shall obtain the District's Authority to Construct or State Registration prior to replacing S-503, S-504 and S-505. The owner/operator shall replace the engines within two years of the first engine being offered for sale that satisfies the Tier 4 emission standards.  
[Basis: District's NSR, "Portable Diesel Engine ATCM" section 93116(b)(1)(B)]

4. The owner/operator shall operate the portable, low-use engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. [Basis: "Portable Diesel Engine ATCM" section 93116.4(c)(2)(A)]
5. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 60 months from the date of entry. Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
  - a. Hours of operation for low-use activities totaled on a monthly basis.
  - b. Hours of operation totaled on a rolling 12-month basis.
  - c. For each low-use activity, the nature of the activity.
  - e. Fuel usage for each engine.[Basis: District Regulation 2, Rule 6 (Title V), "Portable Diesel Engine ATCM" section 93116.4(c)(2)(B)&(C), (or Regulation 2-6-501)]

## **XII. RECOMMENDATION**

Issue a Permit to Operate to Lehigh Southwest Cement Company for:

- S-503 Portable Compressor Driver – IR P185 (871-031), John Deere, Model 4239, 80 HP, 0.57 MMBtu/hr**
- S-504 Portable Compressor Driver – IR P185 (871-032), John Deere, Model 4039, 80 HP, 0.57 MMBtu/hr**
- S-505 Portable Pump Driver – Guzzler (731-069), John Deere, Model 6059, 143 HP, 1.02 MMBtu/hr**

**Thu H. Bui**  
*Senior Air Quality Engineer*  
*Engineering Division*  
Date:

THB:E:\Files\Lehigh\21387\21387e

**EVALUATION REPORT**  
**Lehigh Southwest Cement Company**  
Application #21753 - Plant #17

**24001 Steven Creek Blvd.**  
**Cupertino, CA 95014**

**I. BACKGROUND**

Lehigh Southwest Cement Company has applied for an Authority to Construct/Permit to Operate for the following abatement equipment:

**A-154 Lime Slurry Injection System abate existing Calciner Kiln (S-154)**

And to rename the shut down Kiln Coke System S-174 to:

**S-167 Lime Bin, 1 ton/hr, abated by A-167 Dust Collector, Donaldson Torit PowerCore CPV4, 2,000 scfm**

**A-167 Dust Collector, Donaldson Torit PowerCore CPV4, 2,000 scfm to abate Lime Bin S-167**

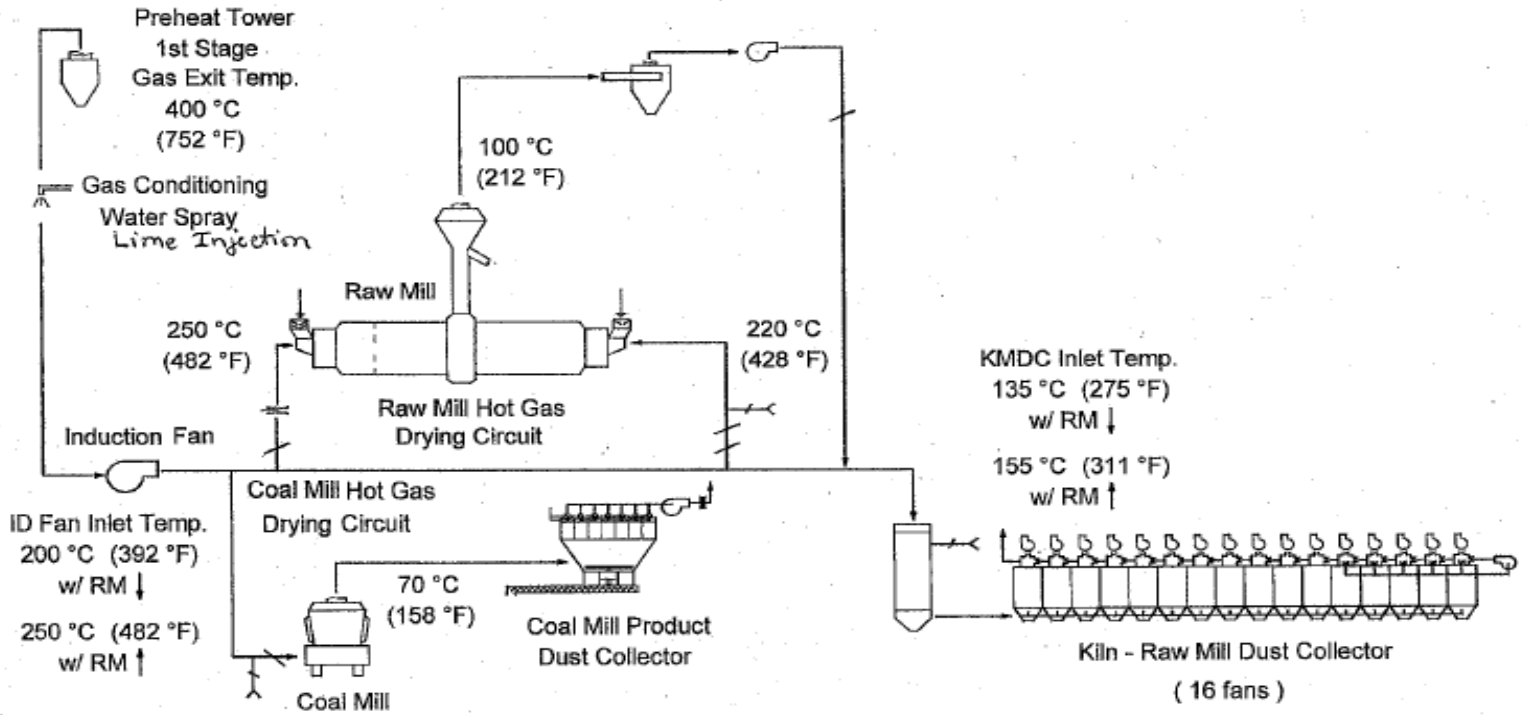
Lehigh requests to install the lime slurry injection system to control the hydrochloric acid (HCl) emissions at the kiln in anticipation of the revised Maximum Achievable Control Technology (MACT) standards for Portland Cement Manufacturing Industry (NESHAP - 40 CFR Parts 60 and 63), which will be adopted in August 2010. Hydrated lime and hydrated lime slurry injection has been utilized in the cement industry for SO<sub>2</sub> emission reduction related to higher sulfur containing raw materials. Lime utilization has also been shown to reduce plume intensity associated with the detached plumes at the exhaust stacks in the areas where the raw materials are high in ammonia.

The powder hydrate lime (Ca(OH)<sub>2</sub>) will be trucked into Lehigh and stored in S-167 Silo. Hydrate lime is mixed with water in two 1000 gallons mixing tanks in series. Lehigh plans to use 25% hydrated lime solution. Lehigh will use 5,800 ton/yr of hydrated lime and 4,752,000 gallons of water per year. The water is supplied by the plant's reclaimed water system. The resulting slurry is then sprayed together with the conditioning water into the kiln's exhaust flue gas at the downcomers of the Preheater/calciner Tower (400°C or 752°F). The water in the hydrated lime slurry is then evaporated by the hot gas. The lime slurry injection is located before the exhaust gas splits into the raw mills and the fuel mills; thus, the raw mills and the fuel mills will act as absorbers of the lime products when they are in operation. The flue gas then continues to flow to the existing baghouse (A-141 and A-142) to remove the remainder of the lime and reaction products.

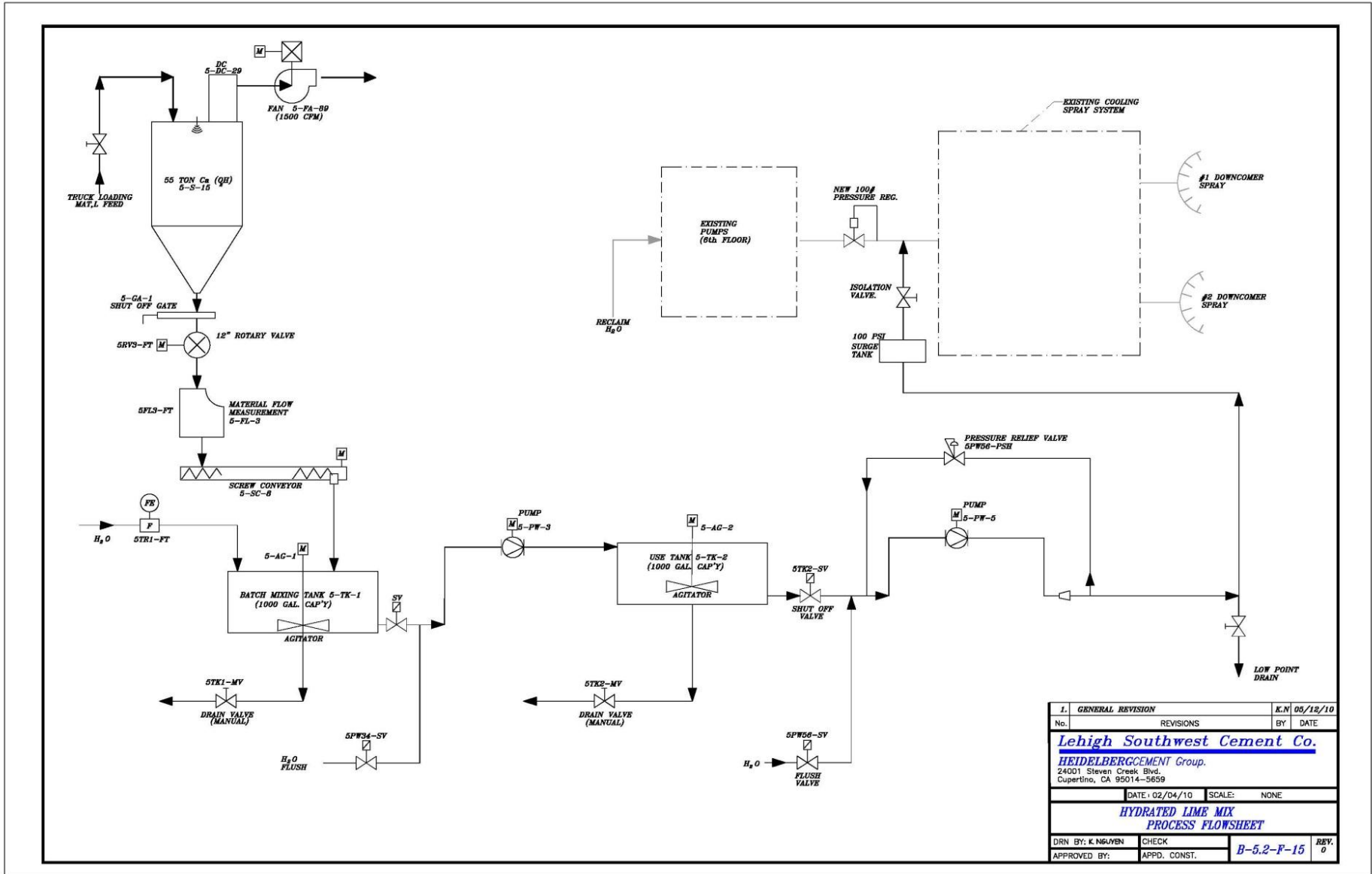
The hydrated lime will react with HCL to form calcium chloride dihydrate (CaCl<sub>2</sub>.2H<sub>2</sub>O) or calcium chloride (CaCl<sub>2</sub>). The HCl removal efficiencies using lime range from 20-30 percent.

## Kiln - Preheat Tower Exhaust Gas Flow

Diagram Illustrates One Of The Two Exhaust Gas Streams



Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
 24001 Stevens Creek Boulevard Cupertino, CA 95014



I. GENERAL REVISION		K.N	05/18/10
No.	REVISIONS	BY	DATE
<b>Lehigh Southwest Cement Co.</b>			
HEIDELBERGCEMENT Group. 24001 Steven Creek Blvd. Cupertino, CA 95014-5659			
DATE: 02/04/10		SCALE: NONE	
<b>HYDRATED LIME MIX PROCESS FLOWSHEET</b>			
DRN BY: K. NGUYEN	CHECK		REV. 0
APPROVED BY:	APPD. CONST.	B-5.2-F-15	



The hydrated lime injection system will also absorb the oxidized SO<sub>2</sub> (resulting SO<sub>3</sub>) in the vapor phase into a liquid droplet in which lime hydrate is dispersed. The product of the reaction is either a semi-dry droplet containing reaction products calcium sulfate (CaSO<sub>4</sub>), residual lime hydrate (Ca(OH)<sub>2</sub>), and water (H<sub>2</sub>O) in sizes that can be removed by the existing baghouse. The particulate matter emission from the Kiln Baghouses (A-141 and A-142) is expected to remain the same since there is no change to the flow rate or grain loading.

The SO<sub>2</sub> removal efficiencies using lime range from 15-35 percent depending on how much sulfur concentration in the raw materials. In addition, by removing the HCl and SO<sub>2</sub> emissions, lime injection serves as the secondary (detached) plume abatement. The secondary plume is a fine but very visible particulate that results from the condensation of the gas stream in the stack discharge. This plume is not registered as a reportable particulate violation, but it affects good neighbor policy. Removing the HCl and SO<sub>2</sub> emissions prevents other gaseous components in the exhaust gas such as ammonia, chlorides, etc... from combining with the sulfur and/or chlorides compounds as they cool after leaving the stack.

Lehigh will also need to add the hydrated lime bin to store the powder lime. Lehigh will re-commission the Pre-Calciner Coke Bin (S-174) that was shut down in 2009. The hydrate lime bin is now re-numbered to S-167 and will be abated by a new dust collector (A-167), designed at 2,000 scfm and 0.0013 grain/dscf (current BACT). Lehigh submitted the manufacturer's warranty of the dust collector emission performance (0.0013 grain/dscf) as described in the Donaldson Torit Power Core letter dated November 20, 2009.

Lehigh will need to import 5,800 tons of hydrated lime per year. This is equivalent to the use of 290 trucks per year at 20 tons per truck. This lime slurry project will not increase any truck traffic because Lehigh is committed to keeping the same amount of permitted trucks. Currently, Condition 16109, Part 5, allows Lehigh to operate 70,000 cement trucks per year. In the future, Condition 16109, Part 5 will be modified to include the hydrated lime trucks and cement trucks in the total 70,000 trucks. Lehigh will have to store cement and back haul it out when necessary.

This application will not result in emission increase of PM<sub>10</sub> from the dust entrainment from truck travel on dry paved road within the plant because there will not be any increase in truck traffic. No contemporaneous emission reduction credit is given due to the shut down of S-173 (Kiln Coke System) and S-174 (Precalciner Coke system) since they were inactive since 1996. Lehigh will submit the application for this minor revision to its TV permit at a later time.

## II. EMISSION CALCULATIONS

### S-167 Lime Bin and A-167 Dust Collector

The dust collector A-167 is only used to abate the delivery of the truck unloading to the hydrated lime bin S-167. A truck typically takes 30 minutes to pneumatically unload its product to a silo / bin; truck unload is conservatively estimated two times, or 60 minutes per truck at a maximum of 4 trucks per day, and 290 trucks per year.

#### A-167 PM<sub>10</sub> Annual Emissions:

Max. Annual PM<sub>10</sub> emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 2,000 ft<sup>3</sup>/min x (60 min / truck x 290 truck / yr) = 6.5 lbs/yr

#### A-167 PM<sub>10</sub> Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.0013 gr/dscf X 1 lb/7000 grain X 2,000 ft<sup>3</sup>/min X 60 min/truck X 4 truck/day = 0.09 lbs/day

**III. PLANT CUMULATIVE INCREASE SINCE 4/5/91**

The Databank shows the following cumulative increase for this plant.

	<u>Current</u> <u>Ton/yr</u>	<u>New</u> <u>Ton/yr</u>	<u>New Total</u>	
			<u>Lbs/yr</u>	<u>Tons/yr</u>
POC =	0.00	0.00	0.00	0.00
NO <sub>x</sub> =	0.00	0.00	0.00	0.00
SO <sub>2</sub> =	0.00	0.00	0.00	0.00
CO =	0.00	0.00	0.00	0.00
NPOC =	0.00	0.00	0.00	0.00
PM <sub>10</sub> =	0.00	0.0033	6.5	0.0033

**IV. TOXIC SCREENING ANALYSIS**

A risk screen is not required for this project because there is no toxic emission increase from this project per Regulation 2-5.

**V. BEST AVAILABLE CONTROL TECHNOLOGY**

Sources S-167 did not trigger BACT because the PM10 emissions are below 10 pounds per highest day per Regulation 2-2-301.

**VI. OFFSETS**

Offsets are required since the facility's PM10 emissions are more than 100 ton/yr per Regulation 2-2-303. At this time, Lehigh will defer the offsets until the annual renewal update because the PM10 emission increase is much less than 1 ton/yr.

**VII. STATEMENT OF COMPLIANCE**

The owner/operator of source S-154 and S-167 is expected to continue to comply with the requirements of District Regulation 1-301 "Public Nuisance" and District Regulation 6 "Particulate Matter and Visible Emissions". The sources that are abated by the baghouses are conditionally permitted to meet these requirements.

National Emissions Standards for Hazardous Air Pollutants Standards (NESHAPS)

The owner/operator of source S-154 is expected to continue to comply with NSPS Subpart F, Portland Cement Plants and NESHAP Subpart LLL, National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

New Source Performance Standards (NSPS)

S-167 are expected to continue to comply with NSPS Subpart\_000 for nonmetallic mineral processing, which includes regulations for emissions from operating equipment that was manufactured, modified or reconstructed after August 31, 1983. Processing equipment regulated under Subpart 000 affecting the crushed stone, sand and gravel industry includes crushers, grinding mills, screens, bucket elevators, bagging operations, storage bins, enclosed truck and railcars and transfer points on belt conveyors.

Under Subpart 000, aggregate facilities are required to conduct performance testing on stationary equipment in accordance with EPA Reference Method 9. Method 9 is a visual emissions test that determines opacity or the percentage of the light that is prevented from passing through a plume or fugitive emission. Individuals performing the opacity readings are required to

be trained and certified in accordance with the method. EPA has set specific limits for the aggregates industry based on opacity readings designated to various processing equipment ranging from 7-15 percent (%). Among the requirements of Method 9 is determining the average of twenty-four readings over a six-minute period for a total of one hour for each piece of equipment that falls under the purview of NSPS.

#### **California Environmental Quality Act (CEQA)**

This project is considered to be categorically exempt from CEQA under Regulation 2-1-312.3 for permit applications for projects undertaken for the sole purpose of bringing an existing facility into compliance with newly adopted regulatory requirements of the District or of any other local, state or federal agency. Although, the NESHAP 40 CFR 60, Subpart LLL for Portland Cement will not be amended until August 2010, that revision appears certain to occur, and Lehigh's efforts to achieve early compliance will benefit the environment. This project is also categorically exempt from CEQA because the permit application is to install air pollution control or abatement equipment per Regulation 2-1-312.2.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

PSD is not applicable because the project maximum air quality impacts of the lime slurry project is not a major modification per Regulation 2-2-221 and do not exceed the significance levels for air quality impacts, as defined in Regulation 2-2-233.

### **VIII. CONDITIONS**

#### **Condition # 603**

S-154 Calciner Kiln

S-171 Kiln Fuel Mill System

S-172 Precalciner Fuel Mill System

Amended by A/N 15398, A/N 18535 and A/N 21753

Any condition that is preceded by an asterisk is not federally enforceable.

- 1. The Owner/Operator shall not operate the pneumatic system from trucks to storage unless it is vented to a dust collection system. The S-171 Kiln Mill System shall be abated by A-171 Dust Collector, and the S-172 Precalciner Mill shall be abated by the A-172 Dust Collector. (Basis: Regulation 2-2-212 Cumulative Increase)**
- 2. The owner/operator of S-171 and S-172, shall not exceed the following usage limits in the Pre-calciner and Kiln (S-154):  
Operation with 100 % coal at maximum 29 tons/hr; or  
Operation with 100% Petroleum Coke at maximum 20 tons/hr**

**The Owner/Operator may use any combination of coal and petroleum coke other than specified above, provided that the owner/operator can demonstrate that the total fuel consumption does not exceed 4,960,000 MMBTU/yr (1,600,000 tons/yr clinker x 3.1 MMBtu/ton).**

**For calculation purposes, the coal's heat content is assumed to be 25 MMBTU/ton and coke's heat content is assumed to be 29 MMBTU/ton. The values may change depending on each shipment received.**

**(Basis: Cumulative Increase).**

- 3. Deleted, (inappropriate PSD analysis trigger level for lead per Regulation 2-2-306)**

4. Deleted, (inappropriate PSD analysis trigger level for beryllium per Regulation 2-2-306)
- \*5. The Owner/Operator of S-154 shall not exceed 1.06 pounds of hexavalent chromium per any consecutive 12-month. (Basis: Toxics)
6. Deleted, (Part 8 replaces quarterly composition analysis of coke)
7. The Owner/Operator of S-154, S-171 and S-172 shall calibrate, maintain, and operate District-approved continuous volumetric flow meters on 4 of the 32 kiln (S-154) exhaust dust collectors (A-141, A-142) and on the fuel grinding mills exhaust dust collectors (A-171 and A-172) as suggested by the manufacturer's recommendation. [Basis: Regulation 2-6-503]
- \*8. The Owner/Operator of S-154 shall conduct a source test at the exhausts of Dust Collectors (A-141, A-142, A-171 and A-172) at least once per calendar year to demonstrate subsequent compliance with Part 5. The test should be conducted with the raw mill on and the raw mill off. The Owner/Operator shall also test for trace metals contents (Sb, As, Be, Cd, Cr<sup>+6</sup>, total Cr, Cu, Hg, Mn, Ni, P, Pb, Se, V, Zn), benzene, Hydrochloric Acid (HCl) and total hydrocarbon (THC) at least once per calendar year. The Owner/Operator shall submit the source test results to the District Source Test Section and Engineering Divisions no later than 60 days after the source test. Lehigh may use the same concentrations from A-141 and A-142 if repeated source tests demonstrate that the concentrations from A-171 and A-172 are lower than the concentrations from A-141 and A-142. [Basis: Periodic Monitoring, Regulation 1-502]
9. The Owner/Operator shall obtain approval for all source test procedures from the District's Source Test Manager prior to conducting any tests. The Owner/Operator shall comply with all applicable testing requirements for continuous emissions monitors as approved by the District's Source Test Manager. The Owner/Operator shall notify the District's Source Test Manager, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. [Basis: Source test compliance verification and accuracy]
10. The owner/operator shall maintain daily records (calendar day), in a District approved log, for: (1) the amount of coke and coal usage, each separately (2) the coke's heat content and the coal's heat content. The daily throughput of fuel used and daily average volumetric flow rates shall be submitted to the District once each quarter. All records shall be retained for a period of at least five years from the date of entry. This log shall be kept on site and made available to District staff upon request. [Basis: Recordkeeping]
11. The owner / operator shall operate A-154 Lime Slurry Injection System so as to mitigate / maintain HCl emissions from S-154 to the applicable Federal NESHAPs HCl standard. (Basis: **Cumulative increase, revised** NESHAP Subpart LLL. (Effective upon adoption of the revised NESHAP Subpart LLL and its compliance date).
12. The owner/operator of the Lime Slurry Injection system (A-154) shall install, operate and maintain District approved continuous hydrochloric acid (HCl) emission monitors at the exhausts of Dust Collectors (A-141, A-142, A-171 and A-172) as suggested by the manufacturer's recommendation. Lehigh must apply and obtain EPA's approval before using the HCl monitor's concentrations at the exhaust of A-141 and A-142 to calculate the mass flow of HCl emissions at the exhaust of A-171 and A-172. (Basis: Regulation 2-6-503, NESHAP Subpart LLL). (Effective upon adoption of the revised NESHAP Subpart LLL and its compliance date).

13. The owner/operator shall maintain hourly continuous emission monitoring records for the monitoring system in a form suitable for inspection and approved by the APCO and the EPA administrator. Such records shall include, but are not limited to: (Basis: RACT)
  - (i) The continuous emission monitoring measurements for HCl expressed in ppm;
  - (ii) The date, time, and duration of any start-up, shutdown or malfunction in the operation of any of the kiln systems or the emission monitoring equipment; and,
  - (iii) The results of performance testing, evaluation, calibration, checks, adjustments, and maintenance of the continuous emission monitoring system.
14. The owner/operator shall maintain the HCl CEMS records at the facility for at least five years. These records shall be made available to the APCO or the EPA Administrator upon request. (Basis: Cumulative Increase)
15. The HCl Continuous Emission Monitor System (CEMs) must meet the requirements of District Manual of Procedures, Volume V, Continuous Emission Monitoring, Policy and Procedures. (Basis: Regulation 1-522, 1-602; Manual of Procedures, Volume V)

**COND# 24626**

**For S-167 Lime Bin, abated by A-167 dust collector**

1. The owner/operator shall ensure visible particulate emissions from S-167 shall not exceed Ringelmann 1.0 for more than 3 minutes in any hour or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: BACT, Regulation 6, Rule 1, Regulation 1-301)
2. The owner/operator shall ensure all of the particulate emissions emitted from S-167 flow under negative pressure to Dust Collector A-167. The owner/operator shall equip this Baghouse with a District approved manometer for measuring the pressure drop across the Baghouse. Each manometer shall be checked for proper operation at least once every month. (Basis: Regulation 6-301, 6-310, 6-311, Regulation 2-1-403)
3. The owner/operator shall ensure the outlet grain loading for Baghouse A-167 does not exceed 0.0013 grain/dscf. (Basis: Regulation 2-2-212 Cumulative Increase)
4. The owner/operator shall ensure the total throughput of powder lime at S-167 does not exceed 5,800 tons in any calendar year. (Basis: Regulation 2-2-212 Cumulative Increase)
5. The owner/operator shall not exceed 290 hydrated lime delivery trucks in any consecutive 12 month period and the total amount of cement trucks and hydrated lime trucks shall not exceed 70,000 trucks in any consecutive 12 months period. (Basis: To Avoid Cumulative Increase of PM10)
6. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:
  - a. Total monthly hours of operation.
  - b. The monthly hours of operation shall be totaled on a yearly basis.
  - c. The total monthly throughput of lime.
  - d. Total monthly number of truck for lime delivery and their delivery times.All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements

shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase)

7. The owner/operator shall inspect Baghouse, A-167 monthly to ensure proper operation. The following items shall be checked:
  - a. The pressure drop across the baghouse shall be checked monthly. The pressure drop shall be no lower than 0.5 inches of water and no greater than 8 inches of water.
  - b. The baghouse exhaust shall be checked monthly for evidence of particulate breakthrough. If breakthrough is evident from plume observations, dust buildup near the stack outlet, or abnormal pressure drops, the filter bags shall be checked for any tears, holes, abrasions, and scuffs, and replaced as needed.
  - c. All hoppers shall be discharged in a timely manner to maintain compliance with 6(a) above.
  - d. The pulsejet, shaker cleaning system shall be maintained and operated at sufficient intervals to maintain compliance with 6(a) above.(Basis: Regulation 2-1-403)
  
8. In order to demonstrate compliance with the above permit conditions, the following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made.
  - a. Records of all inspections and all maintenance work including bag replacement for the baghouse. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspects the baghouses.(Basis: Regulation 1-441)
  
9. Not later than 60 days from the startup of A-167, and once every five years thereafter, the owner/operator shall conduct an initial District approved source tests to determine compliance with the limit in Part 3. The owner/operator shall submit the source test results to the District staff no later than 60 days after the source test. (Basis: BACT, Cumulative Increase)
  
10. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. (Basis: Cumulative Increase)

**COND# 16109**

**For S-17 Clinker Transfer (6-BC-3, 6-BC-6, 6-BC-7), S-45 West Silo Top Cement Distribution Tower, S-46 Middle Silo Top Cement Distribution Tower, S-47 East Silo Top Cement Distribution Tower, S-48 Bulk Cement Loadout Tanks #1 and #2, S-49 Bulk Cement Loadout Tank #28, S-50 Bulk Cement Loadout Tank #29, S-54 Cement Packer #1, S-55 Cement Packer #2,**

1. The owner/operator shall ensure visible particulate emissions from each source S-17, S-45, S-46, S-47, S-48, S-49, S-50, S-54, S-55, S-56 do not exceed Ringlemann 0.5 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Regulation 1-301, BACT)
2. The owner/operator shall ensure all of the particulate emissions emitted from the handling of cement for the sources identified in part #1 flow under negative or positive pressure to the corresponding baghouse (s) (A-420 through A-436). (Regulation 2-2-212 Cumulative increase, BACT)
3. The outlet grain loading for each baghouse shall not exceed 0.006 grains/dscf. (Cumulative Increase, Regulation 2-2-301.1 BACT))
4. Deleted (Source test requirement has been met).
5. The owner/operator of S-48, S-49, S-50, S-54, S-55 and S-167 shall not load cement out and deliver hydrated lime more than its percent maximum throughput of current trucks, a maximum of 70,000 cement trucks/hydrated lime trucks loaded/unload to capacities (limited by current law on cement trucks maximum tonnage and this facility's cap on cement production), in any consecutive twelve month period. (Regulation 2-2-212 Cumulative increase)
6. The owner/operator shall maintain in, a District approved log, monthly records of the total number of cement trucks loaded, hydrated lime trucks received and unloaded, the total amount of cement loaded out in the cement trucks and the total amount of hydrated lime unloaded. These records shall be retained for a period of at least five years. The logs shall be kept on site and made available to District staff upon request. (Cumulative Increase)

**IX. RECOMMENDATION**

Issue a conditional Authority to Construct to Lehigh Southwest Cement Company for the following source and abatement devices:

**A-154 Lime Slurry Injection System abate existing Calciner Kiln (S-154)**

**S-167 Lime Bin, 1 ton/hr, abated by A-167 Dust Collector, Donaldson Torit PowerCore CPV4, 2,000 scfm**

**A-167 Dust Collector, Donaldson Torit PowerCore CPV4, 2,000 scfm to abate Lime Bin S-167**

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*Thu H. Bui*  
*Senior Air Quality Engineer*  
*Engineering Division*

Date: \_\_\_\_\_

THB:disk-L\Lehigh\Hanson\21573\21573e\



**EVALUATION REPORT**  
**Lehigh Southwest Cement Company**  
**Application #22953- Plant #17**

**24001 Stevens Creek Blvd.**  
**Cupertino, CA 95014**

**I. BACKGROUND**

Lehigh Southwest Cement Company has applied for an Authority to Construct/Permit to Operate for the following equipment:

- A-156 Activated Carbon Injection System to abate S-154 Calciner Kiln**
- S-168 Activated Carbon Storage Silo, 60 tons capacity, abated by A-168 Dust Collector, Dustex, 750 scfm or equivalent equipment**
- S-169 Activated Carbon Feed Bin, 10 tons capacity, abated by A-169 Dust Collector, Dustex, 300 scfm**

Lehigh has requested to install a powder activated carbon injection (ACI) system to control mercury (Hg) emissions at the S-154 Kiln. This is a voluntary interim action that is intended to reduce mercury emissions below levels which the District has established for public notification under the Air Toxics Hot Spots Program. Powder activated carbon injection has been utilized in coal fired power plants, but it is new in the cement industry for Hg emission reduction and has shown to be effective in trial runs. The ACI system is a part of Lehigh's overall efforts to control mercury emissions from their facility. Lehigh will subsequently be making additional modifications, including adding a single stack, to further reduce public exposures to mercury and other toxic air contaminants.

In September 2010, Lehigh performed a series of tests through the Temporary Permit to Operate pursuant to Application #22335 to determine the effectiveness of carbon sorbent on reducing mercury emissions. Different doses of powdered activated carbon were pneumatically added at various rates into the exhaust gas stream of the kiln/mill dust collector (KMDC). Lehigh tracked the sorbent impact by using a continuous mercury monitor. In addition, mill feeds, products and internal dust circulation were sampled to better understand the effect of mercury dust recycling along with the effect of activated carbon injection on overall mercury emissions reductions.

Lehigh concluded that: (1) using the ACI combined with recycling the KMDC dust to the finish mills are practical methods to reduce Lehigh's mercury in the flue gas emissions. (2) the activated carbon when circulated from the baghouse to the preheater tower and back again, maintains a portion of its mercury adsorption capacity. The high temperature tolerance allows the amount of fresh activated carbon to be reduced. (3) the baghouse dust shows an increase in mercury concentration; thus indicating the mercury is captured and retained by the activated carbon.

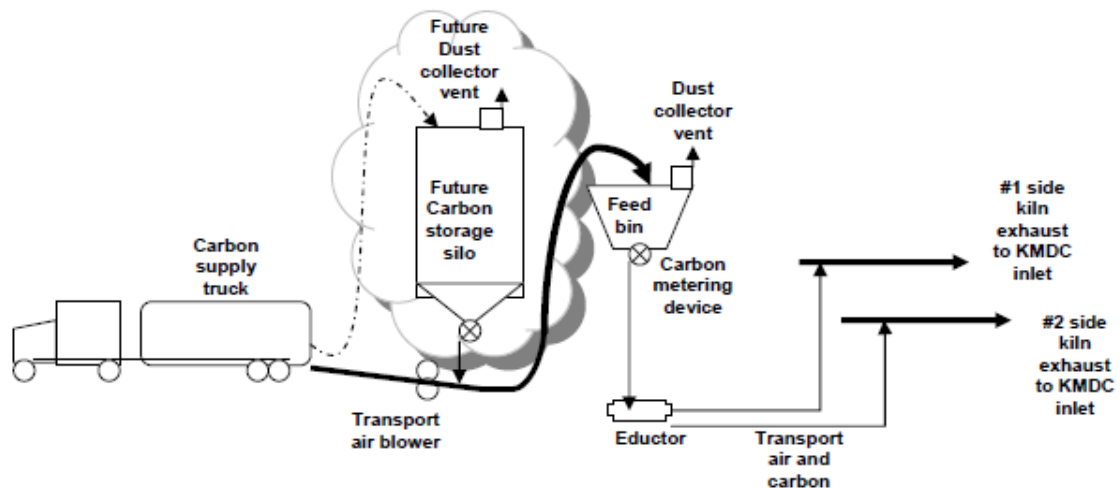
The activated carbon in powder form will be trucked into Lehigh and stored in S-168 Silo, which will be abated by a dedicated Dust Collector, A-168. The A-168 will only operate to abate the particulate matter emissions from unloading the product from the transit trucks and transferring it to the silo. From the silo, the activated carbon will be transferred to the new Feed Bin (S-169) to be abated by Dust Collector (A-169). The A-169 will only operate to abate the transfer of material from the silo to S-169. The feed bin will be equipped with a metering apparatus, which will use a gravimetric feeder to deliver a measured amount of activated carbon to an eductor. The eductor will receive its transport air from a low pressure

blower and will deliver the activated carbon into the injection lances arrays set up at various locations along the duct work leading to Kiln Mill Dust Collectors, A-141 and A-142.

The eductor will supply two separate activated carbon deliveries, up to 250 lbs/hr of activated carbon each, one for each side of the Kiln's process. The maximum amount of carbon consumed would be 2,000 tons of activated carbon per year. This would be an equivalent of 100 delivery trucks per year, assuming each truck has 20 tons capacity. This ACI project will not increase truck traffic beyond the allowable permitted limit. Currently, Condition 16109, Part 5, limits Lehigh to operate no more than 70,000 hydrated lime and cement trucks per year. Condition 16109, Part 5 will be modified to include the powdered activated carbon trucks, hydrated lime and cement trucks in the total of 70,000 trucks.

Mercury in plant flue gas exists in three forms: 1) Elemental (gas phase), 2) Oxidized (gas phase), 3) Particulate (adsorbed on particulate matter). The basic concept of sorbent control is to enhance the conversion from gas phase to particulate phase and then remove the particulate bound mercury along with dust. Activated carbon is a form of carbon that is processed to make it extremely porous to provide a large surface area for adsorption. The flue gas laden with mercury must be brought into physical contact with the powdered activated carbon where it becomes attached by mass transfer and then collected at the plant's particulate dust collector. It was found that the ACI works effectively when the temperature is below 300°F. The mercury removal efficiencies using ACI range from 50-60%. The ACI combined with recycling the KMDC dust to the finish mills can reduce the mercury emissions by approximately 70-80%.

### Diagram of Activated Carbon Injection System



This application will not result in emission increases of PM10 from the dust entrainment from truck travel on dry paved roads within the plant from the levels already allowed.

Lehigh has submitted a minor revision application to its TV permit under application #22954 concurrently with this application.

The applicable requirements for these sources will be incorporated into the Title V permit as minor revisions and administrative amendments. Controlling mercury for the purposes of the California "Hot Spots" program is not a federally enforceable requirement and can be

incorporated into a Title V permit as an administrative amendment as shown in the excerpt from BAAQMD Regulation 2, Rule 6, Major Facility Review below:

**2-6-201 Administrative Permit Amendment:** A non-substantive amendment to a major facility review permit. The following amendments are administrative amendments: changes in recordkeeping format that are not relaxations of applicable requirements, the correction of typographical errors, changes in permit format that are not alterations of applicable requirements, changes in source descriptions that are not alterations of applicable requirements, changes in the descriptions of applicable requirements that add detail but do not affect substantive requirements, deletion of requirements containing sunset dates that have passed, the identification of administrative changes at a facility (such as a replacement of the facility's responsible official or a change in ownership or operational control of the facility which involves no physical or operational changes to the facility), the deletion of sources, the approval of a District rule into the SIP, the imposition of more frequent emission monitoring requirements, and changes to applicable requirements and related monitoring that are not federally enforceable.

The applicable requirements for the S-168, Activated Carbon Silo, and S-169, Activated Carbon Feed Bin, are federally enforceable and will be incorporated in the Title V permit as minor revisions as defined by BAAQMD Regulation 2-6-215. Minor revisions are defined as revisions that are not administrative amendments or significant permit revisions. The definition of significant permit revision is shown below:

**2-6-226 Significant Permit Revision:** Any revision to a federally enforceable condition contained in a major facility review permit that can be defined as follows:

- 226.1 The incorporation of a change considered a major modification under 40 CFR Parts 51 (NSR) or 52 (PSD);
- 226.2 The incorporation of a change considered a modification under 40 CFR Parts 60 (NSPS), 61 (NESHAPS), or Section 112 of the Clean Air Act (HAP);
- 226.3 Any significant change or relaxation of any applicable monitoring, reporting or recordkeeping condition;
- 226.4 The establishment of or change to a permit term or condition allowing a facility to avoid an applicable requirement, including:
  - 4.1 a federally enforceable emission limit assumed in order to avoid classification as a modification under any provision of Title I of the federal Clean Air Act, or
  - 4.2 an alternative hazardous air pollutant emission limit pursuant to Section 112(i)(5) of the Clean Air Act;
- 226.5 The establishment of or change to a case-by-case determination of any emission limit or other standard;
- 226.6 The establishment of or change to a facility-specific determination for ambient impacts, visibility analysis, or increment analysis on portable sources; or
- 226.7 The incorporation of any requirement promulgated by the U. S. EPA under the authority of the Clean Air Act provided that three or more years remain on the permit term.

The revision is not a major modification for NSR or PSD; a modification for NSPS, NESHAPS, or Section 112 of the federal Clean Air Act; a significant change or relaxation of any existing monitoring, recordkeeping, or reporting condition; the establishment or change to a condition to avoid a federally enforceable requirement; a case-by-case determination of a federally enforceable emission limit or standard; a determination of ambient impacts, visibility analysis, or increment analysis on portable sources, or the incorporation of any Clean Air Act requirement. Therefore, the revisions to the Title V permit will not be significant revisions.

## II. EMISSION CALCULATIONS

### Activated Carbon Storage Silo (S-168) and Dust Collector (A-168)

The Dust Collector has a guaranteed performance of 0.0013 gr/dscf from its vendor, Dustex Corporation.

A-168 PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 750 ft3/min x 30 min/truck x 100 truck/yr = 0.42 lbs/yr

A-168 PM10 Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 750 ft3/min x 30 min/truck x 3 truck/day = 0.0125 lbs/day

**Activated Carbon Feed Bin (S-169) and Dust Collector (A-169)**

The Dust Collector has a guaranteed performance of 0.0013 gr/dscf from its vendor, Dustex Corporation.

A-169 PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 300 ft3/min x 30 min/transfer x 400 transfer/yr = 0.67 lbs/yr

A-169 PM10 Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 300 ft3/min x 30 min/transfer x 4 transfer/day = 0.007 lbs/day

**Application Emission Increase**

Annual PM<sub>10</sub> = Storage Silo + Feed Bin

$$0.42 \text{ lb/yr} + 0.67 \text{ lb/yr} = 1.09 \text{ lb/yr or } 0.000545 \text{ ton/yr}$$

**III. PLANT CUMULATIVE INCREASE SINCE 4/5/91**

The Databank shows the following cumulative increase for this plant.

	<u>Current</u> Ton/yr	<u>New</u> Ton/yr	<u>New Total</u>	
			Lbs/yr	Tons/yr
POC =	0.00	0.00	0.00	0.00
NO <sub>x</sub> =	0.00	0.00	0.00	0.00
SO <sub>2</sub> =	0.00	0.00	0.00	0.00
CO =	0.00	0.00	0.00	0.00
NPOC =	0.00	0.00	0.00	0.00
PM <sub>10</sub> =	0.00	0.000545	1.09	0.000545

**IV. TOXIC SCREENING ANALYSIS**

The mercury emissions because of this proposed project will be reduced, making Lehigh less of a health risk to the surrounding community. Thus, this application does not require any toxic risk screening analysis per Regulation 2-5.

**Air Toxics Hot Spots Program (ATHS):**

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly, 1987) established a formal regulatory program for site-specific air toxics emissions inventory and health risk quantification that is managed by California air districts. Under this program, a wide variety of industrial, commercial, and public facilities are required to report the types and quantities of toxic substances their facilities routinely release into the air. The goals of the Air Toxics Hot Spots Program are to collect emissions data, to identify facilities with potential for localized health impacts, to ascertain health risks, to notify nearby residents of risks that are determined to warrant such notification, and to reduce significant risks.

There are five steps to implementing the ATHS program. Guidelines have been developed for all five steps to establish a consistent, science-based, methodology for implementing the program. The five steps are briefly described as follows:

- **Air Toxics Emissions Inventory:** Subject facilities are required to prepare and submit a comprehensive emissions inventory plan followed by a toxics emissions inventory report. Each facility's emissions inventory must be updated on a regular basis (in order to reflect changes in equipment, materials, and production levels at the facility).
- **Prioritization:** Each facility is prioritized for potentially significant health impacts based on the quantity and toxicity of emissions, and the proximity of nearby residents and workers.
- **Health Risk Assessment:** Facilities that are determined to be "high priority" are required to prepare a comprehensive HRA. The air district and Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA) review the HRA.
- **Public Notification:** If the health risks resulting from the facility's emissions exceed action levels established by the air district, the facility is required to perform notification to all exposed persons regarding the results of the HRA. The BAAQMD has established a cancer risk of 10 in a million and a noncancer Hazard Index of one as ATHS public notification levels.
- **Risk Reduction:** If the health risks resulting from the facility's emissions exceed significance levels established by the air district, the facility is required to conduct an airborne toxic risk reduction audit and develop a plan to implement measures that will reduce emissions from the facility to a level below the significance level within five years. The BAAQMD has established a cancer risk of 100 in a million and a noncancer Hazard Index of ten as ATHS mandatory risk reduction levels.

**Lehigh's ATHS Status:** Lehigh is in compliance with the ATHS program. At the District's request, Lehigh submitted an updated ATHS emission inventory in 2009. The District reviewed the emissions report and changed the prioritization status of the facility to High Priority. Therefore, Lehigh was required to prepare a comprehensive HRA, which they submitted in September, 2010. The District requested revision of the HRA and Lehigh submitted a revised HRA in March, 2011. The HRA indicates that, based on the emissions represented by the 2011 Production scenario, risk levels are below the thresholds requiring public notification; the 2011 Production scenario represents the implementation of the Activated Carbon Injection system (subject of this application) and an hourly emission rate of 0.064 lb/hr of mercury (approximate 65% reduction from baseline). Preliminary review by District staff indicates that the HRA was prepared according to the Air Toxics Hot Spots Health Risk Assessment Guidelines and represents toxic emissions and risk appropriately. The HRA report will be eligible for final approval after review by the District and OEHHA staff is complete.

## V. **BEST AVAILABLE CONTROL TECHNOLOGY**

Sources S-168 and S-169 did not trigger BACT because the PM10 emissions are below 10 pounds per highest day per Regulation 2-2-301. However, Lehigh will install BACT(1) level Dust Collectors at sources S-168 and S-169 with an outlet grain loading limit of 0.0013 gr/dscf.

S-154 will not have any emission increases as a result of this proposed project; therefore, BACT does not apply.

## **VI. OFFSETS**

Offsets are required since the facility's PM10 emissions are more than 100 ton/yr per Regulation 2-2-303. Lehigh is required to provide PM10 emission offsets since there is an increase of 17.10 lbs/yr of PM10 from material handling of the ACI system. At this time, Lehigh elected to defer the offsets per Regulation 2-2-421, until the annual permit renewal period because the PM10 emission increase is much less than 1 ton/yr.

## **VII. STATEMENT OF COMPLIANCE**

The owner/operator of source S-154, S-168 and S-169 is expected to continue to comply with the requirements of District Regulation 1-301 "Public Nuisance" and District Regulation 6 "Particulate Matter and Visible Emissions". The sources that are abated by the Dust Collectors are conditionally permitted to meet these requirements.

### **PSD**

PSD does not apply because the activated carbon injection system project's emissions increases and maximum air quality impacts are not major modifications per federal PSD regulations and do not exceed the significance levels for air quality impacts, as defined in federal PSD regulations.

### **National Emissions Standards for Hazardous Air Pollutants Standards (NESHAPS)**

The owner/operator of sources S-154, S-168 and S-169 are expected to continue to comply with NSPS Subpart F, Portland Cement Plants and NESHAP Subpart LLL, National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

### **California Environmental Quality Act (CEQA)**

This project is categorically exempt from CEQA because the permit application is to install air pollution control or abatement equipment per Regulation 2-1-312.2.

This project is expected to reduce mercury emissions; thus, this application does not require any toxic risk screening analysis per Regulation 2-5. The applicant has submitted a CEQA Environmental Information Form H for the project, and has not identified any potential significant impacts.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

### **Major Facility Review (Title V)**

As discussed in the Section I, Background, the changes approved in this Authority to Construct will be administrative amendments and minor revisions to the Major Facility Review permit.

S-168, Activated Carbon Silo, and S-169, Activated Carbon Feed Bin, are subject to SIP Regulation 6, Particulate Matter and Visible Emissions, which contains federally enforceable limits on particulate matter. Because the facility is subject to Major Facility Review in accordance with BAAQMD Regulation 2, Rule 6, monitoring for all federally enforceable requirements must be evaluated. As shown in Section II, Emission Calculations, the particulate emissions of sources S-168 and S-169 after abatement are estimated to be 0.42 and 0.67 lb/yr, respectively. The sources will be monitored by checking the pressure drop across the baghouse and checking for visible emissions on a monthly basis.

### **Compliance Assurance Monitoring (CAM) Plan**

Sources S-168 and S-169 are exempt from a CAM plan because they have potential pre-control device emissions that are equal or less than 100 tons per year of particulate matter per 64.2(1)(3).

## VIII. CONDITIONS

### Condition # 603

S-154 Calciner Kiln

S-171 Kiln Fuel Mill System

S-172 Precalciner Fuel Mill System

Amended by A/N 15398, A/N 18535, A/N 21753 and A/N 22953

Any condition that is preceded by an asterisk is not federally enforceable.

1. The Owner/Operator shall not operate the pneumatic system from trucks to storage unless it is vented to a dust collection system. The S-171 Kiln Mill System shall be abated by A-171 Dust Collector, and the S-172 Precalciner Mill shall be abated by the A-172 Dust Collector. (Basis: Regulation 2-2-212 Cumulative Increase)
3. The owner/operator of S-171 and S-172, shall not exceed the following usage limits in the Pre-calciner and Kiln (S-154):  
Operation with 100 % coal at maximum 29 tons/hr; or  
Operation with 100% Petroleum Coke at maximum 20 tons/hr

The Owner/Operator may use any combination of coal and petroleum coke other than specified above, provided that the owner/operator can demonstrate that the total fuel consumption does not exceed 4,960,000 MMBTU/yr (1,600,000 tons/yr clinker x 3.1 MMBtu/ton).

For calculation purposes, the coal's heat content is assumed to be 25 MMBTU/ton and coke's heat content is assumed to be 29 MMBTU/ton. The values may change depending on each shipment received.  
(Basis: Cumulative Increase).

3. Deleted, (inappropriate PSD analysis trigger level for lead per Regulation 2-2-306)
4. Deleted, (inappropriate PSD analysis trigger level for beryllium per Regulation 2-2-306)
- \*5. The Owner/Operator of S-154 shall not exceed 1.06 pounds of hexavalent chromium per any consecutive 12-month. (Basis: Toxics)
6. Deleted, (Part 8 replaces quarterly composition analysis of coke)
7. The Owner/Operator of S-154, S-171 and S-172 shall calibrate, maintain, and operate District-approved continuous volumetric flow meters on 4 of the 32 kiln (S-154) exhaust dust collectors (A-141, A-142) and on the fuel grinding mills exhaust dust collectors (A-171 and A-172) as suggested by the manufacturer's recommendation. (Basis: Regulation 2-6-503)
- \*8. The Owner/Operator of S-154 shall conduct a source test at the exhausts of Dust Collectors (A-141, A-142, A-171 and A-172) at least once per calendar year to demonstrate subsequent compliance with Part 5. The test should be conducted with the raw mill on and the raw mill off. The Owner/Operator shall also test for trace metals contents (Sb, As, Be, Cd, Cr<sup>+6</sup>, total Cr, Cu, Hg, Mn, Ni, P, Pb, Se, V, Zn), benzene,

Hydrochloric Acid (HCl) and total hydrocarbon (THC) at least once per calendar year. The Owner/Operator shall submit the source test results to the District Source Test Section and Engineering Divisions no later than 60 days after the source test. Lehigh may use the same concentrations from A-141 and A-142 if repeated source tests demonstrate that the concentrations from A-171 and A-172 are lower than the concentrations from A-141 and A-142. (Basis: Periodic Monitoring, Regulation 1-502)

11. The Owner/Operator shall obtain approval for all source test procedures from the District's Source Test Manager prior to conducting any tests. The Owner/Operator shall comply with all applicable testing requirements for continuous emissions monitors as approved by the District's Source Test Manager. The Owner/Operator shall notify the District's Source Test Manager, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. (Basis: Source test compliance verification and accuracy)
12. The owner/operator shall maintain daily records (calendar day), in a District approved log, for: (1) the amount of coke and coal usage, each separately (2) the coke's heat content and the coal's heat content. The daily throughput of fuel used and daily average volumetric flow rates shall be submitted to the District once each quarter. All records shall be retained for a period of at least five years from the date of entry. This log shall be kept on site and made available to District staff upon request. (Basis: Recordkeeping)
13. The owner / operator shall operate A-154 Lime Slurry Injection System so as to mitigate / maintain HCl emissions from S-154 to the applicable Federal NESHAPs HCl standard. (Basis: Cumulative increase, revised NESHAP Subpart LLL. (Effective upon adoption of the revised NESHAP Subpart LLL and its compliance date).
14. The owner/operator of the Lime Slurry Injection system (A-154) shall install, operate and maintain District approved continuous hydrochloric acid (HCl) emission monitors at the exhausts of Dust Collectors (A-141, A-142, A-171 and A-172) as suggested by the manufacturer's recommendation. Lehigh must apply and obtain EPA's approval before using the HCl monitor's concentrations at the exhaust of A-141 and A-142 to calculate the mass flow of HCl emissions at the exhaust of A-171 and A-172. (Basis: Regulation 2-6-503, NESHAP Subpart LLL). (Effective upon adoption of the revised NESHAP Subpart LLL and its compliance date).
- 13a. The owner/operator shall maintain hourly continuous emission monitoring records for the monitoring system in a form suitable for inspection and approved by the APCO and the EPA administrator. Such records shall include, but are not limited to: (Basis: RACT)
  - (i) The continuous emission monitoring measurements for HCl expressed in ppm;
  - (ii) The date, time, and duration of any start-up, shutdown or malfunction in the operation of any of the kiln systems or the emission monitoring equipment; and,
  - (iii) The results of performance testing, evaluation, calibration, checks, adjustments, and maintenance of the continuous emission monitoring system.
- \*13b. The owner/operator shall maintain hourly continuous emission monitoring records for the Hg monitoring system in a form suitable for inspection and approved by the APCO and the EPA administrator. Such records shall include, but are not limited to:
  - (i) The continuous emission monitoring measurements for mercury expressed in ppm (1-hour average);



- (ii) The production rates of clinker (tons/hr and tons/month);
  - (iii) The emission rates of Hg in lb/hr (for each hour of the month, the maximum 1-hour average during month, rolling 3-hr average, and rolling 30-day average) and lb/yr (30-day rolling average and 12-month rolling average);
  - (iv) The date, time, and duration of any start-up, shutdown or malfunction in the operation of any of the kiln systems or the emission monitoring equipment; and,
  - (v) The results of performance testing, evaluation, calibration, checks, adjustments, and maintenance of the continuous emission monitoring system.
- (Basis: H&S Code 44300 et seq.)

14a. The owner/operator shall maintain the HCl CEMS records at the facility for at least five years. These records shall be made available to the APCO or the EPA Administrator upon request. (Basis: Cumulative Increase)

\*14b. The owner/operator shall maintain the mercury (Hg) CEMS records at the facility for at least five years. These records shall be made available to the APCO or the EPA Administrator upon request.  
(Basis: H&S Code 44300 et seq.)

15a. The HCl Continuous Emission Monitor System (CEMs) ~~must~~ shall meet the requirements of District Manual of Procedures, Volume V, Continuous Emission Monitoring, Policy and Procedures. (Basis: Regulation 1-522, 1-602; Manual of Procedures, Volume V)

\*15b. The mercury Continuous Emission Monitor System (CEMs) shall meet the requirements of District Manual of Procedures, Volume V, Continuous Emission Monitoring, Policy and Procedures. (Basis: Regulation 1-522, 1-602; Manual of Procedures, Volume V, H&S Code 44300 et seq.)

\*16. The owner/operator of S-154, S-171 and S-172 shall not emit more than 261 lbs/yr (12-month rolling average) and 0.064 lb/hr ((3-hour rolling average) of total mercury during normal operation. These mercury limits may be revised based on a new stack or other modifications that Lehigh will be making, which could affect the Health Risk Analysis results. (Basis: H&S Code 44300 et seq.) (Effective upon operation/certification of Hg CEM).

\*17. The owner/operator of the Activated Carbon Injection System (A-156) shall install, operate and maintain District approved continuous mercury (Hg) emission monitors at the exhausts of Dust Collectors (A-141 and A-142) as suggested by the manufacturer's recommendation. (Basis: H&S Code 44300 et seq.).

\*18. The owner/operator of S-154 shall not emit more than 0.064 lb/hr of total mercury on a 30 days rolling average during normal operation. The owner/operator shall perform a mass balance calculation (In = Out) to determine the mercury compliance. The following equation should be used:

$$\text{Total Hg (air)} = \text{total feed Hg (Pre-Blend Limestone + Iron + Bauxite + Coke)} - \text{total product Hg (KMDC dust to Finish Mills)}$$

The sample of raw materials (Iron, Bauxite and coke) shall be taken once a week. The weekly composites of each raw material shall be analyzed for Hg by a certified laboratory once a month.

The sample of KMDC dust to Finish Mill and Pre-Blend Limestone shall be taken every day. The daily composites of KMDC dust and Pre-Blend Limestone shall be analyzed for Hg by a certified laboratory once a week.

(Basis: H&S Code 44300 et seq.) (Effective until superseded by Part 16).

\*19. The owner/operator shall report all Hg results to the District within 30 days at the close of the month reported on when using material balance to demonstrate compliance.

When the Hg CEMs is operational, the owner/operator shall report the CEMs readings and calculations to the District according to Part 13b within 30 days at the close of the month reported on. (Basis: Regulation 1-522)

\*20. The owner/operator of the Hg CEMs must submit a monitoring plan to the District for approval. All operating parameters must be specified within 90 days of CEMs startup. (Basis: H&S Code 44300 et seq.)

**COND# 24626**

**For S-167 Lime Bin, abated by A-167 dust collector**

**Amended by A/N 22953**

1. The owner/operator shall ensure visible particulate emissions from S-167 shall not exceed Ringelmann 1.0 for more than 3 minutes in any hour or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: BACT, Regulation 6, Rule 1, Regulation 1-301)
2. The owner/operator shall ensure all of the particulate emissions emitted from S-167 flow under negative pressure to Dust Collector A-167. The owner/operator shall equip this Baghouse with a District approved manometer for measuring the pressure drop across the Baghouse. Each manometer shall be checked for proper operation at least once every month. (Basis: Regulation 6-1-301, 6-1-310, 6-1-311, Regulation 2-1-403)
3. The owner/operator shall ensure the outlet grain loading for Baghouse A-167 does not exceed 0.0013 grain/dscf. (Basis: Regulation 2-2-212 Cumulative Increase)
6. The owner/operator shall ensure the total throughput of powder lime at S-167 does not exceed 5,800 tons in any calendar year. (Basis: Regulation 2-2-212 Cumulative Increase)
7. The owner/operator shall not exceed 290 hydrated lime delivery trucks in any consecutive 12 month period and the total amount of cement trucks, ~~and~~ hydrated lime and powdered activated carbon trucks shall not exceed 70,000 trucks in any consecutive 12 months period. (Basis: To Avoid Cumulative Increase of PM10)
6. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:
  - a. Total monthly hours of operation.
  - b. The monthly hours of operation shall be totaled on a yearly basis.
  - c. The total monthly throughput of lime.
  - d. Total monthly number of truck for lime delivery and their delivery times.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase)

7. The owner/operator shall inspect Baghouse, A-167 monthly to ensure proper operation. The following items shall be checked:
  - a. The pressure drop across the baghouse shall be checked monthly. The pressure drop shall be no lower than 0.5 inches of water and no greater than 8 inches of water.
  - b. The baghouse exhaust shall be checked monthly for evidence of particulate breakthrough. If breakthrough is evident from plume observations, dust buildup near the stack outlet, or abnormal pressure drops, the filter bags shall be checked for any tears, holes, abrasions, and scuffs, and replaced as needed.
  - c. All hoppers shall be discharged in a timely manner to maintain compliance with 6(a) above.
  - d. The pulsejet, shaker cleaning system shall be maintained and operated at sufficient intervals to maintain compliance with 6(a) above.(Basis: Regulation 2-1-403)
8. In order to demonstrate compliance with the above permit conditions, the following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made.
  - a. Records of all inspections and all maintenance work including bag replacement for the baghouse. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspects the baghouses.(Basis: Regulation 1-441)
9. Not later than 60 days from the startup of A-167, and once every five years thereafter, the owner/operator shall conduct an initial District approved source tests to determine compliance with the limit in Part 3. The owner/operator shall submit the source test results to the District staff no later than 60 days after the source test. (Basis: BACT, Cumulative Increase)
10. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. (Basis: Cumulative Increase)

**COND# 24899**

**For S-168 Activated Carbon Storage Silo, abated by A-168 Dust Collector  
For S-169 Activated Carbon Feed Bin, abated by A-169 Dust Collector**

1. The owner/operator shall ensure visible particulate emissions from S-168, S-169, A-168 and A-169 shall not exceed Ringelmann 1.0 for more than 3 minutes in any hour or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: BACT, Regulation 6, Rule 1, Regulation 1-301)

2. The owner/operator shall ensure S-168 and S-169 are abated by A-168 and A-169, respectively, at all times when in operation. The owner/operator shall equip A-168 and A-169, Dust Collectors, with a District approved manometer for measuring the pressure drop across the Dust Collector. Each manometer shall be checked for proper operation at least once every month. (Basis: Regulation 6-1-301, 6-1-310, 6-1-311, Regulation 2-1-403)
3. The owner/operator shall ensure the outlet grain loading for Dust Collector A-168 and A-169 does not exceed 0.0013 grain/dscf each. (Basis: Regulation 2-2-212 Cumulative Increase)
4. The owner/operator shall ensure the total throughput of powdered activated carbon at S-168 and/or S-169 does not exceed 2,000 tons in any calendar year. (Basis: Regulation 2-2-212 Cumulative Increase)
5. The owner/operator shall not exceed 100 powdered activated carbon delivery trucks in any consecutive 12 month period and the total amount of cement, hydrated lime and powdered activated carbon trucks shall not exceed 70,000 trucks in any consecutive 12 months period. (Basis: To Avoid Cumulative Increase of PM10)
6. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:
  - a. Total monthly hours of operation.
  - b. The monthly hours of operation shall be totaled on a yearly basis.
  - c. The total monthly throughput of activated carbon.
  - d. Total monthly number of truck for powder activated carbon delivery and their delivery times.All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase)
7. The owner/operator shall inspect Dust Collector, A-168 and A-169 monthly to ensure proper operation. The following items shall be checked:
  - a. The pressure drop across the baghouse shall be checked monthly. The pressure drop shall be no lower than 0.5 inches of water and no greater than 8 inches of water.
  - b. The baghouse exhaust shall be checked monthly for evidence of particulate breakthrough. If breakthrough is evident from plume observations, dust buildup near the stack outlet, or abnormal pressure drops, the filter bags shall be checked for any tears, holes, abrasions, and scuffs, and replaced as needed.
  - c. All hoppers shall be discharged in a timely manner to maintain compliance with 6(a) above.
  - d. The pulsejet, shaker cleaning system shall be maintained and operated at sufficient intervals to maintain compliance with 6(a) above.(Basis: Regulation 2-1-403)
8. In order to demonstrate compliance with the above permit conditions, the following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made.

- a. Records of all inspections and all maintenance work including bag replacement for the dust collector. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspects the dust collectors. (Basis: Regulation 1-441)
9. Not later than 60 days from the startup of A-168 and A-169, and once every five years thereafter, the owner/operator shall conduct an initial District approved source tests to determine compliance with the limit in Part 3. The owner/operator shall submit the source test results to the District staff no later than 60 days after the source test. (Basis: BACT, Cumulative Increase)
10. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. (Basis: Cumulative Increase)

**COND# 16109**

**For S-17 Clinker Transfer (6-BC-3, 6-BC-6, 6-BC-7), S-45 West Silo Top Cement Distribution Tower, S-46 Middle Silo Top Cement Distribution Tower, S-47 East Silo Top Cement Distribution Tower, S-48 Bulk Cement Loadout Tanks #1 and #2, S-49 Bulk Cement Loadout Tank #28, S-50 Bulk Cement Loadout Tank #29, S-54 Cement Packer #1, S-55 Cement Packer #2, and S-167 Lime Bin**

**Amended by A/N 21753 [and A/N 22953](#)**

1. The owner/operator shall ensure visible particulate emissions from each source S-17, S-45, S-46, S-47, S-48, S-49, S-50, S-54, S-55, S-56 do not exceed Ringlemann 0.5 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Regulation 1-301, BACT)
2. The owner/operator shall ensure all of the particulate emissions emitted from the handling of cement for the sources identified in part #1 flow under negative or positive pressure to the corresponding baghouse (s) (A-420 through A-436). (Regulation 2-2-212 Cumulative increase, BACT)
3. The outlet grain loading for each baghouse shall not exceed 0.006 grains/dscf. (Cumulative Increase, Regulation 2-2-301.1 BACT))
4. Deleted (Source test requirement has been met).
5. The owner/operator of S-48, S-49, S-50, S-54, S-55, ~~and S-167~~ [and S-168](#) shall not load cement out and deliver hydrated lime [and powdered](#)

activated carbon more than its percent maximum throughput of current trucks, a maximum of 70,000 cement ~~trucks~~/hydrated lime/powdered activated carbon trucks loaded/unloaded to capacities (limited by current law on cement trucks maximum tonnage and this facility's cap on cement production), in any consecutive twelve month period.  
(Regulation 2-2-212, Cumulative increase)

6. The owner/operator shall maintain in, a District approved log, monthly records of the total number of cement trucks loaded, hydrated lime and powdered activated carbon trucks received and unloaded, the total amount of cement loaded out in the cement trucks and the total amount of hydrated lime and powdered activated carbon unloaded. These records shall be retained for a period of at least five years. The logs shall be kept on site and made available to District staff upon request.  
(Cumulative Increase)

## VII. RECOMMENDATION

Issue a conditional Authority to Construct/Permit to Operate to Lehigh for the following equipment:

- A-156 Activated Carbon Injection System to abate S-154 Calciner Kiln**
- S-168 Activated Carbon Storage Silo, 60 tons capacity, abated by A-168 Dust Collector, Dustex, 750 scfm or equivalent equipment**
- S-169 Activated Carbon Feed Bin, 10 tons capacity, abated by A-169 Dust Collector, Dustex, 300 scfm**

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*Thu H. Bui*  
*Senior Air Quality Engineer*  
*Engineering Division*

*date:* \_\_\_\_\_

THB:E\Lehigh\HansonPermanente\22953e

**EVALUATION REPORT**  
**Lehigh Southwest Cement Company**  
**Application #23594- Plant #17**

**24001 Stevens Creek Blvd.**  
**Cupertino, CA 95014**

**I. BACKGROUND**

Lehigh Southwest Cement Company has applied for an Authority to Construct/Permit to Operate for the following equipment:

- S-223 Synthetic Gypsum Feeder, 6-WF-12 abated by existing A-221 Dust Collector (6-DC-6), DCE Vokes, 2,400 CFM**
- S-246 Synthetic Gypsum Feeder, 6-WF-11 abated by existing A-243 Dust Collector (6-DC-9), DCE Sintamatic, 1,550 CFM**

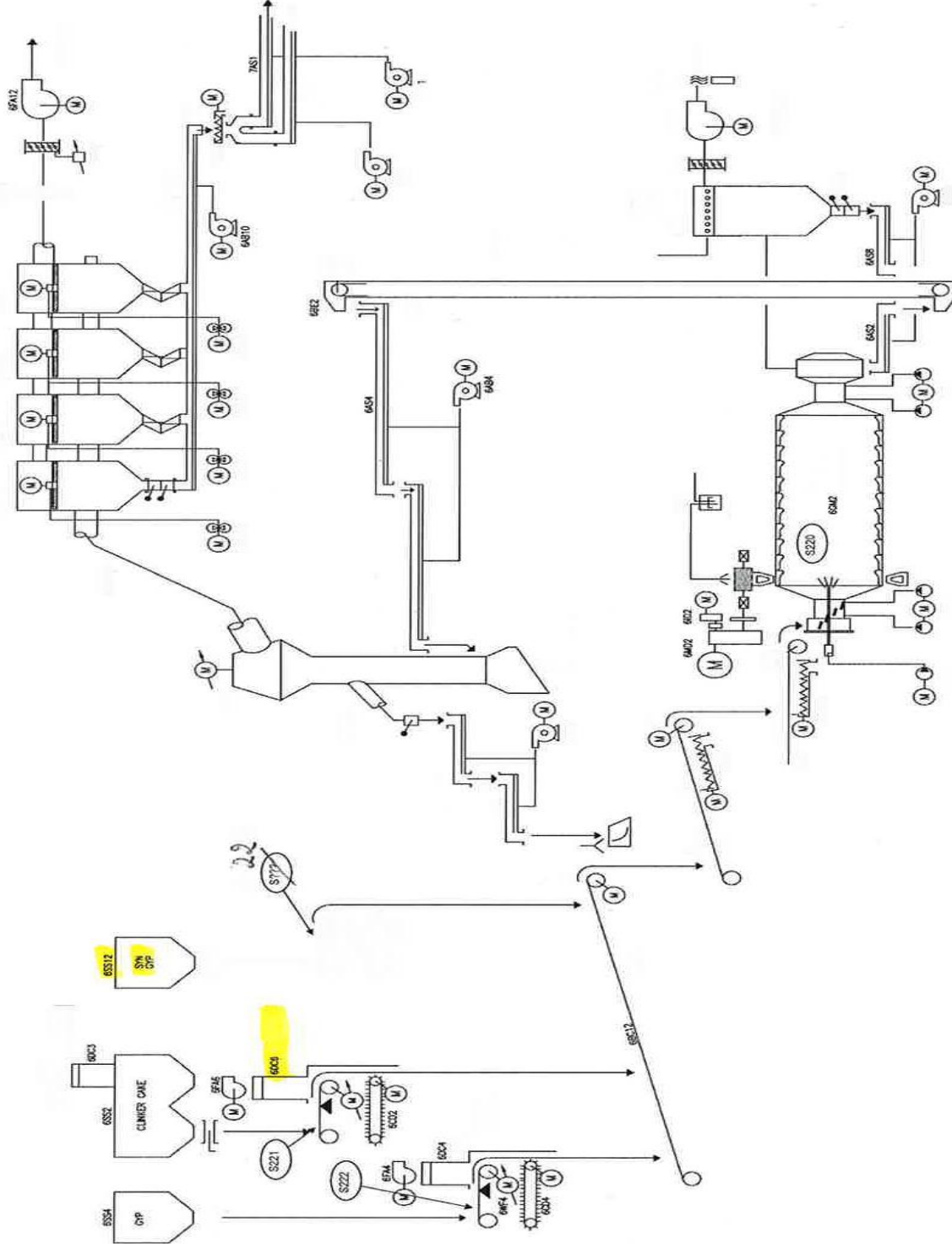
This application is the result of violation notice # A-51557 for no permit to operate and violation notice # A-51556 for visible emissions that Lehigh received on July 22, 2011. Source S-223 is controlled by the existing, permitted Dust Collector A-221, which is also abating the existing, permitted source S-221 Cake Feeder. Source S-246 is controlled by the existing, permitted Dust Collector A-243, which is also abating the existing, permitted source S-243 Gypsum Feeder. Both Synthetic Gypsum Feeders were installed on October 14, 1994, but was not placed in synthetic gypsum service until March of 2010 when the existing source S-414 was switched to store the Kiln Mill Dust Collector (KMDC) instead of synthetic gypsum under Application # 21217.

The maximum amount of synthetic gypsum usage through these two feeders is expected to be 15,000 tons/yr. This would be an equivalent of 750 delivery trucks per year, assuming each truck has 20 tons capacity. The synthetic gypsum feeders will not increase truck traffic because synthetic gypsum is used to replace the permitted natural gypsum. Based on the data forms from the permitted application for natural gypsum in 1990, the reported total natural gypsum throughput was 73,050 tons/yr. However, based on the required 5% composition of gypsum in the cement product, the total gypsum usage would be 84,210 tons/yr (1,600,000 ton clinker/yr / (1-0.95)). The District will modify existing Condition # 4995 to clarify the total throughput of natural and synthetic gypsum usage at Lehigh to be 84,210 tons/yr.

Abatement devices A-221 and A-243 are required to meet BACT of 0.0013 grain/dscf. For dust collectors, the particulate matter emissions are dependent on the hours of operation and outlet grain loading of the dust collector; therefore, the emissions from S-223 & A-221, and S-246 & A-243 were calculated and included in Application # 4770 when Sources S-221 and S-243 were permitted in 1990, and subsequently revised by Application # 17534 in 2008. As a result, there will be no emission increase because the synthetic gypsum feeders will have the same outlet grain loading requirement (0.0013 gr/dscf) and same air flow rate as in previous applications. This application will not result in any increase in cement production at the plant. Total annual production of clinker will still be limited to 1,600,000 tons. This application will not cause any increase in truck or rail traffic either to or from the Lehigh facility.

This application will not result in emission increases of PM10 from the dust entrainment from truck travel on dry paved roads within the plant from the levels already allowed.

**Diagram of The Finish Mill (6-GM-2) for S-223**





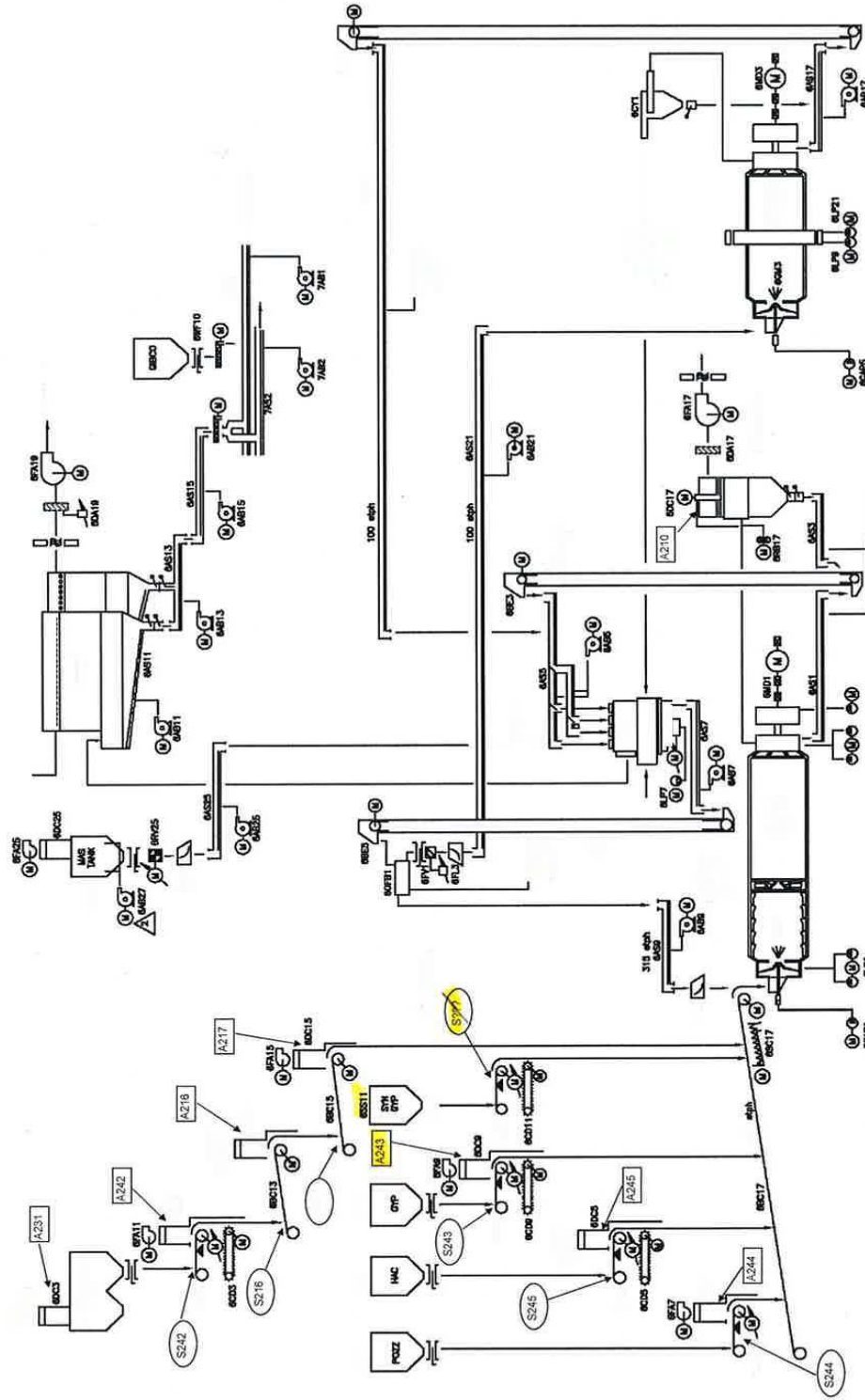


Diagram of The Finish Mill (6-GM-1) for S-246

Lehigh will submit a minor revision application to its Title V permit in the near future. The applicable requirements for these sources will be incorporated into the Title V permit as minor revisions.

## II. EMISSION CALCULATIONS

The emission from both synthetic feeders were included as part of Lehigh's cumulative increase in previous Application # 4770 because they share the permitted dust collectors (A-221 and A-243), which are currently abating sources S-221 and S-243. The emission calculation shown below is for information and toxic emission estimation only.

### **Synthetic Gypsum Feeder (S-223) and Dust Collector (A-221)**

The existing Dust Collector (A-221) was conditioned to meet BACT requirement of 0.0013 gr/dscf per Condition # 4996, Part 4 for a source that operates below 150°F.

#### S-223 & A-221 PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 2,400 ft<sup>3</sup>/min x 60 mins/hr x 24 hrs/day x 365 days/yr = 234 lbs/yr

#### S-223 & A-221 PM10 Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 2,400 ft<sup>3</sup>/min x 60 mins/hr x 24 hrs/day = 0.64 lbs/day

### **Synthetic Gypsum Feeder (S-246) and Dust Collector (A-243)**

The existing Dust Collector (A-243) was conditioned to meet BACT requirement of 0.0013 gr/dscf per Condition # 4995, Part 3.

#### S-246 & A-243 PM10 Annual Emissions:

Max. Annual PM10 emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 1,550 ft<sup>3</sup>/min x 60 mins/hr x 24 hrs/day x 365 days/yr = 151.3 lbs/yr

#### S-246 & A-243 PM10 Daily Emissions:

Maximum Daily PM<sub>10</sub> emissions = 0.0013 gr/dscf x 1 lb/7000 grain x 1,550 ft<sup>3</sup>/min x 60 mins/hr x 24 hrs/day = 0.415 lbs/day

#### Total emission from two feeders

Annual PM<sub>10</sub> = 234 lb/yr + 151.3 lb/yr = 385 lb/yr or 0.193 ton/yr

## III. PLANT CUMULATIVE INCREASE SINCE 4/5/91

This application will not have any facility cumulative increase since there is no emission increase in PM10 emissions.

## IV. TOXIC SCREENING ANALYSIS

A risk screen is not required for this project because there is no increase in emissions of toxic substances from this application per Regulation 2-5.

Toxic emissions for nickel:

Nickel = 385 lb/yr x 0.006 x (15,000 tons synthetic gypsum/ 84,210 tons combined gypsum) = 0.41 lb/yr

<b>Gypsum</b>		<b>Emissions (based on 15,000 ton/yr synthetic gypsum)</b>	<b>Chronic Trigger Level (lb/yr)</b>	<b>Emissions</b>	<b>Acute Trigger Level (lb/hr)</b>
<i>Composition</i>	<i>% wt.</i>	<i>lb/yr</i>	<i>lb/yr</i>	<i>lb/hr</i>	<i>lb/hr</i>
Calcium Sulfate	44-63	43.2	----	0.0049	----
Calcium Oxide	27-42	28.8	----	0.0033	----
Silica Dioxide	4.3-6.1	4.18	----	0.00048	----
Crystalline Silica <sup>1</sup>	0.1	0.069	120	0.00001	----
Aluminum Trioxide	1.4-3.7	2.54	----	0.00029	----
Nickel	0.2-0.6	0.41	0.43	0.000047	0.013
Vanadium	0.4-0.6	0.41	----	0.000047	0.066
Inert & metal Oxide	<1.0	0.69	----	0.000078	----

<sup>1</sup>Crystalline silica was not detected at a detection level of 0.2% wt. The District conservatively assumes the crystalline silica is ½ of the minimum detection, which is 0.1% wt.

**V. BEST AVAILABLE CONTROL TECHNOLOGY**

Sources S-223 and S-246 trigger BACT because the PM10 emissions are higher than 10 pounds per highest day per Regulation 2-2-301. Lehigh has already installed BACT(1) performance level Dust Collectors at sources S-223 and S-246 with an outlet grain loading limit of 0.0013 gr/dscf. Therefore, S-223 and S-246 comply with BACT requirement.

**VI. OFFSETS**

Offsets are not required since this application will not result in an emission increase in accordance with Regulation 2-2-303.

**VII. STATEMENT OF COMPLIANCE**

The owner/operator of sources S-223 & A-221 and S-246 & S-243 is expected to continue to comply with the requirements of District Regulation 1-301 “Public Nuisance” and District Regulation 6-1 “Particulate Matter and Visible Emissions”. The sources that are abated by the Dust Collectors are conditionally permitted to meet these requirements.

**PSD**

PSD does not apply because the installation of the two synthetic gypsum feeders will not result in emission increases and maximum air quality impacts are not major modifications per federal PSD regulations, and do not exceed the significance levels for air quality impacts, as defined in federal PSD regulations.

**National Emissions Standards for Hazardous Air Pollutants Standards (NESHAPS)**

The owner/operator of sources S-223 and S-246 is expected to continue to comply with NSPS Subpart F, Portland Cement Plants and NESHAP Subpart LLL, National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

#### **California Environmental Quality Act (CEQA)**

This project is categorically exempt from CEQA because the permit application for a new or modified source or sources or for process changes which will satisfy the “No Net emission Increase” provisions of District Regulation 2, Rule 2, and for which there is no possibility that the project may have any significant environmental effect in connection with an environmental media or resources other than air quality per Regulation 2-1-312.11.

None of the toxic air contaminant triggers the toxic risk screening level; thus, this application does not require a toxic risk screening analysis per Regulation 2-5. The applicant has submitted a CEQA Environmental Information Form H for the project, and has not identified any potential significant impacts.

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

#### **Major Facility Review (Title V)**

As discussed in the Section I, Background, the changes approved in this Authority to Construct will be a minor revision to the Major Facility Review permit.

S-223 and S-246, Synthetic Gypsum Feeders, are subject to SIP Regulation 6, Particulate Matter and Visible Emissions, which contains federally enforceable limits on particulate matter. Because the facility is subject to Major Facility Review in accordance with BAAQMD Regulation 2, Rule 6, monitoring for all federally enforceable requirements must be evaluated. As shown in Section II, Emission Calculations, the particulate emissions of sources S-223 and S-246 after abatement are estimated to be 234 lb/yr and 151.3 lb/yr, respectively. The sources will be monitored by checking the pressure drop across the dust collector and checking for visible emissions on a quarterly basis as required by Condition # 20751.

#### **Compliance Assurance Monitoring (CAM) Plan**

Sources S-223 and S-246 are exempt from the CAM plan because they have potential pre-control device emissions that are less than 100 tons per year of particulate matter per 64.2(1)(3). Sources S-223 and S-246 will be subject to the facility wide Condition # 24621 that requires source testing every five year.

### **VIII. CONDITIONS**

#### **Condition # 4995**

**For S-222 Gypsum Feeder (6-WF-4), S-240 Additive Conveyor/Bins (6-BC-20, 6-SS-4, 6-SS-5, 6-SS-7, 6-SS-9), S-243 Gypsum Feeder (6-WF-9), S-244 Pozzolan Feeder (6-WF-7), S-245 Clay Feeder (6-WF-5) and S-246 Synthetic Gypsum Feeder (6-WF-11).  
Application # 4770, amended by A/N 23594.**

1. The owner/operator shall ensure visible particulate emissions from each source (S-222, S-240, S-243, S-244, S-245 **and S-246**) do not exceed Ringelmann 1.0 for more than 3 minutes in any hour or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: ~~BACT~~, Regulation 6-1-301, Regulation 1-301)

2. The owner/operator shall ensure all of the particulate emissions emitted from the handling of cement for the sources identified in Part #1 flow under negative pressure to a Baghouse, (A-222 (6-DC-4), A-240 (6-DC-21), A-243 (6-DC-9), A-244 (6-DC-7), A-245 (6-DC-5), respectively). The owner/operator shall equip each Baghouse with a District approved manometer for measuring the pressure drop across the Baghouse. (Basis: Regulation 2-2-212 Cumulative Increase)
3. The owner/operator shall ensure the outlet grain loading for each Baghouse does not exceed 0.0013 grain/dscf. (Basis: Regulation 2-2-301.1 BACT)
4. Deleted (startup condition)
5. Deleted (startup condition)
6. The owner/operator shall maintain daily records, in a District approved log, for the total hours of operation. The owner/operator shall maintain a quarterly record, in a District approved log, of the pressure drop. This log shall be retained for a period of at least five years from date of first entry. This log shall be kept on site and made available to the District's staff upon request. (Basis: Cumulative Increase)
7. The owner/operator shall ensure the total throughput of combined natural and synthetic gypsum at S-222, S-223, S-243 and S-246 does not exceed 84,210 tons in any consecutive 12-month period. (Basis: Regulation 2-2-212 Cumulative Increase)
8. The owner/operator shall ensure the total throughput of synthetic gypsum at S-222, S-223, S-243 and S-246 does not exceed 15,000 tons in any consecutive 12-month period. (Basis: Regulation 2-2-212 Cumulative Increase)

**COND# 4996**

**For S-216 Clinker Cake Conveyor (6-BC-13), S-217 Clinker Cake Conveyor (6-BC-15), S-221 Clinker Cake Feeder (6-WF-2), S-223 Synthetic Gypsum Feeder (6-WF-12), S-231 Pressed Cake Bin, S-242 Clinker Cake Feeder (6-WF-3). Application # 4770, amended by A/N 23594.**

1. The owner/operator shall ensure visible particulate emissions from each source (S-216, S-217, S-221, S-223, S-231, and S-242) do not exceed Ringelmann 1.0 for more than 3 minutes in any hour or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (Basis: Regulation 6, Regulation 1-301)
2. All of the particulate emissions emitted from the handling of cement for the sources identified in Part #1 shall flow under negative pressure to a Baghouse, (A-216 (6-DC-13), A-217 (6-DC-15), A-221 (6-DC-6), A-231 (6-DC-3), A-242 (6-DC-11), respectively). Each Baghouse shall be equipped with a District approved manometer for measuring the pressure drop across the Baghouse. (Basis: Regulation 2-2-212 Cumulative Increase)
3. The owner/operator shall operate such that the outlet grain loading for each Baghouse A-217 and A-231 shall not exceed 0.006 grain/dscf. (Basis: Regulation 2-2-301.1 BACT)

4. The owner/operator shall operate such that the outlet grain loading for each Baghouse A-216, A-221, A-242 shall not exceed 0.0013 grain/dscf. (Basis: BACT, Cumulative Increase)
5. To demonstrate compliance with the emission limit in Part #4, the owner/operator shall perform a PM10 source test using CARB Method 501, USEPA Method 201/201A, or District approved equivalent at one of these abatement devices (A-216, A-221, or A-242), within 45 days of receiving the condition change for these sources. If the test result shows a failure to meet the limit in Part #4, then source tests shall also be performed on the other two abatement devices. The results shall be delivered to the District no later than 30 days from the date of the test. (basis: Regulation 2-1-403)
6. The owner/operator shall maintain daily records, in a District approved log, for the total hours of operation. The owner/operator shall maintain a quarterly record, in a District approved log, of the pressure drop. The owner/operator shall maintain daily records of the hours of operation and of the pressure drop across each baghouse, in a District approved log. This log shall be retained for a period of at least five years from the date of first entry. This log shall be kept on site and made available to the District's staff upon request. (Basis: Cumulative Increase)

**Condition # 24621**

Facility Wide, Lehigh Southwest Cement Company, Plant # 17

1. The owner/operator shall operate and maintain the —Fugitive Dust Control Plan for sources that are not subject to NESHAP 40 CFR 63 Subpart LLL at the Cement and Rock Plants, including the onsite dust emissions from truck traffics. This plan must be updated periodically as necessary and must be submitted to the District for approval at least once every five year during the Title V permit renewal. This plan must be kept on site and made available to District's staff upon request. (Basis: Regulation 2-1-403)

2. The owner/operator shall perform source tests for the following abatement devices at least once every five years to demonstrate with compliance limits of Regulation 6-1. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing. All measurements, records and data required to be maintained by the owner/operator shall be retained and made available for inspection by the District for at least five years (Basis: Regulation 2-1-403)

BAAQMD Source #	Abatement Description	Plant ID	Abating Source #	Source Description
A10	Dust Collector	6-DC-45-48	S-19	Clinker Storage Area
A-13	Dust Collector	6-DC-1	S-21	Roll Press Clinker Surge Bin and Feeder
A-58	Dust Collector	7-DC-8	S-74	Type II Mechanical Transfer System
A-111	Dust Collector	1-DC-1	S-111	Rail Unloading System Area 1

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A-112	Dust Collector	1-DC-2	S-112	Additive Hopper Transfer System Area 1
A-113	Dust Collector	1-DC-3	S-113	Additive Bin Transfer Facilities Area 1
A-114	Dust Collector	1-DC-4	S-113	Additive Bin Transfer Facilities Area 1
A-115	Dust Collector	1-DC-5	S-115	Additive Storage Tripper
A-123	Dust Collector	2-DC-3	S-123	Rock Conveying System Area 2
A-131	Dust Collector	3-DC-1	S-131	Rock Sampling System Area 3
A-132	Dust Collector	3-DC-2	S-132	Preblend
A-133	Dust Collector	3-DC-3	S-132	Preblend
A-134	Dust Collector	3-DC-4	S-134	Preblend Storage Bin 4
A-135	Dust Collector	3-DC-5	S-135	High Grade Storage Bin
A-143	Dust Collector	4-DC-3	S-143	Raw Mill 1 Separator System 4
A-144	Dust Collector	4-DC-4	S-144	Raw Mill 2 Separator Circuit 4
A-151	Dust Collector	5-DC-1	S-151	Homogenizer 5
A-152	Dust Collector	5-DC-2	S-151	Homogenizer 5
A-153	Dust Collector	5-DC-3	S-153	Kiln Feed System
A-162	Dust Collector	5-DC-24	S-162	Clinker Silo A
A-163	Dust Collector	5-DC-25	S-163	Clinker Silo B
A-164	Dust Collector	5-DC-23	S-164	Free Lime Storage Bin
A-165	Dust Collector	5-DC-27	S-165	Clinker Transfer System
A-176	Dust Collector		S-167	Lime Bin
A-190	Dust Collector	5-DC-26	S-165	Clinker Transfer System
A-210	Dust Collector	6-DC-17	S-210	Finish Mill
A-211	Dust Collector	6-DC-12, 14,16 & 18	S-211	Separator
A-216	Dust Collector	6-DC-13	S-216	Cake Conveyor
A-217	Dust Collector	6-DC-14	S-217	Cake Conveyor
A-218	Dust Collector	6-DC-19	S-218 & S-412	Air Separator & Finish Mill
A-220	Dust Collector	6-DC-8	S-220	Mill and Peripherals
A-221	Dust Collector	6-DC-6	S-221 & <u>S-223</u>	Cake Feeder & <u>Synthetic Gypsum Feeder</u>
A-222	Dust Collector	6-DC-4	S-222	Gypsum Feed
A-230	Dust Collector	6-DC-2	S-230	Roller Press and Peripherals
A-231	Dust Collector	6-DC-3	S-231	Pressed Cake Bin

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A-240	Dust Collector	6-DC-21	S-240	Additive Conveyor Bin
A-242	Dust Collector	6-DC-11	S-242	Cake Feeder
A-243	Dust Collector	6-DC-5	S-243 & S-246	Gypsum Feeder Reclaimed Cement & Synthetic Gypsum Feeder
A-244	Dust Collector	6-DC-7	S-244	Pozzolan Feeder
A-245	Dust Collector	6-DC-9	S-245	Clay Feeder, Gypsum
A-301	Dust Collector	7-DC-9	S-301	Rail Loadout System
A-340	Dust Collector	8-DC-50	S-340	Coarse Rock Withdrawal System
A-341	Dust Collector	8-DC-51	S-341	Pre-Crushing Screen Rock Plant 3
A-342	Dust Collector	8-DC-52	S-342	Coarse Rock Crushing System 2
A-384	Dust Collector	8-DC-31	S-384	Rock Plant 2 Screen
A-390	Dust Collector	8-DC-30	S-390	Conveyor Belt
A-413	Dust Collector	6-DC-25	S-414	Kiln Dust Fugitive Bin
A-415	Dust Collector	6-DC-13	S-415	Finish Mill Building Conveyor
A-420	Dust Collector	7-DC-16	S-48	Bulk Cement Loadout Tank #1 and #2
A-421	Dust Collector	7-DC-17	S-48	Bulk Cement Loadout Tank #1 and #2
A-422	Dust Collector	7-DC-18	S-48	Bulk Cement Loadout Tank #1 and #2
A-423	Dust Collector	7-DC-12	S-49	Bulk Cement Loadout Tank #28
A-424	Dust Collector	7-DC-14	S-49	Bulk Cement Loadout Tank #28
A-425	Dust Collector	7-DC-13	S-50	Bulk Cement Loadout Tank #29
A-426	Dust Collector	7-DC-15	S-50	Bulk Cement Loadout Tank #29
A-427	Dust Collector	7-DC-19	S-49 & S-50	Bulk Cement Loadout Tank #28 & #29
A-428	Dust Collector	7-DC-11	S-48	Bulk Cement Loadout Tank #1 and #2
A-429	Dust Collector	7-DC-10	S-49 & S-50	Bulk Cement Loadout Tank #28 & #29
A-430	Dust Collector	7-PDC-1	S-54	Cement Packer #1
A-431	Dust Collector	7-PDC-2	S-55	Cement Packer #2
A-433	Dust Collector	7-DC-5	S-45	West Silo Top



				Cement Distribution Tower
A-434	Dust Collector	7-DC-6	S-46	Middle West Silo Top Cement Distribution Tower
A-435	Dust Collector	7-DC-7	S-47	East Silo Top Cement Distribution Tower
A-436	Dust Collector	6-DC-49	S-17	Clinker Transfer Area
A-447	Dust Collector	6-DC-51	S-19	Clinker Storage Area
A-448	Dust Collector	6-DC-52	S-19	Clinker Storage Area
A-449	Dust Collector	6-DC-53	S-19	Clinker Storage Area
A-450	Dust Collector	6-DC-54	S-19	Clinker Storage Area

**VII. RECOMMENDATION**

Waive the Authority to Construct and issue a conditional Permit to Operate to Lehigh for the following equipment:

- S-223 Synthetic Gypsum Feeder, 6-WF-12 abated by existing A-221 Dust Collector (6-DC-6), DCE Vokes, 2,400 CFM**
- S-246 Synthetic Gypsum Feeder, 6-WF-11 abated by existing A-243 Dust Collector (6-DC-9), DCE Sintamatic, 1,550 CFM**

\_\_\_\_\_  
*Thu H. Bui*  
*Senior Air Quality Engineer*  
*Engineering Division*

date: \_\_\_\_\_

THB:E\Lehigh\HansonPermanente\23594e

**APPENDIX D –**  
**Compliance Assurance Monitoring (CAM) Analysis**



Lehigh Southwest Cement Company  
Permanente Plant  
24001 Stevens Creek Boulevard  
Phone (408) 996-4000  
Fax (408) 725-1019  
www.lehighcement.com

August 10, 2009

Thu Bui  
Bay Area Air Quality Management District  
909 Ellis Street  
San Francisco, CA 94109

RE: Lehigh Southwest Cement Company (ID A0017) CAM Analysis

**Submitted Electronically – No Hard Copy to Follow**

Dear Ms. Bui:

At the request of the Bay Area Air Quality Management District (BAAQMD), Lehigh Southwest Cement Company (Lehigh) is submitting this Compliance Assurance Monitoring (CAM) Analysis as part of the Title V Permit (ID: A0017) renewal. It was determined that while various sources had the potential to be applicable to 40 CFR 64, only 4 sources required Compliance Assurance Monitoring Plans.

*CAM Applicability*

The US EPA initiated 40 CFR 64 (Compliance Assurance Monitoring or "CAM") in order to provide reasonable assurance that facilities comply with emissions limitations by monitoring the operation and maintenance of their control devices. CAM applies to emissions units that meet all of the following conditions:

- the unit is located at a major source for which a Title V permit is required; and
- the unit is subject to an emission limitation or standard; and
- the unit uses a control device to achieve compliance with a federally enforceable limit or standard; and
- the unit has potential pre-control or post-control emissions of at least 100% of the major source amount; and
- the unit is not otherwise exempt from CAM.

*CAM Exemptions*

The exemptions listed in Part 64 are related to rules or emissions limitations and not to specific equipment. The exemptions are based on monitoring requirements in those rules or emissions limitations being inherently sufficient to provide assurance of compliance. Under Part 64.2(b)(i), those sources subject to NSPS or NESHAP standards promulgated after 11/15/90, are exempt

Lehigh Southwest Cement Company - CAM Analysis  
Page 2 of 3

from CAM. For that reason all sources subject to NESHAP 40 CFR 63, Subpart LLL, promulgated 6/14/1999, are exempt from CAM.

The Lehigh facility is also subject the following NSPS's but since each was promulgated pre-1990, the above exemption does not apply:

- NSPS, Subpart F: Portland Cement Plant (8/17/1971)
- NSPS, Subpart Y: Coal Processing Plants (10/24/1974)
- NSPS, Subpart OOO: Nonmetallic Mineral Processing Plant (8/31/1983)

CAM Analysis

Using the CAM Analysis table template provided by the BAAQMD, Lehigh listed all the permitted sources that are subject to federally enforceable emission limits and standards with respect to particulate matter/ opacity. This CAM Analysis table is provided in the attached Table 1.

For all individual sources subject to NESHAP Subpart LLL, no further verification was performed since the unit was exempt. These sources are indicated in Table 1 as being exempt from CAM pursuant to 40 CFR 63.2(b)(1)(i). For sources not subject to NESHAP Subpart LLL, the next CAM screening level was if the source uses a control device for compliance.

It should be noted that as defined in 40 CFR 64, control devices do not include those devices that are inherent to the process. While several of the water sprays knock-down fugitive dust, their primary function is to wash the rock for further sale. Numerous dust collectors and baghouses are also used for sizing purposes to re-introduce material into the final product and are not considered control devices for this reason.

For those sources that remained potentially applicable to CAM after passing the two screening levels above, the potential to emit (PTE) was calculated. This PTE was based on reported emissions from the 2008 Comprehensive Emission Inventory Report (CEIR) and back-calculating the PTE based on assumed control efficiencies. Note that as the throughput levels and/or operating hours were below the maximum allowed in the permit, reported emissions were adjusted upward to reflect equipment operation under maximum conditions. Table 1 reflects whether the pre-control potential to emit for the remaining sources exceed the 100 ton/year major source threshold. Information supporting the PTE calculations is presented in the attached Table 2.

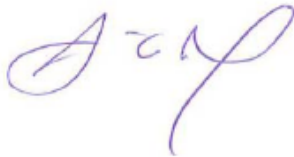
Conclusion

This analysis indicates that four sources should be considered applicable to CAM requirements. As these sources share abatement devices, only two CAM Plans were prepared (one for each abatement device).

Lehigh Southwest Cement Company - CAM Analysis  
Page 3 of 3

If you should have any questions, please give me a call at (408) 996-4262.

Sincerely,

A handwritten signature in blue ink, appearing to read "S. Renfrew". The signature is fluid and cursive, with the first letter being a large capital 'S' and the last letter being a capital 'W'.

Scott Renfrew

Enclosures

cc. Henrik Wesseling LSCC

Attachment 1:

**CAM Applicability  
Analysis**

Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
24001 Stevens Creek Boulevard Cupertino, CA 95014

**Instructions:** This table was prepared in order to determine the applicability of CAM to each device listed in the Title V Permit. Note 40 CFR 64.2(a) is General Applicability which all three must be satisfied to apply; 40 CFR 64.2(b) is Exemptions.

**Notes:** Y: Yes, N: No, NE: Not Evaluated, M22: Epa Method 22, VE: Visible Emission observation, P:periodic, M:monthly, Q:Quarter, BLD:Bag Leak Detector

Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit	
			Emission Limit	Basis			Y/N	Reason	Description		
1	Gasoline Service Station, G9200	POC	CARB Certified Phase 1	SIP 8-7-301	Y	N	N	64.2(a)(3)	Pre-control PTE < MST		
			CARB Certified Phase 2	SIP 8-7-302							
17	Clinker Transfer Area	Opacity	10% opacity	63.1345	A-436 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/Q, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation						SIP 6-301		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP
			Visible Particles						SIP 6-301		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP
			FILTERABLE PARTICULATE: 0.15 gr/dscf						SIP 6-310		
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr						SIP 6-310		
			Ringelmann 1.0 Limitation						BAAQMD Condition #16109 Part 1		Compliance with NESHAP LLL monitoring requirements ensures compliance with

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**Notes:** Y: Yes, N: No, NE: Not Evaluated, M22: Epa Method 22, VE: Visible Emission observation, P:periodic, M:monthly, Q:Quarter, BLD:Bag Leak Detector

Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit	
			Emission Limit	Basis			Y/N	Reason	Description		
									Condition		
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3							
19	Clinker Storage Area	Opacity	10% opacity	63.1345	A-10, 447, 448, 449, 450 Dust Collectors	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation				SIP 6-301				Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP
			Visible Particles				SIP 6-305				
			FILTERABLE PARTICULATE: 0.15 gr/dscf				SIP 6-310				
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr				SIP 6-311				
			Ringelmann 1.0 Limitation				BAAQMD Condition #18475 Part 5				Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition



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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit		
			Emission Limit	Basis			Y/N	Reason	Description			
21	Roll Press Clinker Surge Bin and Feeder	Opacity	10% opacity	63.1345	A-13 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781		
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y				Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
			Visible Particles	SIP 6-305								
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310								
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311								
45	West Silo Top Cement Distribution Tower	Opacity	10% opacity	63.1345	A-433 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/Q, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781		
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y				Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
			Visible Particles	SIP 6-305								

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition #16109 Part 1						
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3						
46	Middle West Silo Top Cement Distribution Tower	Opacity	10% opacity	63.1345	A-434 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/Q, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP							
	Visible Particles	SIP 6-305								
	FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310								

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition #16109 Part 1					Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition	
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3						
47	East Silo Top Cement Distribution Tower	Opacity	10% opacity	63.1345			N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	A-435 Dust Collector	Y	Y		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
	Visible Particles		6-305	Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP						
	FILTERABLE PARTICULATE: 0.15 gr/dscf		6-310							

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24001 Stevens Creek Boulevard Cupertino, CA 95014

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**Notes:** Y: Yes, N: No, NE: Not Evaluated, M22: Epa Method 22, VE: Visible Emission observation, P:periodic, M:monthly, Q:Quarter, BLD:Bag Leak Detector

Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition #16109 Part 1				Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition		
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3						
48	Bulk Cement Loadout Tank #1 and #2	Opacity	10% opacity	63.1345	A-420, 421, 422, 428 Dust Collectors	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
			Visible Particles	6-305					Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
			FILTERABLE PARTICULATE: 0.15 gr/dscf	6-310						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition #16109 Part 1					Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition	
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3						
49	Bulk Cement Loadout Tank #28	Opacity	10% opacity	63.1345			N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	A-423, 424, 427, 429 Dust Collectors	Y			Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
	Visible Particles		6-305					Y	Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
	FILTERABLE PARTICULATE: 0.15 gr/dscf		6-310							

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			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition #16109 Part 1				Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition		
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3						
50	Bulk Cement Loadout Tank #29	Opacity	10% opacity	63.1345	A-425, 426, 427, 429 Dust Collectors	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301				Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP		
			Visible Particles	6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight,	6-311						

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			Emission Limit	Basis			Y/N	Reason	Description	
			ton/hr							
			Ringelmann 1.0 Limitation	BAAQMD Condition #16109 Part 1					Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition	
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3						
54	Cement Packer #1	Opacity	10% opacity	63.1348	A-430 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
Ringelmann 1.0 Limitation	BAAQMD Condition #16109 Part 1									

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit	
			Emission Limit	Basis			Y/N	Reason	Description		
		PM10	0.006 gr/dscf	BAAQMD Condition #16109 Part 3							
55	Cement Packer #2	Opacity	10% opacity	63.1348	A-431 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)	
		Particulate Matter	Ringelmann 1.0 Limitation								6-301
			Visible Particles								6-305
			FILTERABLE PARTICULATE: 0.15 gr/dscf								6-310
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr								6-311
			Ringelmann 1.0 Limitation								BAAQMD Condition #16109 Part 1
PM10	0.006 gr/dscf		BAAQMD Condition #16109 Part 3								
74	Type II Mechanical Transfer System	Opacity	10% opacity	63.1345	A-58 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation						SIP 6-301		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP



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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			Visible Particles	SIP 6-305					Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition #6655 Part 1					Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
		PM10	0.006 gr/dscf	BAAQMD Condition #6655 Part 4						
100	Precalciner Kiln Fuel Handling System	Opacity	< 20% opacity	60.252	A-100 Water Spray System	N	N	64.2(a)(3)	Pre-control PTE < MST	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			Ringelmann Number 1 Limitation	BAAQMD Condition # 23942 part 1						
111	Rail Unloading System Area 1	Opacity	< 20% opacity	60.252	A-111 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
112	Additive Hopper Transfer System Area 1	Opacity	< 20% opacity	60.252	A-112 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is	SIP 6-311						

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			Emission Limit	Basis			Y/N	Reason	Description	
			process weight, ton/hr							
113	Additive Bin Transfer Facilities Area 1	Opacity	< 20% opacity	60.252	A-113, 114 Dust Collectors	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Opacity	Ringelmann 1.0 Limitation	SIP 6-301						
		Particulate Matter	Visible Particles	SIP 6-301						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-310						
115	Additive Storage Tripper	Opacity	< 20% opacity	60.252	A-115 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						

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			Emission Limit	Basis			Y/N	Reason	Description			
121	Tertiary Scalping Screen 2-VS-1, 2-VS-2	Opacity	< 10% opacity	60.62	A-121 Dust Collector	Y	N	60.672(a)	NESHAP 40 CFR 60, Subpart OOO (4/28/2009)	M22 VE - P/Q, Press Drop - P/Q, Inspection-P/A, Source Test-P/every 5 yrs, CAM Condition # 24781		
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301			Y				Compliance with NEPS OOO monitoring requirements ensures compliance with SIP	
			Visible Particles	SIP 6-305								
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310								
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311								
122	Tertiary Crusher 2-CR-1	Opacity	< 10% opacity	60.62	A-121, 122 Dust Collectors	Y	N	60.672(a)	NESHAP 40 CFR 60, Subpart OOO (4/28/2009)	M22 VE - P/Q, Press Drop - P/Q, Inspection-P/A, Source Test-P/every 5 yrs, CAM Condition # 24781		
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301			Y				Compliance with NEPS OOO monitoring requirements ensures compliance with SIP	
			Visible Particles	SIP 6-305								

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			Emission Limit	Basis			Y/N	Reason	Description	
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
123	Rock Conveying System Area 2	Opacity	< 10% opacity	60.62	A-122, 123 Dust Collectors	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301						
			Visible Particles	6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
131	Rock Sampling System Area 3	Opacity	< 10% opacity	60.62	A-131 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						

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			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
132	Preblend	Opacity	< 10% opacity	60.62	A-132, 133 Dust Collectors	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
		FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311							
134	Preblend Storage Bin 4-S-1, 4-S-2	Opacity	< 10% opacity	60.62	A-134 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
		FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight,	SIP 6-311							

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			Emission Limit	Basis			Y/N	Reason	Description	
			ton/hr							
135	High Grade Storage Bin 4-S-3, 4-S-4	Opacity	< 10% opacity	60.62	A-135 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311									
141	Raw Mill 4-GM-1	Opacity	10% opacity	63.1343	A-141 Dust Collector	Y	Y	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/D, Press Drop - P/W, Inspection-P/A, Source Test-P/A,O&M Plan, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						

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			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
		PM10	36 lb/hr and 0.02 gr/DSCF	BAAQMD Condition #2786 Part B1						
		NOx	All kiln emission points <1158 lb/hr and <615 ppm averaged for 2 hr	BAAQMD Condition #11780 Part C1	N	Y	N	64.2(a) (2)	N - No Control Device	NOx and SO2 CEMs from the Kiln is used to calculate NOX and SO2 emissions
			<6.4 lb/ton clinker on a 24-hr basis (averaged over 30 days)	BAAQMD Condition #11780 Part C3		Y				
		SO2	0.5 ppm continuously for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes, or 0.05 ppm averaged over 24 hours	SIP 9-1-301	N	Y	N	64.2(a) (2)	N - No Control Device	
			SO2: 300 ppm (dry)	SIP 9-1-304		Y				



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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			Rejection of 90% of the sulfur in the raw feed plus fuel, not requiring 0.6% sulfur coal as the fuel; or 481 lb/hr averaged over the 24 hour day (423 lbs/hr if coal emissions are not monitored)	BAAQMD Condition #2786 Part A1		Y				
		THC (effective 9/9/2013)	24 ppmvd or 9 ppmvd of total organic HAP (effective 9/9/2013)	63.1343	N	N	N	64.2(a)(3)	Pre-control PTE < MST	THC CEM or HAP Test every 30 months (Effective 9/9/2013)
142	Raw Mill 2 4-GM-2	Opacity	10% opacity	63.1343	A-142 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/D, Press Drop - P/W, Inspection-P/A, Source Test-P/A,CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y	Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP		
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						

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			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	36 lb/hr and 0.02 gr/DSCF	BAAQMD Condition #2786 Part B1						
		NOx	All kiln emission points <1158 lb/hr and <615 ppm averaged for 2 hr	BAAQMD Condition #11780 Part C1	N	Y	N	64.2(a)(2)	N - No Control Device	NOx and SO2 CEMs from the Kiln is used to calculate NOX and SO2 emissions
	<6.4 lb/ton clinker on a 24-hr basis (averaged over 30 days)		BAAQMD Condition #11780 Part C3	Y						
	SO2	0.5 ppm continuously for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes, or 0.05 ppm averaged over 24 hours	SIP 9-1-301	N	Y					
		SO2: 300 ppm (dry)	SIP 9-1-304		Y					
			Rejection of 90% of the sulfur in the raw feed plus fuel, not requiring 0.6% sulfur coal as the fuel; or 481 lb/hr averaged over the 24 hour day (423 lbs/hr if coal emissions are not monitored)	BAAQMD Condition #2786 Part A1		Y				

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit	
			Emission Limit	Basis			Y/N	Reason	Description		
		THC (effective 9/9/2013)	24 ppmvd or 9 ppmvd of total organic HAP (effective 9/9/2013)	63.1343	N	N	N	64.2(a)(3)	Pre-control PTE < MST	THC CEM or HAP Test every 30 months (Effective 9/9/2013)	
143	Raw Mill 1 Separator System 4-SE-3	Opacity	10% opacity	63.1343	A-143 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/D, Press Drop - P/W, Inspection-P/A, Source Test-P/ every 5 yrs,CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y				
			Visible Particles	SIP 6-305							
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310							
FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311										
144	Raw Mill 2 Separator Circuit 4-SE-4	Opacity	10% opacity	63.1343	A-144 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/D, Press Drop - P/W, Inspection-P/A, Source Test-P/ every 5 yrs,CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y				
			Visible Particles	SIP 6-305							
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310							

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
151	Homogenizer 5-S-1, 5-S-2	Opacity	10% opacity	63.1345	A-151, 152 Dust Collectors	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301					Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
153	Kiln Feed System	Opacity	10% opacity	63.1345	A-153 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301					Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
154	Calciner Kiln (Natural Gas, Fuel Oil, Coal and Coke)	Opacity	20% opacity	60.62(a)(2)	A-141, 142 Dust Collectors; A-171, 172 Pulse Jet Dust Collectors	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 60 Subpart F (9/9/2010)	M9 VE - P/D, Pressure Drop - P/W, Inspection-P/A, Source Test-P/A, O&M Plan, CAM Condition # 24781
		PM10	0.30 lb/ton of feed (dry basis) to kiln	60.62(a)(1)(i)			N	64.2(b)(1)(i)	NESHAP 40 CFR 60 Subpart F (9/9/2010)	
			36 lb/hr and 0.02 gr/DSCF	BAAQMD Condition #2786 Part B1			Y			
		Particulate Matter (effective 9/9/2013)	0.04 lb/ton clinker-normal operaiton, 0.004 gr/dscf-startup, shutdown (effective 9/9/2013)	63.1343			N	64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y		Compliance with NSPS Subpart F monitor requiriements ensures compliance with SIP	
			Visible Particles	SIP 6-305						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit	
			Emission Limit	Basis			Y/N	Reason	Description		
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310							
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311							
		NO <sub>x</sub>	All kiln emission points <1158 lb/hr and <615 ppm averaged for 2 hr	BAAQMD Condition #11780 Part C1	N	Y	N	64.2(a)(2)	N- No Control Device		NO <sub>x</sub> CEM
			<6.4 lb/ton clinker on a 24-hr basis (averaged over 30 days)	BAAQMD Condition #11780 Part C3		Y	N	64.2(a)(2)			
		SO <sub>2</sub>	0.5 ppm continuously for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes, or 0.05 ppm averaged over 24 hours	9-1-301	N	Y	N	64.2(a)(2)			SO <sub>2</sub> CEM
			SO <sub>2</sub> : 300 ppm (dry)	9-1-304		Y	N	64.2(a)(2)			

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			Emission Limit	Basis			Y/N	Reason	Description	
		Sulfur	Rejection of 90% of the sulfur in the raw feed plus fuel, not requiring 0.6% sulfur coal as the fuel; or 481 lb/hr averaged over the 24 hour day (423 lbs/hr if coal emissions are not monitored)	Rejection of 90% of the sulfur in the raw feed plus fuel, not requiring 0.6% sulfur coal as the fuel; or 481 lb/hr averaged over the 24 hour day (423 lbs/hr if coal emissions are not monitored)		N	N	64.2(a)(2)		
		D/F	0.2 ng/dscm (TEQ) or 0.4 ng/dscm (TEQ) when average baghouse's inlet temp is 204 Celcius (400 F) or less	63.1343	N	N	N	64.2(a)(2)	No - No control device	Subpart LL - source test P/every 30 months
		Mercury (Effective 9/9/2013)	55 lb/MM tons clinker-normal Operation @ 30 days rolling avg., 10 ug/dscm (TEQ) @ 7 days rolling avg.- startup & shutdown (Effective 9/9/2013)	63.1343	A-156 Activated Carbon Injection System	N	N	64.2(b)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	Hg CEM or Sorbant Trap CEM (Effective 9/9/2013)

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			Emission Limit	Basis			Y/N	Reason	Description	
		Mercury	261 lbs/yr (12-month rolling average) and 0.064 lb/hr (3-hour rolling average)	H&S Code 44300et seq.	A-156 Activated Carbon Injection System	N	N	64.2(b)(i)	NESHAP 40 CFR 63, Subpart LLL	Hg CEM or Sorbant Trap CEM
		THC (Effective 9/9/2013)	24 ppmvd or 9 ppmvd of total organic HAP@ 30 days rooling avg.-normal operation, 24 ppmvd @ 7 days rolling avg.-startup & shutdown (effective 9/9/2013)	63.1343	N	N	N	64.2(b)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	THC CEM or HAP Test every 30 months (Effective 9/9/2013)
		HCl (Effective 9/9/2013)	3 ppmvd @ 30 days rolling avg.-normal operation, 3 pmmvd @ 7 days rolling avg.-startup & shutdown (Effective 9/9/2013)	63.1343	A-154 Slurry Lime Injection	N	N	64.2(b)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	HCl CEM (Effective 9/9/2013)
161	Clinker Cooler 5-CC-1	Opacity	10% opacity	62.62(b)(2)	A-161 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 60 Subpart F (9/9/2010)	M9 VE - P/D, Pressure Drop - P/W, Inspection-P/A, Source Test-P/A, O&M Plan, CAM Condition #
		Particulate Matter	0.10 lb/ton dry feed	62.62(b)(1)(ii)				64.2(b)(1)(i)		



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			Emission Limit	Basis			Y/N	Reason	Description	
			0.04 lb/ton clinker-normal operaiton, 0.004 gr/dscf-startup, shutdown (effective 9/9/2013)	63.1343				64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	24781
			Ringelmann 1.0 Limitation	SIP 6-301			Y		Compliance with NSPS Subpart F monitor requiriements ensures compliance with SIP	
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
PM10	8 lb/hr and 0.01 gr/DSCF	BAAQMD Condition #2786 Part B3								
162	Clinker Silo A 5-S-11	Opacity	10% opacity	63.1345	A-162 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
	Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301				Y		Compliance with NESHAP LLL monitoring requirements ensures compliance with	

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			Emission Limit	Basis			Y/N	Reason	Description	
									SIP	
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
163	Clinker Silo B 5-S-12	Opacity	10% opacity	63.1345			N	64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	A-163 Dust Collector	Y	Y		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781
	Visible Particles		SIP 6-305							
	FILTERABLE PARTICULATE: 0.15 gr/dscf		SIP 6-310							
	FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr		SIP 6-311							

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			Emission Limit	Basis			Y/N	Reason	Description		
164	Free lime Storage Bin	Opacity	10% opacity	63.1345	A-164 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301				Y			Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP
			Visible Particles	SIP 6-305							
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310							
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311							
165	Clinker Transfer System	Opacity	10% opacity	63.1348	A-165 & A-190 Dust Collectors	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301				Y			Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP
			Visible Particles	SIP 6-305							
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310							

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			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
167	Lime Bin	Opacity	< 7% opacity	60.672(f)	A-167 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/M, Source Test - P/every 5 yrs-Condition # 24626 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition #24626 Part 1						
PM10	6.6 lb/hr and 0.02 gr/dscf	BAAQMD Condition #24626 Part 3								
168	Activated Carbon Storage Silo	Opacity	< 10% opacity	60.672(b)	A-168 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/M, Source Test - P/every 5 yrs-Condition # 24899 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 24899 Part 1						

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**Notes:** Y: Yes, N: No, NE: Not Evaluated, M22: Epa Method 22, VE: Visible Emission observation, P:periodic, M:monthly, Q:Quarter, BLD:Bag Leak Detector

Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
169	Activated Carbon Feed Bin	Opacity	< 10% opacity	60.672(b)	A-169 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/M, Source Test - P/every 5 yrs-Condition # 24899 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 24899 Part 1						
171	Kiln Fuel Mill System	Opacity	< 20% opacity	60.252(a)(2)	A-171 Baghouse, Pulse Jet Dust Collector is inherent to process	Y	Y	NSPS 40 CFR 60 Subpart Y (10/7/2000)	M22 VE - P/D, Press Drop - P/W, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781 - Subject to the same requirement of S-154 since S-171 and S-172 share the same abatement with S-154	
		Particulate Matter	0.031 gr/dscf	60.252(a)(1)						
			Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						

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			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	6.6 lb/hr and 0.02 gr/dscf	BAAQMD Condition #2786 Part B2						
172	Precalciner Fuel Mill System	Opacity	< 20% opacity	60.252(a)(2)	A-172 Baghouse, Pulse Jet Dust Collector is inherent to process	Y	Y		NSPS 40 CFR 60 Subpart Y (10/7/2000)	M22 VE - P/D, Press Drop - P/W, Inspection-P/A, Source Test-P/every 5 yrs, O&M Plan, CAM Condition # 24781 - Subject to the same requirement of S-154 since S-171 and S-172 share the same abatement with S-154
		Particulate Matter	0.031 gr/dscf	60.252(a)(1)					NSPS 40 CFR 60 Subpart Y (10/7/2000)	
			Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
PM10	6.6 lb/hr and 0.02 gr/dscf	BAAQMD Condition #2786 Part B2								
176	Rock Plant 1 Storage Pile	Opacity	Ringelmann 1.0 Limitation	SIP 6-301	N	NE	N	64.2(a)(2)	No - No control device	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Visible Particles	SIP 6-305						
187	Sand Hopper	Opacity	Ringelmann 1.0 Limitation	SIP 6-301	N	NE	N	64.2(a)(2)	No - No control device	

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			Emission Limit	Basis			Y/N	Reason	Description	
	and Storage Bin	Particulate Matter	Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
201	Primary Crusher	Opacity	Ringelmann 1.0 Limitation	SIP 6-301	N	NE	N	64.2(a)(2)	No - No control device	
		Particulate Matter	Visible Particles	SIP 6-305						
202	Secondary Crusher	Opacity	Ringelmann 1.0 Limitation	SIP 6-301	N	NE	N	64.2(a)(2)	No - No control device	
		Particulate Matter	Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
	Opacity	Ringelmann 1.0 Limitation	BAAQMD Condition # 23896 Part 2							
210	Finish Mill (6-GM-1)	Opacity	10% opacity	63.1343	A-210 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	Broken Bag Leak Detector (BLD) inspection-P/M,

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	Dust Collector Inspection-P/A, Source Test-P/every 5 yrs,O&M Plan, CAM Condition # 24781
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
		PM10	0.006 gr/dscf or 0.9 lb/hr	BAAQMD Condition # 779 Part 2						
		Opacity	Ringelmann 1.0 Limitation	BAAQMD Condition # 779 Part 4					Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
211	Separator (6-SE-2)	Opacity	10% opacity	63.1343	A-211 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	BLD inspection-P/M, Dust Collector Inspection-P/A, Source Test-P/every 5 yrs,O&M Plan, CAM Condition #
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301				Y		



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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
									compliance with SIP	24781
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
		PM10	0.006 gr/dscf or 3.6 lb/hr of	BAAQMD Condition # 1545 Part 2						
216	6-GM-1 Cake Conveyor (6-BC-13)	Opacity	10% opacity	63.1348	A-216 Dust Collector	N	N	64.2(a) (3)	Pre-control PTE < MST	Pressure Drop- P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4996 Part 1						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	0.0013 gr/dscf	BAAQMD Condition # 4996 Part 4						
217	6GM1 Cake Conveyor (6-BC-15)	Opacity	10% opacity	63.1348	A-217 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4996 Part 1						
PM10	0.006 gr/dscf	BAAQMD Condition # 4996 Part 3								
218	6-GM-1 Air Separator (6-SE-1)	Opacity	10% opacity	63.1343	A-218 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	BLD inspection-P/M, Dust Collector Inspection-P/A, Source Test-P/every 5 yrs,O&M Plan, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301					Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	

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			Emission Limit	Basis			Y/N	Reason	Description	
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4997 Part 1					Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition	
		PM10	0.006 gr/dscf	BAAQMD Condition # 4997 Part 3						
220	6-GM-2 Mill and Peripherals	Opacity	10% opacity	63.1343	A-220 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63, Subpart LLL (9/9/2010)	BLD inspection-P/M, Dust Collector Inspection-P/A, Source Test-P/every 5 yrs,O&M Plan, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y		Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP	
			Visible Particles	SIP 6-305						

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			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4998 Part 2					Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition	
		PM10	0.006 gr/dscf	BAAQMD Condition # 4998 Part 3						
221	6-GM-2 Cake Feeder (6WF2)	Opacity	10% opacity	63.1345	A-221 Dust Collector	N	N	64.2(a) (3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						

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			Emission Limit	Basis			Y/N	Reason	Description	
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4996 Part 1						
		PM10	0.0013 gr/dscf	BAAQMD Condition # 4996 Part 4						
222	6-GM-2 Gypsum Feeder (6WF4)	Opacity	10% opacity	63.1345	A-222 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4995 Part 1						
PM10	0.0013 gr/dscf	BAAQMD Condition # 4995 Part 3								
223	Synthetic Gypsum Feeder (6WF12)	Opacity	10% opacity	63.1345	A-221 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						

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			Emission Limit	Basis			Y/N	Reason	Description		
			Visible Particles	SIP 6-305						yrs-Condition # 24621 per 40 CFR 70.6(c)	
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310							
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311							
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4996 Part 1							
		PM10	0.0013 gr/dscf	BAAQMD Condition # 4996 Part 4							
230	6-RP-1 Roller Press and Peripherals	Opacity	10% opacity	63.1343	A-230 Dust Collector	Y	N	64.2(b)(1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	BLD inspection-P/M, Dust Collector Inspection-P/A, Source Test-P/every 5 yrs,O&M Plan, CAM Condition # 24781	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301				Y			Compliance with NESHAP LLL monitoring requirements ensures compliance with SIP
			Visible Particles	SIP 6-305							
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310							

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			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4999 Part 1					Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition	
		PM10	0.006 gr/dscf	BAAQMD Condition # 4999 Part 3						
231	Pressed Cake Bin (6-SS-2)	Opacity	10% opacity	63.1345	A-231 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 0.5 Limitation	BAAQMD Condition # 4996 Part 1						

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			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	0.006 gr/dscf	BAAQMD Condition # 4996 Part 3						
240	Additive Conveyor/ Bins	Opacity	10% opacity	63.1345	A-240 Dust Collector	N	N	64.2(a) (3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4995 Part 1						
PM10	0.0013 gr/dscf	BAAQMD Condition # 4995 Part 3								
242	6-GM-1 Cake Feeder (6-WF-3)	Opacity	10% opacity	63.1345	A-242 Dust Collector	N	N	64.2(a) (3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						



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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 0.5 Limitation	BAAQMD Condition # 4996 Part 1						
		PM10	0.0013 gr/dscf	BAAQMD Condition # 4996 Part 4						
243	6-GM-1 Gypsum Feeder (6-WF-9) - Reclaimed Cement	Opacity	10% opacity	63.1345						
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	A-243 Dust Collector	N	N	64.2(a) (3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4995 Part 1						
		PM10	0.0013 gr/dscf	BAAQMD Condition # 4995 Part 3						

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			Emission Limit	Basis			Y/N	Reason	Description	
244	6GM1 Pozzolan Feeder (6-WF-7)	Opacity	10% opacity	63.1345	A-244 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
		Ringelmann 1.0 Limitation	BAAQMD Condition # 4995 Part 1							
PM10	0.0013 gr/dscf	BAAQMD Condition # 4995 Part 3								
245	6-GM-1 Clay Feeder (6-WF-5) - Gypsum	Opacity	10% opacity	63.1345	A-245 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is	SIP 6-311						

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			Emission Limit	Basis			Y/N	Reason	Description	
			process weight, ton/hr							
			Ringelmann 1.0 Limitation	BAAQMD Condition # 4995 Part 1						
		PM10	0.0013 gr/dscf	BAAQMD Condition # 4995 Part 3						
246	Synthetic Gypsum Feeder (6-WF-11)	Opacity	10% opacity	63.1345						
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	A-243 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
	Visible Particles		SIP 6-305							
	FILTERABLE PARTICULATE: 0.15 gr/dscf		SIP 6-310							
	FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr		SIP 6-311							
	Ringelmann 1.0 Limitation		BAAQMD Condition # 4995 Part 1							

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	0.0013 gr/dscf	BAAQMD Condition # 4995 Part 3						
300	Wet Aggregate Storage Piles	Particulate Matter	< 10% opacity	60.672(b)	N	N	N	64.2(a)(3)	Pre-control PTE < MST	As A-300 is a mobile water truck is not regulated under Part 70 or title I
			Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7252, part 1						
301	Rail Loadout System	Opacity	10% opacity	63.1348	A-301 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7837 Part 2						
PM10	0.01 gr/dscf	BAAQMD Condition # 7837 Part 5								

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
340	Coarse Rock Withdrawal System (8-BC-50, 8-BC51)	PM10	0.022 gr/dscf	60.672(a)	A-340 Baghouse	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Opacity	< 7% opacity	60.672(a)						
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7247 Part 1						
PM10	0.0013 gr/dscf	BAAQMD condition # 7247 Part 3								
341	Pre-Crushing Screens Rock Plant 3 (8-VS-50)	PM10	0.022 gr/dscf	60.672(a)	A-341 Baghouse	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Opacity	< 7% or 10% opacity	60.672(a)						
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7247 Part 1						
		Pm10	0.0013 gr/dscf	BAAQMD condition # 7247 Part 3						
342	Coarse Rock Crushing System 2 ea. Symons 5.5 Ft	PM10	0.022 gr/dscf	60.672(a)	A-342 Baghouse	N	N	64.2(a) (3)	Pre-control PTE < MST	BLD, Source Test - P/every 5 yrs, Condition # 24621 per 40 CFR 70.6(c)
		Opacity	< 7% opacity	60.672(a)						
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7246, part 1						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	0.0013 gr/dscf	BAAQMD Condition # 7246, part 2						
343	Crushed Rock Returns Conveyor	PM10	0.022 gr/dscf	60.672(a)	A-341 Baghouse	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Opacity	< 7% opacity	60.672(a)						
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7247 Part 1						
Opacity	0.0013 gr/dscf	BAAQMD condition # 7247 Part 3								
344	Wet Screening Feed Conveyor	Opacity	< 10% opacity	60.672(b)	N - A-350 Water Spray is inherent to process	N	N	64.2(a)(3)	Pre-control PTE < MST	Water spray system is considered inherent process equipment not a control device and pre-control PTE <
		Pre-control PTE < MST	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7248, part 1						MST.
350	Wet Screening and Conveying	Opacity	< 10% opacity	60.672(b)	N - A-350 Water Spray is inherent to process	N	N	64.2(a) (3)	Pre-control PTE < MST	Water spray system is considered inherent process equipment not a control device and pre-control PTE < MST.
	Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301							
		Visible Particles	SIP 6-305							
		Ringelmann 1.0 Limitation	BAAQMD Condition # 7249, part 1							
360	Wet Aggregate Loadout System (8-BC-60)	Opacity	< 10% opacity	60.672(b)	N - A-360 Water Spray is inherent to process	N	N	64.2(a) (3)	Pre-control PTE < MST	Water spray system is considered inherent process equipment not a control device and pre-control PTE < MST.
	Particulate Matter	Ringelmann Number 1 Limitation	SIP 6-301							
		Visible Particles	SIP 6-305							
		Ringelmann 0.5 or 10% opacity	BAAQMD Condition # 7250, part 1							
370	Class 2 Aggregate Additive Transfer System (8-BC-35, 8-BC-37)	Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	N - A-370 Water Spray is inherent to process	N	N	64.2(a) (3)	Pre-control PTE < MST	As A-370 is a mobile water truck is not regulated under Part 70 or title I
	Visible Particles		SIP 6-305							
	Ringelmann 1.0 Limitation		BAAQMD Condition # 7250, part 1							
380	Sand Transfer Class 2 Hopper	Opacity	< 10% opacity	60.672(b)	N	N	N	64.2(a) (2)	No - No control device	Note, permit does mention a haul road sprinkler system but that is used on the
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						



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			Emission Limit	Basis			Y/N	Reason	Description	
			Visible Particles	SIP 6-305						unpaved roadways associated with this source, not to control emissions from this source.
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7250, part 1						
381	Sand Storage Pile and Conveyor (8-BC-72)	Opacity	< 10% opacity	60.672(b)	N	N	N	64.2(a)(2)	No - No control device	Note, permit does mention a haul road sprinkler system but that is used on the unpaved roadways associated with this source, not to control emissions from this source.
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7250, part 1						
382	Water Clarifier Fines Shipment (8-CLAR-70, 8-BC-70, 8-BC-71)	Opacity	< 10% opacity	60.672(b)	N	N	N	64.2(a)(2)	No - No control device	Note, permit does mention a haul road sprinkler system but that is used on the unpaved roadways associated with this source, not to control emissions from this source.
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7250, part 1						
383	Rock Plant 2 Conveyors	Opacity	Ringelmann 1.0 Limitation	SIP 6-301	A-384 Baghouse	N	N	64.2(a)(3)	Pre-control PTE < MST	Included since it shares the same abatement device as S-384 and S-384 is subject to CAM
		Particulate Matter	Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						

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			Emission Limit	Basis			Y/N	Reason	Description	
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
384	Rock Plant 2 Screens - 16 & 17	Opacity	Ringelmann 1.0 Limitation	SIP 6-301	A-384 Baghouse	Y	Y			M22 VE - P/Q, Press Drop - P/Q, Inspection-P/A, Source Test-P/every 5 yrs, CAM Condition # 24781
		Particulate Matter	Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
390	Conveyor Belt 15-M	Opacity	Ringelmann 1.0 Limitation	SIP 6-301	A-390 Baghouse	N	Y	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 7247 Part 1						

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			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	0.0013 gr/dscf	BAAQMD condition # 7247 Part 3						
412	Finish Mill 6GM3	Opacity	10% opacity	63.1343	A-218 Dust Collector	N	N	64.2(a) (3)	Pre-control PTE < MST	BLD, Source Test - P/every 5 yrs, Condition # 24621 per 40 CFR 70.6© - This is subject to CAM because sharing A-218 with S-218
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 13900 Part 2						
PM10	0.006 gr/dscf	BAAQMD Condition # 13900 Part 3								
414	Kiln Dust Additive Bin	Opacity	10% opacity	63.1345	A-413 Dust Collector	Y	N	64.2(b) (1)(i)	NESHAP 40 CFR 63 Subpart LLL (9/9/2010)	M22 VE - P/M, Press Drop - P/M - Condition #13982, Inspection-P/A, Source Test- P/every 5 yrs, CAM Condition # 24781
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301			Y		Compliance with NESHAP LLL monitoring requirements ensures compliance with	

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			Emission Limit	Basis			Y/N	Reason	Description	
									SIP	
			Visible Particles	SIP 6-305						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 13982 Part 1					Compliance with NESHAP LLL monitoring requirements ensures compliance with Condition	
		PM10	0.01 gr/dscf	BAAQMD Condition # 13982 Part 3						
415	Finish Mill Building Conveyor	Opacity	10% opacity	63.1345	A-415 Dust Collector	N	N	64.2(a)(3)	Pre-control PTE < MST	Pressure Drop-P/Q-Condition # 20751, Source Test - P/every 5 yrs-Condition # 24621 per 40 CFR 70.6(c)
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-310						
			FILTERABLE PARTICULATE: 0.15 gr/dscf	SIP 6-310						

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**Notes:** Y: Yes, N: No, NE: Not Evaluated, M22: Epa Method 22, VE: Visible Emission observation, P:periodic, M:monthly, Q:Quarter, BLD:Bag Leak Detector

Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
		Opacity	0.006 gr/dscf	BAAQMD Condition # 21345 Part 3						
444	Emergency Clinker Conveyor	Opacity	10% opacity	63.1345	A-444 Water Spray System	N	N	64.2(a) (3)	Pre-control PTE < MST	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1	BAAQMD Condition # 23416 Part 1						
501	Emergency Diesel Generator	Particulate Matter	Ringelmann 2.0 Limitation	SIP 6-303	N	N	N	64.2(b) (2)	Backup Utility unit exemption	
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		SO2	< 0.5 ppm continuously for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes, or 0.05 ppm averaged over 24 hours.	SIP 9-1-301		N				
		Sulfur	Sulfur content of liquid fuel ≤ 0.5% by weight	SIP 9-1-304		N				
502	Emergency Diesel Generator	Particulate Matter	Ringelmann 2.0 Limitation	SIP 6-303	N	N	N	64.2(b) (2)	Backup Utility unit exemption	
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
		SO2	< 0.5 ppm continuously for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes, or 0.05 ppm averaged over 24 hours.	SIP 9-1-301						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		Sulfur	Sulfur content of liquid fuel $\leq 0.5\%$ by weight	SIP 9-1-304		N				
600	Quarry Blasting and Mobile Operations	Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	N	N	N	64.2(a)(3)	Pre-control PTE < MST	
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: $4.10P^{0.67}$ lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 2125, part 2						
601	Rock Hopper (9-DH-1)	Particulate Matter	Ringelmann 1.0 Limitation	6-301, BAAQMD Condition # 23896 Part 2	A-4501 Water Spray System	N	N	64.2(a)(3)	Pre-control PTE < MST	
		PM10	Visible Particles	SIP 6-305						
602	Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2)	Opacity	< 10 % opacity	60.672(b)	A-4501 Water Spray System	N	N	64.2(a)(3)	Pre-control PTE < MST	
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Particulate Weight	SIP 6-310						

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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
			Limitation 0.15 gr/dscf							
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 23896 Part 1						
		PM10	0.0013 gr/dscf	BAAQMD Condition # 23896 Part 2						
603	Vibrating Grizzly (9-VG-1)	Opacity	< 10% opacity	60.672(b)						
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301	A-4501 Water Spray System	N	N	64.2(a)(3)	Pre-control PTE < MST	
			Visible Particles	SIP 6-305						
			Particulate Weight Limitation 0.15 gr/dscf	SIP 6-310						
			FILTERABLE PARTICULATE: 4.10P <sup>0.67</sup> lb/hr. where P is process weight, ton/hr	SIP 6-311						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 23896 Part 1						



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Source No (S-)	Source Description	Pollutant	Federally Enforceable Emissions Limit or Standard? 40 CFR 64.2(a)(1)		Uses a Control Device for Compliance? 40 CFR 64.2(a)(2)	Pre-Control PTE > Major Source Threshold (MST)? 40 CFR 64.2(a)(3)	Subject to CAM			Compliance Method in Title V Permit
			Emission Limit	Basis			Y/N	Reason	Description	
		PM10	0.0013 gr/dscf	BAAQMD Condition # 23896 Part 2						
606	Storage Piles Area 1	Opacity	< 10% opacity	60.672(b)	N	N	N	64.2(a)(3)	Pre-control PTE < MST	As A-606 is a mobile water truck is not regulated under Part 70 or title I
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 24274 Part 2						
607	Storage Piles Area 2	Opacity	< 10% opacity	60.672(b)	N	N	N	64.2(a)(3)	Pre-control PTE < MST	As A-607 is a mobile water truck is not regulated under Part 70 or title I
		Particulate Matter	Ringelmann 1.0 Limitation	SIP 6-301						
			Visible Particles	SIP 6-305						
			Ringelmann 1.0 Limitation	BAAQMD Condition # 24274 Part 2						

Attachment 2:

**Potential  
To Emit**

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Source No (S-)	Source Description	Abatement Device	Material Stream	Applicable Annual Permit Limit	2005 Activity Level <sup>1</sup>	Process Fugitive Emissions (ton/yr) <sup>1</sup>	Dust Collector Emissions (ton/yr) <sup>1</sup>	Total Controlled Emissions - 2005 Level (ton/yr)	Control Efficiency (%) <sup>2</sup>	Uncontrolled Emissions Based on Applicable Limit (ton/yr)
1	Gasoline Service Station, G9200	CARB Certified EVR	Gasoline	400,000 gal/yr	35,592 gal/yr	--	--	1.495E-03	99.5%	3.36
17	Clinker Transfer (6-BC-3, 6-BC-6, 6-BC-7)	A-436 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	6.440E-02	4.850E-01	5.494E-01	99.5%	<b>125.60</b>
19	Clinker Storage Area	A-10, A-447, A-448, A-449 & A-450 Dust Collectors	Clinker	1.75 MM ton	1.4 MM tons clinker	1.290E-01	6.460E+00	6.589E+00	99.5%	<b>1,647.61</b>
21	Roll Press Clinker Surge Bin and Feeder	A-13 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	2.900E-01	3.510E+00	3.800E+00	99.5%	<b>868.76</b>
45	West Silo Top Cement Distribution Tower	A-433 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	6.610E-02	6.970E-01	7.631E-01	99.5%	<b>174.46</b>
46	Middle Silo Top Cement Distribution Tower	A-434 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.820E-02	6.970E-01	7.152E-01	99.5%	<b>163.51</b>
47	East Silo Top Cement Distribution Tower	A-435 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	2.460E-02	1.740E+00	1.765E+00	99.5%	<b>403.43</b>
48	Bulk Cement Loadout Tanks #1 and #2	A-420, A-421 & A-422, A-428 Dust Collectors	Cement	1.6 MM tons clinker	1.4 MM tons clinker	5.130E-02	1.968E+00	2.019E+00	99.5%	<b>461.66</b>
49	Bulk Cement Loadout Tank #28	A-423, A-424 & A-427, A-429 Dust Collectors	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.750E-01	2.963E+00	3.138E+00	99.5%	<b>717.41</b>

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50	Bulk Cement Loadout Tank #29	A-425, A-426 & A-427, A-429 Dust Collectors	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.900E-01	3.313E+00	3.503E+00	99.5%	<b>800.86</b>
54	Cement Packer #1	A-430 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	2.220E-03	2.020E-01	2.042E-01	99.5%	46.69
55	Cement Packer #2	A-431 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.480E-03	1.080E-01	1.095E-01	99.5%	25.03
74	Type II Mechanical Transfer System	A-58 Dust Collectot	Cement	1.44 MM ton cement	1.27 MM ton cement	5.250E-01	1.310E+00	1.835E+00	99.5%	<b>416.51</b>
100	Precalciner Kiln Fuel Handling System	A-100 Water Spray System	Coal&Coke	1.6 MM tons clinker	1.4 MM tons clinker	2.200E-02	--	2.200E-02	70%	0.08
111	Rail Unloading System Area 1	A-111 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.390E-02	4.090E-01	4.229E-01	95.0%	9.67
112	Additive Hopper Transfer System Area 1	A-112 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	2.340E-02	2.470E-01	2.704E-01	95.0%	6.18
113	Additive Bin Transfer Facilities Area 1	A-113 & A-114 Dust Collectors	Cement	1.6 MM tons clinker	1.4 MM tons clinker	2.340E-02	2.686E+00	2.709E+00	95.0%	61.94
115	Additive Storage Tripper	A-115 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.160E-02	4.090E-01	4.206E-01	95.0%	9.62
121	Tertiary Scalping Screen 2-VS-1, 2-VS-2	A-121 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	4.830E+00	4.280E+00	9.110E+00	95.0%	<b>208.27</b>
122	Tertiary Crusher 2-CR-1	A-121 & A-122 Dust Collectors	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.560E+00	4.874E+00	6.43	95.0%	<b>147.10</b>

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123	Rock Conveying System Area 2	A-122 & A-123 Dust Collectors	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.890E-01	1.197E+00	1.386E+00	95.0%	31.69
131	Rock Sampling System Area 3	A-131 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.650E+00	1.970E+00	3.620E+00	95.0%	82.76
132	Preblend	A-132 & A-133 Dust Collectors	Cement	1.6 MM tons clinker	1.4 MM tons clinker	3.570E-01	1.815E+00	2.172E+00	95.0%	49.66
134	Preblend Storage Bin 4-S-1, 4-S-2	A-134 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.780E-01	1.820E+00	1.998E+00	95.0%	45.68
135	High Grade Storage Bin 4-S-3, 4-S-4	A-135 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	4.790E-03	1.850E+00	1.855E+00	95.0%	42.40
141	Raw mill (4-GM-1)	A-141 Dust Collector	HG, MG, Additive	1.6 MM tons clinker	1.4 MM tons clinker	1.250E+00	6.210E+01	6.335E+01	99.5%	<b>14,483.19</b>
142	Raw mill 2 (4-GM-2)	A-142 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	1.110E+00	6.210E+01	6.321E+01	99.5%	<b>14,451.18</b>
143	Raw mill 1 Separator system (4-SE-3)	A-143 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	8.110E-02	6.210E+01	6.218E+01	99.5%	<b>14,215.95</b>
144	Raw mill 2 Separator Circuit (4-SE-4)	A-144 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	8.540E-02	2.320E+00	2.405E+00	99.5%	<b>549.93</b>
151	Homogenizer 5-S-1, 5-S-2	A-151 & A-152 Dust Collector	HG, MG, Additive	1.6 MM tons clinker	1.4 MM tons clinker	1.160E+00	2.960E+00	4.120E+00	99.5%	<b>941.92</b>
153	Kiln Feed System	A-153 Dust Collector	HG, MG, Additive	1.6 MM tons clinker	1.4 MM tons clinker	6.670E-01	5.320E+00	5.987E+00	99.5%	<b>1,368.76</b>

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154	Precalciner Kiln	A-141 & A-142 Dust Collectors, and A-171 & A-172 Baghouses	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	1.450E+00	1.466E+02	1.481E+02	99.5%	<b>33,847.45</b>
161	Clinker Cooler (5-CC-1)	A-161 & A-190 Dust Collectors	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	2.160E+00	1.793E+01	2.009E+01	99.5%	<b>4,593.24</b>
162	Clinker Silo A 5-S-11	A-162 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	4.820E-02	8.100E-01	8.582E-01	99.5%	<b>196.20</b>
163	Clinker Silo B 5-S-12	A-163 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	6.430E-02	7.000E-01	7.643E-01	99.5%	<b>174.74</b>
164	Free lime Storage Bin	A-164 Dust Collector		1.6 MM tons clinker	1.4 MM tons clinker	inactive	2.960E+00	2.960E+00	99.5%	<b>676.72</b>
165	Clinker Transfer System	A-165 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	9.320E-02	1.550E+00	1.643E+00	99.5%	<b>375.67</b>
168	Activated Carbon Storage Silo	A-168 Dust Collector	Powdered Activated Carbon	2000 tons	--	2.10E-4	2.10E-4	--	99.5%	0.042
169	Activated Carbon Feed Bin	A-169 Dust Collector	Powdered Activated Carbon	2000 tons	--	3.35E-4	3.35E-4	--	99.5%	0.067
171	Kiln Fuel Mill System	A-171 Baghouse*	Fuel	1.6 MM tons clinker	1.4 MM tons clinker	1.290E-02	1.130E+01	1.131E+01	95.0%	<b>258.64</b>
172	Precalciner Fuel Mill System	A-172 Baghouse*	Fuel	1.6 MM tons clinker	1.4 MM tons clinker	2.360E-02	1.110E+01	1.112E+01	95.0%	<b>254.31</b>
210	Finish Mill (6-GM-1)	A-210 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	2.020E-01	3.480E+00	3.682E+00	99.5%	<b>841.79</b>
211	Separator (6-SE-2)	A-211 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	4.780E-02	1.080E+01	1.085E+01	99.5%	<b>2,480.04</b>

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216	6-GM-1 Cake Conveyor (6-BC-13)	A-216 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	5.170E-02	3.300E-02	8.470E-02	99.5%	19.36
217	6GM1 Cake Conveyor (6-BC-15)	A-217 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	5.170E-02	3.300E-02	8.470E-02	99.5%	19.36
218	6-GM-1 Air Separator (6-SE-1)	A-218 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	2.150E-01	4.350E+01	4.372E+01	99.5%	<b>9,994.20</b>
220	6-GM-2 Mill and Peripherals	A-220 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	7.380E-02	3.820E+00	3.894E+00	99.5%	<b>890.21</b>
221	6-GM-2 Cake Feeder (6WF2)	A-221 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	1.930E-02	3.870E-02	5.800E-02	99.5%	13.26
222	6-GM-2 Gypsum Feeder (6WF4)	A-222 Dust Collector	Natural Gypsum	1.6 MM tons clinker	1.4 MM tons clinker	1.060E-03	3.510E-02	3.616E-02	99.5%	8.27
223	Synthetic Gypsum Feeder	A-221 Dust Collector	Natural or Synthetic Gypsum	84,210 tons combined from S-222, S-223 S-243 and S-246	--	1.21E-1	0.122	--	99.5%	24.4
230	6-RP-1 Roller Press and Peripherals	A-230 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	2.250E-01	3.510E+00	3.735E+00	99.5%	<b>853.90</b>
231	Pressed Cake Bin (6-SS-2)	A-231 Dust Collector	Clinker	1.6 MM tons clinker	1.4 MM tons clinker	6.440E-02	3.650E-02	1.009E-01	99.5%	23.07
240	Additive Conveyor/Bins	A-240 Dust Collector		1.6 MM tons clinker	1.4 MM tons clinker	5.710E-03	2.040E-03	7.750E-03	99.5%	1.77
242	6-GM-1 Cake Feeder (6-WF-3)	A-242 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	7.750E-02	5.660E-02	1.341E-01	99.5%	30.66

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Source No (S-)	Source Description	Abatement Device	Material Stream	Applicable Annual Permit Limit	2005 Activity Level <sup>1</sup>	Process Fugitive Emissions (ton/yr) <sup>1</sup>	Dust Collector Emissions (ton/yr) <sup>1</sup>	Total Controlled Emissions - 2005 Level (ton/yr)	Control Efficiency (%) <sup>2</sup>	Uncontrolled Emissions Based on Applicable Limit (ton/yr)
243	6-GM-1 Gypsum Feeder (6-WF-59) Reclaimed cement	A-243 Dust Collector	Synthetic Gypsum	1.6 MM tons clinker	1.4 MM tons clinker	0.000E+00	0.000E+00	0.000E+00	99.5%	0.00
244	6GM1 Pozzolan Feeder (6-WF-7)	A-244 Dust Collector	Pozzolan	1.6 MM tons clinker	1.4 MM tons clinker	3.190E-04	3.070E-03	3.389E-03	99.5%	0.77
245	6-GM-1 Clay Feeder (6-WF-95) Gypsum	A-245 Dust Collector	Natural Gypsum	1.6 MM tons clinker	1.4 MM tons clinker	1.390E-04	5.850E-02	5.864E-02	99.5%	13.41
246	Synthetic Gypsum Feeder	A-243 Dust collector	Natural or Synthetic Gypsum	84,210 tons combined from S-222, S-223 S-243 and S-246	--	7.56E-2	0.0756	--	99.5%	15.12
300	Rock Plant Wet Aggregate Storage Piles	A-300 Water Spray	Rock	1.5 MM tons	1.20 MM tons	4.513E-01	--	4.513E-01	70%	1.50
301	Rail Loadout System	A-301 Dust Collector	Cement	312,000 tons	151,534 tons	2.090E-02	3.720E-02	5.810E-02	99.5%	23.92
340	Coarse Rock Withdrawal System (8-BC-50, 8-BC51)	A-340 Baghouse	Rock	5,660 hours	3,319 hours	1.650E-01	2.030E-01	3.680E-01	95%	12.55
341	Pre-Crushing Screens Rock Plant 3 (8-VS-50)	A-341 Baghouse	Rock	5,660 hours	3,812 hours	1.170E+00	3.610E-01	1.531E+00	95%	45.46



Permit Evaluation and Statement of Basis: Site A0017, Lehigh Southwest Cement Company  
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Source No (S-)	Source Description	Abatement Device	Material Stream	Applicable Annual Permit Limit	2005 Activity Level <sup>1</sup>	Process Fugitive Emissions (ton/yr) <sup>1</sup>	Dust Collector Emissions (ton/yr) <sup>1</sup>	Total Controlled Emissions - 2005 Level (ton/yr)	Control Efficiency (%) <sup>2</sup>	Uncontrolled Emissions Based on Applicable Limit (ton/yr)
342	Coarse Rock Crushing System 2 ea. Symons 5.5 Ft	A-342 Baghouse	Rock	5,660 hours	3,812 hours	6.600E-01	3.190E-01	9.790E-01	95%	29.07
343	Crushed Rock Returns Conveyor	A-341 Baghouse	Rock	5,660 hours	3,812 hours	2.350E-02	3.610E-01	3.845E-01	95%	11.42
344	Wet Screening Feed Conveyor	A-350 Water Spray*	Rock	1.5 MM tons	1.10 MM tons	1.340E+00	--	1.340E+00	70%	6.09
350	Wet Screening Feed Conveyor	A-350 Water Spray*	Rock	1.5 MM tons	1.20 MM tons	3.000E+00	--	3.000E+00	70%	12.50
360	Wet Aggregate Loadout System (8-BC-60)	A-360 Water Spray*	Rock	1.5 MM tons	0.53 MM tons	7.360E-02	--	7.360E-02	70%	0.69
370	Class 2 Aggregate Additive Transfer System (8-BC-35, 8-BC-37)	A-370 Water Spray*	Rock	1.5 MM tons	0.02 MM tons	2.500E-03	--	2.500E-03	70%	0.69
380	Sand Transfer Hopper	Haul Road Sprinkler System	Sand	1.5 MM tons	0.27 tons	3.240E-01	--	3.240E-01	70%	6.07
381	Sand Storage Pile	Haul Road Sprinkler System	Sand	1.5 MM tons	0.23 tons	5.220E-03	--	5.220E-03	70%	0.11
382	Water Clarifier Fines System	Haul Road Sprinkler System	LG	1.5 MM tons	0.26 tons	3.020E-02	--	3.020E-02	70%	0.58

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383	Rock Plant 2 Conveyors	A-384 Baghouse	Rock	5,660 hours	3,319 hours	7.660E-02	2.420E+00	2.497E+00	95%	85.15
384	Rock Plant 2 Screens - 16 & 17	A-384 Baghouse	Rock	5,660 hours	3,319 hours	2.750E+00	2.420E+00	5.170E+00	95%	<b>176.33</b>
390	Conveyor Belt 15-M	A-390 Baghouse	Rock	5,660 hours	3,319 hours	2.280E-01	5.180E-02	2.798E-01	95%	9.54
412	Finish Mill	A-218 Dust Collector	Cement	1.6 MM tons clinker	1.4 MM tons clinker	6.320E-03		6.320E-03	99.5%	1.44
414	Finish Mill Additive Bin	A-414 Dust Collector	Additive	24,000 tons	3,472 tons	2.400E-04	1.040E-01	1.042E-01	99.5%	<b>144.11</b>
415	Finish Mill Building Conveyor	A-415 Dust Collector	Cement	9,900 tons	--	5.445E-03	0.000E+00	5.445E-03	99.5%	1.09
444	Emergency Clinker Conveyor	A-444 Water Spray	Clinker	75,000 tons	69,917 tons	3.220E-03	--	3.220E-03	70%	0.01
601	Rock Hopper (9-DH-1)	A-4501 Water Spray System	Rock	15.8 MM tons rock	--	3.800E-02	--	3.800E-02	70%	0.13
602	Conveyor System (9-PAF-1, 9-BC-1, 9-BC-2)	A-4502, A-4503 & A-4504 Dust Collectors	Rock	15.8 MM tons rock	--	1.900E-01	NA	1.900E-01	95.0%	3.80
603	Vibrating Grizzly (9-VG-1)	A-4503 Dust Collector	Rock	15.8 MM tons rock	--	3.270E-01	NA	3.270E-01	95.0%	6.54

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606	Storage Piles (Area 1)	Mobile Water Truck		479,434 tons	--	4.600E-01	--	4.600E-01	70%	1.53
607	Storage Piles (Area 2)	Mobile Water Truck		240,000 tons	--	6.300E-01	--	6.300E-01	70%	2.10

**Notes:**

1) Most emissions are from "Comprehensive Emission Inventory Report (CEIR) for Lehigh Southwest Cement Company's Cupertino Facility for 2008. The BAAQMD Permit Evaluations in the Statement of Basis was used for new/ modified sources.

2) Control efficiencies were applied consistent with EPA (AP-42) and BAAQMD (Statement of Basis) guidelines: 70% for water sprays, 95% for rock/ aggregate sources per AP-42 11.19, and 99.5% for cement/ clinker sources (NESHAP LLL Sources).

\*Inherent Process Equipment