



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION IX**

**75 Hawthorne Street  
San Francisco, CA 94105-3901**

September 25, 2009

Barry Young  
Air Quality Engineer Manager  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

**Subject: Proposed Title V Permit for Lehigh Southwest Cement Company  
Facility #A0017**

Dear Mr. Young:

Thank you for the opportunity to review the proposed title V permit for the Lehigh Southwest Cement Company (Facility #A0017) located in Cupertino, CA. Our staffs have discussed a number of issues related to this permit. Based on these discussions, and emails dated September 23 and 24, 2009 between District and EPA staffs, the District committed to incorporate changes that we have already agreed on and to continue working with us to resolve any remaining issues listed in the attached comments prior to the issuance of the final permit for this facility. We appreciate the District's willingness to work with us throughout this process and are providing the enclosed comments to aid in our future discussions.

Again, I thank you and your staff for your effort to prepare this complex permit and for the time spent discussing it with us. If you have any questions or if you would like to discuss this matter further, please call me at (415) 972-3974 or have your staff call Shaheerah Kelly at (415) 947-4156.

Sincerely,

A handwritten signature in black ink, appearing to read "Gerardo C. Rios", with a long horizontal line extending from the end of the signature.

Gerardo C. Rios  
Chief, Air Permits Office

Enclosure

**Enclosure:**  
**EPA Comments on the Proposed Title V Permit Renewal for the  
Lehigh Southwest Cement Company (Facility #A0017)**

**1. General comments**

- a. Page 40 of the proposed permit states that no monitoring is required if the current rule or regulation does not require monitoring, and the operation is not likely to deviate from the applicable emission limit based upon the nature of the operation (e.g, unit S-100 uses water sprays and is subject to a 20% opacity limit but requires no monitoring or compliance measures for the limit). Since many of the emission units in the permit use control equipment (i.e., dust collectors, baghouses, and water sprays) and compliance with the emission limits is based on use of the controls, the permit should contain a general requirement that all emission units with controls shall not operate unless the control equipment is also operating.

Bay Area Air Quality Management District (BAAQMD or District) has explained that for emission units controlled by a baghouse, it is the District's policy to require the units to be abated by a baghouse when the units are in operation. The District has agreed to review each emission unit and add this condition if is not included in the permit. For emission units controlled by water sprays, the District has explained that its policy is to require the use of the water sprays, which may or may not be necessary to operate at all times, when necessary to maintain compliance with the emission limit. Thus, the permit will not be changed to require the use of water sprays at all times.

- b. The requirements for S-141 and S-142 in section IV lists permit condition 603 as an applicable requirement, but permit condition 603 (in section VI) does not include units S-141 and S-142. Based on discussions with the District, permit condition 603 will be removed from the list of requirements that apply to S-141 and S-142 in section IV since it does not apply.
- c. Several emission units in the permit require visual inspections in section IV of the permit. It is not clear in the statement of basis or permit whether the visual inspection requirements are visible emissions observations or visual inspections for the pollution controls (e.g., baghouses). The District has agreed to clarify in the statement of basis that the visual inspections are for visible emissions observations as required by EPA Test Methods 9 or 22.
- d. The permit's statement of basis must acknowledge EPA's investigation into Lehigh's increase in petroleum coke usage. EPA recommends a statement to the following effect: "On May 11, 2007, the District issued NSR Application #15398 allowing the Facility to increase petroleum coke burning capacity at the calciner kiln from 8 ton/hr to 20 ton/hr. 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 52.21. The PSD investigation is also looking at other physical modifications or operational changes made at the facility. As a result of this investigation, additional applicable requirements may apply to the facility.” The District has agreed to include the suggested language into the statement of basis for the proposed permit.

**2. National Emission Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (NESHAP Subpart LLL)**

- a. It is not clear in the statement of basis whether Lehigh is a major source of hazardous air pollutants (HAPs). The statement of basis should include a determination of Lehigh’s potential-to-emit (PTE) estimates for HAPs as defined in the Clean Air Act. 40 CFR 63.2 defines a major source of HAPs as any stationary source or group of stationary sources that would emit or have a PTE of 10 tons per year of any HAP, or 25 tpy of any combination of HAPs. The District has agreed to revise the statement of basis to include emissions estimates showing whether Lehigh is a major source of HAPs.
- b. 40 CFR 63.1350(a) requires Lehigh to prepare a written operations and maintenance plan (O&M plan). 40 CFR 63.1350(b) also requires Lehigh to comply with any standard in the O&M plan. The District will identify the O&M plan by title and date, and state its location in the permit and statement of basis.

**3. Compliance Assurance Monitoring (CAM)**

- a. The permit must include sufficient permit conditions to address CAM for units S-383 and S-384. According to the statement of basis, units S-383 and S-384 are subject to CAM. The permit includes daily monitoring of pressure drop across the baghouse filters in A-384 and quarterly visual inspections. In accordance with 40 CFR 64.6 through 64.9, the permit has to include the following requirements at a minimum. More information about CAM can be found in the CAM regulations in 40 CFR part 64 and <http://www.epa.gov/ttnemc01/cam.html>.
  - i. A description of monitoring (what is measured, how the monitoring indicators are measured such as use of continuous digital measurement or visual observation of an analog gauge for the pressure drop, the monitoring frequency, and the averaging time);
  - ii. Definitions of an exceedance or excursion, and consequences (e.g., excursion triggering recordkeeping, corrective actions, and reporting obligations); and
  - iii. QA/QC schedules and procedures.

Based on discussions with the District, Lehigh will revise its CAM analysis in Appendix D of the statement of basis to include additional information. Also, the District will revise the permit, as applicable, to address the minimum CAM requirements that must go into the permit.

- b. For units S-383 and S-384, the indicator range for the pressure drop range is 0 to 8 inches of water. The permit and statement of basis must clarify whether this indicator range is appropriate based on actual operating data from the facility that assures proper operation of the control equipment and allows Lehigh to take corrective action on a timely basis whenever there is an excursion or exceedance. Based on discussions with the District, Lehigh will revise its CAM analysis in Appendix D of the statement of basis to include additional information. Also, the District will revise the permit, as applicable, to address any changes to the pressure drop range.
- c. It appears that CAM would apply to S-121 and S-122 since the units use dust collectors for controls and are subject to particulate matter (PM) emission limitations. Although the statement of basis states that CAM does not because the units are subject to NSPS Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), the exemption in 40 CFR 64.2(b)(1)(i) would not apply to the units (see comment 3.h. below). The permit should include the minimum CAM requirements (see comment 3.a. above) or explain in the statement of basis why it is not required. Also, as in comment 3.b. above, the permit and statement of basis should clarify whether the pressure drop range of 0 to 8 inches of water is appropriate.

Based on discussions with the District, Lehigh will revise its CAM analysis in Appendix D of the statement of basis to include additional information. Also, the District will revise the permit, as applicable, to include any CAM requirements.

- d. The statement of basis states that CAM is not applicable to units S-171 and S-172 (fuel mills) because the emission units have inherent process equipment (A-171 and A-172 which are baghouses) used to collect the fuel for material recovery to use in the kiln (S-154). The definitions in 40 CFR 64.1 states that “inherent process equipment means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations.” The definitions also state “inherent process equipment is not considered a control device.” The units that use the baghouses are subject to an opacity limit under NSPS Subpart Y (Standards of Performance for Coal Preparation Plants), a lead (Pb) limit of 15 lb/day, and PM and opacity limits under the District State Implementation Plan (SIP). Lehigh must demonstrate that the baghouses were installed and operated primarily for purposes other than compliance with air pollution regulations, or evaluate the units for CAM applicability. If CAM applies, the requirements must be included

in the permit. The District has agreed to review the inherent process equipment definition and will determine whether S-171 and S-172 are subject to CAM.

- e. The units listed in the table below must be evaluated to determine whether the units are subject to CAM for PM since the units use dust collectors and baghouses for controlling PM, and are subject to SIP and New Source Review (NSR) limits for PM. Although these units are subject to NESHAP Subpart LLL, the exemption from CAM in 40 CFR 64.2(b)(1)(i) only applies to the emission limits within NESHAP Subpart LLL. CAM must be evaluated for each emission limit, including the SIP and NSR limits. If CAM does not apply, the units must be evaluated for periodic monitoring per 40 CFR 70.6(c). Based on discussions with the District, Lehigh will revise its CAM analysis in Appendix D of the statement of basis to include additional information for the units listed in the table below. Also, if CAM applies, the District will revise the permit to include any CAM requirements.

Process	Emission Units
Kiln/raw mills	S-141 Raw mill (Dust Collector), S-142 Raw mill (Dust Collector) S-154 Precalciner Kiln (Dust Collectors & Baghouses)
Clinker coolers	S-161 Clinker Cooler (Dust collectors)
Raw mill or finish mill	S-143 Raw mill 1 Separator System (Dust Collector), S-144 Raw mill 2 Separator Circuit (Dust Collector) S-210 Finish Mill (Dust Collector) S-211 Separator (Dust Collector) S-218 Air Separator (Dust Collector) S-220 Finish Mill (Dust Collector) S-230 Hydraulic Roller Press (Dust Collector) S-412 Finish Mill (Dust Collector)
Raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system; and raw material dryer	S-17 Clinker Transfer Area (dust collector) S-19 Clinker Storage Area (dust collectors) S-21 Roll Press Clinker Surge Bin and Feeder (dust collector) S-45 through 47 West, Middle, & East silos (dust collectors) S-48 through 50 Bulk Cement Loadout Tanks (dust collectors) S-54 & 55 Cement Packer (dust collectors) S-74 Type II Mechanical transfer System (dust collectors) S-151 Homogenizer (Dust Collectors), S-153 Kiln Feed System (Dust Collector) S-162 Clinker Silo (Dust Collector) S-163 Clinker Silo (Dust Collector) S-164 Free lime Storage Bin (Dust Collector) S-165 Clinker Transfer System (Dust Collector) S-216 Clinker Cake Conveyor (Dust Collector), S-217 Clinker Cake Conveyor (Dust Collector) S-221 Clinker Cake Feeder (Dust Collector), S-231 Pressed Cake Bin (Dust Collector) , S-242 Clinker Cake Feeder (Dust Collector) S-222 Gypsum feeder (Dust Collector), S-240 Additive Conveyor/bins (Dust Collector), S-243 Gypsum Feeder (Dust Collector), S-244 Pozzolan Feeder (Dust Collector), S-245 Clay Feeder (Dust Collector) S-301 Rail Loadout System (Dust Collector) S-414 Kiln Dust Additive Bin (Dust Collector) S-415 Finish Mill Building Conveyor (Dust Collector) S-444 Emergency Clinker Conveyor (Water Spray)

- f. The emission units listed in the following table must be evaluated to determine whether CAM applies to the units. The units are subject to NSPS Subpart OOO. The CAM exemption in 40 CFR 64.2(b)(1)(i) would not apply to the units. The exemption would only apply to the revised portions of NSPS Subpart OOO, which would include the monitoring requirements for units using wet scrubbers, or units constructed, modified, or reconstructed on or after April 22, 2008 that use wet suppression or baghouses (see comment 3.h. below). If CAM applies, the requirements in 40 CFR 64.6 through 64.9 must be included in the permit (see comment 3.a. above). Based on discussions with the District, Lehigh will revise its CAM analysis in Appendix D of the statement of basis to include additional information for the units listed in the table below. Also, if CAM applies, the District will revise the permit to include any CAM requirements.

Process	Control
S-300 Rockplant Wet Aggregate Storage Piles	Water Spray System
S-344 Rockplant Wet Screen Feed Conveyor	Water Spray System
S-350 Rockplant Wet Screen and Conveying	Water Spray System
S-360 Rockplant Wet Aggregate Loadout System	Water Spray System
S-380 Sand Transfer Hopper, S-381 Sand Storage Pile, S-382 Water Clarifier Fines System	Sprinkler/Water System
S-606 Storage Piles (Area 1) S-607 Storage Piles (Area 2)	Water Spray (mobile water truck)

- g. The statement of basis states that all sources subject to NSPS Subpart Y (Standards of Performance for Coal Preparation Plants) are exempt from CAM per 40 CFR 64.2(b)(1)(i) because the amended standards were proposed by the EPA after November 15, 1990. The exemption would only apply to the revisions of the monitoring and related requirements in the standard that occurred after November 15, 1990. The standard was originally promulgated on July 25, 1977 and revised in 1983 and 2000. Since the revisions to the monitoring were only for thermal dryers, the exemption would not apply to Lehigh because no thermal dryers that are subject to NSPS Subpart Y are identified in the proposed permit. Based on discussions with the District, the District will include a clarification to this effect in the statement of basis. Also, Lehigh will revise its CAM analysis in Appendix D of the statement of basis to include additional information for the applicable emission units. If CAM applies, the District will revise the permit to include any CAM requirements.
- h. The statement of basis states that all sources subject to NSPS Subpart OOO are exempt from CAM per 40 CFR 64.2(b)(1)(i) because the amended standards were proposed by the EPA after November 15, 1990. As mentioned in the previous comment, the exemption would only apply to the revisions of the monitoring and related requirements in the standard that occurred after November 15, 1990. The standard was originally promulgated on August 1, 1995 and revised in 1997 and 2009. Since the revisions to the monitoring were for any affected unit using a wet scrubber, or any affected unit that was constructed, modified, or reconstructed on or after April 22, 2008, the exemption would only apply to these units at Lehigh.

Based on discussions with the District, the District will include a clarification to this effect in the statement of basis. Also, Lehigh will revise its CAM analysis in Appendix D of the statement of basis to include additional information for the applicable emission units. If CAM applies, the District will revise the permit to include any CAM requirements.

#### **4. Periodic Monitoring**

- a. It is not clear in the permit or statement of basis how Lehigh will show compliance on an ongoing basis with the 15 lb/day Pb limit that applies to S-154, S-171 and S-172. The District has agreed to revise the statement of basis (in the discussion of Table IV&VII-N) to indicate that Lehigh will show compliance on an ongoing basis by an annual source test as required by permit condition 603, Part 8.
- b. The permit should contain requirements or specific references to QA/QC procedures for the NO<sub>x</sub> and SO<sub>2</sub> CEMS used for S-141, S-142, and S-154 to ensure proper operation and maintenance of the monitoring devices. Below are a couple of suggestions.
  - i. The CEMS can meet requirements in 40 CFR Part 60 Appendix B, Performance Specifications 2 and 3, and 40 CFR Part 60 Appendix F, Procedure 1.
  - ii. The CEMS can be tested periodically in accordance with the requirements of 40 CFR 60 Appendix F, Procedure 1.

The District will add 40 CFR Part 60 Appendix B, Performance Specifications 2 and 3, and 40 CFR Part 60 Appendix F, Procedure 1 in table IV&VII-N in section IV of the permit.

- c. For the emission units that are subject to PM emission limits as required by the SIP and do not require periodic testing, the permit or statement of basis should clarify why periodic source testing is not required. The District will clarify this in the statement of basis.
- d. For all emission units in the permit using a baghouse leak detection system (BLDS), the permit does not appear to clearly state how Lehigh will assure compliance on an ongoing basis for detecting leaks and broken baghouses. It is our understanding that the permit requires the facility to comply with the parametric monitoring and recordkeeping procedures in District Regulation 1-523 on page 3 of the permit which would apply to the operation of the BLDS for the baghouses.