

BAAQMD Responses to EPA Comments**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.

District Response to Comment 1a:

For emission units controlled by water sprays, the District's policy is to require the use of the water sprays when necessary to maintain compliance, which may or may not be required to operate at all times. Thus, the permit will not be changed to require the use of water sprays at all times.

For emission units controlled by a baghouse, it is the District's policy to require the units to be abated by a baghouse at all times when the units are in operation. The language that requires the source to be abated by its associated control equipment is usually written into each individual source condition. The District reviewed and added to the following conditions that were missing this language: Conditions #7246, Part 1 (page 455 of the Title V permit), Condition #11780, Part B.2 (page 463 of the Title V permit), and Condition #20751, Part 1 (page 477 of the Title V permit).

- 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.

District Response to Comment 1b:

Permit Condition 603 does not apply to S-141 and S-142; therefore, Condition 603 was removed from Table IV & VII – K (page 152 of Title V permit).

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- 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.

District Response to Comment 1c:

The District clarified in the Statement of Basis (SOB) on page 23 and in the Title V permit on page 43 that the visual inspections are for visible emission (VE) observations as required by EPA Method 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.

District Response to Comment 1d:

The following statement was added to the SOB on page 4: "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 Part 52.21. The PSD investigation is also looking at other physical modifications or operational changes made at the facility. Upon the conclusion of this investigation, additional applicable requirements may be determined to apply to the facility."

2. 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.

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The District added a sentence to clarify that Lehigh is a major source of hazardous air pollutant (HAPs) on page 3 of the SOB.

- 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.

District Response to Comment 2b:

The District added a statement on page 7 of the SOB indicating that Lehigh has been maintaining the Operations and Maintenance Plan which is titled "Operations and Maintenance (O&M) Plan, Lehigh Southwest Cement Company, Permanente Plant, Cupertino, California". 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 is kept in the environmental manager's office at Lehigh.

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.

District Response to Comment 3a:

The PTE of S-383 and S-384 were revised. Only S-384 is subject to CAM because the uncontrolled PTE of S-383 is less than 100 tons per year. The District imposed the new permit Condition #24781 that requires a record of the quarterly pressure drop using a manometer, and quarterly visible emission observation for S-384, which is subject to the CAM plan. In addition, Condition #24781 requires the following information in accordance to 40 CFR Part 64.4 through 64.9:

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- i. Parts 12 and 14 describe the monitoring by visual inspection and differential pressure drop using a manometer. Parts 13, 14 and 15 indicate the exceedance, excursion, minimum accuracy and range of the manometer.
 - ii. Part 13 defines exceedance or excursion, Part 17 specifies corrective action and Part 19 requires semi-annual reporting of exceedance and/or excursions.
 - iii. Part 18 requires QA/QC schedules and procedures.
- 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.

District Response to Comment 3b:

Lehigh submitted a letter dated November 2, 2009 from GE Energy. This letter recommends the normal operating ranges of 2" to 6" water column for fabric filter dust collectors. However, depending on the need of each operation, the operating ranges of 0" – 8" water column is used for most dust collector units with intermittent flow and 0" – 14" water column is used for some specialty filtration equipment. Since S-383 and S-384 (conveyor and screen) are not operated continuously, they often operate with no flow or intermittent flow into the dust collector and with constant cleaning cycles; therefore, it is reasonable for Lehigh to propose 0.5" of water column as the low end of the pressure gauge and 8" of water as the high end of the pressure gauge. The 0.5" of water column will also be the proposed low end for all sources that are subject to CAM at Lehigh.

- 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 apply 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.

District Response to Comment 3c:

The District imposed the new permit Condition #24781 that requires a record of quarterly pressure drop using a manometer, and quarterly visible emission observation for S-121 and

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S-122, which are subject to CAM. In addition, Condition #24781 requires the following information in accordance to 40 CFR Part 64.4 through 64.9:

- i. Parts 12 and 14 describe the monitoring by visual inspection and differential pressure drop using a manometer. Parts 13, 14 and 15 indicate the exceedance, excursion, minimum accuracy and range of the monometer.
 - ii. Part 13 defines exceedance or excursion, Part 17 specifies corrective action and Part 19 requires exceedance or excursion semi-annual report.
 - iii. Part 18 requires QA/QC schedules and procedures.
- 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.

District Response to Comment 3d:

The District determined that S-171 and S-172, fuels mills, are subject to CAM because the uncontrolled emissions for each of these sources are more than 100 tons per year. The CAM condition # 24781, Parts 23 through 33 were created to impose the CAM requirements for S-171 and S-172. Please refer to Condition # 24781 in the Title V permit.

- 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) |

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| Process | Emission Units |
|---|--|
| | S-154 Precalciner Kiln (Dust Collectors & Baghouses) |
| Clinker coolers | 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) |

District Response to Comment 3e:

Lehigh has re-submitted the potential to emit (PTE) table in Appendix D to show the CAM applicability for all sources. The District has reviewed the calculations. Sources that are not

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exempt were evaluated and added to the CAM Condition #24781. Please refer to Condition #24781 in the Title V permit for the CAM requirements.

- 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) |

District Response to Comment 3f:

The District determined that S-300, S-344, S-350 and S-360 wet screens and aggregate loadout systems are not subject to CAM because the uncontrolled emissions from each of these sources are less than 100 tons per year before the abatement device per the 64.2(a)(3) exemption. These sources are also not subject to CAM because the water spray is used to wash gravel/rocks for sale as finished product. The water spray is necessary for the proper functioning of the process and to bring the rocks up to buyer’s specification. Therefore, the water sprays are used as inherent process equipment, not to meet an applicable emission limit. The PTE calculation for these sources are shown in Appendix D of the SOB.

Sources S-370, S-380 through S-382, S-606, and S-607 are not subject to CAM requirements because the water spray is provided by mobile water trucks. Mobile sources are not subject to Title V requirements. In addition, S-370, S-380 through S-382, S-606 and S-607 are not

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subject to CAM because the uncontrolled emissions from these sources are less than 100 tons per year as shown in Appendix D of the SOB.

- 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.

District Response to Comment 3g:

The District removed the language that all sources subject to 40 CFR, Part 60 Subpart Y and Subpart OOO are exempt from CAM per 40 CFR 64.2(b)(1)(i) in the SOB on page 22.

- 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.

District Response to Comment 3h:

The District removed the language that all sources subject to 40 CFR, Part 60 Subpart Y and Subpart OOO are exempt from CAM per 40 CFR 64.2(b)(1)(i) in the SOB on page 21.

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.

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The District added to Table IV & VII-N the annual source test requirement from Condition #603, Part 8 to demonstrate compliance with the lead (Pb) limit for Sources S-154. The same was added to Table IV & VI-Q for S-171 and S-172.

- b. The permit should contain requirements or specific references to QA/QC procedures for the NO_x and SO₂ 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.

District Response to Comment 4b:

The District added the QA/QC Procedures for NO_x and SO₂ CEMs in 40 CFR Part 60, Appendix B, Specifications 2 and 3 (Specifications and Test Procedures for NO_x and SO₂ CEMs) and 40 CFR 60 Appendix F, Procedure 1 (Quality Assurance Requirements for Gas CEM) to Table IV & VII-N for S-154 and Table IV & VII-K for S-141 and S-142.

- 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.

District Response to Comment 4c:

In Section VII - Applicable Limits and Compliance Monitoring Requirements, page 69 to 71 of the SOB, the District explained that the sources at Lehigh are either abated by baghouses or water sprays. Fugitive dust sources that are equipped with water sprays are expected to continue to comply with the opacity standards. Sources equipped with baghouses are required to demonstrate compliance by initial source tests, and are either monitored by pressure drop monitors or broken bag leak detection devices to ensure compliance with the limits of District SIP 6-310 and SIP 6-311.

Since the initial proposed Title V permit renewal, the District added two conditions (Condition #/24621, Part 1 and Part 2) to require Lehigh to: 1) operate and maintain a District approved "Fugitive Dust Control Plan", and 2) perform source testing on the abatement device absent of a source test requirement at least once every five years. The new Condition is listed on pages 489-491 of the Title V permit renewal to ensure compliance with the District SIP regulation. Table IV & Table VII – Facility Wide was added to the Title V permit renewal to include the new facility wide condition.

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- 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.

District Response to Comment 4d:

The “Fugitive Dust Control Plan” approved by the District includes the operation and maintenance procedures such as maintenance, monitoring, and recordkeeping to make sure the pressure drop monitor and broken bag leak detection system are working properly. For sources that are subject to NESHAP Subpart LLL, the “Operations and Maintenance Plan” serves the same function. Both of the plans are kept onsite and updated as necessary or at a minimum once every five years. In addition, the CAM condition # 24781, Parts 34 through 44 also specify the broken bag leak detector’s excursion, exceedance, minimum accuracy, operating range, inspection and reporting.

For sources with abatement devices that are equipped with the Continuous Emission Monitoring (CEM) System and Parametric Monitoring System, the District requires the facility to comply with the monitoring and recordkeeping procedures in District Regulation 1-522 and Regulation 1-523, respectively. This requirement is specified in Table III - General Applicable, Table IV & VII – Source Specific Requirements for Facility Wide and Table IV & VII – Source Specific Requirements for S-154, Cement Kiln.