

Questions Not Addressed at 2/15/18 Public Information Meeting About Lehigh Cement and Quarry

Bay Area Air Quality Management District:

1. Has the dust at Lehigh been tested for hazardous materials?

Yes. Dust from a variety of potential sources of fugitive emissions such as the rock area, storage bins, etc. was sampled and tested as part of the 2008 Comprehensive Emissions Inventory Report (CEIR) prepared for Lehigh. A request for this report can be submitted electronically through the Air District's Public Records Portal. The Public Records Portal is located at: <http://www.baaqmd.gov/contact-us/request-public-records>. Please note that dust from public roadways near Lehigh has not been tested by the Air District.

2. What is in the plume sometimes seen at Lehigh? Is there hydrochloric acid present?

The visible plume from the cement kiln stack at Lehigh is the result of stack gases that condense under certain conditions to become a visible solid. This is a common problem for cement kiln stacks where ammonia, chloride, and/or sulfur dioxide are present.

Hydrogen chloride (HCl) is present in the kiln stack gases and may contribute to the visible plume.

3. How is air quality monitored on the site? Including how often is it monitored.

Air quality is monitored at Lehigh using a variety of methods including continuous emission monitoring systems (CEMS), parametric

monitoring, source testing, and bag leak detection systems. For example, CEMs are used to directly measure nitrogen oxides, sulfur oxides, mercury, total hydrocarbons, ammonia and other air emissions and parameters from Lehigh's kiln on a continuous basis. Parametric monitoring is used to continuously measure compounds such as dioxin/furans, which uses the surrogate parameter of kiln stack temperature to measure those compounds. Source testing is conducted annually on the kiln and clinker cooler to measure air emissions including toxic air contaminants (TACs); and, bag leak detection systems are installed on certain baghouses (dust collectors) to continuously monitor for leaks.

4. What impact would AB617 have on the frequency of monitoring?

At this early stage of AB617 implementation, the Air District does not currently know what impact AB617 would have on the frequency of monitoring. Under AB617, the California Air Resources Board (CARB) must prepare an air monitoring plan by October 1, 2018 that evaluates the availability and effectiveness of air monitoring technologies and existing community air monitoring networks. Any new monitoring deployed as part of AB617 will augment current monitoring being conducted by CARB and the Air District to provide enhanced community level coverage.

5. Is the Air District monitoring for Chromium VI or are there plans to do so? This is done in Riverside by the South Coast District.

Hexavalent chromium emissions from the cement kiln at Lehigh are determined on an annual basis by source testing.

Also, the United States Environmental Protection Agency (USEPA) and Air 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 USEPA provided the instruments and initial laboratory analysis, and the Air District installed and operated the monitoring equipment. The monitoring commenced on July 30, 2009, and continued until August 30, 2010. A total of 72 daily samples were taken at this site on a once every 6th day sampling schedule. EPA concluded that hexavalent chromium air concentrations at the site were below levels of concern for short-term exposures, and did not clearly indicate influence of a nearby source (i.e., Lehigh).

6. Does the Air District (or can the Air District) provide daily air quality reports for the area around Lehigh like they do for San Jose, including the types of particulates?

The Air District no longer provides air quality reports from the area around Lehigh, although from September 2010 - December 2013 it did. The Air District collected air monitoring data from a special purpose air monitoring station located at Monta Vista Park approximately 1 mile from the Lehigh facility. The monitoring station was installed to determine if Cupertino residents were exposed to high pollution levels that may not reach other Bay Area monitoring stations. Based on the results, the air monitoring station was shut down on December 31, 2013. More information on the Cupertino Air Monitoring Project and its results can be found at: <http://www.baaqmd.gov/research-and-data/special-air-monitoring-projects/cupertino>.

7. Why is Lehigh in the Phase One for Air Quality investigation as explained by Sanjeev?

Regulation 11, Rule 18, Reduction of Risk from Air Toxic Emissions at Existing Facilities, will be implemented in two phases. The facilities will be prioritized using a state-wide screening process that calculates a prioritization score for each facility. Prioritization scores represent the relative potential for health impacts from a facility based on the amount of toxic air contaminants (TACs) emitted from a facility, the relative toxicity of the TACs emitted, and the proximity of the facility to possible residences and businesses. The Air District uses prioritization scores to rank facilities based on health impact potential and to determine when facilities should undergo further review, such as health risk assessment (HRA). Facilities found to have scores greater than 250 are likely to have higher health impacts and will be evaluated in Phase 1 of the implementation plan. Phase 2 will include facilities that have prioritization scores between 10 and 250.

8. Lehigh uses drying agents to make cement and the drying agents cause emissions. How is the Air District regulating this?

The Air District is not aware of any drying agents being utilized to make cement at Lehigh.

9. How do we know we are safe from emissions at Lehigh when in the past they have received retroactive permission for use of materials like gypsum?

Lehigh is a large industrial facility that emits pollutants that may be hazardous to human health. However, in association with the Air District and United States Environmental Protection Agency (USEPA), Lehigh has made strides in reducing exposure risks to nearby residents and communities. For example, the recently installed kiln stack, with a

height of approximately 300 feet above grade, has greatly reduced health impacts to nearby residents and workers by dispersing the pollutants away from the community. Improved work practices and additional pollution control equipment have also reduced exposures to air pollutants.

10. How do we know Lehigh doesn't disconnect the pollution equipment at night?

The emissions from Lehigh operations are required to be continuously monitored by both Air District and federal regulations. These continuous emission monitors (CEMS) ensure that emissions are routed to control equipment at all times. CEMS data is checked on a regular basis by Air District staff.

11. How does the Air District regulate emissions from blasts that take place in the pit? Particulate matter does come out of the pit during these events.

Quarry blast emissions are regulated by the Air District through application of the visible emissions standards outlined in Air District Regulation 6, Rule 1, Particulate Matter, General Requirements, and Regulation 9, Rule 13, Nitrogen Oxides, Particulate Matter, and Toxic Air Contaminants from Portland Cement Manufacturing. A best management practice outlined in Regulation 9, Rule 13, prohibits blasting if hourly averaged wind speeds are 25 miles per hour or greater. Lehigh does operate a meteorology (weather) station on the property, to continuously monitor hourly wind speed.

Minimizing dust from quarry blasts has proved a difficult challenge. Lehigh employs a cascading blasting technique (milli-second staggering

blast) that is supposed to reduce dust generated during blasting. The facility has also experimented with heavy pre-watering of the blast site prior to detonation that showed little to no impact on dust generation. The Air District will propose a control method, for inclusion in Lehigh's fugitive dust plan, to spray water mist on the dust as it is generated during the blast. Although it will not prevent the generation of a dust cloud, the Air District believes water misting is the only practical approach available to reduce dust.

Because the Air District has not found a technically feasible method found to control dust from blasting, it are proposing to exempt blasting from the stricter dust control requirements recommended in the amendments to Regulation 6, Rule 1.

12. What about the dust flying off the trucks when they leave Lehigh?

The Air District controls dust pollution from trucks leaving the Lehigh facility by requiring HEPA filter vacuuming of spilled cement powder during cement bulk loading operations and mandatory washing of aggregate trucks. Once on public roadways, California vehicle code infractions are enforced by the Santa Clara County Sheriff's Office or California Highway Patrol.

13. Prior to the new stack, what risks from air pollution were we exposed to?

Prior to the installation and operation of the new kiln stack, nearby residents may have been exposed to higher concentrations of pollutants from the kiln, leading to a higher statistical probability of increased health risk. The main risk drivers at that time were benzene and mercury, both toxic air contaminants. The new stack resulted in lower

concentrations of benzene exposure to the public and add on controls and process changes resulted in lower mercury emissions.

14. Can violations, pending violations, and outcomes be posted on the website?

Violations and settlements in excess of \$10,000 are posted to the District's website and can be found in the Board Agenda Packets and Approved Minutes. You can find links to these packets at <http://www.baaqmd.gov/about-the-air-district/board-of-directors/resolutionsagendasminutes>. Please note that these list all Notices of Violation issued each month within the Air District and are not specific to Lehigh. A more direct method of determining Notices of Violation issued to Lehigh and settlements associated with them is by making a public records request under the California Public Records Act. A request for these records can be submitted electronically through the Air District's Public Records Portal. The Public Records Portal is located at: <http://www.baaqmd.gov/contact-us/request-public-records>.

San Francisco Bay Regional Water Quality Control Board:

1. Lehigh uses drying agents to make cement and our water is scarce. Can the Water Board stop this?

The San Francisco Bay Water Board cannot stop Lehigh from using water in their permitted operations, nor can the San Francisco Bay Water Board prevent any legal, permitted uses of water. If Lehigh wastes water they are authorized to use, the State Water Resources Control Board could take action but there is no evidence that this is the case.

2. Are you working with Stevens Creek Quarry on water pollution issues?

The Water Board is investigating impacts of Stevens Creek Quarry on the beneficial uses of state waters. The Water Board regulates storm runoff from Stevens Creek Quarry with a waste discharge permit that requires water quality and drainage control, and water quality monitoring.

3. Can violations, pending violations, and outcomes be posted on the website?

Yes. The San Francisco Bay Water Board posts confirmed violations and outcomes on their website; they are accessible to the public at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/hot_topics/lehigh.html . Pending violations are not posted until they are confirmed.

4. Will the creek still be hospitable for native fish after treated water is being discharged into it?

The permit adopted by the California Regional Water Quality Control Board (Water Board) for Lehigh requires that water discharged to the creek meet standards that are protective of native fish, other plants and animals, and humans. The permit dated 3/20/14 can be viewed on the Water Board's webpage at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/hot_topics/lehigh.html.

Santa Clara Valley Water District:

1. Does water being discharged from Stevens Creek Quarry or Lehigh end up in our aquifers?

Yes, inevitably some water from either site, Stevens Creek Quarry which discharges to Stevens Creek via Stevens Creek Reservoir and Lehigh Cement which discharges to Permanente Creek, will percolate into our aquifers. That said, very little water volume will percolate into the aquifer from the creek in comparison to the amount of water that will travel downstream as surface water.

It should also be noted that imported water is added to Stevens Creek at Stevens Creek Boulevard to maintain fish habitat and percolate groundwater. This water is added to the creek via a pipeline, seasonally, generally during the summer and fall when the creek would otherwise dry up. The District does not have the ability to add water to Permanente Creek.

Metals like mercury or selenium generally do not move readily through soils. Therefore, such pollutants in the creek are not expected to migrate to depth and impact water supply wells, which typically draw water from aquifers far below the ground surface. The District has analyzed ten years of data from water supply wells within a four mile radius of the Lehigh quarry. From 2007 to 2016, there is no indication of elevated selenium, mercury, or arsenic in deep drinking water aquifers near the quarry.

Santa Clara County Department of Environmental Health:

1. What noise readings have you conducted in the past year?

The Department of Environmental Health (DEH) conducted 17 noise monitoring sessions in 2017. DEH typically conducts at least four noise monitoring sessions per quarter.

2. What is the County doing about the noise coming from the stack, including the whirring sound?

DEH responds to all complaints received regardless of the type of sound and currently continues to conduct routine monitoring of sound levels around the plant. DEH is continuously working with Lehigh on noise mitigation measures to ensure compliance with the Santa Clara County (SCC) Noise Ordinance. When an exceedance of the noise limits is recorded during a monitoring session, a notice of violation is issued to Lehigh. In 2017, DEH issued two notices of violation. The Plant responded by making numerous improvements to the stack and other noise sources. Details regarding the improvements are posted on the County's website as described in #8 below.

3. Noise from the fan seems to be reduced; are there plans to reduce it further?

The Plant recently completed a major upgrade to the fan and recent measurements have indicated the noise has been reduced. DEH will continue to monitor the sound levels to ensure compliance with the noise limits set forth in the SCC Noise Ordinance.

4. Can Lehigh be required to be quieter on Sundays and in the wee hours of the night/morning?

Lehigh must comply with the SCC Noise Ordinance at all times. The sound level is more stringent between the hours of 10 pm and 7 am on any given day. The SCC Noise Ordinance does not include dedicated limits for specific days such as Sundays.

5. Can the County make the noise laws stricter?

In general, the County's noise ordinance is more stringent than many of the local cities. For example, the night time noise level at a one or two-family residence is 45 dBA or 40 dBA when the correction for character of sound factor is applied. Changing the ordinance to be even more stringent is not just a DEH decision and would have impacts in unincorporated areas throughout the county.

6. What is the allowable noise level and is Lehigh in compliance?

The SCC Noise Ordinance requires the noise coming from the Plant to be no higher than 55 dBA from 7 am to 10 pm and no higher than 45 dBA from 10 pm to 7 am. If it is determined to contain a steady, audible tone then the correction for character of sound will reduce these limits by an additional 5 dBA. Based on readings after the latest notice of violation issued in May 2017, Lehigh is in compliance with the SCC Noise Ordinance.

7. If they are in compliance and still a nuisance, then what can be done?

DEH enforces the SCC Noise ordinance and ensures that the plant is in compliance with the required noise limits. DEH issues a notice of violation for any exceedance that is recorded during a noise monitoring session. The noise limits are prescriptive, and the issuance of a violation is based on objective results from the noise readings.

8. Can violations, pending violations, and outcomes be posted on the website?

Information on noise monitoring and violations of the SCC Noise

Ordinance are available in DEH Quarterly Monitoring Reports which are posted on the SCC Department of Planning and Development website:

<https://www.sccgov.org/sites/dpd/Programs/SMARA/PermanenteQuarry/Pages/PermanenteMain.aspx>

Santa Clara County Planning and Development:

1. What precautions are in place to prevent or respond to a fire on site?

Fire prevention – For new construction, the Department of Planning and Development reviews and inspects proposed and completed work on the site for compliance with the adopted California Fire and Building Codes. The site owners are responsible for maintaining all such systems and have safety protocols that address employee response to fire emergencies.

Fire response – Lehigh Quarry receives emergency response from Santa Clara County Fire Department. The nearest station is located at 22620 Stevens Creek Blvd., approximately 1 mile from the facility gate. The first responders stationed there maintain a pre-incident emergency response plan for Lehigh. The plan speaks to the preparations emergency responders have made for response to the facility.

2. Does the County have any say over the re-mining of materials on the site?

"Re-mining" is not a recognized term used in our office or in the Surface Mining and Reclamation Act. Any mining related to the overburden stockpiles is subject to the approved 2012 Reclamation Plan.

3. We were promised no significant noise impacts with the new stack. What is the difference between what the county approved and what was installed?

The stack was approved on April 3, 2014 by the County Architecture and Site Approval Committee. The stack was constructed according to the approved plans, and there is no substantial difference between what was approved and what was installed. A condition of approval for the stack requires that “All project activities must comply with the Santa Clara County Noise Ordinance at all times.”

In 2015, the Bay Area Air Quality Management District required an equipment upgrade at the stack and an increase in the number of complaints from the community as well as an increase in noise levels were noted after this installation. However, a recent reconfiguration of equipment was completed at the end of 2017 as part of noise mitigation efforts by Lehigh. The Department of Environmental Health is in the process of finalizing a Sound Compliance Agreement with Lehigh and the County will continue to monitor the sound levels to ensure compliance with the noise limits set forth in the SCC Noise Ordinance.

4. When will Lehigh’s mine be exhausted?

The rate of mineral extraction is dependent on market conditions. The approved 2012 Reclamation Plan includes an estimate for mining to continue in the quarry pit through at least 2020, depending on market demands and conditions in the field. As of February 2018, Lehigh continues to mine the quarry pit.

5. Why is the cement plant permit not ever up for review?

The cement plant is subject to a Use Permit approved April 28, 1939, and amended July 17, 1950 and July 6, 1955. The Use Permit does not include an expiration date or requirement for subsequent review.

6. Lehigh has been in violation of the Reclamation Plan. What has the County been doing on these violations?

The County has not found Lehigh to be in violation of the approved 2012 Reclamation Plan. The County actively monitors the quarry through monthly inspections and annual reporting to the California Division of Mine Reclamation.

7. Can violations, pending violations, and outcomes be posted on the website?

A list of violations and outcomes can be found on our website, here: www.sccgov.org/sites/dpd/lehigh