

Bay Area Air Quality Management District
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APPROVED MINUTES

Summary of Board of Directors
Stationary Source Committee Meeting
9:30 a.m., Friday, July 23, 2010

Call to Order – Roll Call: Chairperson Gayle Uilkema called the meeting to order at 9:30 a.m.

Present: Gayle B. Uilkema, Chairperson; Committee Members Carole Groom, Carol Klatt, Scott Haggerty, David Hudson, and Board Chairperson Brad Wagenknecht

Absent: Vice Chairperson James Spring; Committee Members Susan Garner, John Gioia and Nate Miley

Public Comment Period

Barry Chang, Cupertino resident, said the Cupertino City Council sent a letter to the Board to set a stricter rule for air quality and discussed increased rates for cancer.

Joyce Eden, West Valley Citizens Air Watch, urged the Committee and Board of Directors to set more stringent regulations.

3. Approval of Minutes of May 13, 2010

Committee Action: Director Hudson made a motion to approve the Minutes of May 13, 2010; Director Klatt seconded the motion; approved unanimously without objection.

4. Facility Update: Lehigh Cement

Director of Engineering, Brian Bateman, gave an outline of the presentation and described the facility's location in Cupertino, quarry operations, and Lehigh Cement Plant's Title V permit renewal status. He said Lehigh's draft permit renewal was issued for public comment last August 2009, and a public hearing was held in Cupertino in September 2009. The District decided to withdraw the permit renewal due to U.S. Environmental Protection Agency's (EPA's) amended National Emissions Standards for Hazardous Air Pollutants (NESHAP) Rule, which will result in additional emissions controls and monitors.

Mr. Bateman said the schedule for adoption of the rule has changed from May 2010 to June 2010 and was recently pushed out to August 2010, and NESHAP was originally adopted for cement plants by the EPA in 1999. It was subject to litigation and was amended in 2006 in response to the litigation, and Lehigh can easily meet the existing rule standards.

He said another court case on a different rule created an important legal precedent in the manner in which EPA must establish rules for these types of industries, which resulted in the 2009 proposal to amend NESHAP with much stricter standards and for different pollutants. All cement plants in the U.S. will need to install emission controls to meet the limit, and for Lehigh, it will represent over a 90% reduction in mercury emissions.

Mr. Bateman said the District is also working on the 2010 Clean Air Plan Stationary Source Measure 9, which focuses on gaseous criteria pollutants; NO_x, and SO₂. Adoption is expected in the winter of 2010/2011. In addition, the California Air Resources Board (CARB) has adopted rules directed at reducing particulate matter emissions from mobile diesel engines for both on-road trucks and off-road vehicles. Sharp reductions are projected in diesel PM emissions for on-road trucks which will be in excess of 80% over the next 4-5 years. CARB is contemplating additional changes to this due to the economic downturn which may push back the first year's implementation date. This will be important for Lehigh because many trucks visit their facility and they also have off-road diesel equipment in the quarrying operations.

Director Haggerty questioned what it means to withdraw the permit. He asked if this means Lehigh must cease operations. Mr. Bateman clarified and said the District withdrew the draft permit renewal, so the existing permit remains in effect until the District acts on the permit renewal.

Mr. Bateman reported on CARB's greenhouse cap and trade rule, stating that cement plants are large sources of CO₂ from burning fuel and from carbon in the limestone that gets emitted as CO₂. The rule is expected to be adopted by the end of the year under AB 32. Facilities will have to reduce emissions over time or purchase credits from other facilities under the cap and trade program.

Mr. Bateman described new and upcoming emission controls and monitors which includes three phases of sorbent injection, continuous emission monitors in the stack, and advanced NO_x controls for which the technology has developed to the point where it can be applied to cement plants.

Mr. Bateman described the Air Toxics Hot Spots Program which is a facility-based program for toxic air contaminants (TACs) from facilities and evaluation of those emissions in terms of their health impacts. Lehigh has been in the program since the late 1980's and they are required to update their emissions inventory and Health Risk Assessment based on changes. He noted there have been methodological changes in the way risk is calculated. Mercury REL's were revised in December 2008 and made more stringent by a factor of three. In 2009, age-sensitivity factors were adopted which come into calculations of cancer risk, particularly for children. Also an additional margin of safety in calculating those risks has been added.

In order to be comprehensive, the District required Lehigh to analyze all of their additional emissions, bring those samples to a lab, and identify any toxic compounds. Lehigh has submitted a supplemental emissions inventory for additional sources such as dust from the plant, and the report was reviewed by the District.

Additionally and not completely related is the method by which the District measures mercury, which has resulted in an increase in the calculated emissions of mercury. The District has done internal evaluation of risk assessment and feels the status has not changed. However, for mercury, it might be close in terms of making Lehigh a Level 1 facility. The analysis needs to be refined, and the facility has been directed to hire consultants to prepare a report which is due to be submitted at the end of August.

Mr. Bateman discussed Lehigh's compliance and said the District has conducted reviews over the last 6 years. There are a total of 25 violations; 15 were emissions-related, 5 in the last year, all except one were violations for excessive visible emissions, and all violations were corrected expeditiously. Staff has been working with the facility to improve compliance and Lehigh will update their operations and maintenance plan. He noted there was a Notice of Violation (NOV) issued by EPA Region IX on March 9, 2010 for alleged violation of Prevention of Significant Deterioration (PSD) permit requirements. These requirements have been shaped over the years by various rule amendments, court decisions, appeal board decisions, and policy memos. Most difficult is interpreting when the program applies to various types of projects at a facility, but program reform will substantially change the way applicability is determined for the program.

Regarding air monitoring, Mr. Bateman noted that the District is addressing community air quality concerns and has reviewed three new monitoring sites; 1) Stevens Creek Elementary School, focusing on Hexavalent Chromium; 2) the International Baptist Church, focusing on PM₁₀ monitoring; and 3) the Monta Vista Park, which is very close to starting up for multi-pollutants. He reviewed specific start-up dates, sampling scheduling, and average and maximum daily concentration levels. The Monta Vista Park Monitoring site is new and will continuously measure criteria air pollutants, such as PM_{2.5}, Carbon Monoxide, Methane, Oxides of Nitrogen, Non-Methane Organic Carbon, Ozone, and Sulfur Dioxide.

Mr. Bateman then reviewed the Quarry Reclamation Plan which he said is needed under California's Surface Mining and Reclamation Act, and the plans are intended to return a mine to a beneficial use that is protective of the public's health and safety. The plan is being amended for additional geologic assessment and Santa Clara County is the lead agency. The current plan was approved in 1985 and the County received an application for amendment in 2007, stopped the process for additional geologic assessment, and the County has divided the project into two parts; 1) East Materials Storage Area where overburden is stored currently. The area has been issued an NOV as the current plan does not call for the area to exist and this amendment has begun with an EIR underway. And, the second area is the overall Reclamation Plan area and an application for this has recently been submitted to the County, an EIR will be prepared and the District will review both projects under CEQA.

He described the March 2007 Proposed "Pit 2" location which received a lot of interest because it was much closer to residential area than the existing pit. Additional locations were reviewed and a new proposed pit location called the "South Quarry" is proposed in the May 2010 application, which is further away from the residential area.

Mr. Bateman concluded his presentation with the District's next steps, as follows:

- Evaluate final EPA NESHAP amendments;
- Re-issue draft Title V Permit renewal;
- Finalize the District's control measure;

- Evaluate permit applications for emission control projects;
- Review updated Health Risk Assessment;
- Operate the Monta Visa Park air monitoring station;
- Review Reclamation Plan Amendment EIRs;
- Continue frequent plant inspections

Committee Comments & Questions:

Director Haggerty questioned the definition of cancer risk, and Mr. Bateman said cancer risk is an estimate of the probability that an individual would have an additional risk of getting cancer, at that monitoring location continuously throughout their lifetime, and as a result of breathing the Hexavalent Chromium in the air. The additional risk amounts to about 4 chances out of 1 million, or what is referred to as an “individual cancer risk”. However, he noted that the overall risk for anyone getting cancer in their lifetime is pretty high at 50/50, for all forms of cancer, or approximately 500,000 out of 1 million.

Director Haggerty confirmed with Mr. Bateman that Hexavalent Chromium can cause lung cancers, as well as other cancers.

Chairperson Uilkema questioned why this risk is not monitored. Mr. Bateman explained that it is a difficult analysis and an expensive one, but there are specific rules to measure Hexavalent Chromium emissions in California, but the levels have been reduced so much that they are largely non-detected.

Director Hudson questioned and confirmed that the yellow line on the Quarry Reclamation Plan is the boundary of the proposed Pit 2, which would have been Lehigh’s new quarry pit. The purple line is the East Materials Storage area, and the green line is the new quarry pit. The lightly shaded green area will be used for storing topsoil.

Public Comments:

Barry Chang, Cupertino resident, discussed concerns relating to due process, resident concerns about Lehigh’s practices on disclosing NO_x and SO₂, EPA fines dating back to 1995, and an NOV issued on March 26, 2010 from the California Water Resources Quality Control Board.

Director Haggerty clarified that District staff works and acts upon the scientific data before them, and it is the Board of Directors that serve and act as the political body.

Tim Brand, West Valley Citizens Air Watch (WVCAW), stated his feeling that staff’s perspective is to protect the cement company and not the community. He believed that the stated purpose of the meeting with WVCAW and District staff in November 2007 was to discuss the pollution from Lehigh and how it could be reduced. He mentioned that the fuel used by Lehigh was changed from coal to petroleum coke on May 30, 2007, which he thinks is very relevant.

Cathy Helgerson, Citizens Against Pollution (CAP), read a letter into the record dated July 22, 2010 that asks the Committee to take into consideration the proximity of homes and other sensitive areas to the Lehigh Southwest Cement plant. She said current technology methods are not enough to stop pollution, stated there have been \$158,000 in citations since 1988, and she asked that the plant be closed immediately to protect the public.

Dave Singhal, El Camino Hospital Cancer Center, spoke on behalf of his wife who runs the cancer center and whose father died of lung cancer. He thanked the District for their hard work and said the center is on record that they are very concerned about the risk. In his experience as an environmental engineer for Cisco, he believes the winds blow and pollution accumulates without sufficient monitoring in Los Gatos, Almaden, and Santa Teresa. He voiced concerns about persistent mercury and asked for more forward-thinking in how to do better monitoring to improve health.

Bill Almon, Quarry No, voiced alarm and confusion about reasons why the cement plant is still operating, stating the EPA issued an NOV, questioning the validity of the current Title V permit, and stating that the cement plant should not operate. He noted the Health Risk Assessment is completed by Lehigh, and there are unintended consequences with shipping bulk cement. He therefore suggested that new regulations continue to remain inadequate.

Tim Matz, Corporate Director of Environmental Affairs, Lehigh Southwest Cement Company, said they take their environmental performance serious and he discussed his work with the EPA in setting cement industry standards since the 1990's. He referred to the new EPA rule which will add additional control equipment which will be the most stringent in the world. He believed that the proposed rules are pushing technological limitations and explained that the EPA's alleged violations are under investigation and they are fully cooperating with the EPA.

Joyce Eden, West Valley Citizens Air Watch (WVCAW), said she felt that cement plants had been too little regulated until EPA proposed its new rules, which she felt was based on doable science. She voiced dissatisfaction with the process and asked the Board to not allow weakening of the proposed rule.

Henrik Wesseling, Plant Manager, Lehigh Southwest Cement Company, spoke of his responsibility to be proactive, responsible and prepare the facility for the future. He said Lehigh had begun analyzing the situation in 2008 and recently installed a new technology which is actively reducing mercury emissions by 25%. He said that the next step--activated carbon injection--will reduce emissions by another 85% to achieve the proposed EPA rule within the deadline. He spoke of additional technology and equipment achievements which will continue to comply with all national and state standards, which are the strictest standards worldwide.

Chairperson Uilkema thanked speakers, said speakers are able to submit written public comments at any time, and confirmed that the public and the Committee would be updated once the new rule takes effect. Mr. McKay referred to Mr. Singhal's comments on transport phenomena, and cited the District's sophisticated modeling work in this area.

Director Groom referred to the presentation and questioned the timeline for the District to re-issue the Title V permit after new standards from U.S. EPA's amended National Emissions Standards for Hazardous Air Pollutants (NESHAP) Rule have been incorporated. Mr. Bateman said the new deadline for the NESHAP rule is August 6, 2010. Staff has projected it would take about 45 days to evaluate it, obtain the new standards and monitoring requirements, and re-issue it as a draft renewal permit, which would be about mid-September 2010. The District would then take public comment.

Committee Action: None; informational only.

5. Report on Additional Information on the Progress of Flare Minimization Trends under Regulation 12, Rule 12: Flares at Petroleum Refineries

Director of Compliance and Enforcement, Kelly Wee, gave the staff presentation, stating that at the last meeting the Committee had requested additional information on flare data back to 2001 for individual refineries. Regarding achievements, there have been 56% in reductions in volume and 69% in emissions. The plans reduce flaring and annual updates achieve continuous improvement. Causal reports and lessons learned yield additional prevention measures, and staff has found regulations are effective and serve as models for other agencies.

Mr. Wee presented a graph of flare volume and non-methane hydrocarbon trends showing methane and sulfur dioxide. He said the District initially had no consistent way to measure flows and gases combusted in flare, and engineering calculations had to be used to determine volumes. The Board has since adopted a Flare Monitoring Rule that standardizes how gases are measured which was done in mid-year 2003 and is more reliable, consistent and standardized, allowing for better comparisons.

He presented information on individual refinery statistics for vent gas volume flared, non-methane hydrocarbon emissions, methane emissions and sulfur dioxide emissions. He noted staff made annotations when rules took effect, and the dotted line represents a 5-year rolling average trend of unreliable data. The solid line is much more reliable data.

At the last year's meeting, staff presented the rolling year averages and comparisons ending in 2008 and 2009. In every instance there are continued reductions. Mr. Wee then outlined and presented charts of each refinery's performances and emissions reductions. He noted that there are over 50 prevention measures in the Flare Minimization Plans, which fall into four categories; source reduction, vent gas compressor capacity, fuel gas balance, and scrubbing sour gases. He discussed advanced instrumentation, new and re-serviced existing compressors, increased gases to generate useful electricity, increased use of scrubbing equipment and maintenance, and improved communications among unit operators.

The Flare Minimization Rule ensures continuous improvement, it monitors and engages refineries on causal reports to develop feasible prevention measures, it provides for regular updates on District's progress and achievements at reducing flaring, and it continues to respond to inquiries on how to develop regulatory improvements nationally.

Public Comments:

Cathy Helgerson, Citizens Against Pollution (CAP), asked for more stringent calibration of monitors, and that monitoring, testing and reported be conducted by the District and not by facilities.

Barry Chang, Cupertino resident, said 1/3 of mercury is contributable from Lehigh Cement Plant and the remaining mercury from refineries. He reported on Cupertino residents' close proximity to the plant and its contributions to cancer risk.

Committee Comments & Questions:

Chairperson Uilkema clarified that once the third annual evaluation takes place in October, staff would return and provide a report to the Committee. She suggested remaining Board Members receive a copy of the PowerPoint presentation at the next Board of Directors meeting.

Board Chairperson Wagenknecht noted the continuous improvements made to date and cited the importance of the visual graphics. He confirmed that the District continues to encourage best practices to force reduction of emissions and that it continues to enforce and issue NOV's for failure to comply with regulations.

Committee Action: None; informational only.

6. Proposed Cement Kiln Rule

Senior Air Quality Specialist, Robert Cave, gave a presentation on the proposed Cement Kiln Rule. He presented a schematic of a cement plant and reviewed its manufacturing process, stating that the greatest concern is the middle cooking process. Cement is a \$10 billion industry in the United States. It is the third largest industrial source of emissions of NO_x and SO₂ in the nation, at 180,000 tons per year. There are 186 cement plants in the United States. Eleven (11) operate in California, three (3) in Northern California, and one (1) within the District. He reviewed 2009 Lehigh Cement Plant statistics for production which is slightly over half of their capacity, reviewed photographs of processing steps for blending and homogenization, preheating/precalcining, clinker production, and grinding/finishing.

Mr. Cave discussed applicable regulations, stating that the manufacturing of Portland cement is subject to two federal regulations specific to the process; 1) the National Emission Standard for Hazardous Air Pollutants (NESHAP) and 2) the New Source Performance Standard (NSPS). Lehigh Cement Plant is also subject to District rules and permit conditions.

Amendments to the federal rules are expected to be finalized next month, and as detailed in Stationary Source Control Measure 9, the District believes it can achieve emissions reductions of NO_x, and possibly SO₂ and PM.

He noted that staff will report on costs associated with control technologies prior to the workshop. Mr. Cave presented the following proposed emissions reductions for Lehigh:

- 93% reduction in Mercury emissions
- 91% reduction in Total Hydrocarbon emissions (THC)
- 70% reduction in Hydrochloric Acid emissions (HCl)
- 50-75% reduction in NO_x emissions
- SO₂ and PM – to be determined

The District has met with Lehigh officials and toured the facility. Mr. Cave said staff is in the process of drafting a proposal to be vetted with interested stakeholders. A proposal and report will be drafted and discussed at a public workshop in the fall. After receiving comments, staff will revise the proposal, develop socioeconomic and environmental analyses, and finalize the proposed rule and report. The proposal will be brought to the Board of Directors for a public hearing sometime in the winter.

Public Comments:

Barry Chang discussed production changes from a wet process to a dry process and noted that Lehigh is the only cement plant in operation in the U.S. that does not have a central stack.

Cathy Helgerson, CAP, requested that the EPA and the District conduct its own testing of the plant and described several family illnesses that she believes comes from Lehigh polluting the air, water and soil.

David Singhal, El Camino Hospital Cancer Center, acknowledged the 93% in reductions, but cited the already significant emissions, numerous violations, and high levels of mercury in limestone. He asked that limestone be brought in from elsewhere once new rules are in place, citing neurological problems and cancer in the Los Altos area.

Bill Almon, Quarry No, asked that the rule not be rushed, that it not be concurrently processed with the EPA, requested the Health Risk Assessment be developed independently of Lehigh Cement Plant by the District, said the 20 year permit requires approval by the County and will be made next January or February prior to the new rule coming into effect, and asked that the rule be incorporated into the Title V Permit.

Joyce Eden, CAP, asked for more stringent regulations, questioned what baseline was used in determining percentages of reductions, and asked that the EPA Rule have a cap and not a percentage reduction. She said the proposed cap is 43 pounds per million tons of clinker and Lehigh is permitted to produce 1.6 million tons of clinker which is the cap.

Tim Matz, Lehigh Southwest Cement, said he looks forward to working with the District on the new rule. He suggested not looking at any single pollutant but rather overall benefits and effects of all pollutants. He discussed installation of equipment and reductions in plume and emissions.

Chairperson Uilkema commended staff for their work, reiterated the importance of education, said information is posted and available on the District's website, agreed more evaluation will be needed once the rule is adopted, and she thanked the public for their comments.

Committee Action: None; informational only.

6. Committee Member Comments/Other Business:

Board Chairperson Wagenknecht said the District is continually enhancing its Flare Minimization Rule and continues with best practices. He sees this occurring with the cement kiln rule, as well, and said the District will revisit this and revisions will occur as new technology is in place.

Mr. McKay seconded the point that there are many materials and timelines available on the website and District staff can assist in locating them, as needed.

7. Time and Place of Next Meeting: Monday, September 27, 2010, 9:30 a.m., 939 Ellis Street, San Francisco, CA 94109.

8. **Adjournment:** The meeting adjourned at 11:41 a.m.

/s/ Lisa Harper
Lisa Harper
Clerk of the Boards