EXHIBIT A

NO TOXIC AIR **MEMORANDUM**
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By Hand Delivery

To: Dave Cortese, President of the Board
and Members of the County of Santa Clara Board of Supervisors

Date: February 4, 2011

Subject: **Factual Analysis Supporting Decision to Limit or Revoke Vested Rights Potentially Held by Lehigh Southwest Cement Co. in Connection with Permanente Facility in Cupertino, California**

No Toxic Air, Inc. ("No Toxic Air;" http://notoxicair.org/) is a non-profit organization that represents over 700 people living in Cupertino, Los Altos, Los Altos Hills, Sunnyvale, Saratoga, Mountain View, San Jose, Los Gatos, and Palo Alto, all of whom strongly oppose any expansion of Lehigh Southwest Cement Company's ("Lehigh") operations in Santa Clara County. No Toxic Air demands that immediate action be taken by government policymakers and regulators to protect our health, safety and welfare from the adverse impacts of Lehigh's continued operations at the Permanente Facility located at 24001 Stevens Creek Boulevard, Cupertino, California (the "Facility"). The Facility manufactures Portland cement using limestone mined at the site, which contains unusually high concentrations of mercury, exposing the numerous downwind communities in the densely populated Silicon Valley to large quantities of toxic substances.

As set forth in detail below, this memorandum and its various attachments demonstrate that:

- The Facility's operations generate excessive air contaminants, many of which are toxic and known to be harmful to human health and the environment. These air emissions threaten the health and welfare of residents in the surrounding communities;

- The health impacts of the Facility's mercury emissions are especially threatening to pregnant women and children due to the various harmful effects of mercury exposure, including the link between such exposure and autism;

- The Facility's location in Santa Clara County is of particular concern, given that Santa Clara County has a substantially higher autism rate than the national average and is the highest among the six Bay Area counties;

- The Facility's emission of carcinogens impacts thousands of people living in the "zone of impact," a 13 kilometer radius surrounding the Facility, by exposing them to increased risk of cancer and other health concerns;

- The Facility has an extensive history of regulatory violations related to air emissions, water quality and compliance with mining laws; and

- The numerous adverse impacts of the Facility's operations on residents living nearby constitute a public nuisance.

1. ANALYSIS

(a) Adverse Impacts of the Cement Manufacturing Process

The manufacturing of Portland cement is an intensive industrial activity that adversely impacts the surrounding environment in numerous significant ways. The process begins with the extraction of raw materials from the earth, most notably limestone, clay and iron ore. These raw materials are quarried from surface mines like the Facility, creating large open pits that damage the landscape. The quarrying process itself requires the operation of heavy-duty machinery and involves blasting, all of which create noise, vibration, odors and emissions of airborne contaminants including dust and gases. Once extracted, the raw materials are then crushed, blended and ground together – processes which cause similar negative impacts.

The raw materials are then heated in a large kiln to temperatures of approximately 1450º C, which triggers a series of chemical reactions. The resulting product, called clinker, is cooled, ground and mixed with other products in a mill to produce cement powder.

The entire process of cement production requires a tremendous amount of energy, primarily the burning of fossil fuels to heat the kiln, and also to operate the numerous machines involved in the quarrying, crushing, grinding and mixing processes. Even more significant to human health and the environment are the emissions of toxic air contaminants resulting from the burning of those fuels, the chemical reactions in the kiln, and the various materials-handling steps, such as grinding and cooling.[1] It is for this reason that the U.S. Environmental Protection Agency ("USEPA") recently enacted rules governing air emissions from Portland cement plants like the Facility.[2]

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[1] *See* USEPA Fact Sheet entitled "Final Amendments to National Air Toxics Emission Standards and New Source Performance Standards for Portland Cement Manufacturing," p. 1, available at: http://www.epa.gov/ttncaaa1/t1/fact_sheets/portland_cement_fr_fs_080910.pdf.

[2] National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants, 75 Fed. Reg. 54970 (Sept. 9, 2010), amended by 76 Fed. Reg. 2832 and 76 Fed. Reg. 2860 ("USEPA's Portland Cement Emission Standards").

(b) The Facility's Air Emissions Threaten Health and Welfare of Residents in the Community

The USEPA regulates air pollutants that are harmful and dangerous to human health and air quality through the federal Clean Air Act. Specifically, the Clean Air Act regulates the six most common air pollutants (known as "criteria pollutants"), as well as nearly 190 extremely hazardous air pollutants ("HAP") that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects (also known as toxic air pollutants or air toxics).[3] California law regulates these same pollutants, although in California the HAPs are referred to as toxic air contaminants ("TAC").[4]

Portland cement plants emit large quantities of numerous air pollutants regulated under both the federal Clean Air Act and California law. In particular, cement plants produce the following criteria pollutants: (1) particulate matter ("PM"); (2) nitrogen oxides ("NO_x"); (3) sulfur dioxide ("SO_2"); and (4) lead. Additionally, Portland cement plants typically produce the following extremely hazardous air pollutants, among others, all of which are regulated as HAPs (under the Clean Air Act) and/or TACs (under California law): (a) mercury; (b) hydrochloric acid; (c) chlorine; (d) hydrogen fluoride; (e) hydrogen cyanide; (f) arsenic; (g) benzene; (h) formaldehyde; and (i) hexavalent chromium.

In fact, according to the Facility's Health Risk Assessment,[5] the Facility emits no fewer than **sixty-nine pollutants** regulated as TACs under California law, more than half of which are also regulated under the Clean Air Act as HAPs.[6] Of particular concern are the following:[7]

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[3] 42 U.S.C. § 7412 (the National Emission Standards for Hazardous Air Pollutants ("NESHAP") program). For a list of the HAPs, see 42 U.S.C. § 7412(b)(1).

[4] Cal. Health & Safety Code § 39650 *et seq.* For a list of TACs, see 17 Cal. Code Regs. §§ 93000-93001 (Note: California's list of TACs must include all federal HAPs).

[5] AB 2588 Health Risk Assessment for 2008 CEIR Emissions and Current Low Production Emissions, prepared for Lehigh Southwest Cement Co. by AMEC Geomatrix, Inc., September 2010 ("Health Risk Assessment"), available at: http://www.sccgov.org/SCC/docs%2FPlanning,%20Office%20of%20(DEP)%2Fattachments%2FEnvironmental%20Documents%2F2250%20Hanson%20Quarry%20Attachment%20docs%20and%20images%2FAMEC_10_REV_0111910000_AB.2588.HRA_091410.pdf.

[6] *Id.* at p. ES-2 & Table 1.

[7] The emission data reflected in this chart is reproduced from the Health Risk Assessment, *supra*, at Table 1.

Chemical	Annual Average (pounds / year)		Maximum Hourly (pounds / hour)
	2005 Production Levels	2008-09 "Low Production" Levels	
Hydrochloric acid	107,000 lb/yr	62,200 lb/yr	15.5 lb/hr
Benzene	9,650 lb/yr	5,600 lb/yr	1.40 lb/hr
Toluene	8,650 lb/yr	5,010 lb/yr	1.25 lb/hr
Xylenes	6,940 lb/yr	4,030 lb/yr	1.01 lb/hr
Mercury	582 lb/yr	337 lb/yr	0.0844 lb/hr
Formaldehyde	63.1 lb/yr	36.6 lb/yr	0.00915 lb/hr
Arsenic	2.3 lb/yr	1.37 lb/yr	0.000517 lb/hr
Hexavalent chromium	2.19 lb/yr	1.29 lb/yr	0.000399 lb/hr

Moreover, the Facility is one of the few cement manufacturing plants in the country that does not use a central stack to vent its air emissions into the surrounding atmosphere.[8] Instead, the Facility emits its contaminants from **forty-two separate sources**.[9] As a result, air emissions from the Facility are released at lower heights, thereby increasing ground-level impacts of dust emissions and waste gases in the immediate surrounding area.[10]

(i) Health Impacts of Mercury Exposure

Mercury is a dangerous neurotoxin known to be harmful to humans in numerous ways. For example, mercury exposure can permanently damage the brain, kidneys and developing fetus.[11] Mercury is suspected to cause cancer in humans, and certain forms of mercury have been demonstrated to cause cancer in mice and rats.[12] Mercury's impacts on brain function can include irritability, shyness, tremors, changes in vision or hearing, and memory problems.[13] Mercury's harmful effects can be passed from a mother to her fetus and are particularly serious for young children, including brain damage, mental

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[8] Letter to USEPA from the Santa Clara County Medical Association, September 2, 2009, available at: http://www.baaqmd.gov/~/media/Files/Engineering/Title%20V%20Permits/A0017/letters_rcv_after_100109/10-02-09_Eden_Joyce_Attachemnt_Santa_Clara_County_Medical_Association.ashx.

[9] Health Risk Assessment, *supra*, at pp. ES-2 & 3-4.

[10] *See* Comments by Dr. Neil Carman, dated September 4, 2009, submitted in connection with USEPA's rulemaking for the National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry, available at: http://www.airwatch.us/html/2010/10/wvcaw_comment_letter_1_october_1st_2009_attachment_3.html; *see also* USEPA's Portland Cement Emission Standards, *supra*, 75 Fed. Reg. at 54986 (discussing higher likelihood of cement plants with "multiple short stacks" to pose a ground-level risk of hydrochloric acid exposure).

[11] Agency for Toxic Substances and Disease Registry ToxFAQs, Mercury Fact Sheet, April 1999, p. 1, available at: http://www.atsdr.cdc.gov/tfacts46.pdf.

[12] *Id.* at p. 2.

[13] *Id.* at p. 1.

retardation, incoordination, blindness, seizures, and inability to speak.[14] Children poisoned by mercury may develop problems with their nervous and digestive systems, and may suffer kidney damage.[15]

(ii) Mercury Emissions from the Facility

According to the USEPA, Portland cement plants are the third-largest source of mercury air emissions in the United States.[16] The Facility itself emits an annual average of between 337 and 582 pounds of mercury per year.[17] These emissions rank the Facility as the **third highest emitter of mercury among cement plants in the entire United States** and the **second highest within the State of California**.[18] The Facility also accounted for 29% of the 2007 total estimated mercury emissions in the San Francisco Bay Area air basin — the air basin with the highest mercury emissions in the State — based on data gathered by the California Air Resources Board.[19]

Moreover, researchers have determined that the Facility's mercury emissions significantly impact the immediately surrounding area through "wet deposition," the deposition of pollutants from the atmosphere that occurs during precipitation.[20] During the winter of 2007-2008, precipitation was collected at several locations near the Facility, including one site immediately downwind from the Facility's northern boundary, and two others nearby (2.4 and 3.5 km, respectively) used as "control sites." Samples were collected during time periods when the Facility was fully operational, as well as periods when it was shut down for annual maintenance.

The samples indicated that when the Facility was operating, the amount of mercury deposited within 0.5 kilometers of the Facility was between 5.8 and 6.7 times the amounts at the two control sites. But when the Facility was not operating, mercury deposits immediately adjacent to the Facility were approximately equal to deposits at the control sites. Due to the close proximity between the three sites

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[14] *Id.* at p. 2.

[15] *Id.*

[16] USEPA News Release entitled "EPA Sets First National Limits to Reduce Mercury and Other Toxic Emissions from Cement Plants," Aug. 8, 2010, available at: http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/ef62ba1cb3c8079b8525777a005af9a5!OpenDocument.

[17] Health Risk Assessment, *supra*, at Table 1. The first figure represents Facility mercury emissions in 2008-2009 (*i.e.* at "low production" rates) and the second figure represents an average of mercury emissions in 2005 (*i.e.* at high production rates). *See id.* at pp. ES-1 & 4.

[18] Exhibits 1 and 2, based on data obtained from the USEPA's Toxic Release Inventory on Jan. 31, 2011, available at: http://www.epa.gov/triexplorer/.

[19] S. Rothenberg, *et al.*, "Wet deposition of mercury within the vicinity of a cement plant before and during cement plant maintenance," Atmospheric Environment, Vol. 44, Issue 10, March 2010, pp. 1255-62; attached hereto as Exhibit 3.

[20] *Id.*

and their similar meteorological conditions (*e.g.*, precipitation levels and wind direction), the researchers concluded:

> [Mercury] emissions from the cement plant do not all enter the global circulation cycle and undergo long-range transport; **[Mercury] is also deposited within the vicinity of the [Facility] through wet deposition.**
>
> [. . .]
>
> When the [Facility] was not operational, [mercury] wet deposition rates and [mercury] concentrations in precipitation were similar to those measured at background sites, including a nearby control site (3.5 km east of the [Facility]), other sites dispersed nationally . . ., and historically at Moffett Field (11 km northeast of the [Facility], while [mercury] concentrations were significantly higher during normal operations at the [Facility].
>
> [. . .]
>
> Although data were collected for only one rainy season, **results from this study suggested a reduction in [Facility] operations . . . would lead to a corresponding decrease in [mercury] deposition to the surrounding community.**[21]

In sum, the Facility ranks as one of the highest emitters of mercury in the State and the entire United States, and contributes between 337 and 582 pounds/year of mercury into the San Francisco Bay Area air basin (29% of the Basin's 2007 mercury emissions), which has the highest mercury emissions of any air basin in California. The mercury deposition study confirms that these statistics are not mere coincidence, but are in fact closely connected. Simply stated, the Facility contributes significantly to mercury emissions and mercury exposure occurring in the Bay Area.

(iii) Link Between Mercury and Autism

There is a growing body of scientific and epidemiological evidence linking the amount of mercury in the environment to rates of autism among children. For example, a recent epidemiological study by researchers at the University of Texas Health Science Center documented that for every 1,000 pounds of mercury emitted from "industrial sources" like cement plants, there was a corresponding increase of

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[21] *Id.* at p. 1261 (emphasis added).

2.6% in autism rates in the surrounding communities.[22] Moreover, for every 10 miles traveled from the mercury source, the risk of autism declined by 2.0%.[23]

Another study by the same Texas researchers based on statistics from the Texas Education Agency and the USEPA found that, for every 1,000 pounds of environmentally released mercury, there was a 43% increase in the rate of special education services in nearby school districts and a 61% increase in the rate of autism.[24] Statistical analysis of the data showed that the association between mercury releases and school district's special education rates "was completely accounted for by increased rates of autism."[25]

Finally, a 2006 study in the San Francisco Bay Area compared levels of HAPs (including metals such as mercury) present at birth for children later diagnosed with autism spectrum disorder ("ASD"), with corresponding levels for children without ASD.[26] The study found that children with ASD were 1.5 times more likely than normal children to have been born in areas with higher estimated levels of metals or chlorinated solvents in the air. The authors concluded that their "results suggest a potential association between autism and estimated metal concentrations, and possibly solvents, in ambient air around the birth residence."[27]

(iv) Elevated Cases of Autism in Santa Clara County

While the U.S. Department of Education estimates that the number of children aged 6-11 diagnosed with autism is about 4 per 1,000 nationwide, autism rates in the Bay Area — and specifically in Santa Clara County — are substantially higher. A report on children's health by the Lucille Packard Foundation shows that **in the Bay Area, the autism rate is highest in Santa Clara County**.[28] Moreover, based on 2009 data available from the California Department of Education, autism rates at two school districts — Sunnyvale Elementary (14.8 students per 1,000) and Cupertino Union Elementary (14.5 students per

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[22] R.F. Palmer, *et al.*, "Proximity to point sources of environmental mercury release as a predictor of autism prevalence," Health & Place, Vol. 15, March 2009, pp. 18-24; attached hereto as Exhibit 4.

[23] *Id.*

[24] R.F. Palmer, *et al*., "Environmental mercury release, special education rates, and autism disorder: an ecological study of Texas," Health & Place, Nov. 1, 2004; attached hereto as Exhibit 5.

[25] *Id.* at p. 5.

[26] G.C. Windham, *et al*, "Autism spectrum disorders in relation to distribution of hazardous air pollutants in the San Francisco Bay Area," Environmental Health Perspectives, Vol. 114, No. 9, Sept. 2006, pp. 1438-44; attached hereto as Exhibit 6.

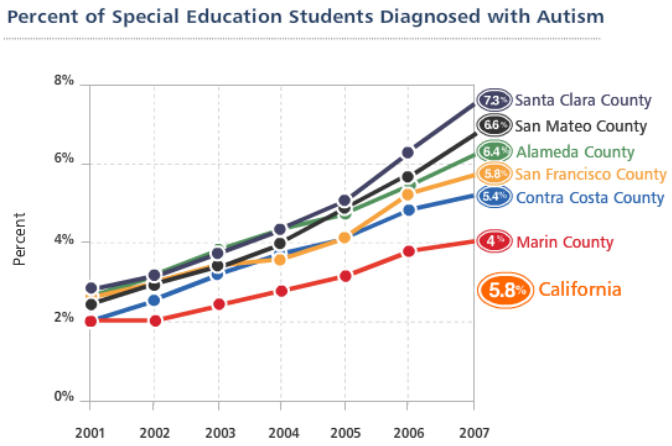
[27] *Id.*

[28] Autism Diagnoses on the Rise, Lucile Packard Foundation for Children's Health, May 2008, available at: http://www.lpfch.org/programs/autismbrief/.

1,000) — distinguish them with the highest autism rates in the county, approximately 75% higher then the other schools.[29]

Autism Rates per 1,000 Students (Age 0-22) (2009)	
County	
Santa Clara County	10.8
San Mateo County	10.7
Marin County	7.2
School Districts In Santa Clara County	
Sunnyvale Elementary	14.8
Cupertino Union Elementary	14.5
Saratoga Union Elementary	10.7
Palo Alto Unified	9.4
Los Altos Elementary	8.4

Data from the Lucille Packard Foundation also shows that **the rate of special education students diagnosed with autism has increased fastest in Santa Clara County and is now the highest among all six Bay Area counties**.[30]



[29] Autism data for California schools and school districts is collected by the California Department of Education and is available through its DataQuest database, available at: http://data1.cde.ca.gov/dataquest/dataquest.asp.

[30] Autism Diagnoses on the Rise, Lucile Packard Foundation for Children's Health, May 2008, available at: http://www.lpfch.org/programs/autismbrief/growth.html.

In sum, the Facility's own Health Risk Assessment documents the large number of toxic substances emitted during the regular course of the Facility's operations. 69 of those substances are regulated under federal and/or California air quality laws. Additionally, these contaminants are emitted from 42 separate sources at the Facility, as opposed to a single stack like most other similar plants.

Of particular concern are the large amounts of mercury emitted by the Facility, given that mercury is a known neurotoxin that is extremely harmful to people, especially pregnant women and their unborn children. **The Facility ranks as one of the highest emitters of mercury in the United States, the State of California and the Bay Area air basin.** Moreover, studies have demonstrated that the Facility's mercury emissions are deposited in the immediate area through "wet deposition," and that there is likely a link between mercury emissions and autism rates in exposed children. When considered in the context of data showing that school districts near the Facility have some of the highest autism rates in Santa Clara County, which in turn has the highest and fastest growing autism rates in the Bay Area and are significantly higher than the national average. Taken together, this information demonstrates that the Facility's operations threaten public health, constitute a nuisance and should be significantly curtailed.

(c) Carcinogens and Increased Cancer Risk Associated With the Facility

(i) Portland cement production is associated with increased cancer risk

Manufacturing of Portland cement is associated with emissions of numerous chemicals hazardous to human health, among them cancer-causing chemicals.[31] Increased cancer risk is a known occupational hazard for cement production and construction workers. For example, cement dust exposure was found to be an independent risk factor for laryngeal carcinoma[32] and gastric cancer.[33] A significant increase in the incidence of chromosomal damage was observed in cement plant workers exposed to cement dust.[34]

(ii) Facility's emission of carcinogens

According to the Facility's Health Risk Assessment, the carcinogens emitted by the Facility cause an increase in cancer risk to residents of surrounding communities as follows: (a) benzene (41% increase); (b) hexavalent chromium (39% increase); (c) arsenic (5.4% increase); (d) 1,3-butadiene (2.4% increase); (e) nickel (1.8% increase); (f) vinyl chloride (1.6% increase); (g) diesel PM (1.6% increase); and

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[31] USEPA's Portland Cement Emission Standards, *supra*, 75 Fed. Reg. 54970.

[32] A. Dietz, *et al.*, "Exposure to cement dust, related occupational groups and laryngeal cancer risk: results of a population based case-control study," Int'l Journal of Cancer, Vol. 108, March 2004, pp. 907-11; attached hereto as Exhibit 7.

[33] K. Sjödahl, *et al.*, "Airborne exposures and risk of gastric cancer: a prospective cohort study," Int'l Journal of Cancer, Vol. 120, Jan. 2007, pp. 2013-18; attached hereto as Exhibit 8.

[34] S. Fatima, *et al.*, "Analysis of chromosomal aberrations in men occupationally exposed to cement dust," Mutation Research/Genetic Toxicology and Environmental Mutagenesis, Vol. 490, Feb. 2001, pp. 179-86; attached hereto as Exhibit 9.

cadmium (0.9% increase).[35] Below is a brief description of the three primary carcinogens emitted from the Facility:

Hexavalent Chromium – All forms of hexavalent chromium are regarded as carcinogenic to workers. The risk of developing lung cancer increases with the amount of hexavalent chromium inhaled and the length of time the worker is exposed. Studies of workers employed pre-1980s in chromate production, chromate pigment and chrome electroplating industries show increased rates of lung cancer mortality. Certain hexavalent chromium compounds produced lung cancer in animals that had the compounds placed directly in their lungs.[36]

Benzene – As known human carcinogen, benzene is a Group A chemical under the present USEPA classification system. Numerous studies illustrate a strong association between occupational exposure to benzene via inhalation and an increased incidence of certain types of leukemia. Additionally, cancers detected in animal studies include those of the oral and nasal cavities, liver, lung, ovary and mammary glands.[37]

Arsenic – Studies of smelter worker populations have found an association between occupational arsenic exposure and lung cancer mortality. Both proportionate mortality and cohort studies of pesticide manufacturing workers have shown an excess of lung cancer deaths among exposed persons. One study of a population residing near a pesticide manufacturing plant revealed that these residents were also at an excess risk of lung cancer.[38]

Airborne carcinogens emitted from the Facility enter the body primarily via inhalation (94%),[39] and therefore, the cancer risk cannot be reduced by a change in lifestyle by the exposed population (*e.g.*, change in diet, hand-washing, etc.).

(iii) Assessment of elevated cancer risk associated with Facility's operations

The Facility's Health Risk Assessment concludes that potential human health risks for cancer endpoints were below levels requiring BAAQMD notification based on the regulations in place at the time those emissions occurred.[40] However, when the lifetime age sensitivity factor ("LASF"), which was adopted in 2010, is applied to emissions based on the Facility's 2005 production levels, **the Facility's predicted**

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[35] Health Risk Assessment, *supra*, at Table 16.

[36] http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s045chro.pdf

[37] http://des.nh.gov/organization/commissioner/pip/factsheets/ard/documents/ard-ehp-3.pdf

[38] http://www.epa.gov/iris/subst/0278.htm

[39] Health Risk Assessment, *supra*, at Table 17.

[40] *Id.* at p. ES-1.

cancer risk rises to the BAAQMD notification level.[41] Thus, while the Facility was perhaps technically compliant with BAAQMD's regulations governing cancer risk warnings, the Health Risk Assessment demonstrates that **the surrounding community was previously exposed to carcinogenic emissions at the level presently recognized by BAAQMD to increase cancer risk**.

Furthermore, the Health Risk Assessment's modeling of cancer risk to the community takes into account 2008 production rates for cement and clinker at 68 percent of the 2005 production rate.[42] Using this so called "optimal production rate," the predicted cancer risk would be $9.5x10^{-6}$, just below the BAAQMD notification level, but yet realistic and significant from the practical standpoint. Moreover, the Health Risk Assessment indicates that in 2005 the estimated cancer risk would be $5x10^{-5}$, assuming that cancer risk is linearly proportional to production rate.

The Health Risk Assessment defines the zone of impact ("ZOI") within which there is an increased cancer risk of $1x10^{-6}$ due to exposure to carcinogenic air emissions from the Facility, even though BAAQMD notification is not required.[43] The modeling results indicated that the ZOI based on 2008 emissions (corresponding to 68% of the 2005 production rate) extends approximately 13 kilometers east to west and approximately 13 kilometers north to south.[44] Based upon the location of the Facility, this area includes large residential areas of Cupertino, Los Altos and Saratoga. Additionally, this ZOI for cancer risk includes 39 facilities for particularly susceptible elements of the population known as "sensitive receptors": children, people affected by diseases and the elderly.[45] Based on the Facility's the 2008 emissions, the carcinogenic risk estimated for 25 schools, 13 daycare centers, and one hospital ranges from $5x10^{-7}$ to $3x10^{-6}$.[46]

In sum, the Portland cement manufacturing process is known to emit carcinogenic byproducts, and the Facility's own Health Risk Assessment demonstrates that carcinogens emitted from the Facility exposed those within a 13 kilometer radius, including sensitive receptors, to an increased risk of cancer.

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[41] *Id.*

[42] *Id.* at p. ES-4.

[43] *Id.* at p. iv.

[44] *Id.* at p. 24.

[45] *Id.* at p. 8.

[46] *Id.* at pp. 25 & Table 22.

(d) Facility's History of Failing To Comply With Environmental Laws, Creating Danger To Public and Employee Health and Safety

(i) Regulatory Actions Related to Air Emissions

On March 9, 2010, the USEPA issued a Notice of Violation and Finding of Violation to Lehigh for failing to comply with the Clean Air Act (the "Act") with respect to the Facility's operations ("USEPA's NOV/FOV").[47] As explained by the USEPA, Lehigh made a series of modifications to the Facility from 1996 through 1999 and subsequently operated the modified Facility, resulting in significant net increases in NO_x and SO_2 emissions.[48]

However, **Lehigh failed to apply for a permit** under the Act's Prevention of Significant Deterioration provisions in connection with those increased emissions, **and also failed to install emissions controls** meeting the Act's "best available control technology" ("BACT") standard.[49] Additionally, USEPA's NOV/FOV charged Lehigh with failing to identify the above-mentioned requirements when it submitted its application for an operating permit under the Act, referred to as a "Title V permit."[50] Consequently, **according to the USEPA, Lehigh "obtained a deficient Title V permit, i.e., one that did not include all applicable requirements, and therefore is operating the Facility without a valid Title V permit. . . ."**[51]

(ii) Regulatory Actions Related to Water Quality

On March 26, 2010, the San Francisco Bay Regional Water Quality Control Board ("RWQCB") issued a Notice of Violation to Lehigh for violation of stormwater protection requirements under California law ("RWQCB's NOV").[52] Specifically, the RWQCB NOV charges Lehigh with: (a) failing to implement controls to reduce pollutants in stormwater discharges from the Facility that meet the legally-mandated standard, a violation of the National Pollutant Discharge Elimination System General Permit for industrial activities, and (b) violating the San Francisco Bay Water Quality Control Plan by discharging solid wastes into surface waters.[53]

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[47] A copy of the USEPA's NOV/FOV is attached hereto as Exhibit 10.

[48] USEPA's NOV/FOV, p. 2.

[49] *Id.* at pp. 2-3.

[50] *Id.* at p. 3.

[51] *Id.*

[52] A copy of the RWQCB's NOV is attached hereto as Exhibit 11.

[53] *Id.* at pp. 1-2.

Additionally, on November 29, 2010, the RWQCB issued a demand for a technical report documenting non-storm water discharges from the Facility into Permanente Creek (RWQCB's Demand Letter).[54] The RWQCB's authority for such an order stems from its jurisdiction over waste discharges that can adversely affect water quality.[55] According to Lehigh, water was being pumped from the quarry bottom, routed through Pond #4, and was then being discharged into the creek.[56] This practice was described as a routine maintenance activity conducted during summer months.[57] Obviously concerned about harmful waste discharges from the Facility, the RWQCB's Demand Letter also required Lehigh to provide information about all non-storm water discharges originating from the Facility in the previous three years and the pollutants contained in those discharges.[58]

(iii) Regulatory Actions Related to Mining Activities

On October 10, 2006, Santa Clara County's Department of Planning and Development Planning Office ("County") issued a Notice of Violation to Hansen (the previous Facility operator) for violation of provisions of the California Surface Mining and Reclamation Act ("SMARA") ("2006 County NOV").[59] The 2006 County NOV cited Hansen for depositing mining overburden in areas of the Facility located outside the then-current reclamation plan boundary.[60] The County also ordered Hansen to address in an amended reclamation plan "the slope instability along the north wall of the pit, and [to] encompass all mining-related access roads, structures, stockpiles and storage areas, including the rock processing facility. . . ."[61]

On June 20, 2008, the County issued Lehigh a Notice of Violation for essentially the same SMARA violation at issue in the 2006 County NOV issued to Hansen ("2008 County NOV").[62] Specifically, the 2008 County NOV cited Lehigh for depositing mining overburden in the East Materials Storage Area, which is outside the Facility's current reclamation plan boundary.[63] Based on the County's prior issuance of a notice of violation in 2006 (*i.e.*, the 2006 County NOV), after which Hansen applied for a reclamation plan amendment, **the County stated that the Facility operator had received "notice that**

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[54] A copy of the RWQCB's Demand Letter is attached hereto as Exhibit 12.

[55] *See* Cal. Water Code § 13267.

[56] RWQCB's Demand Letter, pp. 1-2.

[57] *Id.* at p. 1.

[58] *Id.* at p. 2.

[59] A copy of the 2006 County NOV is attached hereto as Exhibit 13.

[60] 2006 County NOV, p. 1.

[61] *Id.* at p. 2.

[62] A copy of the 2008 County NOV is attached hereto as Exhibit 14.

[63] 2008 County NOV, p. 1.

work outside the reclamation plan boundary is not authorized," and "[f]or this reason, the County views this additional stockpiling as an intensification of an existing violation."[64]

(iv) Regulatory Actions Related to Employee Safety

In 2010 alone, the U.S. Department of Labor's Mine Safety and Health Administration ("USMSHA") issued **185 citations and 21 orders** to Lehigh pertaining to various unsafe practices and conditions existing at the Facility.[65] For example, one of USMSHA's orders was issued for unsafe access where inadequately secured steel plates could have fallen on miners or delivery drivers accessing a storage area at the Facility.[66] Another order addressed Lehigh's failure to abate a fall protection violation exposing miners working at the top of a mill to an approximately 36-foot drop to the surface below. [67] **According to USMSHA, "[s]ixty percent of the citations and orders [issued to Lehigh in 2010] were significant and substantial violations."**[68]

(v) Failure to notify public of exposure to harmful substances as required under Proposition 65

California's Safe Drinking Water and Toxic Enforcement Act of 1986, commonly referred to as "Proposition 65," was enacted to protect (a) the public from chemicals known to cause cancer, birth defects and reproductive harm, and (b) the State's drinking water from chemicals known to cause cancer.[69] As such, Proposition 65 requires that businesses operating in California must warn the public before exposing them to specified amounts of any chemical listed under the statute, and also prohibits the discharge of such chemicals into water or onto land where they may pass into any source of drinking water.[70]

There are over 800 chemicals currently regulated under Proposition 65 and those include many emitted by the Facility, such as mercury, arsenic, benzene, formaldehyde, perchloroethylene, toluene, lead and diesel PM.[71] However, none of No Toxic Air's members living near the Facility recall receiving a

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[64] *Id.*

[65] U.S. Department of Labor News Release, entitled "MSHA announces results of November impact inspections," dated Dec. 21, 2010, available at: http://www.msha.gov/media/PRESS/2010/NR101221.asp.

[66] *Id.*

[67] *Id.*

[68] *Id.*

[69] Cal. Health & Safety Code § 25249.5 & 25249.6.

[70] *Id.*

[71] A complete list of the chemicals regulated under Proposition 65 is available at: http://www.oehha.ca.gov/prop65/prop65_list/files/P65single010711.pdf.

Proposition 65 warning from Lehigh (or its predecessor Hansen) concerning any chemicals emitted from the Facility. Additionally, given the various notices of violation issued to Lehigh for violations of federal and State air and water laws, it is conceivable, or perhaps even likely, that violations of Proposition 65's warning requirement and drinking water discharge prohibition have occurred. In fact, a Proposition 65 60-Day Notice has already been issued to Lehigh in connection with the Facility's emissions of arsenic, benzene and hexavalent chromium.[72]

When viewed in its entirety, the Facility's history of failing to comply with federal and State environmental and worker safety laws illustrates that the Facility's operations are a danger to public health and safety and must be abated. Indeed, if Lehigh is failing to provide a safe and healthful work environment for its own employees, it cannot be trusted to protect the health and safety of neighbors with whom it has no relationship.

(e) Neighbors' Complaints Concerning Facility Operations

The Facility's operations significantly and negatively impact nearby residents' use and enjoyment of their properties and homes. Additionally, the Facility's emissions of toxic substances pose a grave health concern to many living in the area, particularly those with young children. California law considers anything "injurious to health," "indecent or offensive to the senses," or that interferes with "the comfortable enjoyment of life or property" to be a nuisance. There is no requirement for activities to directly damage the impacted property or prevent its use in order for those activities to be considered nuisances.

Based on California law, the following impacts suffered by No Toxic Air's members and caused by the Facility constitute nuisances:

(i) Safety and health concerns – The Facility's emissions of numerous toxic substances is a major concern to many neighbors, and causes a substantial amount of anxiety. For instance, one neighbor of the Facility is afraid to take her nine-month-old baby for walks outside. *See* Declaration of S. Kratter, attached here as Exhibit 16; *see also* Declarations of A. Rangwala, J. Geiger, A. Schwarz and R. Yu, attached here as Exhibits 17, 18, 19 and 20;

(ii) Dust – The Facility's operations create a tremendous amount of dust that covers everything on the interior and exterior of residents' homes, including their cars, patio furniture, indoor furniture, walls, picture frames, rugs and carpet, wood floors and window screens. Residents living near the Facility also breathe this dust into their lungs, which in some cases cause or exacerbate existing respiratory

[72] Letter to Lehigh from Clayton & McEvoy, P.C., attorneys for Quarry No, October 14, 2010; attached hereto as Exhibit 15.

ailments. *See* Declarations of F. Enescu, S. Kratter, J. Geiger, A. Schwarz and R. Yu, attached here as Exhibits 21, 16, 18, 19 and 20;

(iii) Odors – Residents living near the Facility complain of noxious odors emanating from the Facility. *See* Declarations of F. Enescu and S. Kratter, attached here as Exhibits 21 and 16;

(iv) Noise – The nature of the Facility's heavy industrial operations creates a great deal of noise that disturbs and sometimes frightens nearby residents, including loud sounds from bulldozers, blasting, running conveyor belts and crushing stone. These noises are often present in the early morning or nighttime hours, preventing people from sleeping even after they have closed their windows in an effort to reduce the volume. Additionally, residents report having to increase the volume of their televisions and radios to drown out the background noise from the Facility. *See* Declarations of T. von Stein, J. Geiger, F. Enescu and R. Yu, attached here as Exhibits 22, 18, 21 and 20;

(v) Light – Due to the Facility's operations during nighttime hours, bright floodlights are used, which disturb nearby residents' use and enjoyment of their properties. *See* Declaration of J. Geiger, attached here as Exhibit 18;

(vi) Truck traffic and related safety concerns – Finally, a large volume of trucks are constantly driving through the surrounding neighborhoods as they travel to and from the Facility. This truck traffic is a concern in that it creates additional dust and noise, and also poses a safety risk for children living in the area. *See* Declarations of J. Geiger and A. Schwarz, attached here as Exhibits 18 and 19.

In sum, the Facility's operations may not have constituted a nuisance when it first began operating in the 1800s. But due to the development and growth of the population in the area, the Facility is now located in the heart of Silicon Valley, home to well over one million residents. Thus, for the various reasons discussed above, the Facility's operations presently constitute a nuisance and are no longer compatible with the surrounding environment. As a preexisting nonconforming use that constitutes a public nuisance, the Facility's operations are subject to abatement and any vested rights Lehigh may possess may be limited or revoked by the Board.

2. CONCLUSION

Based on the above information, No Toxic Air respectfully requests that the Board:

(i) Deny Lehigh's request for confirmation of vested rights relative to the Facility;

(ii) Revoke any vested rights that may have been conferred upon Lehigh or, in the alternative, impose clearly defined restrictions upon the Facility's ongoing

operations that will protect human health and the environment, including but not limited to requiring Lehigh to:

(A) Adhere to mitigation measures at the Facility that will reduce mercury emissions to acceptable levels and stop the creation of nuisances, including dust, odors, noise, light from nighttime operations, hours of operation and traffic;

(B) Perform a new health risk assessment using updated data which reflects actual amounts of mercury in mining materials (as opposed to using data based on national averages);

(C) Provide a Proposition 65-compliant notice to all residents within a 13 kilometer radius (the so-called "zone of impact") of the Facility regarding the types of hazardous substances that are emitted from the Facility;

(D) Submit plans detailing how it intends to comply with the USEPA's current and forthcoming air emission regulations governing Portland cement manufacturing plants and California's new greenhouse gas reduction efforts (*i.e.* AB 32); and

(iii) Refuse to confer any vested rights concerning the Facility until Lehigh can verify that the Facility has complied with all outstanding notices of violation and operated for one year without receiving any additional notices of violation.

Attachments (Exhibits 1-22)