



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET - 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

**KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR**

January 11, 2011

Planning Commission  
County of Santa Cruz  
701 Ocean Street  
Santa Cruz, CA 95060

**Agenda Date: January 26, 2011**

**Item #: 12**

**Time: After 9 AM**

**Subject: Minor Variation for the Granite Construction Company Felton Quarry**

Members of the Commission:

As a result of the compliance review completed December 8, 2010, the Planning Commission accepted the staff report, which concluded that mining operations at Granite Construction Company's Felton Quarry are in compliance with conditions of approval of Mining Approval 74-633 (as amended). During the staff presentation on December 8<sup>th</sup> there was a discussion of several proposed changes to the existing Conditions of Approval, which together would qualify as a Minor Variation. In accordance with the requirements of the Mining Regulations, the attached Minor Variation is being forwarded to your Commission as a written correspondence item. In addition, the motion to accept the staff report included a request for Planning Department staff to report back to your Commission with information on emission data, specifically benzene. This report also includes information on the regulatory status regarding facility emissions.

### Minor Variation

The Minor Variation is attached as Exhibit A. A Minor Variation to any condition required by the Santa Cruz County Mining Regulations (SCCC 16.54) may be made by the Planning Director, pursuant to the authority contained in SCCC 18.10.134, and shall be forwarded as a written correspondence item on the next Planning Commission Agenda. In reviewing the Minor Variation the Planning Commission may require the Minor Variation to be processed as a Minor or Major amendment or may add, delete, or revise any condition of the minor variation (SCCC 16.54.032).

### Air Emissions

Air emissions from stationary sources, primarily the asphalt plant, at the Felton Quarry are inventoried and evaluated for level of risk from toxic emissions. The Toxic Emissions Inventory and Risk Assessment Program as it relates to the Felton Quarry is discussed in the attached letter from the Monterey Bay Unified Air Pollution Control District (MBUAPCD) (Exhibit B). The purpose of the program is to inventory air toxics emissions, to assess the risk to public health from exposure to these emissions, to notify the public of any known significant health risk associated with toxic emissions from any facility, and to prepare Risk Reduction Audits and

Plans to effect risk reductions. Toxic air contaminants are air pollutants, identified in regulation by the California Air Resources Board (ARB), which may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health. The MBUAPCD letter explains that, as a result of the last complete evaluation in 1997, a risk assessment was not required because the results of a screening analysis of the emissions inventory were not significant enough to require a risk assessment. The toxic emissions inventory was completed for the Felton Quarry in 1991. Data regarding toxic emissions and criteria pollutants is made publically available on the (ARB) website. In the attached letter from Granite Construction Company they estimate average annual benzene emissions from the asphalt plant over the past five years (Exhibit C). A complete update of the toxic emissions inventory and screening analysis would not be required unless production capacity increased, or the toxicity value of the emissions increased, or a new significant substance was added to the program.

Criteria pollutants are air pollutants for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set. The Felton Quarry submits an annual inventory of emissions of criteria pollutants, and the data is published on the ARB website noted above. Categories include carbon monoxide, nitrogen oxides, sulfur oxides, and particulate. These emissions are estimated using approved methods based on the type of facility, and production rates. In addition, emissions of Total Organic Gases (TOG), which includes compounds of carbon, of which benzene is one, are reported annually. Felton Quarry has included data on TOG since 2008.

Emissions from mobile sources are a different category of emissions and are regulated through the ARB Mobile Source Program. ARB is responsible for developing statewide programs and strategies to reduce the emission of smog-forming pollutants and toxics by mobile sources. These include both on- and off-road sources associated with the Felton Quarry, such as trucks, and heavy-duty construction equipment. Existing regulation requires fleets that operate in California to reduce diesel truck and bus emissions by retrofitting or replacing existing engines. The regulation would require installation of particulate matter (PM) retrofits beginning January 1, 2012 and replacement of older trucks starting January 1, 2015. By January 1, 2023, nearly all vehicles would need to have 2010 model year engines or equivalent. The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. This would cover nearly all the trucks and other mobile equipment associated with the Felton Quarry.

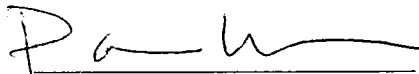
In summary, air toxics emissions from stationary sources at the Felton Quarry have been quantified and evaluated. Based on a screening analysis performed by the MBUAPCD a risk assessment was not required because the results of the screening analysis of the emissions inventory were not significant enough to require a risk assessment. An update of the toxic emissions inventory and screening analysis has not been triggered. Toxic emissions inventory data and annual criteria pollutants data from stationary sources is available on the ARB website. Reductions of emissions from mobile sources are addressed under a separate ARB program. It should be noted that an application for expansion of mining or production capacity, for example, which would be subject to review under the California Environmental Quality Act (CEQA), would likely trigger a requirement for an updated toxic emissions inventory and screening analysis for all stationary and mobile sources associated with the quarry.

Sincerely,



David Carlson  
Resource Planner

Reviewed By:



Paia Levine  
Principal Planner  
Development Review

Exhibits:

- A. Minor Variation
- B. MBUAPCD letter
- C. Granite Construction Company letter



## **Staff Report & Development Permit Level 3 – Minor Variation**

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**Application Number:** 74-0633

**APN:** 062-181-12, 064-201-13, 79, 80, 81, 064-211-67, 68

**Applicant:** Granite Construction Company

**Owner:** CGK LLC, Sinnot, Kester, etal.

**Site Address:** 1800 Felton Quarry Road

### **Proposal & Location**

Minor Variation to the following Conditions of Approval for the Felton Quarry Mining Approval 74-0633: Condition II.H.9 to reduce the noise monitoring requirement from annual to once every three years; Condition III.D.11 to reduce the hydrologic monitoring requirement from annual to once every three years; Condition III.E.5.d to reduce the requirement to monitor speed and noise of trucks during off-hours operation from every job regardless of size to jobs involving 1,000 tons or more of asphaltic concrete.

### **History**

Granite Construction Company operates the Felton Quarry under a permit approved in 1979 that authorized mining within certain limits and requires reclamation of all areas used for mining. Amendments to the permit were approved by the Planning Commission in 1993 and 2000 to incorporate updated mining and reclamation plans, and to authorize off hours operations. Minor Variations to certain Conditions of Approval have been approved involving reductions in hydrologic and slope monitoring requirements, and to install a polymer water clarifying system. The current operations and conditions at the mine are periodically reviewed by the Planning Commission at a public hearing for compliance with conditions of approval. As a result of the last compliance review in December 2010, the Planning Commission accepted the staff report, which concluded that mining operations at Granite Construction Company's Felton Quarry are in compliance with conditions of approval of Mining Approval 74-633 (as amended). Many aspects of the operation are monitored on a regular basis, and a long history of compliance has been established as documented by the monitoring results. As a result, the operator has requested reductions of monitoring requirements relative to noise, traffic and hydrologic monitoring.

### **Background**

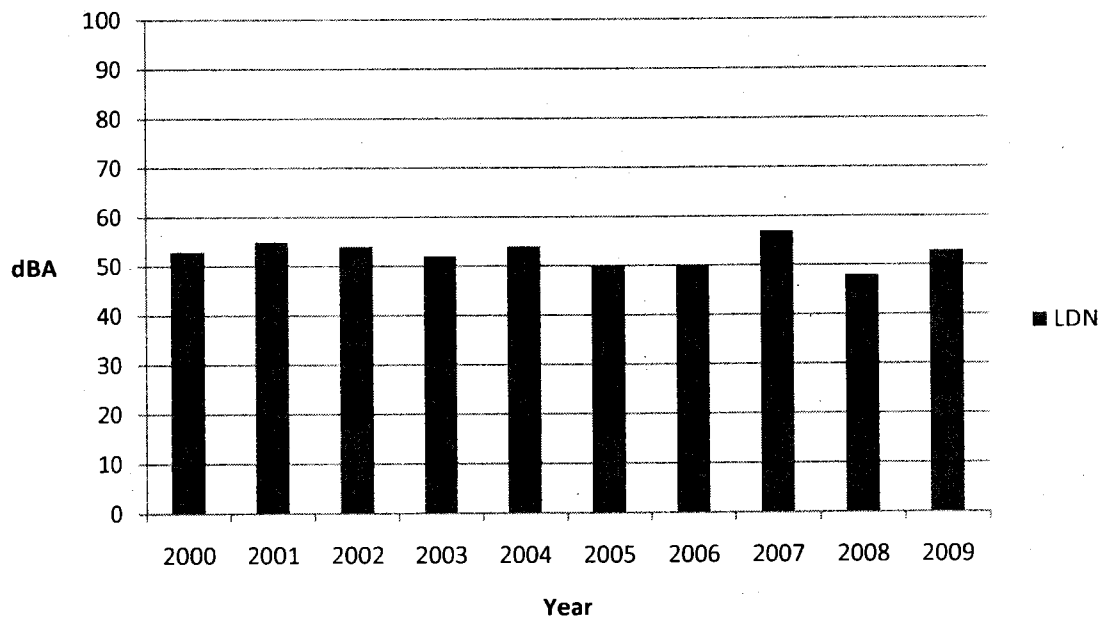
A minor variation is an amendment to a planning approval, including (without limitation) project design, improvements, or conditions of approval, if the amendment does not affect the overall concept, density, or intensity of use of the approved project, and if it does not involve either a modification of a design consideration, an improvement, or a condition of approval which was a

matter of discussion at the public hearing at which the planning approval was granted (Santa Cruz County Code 18.10.134).

## Analysis

### Noise

The Santa Cruz County General Plan Land Use Compatibility Chart for Exterior Community Noise (General Plan Figure 6-1) identifies a “normally acceptable” exterior noise exposure compatibility level of 60 dBA LDN (Day-Night Level). County Mining Regulations Section 16.54.050 sets a maximum noise level measured at property boundaries of no greater than 60 dBA for a cumulative period of 15 minutes during any hour of operation ( $L_{25}$ ). Condition of Approval II.H.9 requires the operator to submit an annual noise report to determine compliance with noise standards. Figure 1 summarizes the results of ten years of noise monitoring during peak operations, including night operations.



**Figure 1**

Annual noise monitoring at the quarry by the quarry’s acoustical consultant indicates that noise levels during normal and off-hours quarry operations at the property line and at the nearest residence are in compliance with both standards listed above (60dBA). While Figure 1 shows results for LDN measurements, results for  $L_{25}$  measurements also demonstrate compliance. Annual noise monitoring has consistently documented that the quarry operation is in compliance with the noise standards.

EXHIBIT A

### Hydrologic Monitoring

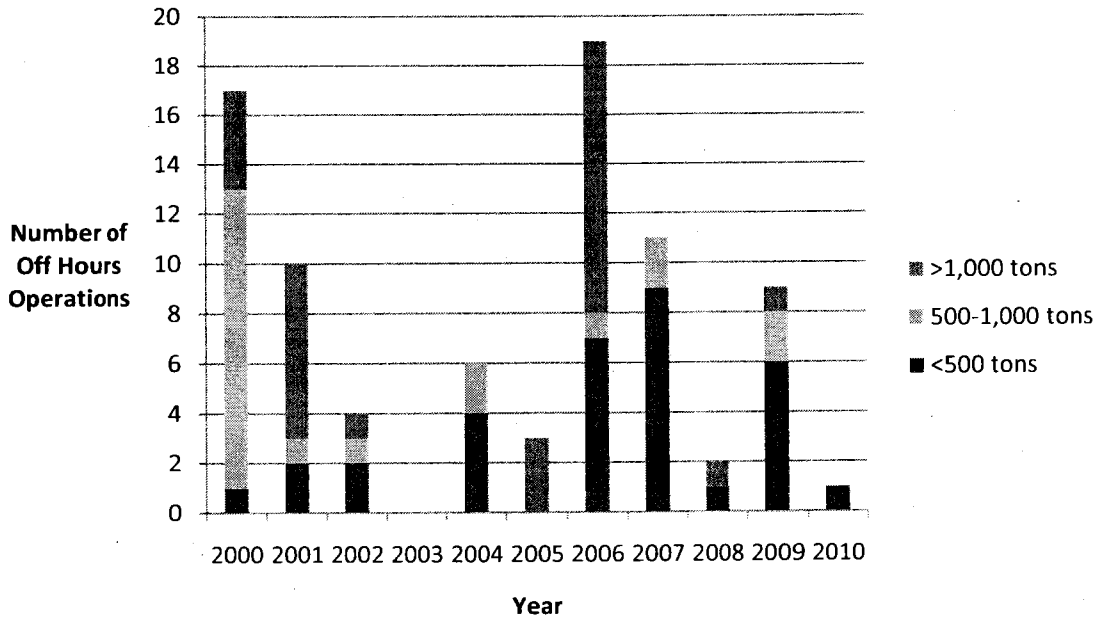
Condition of Approval III.D.11 requires the quarry operator to implement annual hydrologic monitoring. This requirement arose out of a concern regarding the potential impact the quarry operation may have on the groundwater system relied upon by the Forest Lakes Mutual Water Company (FLMWC). The operator's request is to reduce the hydrologic monitoring interval to once every three years. A groundwater-monitoring program was established in 1993 to monitor groundwater levels and water quality. Any negative trends attributable to the quarry would trigger more intense monitoring, and further action if necessary. No negative trends have been detected in quantity or quality of groundwater or surface water after 19 years of monitoring of groundwater levels, and 15 years of water quality monitoring. The monitoring program has shown that the ponds are a source of recharge of ground water, groundwater levels have remained stable, and water quality has not been degraded. A representative of the FLMWC stated at the December 8 Planning Commission hearing they have no objection to the reduction in the hydrologic monitoring requirement.

### Traffic

Condition of Approval III.E.5.d requires the operator to monitor and keep records of speed and noise levels of trucks from the quarry entrance at Empire Grade to the intersection of Bay Avenue and Highway 1 (Mission Street) during off-hour operations. The operator's request is to change the monitoring interval from each off hour operation to only those that exceed 1,000 tons.

During off-hours operations the quarry monitors speed and decibel levels of trucks along the haul route through the neighborhood. This is accomplished using a vehicle equipped with a radar detector and a decibel meter. The vehicle is set up at random locations along the entire route to ensure compliance. The records are made available to the County at the close of each paving project, and are submitted to the Planning Department as part of the quarry's annual report. Figure 2 shows the total number of off hours operations each year broken down by the number of operations in various size categories. An operation of 500 tons or less would involve approximately 20 truck loads, and an operation exceeding 1,000 tons would involve 40 trucks or more.

EXHIBIT A



**Figure 2**

Speed monitoring demonstrates that the trucks generally follow the speed limit, and definitely go slower than cars. Noise monitoring indicates that trucks do not create excessive noise. Complaints to the County are rare; one complaint regarding general truck noise was received from a High Street resident in 2006 during an extensive Highway 17 paving job involving a total of 14 night operations with 7 of those involving shipment of greater than 1,000 tons, or 50 to 70 truck loads each night. One other complaint was received from a Bay Street resident in 2007 regarding a trucker using jake brakes; the loud engine brakes occasionally used by truckers. This complaint was relayed to the quarry for trucker contact and warning.

Speed and noise monitoring by the quarry operator during off-hours operations has consistently demonstrated compliance in that trucks are not traveling at excessive speeds or generating excessive noise. Notices are sent to the residents of the neighborhood along the truck route prior to each off hour operation, and this would continue, as required. Complaints are extremely rare and the quarry operator has been diligent and conscientious regarding complaint follow up and resolution, and this is expected to continue, when necessary.

## **Conclusion**

Based on a long record of compliance as demonstrated by noise and traffic monitoring, and a long record of no impact on groundwater quantity or quality, the operator's request to change Conditions of Approval related to these issues is reasonable. These changes would involve changing the noise monitoring interval and the hydrologic monitoring interval from annual to every three years, and changing the traffic monitoring interval from each off hour operation to only those that exceed 1,000 tons. These changes together would qualify as a Minor Variation to the Conditions of Approval because the changes do not affect the overall concept, density, or

**EXHIBIT A**

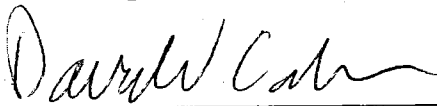
intensity of use of the mining operation, and do not involve a condition of approval which was a matter of discussion at the public hearing at which the mining approval was granted.

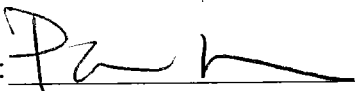
The changes to the Conditions of Approval described above are provided in this Minor Variation in underline/strikeout format. A clean copy of the complete Conditions of Approval will be provided to the quarry operator under separate cover.

### Recommendation

All findings remain valid as approved for Mining Approval 74-0633 (as amended). Based on the findings for permit number 74-0633 (as amended), which are hereby incorporated by reference, Planning Department staff recommends approval of the requested Minor Variation including the conditions contained in this permit.

If you have any questions about this project, please contact David Carlson at:  
(831) 454-3173 or [david.carlson@co.santa-cruz.ca.us](mailto:david.carlson@co.santa-cruz.ca.us)

Report Prepared By:   
David Carlson  
Santa Cruz County Planning Department  
701 Ocean Street, 4th Floor  
Santa Cruz CA 95060

Report Reviewed By:   
Pala Levine  
Principal Planner  
Development Review  
Santa Cruz County Planning Department

Mail to: Granite Construction Company  
P. O. Box 720  
Watsonville, CA 95077

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**Note: This decision is final unless it is appealed.**

See permit conditions for information regarding appeals. You may exercise your permit after signing below and meeting any conditions which are required to be met prior to exercising the permit. If you file an appeal of this decision, permit issuance will be stayed and the permit cannot be exercised until the appeal is decided.

**Please note: This permit will expire unless exercised prior to the expiration date.  
(See the Conditions of Approval below for the expiration date of this permit.)**

**EXHIBIT A**



## Conditions of Approval

I. ...

### II. GENERAL PROVISIONS

A. ...

H. In conjunction with the annual report to the State Geologist required by SMARA, an annual report to the Planning Director shall be prepared by a professional determined by the Planning Director as qualified to prepare such report. The report shall be submitted by the mining operator to the Planning Director by April 1 of each year. If the Planning Director determines the need for an independent consultant with specialized expertise, the mining operator shall obtain such consultant. All costs of such report and its review shall be paid by the mining operator. The report shall include the following unless waived or modified in writing by the Planning Director (Mit. #1, 2, 3, 4, 5, and 6):

1. ...

9. Every third year a noise report prepared by a qualified noise/acoustical consultant retained by the mining operator and approved by the Planning Director, unless the Planning Director determines a shorter interval is necessary based on substantial evidence of potentially excessive noise levels. Each noise report shall determine whether or not the mining operator is in compliance with noise standards contained in the County Mining Regulations, and shall investigate and make recommendations regarding (relative to noise mitigations): (i) Any Mining equipment used at the mining site; (ii) Proposed and existing noise protection; (iii) Any other significant impact resulting from mining operations. The mining operator shall implement all recommendations of the noise consultant determined to be necessary by the Planning Director for compliance with the conditions of the Mining Approval.

10. ...

### III. OPERATING REQUIREMENTS

A. ...

D. Groundwater Hydrology

1. ...

11. The Hydrologic Monitoring Program prepared for this project by Watkins-Johnson Environmental, Inc., dated June 12, 1992, shall be implemented

EXHIBIT A

every third year. The frequency of water quality sampling and groundwater level measuring shall occur two times per monitoring year during August and April unless the County Hydrologist determines that an increase or decrease in the frequency of sampling is appropriate based on water quality trends reported in the triennial annual hydrologic monitoring report. At a minimum, water quality monitoring shall occur in August of each monitoring year and groundwater level measurements shall occur two times per monitoring year during August and April. This monitoring shall include measurements of groundwater elevations and water sampling collected for general chemical analysis. Analysis shall be conducted by a certified water quality testing laboratory. The results of all monitoring and chemical analysis shall be submitted to County Planning every three years as part of the quarry's annual report and shall include biannual comparisons in the findings of monitoring results. Any water quality changes of 15% or more shall be discussed in the report including methods to track water quality trends, and to remediate any negative impacts if trends of deteriorating water quality continue (Mit. #3).

12. ...

E. Days and Hours of Operation

1. ...

5. To reduce noise levels of the asphalt plant and truck traffic for off-hour operations, the Quarry shall construct and/or implement the following improvements (Mit. #5 and Mit. #A.1 and Mit. #B.):

a. ...

d. The quarry operator shall monitor and keep records of speed and noise levels of trucks from the quarry entrance at Empire Grade to the intersection of Bay Avenue and Highway 1 (Mission Street) during off-hour operations involving more than 1,000 tons unless the Planning Director determines that monitoring of smaller off hours operation is necessary based on evidence of potentially excessive truck speed and noise levels. This shall be accomplished using a vehicle equipped with a radar detector and a decibel meter. The vehicle shall set up at random locations along the entire route to ensure compliance. The records shall be made available to the County at the close of each paving project, and shall be submitted to the Planning Department as part of the quarry's annual report.

e. ...

EXHIBIT A



**MBUAPCD**

Monterey Bay Unified Air Pollution Control District  
Serving Monterey, San Benito, and Santa Cruz Counties

24580 Silver Cloud Court  
Monterey, CA 93940

PHONE: (831) 647-9411 • FAX: (831) 647-8501

December 16, 2010

Candice Longnecker  
Granite Construction Company  
P.O. Box 720  
Watsonville, CA 95077

Subject: Felton Quarry Toxic Emissions Inventory Status

Dear Ms. Longnecker:

This letter is meant to clarify the Felton Quarry status in regards to the Toxic Emissions Inventory and Risk Assessment Program. This program requires updates of the toxic emissions inventory whenever significant changes to emissions or toxicity of substances occurs. The last time a complete update was required of this facility was in 1997. The 1997 emissions inventory results were entered into a screening spreadsheet in order to determine whether these emissions were significant enough to require the preparation of a risk assessment. The results were not significant enough to require a risk assessment. Since 1997, the toxic emissions inventory has not been updated because production rates have not increased, nor have applicable toxicity values increased for these emissions, nor have new significant substances been added to the program.

Criteria pollutants such as carbon monoxide, nitrogen oxides, sulfur oxides, particulate, and volatile organic compounds are included in an annual emission inventory as required by the State.

The Toxic Emissions Inventory and Risk Assessment Program and the annual criteria pollutants emissions inventory only requires the emissions from stationary sources to be inventoried. The emissions from construction vehicles and trucks are not required to be part of this inventory. The District is not required to seek and does not have information regarding these mobile source emissions.

If you have any questions regarding this program or others involving toxic emissions, please feel free to call me anytime.

Sincerely,

David Craft  
Air Quality Engineer  
(831) 647-9418 x 218  
[dcraft@mbuapcd.org](mailto:dcraft@mbuapcd.org)

Richard A. Stedman, Air Pollution Control Officer

EXHIBIT B

12-20-10A10:10  
12-20-10A10:55 RCVD



December 16, 2010

County of Santa Cruz  
Planning Department  
701 Ocean Street, 4<sup>th</sup> Floor  
Santa Cruz, CA 95060

Attn: Mr. David Carlson

Re: Benzene Emissions at the Felton Quarry Asphalt Plant

Dear Mr. David Carlson,

A question arose during the Felton Quarry Use Permit 5-year review regarding benzene emissions from the Felton Asphalt Plant. Benzene is an air toxic and the Monterey Bay Unified Air Pollution Control District (Air District) has a program to inventory air toxics emissions to assess the risk to public health from exposure to these emissions. Based on a facility's emissions inventory data, the Air District determines if a health risk assessment is required using the risk assessment formulas listed in Rule 1003: *Air Toxics Emissions Inventory and Risk Assessments*.

The enclosed letter from Air District describes the toxic emissions inventory results from the Felton Quarry Asphalt Plant. As you will read, the Air District has determined that the emissions from the Asphalt Plant are low enough that they do not warrant further analysis.

In an effort to provide the Planning Commission with additional information on the relative levels of benzene emissions at the site, Granite has calculated estimated benzene emissions from the Asphalt Plant from the last five years (2005 – 2009) using the U.S. EPA standard protocol (<http://www.epa.gov/ttnchie1/ap42/ch11/final/c11s01.pdf>). We estimate that the Asphalt Plant produced an average of 14.55 lbs/year of benzene. For context, one (1) typical passenger vehicle produces an estimated 4.6 lbs/year of benzene. In this regard, the annual benzene emissions at the Asphalt Plant are approximately equivalent to the benzene emissions from 3 typical passenger vehicles.

In terms of mobile sources of benzene emissions (e.g., heavy-duty trucks) at the Asphalt Plant, all air emissions from off and on-road mobile equipment are regulated through the California Air Resources Board (ARB). The ARB requires company fleets of off and on-road equipment to meet specific engine tier standards. That information can be found at: <http://www.arb.ca.gov/msprog/msprog.htm>.

Based on the above information, we believe that the benzene emissions from the Felton Quarry Asphalt Plant do not represent a risk to public health, and do not warrant further review. If you have any questions, please feel free to contact me.

Sincerely,  
GRANITE CONSTRUCTION COMPANY

A handwritten signature in black ink, appearing to read "Candice Longnecker".

Candice Longnecker, LEED AP  
Environmental Coordinator  
Cell: (408) 640-6553  
Fax: (408) 327-7090  
[candice.longnecker@gcinc.com](mailto:candice.longnecker@gcinc.com)

EXHIBIT C