

**CEMEX CONSTRUCTION MATERIALS PACIFIC, LLC
ELIOT QUARRY (CA MINE ID# 91-01-0009)**

FUGITIVE DUST CONTROL PLAN

PREPARED FOR:

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5180 Golden Foothill Parkway, Suite 200
El Dorado Hills, CA 95762

FOR SUBMITTAL TO:

Alameda County
Community Development Agency
224 W. Winton Ave. Suite 110
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1.0 PURPOSE AND SCOPE

This Fugitive Dust Control Plan (“Plan”) provides facility contact information, applicable rules and regulations, and a description of site operations. In addition, this Plan identifies potential sources of fugitive dust and documents the facility’s best management practices (“BMPs”) for dust control. The Plan also identifies administrative controls, including monitoring and training procedures, as well as procedures for periodic review and update.

2.0 FACILITY GENERAL INFORMATION

Facility Name: Eliot Quarry

Facility Address: 1645 Stanley Blvd.
Pleasanton, CA 94566
(925) 200-6207

Site Contacts: Plant Manager:
Ryan Barnett
(209) 737-1263

Environmental Manager:
Bruce Eppler
(916) 941-2920

Safety Manager:
Greg Evans
(209) 606-3344

Applicable Permits: Air Permit(s): Permit to Operate Plant #3358

Use Permits: Q-1, Q-76 (superseded by SMP-23), and SMP-23

SMARA Mine ID #: 91-01-0009

Agency Contacts: Bay Area Air Quality Management District (“BAAQMD”):
(415) 771-6000

Alameda County Community Development Agency:
(510) 670-5333

3.0 DESCRIPTION OF OPERATIONS

Cemex owns and operates the Eliot Quarry (“Eliot”), a ±966-acre sand and gravel mining operation within the unincorporated area of Alameda County, between the cities of Livermore and Pleasanton, south of Stanley Boulevard and north of Vineyard Avenue. Cemex’s mining operation at the Eliot site is vested as documented in Alameda County Quarry Permits Q-1 (1957) and Q-76 (1969). In 1987, the County approved SMP-23, a reclamation plan for the Eliot facility, and that plan is the “approved reclamation plan” currently applicable to the site. Reclamation Plan SMP-23 covers the Q-1 and Q-76 permit areas.

Facility activities include surface mining of sand and gravel reserves, operation of an aggregate processing plant and ancillary components (e.g., stockpiles, conveyors and truck scales), operation of a ready-mix concrete batch plant, administrative offices, and operation of an asphaltic concrete batch plant. Granite Construction Company (“Granite”) operates the asphalt concrete batch plant in a designated area of the facility (near the primary site entrance), and its operations are outside the scope of this Plan.

The eastern portion of the site (east of Isabel Avenue) contains “Lake A,” a formerly mined area that contains water due primarily to the infiltration of groundwater. South of Lake A is the eastern portion of a segment of the Arroyo del Valle, which is a perennial stream that runs east-west along the southern portion of the site. The portion of the site west of Isabel Avenue contains “Lake B,” which is a recently mined area with a mine pit approximately 100 to 130 feet deep. Cemex’s aggregate processing facility is located north of Lake B. Cemex’s current mining operations are being conducted in an area referred to as “Lake J.”

Land uses adjacent to the Eliot site include other mining operations, open space areas, recreational facilities, transportation corridors and residential development. A separate mining operation subject to Surface Mining Permit and Reclamation Plan 16 (“SMP-16”), currently operated by CalMat Co., dba Vulcan Materials Company, abuts the site’s eastern and northern border of Lake B. The East Bay Regional Park District (“EBRPD”) Shadow Cliffs Recreation Area, a reclaimed surface mine that now includes a lake and shoreline facilities available for public use, abuts the site’s northwestern border. The Ruby Hills residential subdivision in the City of Pleasanton is located across Vineyard Avenue to the south of the Lake B portion of the site. Residential uses are also located in the City of Livermore, north of the Lake A area of the site.

4.0 APPLICABLE RULES AND REGULATIONS

Cemex’s Eliot operations are subject to BAAQMD, Alameda County General Plan, Alameda County Surface Mining Ordinance, and Alameda County surface mining permit requirements, as set forth below.

4.1 Bay Area Air Quality Management District

Operations at Eliot are subject to the following BAAQMD rules and regulations pertinent to fugitive dust, in addition to other applicable local, state and federal requirements:

Regulation 1, General Provisions and Definitions, Rule 1-301, Public Nuisance:

1-301 Public Nuisance: *No person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property. For purposes of this section, three or more violation notices validly issued in a 30 day period to a facility for public nuisance shall give rise to a rebuttable presumption that the violations resulted from negligent conduct.*

Regulation 6, Particulate Matter, Rule 1, General Requirements:

6-1-301 Ringelmann No. 1 Limitation: *Except as provided in Sections 6-1-303, 6-1-304 and 6-1-306, a person shall not emit from any source for a period or periods aggregating more than three minutes in any hour, a visible emission which is as dark or darker than No. 1 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree.*

6-1-302 Opacity Limitation: *Except as provided in Sections 6-1-303, 6-1-304 and 6-1-306, a person shall not emit from any source for a period or periods aggregating more than three minutes in any hour an emission equal to or greater than 20% opacity as perceived by an opacity sensing device, where such device is required by District regulations.*

4.2 Alameda County General Plan

The Alameda County General Plan includes the following policies and actions related to fugitive dust:

Policy 12.1-5 Air Quality Requirements for Construction and Demolition Activities.

Reduce combustion emissions and release of suspended and inhalable particulate matter during construction and demolition phases.

Action 12.1-4 BAAQMD's Dust Abatement Approach.

Require sponsors of individual development projects requiring site development and/or environmental review to implement the BAAQMD's approach to dust abatement through conditions of approval. This calls for "basic" control measures that should be implemented at all construction sites, "enhanced" control measures that should be implemented in addition to the basic control measures at construction sites greater than four acres in area, and "optional" control measures that should be implemented on a case-by-case basis at construction sites that are large in area, located near sensitive receptors or which, for any other reason, may warrant additional emissions reductions (BAAQMD, 1999).

The Eliot facility was permitted prior to the adoption of this General Plan Action. Action 12-1-4 may be applicable to future changes, modifications or permitting activities at the site that require site development and/or environmental review. However, BAAQMD has updated their CEQA Air Quality Guidelines (May 2011), and the newer version should be referenced for appropriate mitigation measures for activities or actions requiring environmental review.

4.3 Alameda County Surface Mining Ordinance

Operations at Eliot are subject to the Alameda County Surface Mining Ordinance (“ACSMO,” County Code Section 6.80 et seq.), which is intended to ensure the continued availability of important mineral resources, while regulating surface mining operations as required by the Surface Mining and Reclamation Act (“SMARA,” PRC §2710 et seq.) and its implementing regulations (CCR §3500 et seq.). In turn, compliance with the Alameda County Surface Mining Ordinance would ensure:

- A. *Prevention or mitigation of adverse effects on the environment, including air pollution, impedance of groundwater movement and water quality degradation, damage to aquatic or wildlife habitat, flooding, erosion, sedimentation effects and excessive noise;*
- B. *Progressive reclamation concurrent with mining so that mined lands are returned to a condition adaptable for alternate land uses, with no residual hazards to public health or safety and with land and water resources maintained in a state beneficial to society; and*
- C. *Consistency with mineral resource management policies of the general plan.*

The ACSMO includes the following provisions that are relevant to the regulation of fugitive dust:

Section 6.80.210, Mining:

- H. *Erosion, Sedimentation and Pollutant Discharge.*
 - 2. *Stockpiles of overburden and minerals shall be managed to minimize water and wind erosion.*
 - 3. *The removal of vegetation and overburden in advance of surface mining shall be kept to a minimum.*
- I. *Control of Noise, Dust and Bright Lights. All activities of mining and processing minerals shall be conducted in a manner that noise, dust and bright lights do not exceed levels compatible with the uses of adjacent lands as determined by the planning commission in the issuance of the surface mining permit or as a result of its periodic review of any permit.*

Section 6.80.240, Reclamation and Reclamation Plans:

- C. *Disposal of Overburden and Mining Waste.*
 - 1. *Permanent piles or dumps of overburden and waste rock placed on the land surface shall be made stable, shall not block natural drainage without provision for*

diversion, shall have an overall smooth or even profile and, where practical, shall be placed in the least visible location. Old equipment and similar inert mining wastes shall be removed or buried. Toxic materials shall be removed or protected to prevent leaching.

- H. *Revegetation. All permanently exposed lands that have been denuded by mining operations shall be revegetated unless any such revegetation is determined by the planning commission to be technically infeasible or not beneficial with respect to the intent of this chapter. Revegetation methods and plant materials utilized shall be appropriate for the topographical, soil and eliminate conditions present at the site. Native species shall be used wherever practical.*

4.4 Alameda County Surface Mining Permits

Operations at Eliot are also subject to the dust control requirements set forth in Alameda County Quarry Permit Q-1 and Surface Mining Permit and Reclamation Plan SMP-23, as described below.

Q-1:

5. *All processing and manufacturing operations emitting smoke, vapors and other airborne contaminants shall be provided with all necessary control measures and devices as required by the Alameda County Health Department and the Bar Area Air Pollution Control Board to prevent the occurrence of nuisance and undue pollution of the air.*
8. *All reasonable control measures shall be employed to reduce dust in the gravel processing and transportation operations. Haulage roads shall be paved, oiled or watered and maintained in a dust-free condition.*

SMP-23:

4. *Mining and reclamation shall additionally conform to the: ...*
 - b) *Alameda County Surface Mining Ordinance (ACSMO); and*
 - c) *State Surface Mining and Reclamation Act (SMARA).*
20. *No stockpiling of overburden or aggregate material shall occur within 80' of Stanley Boulevard.¹*

The requirements of the ACSMO are addressed in Section 4.3, above. Since the ACSMO incorporates SMARA by reference, there is no need to separately enumerate SMARA standards.

¹ While SMP-23 condition of approval No. 20 does not explicitly reference "dust," compliance with this condition ensures that the effects of wind-blown dust are minimized at public rights-of-way.

5.0 FUGITIVE DUST SOURCES AND BEST MANAGEMENT PRACTICES

Primary dust generating activities include mining, processing, and loading and transport. The Eliot facility implements both engineering controls and operational controls to mitigate dust emissions from these activities, as identified below. The BMPs outlined below are intended to supplement, not replace, the requirements found in Cemex's Air Permit to Operate. When implemented consistently, these BMPs should ensure compliance with the applicable rules and regulations set forth in Section 4.0, above, as well as serve to minimize the effects of fugitive dust.²

5.1 Mining

5.1.1 Grading and Excavation (overburden stripping and mining)

- Pre-water areas to be stripped or excavated. During the dry season, this shall be at least once daily prior to major operations and as required to eliminate visible dust emissions.
- Apply water or chemical stabilizers / dust suppressants to active areas as needed to limit visible dust emissions to 10% opacity (Ringelmann 0.5).³
- Water truck operations may be curtailed during wet weather.
- Phase work as feasible to reduce the maximum daily acreage of disturbed soil.
- Minimize the removal of vegetation and overburden in advance of surface mining.
- Suspend grading and excavation activity when wind speeds exceed 25 mph.
- For temporary overburden stockpiles (prior to placement within a permanent fill area), water stockpiles as needed.
- For permanent overburden placement, plant vegetative ground cover (fast-germinating native grass seed). Water appropriately until vegetation is established.

5.1.2 Transport of Raw Materials

- Apply water or chemical stabilizers / dust suppressants to haul roads as needed to limit visible dust emissions to 10% opacity (Ringelmann 0.5).
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

² At the request of Mr. James Gilford, Alameda County Community Development Agency, these BMPs also incorporate the substantive dust control requirement set forth in Alameda County Permit SMP-16, issued to CalMat Co. dba Vulcan Materials Company on May 16, 2005.

³ CEMEX's existing Permit to Operate (Plant #3358) is more stringent than BAAQMD Rules 6-1-301 and 6-1-302, which establish a minimum Ringelmann No. 1 and 20% opacity standard.

5.1.3 Inactive Areas

- Apply water or chemical stabilizers / dust suppressants to inactive areas to limit visible dust emissions to 10% opacity (Ringelmann 0.5).
- For reclaimed areas, reestablish vegetative ground cover (fast-germinating native grass seed). Water appropriately until vegetation is established.
- Limit vehicular access to inactive areas through the use of signage and vehicular access barricades.

5.2 Processing

5.2.1 Processing Operations

- Use water spray and dust suppression systems to limit visible dust emissions to 10% opacity (Ringelmann 0.5).
- Clean-up, as necessary, materials (such as dust or aggregate materials) that have accumulated beneath processing plant components, such as conveyors, screens and crushers.

5.2.2 Stockpile Management

- Apply water to stockpiles as needed to maintain adequate moisture in order to minimize wind-blown dust.

5.3 Loading and Transport

5.3.1 Truck Loading

- Apply water to stockpiles as needed to maintain adequate moisture in order to minimize wind-blown dust and fugitive emissions from load-out operations.
- Use water trucks or spray systems to adequately wet materials prior to loading haul trucks.
- If loaded materials are subject to dust generation, drivers shall be requested to moisten loads at facilities to be conveniently located and maintained on site.

5.3.2 Off-Site Transport

- Cover or maintain at least two feet of free board space on aggregate haul truck loads.
- Customers, visitors, employees and subcontractors should observe posted speed limits.

- All loaded materials shall be required to pass over a material shakedown area with berm, bumper, ditches or rumble-strips provided.
- Signs notifying drivers of these requirements shall be posted at the scale location.
- Provisions contained in this section shall be mandatory for vehicles owned by, or under the control of Cemex. Drivers not cooperating with this provision shall be discouraged from hauling materials from the site.
- Haulage roads and loading areas shall be paved, oiled or watered to maintain a dust-free condition.

5.3.3 Track-Out Control

- Maintain rumble strips near exits onto public roads to minimize the potential for trackout.
- Use wet method and/or HEPA-equipped vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Dry “kick-broom” style street sweepers shall not be used.⁴

6.0 ADMINISTRATIVE CONTROLS

In addition to implementation of the site-specific BMPs outlined above, Cemex implements procedural and administrative controls to ensure employees, subcontractors and customer observe applicable dust control measures, including applicable rules, regulations and permit conditions. The following sections detail BMPs related to inspection and maintenance procedures, employee training, monitoring, and periodic review and update of this Plan.

6.1 Inspection and Maintenance Procedures

The following inspection and maintenance procedures are intended to ensure the proper operation and implementation of dust control measures:

- Conduct daily inspection of water spray and dust suppression systems (e.g., nozzles and spray bars) to ensure proper function. These inspections may be conducted as part of routine plant inspections, including safety inspections.
- Timely repair or replace malfunctioning dust control systems.

⁴ Compass contacted the Alameda County Public Works Agency (“PWA”) on November 6, 2015, spoke with Mr. Tom Hinderlie (Maintenance Supervisor), and confirmed that PWA does not have any special requirements or policies related to street sweeping or notifications for the cleanup of spilled loads.

- Periodically monitor and record opacity readings from dust generating activities to ensure compliance with permit limits. Opacity readings shall be performed by an individual trained in visual emissions evaluation (VEE).
- Maintain a current copy of this Fugitive Dust Control Plan onsite at all times.

6.2 Employee Training

The following employee training procedures are intended to ensure the proper implementation of dust control measures and conformance with applicable rules, regulations and permit conditions:

- At least once per month, during tailgate meetings, plant personnel meetings, and/or personnel training sessions, discuss and educate plant personnel on identification and implementation of corrective dust control measures. The specific elements of training could include the following:
 - Proper procedures for identifying and reporting dust emissions.
 - When reporting dust issues, employees should provide information related to the location, source and possible solutions to the issue.
 - Proper shut-down procedures in the event fugitive dust becomes unmanageable (e.g., during periods of high winds).
 - General housekeeping BMPs.
 - Preventative maintenance for dust control systems.
 - Proper means of managing dust during periods of equipment break-down/malfunction.
 - At least once per year, training shall include a review of this Plan with personnel working on-site.
- Encourage plant personnel to report dust control issues and share potential solutions with plant management personnel.
- Have at least one on-site employee trained in visual emissions evaluation (VEE) who will monitor opacity from processing equipment and ensure compliance with permit limits.

6.3 Monitoring

The following monitoring procedures are intended to instill the importance of consistent adherence to dust control measures, including conformance with applicable rules, regulations and permit conditions:

- For customers, visitors, employees and subcontractors who are deemed to be travelling in excess of posted speed limits, a warning will first be provided followed by progressive discipline up to denial of site access or termination of employees.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency and BAAQMD regarding dust complaints. Upon receiving complaints, the plant manager, environmental manager, or company designee shall respond and take corrective action as soon as feasible, but no later than 48 hours from receiving a complaint.
- Maintain copies of dust-related complaints and recorded opacity readings in Appendix B, Monitoring Records, of this Plan. Monitoring data records should be kept for a period of at least two (2) years (or longer if required by applicable permits, rules or regulations).

6.4 Plan Review

In addition to the measures outlined above, Cemex will implement the following plan review procedures:

- At least annually, conduct a review of this Plan, involving an examination/evaluation of the effectiveness of engineering and administrative control measures. This review shall be used to determine if existing controls are in good repair, whether existing controls adequately mitigate fugitive dust, and whether additional controls are warranted.
- Document the findings of the annual plan review, including review date, persons conducting inspection, and follow-up actions in the table provided herein in Appendix A, Plan Review.
- Maintain a current copy of this Fugitive Dust Control Plan onsite, and make it available for review to County or BAAQMD inspectors upon request.

APPENDIX A PLAN REVIEW

Review Date:

Field-Verification Conducted:

Current Plan Deemed Effective:

Plan Reviewer(s):

YES / NO (circle one)

YES / NO (circle one)

Key Findings:

Plan Changes:

Review Date:

Field-Verification Conducted:

Current Plan Deemed Effective:

Plan Reviewer(s):

YES / NO (circle one)

YES / NO (circle one)

Key Findings:

Plan Changes:

[ATTACH ADDITIONAL SHEETS AS NEEDED]

APPENDIX A
(CONTINUED)

Review Date:	Plan Reviewer(s):
Field-Verification Conducted:	YES / NO (circle one)
Current Plan Deemed Effective:	YES / NO (circle one)

Key Findings:

Plan Changes:

Review Date:	Plan Reviewer(s):
Field-Verification Conducted:	YES / NO (circle one)
Current Plan Deemed Effective:	YES / NO (circle one)

Key Findings:

Plan Changes:

[ATTACH ADDITIONAL SHEETS AS NEEDED]

**APPENDIX A
(CONTINUED)**

Review Date:	Plan Reviewer(s):
Field-Verification Conducted:	YES / NO (circle one)
Current Plan Deemed Effective:	YES / NO (circle one)

Key Findings:

Plan Changes:

Review Date:	Plan Reviewer(s):
Field-Verification Conducted:	YES / NO (circle one)
Current Plan Deemed Effective:	YES / NO (circle one)

Key Findings:

Plan Changes:

[ATTACH ADDITIONAL SHEETS AS NEEDED]

APPENDIX A
(CONTINUED)

Review Date:

Field-Verification Conducted:

Current Plan Deemed Effective:

Plan Reviewer(s):

YES / NO (circle one)

YES / NO (circle one)

Key Findings:

Plan Changes:

Review Date:

Field-Verification Conducted:

Current Plan Deemed Effective:

Plan Reviewer(s):

YES / NO (circle one)

YES / NO (circle one)

Key Findings:

Plan Changes:

[ATTACH ADDITIONAL SHEETS AS NEEDED]

APPENDIX A
(CONTINUED)

Review Date:

Field-Verification Conducted:

Current Plan Deemed Effective:

Plan Reviewer(s):

YES / NO (circle one)

YES / NO (circle one)

Key Findings:

Plan Changes:

Review Date:

Field-Verification Conducted:

Current Plan Deemed Effective:

Plan Reviewer(s):

YES / NO (circle one)

YES / NO (circle one)

Key Findings:

Plan Changes:

[ATTACH ADDITIONAL SHEETS AS NEEDED]

APPENDIX B
MONITORING RECORDS

[ATTACH ADDITIONAL SHEETS AS NEEDED]