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January 20, 2011

Subject: **Lehigh Southwest Cement Company - Permanente Plant: Fugitive Dust Control Plan**

To Whom It May Concern:

In agreement with the Bay Area Air Quality Management District (BAAQMD), the Fugitive Dust Control Plan (FDCP) at Lehigh Southwest Cement Company's Permanente Plant is designed to control fugitive dust emissions and their potential impacts on the environment and the surrounding community. The Plan consists of mitigation measures to control fugitive dust emissions generated by activities at the facility. The Plan outlines ways for preventing dust emissions, guidelines for training of employees, and procedures to be used during operations and maintenance activities.

This Plan does not address particulate or gaseous emissions form the kiln, cooler or other permitted point sources which are regulated under the plant's operating permits. Additionally, the plan is meant to work in conjunction with the Plant's *Operations and Maintenance Plan* (O&M Plan) per the *National Emission Standard for Hazardous Air Pollutants* (NESHAPs) requirements, the *Continuous Assurance Monitoring* (CAM) requirements, and current operating permit's regulations and requirements. The FDCP addresses fugitive dust emissions from material handling equipment and operations, non-point sources and area sources.

Please contact me with any questions or comments regarding this FDCP.

Sincerely,

Henrik Wesseling
Plant Manager
Lehigh Southwest Cement Company – Permanente Plant

cc: Brian Bateman – BAAQMD
John Marvin - BAAQMD
Thu Bui – BAAQMD
Scott Renfrew – LSCC Permanente Plant

Lehigh Southwest Cement Company
Permanente Cement Plant

Fugitive Dust

Control Plan

Prepared:
September 10, 2010
Revised:
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Fugitive Dust Control Plan

Introduction:

The Fugitive Dust Control Plan (FDCP) at the LEHIGH SOUTHWEST CEMENT COMPANY (Lehigh) – Permanente Plant consists of dust mitigation measures to control fugitive dust emission generated by activities at the facility and their potential impacts on the environment and the surrounding community. This plan does not address particulate or gaseous emissions from the kiln, clinker cooler, or other permitted point sources. The purpose of this plan is to establish and implement dust control measures to limit particulate emissions from material handling operations, non - point sources and area sources that may occur during operation and maintenance activities.

Preventing fugitive dust emissions is the prime objective. Some of the newest and most efficient pollution control equipment is being utilized at the Permanente Plant. This plan is intended to work in conjugation with Plant's *Operations and Maintenance Plan* (O&M Plan) per the *National Emission Standard for Hazardous Air Pollutants* (NESHAPs) requirements, the *Continuous Assurance Monitoring* (CAM) *Plan*, and current and future operating permit regulations and requirements

The FDCP is intended to provide guidelines for the implementation of control procedures and the creation of a training program at the cement plant, rock plant and quarries. The plan, upon acceptance by the Bay Area Air Quality Management District (BAAQMD) will further enable the facility to comply with the Bay Area Air Quality Management District's visible emissions regulation and Public Nuisance Rule. The FDCP outlines techniques and practices for monitoring and preventing dust emissions, guidelines for employee training, and procedures that can be used during operations and maintenance activities.

Fugitive Dust Control Plan

Background:

Site Location and Description:

Lehigh Southwest Cement Company's Permanente Plant is located on a 3600(+) acre parcel at 24001 Stevens Creek Blvd. in Cupertino, California (Figure 1). The property is located within an unincorporated foothill area of Santa Clara County, approximately 2 miles west of the City of Cupertino. The main access road to the facility is at the west end of Stevens Creek Boulevard. The nearest freeway is Interstate I-280, which lies approximately one mile to the north, or two miles from the main access gate by surface roads utilizing Foothill Boulevard.

The Portland cement manufacturing process at this site involves mining and processing of raw materials, raw material milling and kiln feed preparation, pyroprocessing, coal preparation, clinker cooling, and finish milling. Additionally, the site supplies the local market with commercial bulk and bagged Portland cement, and construction grade bulk aggregate materials. Local transportation of these materials, and incoming supply of fuel and raw materials utilized in the production of Portland cement, is predominately via bulk truck. Lehigh does not own or operate any of the bulk transportation trucks: these are owned and operated by the facility's customers or 3rd party independent contractors.

The facility area consists of gentle to steep terrain, and a series of ridges and valleys which build in elevation following a general east –west direction. Elevations range from about 500 to 2,000 feet above sea level. The prevailing climate conditions feature rainfall averaging between 20 – 25 inches annually, with the majority falling during the October – April wet season designation. Temperatures range from approximately 40 – 65 degrees Fahrenheit from November through April, and high 40's through high 80's during the remainder of the year. There is not a prevailing wind direction, and wind speeds rarely approach + 25mph except during winter wet weather conditions. The facility maintains a 10 meter metrological station on-site, sharing the data with BAAQMD. A wind rose pattern from 2008 indicates the site varied wind directions (Figure 3)

Site History:

The site's quarry has been in operation for over a century. A California State Geologist's report dated 1906 indicates that the quarry was in operation and producing limestone as early as 1903. In 1939, the quarry site and surrounding 1,300 acres were purchased by the Permanente Corporation, an enterprise headed by industrialist Henry J. Kaiser. The Permanente Corporation limestone mine and subsequent Portland cement facility supplied the major building supplies for the Shasta Dam. In the 1940s, the facility provided cement and limestone to support the U.S. Military effort in World War II.

After the war, the production levels for cement and aggregates remained and increased, and the Bay Area commercial and residential population swelled. The plant went through a major permitting and cement manufacturing modification from 1979 through 1982, utilizing high heat and energy efficient preheater / preacalciner rotary kiln cooler process technology. Additionally, the use of dynamic separators on the raw finish grinding circuits, in addition to a minimization of mobile transportation of materials, makes this facility a leader in cement quality energy efficiency.

The Permanente facility is strategically located within the San Francisco Bay Area Market, supplying the majority of the area's cement supplied. Lehigh, the current operator, accounts for an estimated 65% of all cement used in the Santa Clara County, 55% of all cement used in the Bay Area, and 18% of all cement used in Northern California.

Fugitive Dust Control Plan

SECTION I -- LOCAL AND STATE REGULATIONS APPLICABLE TO FUGITIVE DUST

In 2008, during initial discussions with BAAQMD pursuant to Title V operating permit renewal, Lehigh agreed to define and implement a FDCP for the Permanente Plant. This plan addresses sources of fugitive dust, lists control measures and actions that will reduce or minimize fugitive dust, and implements an employee training program to recognize potential sources of and best management practices to avoid fugitive dust occurrences.

The Plan was designated and designed to supplement the facility's Federal requirements for a NESHAPs O&M Plan and additional CAM applicability. The FDCP addresses fugitive dust emissions associated with material handling equipment, non – point and area sources.

I. BAAQMD Rules and Regulations

Note: The following District Rules and Regulations are enforced for the facility regardless of CEQA lead agency or Board approved project CEQA control requirements.

REGULATION 1 – General Provisions and Definitions

1-301 Standard

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

6-1-100 GENERAL

6-1-101 Description: The purpose of this Regulation is to limit the quantity of particulate matter in the atmosphere through the establishment of limitations on emission rates, concentration, visible emissions and opacity.

6-1-110 Exemption, Temporary Sandblasting Operations: Temporary Sandblasting operations are exempt from the provisions of this Rule. Such operations are subject to the provisions of Regulation 12, Rule 4.

6-1-111 Exemption, Open Outdoor Fires: The limitations of this rule shall not apply to emissions arising from open outdoor fires.

6-1-200 DEFINITIONS

6-1-201 Exhaust Gas Volume: The volume of gases discharged from an operation; or an emission point.

6-1-202 Particulate Matter: Any material which is emitted as liquid or solid particles or gaseous material which becomes liquid or solid particles at the testing temperatures specified in the Manual of Procedures, excluding uncombined water.

6-1-203 Process Weight: The total weight of all material introduced into an operation, excluding liquids and gases used solely as fuels, air which is not consumed as a reactant, and combustion air.

6-1-204 Process Weight Rate: A rate established as follows:

204.1 For continuous or long-run steady-state operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portions thereof.

204.2 For cyclical or batch operations, the total process weight for a period which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such period. Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this section, that interpretation which results in the minimum value for allowable emission shall apply.

6-1-300 STANDARDS

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 a 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.

Enforcement: The District has trained staff capable of performing a Visible Emissions Evaluation (VEE). VEE courses are offered to regulators and the regulated community (for a fee) at regular intervals by staff of the California Air Resources Board.

Fugitive Dust Control Plan

SECTION I -- LOCAL AND STATE REGULATIONS APPLICABLE TO FUGITIVE DUST

II. State Laws

California Health and Safety Code

Section 41700. Except as otherwise provided in Section 41705, 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 to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Section 41701. Except as otherwise provided in Section 41704, or Article 2 (commencing with Section 41800) of this chapter other than Section 41812, or Article 2 (commencing with Section 42350) of Chapter 4, no person shall discharge into the atmosphere from any source whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is: (a) As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subdivision (a).

California Vehicle Code

Section 23114 requires: No vehicle shall transport any aggregate material upon a highway unless the material is covered. Exception 23114(e) (4): Vehicles transporting loads of aggregate materials shall not be required to cover their loads if the load, where it contacts the sides, front, and back of the cargo container area, remains six inches from the upper edge of the container area, and if the load does not extend, at its peak, above any part of the upper edge of the cargo container area. For purposes of this section, "aggregate material" means rock fragments, pebbles, sand, dirt, gravel, cobbles, crushed base, asphalt, and other similar materials.

SECTION II – Sources and Controls

I. Potential Sources of Emissions

Facility activities that have the potential to generate fugitive dust emissions include but are not limited to the following:

- Material Stockpiles – Stockpiles of delivered fuels and raw materials, of intermediate limestone and cementious materials, overburden, and of finished aggregate materials may contribute to windborne dust emission.

- Active Areas – areas that are in process of being excavated or quarried, where soils or rock are being removed, or areas that are being graded for reclamation

- Materials handling stationary equipment – conveyor belts, transfer points, crushers, and material screens have the potential to emit fugitive dust.

- Inactive Areas – areas that have been excavated, where soils or rock have been removed, or areas that have been graded for reclamation.

- Mobile equipment on paved and unpaved roads – movement of personnel or material mining equipment on paved or unpaved roads has the potential to produce fugitive emissions.

- Fine material transportation – the loading / unloading and transportation of fine material via mobile equipment may cause fugitive emissions.

- Track-out – truck or other road accessible vehicles may carry dry or wet and mudding material outside the facility. This material may spill onto public roadways, causing fugitive dust emissions.

- Maintenance activities – accessing de-energized equipment for preventive maintenance activities may allow release of fine material into the atmosphere. This material may lead to wind borne fugitive dust emissions.

- Housekeeping and materials cleanup – fine material that may accumulate in, around and under moving machinery needs to be cleaned up. The actions used in the cleanup procedures, including: clearing, shoveling, loading into / out of transporting equipment, disposal or reuse, could lead to fugitive dust emissions

Fugitive Dust Control Plan

SECTION II – Sources and Mitigations

II. Fugitive Dust Mitigation Control Measures

This section presents mitigation measures to control sources of fugitive dust.

1. Disturbed open areas and unpaved roads – Fugitive dust emissions from disturbed open areas and unpaved roads will be controlled with the following mitigation measures. Inactive areas are defined as areas not having vehicular traffic for more than 7 days.

    a) Accessed open areas and unpaved roads shall be watered, as needed, to maintain adequate wetness.
    b) At inactive areas, the exposed soils will be stabilized by the use of water, aggregate and / or approved non-toxic soil stabilizers.
    c) At inactive areas, limit vehicular access to these designated areas through the use of signage and vehicular access barricades.
    d) Reestablish ground covering on the disturbed area as soon as possible through use of aggregates, berms or permanent blockage in combination with hydroseeding or seeding and watering.
    e) Use of aggregated material to control and stabilize soil in limited vehicular locations.

2. An operational water truck will be onsite at all times to prevent fugitive dust emissions.

    a) Apply water to control dust frequently or as needed to prevent visible emissions and offsite dust impacts from all mining, aggregate and cement plant operations.
    b) Water truck operations may be curtailed during wet and incumbent weather.
    c) Plant will incorporate a daily District approved log of all water truck operations including date, time, locations and activities.

3. Active Storage Piles – Fugitive dust emissions from active storage piles will be controlled with the following mitigation measures. NOTE: material may be defined as "dry" with less than 5% moisture content. Fine material may be defined as "fine" if fugitive dust emission may occur from wind speeds in excess of 10 mph.

    a) Fine, dry material will be covered and have wind breaks installed. This type of material is not available for water dust suppression due to negative quality association with water.
    b) Water and/or soil stabilizers will be employed to reduce windblown dust fugitive emissions. Water may be supplied by mobile water truck operations and / or temporary / permanent water spray equipment.

c) In areas around the storage piles, the soils will be stabilized by the use of water, aggregate and / or approved non-toxic soil stabilizers.

4. All transfer processes involving a free fall of any mined, purchased or manufactured materials – these operations / processes may involve material pile addition / reclamation utilizing fixed or mobile equipment. Examples are stockpiling from belt (tripper) conveyors, front end loading of materials to vehicular transport and bin transfer to vehicular transport. Fugitive dust emissions will be controlled with the following mitigation measures.

   a) Drop heights will be minimized when dropping any mined, purchased or manufactured materials. This is a practice for all front end loaders transferring materials for mobile transportation (quarry haul truck, transfer truck, bulk truck).
   b) Incorporate wind breaks, enclosures, and area covers.
   c) Installation of temporary or permanent water sprays systems.
   d) For infrequent material transfer operations, water truck may be incorporated to increase material moisture content and / or suppress fugitive dust emission from transfer operation.
   e) Hepa filter vacuum available for vacuuming of any spilled cement powder (fine material) during cement bulk loading operations into mobile equipment.

5. Track-out Prevention and Control

   a) Wheel and vehicle washers are installed where customer vehicles and/or equipment, if they traveled on unpaved roads, must pass prior to exit onto public paved streets.
   b) Company vehicles and/or equipment shall be washed prior to each trip onto public paved streets.
   c) Where customer vehicles and/or equipment do not travel on unpaved roads, an optional vehicle wash is installed and available.
      - These washers are located on-site near the guard gated entrance / exit at 24001 Stevens Creek Boulevard, Cupertino, CA 95014.
   d) Any visible track-out on the paved roadway between the plant entrance and the facility boundary will be removed using a street sweeper on a daily basis.

6. Paved plant and public roads shall be swept frequently.

   a) 3rd party street sweeper utilization on Steven Creek and Foothill Boulevards on a weekly or more frequent basis as needed.
   b) Material (cement, aggregate limestone, other) cleanup of all facility paved roads will be maintained using a facility-owned street sweeper.
      - Emphasis on plant entrance / exit and corridors and those areas frequently by vehicles that travel off site: bulk transfer trucks, employees, visitors.

7. Minimize, maintain and enforce vehicle traffic speeds on paved and unpaved roads, or any other location within the facility.

    a) Speed limit is a maximum of 15 mph at any and all facility locations.
    b) Stevens Creek posted 25 mph truck speed limit posting on Stevens Creek Boulevard.
    c) The facility has equipped and maintains video and photographic monitoring, and speed sensors. All visitors and employees must abide by the posted speed limits.
    d) Provide appropriate training, onsite enforcement, and signage.
    e) For customers or visitors who are deemed to be travelling in excess of posted speed limits, the following actions are taken in progressive order: 1) warning, 2) facility access limited, and then 3) facility access denial.
    f) For employees who are deemed to be travelling in excess of posted speed limits, the following actions are taken in progressive order: 1) warning, 2) progressive discipline up to and including termination.
    g) Contractors and subcontractors who are deemed to be travelling in excess of posted speed limits, the following actions are taken in progressive order: 1) warning, and then 2) site removal with access denial.

8. Quarries

    a) Blasting shall not occur if hourly averaged wind speeds are 25 mph or greater...
    b) Quarried and graded materials shall be kept adequately wet to minimize airborne dust.

9. Material handling equipment – the facility employs a variety of dust mitigation techniques to prevent fugitive dust, such as spray bars on conveyors and shrouds on drop points.

    a) At the start of each shift or material handling equipment startup, the operators shall access the operational status of the water spray abatement equipment or confirm the materials are sufficiently wet as to not require water spray abatement and shall record these determinations in a District-approved log.

10. Housekeeping and material cleanup
    a) All housekeeping activities are to be performed so as to minimize fugitive dust emission.
    b) Plant personnel will be trained on techniques and Best Management Practices (BMPs) to avoid fugitive dust emissions.

Fugitive Dust Control Plan

SECTION III -- TRAINING

PURPOSE

Training of employees (company employees, contracted and subcontracted personnel) is an ongoing task. Employees frequently encounter new procedures and skill requirements. On some occasions, employees need to receive a refresher or reminder of proper procedures. Training will enhance each employee's job skills, especially those that involve safety and avoidance of dust emissions.

Training will deal with specific tasks/skills, addressing the specific problems associated with the job assigned to the employee, as opposed to the general approach taken in the sessions dealing with education. Education is attitude development. Training is skill development.

Many of the tasks that are outlined refer to the PM (Preventive Maintenance – Maintenance Work Order). Not all the tasks are listed in this program; however, many of the required checks and procedures are spelled out in the PM. A general outline is established which can be used on any selected task.

SCOPE

Training will point out specific pieces of equipment, operating procedures and activities which can cause dust emissions. It will outline steps to follow when considering a task which may create dust emissions. It will prescribe procedures to take when performing these tasks.

TASK/SKILL: Reporting a Dust Emission.

TAUGHT TO: All employees.

OBJECTIVE: The employee will take action when sighting a dust emission by contacting the Control Room Operator (CRO) and/or his/her supervisor or other management personnel.

INSTRUCTIONS:

Point out to the employee that when a dust source cannot be arrested or corrected by simple means, it should be reported as soon as possible. The report should be made to the Control Room where it will be logged. The employee may report the dust emission to his/her supervisor or any other management personnel who will see that it is recorded in CRO Operators Log.

A dust source should never be ignored. It should be reported, even if the employee thinks that someone else has reported the same source earlier.

The employee should be sure to provide the following information when reporting a dust emission:

- Location - Where, in the plant, the rock plant or the limestone quarry is the dust emission? Is it continuous or intermittent?

- Source - What piece of equipment is causing the emission? Can you name it? Use equipment numbers when possible, i.e. the 6-BC-13 Clinker Conveyor Belt at the south transfer point. This will help the Control Room Operator to select which department should be alerted. By doing so, the problem can be corrected as soon as possible.

- Suggestions - What is the problem? Have you tried to correct the problem? What type of maintenance/repair is required?

Remember, when reporting a dust emission contact the CRO, by radio or telephone, or the Shift Supervisor, and tell him the location of the emission, what piece of equipment is the source and what suggestions you have to stop the emission.

TASK/SKILL: Receiving Dust Emission Reports.

TAUGHT TO: Control Room Operators, Shift Supervisor, And Supervisory Staff.

OBJECTIVE: The Control Room Operator (CRO) who receives a dust emission report will record it in the Operators Log and will convey the information to the appropriate Department Supervisor and Shift Supervisor for the action needed to suppress the dust emission.

INSTRUCTIONS:

All employees should be made aware of the reporting procedure. It is as follows:

1. All fugitive dust emission events should be reported to the Control Room Operator (CRO) or a supervisor.

2. The Control Room Operator (CRO) or supervisor will contact the appropriate or assigned Department Supervisor responsible for the corrective actions. This should always include the Shift Supervisor.

3. The Control Room Operator (CRO) will make a notation in the Operators Log. It should include: the name of the person reporting; the time and location; and what action was taken. The Shift Supervisor or Department Supervisor will also make an entry into their

daily log, commenting on the origin and corrective action taken for each of the dust emissions reported.

4. The Quarry and Rock Plant Departments will report incidents to the Control Room Operator in addition to that department's supervisor.

TASK/SKILL: Initiating Appropriate Action for the Correction of Dust Emissions.

TAUGHT TO: Shift Supervisor, Quarry Supervisor, and Rock Plant Supervisor.

OBJECTIVE: The Supervisor will contact the appropriate Department Supervisor and request that the necessary action be taken to correct or arrest the dust source.

INSTRUCTIONS:

The Supervisor will convey the information provided by the person who made the initial report to the appropriate Department Supervisor. It may be necessary to contact more than one department. The Department Supervisor should then dispatch the personnel needed to correct the dust problem.

Thorough instruction should be given to the persons who will be responsible for correcting the dust problem. All precautions should be taken to insure that said action will not worsen the situation. If necessary, the equipment should be taken out-of-service and a work order prepared which would specify what actions are required to correct the problem.

TASK/SKILL: Examination of the Operator Logs.

TAUGHT TO: Environmental Department / Production Department.

OBJECTIVE: Environmental / Production Departments to review Operator Logs

INSTRUCTIONS:

The Environmental / Production Departments have the responsibility of acting as an advisor on specific dust control problems and will act to coordinate on extensive and follow-up procedures. The Environmental / Production Departments will utilize the Supervisor meetings for communication with various supervisors.

TASK/SKILL: Reporting an Upset-Breakdown to the District.

TAUGHT TO: Plant Manager, Rock Plant Supervisor, Quarry Supervisor, Control Room Supervisor, Shift Supervisor, and Environmental / Production Departments.

OBJECTIVE: Persons responsible for reporting upset-breakdown / deviations will do so subsequent to examination of dust emissions related to breakdown / deviation conditions.

INSTRUCTIONS:

The decision to report an upset breakdown / deviation will be made by the Environmental Department and / or Control Room Supervisor (during normal business hours, Monday – Friday) or the Shift Supervisor (when the Control Room Supervisor / Environmental Department are not at the plant). The Quarry Supervisor and Rock Plant Supervisor will contact the Environmental Department / Control Room Supervisor or Shift Supervisor if a breakdown / deviation occurs in their department. If any employee has a question about an occurrence, he or she should contact the appropriate supervisor. Because upset breakdown / deviation conditions must be reported to the District in a timely manner, it is necessary to contact the appropriate person as soon as is reasonably possible after any such condition is observed.

TASK/SKILL: Abating a Point Source Emission - Emergency Shutdown.

TAUGHT TO: All Plant Personnel.

OBJECTIVE: The employee will take the necessary steps required to remove a piece of equipment emitting dust from service.

INSTRUCTIONS:

No piece of equipment should be removed from service without first consulting the Control Room Operator, Shift Supervisor and / or appropriate supervisor. A procedure for emergency shutdown has been outlined in the SOP for the Control Room Operator's. Failure to follow established shutdown procedures could cause emissions to occur or to become worse.

TASK/SKILL: Operating Mobile Equipment.

TAUGHT TO: All Plant Personnel.

OBJECTIVE: Employees will operate mobile equipment in a manner which will minimize fugitive dust emissions.

INSTRUCTIONS:

Operating a vehicle in an environment where fugitive dust can be created requires the operator to exercise special concern. It is the operator's responsibility (1) to operate the vehicle so as to minimize the amount of dust created by the vehicle; (2) to avoid areas laden with fugitive dust;

and (3) to report dust problems to the Control Room Operator or his/her supervisor, as outlined previously and the supervisor should call for the water truck to wet the area down.

TASK/SKILL: Transporting Fine Dry Materials.

TAUGHT TO: Mobile Equipment Operators.

OBJECTIVE: Mobile Equipment operators will exercise precaution while transporting fine materials.

INSTRUCTIONS:

When transporting fine, dry material that may contribute to or be a possible fugitive dust emission, operators must take special care to insure that excessive dust is not emitted from the vehicle or vessel containing the material being transported. When operating a haul truck check that the load is minimized, thereby reducing the chance that material spills may occur. Material spills spread out along the road may cause fugitive dust as a result of the subsequent vehicular traffic. Wet the load down if possible. Check that the dust abatement system on the belt conveyor unloading system is activated when raw, fuel and / or cementious materials. Check that skirting and suppression systems are in place while loading the haul truck. Operate the haul truck at a slow-to-moderate speed to prevent airborne dust.

All mobile equipment operators should take precautions. When loads are laden with fine, dry material, the operator should travel at a speed that helps to reduce the generation of airborne dust to a minimum. When transporting bins or hoppers care should be taken to insure that the hopper or bins are not too full; when possible, wet the load down. When mobile equipment is used to transfer fin material, drop heights should be limited to minimize visible emissions.

TASK/SKILL: Housekeeping.

TAUGHT TO: All Plant Personnel.

OBJECTIVE: Employees will exercise a conscious effort to reduce fugitive dust in the work place.

INSTRUCTIONS:

The need for housekeeping is ever present so that material does not accumulate and become a problem. When cleaning up a work area after a job has been completed take time to stack the material so that it is out of the way. This will prevent material from being scattered and creating "tripping" hazards. However, be sure to place the material in a location that is accessible to the machinery and equipment used to finish the cleanup job. If, for example, a bobcat / skid steer front-end loader may be used to do the final material transportation, place the pile in an area

where it will not have to move it more than twice. When the material has been accumulated, have it picked up and disposed of as soon as possible. Scrap material piles have a tendency to collect dust and are soon a source of dust, instead of just a pile of "junk."

It is important to have this material cleaned up as soon as possible. It is not acceptable to wash this material down with excessive amount of water. In accordance with our storm water requirements we must eliminate excessive runoff, erosion, and washing dust or settlements down the drains.

TASK/SKILL: Shoveling and Sweeping.

TAUGHT TO: Laborers, Process Utility, Packhouse, Quarry, and Rock Plant.

OBJECTIVE: Employees will exercise caution when shoveling or sweeping dust and dust-laden materials.

INSTRUCTIONS:

Inform the employee that moving dust while using a shovel and broom requires care if the "fugitive dust" is to be kept at a minimum. The employee should not throw the dust from the shovel into a container or onto a lower work level; nor should the employee sweep so briskly that it creates airborne dust. Care in shoveling and sweeping can reduce a substantial amount of dust. After material has been accumulated into piles, it should be picked up as soon as possible. Material piles should not be left in the walkways and driveways where it can be scattered by passing pedestrian and vehicular traffic.

Material/dust spills in high places should never be tossed over the side. Containers should be used to lower the material or the vactor or sweeper should be utilized. To help eliminate material from entering the drains, please run the vactor or sweeper before utilizing the water truck.

TASK/SKILL: Preventive Maintenance (PM) Inspection/Service.

TAUGHT TO: All Plant Personnel.

OBJECTIVE: Employees who perform PM inspections and/or servicing will use the procedures outlined on the PM Task Sheet and in the "EMPLOYEE AWARENESS PROGRAM," Section III - Training, TASK/SKILL: Equipment Maintenance.

INSTRUCTIONS:

Each piece of dust control equipment or material transport equipment is potentially a dust source. When such pieces of equipment are inspected or serviced they should be examined for dust emissions. The schedule for examining the equipment is noted on the PM Task Sheet sent out each week. There is a procedure outlined on the Standard Description attached to the PM Task Cover Sheet. The employee performing the inspection or service should review the procedure. Should a point source or fugitive dust problem exist, it should be reported, as outlined previously, and noted on the PM Task Cover Sheet.

TASK/SKILL: Equipment Maintenance.

TAUGHT TO: Dust Collector Personnel, Belt Person, Instrumentation, Electricians, Welders, Mechanics, Machinists, and Repair Personnel.

OBJECTIVE: Employees will take into consideration those aspects of the task that could cause "dust emissions."

INSTRUCTIONS:

When performing routine service or periodic or scheduled repair, one of the employees' responsibilities is to prevent fugitive dust. Before beginning any job an employee should, after taking into consideration all safety requirements and material needs, look at the task and determine if there is a dust source. If there is a possibility that dust may be generated, the employee should ask, "What precautions can be taken?" Each of the following tasks is a dust source. Take the appropriate actions to prevent "fugitive dust."

Elevator Inspection/Service -

1. Check that unit is locked out or in local mode, depending on the service being performed.
2. Check that the elevator is empty before opening any access doors.
3. Clean any material buildup from around doors. Use care not to create fugitive dust. Use a vactor if available.
4. Do not operate elevator at a rapid rate without doors in place. Use the jog button only.
5. When securing doors, check that they seal well. Use sealing material, such as silicone, to obtain a good seal.
6. Start equipment and check seal. Correct if needed.

Bin or Hopper Entry -

1. Check that the bin or hopper is empty before opening any doors or gates.
2. Clean any material buildup from around the doors and hoppers. Use a vactor if available.
3. Remove any material buildup near the door that will be used for bin entry. Use a vactor if available.
5. Wear appropriate respiratory equipment when entering bins and hoppers.

6. When securing doors check that they seal well. Use sealing material, such as felt, rubber, or silicone.
7. Start equipment and check for leaks.

Feed and Conveyor Screws -

1. Check that equipment is properly locked out.
2. Remove appropriate covers.
3. If possible, remove material from screw with vactor before pulling out the screw flight. If excessive spillage is expected, or if the material is hot and cannot be removed with a tractor, refer to the task - "Managing Dust During a Breakdown" and follow those procedures.
4. Make the necessary repairs.
5. Secure lids on the conveyor or feed screw. Do not leave lids off of the screws. Be sure to use proper sealing materials to insure a good seal on the lids or covers.

Airslides -

1. Check that the equipment is properly locked out.
2. Remove covers. Be certain that the area around the covers has been cleaned so that fugitive dust will not occur during repair of the device.
3. Remove the covers. Extract the material in the airslide by using the vactor if possible. If excessive spillage is expected, or if material is too hot to handle, refer to this task - "Managing Dust During a Breakdown."
4. Never blow an airslide out with a compressed airline. This would also apply to any other piece of dust-conveying equipment.
5. Since many of the airslides in the plant are in high places, take care not to allow the dust to cascade over the floor deck or through the grated floor plates.
6. Perform repairs.
7. Secure lids or covers. Use proper sealing material.

Bins, Hoppers, Pneumatic Transport Lines -

1. Shut down conveying equipment if possible. If line can be taken out-of-service, perform complete repair or replacement. If a line cannot be taken out-of-service, place a patch over the hole and secure it in place using duct tape.
2. Repair the damaged line or replace it with a new one. Take care to empty the line before replacing.
3. Secure the line in place, insuring that proper gaskets and seals are used at each joint if required.
4. Place the line into service and check for leaks.

Managing Dust During a Breakdown –

Since breakdowns are unplanned events, it is quite possible that the dust conveying system, whether it be a drag chain, elevator, screw, airslide, belt, chute or pneumatic transport line, could be filled with material when a breakdown occurs. In some instances, this material is extremely hot. Failure to take immediate action could result in extensive damage or create a hazardous

situation. The prudent action at this time is to empty the conveying line. This does not relieve the employee of the responsibility to minimize the impact of the dust spill into the environment. Because each case is different, specific instructions cannot be given for every incident in advance. If it becomes necessary to empty a conveying system, the following actions should be taken:

1. Consider all options before taking action. The decision to empty a conveying system should be made after consultation with the Shift Supervisor and/or Production Manager. In cases where the decision is to be made by the Quarry Supervisor or Rock Plant Supervisor, the Environmental Department should be consulted prior to emptying any system or device. Immediate action should be taken to prevent equipment damage.

2. Minimize the impact on the environment by considering such items as:

   - Time of day. If the material can be emptied during day shift there is a larger workforce available to manage the spill.
   - The available equipment. It is always best to have equipment on hand that will be needed to clean the spill. In some cases, the water truck or vactor is all that may be required.
   - The size of the crew. The plant operates on a tight manpower basis. A skeleton crew may not be enough to manage a large spill. Consider calling out additional help.

3. Contain the spill. If possible, place the material in containers, such as a bin, a barrel or a bag. On large spill areas it may be necessary to construct a barrier or windbreak to keep the material within a designated space until a cleanup crew or a piece of cleanup equipment is available. Wet the fine material down with water, if possible, or cover small piles with plastic or other suitable material.

4. Monitor the activity. If emptying the conveying system constitutes an excessive emission it should be reported. Reference TASK/SKILL: Reporting an Upset-Breakdown to the District, outlined previously.

Material spills are undesirable. Good preventive maintenance will minimize the number of times breakdown spills will occur.

Fugitive Dust Control Plan

SECTION IV -- OPERATION AND MAINTENANCE PROCEDURES

PURPOSE

An Operation and Maintenance Procedures outline is an essential part of an effective Dust Control Program. There are some specific tasks that require special handling, such as evacuation of material from bins or hoppers, purging transport lines, and bag and filter medium removal from dust collectors. Most of these tasks are performed on a regular basis. These tasks are outlined in the "PREVENTIVE MAINTENANCE PROGRAM FOR DUST CONTROL AT LEHIGH SOUTHWEST CEMENT COMPANY - PERMANENTE PLANT" Some other specific tasks are outlined in Section II - Training.

This section of the program is intended to provide general information for procedures involving possible dust emissions. Specific guidelines can be found in maintenance manuals and in Department SOP's.

SCOPE

This program is designed to provide a general outline or guide for dust control during operation and maintenance activities. The guidelines will include: methods of monitoring, provisions for detection of airborne dust, provisions for reporting and correcting dust emissions, and directions on how to clean up after a spill.

MONITORING -

During operations, equipment will be monitored on a regular basis. The frequency of the monitoring will be based on each piece of equipment's operating history. The information collected on the PM Notification is submitted to the Maintenance Department, which will input pertinent information into the PM work order system. Thus the history of each piece of equipment will be recorded.

DETECTION -

Detection of airborne dust is everyone's job. Dust sources can be classified as either "point source" or "fugitive dust" emissions. "Point source" emissions are emissions from a specific "point," such as a dust collector discharge duct. They may be the result of damaged or faulty equipment or carelessness in operation of said equipment. The key to minimizing point source emissions is early detection. Early detection will result from PM inspections, routine Departmental tours by operators and management and by observant employees performing their regular tasks.

"Fugitive dust" is defined, for the purpose of this program, as dust which has no specific "point source." This type of dust usually is a result of wind blowing, vehicular or pedestrian traffic, malfunctioning dust collection equipment or poor/dirty work habits. Fugitive dust is difficult to control. There are, however, a number of ways to correct and prevent fugitive dust.

Once again, the key to controlling dust is detection. A detailed outline of the reporting procedures can be found in this program under Section II - Training, TASK/SKILL: Reporting a Dust Emission.

CORRECTION -

Point source and fugitive dust emissions are to be corrected as soon as possible. In some instances, shutting down a piece of equipment will be necessary; at other times, closing a hatch, sealing a hole or just sweeping up a pile of dust is all that is required for correction.

Equipment shutdown and procedures for sealing ports and doors are covered in Section II - Training, TASK/SKILL: Equipment Maintenance.

REPORTING -

It is necessary to report fugitive dust emissions resulting from maintenance and/or servicing activities. The same rules apply as shown in Section II - Training, TASK/SKILL: Reporting a Dust Emission.

CLEANUP -

Prompt cleanup after an operational spill or maintenance job is the first line of defense in preventing fugitive dust emissions. The second line of defense is containment. If an employee realizes that a certain amount of material will be spilled, that employee should take immediate steps to contain such a spill, thereby, reducing the manpower and equipment needed to perform the cleanup. This also prevents fugitive dust.

Fugitive Dust Control Plan

Appendix: Figures

4. Regional Location Map
5. Vicinity Location
6. Wind Rose Diagram

Figure 1 Regional Location Map

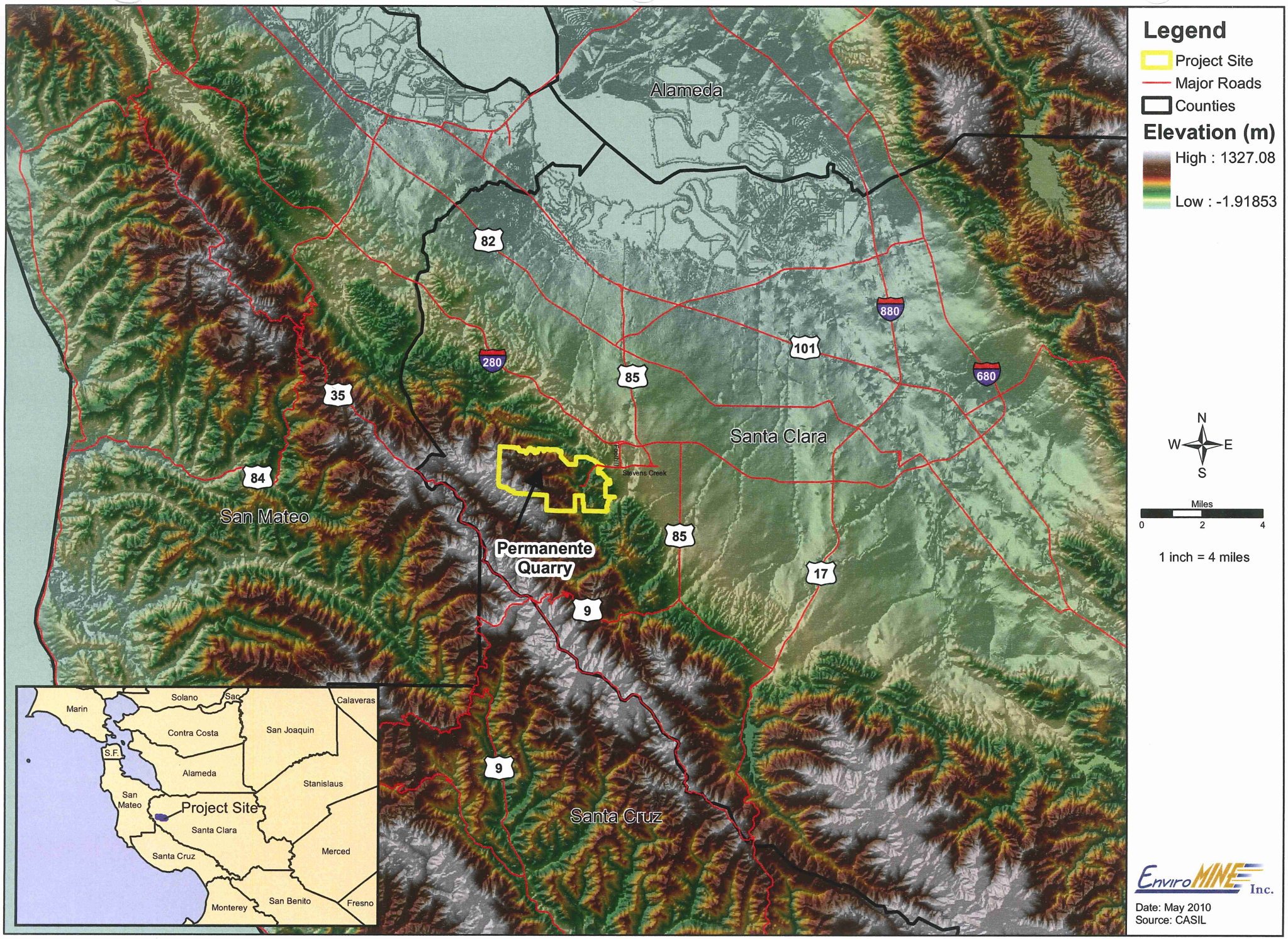
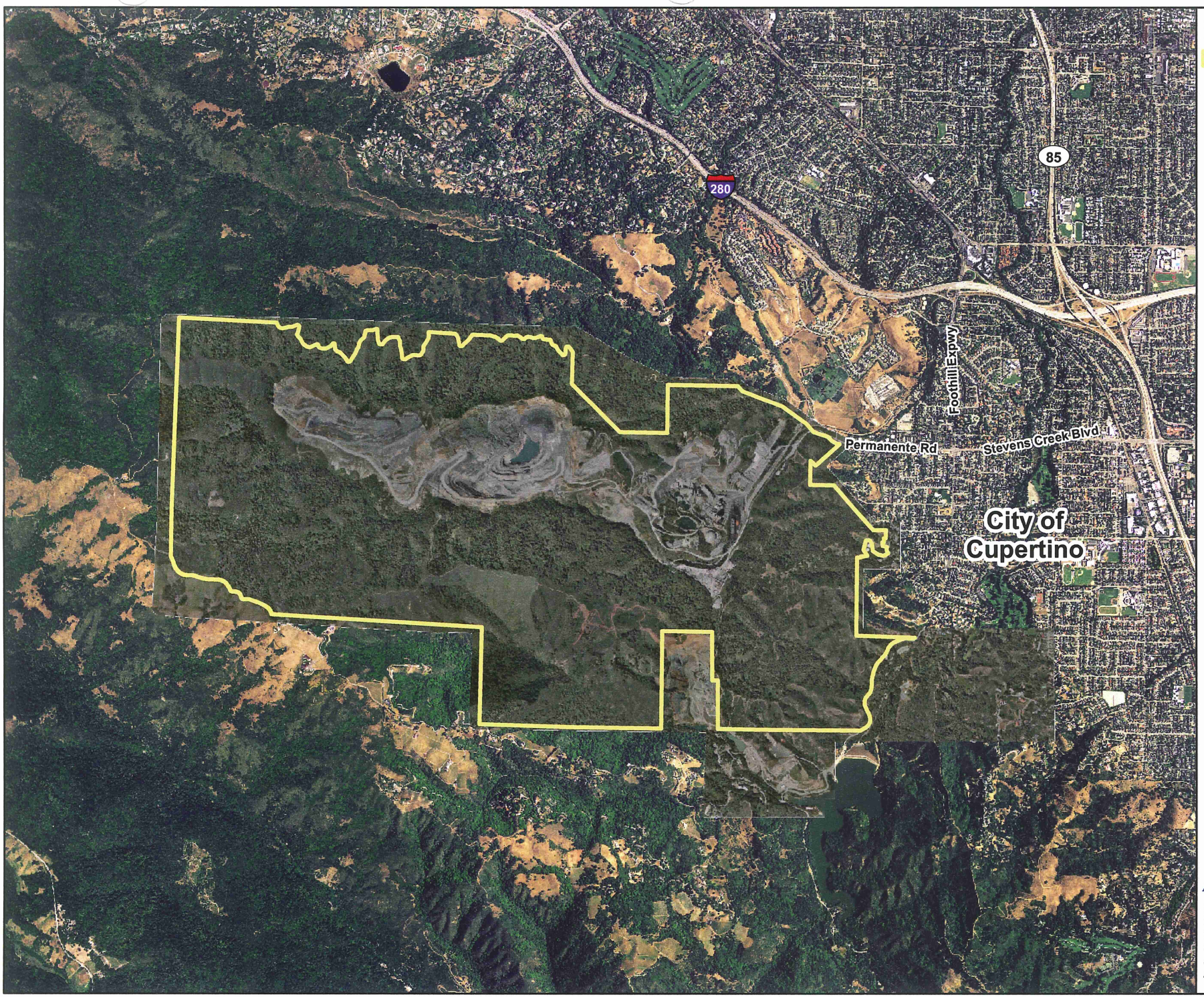


Figure 2 Project Location



Legend

Property Boundary

N
W E
S

Feet
0 1,750 3,500

1 inch = 3,500 feet

EnviroMINE Inc.

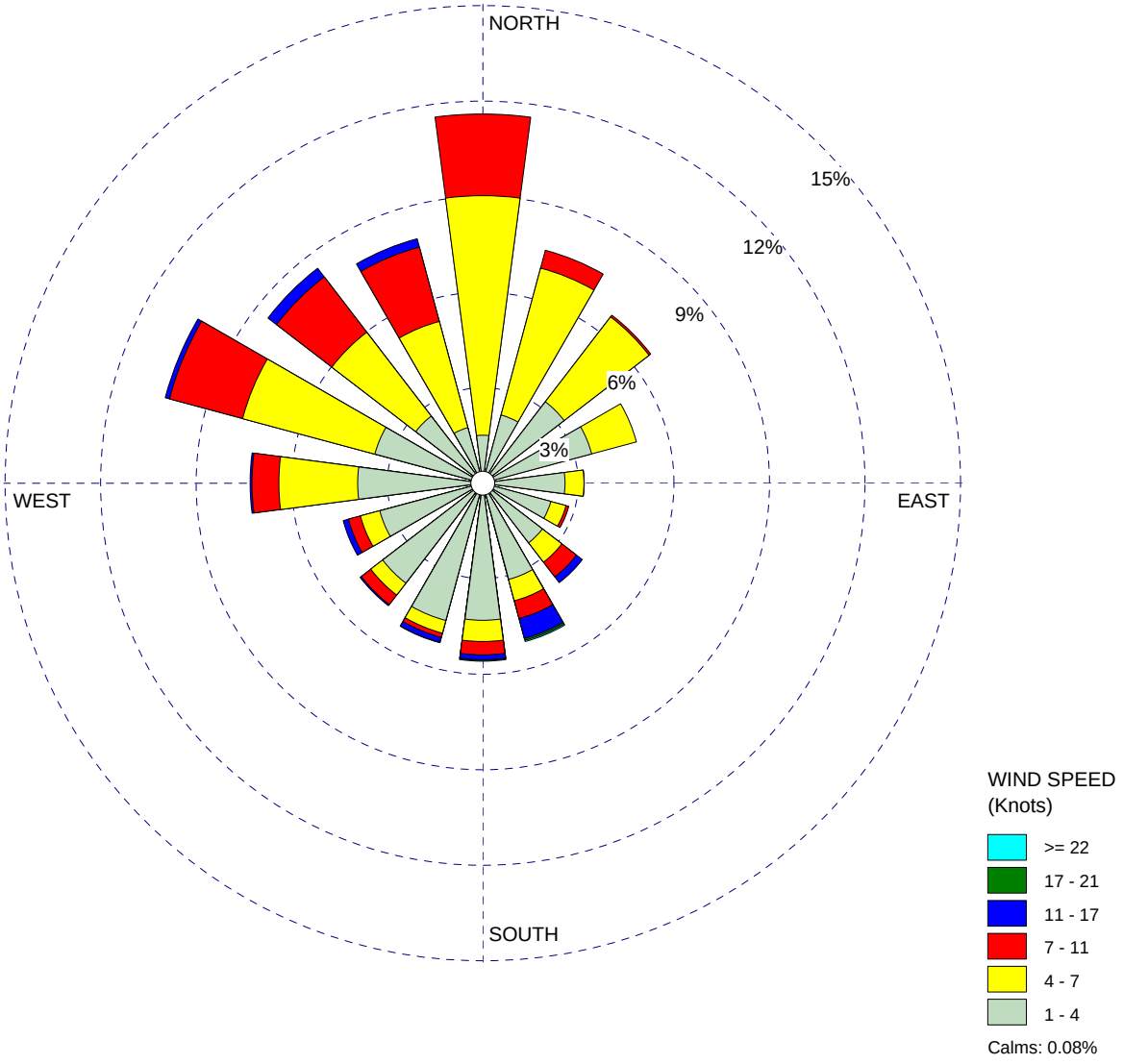
Date: May 2010
Project Area: Lehigh
Property Boundary:
Surveyed by Dunbar
and Craig Land Surveys
Aerial: April 2007, HJW
2005, USDA NAIP

WIND ROSE PLOT:

Lehigh Permanente Meteorological Station
Wind Rose Plot for 2008 Wind Data

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **2008 Jan 1 - Dec 31 00:00 - 23:00**	COMPANY NAME: **Prepared By: Ashworth Leininger Group**	
		MODELER:	
	CALM WINDS: **0.08%**	TOTAL COUNT: **8769 hrs.**	
	AVG. WIND SPEED: **4.58 Knots**	DATE: **1/17/2011**	PROJECT NO.: