Appendix A

Proposed Regulation Order
Asbestos Airborne Toxic Control Measure for
Construction, Grading, Quarrying, and Surface Mining Operations

PROPOSED REGULATION ORDER

ASBESTOS AIRBORNE TOXIC CONTROL MEASURE FOR CONSTRUCTION, GRADING, QUARRYING, AND SURFACE MINING OPERATIONS

Adopt new section 93105, title 17, California Code of Regulations, to read as follows:

Section 93105. Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations.

(a) Effective Date.

(1) No later than 120 days after the approval of this section by the Office of Administrative Law, each air pollution control and air quality management district must:

(A) Implement and enforce the requirements of this section, or

(B) Propose their own asbestos airborne toxic control measure as provided in Health & Safety Code section 39666(d).

(2) *Pre-existing Operations*: The owner/operator of any project in which the construction, grading, quarrying, or surface mining operation started before the effective date of this section shall comply with this section by:

(A) The date the district begins implementing and enforcing this section as required in subsection (a)(1)(A); or

(B) The compliance date specified in the airborne toxic control measure adopted by the district as required in subsection (a)(1)(B).

(b) Applicability. Unless one of the specific exemptions specified in subsection (c) applies, this section shall apply to any construction, grading, quarrying, or surface mining operation on any property that meets any of the following criteria:

(1) Any portion of the area to be disturbed is located in a geographic ultramafic rock unit; or

(2) Any portion of the area to be disturbed has naturally-occurring asbestos, serpentine, or ultramafic rock as determined by the owner/operator, or the Air Pollution Control Officer (APCO); or

(3) Naturally-occurring asbestos, serpentine, or ultramafic rock is discovered by the owner/operator, a registered geologist, or the APCO in the area to be disturbed after the start of any construction, grading, quarrying, or surface mining operation.

(c) General Exemptions.

(1) *Geologic Evaluation*: The APCO may provide an exemption from this section for any property that meets the criterion in item (b)(1) if a registered geologist has conducted a geologic evaluation of the property and determined that no naturally-occurring asbestos, serpentine, or ultramafic rock is likely to be found in the area to be disturbed. Before an exemption can be granted, the owner/operator must provide a copy of a report detailing the geologic evaluation to the APCO for his or her consideration.

(A) At a minimum, the geologic evaluation must include:

1. A general description of the property and the proposed use;

2. A detailed site characterization which may include:
   i. A physical site inspection;
   ii. Offsite geologic evaluation of adjacent property;
   iii. Evaluation of existing geological maps and studies of the site and surrounding area;
   iv. Development of geologic maps of the site and vicinity;
   v. Identification and description of geologic units, rock and soil types, and features that could be related to the presence of ultramafic rocks, serpentine, or asbestos mineralization;
   vi. A subsurface investigation to evaluate the nature and extent of geologic materials in the subsurface where vertical excavation is planned; methods of subsurface investigation may include, but are not limited to borings, test pits, trenching, and geophysical surveys;

3. A classification of rock types found must conform to the nomenclature based on the International Union of Geological Science system;

4. A description of the sampling procedures used;

5. A description of the analytical procedures used, which may include mineralogical analyses, petrographic analyses, chemical analyses, or analyses for asbestos content;

6. An archive of collected rock samples for third party examination; and

7. A geologic evaluation report documenting observations, methods, data, and findings; the format and content of the report should follow the Guidelines for Engineering Geologic Reports issued by the State Board of Registration for Geologists and Geophysicists.

(B) The district may request any additional tests or other information needed to evaluate an application for exemption.

(C) The district shall grant or deny a request for an exemption within 90 days of the receipt of a complete application.

(D) If the request for an exemption is denied, the APCO shall provide written reasons for the denial.

(E) *Expiration of the Geologic Exemption:* If the owner/operator discovers any naturally-occurring asbestos, serpentine, or ultramafic rock in the area to be disturbed after the exemption is granted, then:

1. The owner/operator must comply with the requirements of this section;

2. The owner/operator must report the discovery of the naturally-occurring asbestos, serpentine, or ultramafic rock to the APCO no later than the next business day; and

3. The exemption under (c)(1) shall expire and cease to be effective.

(2) *Agriculture and Timber Harvesting*: This section shall not apply to agricultural operations or timber harvesting except for construction of roads and buildings. Construction of roads and buildings is subject to the requirements of subsection (d).

(3) *Homeowners and Tenants*: Individuals engaged in covered activities on property they own or occupy are exempt from subsections (e)(1) and (e)(3)(A).

(4) *Sand and Gravel Operations*: The APCO may provide an exemption for crushing, screening and conveying equipment, stockpiles, and off-site material transport at a sand and gravel operation if the operation processes only materials from an alluvial deposit.

(A) The district shall grant or deny a request for an exemption within ninety (90) days of the receipt of a complete application.

(B) If the request for an exemption is denied, the APCO shall provide written reasons for the denial.

(d) Requirements for Road Construction and Maintenance. These requirements shall apply to roads that are not part of a construction or grading project, quarry, or surface mine.

(1) No person shall conduct any road construction or maintenance activities that disturb any area that meets any criterion listed in subsections (b)(1) or (b)(2) unless:

(A) The APCO is notified in writing at least fourteen (14) days before the beginning of the activity or in accordance with a procedure approved by the district;

(B) Dust control measures sufficient to prevent the emission of visible dust to the ambient air during any activity that disturbs the ground are implemented;

(C) Unpaved areas subject to vehicle traffic are kept adequately wetted;

(D) The speed of any vehicles traveling across unpaved areas is no more than fifteen (15) miles per hour; and,

(E) Vehicles that have traveled across unpaved areas pass across a track-out prevention device before resuming travel on a paved public roadway.

(2) No person shall conduct any road construction or maintenance activity that disturbs the ground surface in an area that meets the criteria in subsection (b)(3) unless:

(A) The APCO is notified no later than the next business day of the discovery that the area meets the criteria in subsection (b)(3); and

(B) The requirements of subsections (d)(1)(B) through (d)(1)(E), are implemented within twenty-four (24) hours of the discovery.

(3) *Exemptions from the Requirements for Road Construction and Maintenance.* The following exemptions may apply in addition to the applicable general exemptions specified in subsection (c):

(A) *Emergency Road Repairs:* Subsection (d)(1)(A) shall not apply when construction of a road or firebreak, or a road repair is necessary due to a landslide, flood, or other emergency or to mitigate a condition that constitutes an imminent hazard to the public. The owner/operator shall notify the APCO no later than the next business day of the action taken and the condition establishing the applicability of this subsection.

(B) *Remote locations:* The APCO may provide an exemption from the requirements of subsection (d) for any activity which will occur at a remote location.

1. The district shall grant or deny a request for an exemption within ninety (90) days of the receipt of a complete application.

2. If the request for an exemption is denied, the APCO shall provide written reasons for the denial.

(e) Requirements for Construction and Grading Operations.

(1) *Areas of one acre or less meeting the criteria in subsections (b)(1) or (b)(2)*: No person shall engage in any construction or grading operation on property where the area to be disturbed is **one (1.0) acre or less** unless the following dust mitigation measures are initiated at the start and maintained throughout the duration of the construction or grading activity:

(A) Construction vehicle speed at the work site must be limited to fifteen (15) miles per hour or less;

(B) Prior to any ground disturbance, sufficient water must be applied to the area to be disturbed to prevent visible emissions from crossing the property line;

(C) Areas to be graded or excavated must be kept adequately wetted to prevent visible emissions from crossing the property line;

(D) Storage piles must be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile;

(E) Equipment must be washed down before moving from the property onto a paved public road; and

(F) Visible track-out on the paved public road must be cleaned using wet sweeping or a HEPA filter equipped vacuum device within twenty-four (24) hours.

(2) *Areas greater than one acre meeting the criteria in subsections (b)(1) or (b)(2)*: No person shall engage in any construction or grading operation on property where the area to be disturbed is **greater than one (1.0) acre** unless:

(A) An Asbestos Dust Mitigation Plan for the operation has been:

1. Submitted to and approved by the district before the start of any construction or grading activity, and

2. The provisions of that dust mitigation plan are implemented at the beginning and maintained throughout the duration of the construction or grading activity; and

(B) For a project started before the effective date of this section for which an asbestos dust mitigation plan was submitted at least sixty (60) days before the effective date, and for which the district has not yet approved the asbestos dust mitigation plan:

1. The measures in subsection (e)(1) must be implemented and maintained until the district-approved asbestos dust mitigation plan is implemented; and

2. The provisions of the district-approved asbestos dust mitigation plan must be implemented within fourteen (14) days of district approval of the plan and maintained throughout the remainder of the construction or grading activity.

(3) *Property that meets the criteria in subsection (b)(3)*: No person shall engage in any construction or grading operation unless the following requirements are met:

(A) The owner/operator notifies the district of the discovery of naturally-occurring asbestos, serpentine, or ultramafic rock no later than the next business day;

(B) The dust mitigation measures in subsection (e)(1) are implemented within twenty-four (24) hours after determining that the property meets the criteria in paragraph (b)(3); and

(C) For operations in which the area to be disturbed is **one (1.0) acre or less**, the dust mitigation measures in subsection (e)(1) are maintained throughout the duration of the construction or grading activity, or

(D) For operations in which the area to be disturbed is **greater than one (1.0) acre**, the owner/operator must:

1. Submit an asbestos dust mitigation plan to the district within fourteen (14) days of the discovery of naturally-occurring asbestos, serpentine, or ultramafic rock;

2. Maintain the dust mitigation measures in subsection (e)(1) until the provisions of the district-approved asbestos dust mitigation plan are implemented;

3. Implement the provisions of the district-approved asbestos dust mitigation plan within fourteen (14) days of district approval of the plan; and

4. Maintain the provisions of the district-approved asbestos dust mitigation plan throughout the remainder of the construction or grading activity.

(4) *Asbestos Dust Mitigation Plans*: An Asbestos Dust Mitigation Plan must specify dust mitigation practices which are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line, and must include one or more provisions addressing **each** of the following topics:

(A) Track-out prevention and control measures which shall include:

1. Removal of any visible track-out from a paved public road at any location where vehicles exit the work site; this shall be accomplished using wet sweeping or a HEPA filter equipped vacuum device at the end of the work day or at least one time per day; and

2. Installation of one or more of the following track-out prevention measures:
   i. A gravel pad designed using good engineering practices to clean the tires of exiting vehicles;
   ii. A tire shaker;
   iii. A wheel wash system;

iv. Pavement extending for not less than fifty (50) consecutive feet from the intersection with the paved public road; or
v. Any other measure as effective as the measures listed above.

(B) Keeping active storage piles adequately wetted or covered with tarps.

(C) Control for disturbed surface areas and storage piles that will remain inactive for more than seven (7) days, which shall include one or more of the following:

1. Keep the surface adequately wetted;

2. Establishment and maintenance of surface crusting sufficient to satisfy the test in subsection (h)(6);

3. Application of chemical dust suppressants or chemical stabilizers according to the manufacturers' recommendations;

4. Covering with tarp(s) or vegetative cover;

5. Installation of wind barriers of fifty (50) percent porosity around three (3) sides of a storage pile;

6. Installation of wind barriers across open areas; or

7. Any other measure as effective as the measures listed above.

(D) Control for traffic on on-site unpaved roads, parking lots, and staging areas which shall include:

1. A maximum vehicle speed limit of fifteen (15) miles per hour or less; and

2. One or more of the following:
i. Watering every two hours of active operations or sufficiently often to keep the area adequately wetted;
ii. Applying chemical dust suppressants consistent with manufacturer's directions;
iii. Maintaining a gravel cover with a silt content that is less than five (5) percent and asbestos content that is less than 0.25 percent, as determined using an approved

asbestos bulk test method, to a depth of three (3) inches on the surface being used for travel; or

iv. Any other measure as effective as the measures listed above.

(E) Control for earthmoving activities which shall include one or more of the following:

1. Pre-wetting the ground to the depth of anticipated cuts;

2. Suspending grading operations when wind speeds are high enough to result in dust emissions crossing the property line, despite the application of dust mitigation measures;

3. Application of water prior to any land clearing; or

4. Any other measure as effective as the measures listed above.

(F) *Control for off-site transport*. The owner/operator shall ensure that no trucks are allowed to transport excavated material off-site unless:

1. Trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments; and

2. Loads are adequately wetted and either:
   i. Covered with tarps; or
   ii. Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.

(G) *Post construction stabilization of disturbed areas*. Upon completion of the project, disturbed surfaces shall be stabilized using one or more of the following methods:

1. Establishment of a vegetative cover;

2. Placement of at least three (3.0) inches of non-asbestos-containing material;

3. Paving;

4. Any other measure deemed sufficient to prevent wind speeds of ten (10) miles per hour or greater from causing visible dust emissions.

(H) Air monitoring for asbestos (if required by the APCO).

1. If required by the district APCO, the plan must include an air-monitoring component.

2. The air monitoring component shall specify the following:
   i. Type of air sampling device(s);
   ii. Siting of air sampling device(s);
   iii. Sampling duration and frequency; and
   iv. Analytical method.

(I) *Frequency of reporting*: The plan shall state how often the items specified in subsection (e)(5)(B), and any other items identified in the plan, will be reported to the district.

(5) *Recordkeeping and Reporting Requirements*.

(A) *Recordkeeping Requirements:* The owner/operator shall maintain the following records for at least seven (7) years following the completion of the construction project:

1. The results of any air monitoring conducted at the request of the APCO;

2. The documentation for any geologic evaluation conducted on the property for the purposes of obtaining an exemption, except the archive of collected samples which may be discarded at the expiration of the exemption or one (1) year after the exemption is granted whichever is less; and,

3. The results of any asbestos bulk sampling that meets any of the following conditions:
   i. The asbestos bulk sampling was conducted by the owner/operator to document the applicability of or compliance with this section, or
   ii. The asbestos bulk sampling was done at the request of the district APCO.

(B) *Reporting Requirements:* The owner/operator of any grading or construction operation subject to this section shall submit the following to the District:

1. The results of any air monitoring conducted at the request of the APCO; and,

2. The results of any asbestos bulk sampling that meets any of the following conditions:
   i. Asbestos bulk sampling conducted by the owner/operator to document applicability of or compliance with this section, or
   ii. Asbestos bulk sampling done at the request of the APCO.

(f) Requirements for Quarrying and Surface Mining Operations.

(1) No person shall engage in any quarrying or surface mining operation that meets the criteria of subsections (b)(1) or (b)(2) unless an Asbestos Dust Mitigation Plan for the operation has been submitted to and approved by the District and the fugitive dust mitigation measures specified in the Plan are implemented and maintained throughout the duration of any quarrying or surface mining operation except,

(A) *Pre-existing Operations*: The owner or operator of any quarrying or surface mining operation that was in operation before the date this section is implemented as determined pursuant to subsection (a) that has not obtained district approval of the asbestos dust mitigation plan may continue operating if all the following conditions are met:

1. The owner/operator has submitted an asbestos dust mitigation plan to the district at least sixty (60) days prior to the date specified in subsection (a);

2. The owner/operator implements all of the dust mitigation measures specified in subsections (f)(2)(B) and (f)(2)(C) by the effective date specified in subsection (a) and maintains them until the provisions of an approved asbestos dust mitigation plan are implemented; and

3. The owner/operator implements the provisions of the asbestos dust mitigation plan within fourteen (14) days following district approval of the plan.

(B) *Mineral exploration activities*: Mineral exploration activities as defined in the California Public Resources Code section 2714(d) in an area meeting any of the conditions of subsection (b) are not required to submit an asbestos dust mitigation plan but shall

instead implement and maintain the following measures throughout the duration of the activity:

1. Limit vehicle speeds on the site to fifteen (15) miles per hour or less;

2. Apply sufficient water during any ground disturbance to prevent visible dust from crossing the property line;

3. Keep disturbed areas and storage piles adequately wetted until they are permanently stabilized;

4. Install a track-out prevention device designed to prevent track-out onto any paved public road;

5. Clean up any visible track-out at the end of the workday or at a minimum within twenty-four (24) hours; and

6. Cover, treat with a chemical dust suppressant, or otherwise stabilize any disturbed areas when operations cease for more than seven (7) days.

(2) The owner or operator of any quarry or surface mine that meets any of the criteria in subsection (b)(3) shall:

(A) Notify the APCO no later than the next business day of the discovery;

(B) Implement all the following measures within twenty-four (24) hours following the discovery:

1. Keep stock and working piles adequately wetted during the addition and removal of material;

2. Keep on-site unpaved roads, parking lots, and staging areas stabilized using one of the following measures:
   i. adequately wetted; or
   ii. controlled using dust palliatives or suppressants,
   iii. paving; or
   iv. covered to a depth of three (3) inches with gravel that does not contain more than 0.25 percent asbestos as determined using an approved asbestos bulk test method;

3. Keep exposed areas and inactive stockpiles that are prone to mechanical or wind disturbances:

i. adequately wetted; or
ii. controlled using dust palliatives or suppressants, paving, wind berms or breaks; or
iii. covered with tarps or material that does not contain more than 0.25 percent asbestos as determined using an approved asbestos bulk test method;

4. Ensure that materials to be quarried, excavated, or graded are adequately wetted;

5. Ensure that all loads are adequately wetted before and during truck loading operations;

6. Ensure that all trucks transporting materials off-site meet the following conditions at the time the truck leaves the site:
i. Loads are adequately wetted and covered with tarps; or
ii. Loads are adequately wetted and the material does not touch the front back or sides of the cargo compartment at any point less than six (6) inches from the top and no point of the load extends above the top of the cargo compartment; and

7. Limit vehicle speeds within the quarry or surface mining operation to fifteen (15) miles per hour or less.

(C) Implement the following measures within fourteen (14) days of the determination that the operation meets any of the criteria in subsection (b)(3):

1. Measures to ensure that material being excavated, crushed, screened, loaded, transferred or conveyed does not result in any dust that is visible crossing the property line; and

2. Measures to ensure that no grinding mill, screening operation, or transfer point on a belt conveyor discharges into the air any visible emissions other than uncombined water vapor, for a period aggregating more than three minutes in any one hour which are:
i. Half as dark or darker in shade as that designated as number one on the Ringlemann Chart, as published by the United States Bureau of Mines; or
ii. Of such opacity as to obscure an observers view to a degree equal to or greater than smoke as described in subsection (f)(2)(C)2.i. or ten (10) percent opacity;

3. Measures to ensure that no crusher discharges into the air any visible emissions other than uncombined water vapor, for a period aggregating more than three minutes in any one hour which are:
   i. Three-quarters as dark or darker in shade as that designated as number one on the Ringlemann Chart, as published by the United States Bureau of Mines; or
   ii. Of such opacity as to obscure an observers view to a degree equal to or greater than smoke as described in subsection (f)(3)(C)3.i. or fifteen (15) percent opacity;

4. Measures for material handling sufficient to meet the requirements of (f)(2)(C)1. through (f)(2)(C)3. Such measures may include the following:
   i. Installation and operation of spraybars on all conveyors;
   ii. Installation of shrouds at all drop points;

5. Track-out control and prevention measures which shall include:
   i. Installation of a gravel pad, grizzly, tire washing system, or paving at least fifty (50) feet of the access road, and
   ii. Cleaning any visible track-out off the paved public road using wet sweeping or a HEPA filter equipped vacuum device at the end of each workday.

6. Stabilization of all on-site roads, parking lots, and staging areas open to the public by one of the following methods:
   i. Pave with asphalt or concrete, or
   ii. Treat with a chemical dust suppressant applied according to manufacturers directions, or
   iii. Maintain a gravel cover that has a depth of at least three (3) inches and an asbestos concentration no more than 0.25 percent as determined using an approved asbestos bulk test method.

(D) Submit an Asbestos Dust Mitigation Plan to the District within fourteen (14) days and maintain the measures specified in subsections (f)(2)(B) and (f)(2)(C) until the asbestos dust mitigation measures in the district-approved Asbestos Dust Mitigation Plan are implemented.

(3) An Asbestos Dust Mitigation Plan required by subsections (f)(1) and (f)(2)(D) must include sections which address each of the following topics:

(A) A Fugitive Dust Mitigation Component which shall, at a minimum, include the measures specified in subsections (f)(2)(B) and

(f)(2)(C), unless the APCO determines that it is appropriate to add, omit, or modify these measures depending on site-specific parameters. The plan shall also require that :

1. Equipment and operations do not emit dust that is visible crossing the property line; and

2. Crushers do not discharge into the air any visible emissions other than uncombined water vapor, for a period aggregating more than three minutes in any one hour, which is:
   i. Three-quarters as dark or darker in shade as that designated as number one on the Ringlemann Chart, as published by the United States Bureau of Mines; or
   ii. Of such opacity as to obscure an observers view to a degree equal to or greater than smoke as described in subsection (f)(3)(A)2.i. or fifteen (15) percent opacity; and

3. Grinding mills, screening operations, and transfer points on belt conveyors do not discharge into the air any visible emissions other than uncombined water vapor, for a period aggregating more than three minutes in any one hour, which is:
   i. Half as dark or darker in shade as that designated as number one on the Ringlemann Chart, as published by the United States Bureau of Mines; or
   ii. Of such opacity as to obscure an observers view to a degree equal to or greater than smoke as described in subsection (f)(3)(A)3.i. or ten (10) percent opacity.

(B) Air monitoring for asbestos (if required by the APCO).

1. If required by the district APCO, the plan must include an air monitoring component.

2. The air monitoring component shall specify the following:
   i. Type of air sampling device(s);
   ii. Siting of air sampling device(s);
   iii. Sampling duration and frequency; and
   iv. Analytical method.

(C) *Frequency of reporting*. The plan shall state how often the items specified in subsection (f)(5)(B), and any other items identified in the plan, will be reported to the district.

(4) Upon petition by the owner/operator the APCO may approve the use of requirements or restrictions established under other regulatory programs to meet the requirements of subsection (f) under the following conditions:

(A) The requirements or restrictions are equivalent to or more stringent than the requirements of subsection (f); and

(B) The requirements or restrictions are enforceable by the APCO.

(5) *Recordkeeping and Reporting Requirements*: The owner/operator of a surface mining or quarrying operation subject to this section must comply with the following recordkeeping and reporting requirements:

(A) *Recordkeeping Requirements:* The owner/operator shall maintain the following records for at least seven (7) years:

1. The results of any air monitoring conducted at the request of the APCO;

2. The documentation for any geologic evaluation conducted on the property for the purpose of obtaining an exemption except, the archive of collected rock samples which may be discarded at the expiration of the exemption or one (1) year after the district granted or denied the exemption, whichever comes first; and,

3. The results of any asbestos bulk sampling that meets any of the following conditions:
   i. The asbestos bulk sampling was conducted by the owner/operator to document the applicability of, or compliance with this section, or
   ii. The asbestos bulk sampling was done at the request of the district APCO.

(B) *Reporting Requirements:* The owner/operator shall submit the following to the District:

1. The results of any air monitoring conducted at the request of the APCO; and,

2. The documentation of any geologic evaluation conducted on the property in question; and,

3. The results of any asbestos bulk sampling that meets any of the following conditions:

i. Asbestos bulk sampling conducted by the owner/operator to document applicability of or compliance with this section, or
ii. Asbestos bulk sampling done at the request of the district APCO.

(g) Air Monitoring for Asbestos.

(1) Air monitoring may be required by the district APCO.

(2) The APCO may revise the asbestos dust mitigation plan on the basis of the results of the air monitoring.

(h) Test Methods.

(1) *Ultramafic Rock*: The ultramafic rock composition of any material shall be determined using standard analysis techniques including, but not limited to, color index assessment, microscopic examination, petrographic analysis or rock thin sections, or chemical analysis techniques, such as X-ray fluorescence spectrometry or inductively coupled plasma analysis.

(2) *Bulk Sampling Methods*: ARB Test Method 435, or an alternative asbestos bulk test method approved in writing by the Executive Officer of the California Air Resources Board, shall be used to determine the asbestos content of a bulk sample. For the purposes of determining compliance with this section, references in ARB Test Method 435 to "serpentine aggregate" shall mean “gravel” or other “bulk materials” to be tested for asbestos content.

(3) *Analysis of Air Samples*: Analysis of all air samples shall follow the analytical method specified by the United States Environmental Protection Agency, Asbestos Hazard Emergency Response Act (AHERA) criteria for asbestos (40 CFR, Part 763), with the following exceptions:

(A) The analytical sensitivity shall be 0.001 structures per cubic centimeter (0.001 s/cc); and

(B) All asbestos structures with an aspect ratio greater than three to one (3 to1) shall be counted irrespective of length.

(4) The results of the analysis of air samples shall be reported as transmission electron microscopy (TEM) asbestos structures per cubic centimeter (s/cc).

(5) *Adequately Wetted*: Field determination of “adequately wetted” shall be as follows:

(A) If the district-approved asbestos dust mitigation plan has specified a percent moisture content for specific materials the determination shall be as specified in the district-approved asbestos dust mitigation plan; or

(B) If no moisture threshold is specified in a district-approved asbestos dust mitigation plan, a sample of at least one (1) quart in volume shall be taken from the top three (3) inches of a road, or bare area or from the surface of a stockpile. The sample shall be poured out from a height of four (4) feet onto a clean hard surface. The material shall be considered to be adequately wetted if there is no observable dust emitted when the material is dropped.

(6) *Surface Crusting*: "Measurement of the stability of surface crusting on horizontal surfaces" shall be as follows:

(A) Where a visible crust exists, drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass ranging from 16 -17 grams from a distance of 30 centimeters (one foot) directly above (at a 90 degree angle perpendicular to) the ground surface. If blowsand (thin deposits of loose grains covering less than 50 percent of the surface that have not originated from the surface being tested) is present, clear the blowsand from the surfaces to be tested before dropping the steel ball.

(B) A sufficient crust is determined to exist if, when the ball is dropped according to subsection (h)(6)(A), the ball does not sink into the surface so that it is partially or fully surrounded by loose grains and, upon removing the ball, the surface on which it was dropped has not been pulverized so that loose grains are visible.

(C) Drop the ball three times each in three representative test areas within a survey area measuring 1 foot by 1 foot that represents a random portion of the surface being evaluated. The test area shall be deemed to have passed if at least two of the three times the ball was dropped, the results met the criteria in subsection (h)(6)(B). If all three test areas pass, the area shall be deemed to be "sufficiently crusted".

(i) Definitions. For the purposes of this section, the following definitions shall apply:

(1) "Access road" means any road extending from a public thoroughfare onto the property of a construction project, quarry, or surface mining operation.

(2) "Adequately wetted" means sufficiently moistened with water to minimize the release of particulate matter into the ambient air as determined by the test method(s) in subsection (h)(5).

(3) "Agricultural operation" means activities necessary for the growing and harvesting of crops or raising of fowl or animals.

(4) "APCO" means the executive officer, air pollution control officer, or the designee of the executive officer or air pollution control officer of any air pollution control or air quality management district created or continued in existence pursuant to Part 3 (commencing with section 40000), Division 26, Health and Safety Code.

(5) "Approved asbestos bulk test method" means ARB Test Method 435 or an alternative asbestos bulk test method approved in writing by the Executive Officer of the California Air Resources Board.

(6) "ARB" means the California Air Resources Board.

(7) "ARB Test Method 435" means the test method specified in title 17, California Code of Regulations, section 94147.

(8) "Asbestos" means asbestiforms of the following minerals: chrysotile (fibrous serpentine), crocidolite (fibrous riebeckite), amosite (fibrous cummingtonite--grunerite), fibrous tremolite, fibrous actinolite, and fibrous anthophyllite.

(9) "Asbestos-containing material" means any material that has an asbestos content of 0.25 percent or greater.

(10) "Asbestos Dust Mitigation Plan" means a detailed written document specifying measures that would be implemented to minimize the emissions of asbestos-laden dust.

(11) "Carry-out" or "track-out" means any bulk material that adheres to and agglomerates on the exterior surfaces of motor vehicles, haul trucks, and/or equipment, including tires, and that has fallen or been deposited onto a paved public roadway.

(12) "Construction," "grading," "construction or grading operation" and "construction or grading activity" mean any surface disturbance conducted with powered equipment or any related activity, including, but not limited to, all surface and subsurface cuts and fills, excavation, trenching, stockpiling, bulldozing, and landfills.

(13) "District" means any air pollution control or air quality management district created or continued in existence pursuant to Part 3 (commencing with section 40000), Division 26, Health and Safety Code.

(14) "Geographic ultramafic rock unit" means a geographic area that is designated as an ultramafic rock unit or ultrabasic rock unit, including the unit boundary line, on any of the maps referenced in Appendix A.

(15) "Geologic evaluation" means an evaluation of a property to determine the presence of various types of rocks, including ultramafic rock, serpentinite, or other metamorphic derivatives of ultramafic rock.

(16) "Gravel pad" means a layer of gravel, rock, or crushed rock which is at least one inch or larger in diameter and less than five (5) percent silt content, maintained at the point of intersection of a paved public roadway and a work site entrance to dislodge mud, dirt, and debris from tires of motor vehicles and haul trucks prior to leaving a worksite.

(17) "Grizzly" means a device used to dislodge mud, dirt, and debris from the tires and undercarriage of motor vehicles and haul trucks prior to leaving the work site.

(18) "HEPA filter" means a High Efficiency Particulate Air filter used to remove particles less than one (1) micron in aerodynamic diameter and operates at removal efficiencies of 99.9 percent or greater.

(19) "Naturally-occurring asbestos" means asbestos that has not been processed in an asbestos mill.

(20) "Owner/operator" or "person" includes, but is not limited to:

(A) An individual, trust, firm, joint stock company, business concern, partnership, limited liability company, association, or corporation including, but not limited to, a government corporation;

(B) Any city, county, district, commission, the state or any department, agency, or political subdivision thereof, any interstate body, and the federal government or any department or agency thereof to the extent permitted by law; or

(C) A project proponent and any of its contractors or subcontractors.

(21) “Paving” means creating a cover consisting of portland cement, asphalt concrete, or chip seal.

(22) "Property" means any real property including, but not limited to, any contiguous parcel or parcels of land and anything attached to, or erected on it.

(23) "Quarrying" means the act of obtaining stone from the earth by means of cutting, digging, excavating, or blasting and includes processes used to convert the excavated material into commercial products.

(24) "Registered geologist" means an individual that is currently licensed as a geologist with the State of California, Department of Consumer Affairs, Board of Geology and Geophysicists.

(25) "Remote location" means any location that is at least one (1.0) mile from the location of a receptor. "Receptor" includes, but is not limited to, any hospital, school, day care center, work site, business, residence, and permanent campground. The distance to the nearest receptor is to be measured from the outermost limit of the area to be disturbed or road surface, whichever is closer.

(26) "Road surface" means the traveled way of a road and any shoulder which may extend up ten (10) feet from the edge of the traveled way.

(27) "Sand and Gravel Operation" means any facility operating in alluvial deposits.

(28) "Serpentine" means any form of the following hydrous magnesium silicate minerals: antigorite, lizardite, and chrysotile.

(29) "Serpentinite" means a rock consisting almost entirely of serpentine, although small amounts of other minerals such as magnetite, chromite, talc, brucite, and tremolite-actinolite may also be present. "Serpentinite" is a metamorphic derivative of the ultramafic rocks, peridotite, pyroxenite, or dunite.

(30) "Surface mining" means all, or any part of, the process involved in the mining of minerals on mined lands by removing overburden and mining directly from the mineral deposit, open-pit mining of minerals naturally exposed, mining by the auger method, dredging and quarrying, or surface work incident to an underground mine. "Surface mining" includes, but is not limited to, in place distillation or retorting or leaching, the production and disposal of mining waste, prospecting and exploratory activities or any activity subject to regulation under the Surface Mining and Reclamation Act of 1975, Public Resources Code section 2700 et seq.

(31) "Ultrabasic rock" means ultramafic rock.

(32) "Ultramafic rock" means an igneous rock composed of 90 percent or greater of one or a combination of the following iron/magnesium-rich, dark-colored silicate minerals: olivine, pyroxene, or more rarely amphibole. For the purposes of this section, "ultramafic rock" includes the following rock types: dunite, pyroxenite, and peridotite; and their metamorphic derivatives.

(33) "Visible emissions" means any particulate mater that is visually detectable without the aid of instruments other than corrective lenses.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666, and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39666, and 41511, Health and Safety Code.

APPENDIX A

California Department of Conservation
Division of Mines and Geology

AVAILABLE GEOLOGIC MAPS FOR CALIFORNIA

GEOLOGIC ATLASES OF CALIFORNIA Scale 1:250,000

GEOLOGIC ATLAS OF CALIFORNIA: ALTURAS
Compiled by Gay, T.E. and others, 1958

GEOLOGIC ATLAS OF CALIFORNIA: BAKERSFIELD
Compiled by Smith, A.R., 1964 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: DEATH VALLEY
Compiled by Streitz, R.L. and Stinson, M.C., 1974 (reprinted 1991)

GEOLOGIC ATLAS OF CALIFORNIA: FRESNO
Compiled by Matthews, R.A. and Burnett, J.L, 1965 (reprinted 1991)

GEOLOGIC ATLAS OF CALIFORNIA: KINGMAN
Compiled by Jennings, C.W., 1961

GEOLOGIC ATLAS OF CALIFORNIA: LONG BEACH
Compiled by Jennings, C.W., 1962 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: LOS ANGELES
Compiled by Jennings, C.W. and Strand, R.G., 1969 (reprinted 1991)

GEOLOGIC ATLAS OF CALIFORNIA: MARIPOSA
Compiled by Strand, R.G., 1967 (reprinted 1991)

GEOLOGIC ATLAS OF CALIFORNIA: NEEDLES
Compiled by Bishop, C.C., 1963 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: REDDING
Compiled by Strand, R.G., 1962

GEOLOGIC ATLAS OF CALIFORNIA: SALTON SEA
Compiled by Jennings, C.W., 1967 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: SAN LUIS OBISPO
Compiled by Jennings, C.W., 1958 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: SAN DIEGO - EL CENTRO
Compiled by Strand, R.G., 1962 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: SANTA ANA
Compiled by Rogers, T.H., (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: SANTA CRUZ
Compiled by Jennings, C.W. and Strand, R.G., 1958 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: SANTA MARIA
Compiled by Jennings, C.W., 1959 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: TRONA
Compiled by Jennings, C.W., 1962

GEOLOGIC ATLAS OF CALIFORNIA: UKIAH
Compiled by Jennings, C.W. and Strand, R.G., 1960 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: WALKER LAKE
Compiled by Koenig, J.B., 1963 (reprinted 1992)

GEOLOGIC ATLAS OF CALIFORNIA: WESTWOOD
Compiled by Lyndon, P.A., and others, 1960

REGIONAL GEOLOGIC MAP SERIES Scale 1:250,000

GEOLOGIC MAP OF THE CHICO QUADRANGLE
(set of five sheets)
By Saucedo, G.J. and Wagner, D.L., 1992

GEOLOGIC MAP OF THE SACRAMENTO QUADRANGLE
(set of four sheets)
Compiled by Wagner, D.L. and others, 1981

GEOLOGIC MAP OF THE SANTA ROSA QUADRANGLE
(set of five sheets)
Compiled by Wagner and D.L., Bortugno, E.J. (reprinted 1999)

GEOLOGIC MAP OF THE SAN BERNARDINO QUADRANGLE
(set of five sheets)
Compiled by Bortugno, E.J., and Spittler, T.E. (reprinted 1998)

GEOLOGIC MAP OF THE WEED QUADRANGLE
(set of four sheets)
By Wagner, D.L. and Saucedo, G.J., 1987

GEOLOGIC MAP OF THE SAN FRANCISCO-SAN JOSE QUADRANGLE
(set of five sheets)
By Wagner, D.L., Bortugno, E.J. and McJunkin, R.D., 1990
Color-coded faults

LOCAL GEOLOGIC MAPS

AREAS MORE LIKELY TO CONTAIN NATURALLY-OCCURRING ASBESTOS IN WESTERN EL DORADO COUNTY, CALIFORNIA
By Ron Churchill, March 2000
Scale 1:100,000

SERPINTINITE SURVEY OF LAKE COUNTY, CALIFORNIA – MAP A, ULTRAMAFIC, ULTRABASIC, AND SERPENTINE ROCK AND SOILS OF LAKE COUNTY,
Adopted: March 2, 1992
Scale: 1:100,000

Appendix B

DMG Open-File Report 2000-19:
A General Location Guide for Ultramafic Rocks in California –
Areas More Likely to Contain Naturally Occurring Asbestos.

A GENERAL LOCATION GUIDE FOR ULTRAMAFIC ROCKS IN CALIFORNIA - AREAS MORE LIKELY TO CONTAIN NATURALLY OCCURRING ASBESTOS

August, 2000

DEPARTMENT OF CONSERVATION
Division of Mines and Geology

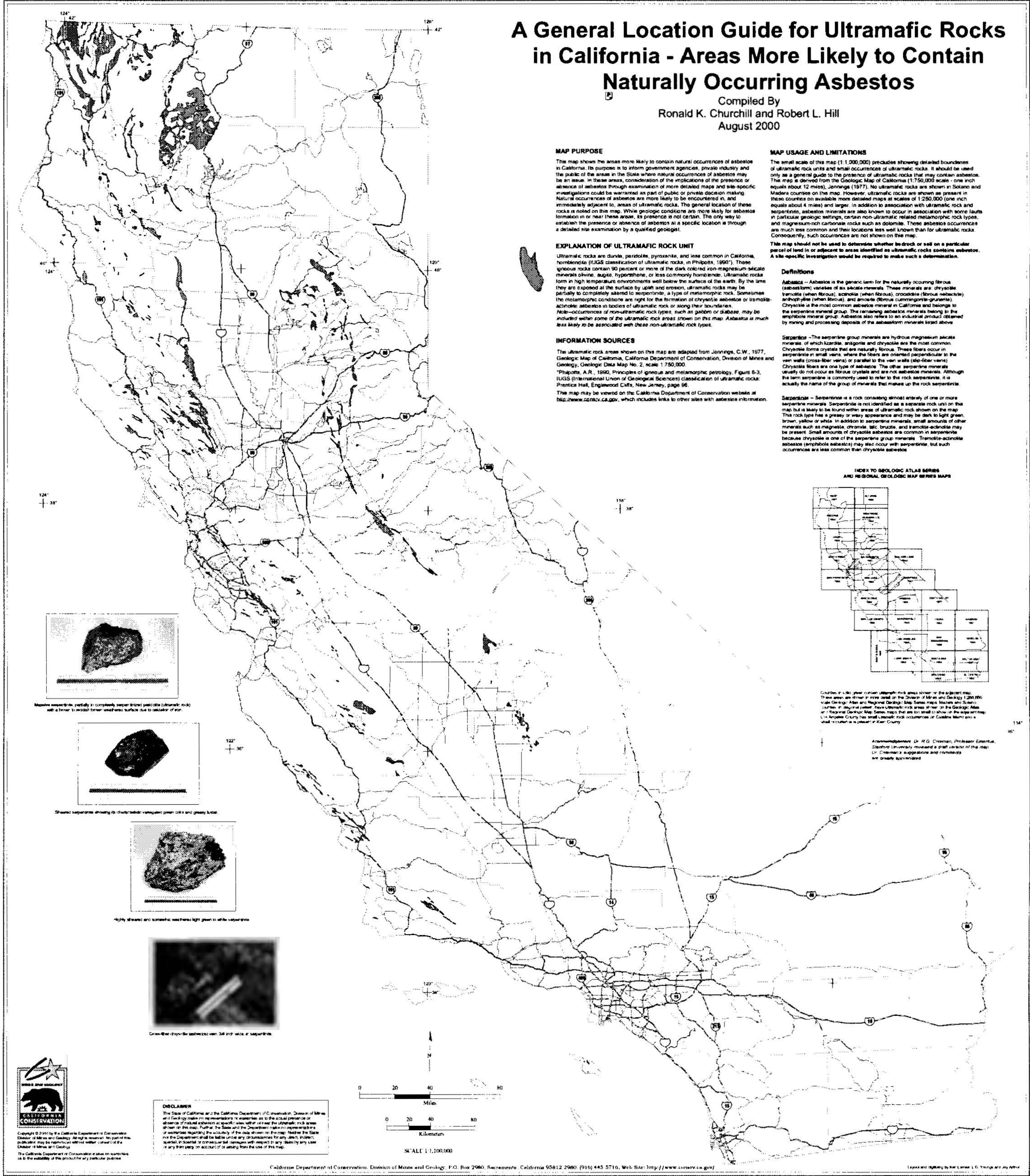
STATE OF CALIFORNIA
GRAY DAVIS
GOVERNOR

THE RESOURCES AGENCY
MARY D. NICHOLS
SECRETARY FOR RESOURCES

DEPARTMENT OF CONSERVATION
DARRYL YOUNG
DIRECTOR

A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos

Compiled By
Ronald K. Churchill and Robert L. Hill
August 2000



MAP PURPOSE

This map shows the areas more likely to contain natural occurrences of asbestos in California. Its purpose is to inform government agencies, private industry and the public of the areas in the State where natural occurrences of asbestos may be an issue. In these areas, consideration of the implications of the presence or absence of asbestos through examination of more detailed maps and site-specific investigations could be warranted as part of public or private decision making. Natural occurrences of asbestos are more likely to be encountered in, and immediately adjacent to, areas of ultramafic rocks. The general location of these rocks is noted on this map. While geologic conditions are more likely for asbestos formation in or near these areas, its presence is not certain. The only way to establish the presence or absence of asbestos at a specific location is through a detailed site examination by a qualified geologist.

EXPLANATION OF ULTRAMAFIC ROCK UNIT

Ultramafic rocks are dunite, peridotite, pyroxenite, and less common in California, hornblendite (IUGS classification of ultramafic rocks, in Philpotts, 1990*). These igneous rocks contain 90 percent or more of the dark colored iron-magnesium-silicate minerals olivine, augite, hypersthene, or less commonly hornblende. Ultramafic rocks form in high temperature environments well below the surface of the earth. By the time they are exposed at the surface by uplift and erosion, ultramafic rocks may be partially to completely altered to serpentinite, a type of metamorphic rock. Sometimes the metamorphic conditions are right for the formation of chrysotile asbestos or tremolite-actinolite asbestos in bodies of ultramafic rock or along their boundaries.
Note—occurrences of non-ultramafic rock types, such as gabbro or diabase, may be included within some of the ultramafic rock areas shown on this map. Asbestos is much less likely to be associated with these non-ultramafic rock types.

INFORMATION SOURCES

The ultramafic rock areas shown on this map are adapted from Jennings, C.W., 1977, Geologic Map of California, California Department of Conservation, Division of Mines and Geology, Geologic Data Map No. 2, scale 1:750,000.

*Philpotts, A.R., 1990, Principles of igneous and metamorphic petrology, Figure 6-3, IUGS (International Union of Geological Sciences) classification of ultramafic rocks: Prentice Hall, Englewood Cliffs, New Jersey, page 96.

This map may be viewed on the California Department of Conservation website at http://www.consrv.ca.gov, which includes links to other sites with asbestos information.

MAP USAGE AND LIMITATIONS

The small scale of this map (1:1,000,000) precludes showing detailed boundaries of ultramafic rock units and small occurrences of ultramafic rocks. It should be used only as a general guide to the presence of ultramafic rocks that may contain asbestos. This map is derived from the Geologic Map of California (1:750,000 scale - one inch equals about 12 miles), Jennings (1977). No ultramafic rocks are shown in Solano and Madera counties on the map. However, ultramafic rocks are shown as present in these counties on available more detailed maps at scales of 1:250,000 (one inch equals about 4 miles) and larger. In addition to association with ultramafic rock and serpentinite, asbestos minerals are also known to occur in association with some faults in particular geologic settings, certain non-ultramafic related metamorphic rock types, and magnesium-rich carbonate rocks such as dolomite. These asbestos occurrences are much less common and their locations less well known than for ultramafic rocks. Consequently, such occurrences are not shown on this map.

This map should not be used to determine whether bedrock or soil on a particular parcel of land in or adjacent to areas identified as ultramafic rocks contains asbestos. A site-specific investigation would be required to make such a determination.

Definitions

Asbestos -- Asbestos is the generic term for the naturally occurring fibrous (asbestiform) varieties of six silicate minerals. These minerals are: chrysotile, tremolite (when fibrous), actinolite (when fibrous), crocidolite (fibrous riebeckite), anthophyllite (when fibrous), and amosite (fibrous cummingtonite-grunerite). Chrysotile is the most common asbestos mineral in California and belongs to the serpentine mineral group. The remaining asbestos minerals belong to the amphibole mineral group. Asbestos also refers to an industrial product obtained by mining and processing deposits of the asbestiform minerals listed above.

Serpentine --The serpentine group minerals are hydrous magnesium silicate minerals, of which lizardite, antigorite and chrysotile are the most common. Chrysotile forms crystals that are naturally fibrous. These fibers occur in serpentinite in small veins, where the fibers are oriented perpendicular to the vein walls (cross-fiber veins) or parallel to the vein walls (slip-fiber veins). Chrysotile fibers are one type of asbestos. The other serpentine minerals usually do not occur as fibrous crystals and are not asbestos minerals. Although the term serpentine is commonly used to refer to the rock serpentinite, it is actually the name of the group of minerals that makes up the rock serpentinite.

Serpentinite -- Serpentinite is a rock consisting almost entirely of one or more serpentine minerals. Serpentinite is not identified as a separate rock unit on this map but is likely to be found within areas of ultramafic rock shown on the map. This rock type has a greasy or waxy appearance and may be dark to light green, brown, yellow or white. In addition to serpentine minerals, small amounts of other minerals such as magnetite, chromite, talc, brucite, and tremolite-actinolite may be present. Small amounts of chrysotile asbestos are common in serpentinite because chrysotile is one of the serpentine group minerals. Tremolite-actinolite asbestos (amphibole asbestos) may also occur with serpentinite, but such occurrences are less common than chrysotile asbestos.

INDEX TO GEOLOGIC ATLAS SERIES
AND REGIONAL GEOLOGIC MAP SERIES MAPS

Counties in solid green contain ultramafic rock areas shown on the adjacent map. These areas are shown in more detail on the Division of Mines and Geology 1:250,000 scale Geologic Atlas and Regional Geologic Map Series maps. Madera and Solano counties, in diagonal pattern, have ultramafic rock areas shown on the Geologic Atlas and Regional Geologic Map Series maps that are too small to show on the adjacent map. Los Angeles County has small ultramafic rock occurrences on Catalina Island and a small occurrence is present in Kern County.

Acknowledgement: Dr. R.G. Coleman, Professor Emeritus, Stanford University reviewed a draft version of this map. Dr. Coleman's suggestions and comments are greatly appreciated.

Cross-fiber chrysotile (asbestos) vein 3/4 inch wide in serpentinite.

DISCLAIMER

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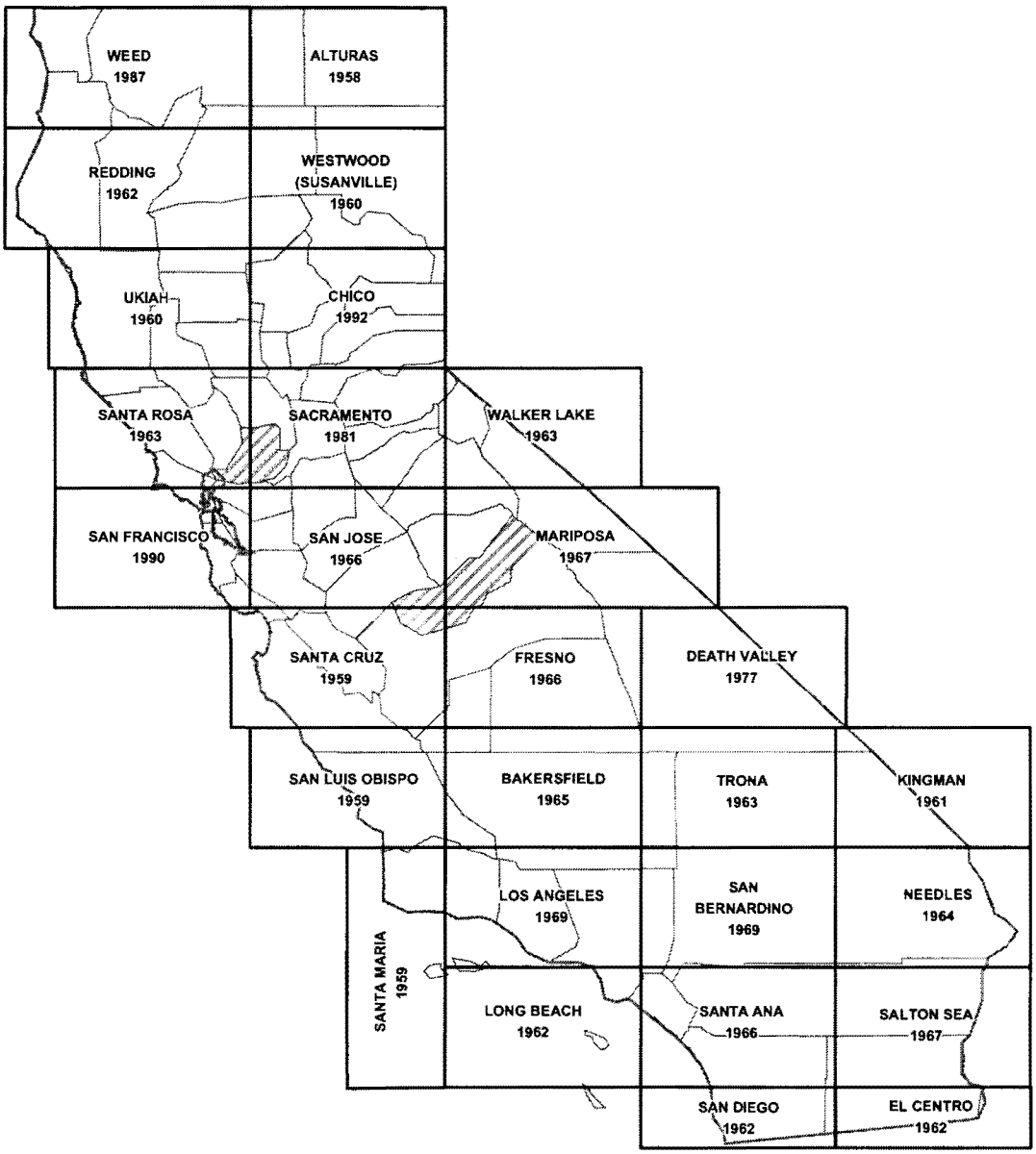
SCALE 1:1,000,000

California Department of Conservation, Division of Mines and Geology, P.O. Box 2980, Sacramento, California 95812-2980 (916) 445-5716, Web Site: http://www.consrv.ca.gov/

INDEX TO GEOLOGIC ATLAS SERIES AND REGIONAL GEOLOGIC MAP SERIES MAPS



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EXPLANATION TEXT FOR MAP

A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos

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VIEWING AND PRINTING TIPS
A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos

Viewing the map

This map opens up in Acrobat Reader in "fit window" view. When you wish to zoom in and look at areas at a higher magnification, there are several ways to do so:

1. Use the magnifying glass icon on the left-hand tool bar and zoom in at preset increments, *or*
2. Click on the **View** pull-down menu for a variety of zoom options, *or*
3. Use the pop-up menu on the lower left toolbar to set exact zoom parameters.
4. To zoom back out with the magnifying glass icon active, press ctrl/alt/spacebar and click the mouse, *or*
5. Go back to **View** pull-down menu and change view, *or*
6. Use pop-up menu on the lower left toolbar to change view.

Printing the map

If you try to print this map, you'll find that Acrobat Reader will simply print the entire map at your printer's default page size. The resulting print isn't very useful if you can only print to an 8.5 x 11 inch page. To print portions of this map at 1:1,100,000 (the original scale of the map) you'll need Acrobat Reader and a graphics program such as Microsoft Paint, Paint Shop Pro, Corel Draw or Mac Paint. Armed with these tools, do the following:

1. Use Adobe Acrobat Reader to open map file.
2. To select an area, open the document and zoom to 100% at the area of interest. Hold mouse button down (if you have three buttons on your mouse, click on the left one) on the **Text Select** tool button, which will expand to three buttons. Choose the "grab graphics" tool button (last one on the right). Using this tool, select your area of interest..
3. Click on the **Edit** pull-down menu and select **Copy**. This places a copy of the selected area onto your computer's clipboard. At this point, you can close Adobe Acrobat if your paint program requires the memory to run. If not, you can leave it open.
4. Open your paint program. In Microsoft Paint, make sure that the image area is at least as wide or as tall as the map area that you've selected. Choose the **Edit** pull-down menu, and click on **Paste**. In Paint Shop Pro, select **Paste as New Image**. The selected map area will be pasted into the view and can be printed. This "bitmap" image may appear "pixilated" or have jagged edges.

To print the entire map at full-scale requires a large-format color plotter. If you don't have one, many reproduction firms do, and can plot the file for you.

Appendix C

Air Resources Board
Asbestos Monitoring Information

Table 2
Measured Ambient Asbestos Concentrations Near a Potential Asbestos Source in El Dorado County, California

This page updated January 15, 1999.

Detailed Listing
(Updated January 15, 1999)

Location Name	Geographical Area/City	Sampling Dates	Concentration (fibers per cc)		Sample Number
			Measured[2]	MDL[6]	
Private Parcel #1	Lotus	10/01 - 10/02/98	ND	0.00079	S1-1
		10/02 - 10/03/98	ND	0.00080	S1-5
		10/03 - 10/04/98	ND	0.000794	S1-9
		10/04 - 10/05/98	0.00316	0.00079	S1-13A
		10/06 - 10/07/98	0.00317	0.000794	S1-16
		10/07 - 10/08/98	0.00237	0.00079	S1-20
		10/08 - 10/09/98	0.0118	0.000791	S1-24
		10/09 - 10/10/98	0.0135	0.000797	S1-28
		10/10 - 10/11/98	0.000795	0.000795	S1-32
		10/11 - 10/12/98	0.00875	0.000795	S1-36
		10/12 - 10/13/98	0.00164	0.000825	S1-41
		10/13 - 10/14/98	0.145	0.00392	S1-44
		10/17 - 10/18/98	0.00235	0.000786	S1-49
		10/06 - 10/07/98	0.0103	0.000794	S1-16-R
		10/08 - 10/09/98	0.0118	0.000791	S1-24-R
Private Residence #1	Lotus	10/01 - 10/02/98	0.00154	0.000773	S2-1
		10/02 - 10/03/98	ND	0.00101	S2-4
		10/03 - 10/04/98	0.0102	0.000785	S2-5
		10/04 - 10/05/98	ND	0.000801	S2-7
		10/06 - 10/07/98	0.00563	0.000805	S2-8
		10/07 - 10/08/98	0.00631	0.000789	S2-10
		10/08 - 10/09/98	0.028	0.00112	S2-12
		10/09 - 10/10/98	0.0183	0.000872	S2-14
		10/10 - 10/11/98	0.0103	0.000793	S2-16

		10/11 - 10/12/98	0.00399	0.000798	S2-18
		10/12 - 10/13/98	0.012	0.000802	S2-20
		10/13 - 10/14/98	ND	0.00082	S2-22
		10/17 - 10/18/98	0.0288	0.0013	S2-24
		10/12 - 10/13/98	ND	0.000802	S2-20-R
Private Parcel #2	Lotus	10/01 - 10/02/98	ND	0.000775	S3-1
		10/02 - 10/03/98	0.0004	0.000811	S3-3
		10/03 - 10/04/98	0.00318	0.000795	S3-5
		10/04 - 10/05/98	0.00628	0.000786	S3-7
		10/06 - 10/07/98	0.00813	0.000813	S3-8
		10/07 - 10/08/98	0.000774	0.000774	S3-10
		10/08 - 10/09/98	0.00475	0.000792	S3-12
		10/09 - 10/10/98	0.00159	0.000799	S3-14
		10/10 - 10/11/98	0.004	0.000802	S3-16
		10/11 - 10/12/98	0.00386	0.000772	S3-18
		10/12 - 10/13/98	0.00237	0.000793	S3-20
		10/13 - 10/14/98	0.00802	0.000802	S3-22
		10/17 - 10/18/98	0.00472	0.000787	S3-24
Private Parcel #3	Lotus	10/01 - 10/02/98	0.000795	0.000795	S4-1
		10/02 - 10/03/98	0.00394	0.000789	S4-5
		10/03 - 10/04/98	0.0016	0.000804	S4-9
		10/04 - 10/05/98	ND	0.00079	S4-13
		10/06 - 10/07/98	0.00873	0.000794	S4-13
		10/07 - 10/08/98	0.00155	0.00078	S4-17
		10/08 - 10/09/98	ND	0.000777	S4-21
		10/09 - 10/10/98	ND	0.000837	S4-25
		10/10 - 10/11/98	0.0156	0.000785	S4-29
		10/11 - 10/12/98	0.00863	0.000785	S4-33
		10/12 - 10/13/98	ND	0.000809	S4-38
		10/13 - 10/14/98	0.0275	0.000918	S4-41
		10/17 - 10/18/98	0.00309	0.000774	S4-45
		10/11 - 10/12/98	0.00392	0.000785	S4-33-R
		10/13 - 10/14/98	0.00165	0.000826	S4-41-R
Private Residence #1	Greenstone Subdivision	10/01 - 10/02/98	0.0674	0.00157	S5-1
		10/02 - 10/03/98	0.00398	0.000797	S5-3
		10/03 - 10/04/98	0.00313	0.000785	S5-5
		10/04 - 10/05/98	0.00158	0.000791	S5-7
		10/06 - 10/07/98	0.00157	0.000789	S5-8
		10/07 - 10/08/98	ND	0.000758	S5-10
		10/08 - 10/09/98	0.0168	0.000845	S5-12

		10/09 - 10/10/98	0.00868	0.00079	S5-14
		10/10 - 10/11/98	ND	0.000789	S5-16
		10/11 - 10/12/98	0.00313	0.000785	S5-18
		10/12 - 10/13/98	ND	0.000823	S5-20
		10/13 - 10/14/98	ND	0.000815	S5-22
		10/17 - 10/18/98	ND	0.000785	S5-24
		10/01 - 10/02/98	0.000785	0.000785	S5-1-R
		10/08 - 10/09/98	0.0109	0.000845	S5-12-R
		10/09 - 10/10/98	0.00789	0.00079	S5-14-R
Private Residence #2	Greenstone Subdivision	10/01 - 10/02/98	0.0443	0.00164	S6-1
		10/02 - 10/03/98	0.000787	0.000787	S6-3
		10/03 - 10/04/98	ND	0.000794	S6-5
		10/04 - 10/05/98	ND	0.00079	S6-7
		10/06 - 10/07/98	ND	0.000802	S6-8
		10/07 - 10/08/98	ND	0.00078	S6-10
		10/08 - 10/09/98	0.00389	0.00078	S6-12
		10/09 - 10/10/98	0.00158	0.00079	S6-14
		10/10 - 10/11/98	0.00235	0.000785	S6-16
		10/11 - 10/12/98	*	0.0324	S6-18
		10/12 - 10/13/98	0.000822	0.000822	S6-20
		10/13 - 10/14/98	ND	0.000805	S6-22
		10/17 - 10/18/98	0.0047	0.000785	S6-25
		10/17 - 10/18/98	0.00706	0.000785	S6-25-R
Entrance to Quarry	Lotus	10/01 - 10/02/98	0.117	0.0042	S8-1
		10/02 - 10/03/98	ND	0.000793	S8-3
		10/03 - 10/04/98	0.0157	0.000789	S8-5
		10/04 - 10/05/98	*	0.0221	S8-7
		10/06 - 10/07/98	0.0884	0.00402	S8-8
		10/07 - 10/08/98	0.0298	0.00129	S8-10
		10/08 - 10/09/98	0.169	0.00395	S8-12
		10/09 - 10/10/98	0.0355	0.00131	S8-14
		10/10 - 10/11/98	0.00395	0.00079	S8-16
		10/11 - 10/12/98	0.0578	0.00262	S8-18
		10/12 - 10/13/98	0.00241	0.000805	S8-20
		10/13 - 10/14/98	0.008	0.000801	S8-22
		10/17 - 10/18/98	0.0131	0.000771	S8-25
		10/01 - 10/02/98	0.0209	0.000839	S8-1-R
		10/02 - 10/03/98	0.0325	0.000793	S8-3-R
		10/03 - 10/04/98	0.0141	0.000789	S8-5-R
		10/04 - 10/05/98	*	0.0221	S8-7-R
		10/06 - 10/07/98	0.0784	0.00201	S8-8-R

	10/07 - 10/08/98	0.0466	0.00155	S8-10-R
	10/08 - 10/09/98	0.154	0.00197	S8-12-R
	10/09 - 10/10/98	0.0616	0.00158	S8-14-R
	10/10 - 10/11/98	0.0325	0.000987	S8-16-R
	10/11 - 10/12/98	0.0305	0.000986	S8-18-R
	10/12 - 10/13/98	0.0402	0.00134	S8-20-R
	10/13 - 10/14/98	0.124	0.004	S8-22-R
	10/17 - 10/18/98	0.0110	0.00197	S8-25-R

* These samples did not conform to AHERA standards and were not included.

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Table 3
Measured Ambient Asbestos Concentrations
Asbestos Monitoring in Silva Valley

This page updated September 15, 1999.

Detailed Listing
(Updated September 15, 1999)

Location Name	Geographical Area/City	Sampling Dates	Concentration (fibers per cc)		Sample Number
			Measured	MDL[1]	
Oak Ridge High School Site #1	El Dorado Hills	04/21/99 - 04/22/99	ND	0.0010	ORHS3-1
		04/22/99 - 04/23/99	ND	0.0010	ORHS3-2
		04/26/99 - 04/27/99	ND	0.0010	ORHS3-3
		04/27/99 -04/28/99	ND	0.0010	ORHS3-4
		04/28/99 - 04/29/99	ND	0.0010	ORHS3-5
Oak Ridge High School Site #2	El Dorado Hills	04/21/99 - 04/22/99	ND	0.0010	ORHS4-1
		04/22/99 - 04/23/99	ND	0.0010	ORHS4-2
		04/26/99 - 04/27/99	ND	0.0010	ORHS4-3
		04/27/99 -04/28/99	ND	0.0010	ORHS4-4
		04/28/99 - 04/29/99	ND	0.0010	ORHS4-5
Silva Elementary School Site #1	El Dorado Hills	04/21/99 - 04/22/99	0.0019	0.0010	SESN-1
		04/22/99 - 04/23/99	ND	0.0010	SESN-2
		04/26/99 - 04/27/99	ND	0.0010	SESN-3
		04/27/99 -04/28/99	ND	0.0010	SESN-4
		04/28/99 - 04/29/99	ND	0.0010	SESN-5
Silva Elementary School Site #2	El Dorado Hills	04/21/99 - 04/22/99	0.0010	0.0010	SESS-1
		04/22/99 - 04/23/99	ND	0.0010	SESS-2
		04/26/99 - 04/27/99	ND	0.0008	SESS-3
		04/27/99 -04/28/99	ND	0.0010	SESS-4
		04/28/99 - 04/29/99	ND	0.0010	SESS-5
Silva Elementary School Site #3	El Dorado Hills	04/22/99 - 04/23/99	0.0009	0.0009	SESNG-1
		04/23/99 - 04/24/99	ND	0.0010	SESNG-2

		04/26/99 - 04/27/99	ND	0.0008	SESNG-3
		04/27/99 -04/28/99	ND	0.0010	SESNG-4
		04/28/99 - 04/29/99	ND	0.0009	SESNG-5
Silva Elementary School Site #4	El Dorado Hills	04/22/99 - 04/23/99	0.0019	0.0010	SESSG-1
		04/23/99 - 04/24/99	ND	0.0010	SESSG-2
		04/26/99 - 04/27/99	0.0008	0.0008	SESSG-3
		04/27/99 -04/28/99	ND	0.0009	SESSG-4
		04/28/99 - 04/29/99	ND	0.0010	SESSG-5
Construction Site	El Dorado Hills	04/21/99 - 04/22/99	ND	0.0010	CONST-1
		04/22/99 - 04/23/99	ND	0.0010	CONST-2
		04/26/99 - 04/27/99	ND	0.0010	CONST-3
		04/27/99 -04/28/99	ND	0.0010	CONST-4
		04/28/99 - 04/29/99	ND	0.0010	CONST-5
Box Blank		4/29/99	ND	0.0010	BOX-1
Field Blank		4/29/99	ND	0.0010	FIELD-1

NOTES:

1. MDL - Minimum Detection Limit.
2. ND - no asbestos detected.

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Appendix D

Letter From the Department of Real Estate

DEPARTMENT OF REAL ESTATE
P.O. Box 187005
Sacramento, CA 95818-7005
)16) 227-0813

September 11, 2000

«FIRST» «LAST»
«ATTENTION_LINE»
«ADDR1»
«ADDR2»
«CITY», «STATE» «ZIP»

RE: PUBLIC REPORT AMENDMENT
DRE File No.: «FILE_NUMBER»-«DOCU_MENT_NUMBER»
Subdivision Name: «NAME»
Public Report Issuance Date: «START_DATE»

Dear Sir or Madam:

The above referenced subdivision may be located in an area included on a map titled "Areas More Likely to Contain Natural Occurrences of Asbestos in Western El Dorado County, California", released by the California Department of Conservation, Division of Mines and Geology, dated March 2000 (El Dorado Map). Pockets in various portions of El Dorado County have been identified to likely contain natural occurrences of asbestos. You may obtain more information regarding the map and accompanying report by contacting the Department of Conservation, Division of Mines and Geology, 801 K Street, Room 1400, Sacramento, California, 95814, (916) 445-5716, or their web site at www.consrv.ca.gov.

Naturally occurring asbestos may pose a health hazard to those exposed to ambient asbestos fibers. Such fibers may be found in serpentine rock used as a surface material for unpaved roads. The California Air Resources Board has advised that asbestos emissions can occur when asbestos-containing rocks are crushed or broken, such as occurs when vehicles pass over unpaved roads or parking lots, or during construction activities.

Therefore, due to the concern regarding potential health risks resulting from naturally occurring asbestos, the Department of Real Estate intends to issue a "no-fee" amendment to the referenced public report in order to disclose the likelihood that natural occurrences of asbestos may be present in rock materials located on or in the vicinity of the referenced subdivision and that related potential health risks may exist. However, an amended public report will not be necessary under certain circumstances.

If any one of the conditions listed below applies to the referenced subdivision, please check the applicable box, sign as indicated and return this entire letter to my attention at the address indicated above, or via FAX at (916) 227-0842, no later than October 13, 2000. Unless a response is received by that date, an amended public report will be issued which will supercede the current public report. Please advise if you prefer to arrange to pick-up the amended report from our Sacramento office; otherwise, the report will be mailed to the above address.

If you have any questions, you may contact me directly at the above phone number and address.

Sincerely,

THOMAS R. HENSLEY
Assistant Commissioner
Subdivisions

An amendment to Public Report File No. «FILE_NUMBER»-«DOCU_MENT_NUMBER» is not necessary as the condition indicated below applies to the referenced subdivision:

- ☐ 1. The subdivision is not covered by the El Dorado Map.
- ☐ 2. The subdivision is located in the area identified on the El Dorado Map as "Areas That Probably Do Not Contain Asbestos".
- ☐ 3. The public report requirement is no longer applicable as all lots in the subdivision have been sold.
- ☐ 4. The public report has expired.
- ☐ 5. Geologic testing has been conducted on the property and it was determined that the subdivision does not contain natural occurrences of asbestos.
- ☐ 6. The public report already includes a disclosure regarding the possibility of natural occurrences of asbestos and that related potential health risks may exist.

Signature of Subdivider	Date

Printed Name of Subdivider	Capacity

Name of Corporation, LLC, Partnership, etc.

If the subdivider is a corporation, limited liability company (LLC), partnership, etc., the individual signing must stipulate the capacity of the signer and an authorization to sign must be submitted.

PUBLIC REPORT LANGUAGE - NATURALLY OCCURRING ASBESTOS

Use the following if subdivider indicates that naturally occurring asbestos may be found in or near the subdivision:

The subdivider has advised that natural occurrences of asbestos-containing rock may be found in or near this subdivision. Naturally occurring asbestos may pose a health hazard to those exposed to ambient asbestos fibers. Such fibers may be found in serpentine rock used as a surface material for unpaved roads. The California Air Resources Board has advised that asbestos emissions can occur when asbestos-containing rocks are crushed or broken, such as occurs when vehicles pass over unpaved roads or parking lots, or during construction activities.

General information on emissions and health impacts from naturally occurring asbestos can be obtained from the Air Resources Board web site at "www.arb.ca.gov/toxics/asbestos". To obtain specific information on your lot. you may wish to contact the subdivider or consult with an appropriate expert who can identify and test any exposed asbestos-containing rock that may either exist on the property or within its vicinity to determine whether it will present a health risk.

Use the following if subdivider does not provide evidence that geologic testing results concluded that NO naturally occurring asbestos containing materials may be found in or near the subdivision and the subdivision is included on El Dorado County map:

This subdivision is in an area included on a map titled "Areas More Likely to Contain Natural Occurrences of Asbestos in Western El Dorado County. California", released by the California Department of Conservation. Division of Mines and Geology, dated March 2000. You may obtain more information regarding the map and accompanying report by contacting the Department of Conservation, Division of Mines and Geology, 801 K Street, Room 1400. Sacramento, California, 95814, (916) 445-5716, or their web site at www.consrv.ca.gov.

Naturally occurring asbestos may pose a health hazard to those exposed to ambient asbestos fibers. Such fibers may be found in serpentine rock used as a surface material for unpaved roads. The California Air Resources Board has advised that asbestos emissions can occur when asbestos-containing rocks are crushed or broken, such as occurs when vehicles pass over unpaved roads or parking lots, or during construction activities.

General information on emissions and health impacts from naturally occurring asbestos can be obtained from the Air Resources Board web site at *www.arb.ca.gov/toxics/asbestos*. For specific information, you should consult

with an appropriate expert who can identify and test any exposed asbestos-containing rock that may either exist on the property or within its vicinity to determine whether it will present a health risk.

Appendix E

Governor's Office of Planning and Research
Memorandum Regarding:
"Addressing Naturally-Occurring Asbestos in CEQA Documents"

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Governor's Office of Planning and Research

MEMORANDUM

Governor's Office of Planning and Research
State Clearinghouse

Date: October 26, 2000

To: All CEQA Lead Agencies

From: Terry Roberts, Senior Planner
Governor's Office of Planning and Research

Re: Addressing Naturally Occurring Asbestos in CEQA Documents

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1. Purpose

This advisory memorandum provides guidance to Lead Agencies to analyze the impacts of naturally occurring asbestos (NOA) on the environment through the California Environmental Quality Act (CEQA) review process.

2. Background

What it is:

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board (CARB) in 1986. All types of asbestos are hazardous and may cause lung disease and cancer.

Serpentinite may contain chrysotile asbestos, especially near fault zones. Ultramafic rock, a rock closely related to serpentinite, may also contain asbestos minerals. Asbestos can also be associated with other rock types in California, though much less frequently than serpentinite and/or ultramafic rock. However, the information available at this time is insufficient to allow such occurrences to be mapped on a regional or statewide basis.

Where it is found:

Serpentinite and/or ultramafic rock are known to be

Training Series
- CEQA Technical Advice Series
- How to Order OPR Publications

present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. These counties are identified in the attached list (Attachment 1). A map of ultramafic and serpentinite rock areas of the state that may contain NOA can be accessed at http://www.consrv.ca.gov/dmg/minerals/ultramafic/index.htm. The map also contains definitions for asbestos, serpentine, serpentinite, and ultramafic rock. More detailed quadrangle maps indicating ultramafic rock units in California may be obtained from the Department of Conservation (DOC), Division of Mines and Geology. It should be noted that these geologic maps are *generalized* depictions of the presence and distribution of rock types for given areas. Consequently, they may not show all potential occurrences of NOA within the areas they cover.

3. The Issue

Although NOA is present in many counties in California, many Lead Agencies are not aware of the environmental effects of NOA or how to analyze and mitigate them in the planning process.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed.

4. Regulations

Under current regulations, serpentinite and asbestos-bearing ultramafic rock materials used for surfacing applications subjected to vehicular, pedestrian, or non-pedestrian use, such as cycling and horse-back riding, may not contain more than 5% asbestos under the Asbestos Airborne Toxic Control Measure (ATCM) adopted by the CARB in 1990. In July 2000, the CARB amended this ATCM whereby the allowable asbestos content was lowered to less than 0.25% for surfacing applications. This regulation will be effective in the spring of 2001. In addition, the amended rule prohibits the use of surfacing material from ultramafic rock units identified on specific geological maps developed by the DOC, unless testing of the material demonstrates that it is below the 0.25% asbestos content limit (below currently detectable limits). Some limited exemptions are contained in the rule with the requirement that

applications for the exemptions be filed with the air pollution control or air quality management districts. The specific geological maps can be purchased through the DOC at the address listed in Section VI of this memo. More information about the CARB's ATCM can be obtained through the CARB web site, or by contacting them directly at the address listed in Section VI of this memo.

The CARB is evaluating the need for a regulation to minimize NOA through the application of best management practices for fugitive dust from construction, grading and quarrying operation in areas of NOA. The CARB staff is tentatively scheduled to present this regulation for its Board's consideration in Spring 2001.

5. Addressing the NOA Issue through CEQA Review

NOA is an environmental issue appropriate for analysis and review under CEQA.

Why CEQA?

The CEQA process provides an opportunity for Lead Agencies to identify whether serpentinite or ultramafic rocks will be disturbed by the proposed project and to investigate ways to avoid, control, or otherwise mitigate the impacts of NOA. In addition, CEQA gives Lead Agencies the authority to require mitigation measures as a condition of the approval of a proposed project. NOA analysis can be logically included in the typical impact analysis for air quality, human health, and geology and soils.

CEQA requires that Lead Agencies evaluate the effects of proposed projects on the environment, including public health and safety impacts such as those resulting from the release of NOA by project activities. CEQA Guidelines Section 15126.2 specifically states:

"In assessing the impact of a proposed project on the environment, the Lead Agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced by population distribution, population concentration, the human use of land (including commercial and residential development), health and safety problems caused by physical changes (emphasis added), and other aspects of the resource base such as water, historical resources, scenic quality and public services."

The CEQA process enables early identification of NOA and its associated environmental impacts. This encourages better decision-making by Lead Agencies and strengthens the Lead Agency's ability to protect the public health and welfare. The Lead Agency also benefits from greater protection against legal challenges to the adequacy of the CEQA document, if the NOA impacts and mitigation measures are clearly addressed.

How to Address the NOA Issue in a CEQA Document:

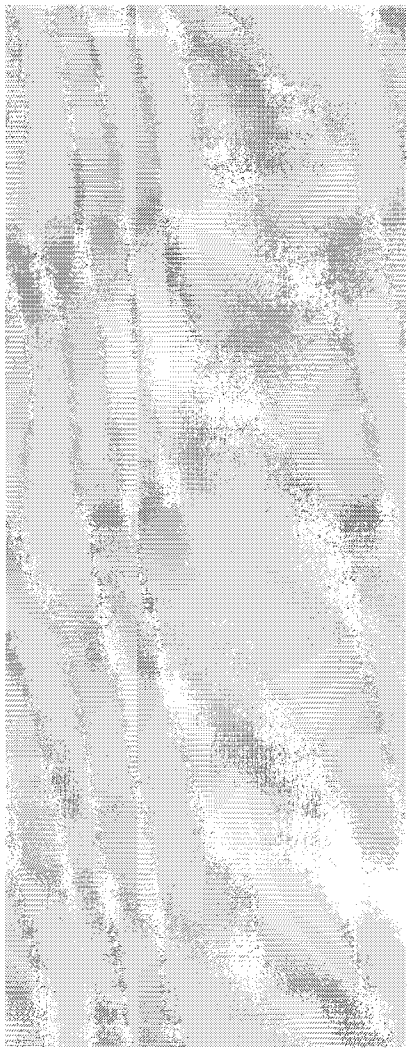
The Lead Agency should address the possibility of human exposure to NOA in the CEQA document for a proposed project. The Lead Agency should identify the nature and extent of exposure to NOA based on the project location and type of development that is being proposed. Even if the presence of NOA is not indicated or suggested by available state maps, it should still be addressed within the CEQA document if NOA is otherwise known to occur in an area.

Analysis of the NOA issue can be incorporated into the CEQA document's sections on air quality, geology and soils, and/or human health, depending on the nature of the project. Thresholds of significance should be developed to determine if the impacts from NOA are significant.

Jurisdictions that are known to have large amounts of NOA may want to develop standardized mitigation measures when those thresholds are reached. The CARB has developed a list of mitigation measures that can reduce emissions during the design, construction, and operation phases of projects. These measures are listed in the attached table (Attachment 2). As mentioned earlier, the CARB staff is evaluating a regulation to minimize NOA emissions from construction, grading, and quarrying operations through the use of best management practices, including those in Attachment 2. Check with the CARB for any updates to these dust mitigation options by checking its web site at http://www.arb.ca.gov/toxics/asbestos.htm, or by contacting them directly at the address listed in Section VI. If a Lead Agency considers these mitigation measures to be inadequate, they may develop alternative mitigation measures and/or propose project alternatives.

6. For More Information

The CARB and the DOC have done considerable research on NOA. The DOC is currently developing guidelines for geologic investigations of sites where NOA may be present. The DOC has recently completed several maps related to NOA in California, but such specialized maps are unavailable for most of the state at this time. In their absence, DOC can provide information on the availability and use of



existing geologic and soil maps to identify areas in California with the potential for NOA. The following links are provided for access to additional information on NOA.

California Air Resources Board
California Department of Conservation

For more information and technical assistance in addressing this issue in your CEQA documents, please contact:

State Clearinghouse
Office of Planning and Research
1400 Tenth Street, Room 222
P.O. Box 3044
Sacramento, CA 95812-3044
Telephone (916) 445-0613
Web site: www.opr.ca.gov
E-Mail: state.clearinghouse@opr.ca.gov

California Air Resources Board (CARB)
Public Information Office
P.O. Box 2815
Sacramento, CA 95812
Telephone: 916-322-2990
Web site: www.arb.ca.gov

California Department of Conservation (DOC)
Division of Mines and Geology
Map Information
801 K Street MS 14-34
Sacramento, CA 95814-3532
Telephone: (916) 445-5716
Web site: www.consrv.ca.gov

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Appendix F

Glossary

Appendix F. Glossary

Adequately Wetted:	Means sufficiently moistened with water to minimize the release of particulate matter into the ambient air as determined by the test method(s) in subsection (g)(5) of the proposed ATCM.
Airborne Toxic Control Measure:	Section 39655 of the Health and Safety Code, defines an "Airborne Toxic Control Measure" means either of the following: 1) Recommended methods, and, where appropriate, a range of methods, that reduce, avoid, or eliminate the emissions of a toxic air contaminant. Airborne toxic control measures include, but are not limited to, emission limitations, control technologies, the use of operational and maintenance conditions, closed system engineering, design equipment, or work practice standards, and the reduction, avoidance, or elimination of emissions through process changes, substitution of materials, or other modifications. 2) Emission standards adopted by the U.S. Environmental Protection Agency pursuant to section 112 of the federal act (42 U.S.C. Sec. 7412).
Asbestos:	Means asbestiforms of the following minerals: chrysotile (fibrous serpentine), crocidolite (fibrous riebeckite), amosite (fibrous cummingtonite--grunerite), fibrous tremolite, fibrous actinolite, and fibrous anthophyllite.
Asbestos Dust Mitigation Plan:	Means a detailed written document specifying measures that would be implemented to minimize the emissions of asbestos-laden dust.
Construction/Grading Operation:	Mean any surface disturbance conducted with powered equipment or any related activity, including, but not limited to, all surface and subsurface cuts and fills, excavation, trenching, stockpiling, bulldozing, and landfills.
Geologic Evaluation:	Means an evaluation of a property to determine the presence of various types of rocks, including ultramafic rock, serpentinite, or other metamorphic derivatives of ultramafic rock.

Hazardous Air Pollutant (HAP):	Means a substance that the U.S. Environmental Protection Agency has listed in, or pursuant to, section 112 subsection (b) of the federal Clean Air Act Amendments of 1990 (42 U.S. Code, section 7412(b)).
Naturally-Occurring Asbestos:	Means asbestos that has not been processed in an asbestos mill.
Quarrying:	Means the act of obtaining stone from the earth by means of cutting, digging, excavating, or blasting and includes processes used to convert the excavated material into commercial products.
Registered Geologist:	Means an individual that is currently licensed as a geologist with the State of California, Department of Consumer Affairs, Board of Geology and Geophysicists.
Sand and Gravel Operation:	Means any facility operating in alluvial deposits.
Scientific Review Panel on Toxic Air Contaminants (SRP):	A nine-member panel appointed to advise the Air Resources Board and the Department of Pesticide Regulation in their evaluation of the adverse health effects toxicity of substances being evaluated as Toxic Air Contaminants.
Serpentine:	Means any form of the following hydrous magnesium silicate minerals: antigorite, lizardite, and chrysotile.
Serpentinite:	Means a rock consisting almost entirely of serpentine, although small amounts of other minerals such as magnetite, chromite, talc, brucite, and tremolite-actinolite may also be present. "Serpentinite" is a metamorphic derivative of the ultramafic rocks, peridotite, pyroxenite, or dunite.
Surface Mining:	Means all, or any part of, the process involved in the mining of minerals on mined lands by removing overburden and mining directly from the mineral deposit, open-pit mining of minerals naturally exposed, mining by the auger method, dredging and quarrying, or surface work incident to an underground mine. "Surface mining" includes, but is not limited to, in place distillation or retorting or leaching, the production and disposal of mining waste, prospecting and exploratory activities or any activity subject to regulation under the Surface Mining and Reclamation Act of 1975, Public Resources Code section 2700 et seq.

Toxic Air Contaminant (TAC):	Section 39655 of the Health and Safety Code, defines a TAC as an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a TAC. TACs that are pesticides are regulated in their pesticidal use by the Department of Pesticide Regulation.
Track-out or Carry out:	Means any and all bulk material that adheres to and agglomerates on the exterior surfaces of motor vehicles, haul trucks, and/or equipment, including tires, and that has fallen or been deposited onto a paved public roadway.
Ultramafic Rock:	Means an igneous rock composed of 90 percent or greater of one or a combination of the following iron/magnesium-rich, dark-colored silicate minerals: olivine, pyroxene, or more rarely amphibole. For the purposes of this section, "ultramafic rock" includes the following rock types: dunite, pyroxenite, and peridotite; and their metamorphic derivatives.
Visible Emissions:	Means any particulate mater that is visually detectable without the aid of instruments other than corrective lenses.

Acronyms

AB	Assembly Bill
AHERA	Asbestos Hazardous Emergency Response Act
ARB	Air Resources Board
APCD	Air Pollution Control District
APCO	Air Pollution Control Officer
AQMD	Air Quality Management District
ATCM	Airborne Toxic Control Measure
AWPR	Asbestos Worker Protection Regulation
BACT	Best Available Control Technology
Board	Air Resources Board
Cal/EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
Cal/OSHA	California Occupational Safety and Health Act
CAPCOA	California Air Pollution Control Officers Association
CEQA	California Environmental Quality Act
DHS	California Department of Health Services
Districts	Local Air Pollution Control and Air Quality Management Districts
DOC	Department of Conservation, Division of Mines and Geology
DOF	California Department of Finance
DTSC	California Department of Toxics Substances Control
GURU	Geographic Ultramafic Rock Unit
HAP	Hazardous Air Pollutant
H&SC	Health and Safety Code
MDL	Minimum Detection Limit
MSHA	Mine Safety and Health Administration
NESHAP	National Emissions Standards for Hazardous Air Pollutant
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PM_{10}	Particulate Matter Ten Microns or Less
SB	Senate Bill
SRP	Scientific Review Panel on Toxic Air Contaminants
TAC	Toxic Air Contaminant
TSCA	Toxic Substances Control Act of 1976
TSP	Total Suspended Particles
U.S. EPA	United States Environmental Protection Agency
USGS	U.S Geological Survey