Bay Area Air Quality Management District

Compliance and Enforcement of the Asbestos ATCM for Construction and Grading in the SF Bay Area

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Outline

- Background
- Regulatory Requirements
- Air District Challenges
- NOA in Contra Costa County
- City & County Collaboration

California State Rock: Serpentine
Naturally-Occurring Asbestos (NOA)

- Naturally occurring fibrous mineral found in ultramafic rock
- Regulated types of asbestos: Chrysotile, Crocidolite, Amosite, Tremolite, Actinolite and Anthophyllite
- 53 of California's 58 counties have reported NOA occurrences
- Asbestos is classified as a known human carcinogen

Regulatory Background

- California Air Resources Board developed the Airborne Toxic Control Measure (ATCM) for NOA
  - Established notification and work practice requirements
- ATCM was adopted into California law in July 2002 (Title 17, CCR 93105)
- Air District implemented its enforcement program for NOA in November 2002.
NOA Locations in the Bay Area

- 9 bay area counties
- NOA Site location
  - Any portion located in geographic ultramafic rock unit
    Jsp → Great Valley complex serpentinite
  - Any portion has NOA, serpentine, or ultramafic rock as determined or discovered by owner/operator or BAAQMD

ATCM Requirements

- Construction and Grading Projects
  - **Small (≤1 acre)** – maintain required dust mitigation measures
  - **Large (> 1 acre)** – submit an Asbestos Dust Mitigation Plan (ADMP) for approval by BAAQMD
- Road Construction and Maintenance
  - Notify BAAQMD and maintain required dust mitigation measures
- Air Monitoring may be required by BAAQMD for > 1 acre construction sites
ATCM Requirements

- If NOA is discovered after construction begins, notification, implementation of dust measures, and ADMP (if >1 acre) required within a specified timeline

- Exemptions
  - Homeowners/tenants working on their own residential property < 1 acre
  - Agriculture and timber harvesting operations
  - Geological evaluation demonstrates that NOA is unlikely to be found (requires exemption application)
  - Road construction related to emergency road repair or in remote location (requires exemption application)

Asbestos Dust Mitigation Plans

- Dust Prevention/Mitigation Measures
  - Track-out onto public roads
  - Active Storage Piles
  - Inactive Areas and Storage Piles
  - On-Site Traffic Control
  - Earth Moving Activities
  - Off-Site Material Transport
  - Post-Construction Stabilization
Asbestos Dust Mitigation Plans

- **Air Monitoring Plan**
  - Monitor locations
  - Sampling duration and frequency
  - Sampling equipment
  - Sampling protocols
  - Reporting

- Monitoring requirements based on assessment of nearby receptors, prevailing wind, area topography, site specifics

Asbestos Air Monitoring

Asbestos fibers analysis by Transmission Electron Microscopy (TEM)
- Results = # of structures per cm$^3$
Public Health Protection

- BAAQMD has set NOA air monitoring action levels
- NOA health risk was determined using established risk assessment protocols developed by the Office of Environmental Health Hazard Assessment (OEHHA)
- Many projects have voluntarily include the Action Levels in their ADMP

NOA Dust Mitigation

Visible emissions should never cross the project boundary
Air District Compliance Assurance

- Conduct onsite inspections
- Conduct dust surveillance
- Investigate all public complaints regarding dust or suspected NOA
- Review air monitoring results
- BAAQMD has approved 130 ADMPs to date

Air District Challenges

- Small dedicated staff; large region
- ATCM only applies when site is within an ultramafic unit or NOA is found at site
- Where else could NOA exist?
  - Areas adjacent to ultramafic units?
  - Sites where NOA-containing material was used for fill / base rock in the past?
NOA in Contra Costa County

- Richmond / El Cerrito area
NOA in Contra Costa County

- Mount Diablo area

City and County Collaboration

How can cities help ensure compliance with the ATCM in order to protect public health?

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<th>Impact</th>
<th>Action</th>
<th>Example</th>
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| Low    | Encourage due diligence                     | - Check box for projects: Does this project comply with all air quality regulations?  
|        |                                              | - Provide Air District contact info                                     |
| Medium | Provide awareness of the Regulation         | - Describe the NOA regulation,                                          |
|        |                                              | - Provide handout with checklist of requirements, and                   |
|        |                                              | - Provide Air District contact info                                     |
| High   | Require site evaluation for naturally occurring asbestos | Requirement could be based on one or more of the following:               |
|        |                                              | - project size                                                          |
|        |                                              | - proximity to populated areas                                          |
|        |                                              | - near to or down slope of ultramafic unit                              |
|        |                                              | - other                                                                  |
City and County Collaboration

Naturally Occurring Asbestos (NOA)
Regulated Activities

The following types of operations are subject to the indicated control, administrative and reporting requirements under the asbestos ATCM for construction and grading operations:

For Construction and Grading Operations that will disturb more than one acre:
- Prepare and obtain District approval for an Asbestos Dust Mitigation Plan prior to any construction or grading activity;
- The Asbestos Dust Mitigation Plan must specify how the operation will minimize emissions and must address specific emission sources;
- Prevent visible emissions from crossing the project boundaries regardless of the size of the disturbance.

For Construction and Grading Operations that will disturb one acre or less:
- Vehicle speed is limited to 15 mph or less;
- Water must be applied prior to and during ground disturbance;
- Keep storage piles wet or covered;
- Track-out prevention and removal.

For Road Construction and Maintenance Operations:
- Must use dust control measures for a specified set of emission sources;
- Prevent visible emissions from crossing the project boundaries;
- The District must be notified before any work begins.

Contra Costa County Hazardous Materials Commission
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Questions?

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www.baaqmd.gov/permits/asbestos/naturally-occurring-asbestos