UPDATED INFORMATIVE DIGEST

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

Sections Affected: Adoption of section 93105, title 17, California Code of Regulations (CCR).

Background

The California Toxic Air Contaminant Identification and Control Program (Program), established under California law by Assembly Bill 1807 (Chapter 1047, Statutes of 1983) and set forth in Health and Safety Code (HSC) sections 39650–39675, requires the ARB to identify and control air toxics in California. The Board identified asbestos as a toxic air contaminant (TAC) in 1986. Asbestos was identified without a Board-specified threshold exposure level.

Following the identification of a substance as a TAC, HSC section 39665 requires the ARB, with participation of the air pollution control and air quality management districts (districts), and in consultation with affected sources and interested parties, to prepare a report on the need and appropriate degree of regulation for that substance. HSC section 39666(b) requires that this “needs assessment” address, among other things, the technological feasibility of proposed airborne toxic control measures (ATCMs) and the availability, suitability, and relative efficacy of substitute products or processes of a less hazardous nature. A needs assessment for asbestos was conducted between 1989 and 1990 as part of the ARB’s development of the Asbestos ATCM for Asbestos-Containing Serpentine ("Asbestos ATCM"; title 17, California Code of Regulations, section 93106). ARB staff prepared an Initial Statement of Reasons (ISOR) for the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations that, together with the 1990 needs assessment, serves as the report on the need and appropriate degree of regulation for the ATCM.

Once the ARB has evaluated the need and appropriate degree of regulation for a TAC, HSC section 39666 requires the ARB to adopt regulations (ATCMs) to reduce emissions of the TAC to the lowest level achievable through the application of best available control technology (BACT) or a more effective control method, in consideration of cost, risk, environmental impacts, and other specified factors. In developing the proposed ATCM, State law also requires assessment of the appropriateness of substitute products or processes.

In 1990, an Asbestos ATCM was adopted by the Board imposing an asbestos limit of five percent for serpentine material for surfacing applications. At the time of the adoption, the Board directed the staff (Resolution 90-27, 1990) to return to the Board at such time that it be deemed necessary to further control emissions of asbestos from existing sources. Since the 1990 adoption of the Asbestos ATCM, additional

information from monitoring and modeling studies has been developed. This information shows a potential for significant exposures and risks for individuals living near unpaved roads surfaced with serpentine material meeting the five percent asbestos limit. In order to address this issue, an amended Asbestos ATCM was adopted by the Board in July 2000 restricting asbestos content of surfacing materials to less than 0.25 percent asbestos.

The air monitoring studies, including those conducted in California and Virginia, have also indicated that activities associated with construction, grading, quarrying, and surface mining in areas known to have naturally-occurring asbestos can result in asbestos concentrations in the air that represent a potential public health hazard. Potential asbestos emissions from these activities have also been a source of public concern. Field observations and air monitoring has also demonstrated that actions taken to control dust emissions from these activities are effective in reducing asbestos emissions. Accordingly, the Board has adopted a new asbestos ATCM to protect public health by minimizing emissions from construction, grading, quarrying, and surface mining operations.

Description of the Regulatory Action

The ATCM is designed to minimize the public's exposure to asbestos by requiring work practices that will minimize dust emissions from activities associated with construction, grading, quarrying and surface mining. Three industry sectors are covered by the adopted ATCM: construction, road construction and maintenance, and quarrying and surface mining. The requirements apply to projects where the area to be disturbed is in an area specified on maps published by the Department of Conservation's (DOC) Division of Mines and Geology showing ultramafic rock units or where ultramafic rock, serpentine, or naturally-occurring asbestos is known to occur, even if not shown on the maps.

The requirements for construction and grading projects are divided into provisions for projects that disturb one acre or less (small construction projects), and those that disturb more than one acre (large construction projects). The requirements for small construction projects include wetting the soil area to be disturbed; wetting, covering, or stabilizing storage piles; limiting vehicle speeds; cleaning equipment before moving it off-site; and cleaning up visible trackout on the paved public road.

Large construction projects are required to obtain an approved dust mitigation plan from the district. The plan must specify measures that will be taken to control emissions of dust and must address specific topics. The topics that must be addressed are dust mitigation measures for the following: track-out prevention and removal, disturbed surface areas and storage piles that will be inactive more than seven days, on-site vehicle traffic, active storage piles, earthmoving activities, off-site transport, post construction stabilization, and air monitoring (if required by the district). The ATCM also requires that no equipment or activities emit dust that is visible crossing the property line.

The requirements for road construction and maintenance include notifying the district before starting the project, wetting the area to be disturbed, restricting traffic speed, and preventing visible trackout on the paved public roadway. These requirements also prohibit the emission of dust that is visible crossing the project boundaries. Emergency road repair is exempted from the pre-notification requirement.

Quarries and surface mines must obtain district approval for an asbestos dust mitigation plan that ensures that certain equipment and processes meet specified opacity requirements, that specific dust mitigation measures are employed, and that visible dust does not pass over the property line. In addition to processing controls, the plan must include air monitoring (if required by the district), trackout control, and control for on-site public roads.

Potentially affected sources can obtain an exemption from the ATCM if a geologic evaluation determines that the area to be disturbed is not likely to contain any ultramafic rock or serpentine. Road construction and maintenance activities can obtain an exemption if the activity is more than a mile from any receptor. Agricultural operations and timber harvesting, except for road and building construction, are exempted from the ATCM. Sand and gravel operations can obtain an exemption from the ATCM for activities associated with the processing and storage of material extracted from alluvial deposits.

The ATCM also contains sections addressing recordkeeping and reporting, test methods, timelines, and definitions. In accordance with Government Code sections 11345.3(c) and 11346.5(9)(11), the ARB's Executive Officer has found that the recordkeeping and reporting requirements of the resolution are necessary for the health, safety, and welfare of the people of the State.

Comparable Federal Regulations

The U.S. EPA has promulgated an Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP); 40 C.F.R. Part 61, Subpart M, sections 61.140 et seq. The Asbestos NESHAP established standards that apply to asbestos mills, roadways constructed with asbestos mine tailings or asbestos-containing waste material, manufacturing operations using asbestos, demolition or renovation where asbestos may be present, spraying of asbestos-containing material, fabrication operations using asbestos, insulating material containing asbestos and disposal of waste from various sources. This regulation covers asbestos-containing manufactured products and waste containing asbestos and does not cover naturally-occurring asbestos material.

The U.S. EPA has promulgated a National Pollutant Discharge Elimination (NPDES) storm water program (Phase I); 40 C.F.R. Part 122, 123, 124 to address water discharges from Industrial, Municipal and Construction activities. Quarries and surface mines are covered under the Industrial section of the NPDES regulation. The Construction section covers construction sites that disturb five acres or more. NPDES

provide that discharges of storm water to waters of the United States from Industrial, Municipal, and Construction projects are effectively prohibited unless the discharge is in compliance with a state issued NPDES permit. The NPDES permit requires all Industrial, Municipal and Construction dischargers to develop and implement a Storm Water Pollution Prevention Plan which specifies Best Management Practices (BMPs) that will prevent all pollutants (including soil) from contacting storm water with the intent of keeping all products of (wind and water) erosion from moving off site into receiving waters. Phase II of NPDES (40 CFR Part 122, Subpart B, Section 122.26 et seq) goes into affect March 10, 2003. Phase II reduces the size of the covered construction activity to one acre. Both Phases of NPDES require BMPs for fugitive dust emissions and trackout control. However, the BMPs do not require that no visible dust leave the property and they allow dry sweeping of trackout areas. The proposed Asbestos ATCM is more stringent in that it requires that no visible dust leave the property and does not allow dry sweeping in any situation.