

Dust Control

Definition: Reducing surface and air movement of dust during construction activities.

Purpose: To prevent surface and air movement of dust from exposed soil surfaces and reduce the presence of airborne substances which may be harmful or injurious to human health, welfare, or safety, or to animal or plant life.

Conditions Where Practice Applies: In areas subject to surface and air movement of dust where on-site and off-site damage is likely to occur if preventive measures are not taken.

Planning Considerations

Construction activities inevitably result in the exposure and disturbance of soil. Dust is emitted both during the activities (i.e., excavation, demolition, vehicle traffic, human activity) and as a result of wind erosion over the exposed earth surfaces. Large quantities of dust are typically generated in "heavy" construction activities, such as road and street construction and subdivision, commercial or industrial development, which involve disturbance of significant areas of soil surface. Earth-moving activities comprise the major source of construction dust emissions, but traffic and general disturbance of the soil also generate significant dust emissions.

In planning for dust control the amount of soil exposed at any one time should be kept to an absolute minimum. Therefore, phasing a project and utilizing temporary stabilization practices upon the completion of grading can significantly reduce dust emissions.

Temporary Measures

1. **Mulches** — See *Mulching*.
2. **Vegetative Cover** — See *Temporary Critical Area Planting*.
3. **Irrigation** — This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

To prevent carryout of mud onto streets, refer to *Temporary Construction Entrance*.

4. **Barriers** — Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15-times the barrier height are effective in controlling wind erosion.
5. **Calcium Chloride** — Apply at rate that will keep surface moist. May need retreatment.

Permanent Measures

1. **Permanent Vegetation** — See standards for *Permanent Critical Area Planting*. Existing trees and large shrubs may afford valuable protection if left in place.
2. **Topsoiling** — This entails covering the surface with less erosive soil material. See *Topsoiling*.
3. **Stone** — Cover surface with crushed stone or coarse gravel.