

Chapter 4 - BEST MANAGEMENT PRACTICE STANDARDS

DUST CONTROL (Temporary Practice)

Definition

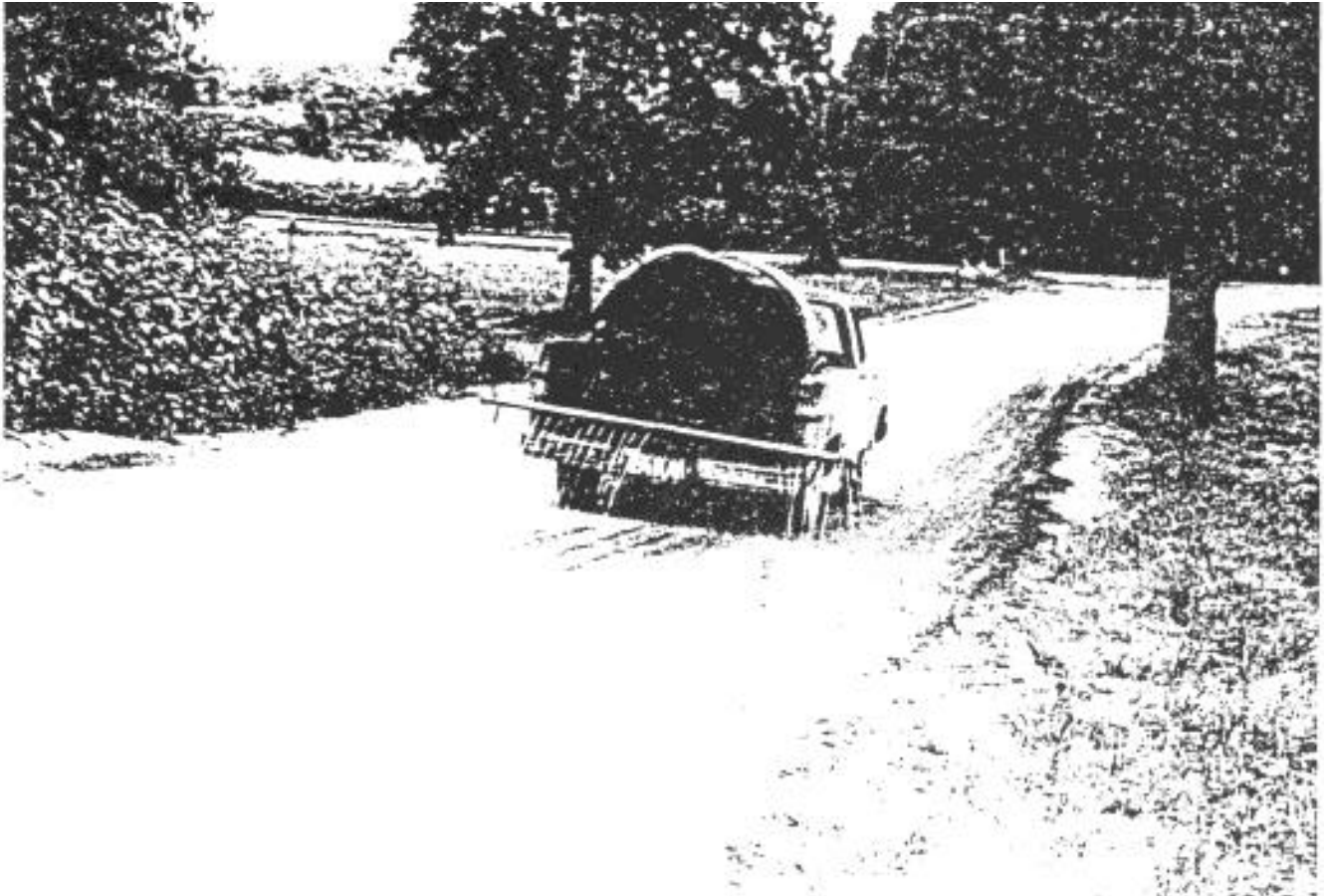
Reducing the movement of dust during land disturbance, demolition, or construction activities.

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. Fugitive 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 and industrial development, which involve disturbance of significant areas of soil surface. Research at construction sites has established an average dust emission rate of 1.2 tons/acre/month for active construction. 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, it should be obvious that the less soil is exposed at any one time, the less potential there will be for dust generation. 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. Synthetic resins may be used instead of asphalt to bind mulch material.
2. Vegetative Cover - See TEMPORARY SEEDING.
3. Spray-on Adhesives - These are used on mineral soils. Keep traffic off these areas.

SPRAY-ON ADHESIVE SPECIFICATIONS

| <u>Adhesive</u> | <u>Water Dilution</u> | <u>Type of Nozzle</u> | <u>Application Rate (Gallons/Ac.)</u> |
|--------------------------|-----------------------|-----------------------|---------------------------------------|
| Anionic Asphalt emulsion | 7:1 | Coarse Spray | 1,200 |
| Latex emulsion | 12-1/2:1 | Fine Spray | 235 |
| Resin-in-water emulsion | 4:1 | Fine Spray | 300 |

4. Sprinkling - The site is sprinkled with water until the surface is wet. Repeat as needed. This method is especially effective on haul roads and other traffic routes.

To prevent carryout of mud onto streets, refer to CONSTRUCTION ENTRANCE.

5. Barriers - Solid board 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.

Permanent Methods

6. Permanent Vegetation - See standards for permanent seeding, and permanent stabilization with sod. Existing trees and large shrubs may afford valuable protection if left in place.
7. Topsoiling - This entails covering the surface with less erosive soil material. See TOPSOILING.
8. Stone - Cover surface with crushed stone or coarse gravel