Dust Control

Dust control practices reduce the potential for construction activities to generate dust from disturbed soil surfaces. Construction sites can have large areas of soil disturbance and open space from which wind can pick up dust particles. Airborne particles pose a dual threat to the environment and human health. Dust that the wind carries off-site can impact nearby waterbodies due to direct deposition or transport by stormwater.

Construction staff responsible for dust control should determine which practices accommodate their needs according to specific site and weather conditions. The following is a brief list of example control measures and design criteria

- Sprinkling/irrigation - Sprinkling the ground surface with water until it is moist is an effective dust control method for most sites, particularly on haul roads and other traffic routes where other dust control methods may not be possible.
- Vegetative cover - In areas that construction staff do not designate for vehicle traffic, vegetative cover reduces wind velocity at the ground surface, thus reducing the potential for dust to become airborne.
- Mulch - Can reduce wind erosion by 75-95%. Mulching can be a quick and effective dust control method for a recently disturbed area.
- Wind breaks - Wind breaks are barriers (either natural or constructed) that reduce the velocity of wind through a site, thereby reducing the number of particles the wind suspends. Wind breaks can be trees or shrubs that construction staff leave in place during site clearing or constructed barriers such as wind fences, snow fences, tarp curtains, hay bales, crate walls or sediment walls.
- Stone - Gravel can reduce soil losses by 95% compared to unstabilized soils. Stone can be an effective dust deterrent for construction roads and entrances or serve as mulch in areas that cannot establish vegetation.
- Chemical soil stabilization - There are several different categories of chemical soil treatments: water absorbing, organic non-petroleum, organic petroleum, synthetic polymer emulsion, concentrated liquid stabilizer and clay additive.

	Rock pad is poorly constructed; rock is too small. Use filter fabric under rock and larger sized rock, such as #2. No mud should be tracked onto paved roads open for traffic.
	Well developed entrance with appropriate sized gravel. Note lack of tracking on the road.
	Excellent soil coverage at stream bank stabilization project using hand scattered straw, jute matting, and erosion blanket.

References

EPA Dust Control

Dust Control Measures for Construction Projects

EPA Construction Track-out Controls

EPA Chemical Stabilization