MAP CODE
WIND

WIND PROTECTION

USE
Dust
Erosion
Sediment

What

- Any structure or method to block or reduce wind flow.

Purpose

- To reduce the exposure of dust-generating material to wind, or reduce the velocity of wind, thus controlling dust generation and distribution and maintaining air quality.

Where

YES: Primarily around processing equipment such as screens, crushers, conveyors, hoppers and chutes, but also around stockpiles and roads.

Materials, Equipment & Costs

- Trees, plywood, lumber, tarps, metal sheeting, used tires (to make a wall or barrier).
- Labour.
- $ Low.

Plans & Specs

- For the property as a whole, wind protection includes constructing treed berms and retaining as many original trees and shrubs as possible.
- For individual equipment or activity, wind protection includes placing barriers directly in front of dust generating activities to create small, localized wind shadows.
- The creation of small wind shadows will allow locally generated dust to fall out before it can be caught by the wind and carried off-site.
- Awareness of the wind direction and strength at the site will help in the placing of both large and localized wind barriers.

Options

- Backstops

  Backstops are freestanding walls of plywood, fencing, used tires or used conveyor belts placed between the prevailing wind and any dust generating point sources.

- Diverters
  Diverters are smaller barriers attached to equipment or located right next to equipment or point sources of dust. They can be made from plywood or sheet metal.
- Vegetative Cover
  A dense vegetative screen consisting of trees and shrubs can reduce the impact of wind and resultant spread of dust on a specific location. Trees and shrubs require time to grow and are not mobile (see Vegetation Cover BMP).
- Containment / Enclosure
  Any type of enclosure for conveyors, chutes, process plant, stockpiles, etc. Enclosures can include hoods, dust socks, blasting mats and buildings in which plants such as crushers or screens can operate.
- Temporary Enclosures
  Can be constructed using sheet material such as plywood on scaffolding or masonry materials. Straw bail walls supported with scaffolding have also been effectively used for both wind and noise barriers.
- Bays or Bunkers
  Storing aggregate in bays or bunkers made with lumber or pre-cast concrete blocks will help shield granular material from the wind.
- Tarping loads
  Spillage and blow-off of fine material from dump trucks can be prevented by tarping the load (see Tarps).

Maintenance

- Minimal, dependent on systems used.

Sources

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