



CAP India
Clean Air Project in India







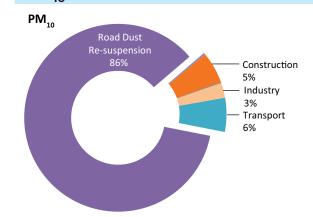


# Clean Construction Guidelines to Mitigate Air Pollution at Construction Sites

Construction activities that contribute to air pollution include:

- Emissions from cutting, drilling, grinding, scabbling, sand and grit blasting and façade cleaning
- Vehicles and machinery on site
- Land clearing and demolition activities
- · Handling storage and spillage of material

### PM<sub>10</sub>Source Contributions in Lucknow



### **Welders and cutters**

Using water sprays for cutting, local exhaust system for indoor welding & regular monitoring



### Sanding

Use water spray, dry wall sanders, wear N99 mask by workers

**Cutting roadways, pavements, blocks** using a diamond-bladed floor saw with water pump



### Raking out mortar/pointing

Usage of mortar raking kit, super-saw with oscillating

### Scabbling

Pre-wash work surfaces, screening off areas



# Sand, grit or shot blasting and facade cleaning

Usage of silica-free material, seal windows and openings with polyethylene sheeting

Control
Measures for
Emissions
from Other
Construction
Activities

## Control Measures for Vehicles and Machinery at the Site



Regulation of site traffic by enforcing speed limit and restricting traffic movement



Employing DG sets & retrofit emission control devices



Vehicle maintenance, compliance with government norms for construction equipment vehicles (CEV) & reduce idling time

Hauling of roads and traffic routes by regular cleaning, sprinkling of water, use of chemical suppressants



Development of a vehicle-waiting area and hard standings



Trackout by paving & cleaning procedure



### **Good Construction Practices for Land Clearing** and demolition activities

Disposal of C&D waste: Compliance with CPCB **C&D Management Rules** 

**Maintainance of topsoil:** Vegetation-based mulching, plantation of grass and cover crops

**LAND CLEARING** AND DEMOLITION **ACTIVITIES** 

### **Land Clearing:**

Provide barricading along the site boundary, barricades 3m higher than max mound height, 50% porosity for wind break material

**Construction phase:** Sedimentation tanks and soil erosion channels

### Control Measures for Handling Storage and Spillage of Materials



### Storage of materials

Planning ahead in coordination with suppliers, schedule deliveries, monitor storage & usage of construction materials.



### Loading and unloading of materials

Minimum drop height, & usage of water sprinklers



### Use of alternate materials

Usage of Pozzolanic waste material & waste used in masonry waste prescribed by the Bureau of Indian Standards (BIS)



### Spillage of materials

Cleaning the spillage using wet handling methods, implementing spill prevention plan for storage of diesel, admixtures, curing compounds, bitumen, and other hazardous materials.



Identifying of materials required for closed tankers and sheeted vehicles



#### Storage of chemicals

Usage of water-based & plant-based products in consultation with suppliers and regular testing





For more information:

and other similar materials

having ventilation systems

fitted with particle filters.



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