

## **1 Air Quality Construction Mitigation Measures**

1.1.1 Site-specific mitigation measures are divided into general measures, applicable to all sites and measures specific to demolition, earthworks, construction and trackout. Depending on the level of risk assigned to each site, different mitigation is assigned. The method of assigning mitigation measures as detailed in the IAQM guidance has been used.

1.1.2 There are two categories of mitigation measure – ‘highly recommended’ and ‘desirable’. Desirable measures are presented below in italics. These mitigation measures should be included in a CEMP, where practicable.

### **1.2 Communications**

1.2.1 Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site.

1.2.2 Display the name and contact details of personnel accountable for air quality and dust issues on the site boundary. This may be the environment manager, principal contractor or the site manager.

1.2.3 Display the head or regional office contact information.

### **1.3 Dust Management**

1.3.1 Develop and implement a CEMP, which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk, and should include as a minimum the highly recommended measures. The desirable measures should be included as appropriate for the site. The CEMP may include monitoring of dust deposition, dust flux, real-time PM10 continuous monitoring and/or visual inspections.

### **1.4 Site Management**

1.4.1 Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner and record the measures taken.

1.4.2 Make the complaints log available to the local authority when asked.

1.4.3 Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site and the action taken to resolve the situation in the log book.

### **1.5 Monitoring**

1.5.1 Carry out regular site inspections to monitor compliance with measures within the CEMP, record inspection results, and make an inspection log available to the local authority when asked.

1.5.2 Increase the frequency of site inspections by the person accountable for air quality and dust issues on-site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

- 1.5.3 Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the local authority, where appropriate. Where possible commence baseline monitoring at least three months before work commences on-site or, if it a large site, before work on a phase commences.

## **1.6 Preparing and maintaining the site**

- 1.6.1 Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- 1.6.2 Where practicable, erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on-site.
- 1.6.3 Fully enclose site or specific operations where practicable, where there is a high potential for dust production and the site is active for an extensive period.
- 1.6.4 Avoid site runoff of water or mud.
- 1.6.5 Keep site fencing and any barriers clean using wet methods.
- 1.6.6 Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on-site. If they are being re-used on-site cover as described below.
- 1.6.7 Cover, seed or fence stockpiles to prevent wind whipping, where practicable.

## **1.7 Operating Vehicles/Machinery and Sustainable Travel**

- 1.7.1 Ensure all vehicles switch off engines when stationary - no idling vehicles.
- 1.7.2 Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
- 1.7.3 *Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas.*
- 1.7.4 Produce a construction logistics plan to manage the sustainable delivery of goods and materials.
- 1.7.5 *Implement a travel plan that supports and encourages sustainable travel (public transport, cycling, walking and car-sharing).*

## **1.8 Waste Management**

- 1.8.1 No bonfires or burning of waste material.

## **1.9 General Construction Operations**

- 1.9.1 Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.

- 1.9.2 Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- 1.9.3 Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- 1.9.4 Ensure equipment is readily available on-site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

#### **1.10 Specific to Earthworks**

- 1.10.1 *Where practicable, re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.*
- 1.10.2 *Use Hessian or mulches where it is not possible to re-vegetate to cover with topsoil, as soon as practicable.*
- 1.10.3 *As far as practicable, remove the cover in small areas during work and not all at once.*

#### **1.11 Specific to Construction**

- 1.11.1 *Avoid scabbling (roughening of concrete surfaces) if possible.*
- 1.11.2 *Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.*
- 1.11.3 *Where appropriate, arrange for bulk cement and other fine powder materials to be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overflowing during delivery.*
- 1.11.4 *For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.*

#### **1.12 Specific to Trackout**

- 1.12.1 Where appropriate, use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- 1.12.2 Avoid any dry sweeping of large areas.
- 1.12.3 Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- 1.12.4 Inspect any on-site 'haul routes' for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- 1.12.5 Record all inspections of haul routes and any subsequent action in a site log book.
- 1.12.6 If appropriate, install hard surfaced haul route, which are regularly damped down with fixed or mobile sprinkler systems or mobile water bowsers and regularly cleaned.

- 1.12.7 Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
- 1.12.8 Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
- 1.12.9 Access gates to be located at least 10m from receptors where possible.