



DUST CONTROL PROCEDURE AND RPE SELECTION POLICY

INTRODUCTION

The purpose of this procedure is to detail the Management Systems for controlling Construction Dust emissions during company Projects.

Construction Dust is a general term used to describe the types of dust that may be generated on a Construction Site.

There are (3) three main types of Construction Dust -

o **Silica Dust** - Silica is a natural mineral present in many natural and manufactured Construction materials

o **Wood Dust** - Wood is widely used in Construction and is found in two main forms; soft wood and hard wood

o **Low Toxicity (Non Silica) Dust** - there are a number of Construction products where silica is either not found or present in very low amounts the most common being gypsum, cement and dolomite etc. Nuisance dust generated from activities such as Sanding down, vehicle movements and excavations may also be included in this category providing the dust does not contain Silica.

The table below provides typical amounts of the Silica content found in some common Construction type materials :-

Material Type	Content Percentage
Plastic Composites	Up to 90%
Sandstone, Gritstone, Flint	More than 70%
Concrete & Mortar	25% - 70%
Tiles	30% - 45%
Slate	Up to 40%
Granite	Up to 30%
Brick	Up to 30%
Basalt, Dolerite	Up to 5%
Limestone, Chalk, Marble	Up to 2%

GENERAL CONTROL MEASURES

Sub-Contractors must ensure that all work, where the creation of Construction Dust are carried out in accordance with the documents listed below.

Sub-Contractors must ensure that Risk Assessments and Method Statements make specific reference to the elimination and control of all dust where it is foreseeable that it will be generated.

Eliminate the Creation of Construction Dust

It is essential that where practicable we eliminate the creation of dust at the Design Stage of the Project. This can be achieved by specifying materials and work methods that will not generate Construction Dust i.e. use of rebated blocks instead of chasing walls, use of the right size of building materials to avoid cutting and using direct fastening techniques rather than drilling holes.

Control and Minimise the Amount of Construction Dust Generated

Where elimination cannot be achieved Sub-Contractors must limit and control the amount of Construction Dust generated, this can be achieved a number of ways :-

- o **Water Suppression** - Water suppression damps down dust clouds and will prevent 90% of Construction Dust from becoming airborne however it must be used correctly ensuring enough water is used for the whole of the time the task is being carried out (a minimum of 0.5 litres/minute during cutting of brick and concrete).
- o **On Tool Extraction & Vacuuming** - On tool extraction is a type of Local Exhaust Ventilation (LEV) system where specially designed tools can be fitted with an industrial vacuum unit that sucks away the dust as it is being created and stores it until it can be emptied. It is essential that the correct equipment for the task in hand is chosen and that it is maintained in line with the manufacturer's requirements. Where practicable, vacuuming of dust will be chosen over dry sweeping.

Note: L Class filters are suitable for Low Toxicity Dusts only, M and H class filters should be used Silica & Wood Dusts.

Housekeeping procedures

- Dry sweeping and the use of compressed air are prohibited for removing dust and debris. Work areas and equipment covered by dust will be cleaned at the end of every shift using a HEPA filter vacuum.
- Wet clean up may also be used to remove dust.
- Waste material will be placed in a dumpster and will be removed at least weekly. The location and method used to store waste will not allow silica-containing dust to re-enter the workplace.
- Supervisors are responsible for ensuring that work areas are free from dust at the end of each shift.

Controlling Dust from Transport Movements - Vehicle movements can create high levels of dust during dry and windy conditions. There are a number of control measures that can be implemented to ensure the creating of dust is kept to a minimum.

- Provision and use of a wheel and chassis washing facility.
- Fine mist water spraying on all Construction Site Haul roads.
- Sheeting of vehicles transporting materials to and from site.
- Provision of regular road sweepers
- Ensuring the compliance to site speed limits and ensuring engines are switched off when vehicles are not in use.

* **Controlling Dust from Excavation & Ground Works** - Excavation and ground works can generate dust during digging out and also from stored and stock piled materials.

Spoil heaps must, as a minimum be covered and sealed and where practicable seeded to prevent dust being generated. During dry and windy conditions it will be necessary to keep spoil heaps damp using a water mist spray.

At all times during the Construction work provision will be made to monitor and record weather conditions such as wind speed, direction and temperatures etc. visual monitoring of dust levels on the Construction Site will be undertaken on a daily basis by the Project Construction Team.

RESPIRATORY PROTECTIVE EQUIPMENT (RPE) REQUIREMENTS

Recent HSE research has estimated that Silica may be responsible for the deaths of over 500 hundred each year who have worked in Construction. The HSE also estimates that around 4000 people die each year from Chronic Obstructive Pulmonary Disorder (COPD) linked to work. The Control of Substances hazardous to Health (COSHH) regulations limits the amount of dust that can be breathed; these are called Workplace Exposure Limits (WEL's.) The limits set are the legal limits we can breathe **AFTER** the correct control measures have been used. It is therefore anticipated that Task Specific RPE will be required during certain tasks in addition to the PPP3 Project minimum PPE requirements.

Where RPE is used as a control measure it is vital that the selected RPE is adequate and suitable for the task in hand i.e. a nuisance grade dust mask will not offer any protection to individual's lungs. To ensure that the selected RPE has the potential to provide adequate protection for individual wearers the Approved Code of Practice (ACoP) supporting the Control of Substances Hazardous to Health (COSHH) Regulations stipulate that tight fitting RPE **MUST** be fit tested as part of the selection process to ensure that all reasonable steps have been taken to prevent exposure to substances hazardous to health or whereby prevention is not possible, reduce to exposure to the lowest level reasonably practicable.

Note: A tight fitting face piece is full face mask, a half face mask or a filtering face piece (commonly known as a disposable mask.)

Training - For RPE to be suitable it must be matched to the task being undertaken, the environment, the anticipated airborne contaminant exposure level and the wearer therefore every individual required to wear tight fitting RPE must undergo Face Fit Testing for each different type of RPE they are required to wear and records retained by their Employer.

There are two basic types of RPE Face Fit Testing - Qualitative and Quantitative :-

o **Qualitative** - A simple pass / fail test based on the wearers subjective assessment of leakage via the face region, of a test agent (bitter / sweet) or odour compound. These tests are suitable for half mask and filtering face piece (disposable) masks.

o **Quantitative** - Provides a numerical measure of the fit that is called a fit factor. These tests give an objective measure of face fit, require special equipment and are required for full face masks (but can also be used for half face etc).

Note: RPE Fit Testing should only be conducted by a competent person.

MONITORING & REVIEWS

It is essential that all control measures relating to the control of Construction Dust are monitored to ensure they are being adhered to, they are suitable and that they adequately protect individuals and the surrounding environment. Management Systems shall be in place to ensure monitoring and reviews are undertaken.

Repeat RPE Face Fit Testing should be undertaken in the following circumstances

Where the wearer :-

- Loses or gains weight.
- Undergoes any substantial dental work.
- Develops any facial changes (scars, moles etc) around the facial area.
- Where the Employers Health & Safety Policy requires it.

Adston UK is responsible for the following:

- Ensure that the materials (i.e., tools, equipment, and personal protective equipment [PPE]) and other resources (i.e., worker training) required to fully implement and maintain this DCP are readily available where and when they are required.
- Ensure that all required tools, equipment, and PPE are readily available and used as required by the DCP.
- Ensure that supervisors and workers are educated and trained to an acceptable level of competency.
- Maintain records of training, fit-test results, crew talks, and inspections (for equipment, PPE, and work methods and practices).
- Conduct a periodic review of the effectiveness of the DCP. This includes a review of available dust control technologies to ensure these are selected and used when practical.
- Coordinate the work with the prime contractor and other employers to ensure a safe work environment.

Supervisors are responsible for the following:

- Provide adequate instruction to workers on the hazards associated with the cutting, grinding, drilling and polishing of dust generating products.
- Select and implement the appropriate control measures.
- Ensure that workers using respirators have been properly fit-tested and that the results are recorded.
- Direct the work in a manner that ensures the risk to workers and others is minimized and adequately controlled. This includes ensuring that workers use appropriate engineering controls and wear the necessary PPE.

Workers are responsible for the following:

- Use the assigned protective equipment in an effective and safe manner.
- Follow established work procedures as directed by the supervisor.
- Report any unsafe conditions or acts to the supervisor.
- Report any exposure incidents or any signs or symptoms of illness.