Dust — Much More Than A Nuisance!

The National Federation of Roofing Contractors (NFRC) announced on the 1st October 2012 that contractors will no longer have the option of using a cut-off saw to dry cut valley tiles. With over 500+ silica related deaths per year, dust is a serious issue. But how else can we as an industry tackle this? James Miller, managing director at dust extraction specialists Dustcontrol UK explores the matter further...

Silica is a natural mineral present in large amounts in many construction materials. The silica is broken into very fine dust (Respirable Crystalline Silica or RCS) during common tasks such as cutting concrete roof tiles, and is often made airborne by simple tasks like sweeping or pouring of powders. Regularly breathing in this dust can cause serious lung disease such as silicosis and lung cancer.

In fact, Silica is now the largest cause of occupational lung cancer after asbestos and construction workers have 2-3 times greater risk of contracting COPD (Chronic obstructive pulmonary disease).

It's a very serious issue. And these figures highlight the importance of contractors capturing dust at source and preventing dust getting airborne before it's too late.

Dust has become far more than just a nuisance. It's life threatening and must be addressed.

It's great to see the roofing industry leading the way on this. But it's only a very basic step. More needs to be done by everybody associated with roofing to control risks and to ensure other tradesmen in the same areas are left unaffected.

So, here are my top tips for the roofing industry in tackling Silica:

1. Identify

Firstly, make a list of the activities that put workers at risk. For this it might be useful to bring in an industrial hygienist who can help make that assessment by sampling the air that the workers breath.

2. Bring on the subs

One of the best ways to eliminate exposure is to use materials that don't contain crystalline silica. Adopting this approach completely eliminates any potential silica issue, and creates a completely safe, hazard free, working environment.



3. Use dust control products/systems

Use high efficiency cyclone based mobile dust extractors or install temporary vacuum systems that are designed to work in the construction and roofing industry with suction guards fitted to power tools to capture dust at source and prevent dust getting airborne.

Always use construction vacs in place of sweeping and use the vacs to prevent dust getting airborne when pouring powders into mixing vessels. Complement this approach with airborne dust cleaners to draw down remaining ambient dust which can be created simply by people walking around.

4. Wet Wet Wet

As the NFRC have outlined, use wet drilling or sawing to control dust. Also, remove dust and debris with a wet vacuum or hose it down, rather than dry sweeping. With wet concrete coring, our range of stainless steel wet vacs can extract slurry from the coring unit, separate out debris inside the vac and simultaneously pump away the cleaned water back to a drain or suitable collecting tank.

5. Monitor

Monitor the air. It's a great way to determine workers' exposure to silica dust. Air monitoring results can also help you decide the most appropriate methods for

controlling crystalline silica dust. It's important also to monitor the health of workers who may be exposed to crystalline silica dust. Workers should have regular medical exams, they should be examined before they begin their job, and every 2-3 years after that.

6. Think hygiene

An obvious one really, but those who work with materials containing crystalline silica should wash their hands before eating, drinking, or smoking. They should shower (if possible), and change into clean clothes before leaving the worksite. Facilities should be provided.

7. Training

Make sure workers know about silicosis, silica-dust hazards, and how to control their exposure. Their training should cover the following:

- The health effect of exposure to crystalline silica
- The importance of effective controls, safe work practices, and personal hygiene
- The purpose of boundaries or signs that identify work areas containing crystalline silica dust
- How to safely handle, label, and store hazardous materials
- How to use and care for personal protective equipment
- How to use dust control equipment effectively

8. Wear a mask

FFP3 dust masks will soon become a minimum standard, plus proper face fit tests will be required. Make sure all workers wear protective masks, and that they are fitted correctly.

9. Communicate

Make sure any product that contains silica has a label that says so. Safety Data Sheets must also accompany products that contain more than 0.1 percent crystalline silica.

10. Warning Signs

Make sure signs are put up in the relevant spaces that identify work areas, tasks, and equipment that may expose workers to crystalline silica. The signs should warn workers about silica hazards and identify required personal protective equipment. ◆

James Miller is managing director at Dustcontrol UK, which has recently launched a new silica training programme that includes onsite talks, and helps contractors meet the required regulations, improve site conditions and efficiency, ensures potential fines are avoided, and most importantly prevents silica exposure resulting in a happier, healthier and more productive workforce. Telephone 01327 858001or visit www.dustcontroluk.co.uk.

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