

Dust to dust



Construction dust is a killer, which is why Sandwell MBC took action to safeguard its contractors and its tenants during refurbishment works. Mark Britten explains.

Construction dust is bad for anyone working on site — especially in enclosed environments such as flats or homes where refurbishment work is going on. But not many people are aware that hundreds of construction workers die from occupational diseases every month and after asbestos, it is construction dust (silica) and related conditions that kill the most. Of course that also means that it is not good for tenants either — who are almost always obliged to live in and around the works.

In summer 2014 Sandwell Council and its contracting partners took action. We knew there were improvements that could be made, but research from HSE estimating that 500 construction workers are believed to die from exposure to silica dust every year made it a priority.

Anyone working in any aspect of building knows about dust — particularly from electrical first fix during refurbishment of social housing and the removal of

concrete finlock gutters. This always leads to concerns and sometimes complaints about dust coverage inside and also on the outside of residents' property and belongings. Despite some protection and extensive cleaning to remove dust, it is always present in the air. It falls to surfaces and can be breathed in by anyone.

So, we knew the starting point for reducing dust would be a change in



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behaviours and onsite practices. On our regular safety visits it was clear that certain trades created more dust than others, particularly electricians. I made a point of interrupting their work and talked through the issues around dust generally and outlined the risks, discussed ideas for minimising dust and so hopefully reducing any potential adverse health effects.

This is not always an easy conversation to have — builders of all trades have their own way of doing things. But the onsite teams got the message and we were backed by the leadership teams of the construction partners — Lovell, Wates, VINCI Facilities and Keepmoat — working across Sandwell MBC's package of repairs and improvements to 6,000 homes across its portfolio of 29,000.

In October 2014 the contracting partners agreed to discuss with their teams and supply chain ways to change working practices. The goal was to put in place a three-month pilot project examining different ideas to take some immediate

remedial action and to promote safer and healthier working around dusty activities. VINCI was one of the first to respond with immediate changes: specifically, the idea of using dust cubes and reviewing the use of face fit respiratory protection.

Providing clean air

The introduction of dust cubes was a huge step change — it is a self-contained unit that actually cleans the air in a working area without the need for an exhaust hose. It can be used at the same time as a pressure unit and is ideal in a small location for minimising dust pollution when working in housing refurbishment.

Alongside that the teams began damping down the area they were going to work in and looked at using face masks (which sounds obvious as respirator protection but few contractors chose to wear them). VINCI's ideas were taken on board by the group as a whole and implemented within early 2015.

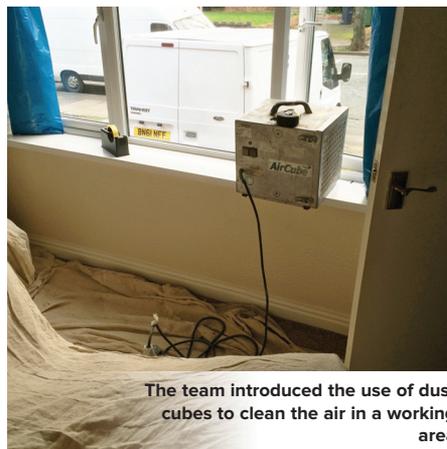
There was almost an overnight change in the working atmosphere — physically and metaphorically. Brian Price, VINCI Facilities' manager at Sandwell told me it was like chalk and cheese compared to what his teams had endured before.

Visiting one site I spoke to one of VINCI's contractors. He removed his face mask — something he might not have worn by choice previously — and said: "Not only can we breathe better while we work now, even without the masks, we have all noticed that it really feels that we are working in fresher air. Not just that, but it takes less time to clean up at the end of the day. The site, our clothes and the homes we are transforming all have less dust."

He and his team saw an immediate positive change. Dust cubes, known by some of the tradesmen as 'The Tardis', facemasks and a change in some of the tool choices have all had an impact and mitigated the dust. One other specific change introduced by VINCI was the use of a muzzle on the cutting saw that was used in the removal of the finlock gutters. The dust is collected by the muzzle, then sucked away from the cutting area, down the hose into unit — known as a Dalek by the teams. "We reckon this has cut down dust by 65%, water suppression would not have



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The team introduced the use of dust cubes to clean the air in a working area

come close as an alternative and is messy as well,” comments Brian. “Dealing with the dust at source is vital.”

Impact on health

The various onsite teams are now taking this best practice learning onto all other aspects of their work — just because it is good to breathe clean air throughout the working day. That on its own is evidence of an improvement in practices. In the longer run we will be able to measure improved health effects for our contractors and show some evidence, but for now, I have no doubt that this change in working methods has had a positive effect.

We estimate that the dust cubes alone eliminated around 85% of the dust at source and we saw a dramatic fall in complaints from tenants. Whilst none of the partners had previously noted issues with the health of their employees, it did not mean there were not going to be any — everyone agreed they had a duty of care to their people, one shared by Sandwell MBC as the client. Indeed, Brian Price commented that it was always tenants and associated contractors doing other tasks that were probably as at risk, if not more so, than anyone doing first fix or cutting works.

We are not stopping the project. Further reviews and constant monitoring are ongoing with further adaptations or working practices being adopted because there is always room for improvement. Lovell's team is in the midst of researching more at source methods so as not to rely on dust cubes; they are also looking into measuring the overall effect of the range of dust control ideas by using onsite handheld monitoring devices.

The reaction and support from the contractors has been great. The real difference for us has been the client team taking the lead, but working with very supportive and proactive contracting partners willing to embrace change.

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- www.sandwell.gov.uk
- www.vinci-facilities.co.uk
- www.lovell.co.uk
- www.wates.co.uk
- www.keepmoat.com