How to manage the risks that can cause occupational lung diseases

ENGINEERED STONE:

Managing risks of dusts in a kitchen company

IDENTIFY

MANAGE

MONITOR

Jorge runs a small business which installs kitchen benchtops made from engineered stone. As a person conducting a business or undertaking (PCBU), he knows that under work health and safety laws, he has the primary duty of care for the health and safety of his workers, including himself and others at the workplace. He must eliminate risks in the workplace, or if that is not reasonably practicable, minimise the risks as much as he reasonably can.

Assess the risk

Jorge undertakes a risk assessment to identify hazards at his workplace and review the control measures, in consultation with his workers. He identifies that using power tools on engineered stone causes silica dust to be generated and released into the air. This has the potential to cause harm to workers and others.

Jorge uses the information available to him from product information sheets and his workers. He comes to the conclusion that his workers are at a high risk of exposure to silica dust and his control measures need to be adjusted to provide the appropriate level of protection.

Control the risk

Because the risk is so high, Jorge knows he needs to implement a combination of controls. First, he looks at whether he can eliminate the risk of exposure to silica dust. After assessing his options, he doesn't think this is reasonably practicable as dust-generating work processes such as drilling can't be avoided. Jorge works with his suppliers to source substitute benchtops that have a lower percentage of silica. He also ensures that engineered stone benchtops are cut, polished and finished in his factory wherever possible which has been designed to control the dust level.

When modifications need to be made to engineered stone by Jorge or his workers, he implements measures to isolate the hazard.

This includes restricting access where engineered stone is being cut or drilled. This is to stop workers and others not involved in the process from entering a dusty area.

Jorge also uses engineering controls to minimise the risk of exposure to generated dusts. This includes providing tools that use water to suppress dust generation, which are used in the factory and if any modifications are made onsite. He also has installed a local exhaust ventilation system in his factory. This system has a capture hood, ducting, a filter to clean air and collect dust, a fan, and a discharge point. He puts in place a regular maintenance schedule to ensure tools and the local exhaust ventilation system are in good working order and asks workers to alert him if they have any concerns about them.

safe work australia

CLEAN AIR. CLEAR LUNGS.
Not all workplace hazards are visible

How to manage the risks that can cause occupational lung diseases

ENGINEERED STONE:

Managing risks of dusts in a kitchen company

MANAGE

Control the risk (continued)

Jorge implements administrative controls to further minimise the risks. With his workers' input, he develops policies and procedures for working with engineered stone. He also monitors the work assignments in his business so work is rotated, and the same workers aren't exposed to silica dust for extended periods. He requires his workers to follow written cleaning and housekeeping policies and completes regular checks to ensure that the policies are being followed. Jorge sources some signs that he can take onsite to highlight that there may be a dust hazard.

Jorge ensures his workers have respiratory protective equipment (RPE) to supplement the higher-level control measures he has implemented. When choosing RPE, he seeks expert advice from a qualified occupational hygienist and his work health and safety regulator. As silica dust particles are very small, his workers use a tight-fitting respirator and are clean-shaven so they can have an effective face seal. The occupational hygienist fit tests Jorge and his workers and trains them in how to fit check, use and maintain RPE. Jorge also supervises his workers to ensure they understand the training and are using RPE correctly.

Jorge provides training for his workers on all the control measures, why and how they are used and how to maintain them. Where possible, he provides training materials in his workers' native language to ensure they are understood.

He also asks the occupational hygienist to carry out air monitoring both at his factory and on site to ensure he is not exceeding the workplace exposure standard for silica dust. The occupational hygienist recommends that Jorge sends his workers for health monitoring, and he organises and pays for his workers to see a doctor to check that the silica dust is not harming their lungs.

He reviews his risk assessment and control measures to ensure they are still effective. He does this every three months, whenever there are changes that affect work activities, and as needed when he receives his air monitoring and health monitoring reports.