



OH&S Bulletin

REFRACTORY WORK KILLS

The CFMEU Environmental & Occupational Health & Safety Unit have recently been told about several members who were refractory workers have tragically died of lung disease.

The dangers of inhaling silica dust are becoming more widely known, and under the National Occupational Health and Safety Commission, workers working in high risk activities such as excavation, earth moving, clay and stone machine operators, paving and surfacing, mining and construction labouring activities are required to undergo medical monitoring.

Refractory workers are included in the above, but they've got more to worry about than just silica dust.

Chemwatch (an independent chemical database that provides MSDS's), rates Silica as having a high chronic health hazard rating. Other products used by refractory workers are rated as extreme.

Furnace walls are lined with refractory bricks that contain, among other things, cristobalite Silica, ceramics and other synthetic mineral fibres and chromium in varying forms, depending on the age and condition of the furnace. Exposure to high temperatures causes both silica and chromium to become more hazardous. Hexavalent chromium is a known

carcinogen and crystalline silica is rated as Group 2A, probably carcinogenic to humans. The rating is currently under review.

Some older furnaces contain asbestos in its various forms.

Heat insulation blankets used in refractory work are also rated by Chemwatch as having an extreme chronic health hazard rating. Again, the greater the age of the blanket and the higher the temperatures involved, the more hazardous they are. They are made from aluminosilicate fibres, which are classified as A2, suspected human carcinogens, and after exposure to high temperatures, cristobalite can form on the surface.



Workers demolishing or maintaining furnaces are at the most risk.

Worksafe Australia and the Occupational Health & Safety Act require that workers exposed to silica and other hazardous substances have regular medical monitoring. This should include "baseline" monitoring, that shows the state of a persons health before they are exposed to the hazardous substance, as well as ongoing medical examinations. For refractory workers and others exposed to respirable dust or fibres, there should be particular emphasis on the respiratory system.

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