

# More than 1000 workers a year could die due to inadequate silica safeguards

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Credit: Jawad Qasrawi/Hazards magazine

Hundreds of thousands of workers are being put at risk and more than 1000 could die every year due to inadequate safeguards for a workplace dust known to cause cancer and other diseases, according to research by University of Stirling academics.

Respirable crystalline silica is a dust created during work operations involving stone, rock, concrete, brick, mortar, plaster and industrial sand. Silica is second only to asbestos as a cause of occupational cancer deaths and exposure to it via inhalation can cause a range of other illnesses including silicosis, tuberculosis, kidney disease, chronic [obstructive pulmonary disease](#) and arthritis.

The research, carried out by Professor Rory O'Neill and Professor Andrew Watterson of the University of Stirling's Occupational and Environmental Health and Safety Research Group, responds to the Health and Safety Executive (HSE)'s resistance to the tightening of the current silica exposure standard, which regulates the amount of silica that workers can safely be exposed to in the

workplace.

The HSE has argued that technological limitations make monitoring below the current exposure standard impractical. In addition, potentially affected industries such as fracking have argued that the cost of implementing these new controls would be prohibitive.

Professor Rory O'Neill said: "The HSE says monitoring technology isn't good enough yet to measure lower levels of silica dust, so we must stick with the same deadly, higher but measurable standard. It is wrong on both counts. The increasingly toothless safety watchdog is regurgitating the line promoted by the industry lobby, placing vested interests above workers' health."

"Modern science can obtain and analyse dust on Mars. If HSE's science can't obtain and analyse adequately one of the most commonly encountered and deadly workplace dust exposures here on Earth, you have to ask who on Earth is the watchdog protecting?"

In the US, the HSE's equivalent, the Occupational Safety and Health Administration (OSHA), is arguing for a rule change to halve the exposure standard. OSHA has also stated that monitoring a tighter exposure standard is technically feasible and, as well as saving thousands of lives, would deliver huge economic savings, rather than job losses.

Professor Andrew Watterson said: "OSHA says a tighter standard is perfectly possible, can be monitored in the workplace and would save hundreds of lives and billions of dollars each year. Canadian provinces already monitor and enforce a tighter standard still."

"The current lax legal occupational exposure standard in the UK guarantees another generation

will be blighted by entirely preventable, deadly and disabling conditions. Yet the HSE is actively promoting an industry-supported but unsustainable argument in the UK and in Europe that the current standard must stay."

Provided by University of Stirling

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