Edith Cowan University

Graduate Research



PROJECT DETAILS

Project Title:

Ever reducing workplace exposure standards, impacts on worker health, industry, and regulators

Project Summary: aims, significance, expected outcomes and potential research impact.

In February 2024, SafeWork Australia reduced the workplace exposure standard (WES) for welding fumes from 5 mg/m³ to 1 mg/m³ with immediate effect. This is the latest in a series of significantly reduced WES's announced over the last 3 years.

This PhD will assess the trend of significantly reducing WES's and its impact on worker health, industry compliance, and regulators that need to enforce standards that are often below the level of detection of traditional sampling methods.

Reducing WES's impacts significantly on industry, in many cases they are not realistically achievable, and the way WES's are interpreted legally is that they may never be exceeded. However, sampling is conducted outside of any respiratory protective equipment worn by the workers and the actual exposure levels are therefore generally orders of magnitude lower than those that are reported to the regulator.

This research will inform policy and practice around WES setting and interpretation, and the development of new monitoring methods and instruments, validated against gold standards.

Preferred applicant skill set, describe the capabilities of the HDR applicant:

A practicing / experienced Occupational Hygienist, or WHS graduate with a keen interest in occupational epidemiology / toxicology. Experience in sampling methods and used of Occupational Hygiene statistics (IHSTAT) would be strongly recommended.

Internship opportunity:

Yes, it is feasible to embed this PhD within industry (Mining, Oi& Gas), or the regulator DMIRS, or an organisation such as the Chamber of Minerals and Energy (CME).

Contact person for the project:

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