# Bulletin

## Tasmanian Automotive Chamber of Commerce

**Reference No**. Welding fume safety/ss-1-24

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## New standard for welding fume safety

New nationwide changes have taken effect, from **18 January 2024**, in relation to the exposure standard for welding fumes. As a result, the workplace exposure standard for welding fumes has been significantly reduced to **1 mg/m3 as an eight-hour time weighted average** (TWA), a reduction from 5 mg/m3 TWA.

The revised standard reflects the current state of knowledge relating to the maximum level a person may be regularly exposed to welding fumes or a mixture of contaminants (from welding processes), without adverse health effects occurring.

Exposure to welding fumes is known to cause short and long-term health effects.

The main risk to a welders' health depends on the composition of the welding fume and the individual's level of exposure. This is determined by:

- the composition and concentration of the welding fumes generated by the type of welding process used
- the duration and frequency of exposure (the arc time or the actual time spent welding)
- welders' posture and head position relative to the welding fume
- location of the welding process, for example: indoors, outdoors, restricted or confined spaces
- the type of controls in place to prevent or reduce exposure to fumes, and their effectiveness.

Please note, depending on the processes and components used, welding fumes may contain specific substances which have their own exposure standards that could be less than 1 mg/m3. In this situation, individuals must not be exposed to levels exceeding the lower exposure standard.

Under both the Victorian *Occupational Health and Safety Regulations 2017* and the Tasmanian *Workplace Health and Safety Regulations 2022*, employers are required to control the risk of hazardous substances, including airborne contaminants such as welding fumes, and ensure that workers and others in a workplace are not exposed to levels above any relevant exposure standard.

**Employers must control the risk of exposure** to airborne contaminants by giving consideration to the **hierarchy of controls**. This means, employers must firstly consider whether the task can be eliminated, substituted or modified. Where this is not practical, employers must then consider lower-level risk controls, for example, using ventilation controls such as on torch extraction or local exhaust ventilation and lastly personal protective equipment (respiratory protection).

**Atmospheric monitoring** must be carried out when employers are unsure if a relevant exposure standard is being exceeded, or where there may be a risk to health. Where atmospheric monitoring is required, this must be performed by a suitably qualified person, such as an Occupational Hygienist.

Members seeking further information about controlling the risks associated with welding fumes can click here.

Members are also encouraged to contact the VACC OHSE Unit on 03 9829 1265 or ohs@vacc.com.au for any safety related information or assistance.

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