Department of **Local Government, Industry Regulation and Safety**

GOVERNMENT OF WESTERN AUSTRALIA

WorkSafe Western Australia

INFORMATION SHEET

Respiratory protective equipment – Fit testing requirements

Persons conducting a business or undertaking (PCBUs) are required to ensure that where close-fitting respirators are required to protect the health of workers, these are correctly fitted. Examples of close-fitting respirators (also called respiratory protective equipment or RPE) includes P2 dust masks, half face re-usable respirators with cartridges or close-fitting powered air purifying respirators.



Figure 1 – Examples of respirators requiring correct fitting

RPE is used in workplaces when higher order controls cannot be implemented or do not sufficiently control the hazard. It plays an important role as the last line of defence to protect worker's health from chemicals such as solvents, gases, diesel exhaust particulate, other particulates including biological material, and dusts like silica and asbestos.

PCBUs must, so far as is reasonably practicable ensure the correct selection, proper fit and use of RPE. If RPE does not fit properly because of different facial shapes, beards or stubble, the worker will not be protected. If there is not a good seal between the respirator and face, contaminated air will leak into the respirator and the wearer may not get the level of protection that is needed to protect them. This means being clean-shaven or only having facial hair that does not interfere with the fitting surfaces and the valve of the respirator. For workers who want to keep facial hair that may interfere with the operation or proper fit of tight-fitting respirators, a powered air purifying respirator with a loose hood may provide the protection needed.

Only fit testing can assure both the worker and the PCBU that the RPE fits correctly and will provide the intended protection when correctly worn each and every time on the job. Fit testing measures the effectiveness of the seal between the respirator and the wearer's face, including half-face disposable, half-face reusable, full-face reusable and powered air purifying respirators (PAPR).

Fit testing and clean-shaven requirements when wearing close-fitting RPE is reasonably practicable to achieve for all uses of close-fitting RPE. However, when processing crystalline silica substances, fit testing is a mandatory requirement of work health and safety legislation which calls up *AS/NZS 1715:2009 (Selection, use and maintenance of respiratory protective equipment)*, which also details the different fit testing methods. There are two methods of fit testing that meet this requirement:

- Qualitative – a pass or fail test that relies on the wearer's ability to taste or smell a test agent. This type of test can only be used on half-face respirators. Some workers have difficulty with their ability to taste or smell. This can result in a potential for a false pass to the qualitative fit test and worker health not being adequately protected.
- Quantitative – uses specialised equipment to measure how much air leaks into the respirator. This type of test can be used on all types of RPE.

All fit testing must be carried out by a competent person (which can include a manufacturer, supplier or consultant):

- before wearing RPE for the first time
- each time a new make or model of RPE is issued
- whenever there is a change in the wearer's facial characteristics or features which may affect the facial seal (e.g. large weight loss or gain).

In addition, workers should be encouraged to perform a simple positive or negative pressure fit check every time they fit their RPE before entering a contaminated area.

Fit testing should be repeated on a regular basis based upon risk assessment and a written record of fit tests carried out for each worker should be kept. This should include the type of test performed, the make, model, style and size of respirator tested and the date and result of the test. Workers should be issued with a fit test record card after fit testing.

Further information

- Find a Fit Tester – RESP-FIT
- *AS/NZS 1715:2009 (Selection, use and maintenance of respiratory protective equipment)* – available for purchase from Standards Australia.

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