

Respirator Protective Equipment (RPE): Facial Hair and Face Masks

Respiratory protective equipment (RPE) is issued as a means of control to prevent the inhalation of hazardous substances at work. When worn and used correctly, RPE can prevent serious lung conditions caused by inhaling dust and other contaminants.



Respiratory Protective Equipment (RPE)

Respiratory protective equipment (RPE) are respirators which filter the air to remove harmful substances or breathing apparatuses which provide clean air for the worker to breathe. These include:

Disposable mask respirators

(FFP1, FFP2 and FFP3 filtering facepieces)



Reusable half mask respirators



Full face mask respirators

(including those used with breathing apparatus. Pictured below is a full face mask respirator, not a breathing apparatus).



Breathing apparatuses (BA) are another type of RPE but are positive respirators unlike the negative respirators as discussed above. A BA provides clean air for the worker to breathe via an air cylinder or compressor. Face-fit testing is not required on powered or constant flow airline breathing apparatuses with loose-fitting hoods or helmets. The above RPE are the most common types, where the tight-fitting mask respirator performance relies on achieving a good seal between the respirator and the wearer's face.

The effect of facial hair on protection

In order to ensure that a specific make, model and size of mask is able to achieve a good fit to an individual wearer, a fit test should be conducted by a competent person and the wearer must have no facial hair in the region of the face seal. Facial hair can prevent the mask from forming a good seal, by creating gaps around the edges of the mask. This allows contaminants into the mask, to be breathed in by the wearer.

Where's the evidence?

A recent study by the Health and Safety Executive in the UK shows that as facial hair grows, the protection offered by a tight fitting mask reduces. The reduction in protection is very unpredictable and is different for individual wearers and masks. Protection can be significantly reduced where stubble is present. A person who is 'unshaven' will mean they have not shaved within the previous 8 hour period prior to the work shift. Protection will generally worsen as facial hair grows. It is important therefore that wearers should be clean-shaven, not only for a fit test but whenever they wear a tight-fitting mask at work.

What constitutes facial hair?

Facial hair that interferes with the sealing surface of the mask can include:

- Stubble
- A beard
- A moustache
- Sideburns.

Facial hair which is not in the region of the face seal may be acceptable. However, it is important that the facial hair is kept appropriately trimmed so as to not interfere with the seal of the mask. This will require monitoring and supervision.

Your options

Firstly, it is important to educate your workforce about the importance of correctly using and wearing RPE.

- Provide suitable training for RPE wearers such as a toolbox talk on how to use and correctly fit their masks. Training is important for users of all types of RPE and should especially emphasize the importance of being clean-shaven for wearers of tight-fitting respirators.
- Use a Fit2Fit accredited fit tester. If fit testing is conducted by a competent person, then the 'clean-shaven' message will be delivered at the time of fit testing, along with advice about being clean-shaven whenever tight-fitting RPE is used at work.

Introduce a clean-shaven policy

- Introduce a clean shaven requirement into your health and safety policy. This approach requires a good management system to be in place, requires constant monitoring and supervision, and actions taken when breaches with the policy occur. It can prove challenging to enforce, but establishes a level playing field for all staff.
- The right to have facial hair is often cited as a reason for not being clean-shaven at work. However, this needs to be balanced against the requirement under the Safety, Health and Welfare at Work Act, 2005. This requires employees to follow the training they have received, take care of their own health and safety and co-operate with their employer on health and safety.
- A clean shaven policy may not be possible to enforce in certain circumstances such as where beards are worn for religious reasons, or someone has a genuine skin complaint that makes it impractical to shave every day. In these instances you'll be required to supply alternative RPE that does not rely on a tight seal.

Further information:

Respiratory Protective Equipment - Health and Safety Authority.

The effect of wearer stubble on the protection given by Filtering Facepieces Class 3 (FFP3) and Half Masks: www.hse.gov.uk/research/rrhtm/rr1052.htm

Supply alternative RPE that does not rely on a tight seal to provide protection

Battery powered or compressed air supplied RPE with loose-fitting facepieces may be suitable alternatives. Whilst these types of RPE require a close fit to the wearer's face, they don't require a tight-fit like masks do.

Examples include:

Hoods



Helmets



Visors



Remove the need to wear RPE

Although this should have already been considered by working through the hierarchy of control, it may be worth reviewing whether the need for RPE can be engineered out.