



Excerpts of CSA Z94.4-11 re.: Respirator Qualitative Fit Testing-QLFT

The following information has been copied from CSA Z94.4-11 as it pertains to the requirements for respirator fit-testing. Of particular note, items in **red** are to be considered. The images at the end of this summary document are also taken from the CSA standard and can prove useful in understanding what amount of facial hair is / is not acceptable.

9 Respirator fit testing

9.1.1

The purpose of a qualitative or quantitative fit test is to verify a user's ability to obtain an effective seal and an acceptably comfortable fit for a selected tight-fitting respirator. The fit test process also verifies that a user is able to demonstrate the required level of competency in donning and doffing the respirator, as well as inspecting it and performing a user seal check.

9.1.3

The fit test shall be used to verify the selection of the specific make, model, and size of a tight-fitting respirator for individual users. A sufficient variety of respirators shall be provided to ensure that each user has an opportunity to obtain a satisfactory fit because no single make, model, or size can be expected to fit all persons. The fit tester shall not force fit a respirator being fit tested.

Note: *Force fitting is the practice of repeating a failed fit test with the same respirator by redonning or otherwise adjusting it (e.g., over tightening the straps) until a fit test pass is finally obtained. The user may adjust the respirator but comfort should be maintained. Offering a reasonable array of respirator types and sizes should eliminate the inclination to force fit.*

9.1.6

A fit test shall be carried out

- (a) after completion of user screening (see Clause 12.1);
- (b) after or during training (see Clause 8);
- (c) prior to initial use of a tight-fitting respirator;
- (d) when changes to a user's physical condition (e.g., significant weight change or changes to facial or dental features) could affect the respirator fit;
- (e) when there is a change in respirator (e.g., make, model, size);
- (f) when a respirator user experiences continued significant discomfort during use or difficulty in completing a successful user seal check;
- (g) when there is a change in PPE use that could affect the respirator; and
- (h) at least every 2 years.



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9.2 Respirator interference concerns

9.2.1 General

The program administrator shall ensure that potential interferences to the fit and function of the respirator are effectively managed according to the requirements described in Clause 9.2.

Fit testers shall follow the requirements of the program and shall not perform a fit test if they observe that the person is not free from interference where the respirator seals to the skin of the face or neck.

Individuals who are unwilling or otherwise unable to comply with the interference-free requirement, or who are unable to obtain an acceptable fit, shall be prohibited from using a tight-fitting respirator.

9.2.2 Facial hair

Individuals shall present themselves for fit testing free from interference of hair where the respirator seals to the skin of the face or neck.

Although the rate of hair growth varies (see examples of acceptable and unacceptable facial hair in Annex M), for many this requires being clean-shaven within the previous 24 or preferably 12 h to ensure that hair neither infringes on the sealing surface of the respirator nor interferes with valve or respirator function.

A “clean-shaven” policy is best implemented through emphasis on its importance during training, through regular reminders, and ongoing verification of conformance.

9.2.3 Personal conditions

Individuals shall present themselves for fit testing in the same personal condition they would expect to be in when using the respirator. This includes hair styles (e.g., hair buns) and wearing or not wearing dentures, eyeglasses, or contact lenses.

9.2.4 Personal effects or accessories

Individuals shall present themselves for fit testing in such a way that personal accessories such as head coverings, garments, facial jewellery, or other items shall not come between the skin and the sealing surface of the respirator.

Note: *Such accessories can impair respirator effectiveness by interfering with valve function, respirator adjustability, and proper secure positioning. Makeup, creams, or lotions can also interfere with effective respirator function.*







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ACCEPTABLE LEVEL OF FACIAL HAIR

| | |
|--|---|
| <p>A. Clean-shaven, ideal for a good seal</p> |  |
| <p>B. Amount of facial hair that will typically allow a good seal</p> |  |
| <p>C. Moustache that does not interfere with the sealing surface, valves, or respirator function</p> |  |
| <p>D. Soul patch that does not interfere with the sealing surface, valves, or respirator function</p> |  |

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UNACCEPTABLE LEVELS OF FACIAL HAIR

| | |
|--|---|
| <p>E. Soul patch that will interfere with the respirator seal in the chin area on elastomeric facepieces</p> <p>Facial hair and sideburns that will interfere with the sealing surface</p> |  |
| <p>F. This facial "shadow" (not clean-shaven) will interfere with the sealing surface of a half or full facepiece. It will also compromise a secondary seal inside a tight-fitting hood-style respirator.</p> <p>Degradation of fit can occur during cumulative work hours when an individual grows this amount of facial hair.</p> |  |
| <p>G. Moustache is too thick and too long (down around edge of mouth); will contact a sealing surface and interfere with exhalation valve.</p> <p>Sideburns and/or heavy hair under the chin will prevent a good seal.</p> |  |
| <p>H. Moustache is too thick and too long (down around edge of mouth); will contact a sealing surface and could get stuck in an exhalation valve.</p> <p>The hair on the rest of the face will interfere with a sealing surface.</p> |  |
| <p>I. Hair is in sealing region and under the chin.</p> <p>Hair is in chin cup sealing region and on the side of the face.</p> |  |
| <p>J. Moustache is too thick and too long; will contact a sealing surface and interfere with exhalation valve.</p> |  |

Note: Adapted with permission from Brookhaven Lab.