

NIOSH Conformity Assessment Interpretation Notice

NIOSH CA 2018-1005
August 2018

NIOSH Respirator Approval Program's updated position regarding facial hair
and the selection and use of respiratory protective devices

Supersedes October 2, 2006 Letter to All Respirator Manufacturers



**Centers for Disease Control
and Prevention**
National Institute for Occupational
Safety and Health

Subject: NIOSH Respirator Approval Program's updated position regarding facial hair and the selection and use of respiratory protective devices

1 SUMMARY

NIOSH has been asked to clarify the October 2, 2006 NIOSH "Letter to all Manufacturers" titled: *NIOSH Policy for Respirator Sealing Surfaces and Facial Hair*. This notice is intended to clarify the NIOSH definition of respirator sealing surfaces and supersedes the October 2, 2006 letter.

Specific to the evaluations completed as part of the NIOSH Respirator Approval Program and testing to assess the fit characteristics of all respirator designs, NIOSH test subjects are required to be clean shaven in order to participate on the test panel selected.

The Occupational Safety and Health Administration (OSHA) Respiratory Protection Standard 29 Code of Federal Regulations (CFR) 1910.134 paragraph (g)(1)(i) states, "*The employer shall not permit respirators with tight-fitting facepieces to be worn by employees who have: Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function; or Any condition that interferes with the face-to-facepiece seal or valve function*".

The OSHA requirement is [interpreted](#) as: When a respirator is required, an employer is prohibited from allowing respirators with tight-fitting facepieces to be worn by employees who have "facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function. Facial hair is allowed as long as it does not protrude through the respirator seal, or extend far enough to interfere with the device's valve function."

Specific to the required individual workplace fit test, NIOSH continues to support the OSHA regulations, in this case, regarding the employee's facial hair, 29 Code of Federal Regulations (CFR) Part 1910 [Appendix A](#), Part I, (A)(9) states, "*The test shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit shall be altered or removed.*"

2 AUTHORITY

[42 C.F.R. Part 84, Respiratory Protective Devices](#)

Subpart H, Self-contained breathing apparatus (SCBA)

Subpart G, Gas masks

Subpart J, Supplied-air respirators (SAR)

Subpart K, Non-powered air-purifying particulate respirators (APR)

Subpart L, Chemical cartridge respirators (APR)

Subpart KK, Powered air-purifying particulate respirators (PAPR)

3 BACKGROUND and SUPPLEMENTAL INFORMATION

OSHA and ANSI Z88.10-2010 prohibit fit testing when facial hair is at the sealing surface of the respirator. OSHA's Fit Testing Procedures, 29 CFR 1910.134 Appendix A, Part I, (A)(9), states "*The test shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit shall be altered or removed.*"

Facial hair that lies along the sealing area of the respirator, such as beards, sideburns, moustaches, or even a few days growth of stubble, should not be permitted on employees who are required to wear respirators that rely on tight facepiece fit to achieve maximum protection. Facial hair between the wearer's skin and the sealing surfaces of the respirator will prevent a good seal. A respirator that permits negative air pressure inside the facepiece during inhalation may allow leakage and, in the case of positive pressure devices, will either reduce service time or waste breathing air. A worker should not enter a contaminated work area when conditions prevent a good seal of the respirator facepiece to the face. [NIOSH, 1987, "NIOSH Guide to Industrial Respiratory Protection"]

An up to date clarification of this NIOSH position is as follows:

Facial hair that lies along the sealing area of the respirator, such as beards, sideburns, moustaches, or even a few days growth of stubble, should not be permitted on employees who are required to wear respirators that rely on tight facepiece fit. Facial hair either growing in or protruding into the area of the primary sealing surfaces of the respirator will prevent a good seal. Any degradation to the respirator seal will degrade the ability of the respirator to deliver protection, in effect it will have a reduced protection factor. Respirators that normally support a negative pressure in the facepiece will have an increased potential to allow leakage of contaminated air into the facepiece. Respirators designed to maintain a positive facepiece pressure will suffer from reduced service time along with wasting breathing air during use. A worker should not enter a contaminated work area when conditions prevent a good seal of the respirator facepiece to the face.

This interpretation applies to all primary seals of tight-fitting full and half facepiece respirators, as well as tight-fitting respirator designs that rely on a neck dam seal.

This interpretation does not apply to loose fitting hood or helmet respirator designs such as those used on Powered Air Purifying Respirators, Supplied Air Respirators and Constant-Flow Escape type SCBAs that utilize only capes or shrouds for primary seals. With these type respirators, careful consideration must be given in using these loose fitting face coverings to assure that they do not have a neck dam, a face seal or an integrated, tight-fitting half mask. These respirators, utilizing only capes or shrouds as primary seals, may then be selected and used by workers with facial hair.

If a respirator covering includes a hood design and the primary seal around the neck of the wearer, facial hair, such as a full beard, cannot be present in the area of the seal. Additionally, if a hood design includes a primary seal within the hood, by including a component covering the mouth, nose and chin of the wearer (similar to a typical half mask), facial hair cannot be present in the area of the seal of this component. In the event that the respirator design incorporates any one of these sealing mechanisms, facial hair must be prevented from interfering with the sealing surface and the function of the respirator during use.

Escape-only types of air purifying respirators are not required by OSHA to be fit tested, but special care must be exercised whenever they are being carried for potential use. For all tight-fitting, escape-only respirators, precautions must be taken to assure that the seal needed for effective use will not be affected by facial hair or body hair in the event the respirators would be needed for escape from a toxic atmosphere.

Mouth-bit type escape only respirators are inherently unaffected by facial hair, face size, or neck size and their use and fitting characteristics are not dependent on these features.

4 REFERENCES

[Approval of Respiratory Protective Devices, 42 C.F.R, Part 84](#)

<https://www.cdc.gov/niosh/npptl/resources/pressrel/letters/ltr-100206.html>

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9780

<https://www.osha.gov/laws-regs/standardinterpretations/2012-09-14>

[ANSI/AIHA/ASSE-Z88.10 Respirator Fit Testing Methods 2010 Edition](#)

[NIOSH Guide to Industrial Respiratory Protection, p119](#)

<https://blogs.cdc.gov/niosh-science-blog/2017/11/02/noshave/>