

116

RECORD #116

TITLE: OSHA Interpretation: Beards and Tight-Fitting Respirators

FICHE: 29465-134



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NOV 2 1984

MEMORANDUM FOR: Ronald R. Bellamy, Chief, RPB, DETP, RI
Douglas M. Collins, Chief, EPRPB, DRSS, RII
Carl J. Paperiello, Chief, EPRPB, DRSS, RIII
Ramon E. Hall, Chief, TPB, DVTP, RIV
Frank A. Wenslawski, Chief, RSB, DRSSP, RV
LeRoy R. Norderhaug, Chief, SEPB, DRSSP, RV

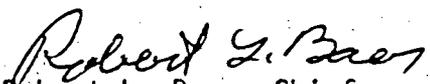
FROM: Robert L. Baer, Chief, EGCB, DEPER, IE

SUBJECT: OSHA INTERPRETATION: BEARDS AND TIGHT-FITTING RESPIRATORS

In response to a Region III April 1983 request for technical assistance, OIE issued a memorandum (Cunningham to Greger, September 8, 1983) providing a broad technical basis to support the position for prohibiting bearded-users from wearing SCBA's. However, at that time, a strict legal reading of NRC regulations led us to conclude that as long as a no respirator protection factor was assumed we could not prohibit a bearded-individual from wearing a respirator.

The controversy over bearded fire brigade members at a Region III facility has continued and a recent OSHA written interpretation on the subject has surfaced. The enclosed OSHA reading is clear and direct--OSHA's 29 CFR 1910.134(e)(5)(i) prohibits facial hair in the seal area. We recommend that if recalcitrant licensees continue to allow bearded Emergency Response/fire brigade individual to wear tight-fitting respirators after being informed of this OSHA interpretation, the region should refer this nonradiological respiratory problem to the appropriate regional OSHA authorities, in accordance with Chapter 1007 of the IE manual (Interfacing Activities Between Regional Offices and OSHA) of the IE manual.

By separate correspondence to RES we plan to recommend RES change the regulations to expressly forbid facial hair in the seal area of tight-fitting respirators. If you have any further questions regarding this matter, please contact Jim Wigginton.


Robert L. Baer, Chief
Emergency and Generic Communications Branch
Division of Emergency Preparedness
and Engineering Response, IE

Enclosures and ccs: see page 2

CONTACT: J. E. Wigginton, IE
492-4967

Multiple Addressees

- 2 -

NOV 2 1984

Enclosures: As stated

cc: J. M. Taylor, IE
E. L. Jordan, IE
S. A. Schwartz, IE
E. L. Blackwood, IE
R. L. Baer, IE
D. P. Allison, IE
J. E. Wigginton, IE
L. J. Cunningham, IE
L. Hendricks, IE
R. Greger, RIII
O. Lynch, NRR
P. Loysen, NMSS
L. I. Cobb, IE
R. Alexander, RES
✓ Office of General Industry Compliance Assistance, OSHA

RECEIVED

MAR 26 1984

**EDISON ELECTRIC
INSTITUTE** The association of electric companies

1111 19th Street, N.W.
Washington, D.C. 20036
Tel: (202) 828-7400

Ind. Safety & Health

March 21, 1984

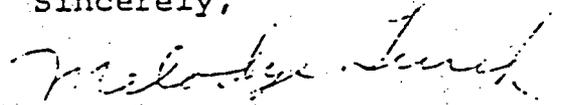
TO: Safety & Industrial Health Committee Members, Correspondents
Industrial Hygienists and Medical Consultants

SUBJECT: Respirator Fit and Beards

Enclosed is a letter from OSHA's Office of Compliance in which OSHA makes clear its interpretation of 29 CFR 1910.134(e)(5)(i), the regulation prohibiting the growth of facial hair on the respirator seal surface.

I hope this will be useful. Please contact me if you have questions.

Sincerely,



Melodye Turek
Manager
Occupational Safety & Health

MT:mts
Enclosure



Reply to the Attention of:

DEC 13 1983

Ms. Melodye Turek
Manager
Occupational Safety and Health
Edison Electric Institute
1111 19th Street, N.W.
Washington, D.C. 20036

Dear Ms. Turek:

This is in response to your letter of November 22, 1983, concerning beards and respirator facepiece fit.

Our regulation concerning the prohibition of the growth of facial hair on the respirator seal surface is clear and mandatory, 29 CFR 1910.134(e)(5)(i). The answers to your questions are:

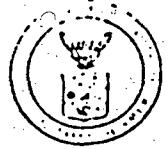
1. Yes, the employer is in violation of the standard if employees are allowed to wear respirators over facial hair at the sealing surface of the respirator.
2. Yes, qualitative fit tests are highly subjective. Furthermore, the errors associated with this type testing are generally high.
3. Based on the information available, no bearded individual can achieve a consistent and satisfactory fit when any tight-fitting respirator is worn. Loose-fitting type respirators, such as powered air-purifying respirators and supplied air respirators, are acceptable to wear under conditions which are not immediately dangerous to life or health, since the inlet covering of these respirators has no direct contact with the face. Hood type self-contained breathing apparatus is also acceptable for emergency escape for a bearded person.

Sincerely,

A handwritten signature in dark ink, appearing to read "E. Baier", is written over the typed name "Edward J. Baier".

Edward J. Baier

Director
Directorate of Technical Support



JUL 13 1983

Harry C. Russell, Col., USAF, BSC
Command Bioenvironmental Engineer
Office of the Surgeon
Department of the Air Force
Headquarters Air Force Logistics Command
Wright-Patterson Air Force Base, Ohio 45433

Dear Colonel Russell:

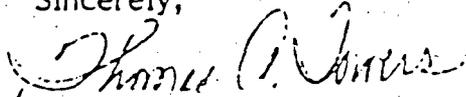
We are providing answers to the questions on beards and respirator wear which you asked in your letter of June 20, 1983.

- a. Yes, any facial hair growth between the facepiece sealing surface and the skin that prevents a good sealing surface is a violation of 29 CFR 1910.134(e)(5)(i).
- b. The OSHA standard is a minimum standard. Any employer can set more stringent requirements than OSHA's. If the bearded employee is exposed to a toxic material in excess of the Air Force standard but within the OSHA standard, the respirator should not be worn until the interfering hair is removed because the Air Force standard would have been violated even if the OSHA standard were not.
- c. Yes, the situation described in your section C is still a violation of 1910.134(e)(5)(i). The question is not whether the bearded person can pass the fit test on a given day, but whether he can pass the test everyday. Since the density and texture of the beard is not uniform around the face, and because the density and bulk of beard is not the same over time, consistent fit test results cannot be obtained. Quantitative fit testing (QNFT) is the only available method which can accurately measure the fit testing result of a respirator. It is a time consuming process. The equipment is rather expensive and needs trained personnel to operate it. For these reasons, the QNFT is generally conducted only annually. It is unreasonable to require the employer to conduct QNFT everyday to determine whether a satisfactory fit can be obtained from a bearded individual. Qualitative fit testing would yield less reliable results.
- d. OSHA's position is that any hair growth in the face sealing area is unacceptable. Depending on the growth, density and texture of beard, some bearded individuals cannot achieve a satisfactory seal even at the end of the shift.

- e. The language on beards and respirator wearing is adequate in 1910.134(e)(5)(i). The third sentence in this paragraph only provides a partial list of the conditions that prevent a good face seal. The second sentence clearly prohibits respirator use when any such condition is present. Since the Air Force can adopt a standard which is more stringent than ours, you may consider adopting the current American National Standard Practices for Respiratory Protection, ANSI Z88.2, 1980 (enclosed).

We are also enclosing two research papers on facial hair and a publication from the Fire Fighters Union which includes two U.S. Supreme Court decisions on the facial hair issue for your reference.

Sincerely,



Edward J. Baier
Director
Technical Support

Enclosures



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Wigginton
EWS 312

October 31, 1984

MEMORANDUM FOR: S. Guthrie, Sr. Resident Inspector
Big Rock Point Nuclear Station

FROM: L. R. Greger, Chief
Emergency Preparedness and
Radiological Protection Branch

SUBJECT: FACIAL HAIR RESTRICTION ON RESPIRATOR USE

This memorandum is in response to your October 2, 1984 memorandum to James G. Keppler.

I have attached a clarification of OSHA regulations concerning respirator usage and facial hair (29 CFR 1910.134(e)(5)(i)). This clarification, which was provided by J. E. Wigginton, EGCB, IE, who has been coordinating IE's resolution of this matter, states that "any hair growth in the face sealing area is unacceptable." It appears clear that workers wearing tight-fitting facepiece respirators must be clean shaven when wearing such a respirator. It is obvious that if workers' duties involve emergency response activities, where respirator usage may be required, they must remain clean shaven if they are to respond quickly to emergencies.

Mr. Wigginton also advised me that a memorandum will be issued soon by R. L. Baer, Chief, EGCB, IE, to all five Regions concerning regulatory prohibitions against the use of tight-fitting respirators if facial hair intrudes into the facepiece seal against the skin. I assume that if they are not already doing so, all Regions will enforce these regulatory requirements subsequent to their receipt of Mr. Baer's memorandum. I will provide a copy of that memorandum to you when I receive it.

October 31, 1984

Subsequent to receipt of your October 2, 1984 memorandum, Consumers Power Company was released from their commitment to this office to implement a facial hair policy by October 19, 1984, while I reviewed the matter. Upon receipt of the above referenced memorandum from R. L. Baer, I expect to reestablish a commitment date with Consumers Power Company.



L. R. Greger, Chief
Emergency Preparedness and
Radiological Protection Branch

Attachment: As stated

cc w/attach.:

Ron Siwarga, Chief Steward
Local 346, UWUA

Jeff Bakker, Sec-Treas.,
Local 346, UWUA

Mr. Dave Hoffman, Plant
Superintendent, Big Rock Point

J. G. Kepler, Regional
Administrator, RIII

J. E. Wigginton, IE

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, DC 20310

Reply to the Attention of



JUL 13 1983

Harry C. Russell, Col., USAF, BSC
Command Bioenvironmental Engineer
Office of the Surgeon
Department of the Air Force
Headquarters Air Force Logistics Command
Wright-Patterson Air Force Base, Ohio 45433

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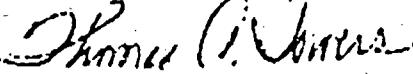
- a. Yes, any facial hair growth between the facepiece sealing surface and the skin that prevents a good sealing surface is a violation of 29 CFR 1910.134(e)(5)(i).
- b. The OSHA standard is a minimum standard. Any employer can set more stringent requirements than OSHA's. If the bearded employee is exposed to a toxic material in excess of the Air Force standard but within the OSHA standard, the respirator should not be worn until the interfering hair is removed because the Air Force standard would have been violated even if the OSHA standard were not.
- c. Yes, the situation described in your section C is still a violation of 1910.134(e)(5)(i). The question is not whether the bearded person can pass the fit test on a given day, but whether he can pass the test everyday. Since the density and texture of the beard is not uniform around the face, and because the density and bulk of beard is not the same over time, consistent fit test results cannot be obtained. Quantitative fit testing (QNFT) is the only available method which can accurately measure the fit testing result of a respirator. It is a time consuming process. The equipment is rather expensive and needs trained personnel to operate it. For these reasons, the QNFT is generally conducted only annually. It is unreasonable to require the employer to conduct QNFT everyday to determine whether a satisfactory fit can be obtained from a bearded individual. Qualitative fit testing would yield less reliable results.
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- 2 -

- e. The language on beards and respirator wearing is adequate in 1910.134(e)(5)(i). The third sentence in this paragraph only provides a partial list of the conditions that prevent a good face seal. The second sentence clearly prohibits respirator use when any such condition is present. Since the Air Force can adopt a standard which is more stringent than ours, you may consider adopting the current American National Standard Practices for Respiratory Protection, ANSI Z88.2, 1980 (enclosed).

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Sincerely,



Edward J. Baier
Director
Technical Support

Enclosures