

PART 1910--[AMENDED]

Subpart I--[Amended]

1. Revise the authority citation for subpart I of part 1910 to read as follows:

Authority: Sections 4, 6 and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, and 657); Section 107, Contract Work Hours and Safety Standards Act (the Construction Safety Act; 40 U.S.C. 333); Section 41, Longshore and Harbor Worker's Compensation Act (33 U.S.C. 941); and Secretary of Labor's Order Nos. 8-76 (41 FR 25059), 9-83 (48 FR 35736), 1-90 (55 FR 9033), 6-96 (62 FR 111), 3-2000 (65 FR 50017), or 5-2002 (67 FR 65008), as applicable.

Sections 29 CFR 1910.132, 1910.134, and 1910.138 also issued under 29 CFR part 1911.

Sections 29 CFR 1910.133, 1910.135, and 1910.136 also issued under 29 CFR part 1911 and 5 U.S.C. 553.

2. Amend Part I in Appendix A to Sec. 1910.134 as follows:

A. In Section A, revise the introductory text of paragraph 14(a).

B. In Section C, paragraph 4, 8th sentence, remove the name ``Dynatech Nevada" and add, in its place, ``Occupational Health Dynamics of Birmingham, Alabama."

C. In Section C, revise paragraphs 4(a)(5) and (6).

D. In Section C, revise paragraph 4(c)(1).

E. In Section C, add paragraph 5 at the end of Part I. The revised and added text reads as follows:

Sec. 1910.134 Respiratory protection.

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Appendix A to Sec. 1910.134: Fit Testing Procedures (Mandatory)

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Part I. OSHA--Accepted Fit Testing Protocols

A. Fit Testing Procedures--General Requirements

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14. Test Exercises. (a) Employers must perform the following test exercises for all fit testing methods prescribed in this appendix, except for the CNP quantitative fit testing protocol and the CNP REDON quantitative fit testing protocol. For these two protocols, employers must ensure that the test subjects (i.e., employees) perform the exercise procedure specified in Part I.C.4(b) of this appendix for

the CNP quantitative fit testing protocol, or the exercise procedure described in Part I.C.5(b) of this appendix for the CNP REDON quantitative fit-testing protocol. For the remaining fit testing methods, employers must ensure that employees perform the test exercises in the appropriate test environment in the following manner:

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C. * * *

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(4) * * *

(a) * * *

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(5) The employer must train the test subject to hold his or her breath for at least 10 seconds.

(6) The test subject must don the test respirator without any assistance from the test administrator who is conducting the CNP fit test. The respirator must not be adjusted once the fit-test exercises begin. Any adjustment voids the test, and the test subject must repeat the fit test.

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(c) * * *

(1) The test instrument must have an effective audio-warning device, or a visual-warning device in the form of a screen tracing, that indicates when the test subject fails to hold his or her breath during the test. The test must be terminated and restarted from the beginning when the test subject fails to hold his or her breath during the test. The test subject then may be refitted and retested.

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5. Controlled negative pressure (CNP) REDON quantitative fit testing protocol.

(a) When administering this protocol to test subjects, employers must comply with the requirements specified in paragraphs (a) and (c) of Part I.C.4 of this appendix ("Controlled negative pressure (CNP) quantitative fit testing protocol"), as well as use the test exercises described below in paragraph (b) of this protocol instead of the test exercises specified in paragraph (b) of Part I.C.4 of this appendix.

(b) Employers must ensure that each test subject being fit tested using this protocol follows the exercise and measurement procedures, including the order of administration, described below in Table A-1 of this appendix.

Table A-1.--CNP REDON Quantitative Fit Testing Protocol

Exercises\1\	Exercise procedure	Measurement procedure
Facing Forward.	Stand and breathe normally, without talking, for 30 seconds.	Face forward, while holding breath for 10 seconds.
Bending Over	Bend at the waist, as if going to touch his or her toes, 30 seconds.	Face parallel to the floor, while holding breath for 10 seconds.
Head Shaking	For about three seconds, shake head back and forth vigorously several times while shouting.	Face forward, while holding breath for 10 seconds.
REDON 1	Remove the respirator mask loosen all facepiece straps, and then redon the respirator mask.	Face forward, while holding breath for 10 seconds.
REDON 2	Remove the respirator mask loosen all facepiece straps, and then redon the respirator mask again.	Face forward, while holding breath for 10 seconds.

\1\ Exercises are listed in the order in which they are to be administered.

(c) After completing the test exercises, the test administrator must question each test subject regarding the comfort of the respirator. When a test subject states that the respirator is unacceptable, the employer must ensure that the test administrator repeats the protocol using another respirator model.

(d) Employers must determine the overall fit factor for each test subject by calculating the harmonic mean of the fit testing exercises as follows:

$$\text{Overall Fit Factor} = \frac{N}{\left[\frac{1}{FF_1} + \frac{1}{FF_2} + \dots + \frac{1}{FF_N} \right]}$$

Where:

- N = The number of exercises;
- FF1 = The fit factor for the first exercise;
- FF2 = The fit factor for the second exercise; and
- FFN = The fit factor for the nth exercise.