



**Exempt Action
Final Regulation
Agency Background Document**

Agency name	Department of Labor and Industry
Virginia Administrative Code (VAC) citation(s)	16 VAC25-90-1910.134
Regulation title(s)	Respiratory Protection Standard
Action title	Respiratory Protection Standard, §1910.134; Revisions to Appendix A—Additional Ambient CNC Quantitative Fit Testing Protocols
Final agency action date	March 5, 2020
Date this document prepared	March 9, 2020

While a regulatory action may be exempt from executive branch review pursuant to § 2.2-4002 or § 2.2-4006 of the *Code of Virginia*, the agency is still encouraged to provide information to the public on the Regulatory Town Hall using this form. However, the agency may still be required to comply with the Virginia Register Act, Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations*.

Brief Summary

Please provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

This action is necessary to meet the requirements of federal law and is therefore exempt from the requirements of the Administrative Process Act (APA) under §2.2-4006.A.4(c).

OSHA is approving two additional quantitative fit testing protocols for inclusion in appendix A of the Respiratory Protection Standard. They are:

- The modified ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol for full-facepiece and half-mask elastomeric respirators and
- The modified ambient aerosol CNC quantitative fit testing protocol for filtering facepiece respirators. The protocols apply to employers in general industry, shipyard employment, and the construction industry.

Prior to the publishing of this final rule, Appendix A of OSHA’s Respiratory Protection Standard (29 CFR 1910.134) contained four quantitative fit testing protocols:

- Generated aerosol;
- Ambient aerosol condensation nuclei counter (CNC);
- Controlled negative pressure (CNP); and
- Controlled negative pressure REDON. This final rule allows for two more options for testing protocols

Brief History of Respiratory Protection Protocols in Appendix A

TSI Incorporated (“TSI”) proposed the ambient aerosol CNC protocol—often called the PortaCount® protocol after the CNC instrument manufactured by TSI—in 1987. OSHA allowed the ambient aerosol CNC protocol for fit testing under a compliance interpretation published in 1988. OSHA eventually incorporated that protocol into appendix A of the Respiratory Protection Standard when it revised the standard in 1998.

In 2006, TSI submitted two additional quantitative fit testing protocols to OSHA for approval and inclusion in appendix A of the Respiratory Protection Standard. These protocols were modified, abbreviated versions of the original ambient aerosol CNC protocol already approved by OSHA and listed in appendix A.

OSHA published a notice of proposed rulemaking (NPRM) on January 21, 2009 (74 FR 3526) to include the two protocols in its Respiratory Protection Standard, but later concluded that they were not sufficiently accurate or reliable. OSHA withdrew the proposed rule without prejudice on January 27, 2010 (75 FR 4323), and invited the developers to resubmit the two protocols after addressing the issues of concern listed in the withdrawal notification.

In July 2014, TSI submitted an application requesting that OSHA approve three new quantitative fit testing protocols for inclusion in appendix A of OSHA’s Respiratory Protection Standard (OSHA–2015–0015–0003). These three protocols were modified, abbreviated versions of the original ambient aerosol CNC protocol approved by OSHA and listed in appendix A, but different from the ones submitted to OSHA by TSI in 2006.^a

^a TSI’s application included three peer reviewed articles (“the Richardson studies”) describing the accuracy and reliability of TSI’s proposed protocols.^a The application letter also included a copy of the 2010 ANSI/AIHA (American National Standards Institute/American Industrial Hygiene Association) Z88.10 “Respirator Fit Testing Methods” standard (“the ANSI standard”), which contains “Annex A2: Criteria for Evaluating New Fit Test Methods” (“the ANSI annex”) (OSHA–2015–0015–0007). TSI also submitted two white papers: One describing TSI’s analysis of its talking exercise data and the second describing TSI’s process and rationale behind the fit test exercises that were employed in the Richardson studies (OSHA–2015–0015–0001, OSHA–2015–0015–0008).

The three new protocols submitted by TSI in July 2014 included one for full facepiece elastomeric respirators (the Fast-Full method), one for half-mask elastomeric respirators (the Fast-Half method), and one for filtering facepiece respirators (FFRs) (the Fast-FFR method).

OSHA consolidated the Fast-Full and Fast-Half methods into a single protocol for approval: The modified ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol for full-facepiece and half-mask elastomeric respirators. OSHA further proposed to approve the Fast-FFR protocol as the modified ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol for filtering facepiece respirators.

The original ambient aerosol CNC protocol consists of eight test exercises, performed in the following order: Normal breathing, deep breathing, turning head side-to-side, moving head up-and-down, talking, grimace, bending over, and normal breathing again. The modified ambient aerosol CNC protocol for full-facepiece and half-mask elastomeric respirators differs as follows:

- It includes only three of the eight original test exercises (bending over, head side-to-side, and head up and-down);
- it adds jogging-in-place as a new exercise; and
- it reduces the total test duration from 7.2 to 2.5 minutes.

The modified ambient aerosol CNC protocol for FFRs differs from the original ambient aerosol CNC protocol as follows:

- It includes only four of the eight original test exercises (bending over, talking, head side-to-side, and head up-and-down) and
- it reduces the total test duration from 7.2 to 2.5 minutes.

Federal OSHA concluded the two proposed modified ambient aerosol CNC quantitative fit testing protocols were supported by peer-reviewed studies that were conducted according to accepted experimental design practices and principles that produced results that were properly, fully and fairly presented and interpreted.

As such federal OSHA published its final rule on September 26, 2019, amending Appendix A of the Respiratory Protection Standard to include modified ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol for full-facepiece and half-mask elastomeric respirators and modified ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol for filtering facepiece respirators.

Mandate and Impetus

Please identify the mandate for this regulatory change, and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, internal staff review, petition for rulemaking, periodic review, board decision, etc.). "Mandate" is defined as "a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part."

Under 29 CFR 1953.5(a), where a Federal program change is a new permanent standard, or a more stringent amendment to an existing permanent standard, the State shall promulgate a State standard adopting such new Federal standard, or more stringent amendment to an existing Federal standard, or an at least as effective equivalent thereof, within six months of the date of promulgation of the new Federal standard or more stringent amendment.

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

On March 5, 2020, the Safety and Health Codes Board adopted final rule for Additional Ambient Aerosol CNC Quantitative Fit Testing Protocols: Respiratory Protection Standard, as authorized by Virginia Code §§ 40.1-22(5) and 2.2-4006.A.4(c), with an effective date of March 31, 2020.

To access the Additional Ambient Aerosol CNC Quantitative Fit Testing Protocols: Respiratory Protection Standard, Final Rule, please click on the link below:

<https://www.govinfo.gov/content/pkg/FR-2019-09-26/pdf/2019-20686.pdf>.

**Additional Ambient Aerosol CNC Quantitative Fit Testing Protocols: Respiratory Protection
Standard; Final Rule**

As Adopted by the
Safety and Health Codes Board

Date: March 5, 2020



VIRGINIA OCCUPATIONAL SAFETY AND HEALTH PROGRAM

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

Effective Date: March 31, 2020

16VAC25-90-1910.134, Appendix A to Respiratory Protection Standard

When the regulations, as set forth in the Final Rule for the Respiratory Protection Standard are applied to the Commissioner of the Department of Labor and Industry and/or to Virginia employers, the following federal terms shall be considered to read as below:

Federal Terms

VOSH Equivalent

29 CFR

VOSH Standard

Assistant Secretary

Commissioner of Labor and
Industry

Agency

Department

September 26, 2019

March 31, 2020

Authority and Signature

Loren Sweatt, Acting Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, authorized the preparation of this document pursuant to Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), 29 CFR part 1911, and Secretary's Order 1-2012 (77 FR 3912).

Signed at Washington, DC, on September 19, 2019.

Loren Sweatt,
Principal Deputy Assistant Secretary of Labor for Occupational Safety and Health.

Amendments to the Standard

For the reasons stated in the preamble, the agency amends 29 CFR part 1910 as follows:

PART 1910—[AMENDED]

Subpart I—[Amended]

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

Authority: 29 U.S.C. 653, 655, 657; Secretary of Labor's Order No. 12-71 (36 FR 8754), 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), 5-2002 (67 FR 65008), 5-2007 (72 FR 31160), 4-2010 (75 FR 55355), or 1-2012 (77 FR 3912), as applicable, and 29 CFR part 1911.

- 2. Amend Part I in appendix A to § 1910.134 as follows:

- a. Revise Section A.14(a) introductory text;
- b. In Section C.3:
 - i. Revise the introductory text; and
 - ii. Remove the terms "Portacount™" and "Portacount" and add in their place the term "PortaCount®";
- c. Redesignate Sections C.4 and 5 of as Sections C.6 and 7;
- d. Add new Sections C.4 and 5; and

- e. In newly redesignated Section C.7:
 - i. Revise paragraph (a) and paragraph (b) introductory text; and
 - ii. Redesignate Table A-1 as Table A-3; and

The revisions and additions read as follows:

§ 1910.134 Respiratory protection.

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APPENDIX A to § 1910.134—FIT TESTING PROCEDURES (MANDATORY)

Part I. OSHA—Accepted Fit Test Protocols

A. Fit Testing Procedures—General Requirements

* * * * *

14. Test Exercises. (a) Employers must perform the following test exercises for all fit testing methods prescribed in this appendix, except for the two modified ambient aerosol CNC quantitative fit testing protocols, the CNP quantitative fit testing protocol, and the CNP REDON quantitative fit testing protocol. For the modified ambient aerosol CNC quantitative fit testing protocols, employers shall ensure that the test subjects (*i.e.*, employees) perform the exercise procedure specified in Part I.C.4(b) of this appendix for full-facepiece and half-mask elastomeric respirators, or the exercise procedure specified in Part I.C.5(b) for filtering facepiece respirators. Employers shall ensure that the test subjects (*i.e.*, employees) perform the exercise procedure specified in Part I.C.6(b) of this appendix for the CNP quantitative fit testing protocol, or the exercise procedure described in Part I.C.7(b) of this appendix for the CNP REDON quantitative fit testing protocol. For the remaining fit testing methods, employers shall ensure that the test exercises are performed in the appropriate test environment in the following manner:

C. Quantitative Fit Test (QNFT) Protocols

* * * * *

3. Ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol.

The ambient aerosol condensation nuclei counter (CNC) quantitative fit testing (PortaCount®) protocol quantitatively fit tests respirators with the use of a probe. The probed respirator is only used for quantitative fit tests. A probed respirator has a special sampling device, installed on the respirator, that allows the probe to sample the air from inside the mask. A probed respirator is required for each make, style, model, and size that the employer uses and can be obtained from the respirator manufacturer or distributor. The primary CNC instrument manufacturer, TSI Incorporated, also provides probe attachments (TSI mask sampling adapters) that permit fit testing in an employee's own respirator. A minimum fit factor pass level of at least 100 is necessary for a half-mask respirator (elastomeric or filtering facepiece), and a minimum fit factor pass level of at least 500 is required for a full-facepiece elastomeric respirator. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

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4. Modified ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol for full-facepiece and half-mask elastomeric respirators.

(a) When administering this protocol to test subjects, employers shall comply with the requirements specified in Part I.C.3 of this appendix (ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol), except they shall use the test exercises described below in paragraph (b) of this protocol instead of the test exercises specified in section I.C.3(a)(6) of this appendix.

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

TABLE A-1— MODIFIED AMBIENT AEROSOL CNC QUANTITATIVE FIT TESTING PROTOCOL FOR FULL FACEPIECE AND HALF-MASK ELASTOMERIC RESPIRATORS

Exercises ¹	Exercise procedure	Measurement procedure
Bending Over	The test subject shall bend at the waist, as if going to touch his/her toes for 50 seconds and inhale 2 times at the bottom ² .	A 20 second ambient sample, followed by a 30 second mask sample.
Jogging-in-Place	The test subject shall jog in place comfortably for 30 seconds	A 30 second mask sample.
Head Side-to-Side	The test subject shall stand in place, slowly turning his/her head from side to side for 30 seconds and inhale 2 times at each extreme ² .	A 30 second mask sample.
Head Up-and-Down	The test subject shall stand in place, slowly moving his/her head up and down for 39 seconds and inhale 2 times at each extreme ² .	A 30 second mask sample followed by a 9 second ambient sample.

¹ Exercises are listed in the order in which they are to be administered.
² It is optional for test subjects to take additional breaths at other times during this exercise.

5. Modified ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol for filtering facepiece respirators.
 (a) When administering this protocol to test subjects, employers shall comply with the requirements specified in Part I.C.3 of this appendix (ambient aerosol condensation

nuclei counter (CNC) quantitative fit testing protocol), except they shall use the test exercises described below in paragraph (b) of this protocol instead of the test exercises specified in section I.C.3(a)(6) of this appendix.

(b) Employers shall ensure that each test subject being fit tested using this protocol follows the exercise and duration procedures, including the order of administration, described in Table A-2 of this appendix.

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TABLE A-2— MODIFIED AMBIENT AEROSOL CNC QUANTITATIVE FIT TESTING PROTOCOL FOR FILTERING FACEPIECE RESPIRATORS

Exercises ¹	Exercise procedure	Measurement procedure
Bending Over	The test subject shall bend at the waist, as if going to touch his/her toes for 50 seconds and inhale 2 times at the bottom ² .	A 20 second ambient sample, followed by a 30 second mask sample.
Talking	The test subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor for 30 seconds. He/she will either read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.	A 30 second mask sample.
Head Side-to-Side	The test subject shall stand in place, slowly turning his/her head from side to side for 30 seconds and inhale 2 times at each extreme ² .	A 30 second mask sample.
Head Up-and-Down	The test subject shall stand in place, slowly moving his/her head up and down for 39 seconds and inhale 2 times at each extreme ² .	A 30 second mask sample followed by a 9 second ambient sample.

¹ Exercises are listed in the order in which they are to be administered.
² It is optional for test subjects to take additional breaths at other times during this exercise.

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7. 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.6 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.6 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 in Table A-3 of this appendix.

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 [FR Doc. 2019-20686 Filed 9-25-19; 8:45 am]
 BILLING CODE 4510-26-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG-2019-0756]

RIN 1625-AA00

Safety Zone, Wilmington River, Savannah, GA

AGENCY: Coast Guard, DHS.
ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary safety zone for navigable waters on the Wilmington River 1,000 feet on the north and south side of the Islands Expressway Bridge in Savannah, GA. The safety zone is needed to protect personnel, vessels, and the marine environment from potential hazards created by the placement of multiple spans for the new Islands Expressway Bridge. Entry of vessels or persons into this zone is

prohibited unless specifically authorized by the Captain of the Port (COTP) Savannah or a designated representative.

DATES: This rule is effective without actual notice from September 26, 2019 to 2:00 p.m. on October 22, 2019. For the purposes of enforcement, actual notice will be used from 8:00 a.m. on September 18, 2019 through September 26, 2019.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to <http://www.regulations.gov>, type USCG-2019-0756 in the "SEARCH" box and click "SEARCH." Click on Open Docket Folder on the line associated with this rule.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email MST1 Rachel Crowe, Marine Safety Unit Savannah Office of Waterways Management, Coast Guard; telephone 912-652-4353, extension 243, or email Rachel.M.Crowe@uscg.mil.

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
 DHS Department of Homeland Security
 FR Federal Register
 NPRM Notice of proposed rulemaking
 § Section
 U.S.C. United States Code

II. Background Information and Regulatory History

The Coast Guard is issuing this temporary rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under 5 U.S.C.

553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because doing so would be impracticable. Immediate action is needed to respond to the potential safety hazards created by the placement of multiple spans for the new Islands Expressway Bridge. The Coast Guard received information on August 27, 2019 regarding the operations beginning on September 18, 2019. The operation would begin before the rulemaking process would be completed. Because of the dangers posed by the placement of multiple spans, the safety zone is necessary to provide for the safety of persons, vessels, and the marine environment in the event area.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. Delaying the effective date of this rule would be impracticable because immediate action is needed to respond to the potential safety hazards associated with the construction and placement of multiple spans.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70034. The COTP Savannah has determined that potential hazards associated with the placement of multiple spans for the new Islands Expressway Bridge starting September 18, 2019, will be a safety concern for anyone within 1,000 feet of the north and south side of the Islands Expressway Bridge. This rule is needed to protect personnel, vessels, and the marine environment in the navigable waters within the safety zone during bridge construction.

IV. Discussion of the Rule

This rule establishes a safety zone from 8:00 a.m. on September 18, 2019