

WSR 24-03-149

PROPOSED RULES

DEPARTMENT OF

LABOR AND INDUSTRIES

[Filed January 23, 2024, 3:22 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-06-068.

Title of Rule and Other Identifying Information: Safety standards for firefighters; WAC 296-305-03002 Hazardous materials and 296-305-04001 Respiratory equipment protection.

Hearing Location(s): On February 28, 2024, at 10:00 a.m., virtual hearing via Zoom. Join electronically <https://lni-wa-gov.zoom.us/j/86198428444?pwd=MVkyVzE0UlnZUjVJTHZueVNBsvovdz09>, Password (if prompted) Fire@930; or join by phone (audio only) 253-205-0468 or 253-215-8782, Meeting ID 861 9842 8444, Password 47522467. A prehearing overview will occur 30 minutes prior to the start of the hearing at 9:30 a.m. The hearing will begin at the indicated time and will continue until all oral comments are received.

Date of Intended Adoption: April 16, 2024.

Submit Written Comments to: Tari Enos, Department of Labor and Industries (L&I), Division of Occupational Safety and Health, P.O. Box 44620, Olympia, WA 98504-4620, email Tari.Enos@lni.wa.gov, fax 360-902-5619, by March 6, 2024.

Assistance for Persons with Disabilities: Contact Tari Enos, phone 360-902-5541, fax 360-902-5619, email Tari.Enos@lni.wa.gov, by February 14, 2024.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: L&I received a petition requesting L&I engage in rule making to update the language in WAC 296-305-03002 Hazardous materials. There have been many technological advances in the years since this WAC code was written, including in personal protective equipment (PPE) materials, certification, and testing. The proposed rule updates the required standards for hazardous materials protective equipment. The current rule requires compliance with the following National Fire Protection Association (NFPA) standards for hazard material protective equipment: NFPA 1991 (2000 edition), NFPA 1992 (2000 edition), and NFPA 1994 (2001 edition). The proposed rule updates the requirements to the NFPA 1990 (2022 edition), which is a consolidation of the currently referenced NFPA standards and the current edition. As requested in the petition, the proposed rule allows an exemption from the requirement that protective ensembles and liquid splash-protective ensembles completely cover the wearer's respiratory protection when respiratory protection meets the National Institute for Occupational Safety and Health chemical, biological, radiological, and nuclear self-contained breathing apparatus testing.

WAC 296-305-04001 Respiratory equipment protection, which has guidance for breathing air quality for firefighters, will also be updated. The reference to ANSI/CGA G6-1, Commodity Specification for Air, needs to be updated to fix a typo in the standard number.

Reasons Supporting Proposal: The reason supporting this proposal is enhancing the safety of responders. Updating the language in WAC 296-305-03002 will improve the speed of action by the responders. Technological advancements in protective ensembles have increased the dexterity as well as the overall protectiveness of these ensembles, which allows firefighters and departments to better protect workers based on the associated hazards of the given emergency response. The

changes enhance safety and align with the current version of the consolidated NFPA standard for hazardous materials protective equipment.

Statutory Authority for Adoption: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060.

Statute Being Implemented: Chapter 49.17 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: L&I, governmental.

Name of Agency Personnel Responsible for Drafting: Tracy West, Tumwater, Washington, 509-237-2372; Implementation and Enforcement: Craig Blackwood, Tumwater, Washington, 360-902-5828.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. The rule making is exempt from a cost-benefit analysis per RCW 34.05.328 (5)(b)(iii) and (iv). This rule making proposes to adopt a national consensus standard which provides clarity and updated options for selection of PPE when engaged in activities under the rule and a house-keeping update to correct a reference in the rule.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules are adopting or incorporating by reference without material change federal statutes or regulations, Washington state statutes, rules of other Washington state agencies, shoreline master programs other than those programs governing shorelines of statewide significance, or, as referenced by Washington state law, national consensus codes that generally establish industry standards, if the material adopted or incorporated regulates the same subject matter and conduct as the adopting or incorporating rule; and rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect.

Scope of exemption for rule proposal:

Is fully exempt.

January 23, 2024  
Joel Sacks  
Director

## OTS-4787.2

AMENDATORY SECTION (Amending WSR 18-22-116, filed 11/6/18, effective 12/7/18)

**WAC 296-305-03002 Hazardous materials.** (1) Fire department personnel involved in hazardous materials incidents must be protected against potential chemical hazards. Chemical protective clothing must be selected according to the technical data package provided by the clothing manufacturer and used to protect the skin, eyes, face, hands, feet, head and body.

(2) Fire departments must select, provide, and require the use of additional personal protective equipment as required in chapter 296-842 WAC, Respiratory protection.

(3) ~~((Hazardous chemical protective equipment must be classified by performance and is defined as:~~

~~(a) Vapor-protective suits (level A) meeting the criteria outlined in the 2000 edition of NFPA 1991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies.~~

~~(b) Liquid splash-protective suits (level B) meeting the criteria outlined in the 2000 edition of NFPA 1992, Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies.~~

~~(c) CBRN terrorism incident protective ensembles and ensemble elements meeting the criteria outlined in the 2001 edition of NFPA 1994, Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents.)) Protective ensembles for hazardous materials and CBRN operations must meet the design and performance criteria outlined in the 2022 edition of NFPA 1990.~~

(4) Vapor protective ensembles, liquid splash-protective ensembles, and CBRN protective ensembles must completely cover both the wearer and the wearer's respiratory protection unless the respiratory protection has been specifically designed by the manufacturer for that type of chemical exposure, or meet the Statement of Standard for NIOSH CBRN SCBA Testing.

(5) Vapor protective suits and liquid splash-protective suits must not be used alone for any firefighting applications or for protection from radiological, biological, or cryogenic agents or in flammable or explosive atmospheres.

(6) Liquid splash-protective suits must not be used when operations are likely to result in significant exposure to chemicals or specific chemical mixtures with known or suspected carcinogenicity as indicated by any one of the following documents if it can be reasonably expected that the firefighters in vapor-protective suits would be significantly better protected:

(a) Dangerous Properties of Industrial Chemicals, 10th edition-2000, N. Irving Sax.

(b) NIOSH Pocket Guide to Chemical Hazards, 2006 edition.

(c) U.S. Coast Guard Chemical Hazard Response Information System (CHRIS), Volume 13, Hazardous Chemical Data.

(7) Liquid splash-protective suits must not be used when operations are likely to result in significant exposure to chemicals or specific chemical mixtures with skin toxicity notations as indicated by the American Conference of Government Industrial Hygienists (ACGIH) Threshold Limit Values for Chemical Substances and Agents and Biological Exposure Indices for 2004 or 2007 if it can be reasonably expected that firefighters in vapor-protective suits would be significantly better protected.

(8) Firefighters assigned to functional support operations outside the hot zone during hazardous chemical emergencies must be provided with and must use personal protective garments appropriate for the type of potential chemical hazard exposure.

(9) Fire departments responding to uncontrolled release of hazardous materials must comply with chapter 296-824 WAC, Emergency response.

AMENDATORY SECTION (Amending WSR 18-22-116, filed 11/6/18, effective 12/7/18)

**WAC 296-305-04001 Respiratory equipment protection.** (1) Fire-fighter's self-contained breathing apparatus (SCBA) must, at a minimum, meet the requirements of the 1997 edition of NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire Fighters. Equipment purchased after the effective date of this rule must meet the 2007 edition of NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus for Emergency Services.

(2) Closed circuit SCBA must:

- (a) Be positive pressure;
- (b) Be NIOSH certified; and
- (c) Have a minimum (~~(thirty)~~) 30-minute service duration.

(3) Members using SCBAs must operate in teams of two or more.

(4) Except as otherwise provided in this chapter, fire departments must adopt, maintain and implement a written respiratory protection program that addresses the requirements of chapter 296-842 WAC, Respiratory protection. This includes program administration, medical limitations, equipment limitations, equipment selection, inspection, use, maintenance, training, fit testing procedures, air quality, and program evaluation.

**Note:** Additional information on respirators and respirator usage can be found in ANSI Z88.2 - American National Standard for Respiratory Protection and various NFPA publications (1981, 1404, 1500, etc.).

(5) Reserved.

(6) When the fire department makes its own breathing air or uses vendor supplied breathing air, they must maintain documentation certifying breathing air quality. The breathing air must:

(a) Be tested at least quarterly by using an air sample taken from the same outlet and in the same manner as the respirator breathing air cylinders are filled or air line respirators are connected.

(b) Meet the requirements of either the 2003 edition of NFPA 1989, Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection or the 1997 edition of ANSI/CGA (~~(G6-1)~~) G7-1 - Commodity Specification for Air, with a minimum air quality of grade D.

(c) Meet a water vapor level of 24 ppm or less.

(7) Fit testing must be conducted in accordance with this section and chapter 296-842 WAC, Respiratory protection.

(a) Each new member shall be tested by a qualitative or quantitative method before being permitted to use SCBA's in a hazardous atmosphere.

(b) Only firefighters with a properly fitting facepiece must be permitted by the fire department to function in a hazardous atmosphere with SCBA.

(c) Fit testing must be repeated:

(i) At least once every (~~(twelve)~~) 12 months.

(ii) Whenever there are changes in the type of SCBA or facepiece used.

(iii) Whenever there are significant physical changes in the user. Example: Weight change of (~~(ten)~~) 10 percent or more, scarring of face seal area, dental changes, cosmetic surgery, or any other condition that may affect the fit of the facepiece seal.

(d) The fit testing is done only in a negative-pressure mode. If the facepiece is modified for fit testing, the modification must not affect the normal fit of the device. Such modified devices must only be used for fit testing.

(e) The fit test procedures and test exercises described in WAC 296-842-15005 and 296-842-22010 must be followed unless stated otherwise in this chapter.

(f) Respirator fit test records must include:

(i) Written guidelines for the respirator fit testing program including pass/fail criteria;

(ii) Type of respirator tested including manufacturer, model, and size;

(iii) Type of fit test and instrumentation or equipment used;

(iv) Name or identification of test operator;

(v) Name of person tested;

(vi) Date of test; and

(vii) Results of test.

**Note:** Firefighters should be issued individual facepieces.

(8) Facial hair, contact lenses, and eye and face protective devices.

(a) A negative pressure respirator, any self-contained breathing apparatus, or any respirator which is used in an atmosphere immediately dangerous to life or health (IDLH) equipped with a facepiece must not be worn if facial hair comes between the sealing periphery of the facepiece and the face or if facial hair interferes with the valve function.

(b) The wearer of a respirator must not be allowed to wear contact lenses if the risk of eye damage is increased by their use.

(c) If corrective lenses must be worn with a facepiece, they must be worn so as to not adversely affect the seal of the facepiece to the face. See WAC 296-842-18005(3).

(d) Straps or temple bars must not pass between the seal or surface of the respirator and the user's face.

(9) At the end of suppression activities (to include fire overhaul) and before returning to quarters:

(a) Gross/field decontamination must be performed on firefighters prior to removal of their respirator whenever firefighting activities resulted in exposure to a hazardous substance.

(b) When exchanging air supply bottles during suppression or overhaul activities, reasonable precautions must be taken to maintain uncontaminated atmosphere to the breathing zone and facepiece supply hose.

(10) Self-contained respiratory equipment must be available and used by all firefighters who enter into hazardous atmospheres during structural firefighting activities.

(11) Reserved.

(12) Respirators must be provided for, and shall be used by, all personnel working in areas where:

(a) The atmosphere is hazardous;

(b) The atmosphere is suspected of being hazardous; or

(c) The atmosphere may rapidly become hazardous.

**Reference:** See WAC 296-305-05002(13) for additional requirements.

(13) Reserved.

(14) Firefighters using a properly functioning SCBA must not compromise the protective integrity of the SCBA by removing the facepiece for any reason in hazardous atmospheres or in atmospheres where the quality of air is unknown.

(15) Firefighters must receive training for each type and manufacturer of respiratory equipment available for their use, the step-

by-step procedure for donning the respirator and checking it for proper function. Required training must include:

- (a) Recognizing hazards that may be encountered;
- (b) Understanding the components of the respirator;
- (c) Understanding the safety features and limitations of the respirator; and
- (d) Donning and doffing the respirator.

(16) After completing such training, each firefighter must practice at least quarterly, for each type and manufacture of respirator available for use, the step-by-step procedure for donning the respirator and checking it for proper function.

(17) Members must be tested at least annually on the knowledge of respiratory protection equipment operation, safety, organizational policies and procedures, and facepiece seals, to the fire department's standard. Such records must remain part of the member training file.

(18) Members must be allowed to use only the make, model, and size respirator for which they have passed a fit test within the last ((twelve)) 12 months.

(19) In cases where there is a reported failure of a respirator, it must be removed from service, tagged and recorded as such, and tested before being returned to service.

(20) Firefighters must be thoroughly trained in accordance with the manufacturer's instructions on emergency procedures such as use of regulator bypass valve, corrective action for facepiece and breathing tube damage, and breathing directly from the regulator (where applicable).

(21) Reserved.

(22) SCBA cylinders must be hydrostatically tested within the periods specified by the manufacturer and the applicable governmental agencies.