

DEPARTMENT OF INDUSTRIAL RELATIONS
Occupational Safety and Health Standards Board
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NOTICE OF PROPOSED MODIFICATIONS TO
CALIFORNIA CODE OF REGULATIONS

General Industry Safety Orders,
Article 10.1, Section 3401, Section 3402,
New Sections 3402.1 - 3402.3,
Sections 3403 - 3410, New Section 3410.1, and Section 3411

Fire Fighters' Personal Protective Clothing and Equipment – AB 2146 (2014)

Pursuant to Government Code section 11346.8(c), the Occupational Safety and Health Standards Board (Standards Board or Board) gives notice of the opportunity to submit written comments on the above-named standards in which modifications are being considered as a result of public comments and/or Board staff consideration.

On March 18, 2021, the Standards Board held a Public Hearing to consider revisions to title 8, section 3401, section 3402, new sections 3402.1 - 3402.3, sections 3403 - 3410, new section 3410.1, and section 3411 of the General Industry Safety Orders. The Standards Board received written and oral comments on the proposed revisions. The standards have been modified as a result of these comments and Board consideration. Modifications are now proposed for sections 3401, 3402, 3410 and new section 3410.1.

A copy of the text of the standards as originally proposed, with the modifications clearly indicated, is attached. Anything that has been added is indicated by a bold underline, and anything that has been removed is indicated by a bold strikeout. In addition, a summary of all comments regarding the original proposal and staff responses is included.

Pursuant to Government Code section 11347.1, notice is also given of the opportunity to submit comments concerning the addition to the rulemaking file of the following documents relied upon:

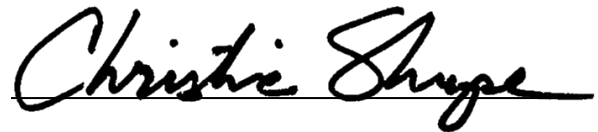
- State Controller's Office; Mandated Cost Manual for Local Agencies; Suspended Mandates for FY 2018-19 Source of state-mandated program suspensions – Budget Act of 2018 (Ch. 29/18) Item 8885-295-0001, Schedule (5), page 2, Structural and Wildland Firefighter's Safety Clothing and Equipment; https://www.sco.ca.gov/Files-ARD-Local/Manuals/la_1819_susp.pdf
- U.S. Fire Administration; Wildland Urban Interface (WUI); Definition of WUI; <https://www.usfa.fema.gov/wui/>

Any written comments on these modifications or documents relied upon must be received by 5:00 p.m. on *Thursday, November 18, 2021* at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833 or submitted by fax to (916) 274-5743 or e-mailed to oshsb@dir.ca.gov. Please confine your comments to the modification of the text and the additional documents relied upon. This proposal will be scheduled for adoption at a future business meeting of the Standards Board.

The Standards Board's rulemaking files on the proposed action are open to public inspection BY APPOINTMENT Monday through Friday, from 8:00 a.m. to 4:30 p.m., at the Standards Board's office at 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833. Appointments can be scheduled via email at oshsb@dir.ca.gov or by calling (916) 274-5721.

Inquiries concerning the proposed changes may be directed to the Executive Officer, Christina Shupe, at (916) 274-5721.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

A handwritten signature in black ink that reads "Christina Shupe". The signature is written in a cursive style and is positioned above a solid horizontal line.

Christina Shupe, Executive Officer

Date: *October 29, 2021*

PROPOSED MODIFICATIONS
(Modifications are indicated in bold,
underline wording for new language,
and bold, strikeout for deleted language.)

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Article 10.1. Personal Protective Clothing and Equipment for Fire Fighters.

Amend Section 3401 to read:

§3401. Application.

(a) These Orders establish minimum requirements for personal protective clothing and equipment for fire fighters when exposed to the hazards of fire fighting activity, and take precedence over any other Safety Order with which they are inconsistent.

Sections ~~3403~~ 3402.1 and 3402.3 through 3409, inclusive, apply to structural and proximity fire fighting as defined in Section 3402. Sections 3402.2, 3410, and 3410.1 apply to wildland fire fighting.

EXCEPTION to section 3401(a): The requirements of these orders are not applicable to fire fighters from other states of the United States or another country rendering temporary fire suppression assistance during a wildfire event.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 3402 to read:

§3402. Definitions.

~~Face Shield. A heat and flame resistant device worn in front of the eyes and face, whose predominant function is protection of the eyes and face.~~

Fire Fighter. ~~An employee~~ **A worker** ~~An employee~~ who is assigned to fire fighting activity, and is required to respond to alarms and perform emergency action at the location of a fire or fire related danger. Included are the ~~employees~~ **workers employees** of fire departments, fire protection districts, state fire agencies, organized fire companies, and private fire brigades when engaged in fire fighting activity. ~~The term does not apply to emergency pick-up labor or other persons who may perform first-aid fire extinguishment as collateral to their regular duties.~~

Wildland Fire Fighting. The activities of fire suppression and property conservation in woodlands, forests, grasslands, brush, prairies, and other such vegetation, or any combination of vegetation, that is involved in a fire situation, but is not within buildings or structures.

Wildland Urban Interface (WUI). The zone of transition between unoccupied land and human development. It is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Communities adjacent to and surrounded by wildland are at varying degrees of risk from wildfires.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 6303(c), Labor Code.

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 3409 to read:

§3409. Respiratory Protection.

~~(b)~~(c) General Requirements.

(1) Written Standard Procedures. The employer shall develop and implement comprehensive written standard operating procedures for the use, care, maintenance, and training relating to respiratory protective equipment in accordance with Section 5144, ~~and ANSI Z88.2 (1980), "Practices for Respiratory Protection," and ANSI Z88.5 (1981), "Practices for Respiratory Protection for the Fire Service."~~

~~The operating procedures required by this subsection are exempt from the prohibition of the use of contact lenses specified in ANSI Z88.2(1980) and ANSI Z88.5(1981).~~

~~(2) When emergency conditions require the urgent multi-person use of the same facepiece, requirements of Section 5144(h) pertaining to cleaning and sanitation of the facepiece shall not apply.~~

(2) SCBA shall be worn during overhaul operations unless the employer can demonstrate that a lesser level of protection is appropriate provides for employee safety.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 6303(c), Labor Code.

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 3410 to read:

§3410. ~~Wildland Fire Fighting Requirements. Selection, Inspection, and Maintenance of Protective Ensembles for Wildland Fire Fighting.~~

(b) Selection. The employer shall determine the operational requirements for wildland fire fighting PPE in relation to their risk assessment. The operational requirements shall be documented in writing and consist of the following:

(1) Identify the garment configuration and garment component that comprise the wildland fire fighting PPE system.

(2) Specify performance criteria for each wildland fire fighting PPE garment and its components.

(A) The employer shall consider the following:

1. Compliance with the National Fire Protection Association (NFPA) 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference;

2. Radiant Protection Performance (RPP);

3. ~~Thermal Total Health Heat~~ Heat Loss (THL); and

4. Thermal Protective Performance (TPP).

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 6303(c), Labor Code.

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Add new Section 3410.1 to read:

§3410.1. Personal Protective Equipment for Wildland Fire Fighting.

~~(c)~~ Respiratory Protection.

~~(1) Wildland fire fighters exposed or who could become foreseeably exposed to harmful exposure in the course of their assigned activities shall be provided with and shall use respiratory protective devices that are approved and certified in accordance with Section 5144, and the methods and requirements specified by the National Institute of Occupational Safety and Health (NIOSH) under 42 CFR part 84.~~

~~(2) Air purifying respirators for wildland fire fighting operations shall be NIOSH approved as complying with NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference.~~

~~EXCEPTION to Section 3410.1(c)(2). Market Availability. Respiratory protection complying with NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference, is required one year after the product is available in the market.~~

~~(d)(c) In-service Thermal Protection of the Ears and Neck. Protection against burns on the ear and neck shall be provided by one or more of the following means, or other equivalent methods, when fire fighters engaged in wildland fire fighting are exposed to injurious heat and flame: flared neck shield attached to brim of helmet; hood, shroud, high collar with throat strap. Fabric specified for this purpose shall be constructed and tested in accordance with the provisions of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.~~

~~(e)(d)~~ Body Protection.

~~(1) In-Service Body Protection. Body protection shall be provided to each wildland fire fighter exposed to wildland fire fighting. Protective garments used by fire fighters shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.~~

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

(2) In-Service Chainsaw Protectors. Chainsaw protectors shall be provided to and used by fire fighters who operate chainsaws. The chainsaw protectors (chaps) shall meet the requirements of U.S. Department of Agriculture, Forest Service Specification, Chaps, Chainsaw, 6170-4G, (September 6, 2011), which is hereby incorporated by reference.

~~(f)~~(e) Protective Gloves.

(1) Protective gloves shall be provided to wildland fire fighters. Gloves shall be properly sized and suitable to the hazards encountered in wildland fire fighting activities. Fire fighters shall wear protective gloves whenever exposed to a hazardous environment that may cause injury to the hand or wrist.

(2) In-Service Protective Gloves. Protective gloves shall meet the design and performance requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

~~(g)~~(f) Foot Protection.

(1) Protective footwear shall be worn by fire fighters while engaged in wildland fire fighting activities.

(2) In-Service Protective Footwear. Protective footwear shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

~~(h)~~(g) In-Service Fire Shelters. A fire shelter shall be provided and made immediately available for every fire fighter when engaged in wildland fire fighting activities as defined in these orders. The fire shelter shall meet or exceed U.S. Department of Agriculture, Forest Service Specification, Shelter, Fire (M-2002), 5100-606C, August 22, 2011, which is hereby incorporated by reference.

~~(i)~~(h) In-Service Load Carrying Equipment. Load carrying equipment for carrying gear shall be provided to wildland fire fighters. Load carrying equipment shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 6303(c), Labor Code.

SUMMARY AND RESPONSES TO COMMENTS

SUMMARY AND RESPONSES TO WRITTEN AND ORAL COMMENTS

I. Written Comments

1. Jeremy Lawson, Staff Chief, CAL FIRE, by letter dated March 9, 2021.

Comment #1:

CAL FIRE does not agree with the proposed change to section 3402 in the definition of “fire fighter”, which substituted the term “worker” for “employee”.

Mr. Lawson stated that there are several factors utilized in identifying whether a particular employer is considered a primary, secondary, general, special or other employer. CAL FIRE believes that using the term “worker” instead of “employee” would have a disproportionate impact on their operations. CAL FIRE regularly employs, or requests assistance from a wide variety of fire fighting resources which can include Call When Needed (CWN) vendors and out of state resources during large scale fire suppression activities. Mr. Lawson was concerned that CAL FIRE may be considered an employer of those various assisting resources when assigned to state incidents managed by CAL FIRE.

According to Mr. Lawson, the proposed amendment increases the risk that assisting resources who do not regularly engage in wildfire suppression, and are therefore not accustomed to meeting these new regulations pertaining to wildland fire fighting, would potentially become unavailable to CAL FIRE for the purpose of wildland fire suppression.

Response #1:

The intent of the proposed change was to inform the public that article 10.1 applies to volunteer fire fighters and inmate fire fighters. The determination of a citable employer in multi-employer worksites is governed by title 8, [section 336.10](#) and not by the term “worker” versus “employee”. Nevertheless, for the sake of consistency to existing Labor Code*, the proposed text will be amended using the term “employee” and not “worker”.

** Labor Code sections [3351](#), [6304.1](#), and [6304.2](#) classify volunteer fire fighters and inmate fire fighters as employees.*

If the CWN are not fire fighters, Article 10.1 does not apply, because the scope of the article does not apply to vendors not engaged in fire fighting. Regarding the comment about assisting resources who do not regularly engage in wildfire suppression, section 3401(a) will be amended to add an Exception for fire fighters from other states or from another country assisting to California in a major wild fire event.

Comment #2:

CAL FIRE is not in favor of the proposed change to section 3402 in the definition of “harmful exposure”. Mr. Lawson states that the very nature of wildland fire fighting exposes fire fighters to

dust, fumes, mists, vapors or gases that could cause illness. The proposed amendment expands the definition of “harmful exposure” to something that has “a probability” of resulting in injury or illness. During moderate to large scale wildfires the air quality index measurements for particulate matter 2.5, Ozone and other measured pollutants generally increase. The proposed amendment would create such a broadly inclusive standard as to essentially deem any and all wildfires and the air quality therefrom, a “harmful exposure”.

Response #2:

The Standards Board will not amend the proposed definition. On May 10, 1977, a memorandum from the Division of Safety to the Standards Board, stated that the definition of “harmful exposure” in section 3402 was amended to be consistent with section 5140. Then on May 5, 1979, the definition of “harmful exposure” was amended, but the Standards Board overlooked updating the definition of “harmful exposure” in section 3402 to reflect the change in section 5140. This rulemaking corrects that error by proposing the definition of “harmful exposure” be consistent with section 5140. The term “harmful exposure” is an essential definition that governs where respiratory hazards have to be mitigated to the extent feasible.

Comment #3:

CAL FIRE requests to postpone the effective date of the of purchase quality standards of section 3402.1 to two years from the effective date as opposed to six months from the effective date to account for the number of employees within an organization

Response #3:

The Standards Board rejects the request to extend the effective date for all new purchases of personal protective equipment (PPE). This section is not a requirement to purchase PPE, but as the employer retires PPE, the quality of the replacement PPE and additional inventory is required to meet section 3402.1. There are interrelated sections in this proposal relating to the purchase of new PPE and in-service PPE. It is to the benefit of the employer to purchase PPE manufactured to the most current National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting edition to maximize the 10-year life of the protective ensembles.

For example, section 3402.1 requires new protective ensembles be compliant to NFPA 2018 edition, which is the latest edition. After a new edition is published, manufacturers start producing protective ensembles compliant to the new edition to ensure a shelf life of 10 years. NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2014 edition, chapter 10.1, requires that protective ensembles be retired no more than 10 years from the date of manufacture. Proposed amendments to sections 3404, 3405, 3406, 3407, and 3408 permits in-service protective ensembles made in compliance to the 2007 edition, because protective ensembles made to the 2007 edition may have been manufactured in 2012, prior to the release of the 2013 edition. Furthermore, section 3402.3(c)(2) extends the effective date of NFPA 1851, 2014 edition, chapter 10 (Retirement, Disposition, and Special Incident Procedure) to three years from the Office of Administrative Law (OAL) effective date.

The extension was proposed to allow employers to start retiring non-NFPA approved protective ensembles and use the remaining stock of protective ensembles manufactured in accordance with NFPA 1971, 2007 for three years. The extra time also allows agencies to budget for new purchases of protective ensembles.

Comment #4:

The proposed rule in sections 3402.3 and 3410(g) would require the employer to maintain records on the structural and proximity fire fighting protective ensemble and ensemble elements for three years from the date of retirement.

Response #4:

The members of the advisory committee were of the opinion that three years was a reasonable time to maintain records of retired personal protective equipment.

Comment #5:

The proposed amendment to section 3405(c) stating that “body protection provided for other than structural fires shall be appropriate for the potential hazards.” is too general. CAL FIRE contends that the standard should specifically relate to an accepted standard of PPE.

Response #5:

The Standards Board is not proposing a change to the existing text other than a relocation from existing section 3406(d), therefore the comment is outside the scope of the rulemaking. In addition, the commenter did not provide any evidence that there is confusion over the existing terminology.

Comment #6:

- Proposed section 3410(c)(2) requires annual inspection by a qualified person, but qualified person is not defined.
- The laundering provisions of this proposed section are overly burdensome and should take into account the type of contaminants based on the fuels typically encountered when engaged in fire fighting. Wildland fire fighting typically encounters different contaminants or soiling than those within the urban setting. While studies have been conducted on the type of cleaning agent best suited for the contaminants faced within an urban environment, there has yet to be a consensus of the best cleaning agent suited for the contaminants encountered as a result of wildland fires.
- While a manufacturer may produce a garment and test that garment or protective gear against various hazards, there is no guarantee or acceptable evidence that a particular manufacturer has conducted similar studies on what cleaning agent is best suited for particular contaminants and what if any effect that cleaning agent may have on personnel.

- The overall laundering requirements were not crafted in a way that considers the fundamental difference between urban and wildland fire fighting. Wildland fire fighters are often employed on 24-hour shifts while engaged on large-scale fires. Some large-scale operations require a base camp often located a significant distance from their station or headquarters. These provisions would require not only a large capital investment to upgrade a significant number of CAL FIRE station equipment but present an engineering issue for large-scale or lengthy engagements. The procurement and installation of appropriate laundering equipment at CAL FIRE facilities will take several years.

Response #6:

- Qualified person is defined within title 8 of the General Industry Safety Orders under section 3207 as:

Qualified Person, Attendant or Operator. A person designated by the employer who by reason of his training and experience has demonstrated his ability to safely perform his duties and, where required, is properly licensed in accordance with federal, state, or local laws and regulations.

- Proposed section 3410(d) requires the employer to implement cleaning procedures according to the manufacturer's recommendation. Proposed subsection (d)(1) allows the user to determine if the garment should be spot cleaned or machine washed. In the comment letter, CAL FIRE did not provide a recommendation as to how to address the cleaning of soiled protective clothing that would not be overly burdensome, nor did CAL FIRE address how grossly contaminated clothing should be handled (e.g. protective clothing covered with fire retardants). If the site conditions do not allow for the washing of grossly contaminated clothing, then provisions for a replacement ensemble would be acceptable.
- The proposal does not prescribe what the cleaning agent should be used to launder PPE. The Standards Board cannot comment on the testing performed by manufacturers.
- There is no equivalent NFPA 1851 that applies to wildland fire fighting, thus the proposal to address selection care and maintenance for wildfire protective ensembles was developed via the advisory committee process, which included input from wildland fire fighters.

Comment #7:

This proposed sections 3410.1(c)(1) and (c)(2) takes the broad definition of "harmful exposure" and increases the inclusiveness of the regulation.

The regulation all but requires that the identified respirators be utilized in any and all wildland fire suppression activities. Requiring air purifying respirators for wildland fire fighting, which

would include ingress and egress to and from the fire, this regulation would decrease a fire fighter's oxygen intake, increases the risk of heat illness, and higher core body temperatures. These immediate and cumulative effects have the potential to increase the risk of heart attack and other more immediate dangers and health concerns.

No respiratory protection device is available that can meet this proposed section. It is likely that a satisfactory product is five or ten years away. Until a product is developed and measured against the unintended consequences it may create through increased health concerns in fire fighters this section should be removed.

Response #7:

Regarding definition of harmful exposures, please see response to your comment #2 and the response to commenter #3, comment #10.

Section 5144 applies to respiratory hazards encountered by wildland fire fighters as they perform their work. There is general agreement that wildland fire fighters are exposed to respiratory hazards and respirator use is one of the ways to control respiratory hazards. Section 5144 states that the employer's respiratory protection program must provide respirators that are suitable and applicable for the purpose intended. The employer has a duty to determine if there is a role for the use of N95 or PAPR and in what situations. The employer has to adhere to section 5144 for voluntary use of respirators, see section 5144(c)(2)(A).

If a vertical standard regarding respirator protection is adopted in article 10.1, Personal Protective Clothing and Equipment for Fire Fighters, then the vertical standard would take precedence over section 5144 when addressing hazards of fire fighting activity (physical action taken in the direct act of fire suppression and rescue or hazardous duties performed at the location of a fire emergency).

The Standards Board recognizes that there is no market-available respirator that meets NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 edition, which was the reason for the proposed exception in section 3410.1(c)(2). However, after further deliberation, the Board is proposing that section 3410.1(c) be deleted. The Board believes that a more robust and detailed discussion needs to take place in order to craft language that address the complexities of respiratory protection for wildland firefighters. Board staff will convene advisory committee meetings in 2022 and respiratory protection for wildland firefighters will be included in the agenda.

The Board thanks Staff Chief Lawson for his comments and participation in the Board's rulemaking process. The Board would welcome participation from CAL FIRE management in future advisory committee meetings in 2022 to consider the hazards presented by wildland-urban interface and review recent editions of the NFPA standards as required by AB 2146 (2014).

2. Amber Rose, CIH, Area Director, United States Department of Labor, Occupational Safety and Health Administration (OSHA), by letter dated March 11, 2021.

OSHA provided an advisory opinion stating that the proposed standards appear to be commensurate to the federal standard.

The Standards Board thanks Amber Rose for her comments and participation in the Board's rulemaking process.

3. Eric Berg, Deputy Chief of Health and Mike Wilson, Senior Industrial Hygienist, Research and Standards Health Unit, by letter dated March 17, 2021.

Comment #1:

The Division is proposing to modify the proposed definition of "fire fighter" in section 3402 as follows:

Fire Fighter. ~~A worker~~ An employee who is assigned to fire fighting activity, and is required to respond to alarms and perform emergency action at the location of a fire or fire related danger, **including at the Wildland-Urban Interface (WUI), as defined herein.** Included are the ~~workers~~ employees of fire departments, fire protection districts, state fire agencies, organized fire companies, and private fire brigades when engaged in fire fighting activity.

The term "employee" should be used instead of the term "worker" throughout the proposal to remain consistent with the Labor Code. Pursuant to Labor Code section 6304.1, the term "employee" also includes volunteer fire fighters.

The Division is of the opinion that the proposal is not clear as to whether or not fire fighters working at a WUI fire are covered by the regulation or proposal. Adding "including at the Wildland-Urban Interface (WUI), as defined herein" in the definition of "Fire Fighter," in combination with the changes recommended in the definition of wildlands, wildland fire fighting, and wildland urban interface zone, makes it clear that the regulation is intended to cover fire fighters working in any phase of a WUI incident.

Response #1:

The Board accepts the Division's comment to continue the use of the "employee" and withdraw the use of the "workers". See response to commenter #1, comment #1.

The Board is proposing to add a new term and definition of Wildland Urban Interface (WUI). Despite WUI not being defined in the original proposal, section 3410 includes considerations for fires that occur in this zone. In proposed section 3410(b), employers are required to perform a risk assessment prior to the selection of PPE, consistent with the requirements of section 3380, Personal Protective Devices, subsection (f), hazard assessment and equipment selection. Proposed section 3410(a)(7) requires the employer to consider the proximity and location of

private residences and other habitable structures in relation to wildland vegetation and areas of refuge. The new proposed definition for Wildland Urban Interchange is from the definition by the [U.S. Fire Administration](#):

The WUI is the zone of transition between unoccupied land and human development. It is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Communities adjacent to and surrounded by wildland are at varying degrees of risk from wildfires.

Board staff disagrees that the proposal's scope is not clear as to whether or not fire fighters working in the WUI zone are covered by article 10.1. Fire fighting activities that occur in the WUI zone are part of the current scope of article 10.1, and the proposed modifications do not exclude fire fighting activities in the WUI zone. Fire fighting activity is defined in section 3402 as physical action taken in the direct act of fire suppression, and rescue or hazardous duties performed at the location of a fire emergency. Fires that are located in the WUI zone are included in the application of article 10.1, therefore the Board does not accept the Division's suggested modification with regard to the scope.

Comments #2 and #3:

The Division is proposing to add the term "Immediately dangerous to life and health (IDLH)" and "Powered-air purifying respirator (PAPR)" as defined in section 5144 and NFPA 1984.

Responses #2 and #3:

There is no need to add the terms IDLH and PAPR in article 10.1. Proposed section 3409(c)(1) provides a cross reference to section 5144, which contains the definitions of IDLH and PAPR. The existing text in section 3409(b)(1) was for added clarity for even without a cross reference, horizontal standards apply unless there is a conflict with vertical standards. If there is a conflict, then the vertical standard applies.

§3409. Respiratory Protection.

~~(b)(c)~~ General Requirements.

(1) Written Standard Procedures. The employer shall develop and implement comprehensive written standard operating procedures for the use, care, maintenance, and training relating to respiratory protective equipment in accordance with Section 5144, ~~and ANSI Z88.2 (1980), "Practices for Respiratory Protection," and ANSI Z88.5 (1981), "Practices for Respiratory Protection for the Fire Service."~~ ~~The operating procedures required by this subsection are exempt from the prohibition of the use of contact lenses specified in ANSI Z88.2(1980) and ANSI Z88.5(1981).~~

§5144. Respiratory Protection.

(b) Definitions. The following definitions are important terms used in the respiratory protection standard in this section.

Immediately dangerous to life or health (IDLH) means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Powered air-purifying respirator (PAPR) means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Comment #4:

The Division is proposing to amend the existing definition of “wildlands” as follows:

Wildlands. Sparsely populated geographical areas covered primarily by grass, brush, trees, crops, or combination thereof. **For purposes of this section, all references to wildlands include the Wildland-Urban Interface (WUI), as defined herein.**

Response #4:

The Board will not modify existing definition of “wildlands”. The proposal did not amend the existing definition of wildlands therefore, it is outside the scope of the rulemaking. The Board will hold advisory committee meetings as required by AB 2146 (2014) in 2022 to consider additional protections for wildland-urban interface recommended in the more current editions of the NFPA standards and other suggestions that will be raised by committee members. Furthermore, structural fire fighting occurs in the wildland urban interface. The WUI zone is not wildlands. It is its own distinct category where both structural and wildland fire fighting takes place.

Comment #5:

The Division is proposing that the term “wildland fire fighting” should be changed to “wildland/WUI fire fighting” and be changed in all subsequent sections where “wildland fire fighting” is mentioned. The Division is also requesting to amend the definition of “wildland fire fighting” to read:

Wildland/**WUI** Fire Fighting. The activities of fire suppression and property conservation in woodlands, forests, grasslands, brush, prairies, and other such vegetation, or any combination of vegetation, that is involved in a fire situation, ~~but is not within buildings or structures.~~ **including in the wildland-urban interface (WUI), as defined herein,** but is not within buildings or structures. **For purposes of this section, all references to wildland fire fighting include wildland-urban interface (WUI) fire fighting.**

Response #5:

The definition for wildland fire fighting was from the NFPA 1977, 2011 edition and the definition remained unchanged in the 2016 edition. NFPA is structured in a manner that has two distinct types of fire fighting with their own respective associated PPE requirements. NFPA 1971, titled “Standard on Protective Ensembles for Structural and Proximity Fire Fighting”,

covers protective ensembles for structural and proximity fire fighting. NFPA 1977, titled “Standard on Protective Ensembles for Wildland Firefighting”, covers protective ensembles for wildland fire fighting, which includes fire fighting in the WUI. The proposal is in keeping with this structure, therefore the Board does not accept the proposed change to substitute “Wildland/WUI Fire fighting” for “wildland fire fighting”.

As explained in response to your comment #4, the Board is not proposing to amend the definitions for wildland fire fighting. The Board will hold advisory committee meetings in 2022 to consider the hazards presented by wildland-urban interface and review recent editions of the NFPA standards as required by AB 2146 (2014).

Comment #6:

The Division is proposing to add a new term “wildland urban interface (WUI)” using the definition from the U.S. Fire Administration:

Wildland Urban Interface (WUI): The zone of transition between unoccupied land and human development. It is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Communities adjacent to and surrounded by wildland are at varying degrees of risk from wildfires.

Response #6:

See response to Division comment #1.

Comment #7:

The Division is proposing an addition to the proposed section 3402.3(a) exception:

§3402.3. Selection, Inspection, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting.

(a) Structural and proximity fire fighting protective ensembles shall be selected, inspected, and maintained in accordance with the National Fire Protection Association (NFPA) 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2014 Edition, which is hereby incorporated by reference.

EXCEPTION: In addition to the recordkeeping requirements of Section 4.3 of Chapter 4, Program of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2014 Edition, which is hereby incorporated by reference, the employer shall maintain records on its structural and proximity fire fighting protective ensemble and ensemble elements for three years from the date of retirement.

Protective ensemble or ensemble elements meeting the NFPA 1851 2020 edition will be deemed as meeting the standard.

Response #7:

The Board will not amend the proposal. Section 3402.3 is not a specification for protective ensembles for the design, performance, and certification of protective ensembles. NFPA 1851 is a program for the selection, inspection, care and maintenance of personnel protective equipment. The discussion during the advisory committee centered on the NFPA 1851, 2014 edition. The NFPA 1851, 2020 edition was not released at the time of the advisory committee meetings and there are extensive changes from one version to the next.

The Board will convene advisory committee meetings in 2022 to review recent editions of the NFPA standards as required by AB 2146 (2014) and the committee will discuss the differences between the two editions and provide a recommendation of whether or not to adopt the more recent edition.

Comment #8:

The Division is proposing to modify the proposal by changing all instances of equipment being “provided to” fire fighters to “provided to and properly used by” fire fighters. Examples include, but are not limited to:

§3403. Head, Eye and Face Protection.

(a) Head Protection. Head protection shall be provided to, **and properly used by**, each fire fighter, and shall be maintained in a location of readiness for immediate response to fires and like emergencies. Head protection shall be worn by fire fighters whenever they are exposed to head injury hazard. Head protection is normally provided for fire fighters through the use of helmets.

(b) Eye and Face Protection.

(1) Eye protection and/or face protection shall be provided to, **and properly used by**, each fire fighter to protect from eye or face injuries such as punctures, abrasions, contusions, or burns as a result of contact with flying particles, hazardous substances, or projections which are inherent in the work or environment.

§3405. Body Protection.

(a) Body protection shall be provided to, **and properly used by**, each fire fighter when exposed to the hazards of structural and proximity fire fighting activity. Body protection shall consist of structural or proximity fire protective garments.

§3406. Hand and Wrist Protection.

(a) Protective gloves shall be provided to **and properly used by** each fire fighter when exposed to the hazards of structural and proximity fire fighting activity. Such protective gloves shall be properly sized and suitable to the hazards encountered in fires and fire related emergencies.

§3407. Foot Protection

(a) Foot protection shall be provided to **and properly worn by** fire fighters while engaged in structural and proximity fire fighting activity.

§3408. Personal Alert Safety Systems (PASS)

(a) Fire fighters shall be provided with **and shall properly use** a PASS device in emergency situations that involve entrapment hazards due to a possible structural collapse of any type or atmospheric hazards such as immediately dangerous to life and health (IDLH) atmospheres. PASS shall also be worn when directed by the incident commander or incident safety officer.

(b) In-Service Personal Alarms.

(1) Every fire fighter engaged in interior structural fire fighting activities requiring the use of self-contained breathing apparatus shall be provided with **and shall properly use** a personal alarm device. Alarm devices shall meet the requirements of the National Fire Protection Association (NFPA) 1982, Standard on Personal Alert Safety Systems, 2007 Edition, which is hereby incorporated by reference.

§3409. Respiratory Protection.

(a) Approved Equipment.

(1) Approvals. Fire fighters exposed to harmful exposure in the course of their assigned activities shall be provided with, **and shall properly use** respiratory protective devices that are approved and certified in accordance with Section 5144, and the methods and requirements specified by the National Institute of Occupational Safety and Health (NIOSH) under 42 CFR part 84. (b) Self-Contained Breathing Apparatus (SCBA).

~~(A)~~(1) Respiratory protective devices provided for **and properly used** by fire fighters in structural fire fighting activity shall be limited to those types classified as self-contained breathing apparatus (SCBA), and combination breathing apparatus of the supplied-air positive-pressure type.

3410.1. Personal Protective Equipment for Wildland Fire Fighting. [PPE for wildland fire fighting provisions are relocated from Section 3410, with revisions]

(a) Head Protection.

(1) Head protection shall be **properly** worn by fire fighters whenever they are exposed to head injury hazard. Head protection shall be provided to each fire fighter and shall be maintained in a location of ready availability to the fire fighter.

(b) In-service Eye Protection. Employees exposed to eye injury hazards shall be protected by **properly** using protective goggles, which meet NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition or American National Standard Institute/International Safety Equipment Association, American National Standard for Occupational and Educational Personal Eye and Face Protection Devices, ANSI/ISEA Z87.1-2015, which are hereby incorporated by reference. Protective goggles shall have a means of attachment that is designed to be used with head protection.

(c) Respiratory Protection.

(1) Wildland fire fighters exposed or who could become foreseeably exposed to harmful exposure in the course of their assigned activities shall be provided with and shall **properly use** respiratory protective devices that are approved and certified in accordance with Section 5144, and the methods and requirements specified by the National Institute of Occupational Safety and Health (NIOSH) under 42 CFR part 84.

(e) Body Protection.

(1) In-Service Body Protection. Body protection shall be provided to **and properly worn by** each wildland fire fighter exposed to wildland fire fighting. Protective garments used by fire fighters shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

(2) In-Service Chainsaw Protectors. Chainsaw protectors shall be provided to and **properly** used by fire fighters who operate chainsaws. The chainsaw protectors (chaps) shall meet the requirements of U.S. Department of Agriculture, Forest Service Specification, Chaps, Chainsaw, 6170-4G, (September 6, 2011), which is hereby incorporated by reference.

(f) Protective Gloves.

(1) Protective gloves shall be provided to **and properly worn by** wildland fire fighters. Gloves shall be properly sized and suitable to the hazards encountered in wildland fire fighting activities. Fire fighters shall wear protective gloves whenever exposed to a hazardous environment that may cause injury to the hand or wrist.

(g) Foot Protection.

(1) Protective footwear shall be worn **and properly used** by fire fighters while engaged in wildland fire fighting activities.

(i) In-Service Load Carrying Equipment. Load carrying equipment for carrying gear shall be provided to **and properly used by** wildland fire fighters. Load carrying equipment shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

Response #8:

The Board rejects the comment to add “properly used”. The Board strives to use language consistent with other sections of title 8, see sections 3381 and 3382 (see below). Using the words “properly used” would require the regulations to define or describe what “properly used” means. In some cases, proper use is covered in another section, for example section 5144(k). Adding the term “properly used” is not necessary because in order for the employee to properly use PPE, the employee must have at one point received training on the use of the PPE. Section 3203(a)(7), Injury and Illness Prevention Program (IIPP) addresses the training requirements of the employer’s safety program otherwise known as IIPP. Under the IIPP, employers are required to ensure that employees are trained on the proper use of the PPE. Employers also have the responsibility to enforce their IIPP under section 3203(a)(2) .

§3381. Head Protection.

(a) Employees working in locations where there is a risk of receiving head injuries from flying or falling objects and/or electric shock and burns shall wear approved head protection in accordance with this section.

§3382. Eye and Face Protection.

(a) Employees working in locations where there is a risk of receiving eye injuries such as punctures, abrasions, contusions, or burns as a result of contact with flying particles, hazardous substances, projections or injurious light rays which are inherent in the work or environment, shall be safeguarded by means of face or eye protection. Suitable screens or shields isolating the hazardous exposure may be considered adequate safeguarding for nearby employees.

The employer shall provide and ensure that employees use protection suitable for the exposure

Comment #9:

The Division is proposing to replace the National Fire Protection Association (NFPA) issue from 2007 with 2018 in the following sections:

§3403. Head, Eye and Face Protection

(b) Eye and Face Protection.

(2) In-service Eye and Face Protection. Eye and face protection shall meet the National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, ~~2007~~ **2018** Edition or American

National Standard Institute/International Safety Equipment Association, American National Standard for Occupational and Educational Personal Eye and Face Protection Devices, ANSI/ISEA Z87.1-2015, which are hereby incorporated by reference. In addition, it shall bear the mark “Z87+”.

§3404. Ear and Neck Protection and Protective Hood Interface.

(b) In-Service hood and coat collars shall be constructed and tested in accordance with the National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, ~~2007~~ 2018 Edition, which is hereby incorporated by reference.

(c) Fabric and non-fabric materials of in-service protective ensembles shall meet the requirements of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, ~~2007~~ 2018 Edition, which is hereby incorporated by reference.

§3405. Body Protection.

(b) In-service fire fighting protective garments shall meet the certification, labeling, performance, design, and testing requirements of the National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, ~~2007~~ 2018 Edition, which is hereby incorporated by reference.

§3406. Hand and Wrist Protection.

(c) In-Service Gloves. A durable label in accordance with the National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, ~~2007~~ 2018 Edition, which is hereby incorporated by reference, shall be permanently attached to each glove. Labeling may be accomplished by stamping, embossing, affixing, or other suitable method.

§3407. Foot Protection.

(c) In-service foot protection shall meet the requirements of the National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, ~~2007~~ 2018 Edition, which is hereby incorporated by reference.

Response #9:

Board staff rejects the proposed edits. Accepting the Division’s suggestion would require the employers to retire in-service PPE manufactured prior to 2018 that are less than 10 years from the date of manufacture, which is not consistent with NFPA 1851, 2014 edition. Furthermore, the proposal provides employers a three year phase in period from the OAL effective date to comply with NFPA 1851, Chapter 10 (Retirement, Disposition, and Special Incident Procedure).

The last three editions of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting are 2007, 2013 and 2018. After the release of each edition, manufacturers of PPE cease manufacturing to the older edition and start manufacturing to the more current edition to maximize the 10-year life cycle of the protective ensembles.

PPE manufactured to the 2007 edition may have been manufactured in 2012 or even 2013, depending on when the 2013 edition was released. PPE manufactured in January 2012 is permitted to be used until January 2021 (not including the extension §3402.3(c)(2)) per NFPA 1851, 2014 edition, Chapter 10.1.2., provided that the PPE is brand new or in good condition.

Comment #10:

The Division is proposing to amend existing section 3409(a)(1):

(a) Approved Equipment.

(1) Approvals. Fire fighters ~~exposed to~~ with the potential for harmful exposure in the course of their assigned activities shall be provided with, and shall use respiratory protective devices that are approved and certified in accordance with Section 5144, and the methods and requirements specified by the National Institute of Occupational Safety and Health (NIOSH) under 42 CFR part 84.

Response #10:

There was no proposed amendment for existing section 3409(a)(1), therefore is outside the scope of the rulemaking process.

Board staff will include 3409(a)(1) in the agenda for the 2022 advisory committee meetings and encourage the participation of the Division, management, labor and subject matter experts.

Comment #11:

The Division is proposing to modify proposed section 3409(c)(2) and add new sections 3409(c)(3)-(5) as follows:

§3409. Respiratory Protection

(c) General Requirements

~~(2) SCBA shall be worn during overhaul operations unless the employer can demonstrate that a lesser level of protection is appropriate.~~ When fire fighters are engaged in any operation during which they could encounter atmospheres that are IDLH or potentially IDLH, or where the atmosphere is undefined or hazardous, including overhaul, the employer shall provide, and shall require all fire fighters to properly use, an SCBA that has been certified as being compliant with NFPA 1981.

(3) During the first two (2) hours post-extinguishment, including before or after overhaul, the employer shall provide, and shall require all fire fighters to properly use, an SCBA that has been certified as being compliant with NFPA 1981.

EXCEPTION to Section 3410(c)(2 and (c)(3)). The incident commander (IC) may allow overhaul work to commence with the use of the powered air-purifying respirator (PAPR), as defined herein, if requiring use of an SCBA could create a unique risk during a particular operation; for example, if a fire fighter is working on a pitched roof during overhaul. In such cases, the IC shall determine if the operation is necessary; if the operation can be delayed; if the operation can be modified in order to be performed safely; or if the risks(s) can otherwise be effectively mitigated. If the responses to these inquiries are unclear or negative, and the IC elects to proceed with the operation, the employer shall provide, and shall require fire fighters to properly use, a NIOSH-approved, full-face powered air-purifying respirator (PAPR), as defined herein. The employer shall document all such instances in an incident report and shall make the report available to affected fire fighters and their authorized representative, on request.

(4) A NIOSH-approved, full-face powered air-purifying respirator (PAPR) equipped with canister(s) or cartridge(s) and high-efficiency particulate filter(s) to provide protection against atmospheres containing particulates, acid gases, organic vapors, and formaldehyde shall be permitted and used in accordance with Section 5144 only when all of the following conditions are met:

(A) Two (2) hours have elapsed since the fire was extinguished;

(B) All significant overhaul tasks have been completed;

(C) The fire fighter is working outside the structure, or if working inside, positive pressure ventilation of the structure is operating effectively and reaching all areas where fire fighters are working; and,

(D) Continuous air monitoring is conducted inside the structure and levels do not exceed the following exposure limits:

(a) Hydrogen cyanide (HCN) \leq 4.7 ppm

(b) Carbon monoxide (CO) \leq 25 ppm

(5) The minimum level of respiratory protection during overhaul and other post-extinguishment tasks is a PAPR or a respirator providing equivalent or greater protection. Use of lower-level protection, such as a filtering facepiece respirator, is prohibited.

Response #11:

There will be no changes to the proposal other than a minor clarification within subsection (c)(2) to state “SCBA shall be worn during overhaul operations unless the employer can demonstrate that a lesser level of protection is appropriate provides for employee safety.” The proposed text is performance-based language and the employer has the burden to demonstrate when a lesser level of protection is appropriate. There may be site conditions or circumstances wherein the use of SCBA presents a greater risk than the use of a respirator with a lower assigned protection factor. The incident commander on site should be able to make an assessment to protect the respiratory safety of the fire crew. The employer’s (incident commander’s) assessment must be in keeping with existing regulations, meaning the rationale

behind the employer's assessment cannot violate existing regulations, such as, but not limited to: section 3203, Injury and Illness Prevention Program; section 5144, Respiratory Protection (specifically subsection (d) Selection of respirators); and section 5155, Airborne Contaminants.

The language that the Division is proposing was not discussed during the three advisory committee meetings in which the Division participated. The proposed modification is substantial and requires input from other stakeholders through the advisory committee process to determine the necessity for prescriptive language. If necessity is found, a proposal will be developed to outline a course of action for the various situations or conditions that fire fighters may encounter during overhaul.

Board staff will include the subject of overhaul in the agenda for the 2022 advisory committee meetings and encourage the participation of the Division, management, labor and subject matter experts.

Comment #12:

The Division proposes that in eight cases within section 3410, the word "wildland" should be replaced with "wildland/WUI."

§3410. Selection, Inspection, and Maintenance of Protective Ensembles for Wildland/WUI Fire Fighting.

(a) The employer shall perform a risk assessment prior to the selection of PPE. The risk assessment shall be in writing and shall include, but not be limited to, the hazards that can be encountered by wildland/WUI fire fighters based on the following:

- (1) Type of duties performed while wearing wildland/WUI fire fighting PPE;
- (2) Identification and characterization of hazards of the duties while wearing wildland/WUI fire fighting PPE;
- (5) Garment configurations of the wildland/WUI fire fighting PPE (single-layer or multi-layer garment)
- (6) Organizational experience and lessons learned with current wildland/WUI fire fighting PPE; and

(b) Selection. The employer shall determine the operational requirements for wildland/WUI fire fighting PPE in relation to their risk assessment. The operational requirements shall be documented in writing and consist of the following:

(1) Identify the garment configuration and garment component that comprise the wildland/WUI fire fighting PPE system.

(2) Specify performance criteria for each wildland/WUI fire fighting PPE garment and its components.

Response #12:

The proposal will not be amended. See responses to Division comments #1 and #5. The reference to wildland fire fighting protective garment is in keeping with NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting.

Comment #13:

The Division noted a typographical error in proposed section 3410(b)(2)(A)3. Thermal Health Loss (THL) should be Total Heat Loss (THL).

Response #13:

The proposal will be modified to correct the typographical error.

Comments #14 and #15:

Replace the word “wildland” with “wildland/WUI” in nine cases within section 3410.1.

§3410.1. Personal Protective Equipment for Wildland/WUI Fire Fighting.

(a) Head Protection.

(1) Head protection shall be worn by fire fighters whenever they are exposed to head injury hazard. Head protection shall be provided to each fire fighter and shall be maintained in a location of ready availability to the fire fighter.

(2) In-service Helmets. Head protection shall conform to one of the following:

(A) National Fire Protection Association (NFPA) 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

(c) Respiratory Protection.

(1) Wildland/WUI fire fighters exposed or who could become foreseeably exposed to harmful exposure in the course of their assigned activities shall be provided with and shall use respiratory protective devices that are approved and certified in accordance with Section 5144, and the methods and requirements specified by the National Institute of Occupational Safety and Health (NIOSH) under 42 CFR part 84.

(2) Air purifying respirators for wildland/WUI fire fighting operations shall be NIOSH-approved as complying with NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference.

EXCEPTION to Section 3410.1(c)(2). Market Availability. Respiratory protection complying with NFPA 1984, Standard on Respirators for Wildland/WUI Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference, is required one year after the product is available in the market.

(d) In-service Thermal Protection of the Ears and Neck. Protection against burns on the ear and neck shall be provided by one or more of the following means, or other equivalent methods, when fire fighters engaged in wildland/WUI fire fighting are exposed to injurious heat and flame: flared neck shield attached to brim of helmet; hood, shroud, high collar with throat strap. Fabric specified for this purpose shall be constructed and tested in accordance with the provisions of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

(e) Body Protection.

(1) In-Service Body Protection. Body protection shall be provided to each wildland/WUI fire fighter exposed to wildland/WUI fire fighting. Protective garments used by fire fighters shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

(f) Protective Gloves.

(1) Protective gloves shall be provided to wildland/WUI fire fighters. Gloves shall be properly sized and suitable to the hazards encountered in wildland/WUI fire fighting activities. Fire fighters shall wear protective gloves whenever exposed to a hazardous environment that may cause injury to the hand or wrist.

(2) In-Service Protective Gloves. Protective gloves shall meet the design and performance requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

(g) Foot Protection.

(1) Protective footwear shall be worn by fire fighters while engaged in wildland/WUI fire fighting activities.

(2) In-Service Protective Footwear. Protective footwear shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

(h) In-Service Fire Shelters. A fire shelter shall be provided and made immediately available for every fire fighter when engaged in wildland/WUI fire fighting activities as defined in these orders. The fire shelter shall meet or exceed U.S. Department of Agriculture, Forest Service Specification, Shelter, Fire (M-2002), 5100-606C, August 22, 2011, which is hereby incorporated by reference.

(i) In-Service Load Carrying Equipment. Load carrying equipment for carrying gear shall be provided to wildland/WUI fire fighters. Load carrying equipment shall meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference.

Responses # 14 and 15:

The Board believes the proposal does not require modification of the proposed language. See response #7 to commenter #1 and responses to Division comments #1 and #5.

Comments #16, #17, #18 and #19:

The Division is proposing to modify section 3410.1(c) of the proposal as follows:

§3410.1 Personal Protective Equipment for Wildland/WUI Firefighting.

(c) Respiratory Protection

(1) Wildland/WUI fire fighters ~~exposed or who could become exposed foreseeably to~~ **with the potential for** harmful exposure in the course of their assigned activities, as **defined herein**, shall be provided with and shall **properly use full-face, powered air-purifying respirators (PAPRs)** ~~respiratory protective devices~~ that are approved and certified in accordance with Section 5144, and the methods and requirements specified by the National Institute of Occupational Safety and Health (NIOSH) under 42 CFR part 84.

(2) **Powered** Air-purifying respirators (**PAPRs**) **used** for wildland/WUI fire fighting operations shall be NIOSH-approved as complying with NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference.

EXCEPTION to Section 3410 (c)(2):

1. Market Availability. Respiratory protection complying with NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference, is required **no later than one two** years after the product is available in the market.

2. An on-scene supervisor may allow work to commence or to continue without the use of PAPRs if requiring them would create a unique hazard or significant hardship during a particular operation. In such cases, before proceeding with the operation without the benefit of respiratory protection, the supervisor shall determine if the

operation is necessary; if the operation can be delayed; or if the hazard can be effectively mitigated. The employer shall document all such instances in an incident report and shall make the report available to affected fire fighters and their authorized representative, on request.

Responses #16, #17, #18 and #19:

See response #7 to commenter #1. The Board believes that a more robust and detailed discussion needs to take place in order to craft language that address the complexities of respiratory protection for wildland fire fighters. Board staff will convene advisory committee meetings in 2022 and respiratory protection for wildland firefighters will be included in the agenda.

The Board thanks the Division for their comments and participation in the Board's rulemaking process.

4. Doug Subers, Legislative Advocate for California Professional Firefighters (CPF), Brian Rice, President of California Professional Firefighters, Tim Edwards, President of CAL FIRE Local 2881, and Rick Swan, Director, Health & Safety Operational Services of International Association of Fire Fighters (IAFF), by letter dated March 17, 2021.

Comment #1:

Clarifying Exceptions: Our organizations propose that the standard includes exceptions in each section that recognize that the most recent version of the National Fire Protection Association (NFPA) PPE Standard meets the requirements in the regulation. We note this has been proposed in some sections but not others. Including an exception clarifying that the most updated NFPA standard meets the requirements of this regulation will ensure this standard raises the PPE floor but does not set a ceiling on the equipment standard. To illustrate this point, many of the standards in the current regulation cannot be met because the equipment is arcane and no longer made. Including these exceptions will ensure this does not happen in the future.

Response #1:

Sections 3402.1 and 3402.2 are for purchases of new PPE or equipment. The intent is to purchase PPE and equipment manufactured to the latest edition to maximize the life of the PPE or equipment. Manufacturers cease manufacturing to the older edition after a new NFPA edition is released, making it necessary to add the exception "Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard."

After NFPA 1851, 2014, Chapter 10 becomes effective per section 3402.3(c)(2), protective ensembles are required to be retired 10 years from the manufacture date. This means that after section 3402.3 becomes effective, it will no longer be necessary to specify the minimum requirements for in-service PPE. Proposed sections 3404(b) and (c), 3405(b), 3406(c), 3407(c) in effect requires employers to retire non-NFPA approved protective ensembles and protective

ensembles manufactured prior to the NFPA 1971, 2007 edition. After the entire NFPA 1851, 2014 edition becomes effective, the Board will initiate rulemaking to remove subsections that are no longer relevant for in-service PPE.

In addition, the rulemaking process does not allow for automatic adoption of an updated edition of consensus standards without going through the rulemaking process to ensure that the recommendations in the new consensus standards have been thoroughly reviewed before becoming regulation. Sections 3402.1 and 3402.2 are to ensure the quality of new purchases, not a required work practice or minimum requirement for in-service PPE.

Regarding the comment about arcane equipment specifications, article 10.1 has not been updated because safety orders relating to structural and wildland fire fighter PPE is included in the [List of Suspended Mandates](#), Program Number: 64, Chapter/Statute: Title 8, Schedule Number: (aaa), Program Name: Structural and Wildland Firefighter's Safety Clothing and Equipment. Regulations that are suspended are not enforceable and therefore not updated.

Assembly Bill 2146 (2014), requires the Board every five years to complete a comprehensive review of all revisions to NFPA standards pertaining to personal protective equipment. This will help ensure that article 10.1 remains current.

Comment #2:

Field Evaluation: We appreciate and support efforts to push for strong enhancements to fire fighter safety through improved equipment. With that said, fire fighting is an incredibly difficult and demanding job that can demand extreme physical exertion in an ever evolving and dynamic environment. Given that, the regulation must include provisions to allow for a department, including both labor and management, to perform a non-laboratory field evaluation on new equipment before it is required as a standard. To illustrate the need for this change, there could be a respirator that meets the standard in NFPA 1984 but that equipment when used during a wildfire could result in restricted breathing and enhanced stress on the cardiovascular system. We cannot find ourselves in a position where an effort to limit exposure to smoke results in a different, unintended risk to fire fighter safety.

Response #2:

Section 5144(c)(1) requires the employer to develop procedures for selecting respirators for use in the workplace. The Board believes field evaluation can be included in the employer's selection process without additional regulation. The written procedures on how to implement the selection of respirators must be in keeping with section 5144(d).

Comment #3:

Equipment Acquisition/Implementation Timelines: The regulation should be amended to allow appropriate time for equipment to be implemented into a department. Government procurement systems and budgets do not lend themselves to rapid technology and equipment introduction. As a result, the regulation should allow for two years to implement new

equipment as it becomes available to meet a standard and pass a field evaluation. This will allow a department to appropriately budget, order and acquire new equipment.

Response #3:

For PPE other than respiratory protection, see response to commenter #1, comment #3.

Comment #4:

Wildland Respiratory Protection: Respiratory protection in the wildland and wildland urban interface remains a difficult challenge. The complexity and strain of fire fighting needs in the wildland prevent fire fighters from carrying heavy equipment, such as a self-contained breathing apparatus (SCBA). Additionally, other respirators that restrict breathing can create other dangers for fire fighters who may be fighting a fire at elevation while needing to hike miles on a strike team. The regulation needs to be updated to help push for improvements in this arena but also recognize that more work needs to be done here. The regulation can be improved by including direction surrounding both air purifying respirator (APR) and powered air purifying respirators (PAPR). Both technologies are contemplated in NFPA 1984 and should be reflected in this regulation.

On July 30, 2021, Board staff had a meeting with a representative from CPF and a representative from IAFF. CPF and IAFF revised their comment regarding respiratory protection, see comments #9 and #10.

Response #4:

Respiratory protection for fire fighters is a complex issue and the Board relies on the participation of advisory committee members for advice by participating in the discussions to provide solutions to address hazards. Currently there are no approved respirators under NFPA 1984 and future respirators developed as meeting NFPA 1984 should be included in the selection of respirator. Board staff will convene advisory committee meetings in 2022 and respiratory protection for wildland fire fighters will be included in the agenda.

Comment #5:

Overhaul Respiratory Protection: Requirements for respiratory protections during overhaul operations are prudent and will provide enhanced protection for fire fighters when there is a high risk of exposure to chemicals and carcinogens. With that said, there may be situations where use of SCBA during overhaul operations could create more danger to a fire fighter. For example, SCBA weight during overhaul operations on a sloped roof could increase the risk of falling off or through the roof. With this in mind, we believe an exception which provides flexibility to the Incident Commander to direct a different respiratory protection system when it is warranted.

Response #5:

The proposed text and exception is performance-based language and the employer has the burden to demonstrate when a lesser level of protection is appropriate. The incident commander, as the supervisor, is in charge of determining if a lesser level of protection is

warranted and selecting the type of respiratory protection. The type of respiratory protection selected must be in compliance with Section 5144. See response to commenter #3, comment #11.

Comment #6:

Fire fighter Input: While this regulation covers employers and requirements surrounding the provision and use of PPE it is also imperative to ensure that rank and file fire fighters have a recognized role in the implementation of this regulation. This is imperative as it relates to field evaluation and other provisions and should be achieved by ensuring the authorized labor representative has a clearly defined decision-making role in the standard.

Response #6:

Employers are encourage to developed a safety committee as described in section 3203(a)(3) and (c) of the Injury and Illness Prevention Program.

Comment #7:

California Professional Firefighters/CAL FIRE Local 2881 and the International Association of Fire Fighters are requesting to amend the proposal by adding or amending the following definitions:

Overhaul. The final stages of fire extinguishment, after the main body of a fire has been controlled **and there is no longer an IDLH environment**, during which all traces of fire are extinguished, where the potential for harmful exposure still exists.

Fire Fighter. A ~~worker~~ **a trained and qualified professional or a trained and qualified volunteer** who is assigned to fire fighting activity, and is required to respond to alarms and perform emergency action at the location of a fire or fire related danger. Included are the ~~workers~~ **a trained and qualified professions or a trained and qualified volunteer** of fire departments, fire protection districts, state fire agencies, organized fire companies, and private fire brigades when engaged in fire fighting activity.

Air-purifying respirator-a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Powered air-purifying respirator (PAPR): An air-purifying respirator that uses a powered blower to force the ambient air through one or more air purifying components to the respiratory inlet covering.

Field evaluation–field evaluation is the nonlaboratory assessment of an ensemble, ensemble elements, equipment, respiratory equipment, or items by a fire fighter in a simulated or actual fire incident for no less than 3 months.

Response #7:

Overhaul:

The Board is not proposing a change in the definition of overhaul. The atmospheres encountered during overhaul are difficult to characterize or define. During overhaul, there is a potential of harmful exposures from by-products of combustion and incomplete combustion and the chemicals and levels may be unknown, therefore an assessment is necessary to determine if IDLH conditions exists. For this reason, the proposal requires that SCBA shall be worn during overhaul unless the employer can demonstrate that a lesser level of protection is appropriate.

The employer is required to make that assessment in the confines of existing regulations. Section 5144(d) has specific requirements for the selection of respirators where IDLH conditions exists.

Fire fighter:

See responses to commenter #1, comment #1 and commenter #3, comment #1.

Air purifying respirator and powered air purifying respirator (PAPR):

The Board is not proposing to add the definition of air purifying respirator. The terms air-purifying respirator and PAPR are defined in section 5144(b).

Field evaluation:

The Board does not believe modification of the proposal to add the definition of field evaluation is necessary because the term is not included in the proposed text.

Comment #8:

Add an exception to sections 3402.3(a) and (b), 3404(b) and (d), 3405(b), 3406(c), 3407(b), 3408(b), 3409(b), 3410.1(c)(2), 3410.1(d), 3410.1(e)(1), 3410.1(f), (f)(3) and (f)(4) to state that the most recent NFPA edition will be deemed as meeting the standard.

Response #8:

See response to your comment #1.

Comment #9:

California Professional Firefighters/CAL FIRE Local 2881 and the International Association of Fire Fighters are requesting to modify proposed section 3409(c)(2) the proposal by adding:

§3409. Respiratory Protection.

~~(b)~~(c) General Requirements

(2) SCBA shall be worn during overhaul operations unless the employer can demonstrate that a lesser level of protection is appropriate. **A lesser level of protection may be an APR or PAPR to provide sufficient respiratory protection while allowing overhaul to continue in a safe manner. A lesser level of protection may not be used if an IDLH environment is still present, or a potentially hazardous atmosphere is still**

present. An employer shall work with the authorized labor representative to establish standard operating procedures for determining when a lesser level of protection is appropriate.

On July 30, 2021, Board staff had a meeting with a representative from CPF and a representative from IAFF. CPF and IAFF revised their comment and are in favor of removing section 3410.1(c) in its entirety. E-mails were exchanged between board staff and CPF and IAFF on August 2 and August 3, 2021.

CPF and IAFF revised their proposed text to:

§3409. Respiratory Protection.

~~(b)~~(c) General Requirements

(2) SCBA shall be worn during overhaul operations unless the employer can demonstrate that a lesser level of protection is appropriate. **A lesser level of protection may not be used if an IDLH environment is still present, or a potentially hazardous atmosphere is still present. An employer shall work with the authorized labor representative to establish standard operating procedures for determining when a lesser level of protection is appropriate. The employer shall document and report to the fire department safety officer and authorized labor representative when a lesser level of protection is determined appropriate and utilized during an incident.**

Response #9:

See response to commenter #3, comment #11.

The phrase “unless the employer can demonstrate that a lesser protection” requires the employer to “demonstrate a lesser protection” under the context of existing regulations such as sections 5144 Respiratory Protection and 3203 Injury and Illness Prevention Program.

Section 5144(c) requires the employer develop and implement a written respiratory protection program with required worksite-specific procedures and elements for required respirator use. The procedures for selecting respirators for use can include field evaluation. Section 5144(d) requires the employer to evaluate respiratory hazard(s) in the workplace, identify relevant workplace and user factors, and base respirator selection on them. Section 5144(c)(1)(D) states that the employers written program shall state procedures for proper use and in routine and foreseeable emergency situations. Section 5144(c)(1)(G) requires training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations. Section 5144(d) contains requirements regarding the selection of respirators and section 5144(d)(2) specifically prescribes respirators for IDLH atmospheres.

Nevertheless, Board staff will include the subject of overhaul in the agenda for the 2022 advisory committee meetings and encourage the participation of the Division, management, labor and subject matter experts.

Comment #10:

California Professional Firefighters/CAL FIRE Local 2881 and the International Association of Fire Fighters are requesting to amend the proposal by adding a new exception to sections 3410.1 (c)(1) and (c)(2):

(c) Respiratory Protection.

(1) Wildland fire fighters exposed or who could become foreseeably exposed to harmful exposure in the course of their assigned activities shall be provided with and shall use respiratory protective devices that are approved and certified in accordance with Section 5144, and the methods and requirements specified by the National Institute of Occupational Safety and Health (NIOSH) under 42 CFR part 84.

(2) Air purifying respirators **(APRs) or Powered air-purifying respirators (PAPR) used** for wildland fire fighting operations shall be NIOSH-approved as complying with NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference.

EXCEPTION to (c)(1) and(c)(2):

Supervisor or Incident Commander (IC) may permit work to continue without the use of APRs, PAPRS or respiratory protection identified under (c)(1) if the Supervisor or IC determine that the immediate work is necessary and inhibited by using respiratory protection. If a Supervisor or IC directs work without this protection, they shall document this decision and share the documentation with the authorized labor representative of the fire fighters in the Department.

EXCEPTION to Section 3410.1(c)(2):

1. Market Availability **and Field Evaluation**. Respiratory protection complying with NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2016 Edition, which is hereby incorporated by reference, is required ~~one year~~ **two years** after the product is available in the market **and has passed field evaluation. The employer and authorized labor representative shall jointly document when respiratory equipment does not meet firefighter needs during a field evaluation.**
2. **Wildland Respirators meeting the most current NFPA 1984 edition will be deemed as meeting the standard.**

On July 30, 2021, Board staff had a meeting with a representative from CPF and a representative from IAFF. CPF and IAFF revised their comment and are in favor of removing section 3410.1(c) in its entirety. E-mails were exchanged between board staff and CPF and IAFF on August 2 and August 3, 2021.

CPF and IAFF believe that the subject of respiratory protection for wildland fire fighters would greatly benefit from a full 2022 regulatory process to ensure that there would be no unintended consequences and that the proposal reflects the most recent research and development on respiratory protection in the wildland.

CPF and IAFF believe that the key issues for the future discussion are the status of NFPA 1984, Standard on Respirators for Wildland Fire Fighting Operations, 2022 Edition, the status of equipment research and development to meet that standard, the appropriate field evaluation process for new products and how section 5144 would translate to application in the wildland/WUI IDLH environments. CPF and IAFF believe the wildland respiratory protection subdivision could have serious unintended consequences.

Response #10:

See response #7 to commenter #1.

The Board agrees that a more robust and detailed discussion needs to take place in order to craft language that address the complexities of respiratory protection for wildland fire fighters. Board staff will convene advisory committee meetings in 2022 and respiratory protection for wildland fire fighters will be included in the agenda.

The deletion of proposed section 3410.1(c)(1) does not eliminate the employer's responsibility to comply with section 5144. There is no exception in section 5144 for wildland fire fighters.

Section 5155(e) requires the employer to conduct workplace monitoring. The employer is responsible for identifying and evaluating the respiratory hazard(s) in order to determine how to control respiratory hazards per section 5141. Section 5144(d) requires the employer to determine the type of respirator that is appropriate for the job.

At present, wildland fire fighters do not wear respirators while fighting wildfires because of the employer's assessment that wearing a respirator presents a greater risk due to the physical demands of fighting wildfires (see commenter #1, comment #7). Fire fighters may have other duties away from fires that may require a respirator and the selection, use, and maintenance of the respirator is governed by section 5144. Furthermore, voluntary use of respirators, which includes the use of N95s is covered under section 5144.

The Board thanks Doug Subers, Brian Rice, Tim Edwards, and Rick Swan, for their comments and participation in the Board's rulemaking process.

5. Tony Stefani, President of San Francisco Firefighters Cancer Prevention Foundation (SFFCPF), by e-mail dated March 17, 2021.

Comment #1:

SFFCPF asked that the Board strengthen the proposed changes to article 10.1 Personal Protective Clothing and Equipment for Fire and asks the Board to work closely with Cal/OSHA in strengthening the proposed regulation.

Response #1:

The proposed text to update article 10.1 is much needed. The advisory committee process fosters participation from management, labor, experts, the Division and Board staff to develop language to address the hazards faced by fire fighters.

It was not out of neglect that article 10.1 was frozen. The reason article 10.1 has not been updated in decades is the safety orders relating to structural and wildland fire fighter PPE is included in the [List of Suspended Mandates](#), Program Number: 64, Chapter/Statute: Title 8, Schedule Number: (aaa), Program Name: Structural and Wildland Firefighter's Safety Clothing and Equipment.

Assembly Bill 2146 (2014), requires the Board to complete a comprehensive review of all revisions to NFPA standards pertaining to personal protective equipment every five years. This will help ensure that article 10.1 remains current.

Comment #2:

The proposed regulation requires the use of the self-contained breathing apparatus (SCBA) during overhaul, but it gives the department permission to ignore the required use of SCBAs by simply demonstrating that "a lesser level of protection is appropriate," for any number of reasons.

SFFCPF recommends that the Board and Cal/OSHA also consider the approach of NFPA 1500, which requires a two-hour period after the fire has been knocked down during which SCBAs are required of anyone entering the building. After the two-hour window, the Board should require the use of full-face, powered air-purifying respirators (PAPRs) with acid gas/organic vapor cartridges and fine particulate filters, which fire fighters would wear to complete any final overhaul tasks and conduct inspections or other work inside the building.

The regulation should specify that use of the PAPR should only be allowed: (1) after the two-hour window has passed; (2) with simultaneous monitoring for carbon monoxide, and (3) when the building is effectively ventilated. The use of N95s and other ineffectual filtering respirators should be explicitly prohibited during overhaul.

Response #2:

See responses to commenter #3, comment #11 and commenter #4, comment #5.

Comment #3:

SFFCPF asks the Board to add the definition for the term WUI and add “WUI” whenever the term “wildland” is used, e.g. “wildland/WUI”. In addition, they request the Board and Cal/OSHA to consider requiring PAPRs in lieu of APRs for fire fighters operating in the WUI.

Response #3:

See responses to commenter #3, comment #1, #4, #5, #12, #14, #15, #16, #17, #18, and #19.

Comment #4:

SFFCPF recommends adding a provision to give fire fighters the right to participate alongside fire administrators during implementation and assessment of the regulation, especially its key provisions, such as the use of SCBAs and PAPRs during overhaul and the use of PAPRs during WUI deployments. The provision should require that fire fighter representatives be selected by the authorized collective bargaining agent, not the employer, and that fire fighters have the right to participate from the beginning of the decision-making process, not simply at the final step.

Response #4:

See responses to commenter #4, comment #2, #4, #5, and #6.

Comment #5:

SFFCPF noted that outdated versions of NFPA documents are referenced in the proposed regulation. Please be sure to review the document to ensure that the most recent version of the referenced NFPA standard is cited.

Response #5:

AB 2146 (2014) requires an ongoing review of the NFPA standards every five years. The Board will convene another advisory committee meeting in 2022 after the Board members vote on this proposal.

The Board thanks Tony Stefani for his comments and participation in the Board’s rulemaking process.

6. Maggie Robbins, Occupational and Environmental Health Specialist for Worksafe, by letter dated March 17, 2021.

Comment:

Worksafe supports the intention to update the PPE requirements to current NFPA standards, including increased requirements for respiratory protection in more situations. They support alignment of requirements for all fire fighters whether private, public, professional, or volunteer who are deployed to the most dangerous tasks.

Worksafe supports the comments submitted by the San Francisco Firefighters Cancer Prevention Foundation (SFFCPF) and also urge the Board to work with Cal/OSHA staff to

respond positively to their comments. After the years taken to draft this revised standard, it is disturbing to hear of the significant inadequacies it contains. Fire fighters need better protection and in particular better respiratory protection to reduce the significant toll on fire fighter health due to work-related smoke and chemical inhalation. As the SFFCPF letter notes, the standard should recognize and require fire fighters and their representatives have a seat at the table during the entire decision-making process for OSH-related protections at their worksites, including around personal protective equipment.

Response:

See responses to commenter #5. Board staff will hold an advisory committee meeting in 2022 consistent with the Assembly Bill 2146 (2014) to continue the work to update article 10.1.

The Board thanks Maggie Robbins for her comments and participation in the Board's rulemaking process.

7. Mitch Steiger, Legislative Advocate for California Labor Federation (CLF), by letter dated March 18, 2021.

Comment #1:

Clarifying Exceptions: CLF believes that ensuring the regulation meets the level of protection offered by the most recent NFPA standard is a prudent way to allow for new technology to best enhance safety.

Response #1:

Please see response to commenter #4, comment #1.

Comment #2:

Labor Organization Input: CLF strongly supports provisions that ensure a decision-making role for labor organizations during implementation of this regulation. Including clear mechanisms for labor input will ensure that the voice of the workers on the ground is heard.

Response #2:

Employers and employees are encouraged to participate in matters relating to health and safety under section 3203(c) of the Injury and Illness Prevention Program.

Comment #3:

Wildland Respiratory Protection: CLF and their allies were vocal proponents of the emergency regulation to protect workers from wildfire smoke, even though this regulation exempted fire fighters in order to not upset the process of developing this new fire fighter specific standard. CLF's past neutrality regarding this exemption does not in any way mean, however, that fire fighters are not at least as deserving of such protections. CLF strongly supports taking steps to strengthen fire fighter respiratory protection in wildland and wildland/urban interface fire fighting scenarios while ensuring that any changes do not create unintended health risks for fire fighters, as noted in the letter from CPF/L2881 and IAFF.

Response #3:

See responses to commenter #3, comment #2, #3, and #11 and commenter #4, comment #4 and #10.

The Board thanks Mitch Steiger for his comments and participation in the Board's rulemaking process.

8. Ralph Scott, Owner of Scotts PPE Recon Inc, by e-mail dated March 18, 2021.

Comment:

"My name is Ralph Scott, I was privileged to work with Maryrose Chan on the advisory committee for the AB 2146 project. I am a retired Captain of Contra Costa County Fire Protection District where I acted as the PPE officer. After my retirement I continued working with Fire Departments on this very important safety and health agenda. Today I currently work with San Francisco F.D., Sacramento City FD, Sac Metro Fire and dozens more helping them comply with NFPA 1851. I am in constant contact with the Chairman of NFPA 1851 and 1971 and stay current on these standards which help us keep the departments I work with stay as safe as possible. I was able to listen in to today's public hearing and the one thing that seemed to ring home with me was the importance for the Board to implement the standard as soon as possible. We know that the cancer rates of my fellow fire fighters due to the cancer epidemic caused by the lack of cleaning the ensemble as called out in NFPA 1851 needs to be stopped and by you acting on this standard you will be saving so many from the pain that they and their families go through. So in closing, I urge the Board to move forward and not do anything that causes anymore delay to this very important cause."

Response:

The Board thanks Ralph Scott and all other members of the advisory committee who shared their knowledge and spent time to participate in the advisory committee meetings.

Mr. Scott's knowledge and expertise on fire fighting, particularly NFPA 1851 as an independent service provider (ISP), was useful in the development of the proposed text.

Board staff appreciates Mr. Scott's patience and looks forward to working with him to review and evaluate changes to the NFPA in future advisory committee meetings in 2022.

II. Oral Comments

Oral comments received at the March 18, 2021 Public Hearing via Webex.

1. Doug Subers, State Council, representing California Professional Fire Fighters.

Comment:

Doug Subers reiterated and highlighted important points from CPF's written comments, see commenter #4. CPF recommends the following:

- Exceptions in section in 3402.1 be restated throughout the proposal to clarify that the most recent editions of the NFPA standards meets the requirements of this regulation.
- CPF recommends that the use of SCBA be strengthened during overhaul by suggesting proposed section 3409(b) (overhaul use of SCBA actually covered in proposed section 3409(c)(2)) be amended by:
 - Designating air purifying respirators and powered air purifying respirators (PAPR) to be the respirators as the “lesser protection” protection that may be authorized other than SCBA.
 - If IDLH conditions exist, lesser protection shall not be considered.
 - Requiring employer establish standard operating procedures for when lesser protection may be warranted.
- Wildland Respiratory Protection:
 - Add an exception on 3410.1(c) to provide flexibility to the supervisor to continue work without a respirator under specified conditions where work may be necessary but respiratory use is not feasible.
 - Add a field evaluation process before respirator introduction in the workplace. Ensure that labor and management has a clear role in the field evaluation process of new technology. Labor to have clear decision making role in SCBA use during overhaul and wildland respiratory protection.

Response:

See all responses to written comments of commenter #4.

The Board thanks Doug Subers for his comments and participation in the Board’s rulemaking process.

2. Rick Swan, Director of Health and Safety, International Association of Firefighters (IAFF).

Comment:

IAFF is in agreement with the CPF that the exception in section 3402.1 be added to other sections of the proposal to assure that the most recent edition of the standard are added to the proposal to keep the regulation up to date.

IAFF appreciates the proposal to move respiratory protection for wildland fire fighters forward. More research and product development is needed for the respirator protection for wildland fire fighters. Fire Fighters are exposed to smoke generated during wildfires, but there are no products that are compliant to NFPA 1984.

Bringing title 8 safety orders in line with the most recent editions of the NFPA is vital for this proposal.

IAFF supports the materials provided by the California Professional Fire Fighters.

Response:

See all responses to written comments of commenter #4.

The Board thanks Rick Swan for his comments and participation in the Board's rulemaking process.

3. Maggie Robbins, Occupational and Environmental Health Specialist, Worksafe.

Comment:

Worksafe supports the comments heard from the fire fighters to keep standards up to date as consensus standards change and request systematic review of standards.

Worksafe supports the inclusion of labor in selecting and determining suitability of protective equipment and ensembles as well as the entire decision-making process.

Response:

See responses to written comments of commenter #5, comments #4 and #5.

The Board thanks Maggie Robbins for her comments and participation in the Board's rulemaking process.

4. Mike Wilson, Division of Occupational Safety and Health Standards Board.

Comment:

The Division submitted written comments (see written comments of commenter #3).

The Division echoes comments from the CPF and IAFF that the section on overhaul be strengthened, expanded and clarified especially with the use of SCBA and also PAPR, under some conditions, as laid out by NFPA 1500.

The proposal is not clear as to whether or not it covers fire fighters working in the Wildland Urban Interface. Respiratory use by wildland fire fighters are currently bandanas and N95's and are grossly inadequate. The Division expressed the importance of including PAPR as part of the set of options of available respirators for wildland fire fighting. The Division supports worker participation in developing standard operating procedures to provide worker safety protection, but at the same time recognize that fire fighters are faced with dynamic conditions that an on-scene supervisor should have some discretion and flexibility in making decisions regarding respirator use.

Response:

See all responses to written comments of commenter #3, and responses to written comments of commenter #4, comment #9.

The Board thanks Mr. Wilson for his comments and participation in the Board's rulemaking process.

5. Barbara Burgel, Board Member, (Occupational Health Representative).

Comment:

Ms. Burgel is in support of many of the recommendations in the Division letter. Her comments are:

- Expressed concern over the current use of "lesser level of protection" regarding overhaul; and agreed with the comments from Doug Subers that there needs to be guardrails around the situation and a field assessment;
- "Protective ensemble" (i.e. integrated PPE) is not defined in the proposal;
- Supports "properly used" language and hopes it will be integrated into the proposal;
- Supports the addition of "wildland urban interface" definition;
- Support adding the definition of "IDLH";
- More current editions of the NFPA should be included in the proposal;
- Inquired as to why Chemical, Biological, Radiological and Nuclear (CBRN) provisions were not included in the proposal, despite it being discussed during the advisory committee deliberations.

Response:

Regarding overhaul, see responses to written comments of commenter #3, comment #11 and commenter #4, comments #5 and #7.

The definition for "protective ensemble" is in the NFPA standards that are incorporated by reference.

Regarding "properly used", see response to written comments of commenter #3, comment #8.

Regarding the wildlife urban interface definition, see responses to written comments of commenter #3, comments #1 and #5.

Regarding adding the definition of IDLH, see responses to written comments of commenter #3, comments #2 and #3.

Regarding the use of the more current NFPA edition, see responses to written comments of commenter #4, comment #1.

Regarding CBRN, the advisory committee decided not to include CBRN protective ensembles in the proposal because of the scope of article 10.1., which applies to structural, proximity, and wildland fire fighting, not hazardous materials cleanup. The Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (section 5192) applies to emergency response and includes response by fire fighters. The main difference between NFPA 1994, Standard on Protective Ensembles for First Responders to Hazardous Materials Emergencies, CBRN Terrorism Incidents and the HAZWOPER standards is that CBRN uses the terminology in classifying the PPE “Class 2, 3, 4” to indicate the level of protection the PPE ensemble would provide. The HAZWOPER standard uses the term “Level A, B, C, D”. Concerning the response to terrorist attack, the advisory committee decided to defer to the larger cities to develop their own procedures.

Board Member Burgel’s comments are noted for the record.

6. Dave Harrison, Board Member, (Labor Representative).

Comment:

Board Member Harrison supports the comments of CPF and IAFF, recognizing the most recent NFPA standards and the inclusion of labor in field evaluations for PPE.

Board Member Harrison’s comments are noted for the record.

7. Laura Stock, Board Member, (Safety Representative).

Comment:

Board Member Stock is in support of the comments of her fellow Board members and hopes Board staff works closely with the Division to incorporate and improve the proposal before it comes to a vote.

Board Member Stock’s comments are noted for the record.

8. Chris Laszcz-Davis, Board Member, (Management Representative).

Comment:

Board Member Laszcz-Davis supports the comments of her fellow Board members.

Board Member Laszcz-Davis’ comment is noted for the record.