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# CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

# 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 3402.1 and 3402.3 through 3409, inclusive, apply to structural and proximity fire fighting as defined in <u>Section 3402</u>. 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.

(b) General Requirements.

(1) Personal protective clothing and equipment specified in these Orders shall be provided and used whenever such employees are required to work in a hazardous environment that may be encountered during fire fighting activities or under similar conditions during training activities. *[Consistent with NFPA 1500-2021, section 7.1.1, 7.1.2, 7.1.3]* 

(2) Employers shall develop and require use of a written plan covering the selection, safe use, maintenance, utilization and replacement of the equipment required in these Orders, and all affected employees shall be trained in accordance with such plan. [From subsection (b)(6), Consistent with NFPA 1500-2021, section 7.1.1.2, 7.1.4, 7.1.6]

NOTE to subsection (b)(2): See section 3402.3. Selection, Inspection, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting and section 3410. Selection, Inspection, and Maintenance of Protective Ensembles for Wildland Fire Fighting.

(A) Protective ensembles shall be coordinated to ensure compatibility for full body protection. [From 3407(b), but should apply to the entire ensemble]

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(B) Protective ensembles shall be properly sized and fitted to the user. [NFPA 1500, section 7.2.1.1]

(C) Employers shall designate areas for cleaning protective ensembles. [NFPA 1500, section 7.1.6.2]

(2) (3) The employer shall ensure the availability, maintenance, and use of all protective clothing and equipment in accordance with these Orders.

(A) Protective ensembles shall be maintained in a location of readiness for immediate response to fires and like emergencies. [From 3403(a), which should apply for the entire ensemble]

(3) (4) Employees shall be instructed to wear or utilize appropriate personal protective clothing and equipment when directed to work in a hazardous environment until such time as the officer in charge determines that such protection is no longer required.

(4) (5) Personal protective clothing and equipment that has become damaged or otherwise defective to the point of voiding its intended protection shall be removed from service.

(5) (6) Fire fighters and other employees engaged in emergency activities requiring special protective techniques and equipment shall be trained in the appropriate techniques and provided with the necessary protective equipment. [Consistent with NFPA 1500, Section 7.1.7]

(A) Employers shall provide training on the donning and doffing of protective ensembles to minimize exposure to contaminants.

(6) Employers shall develop and require use of a written plan covering the safe use, maintenance, utilization and replacement of the equipment required in these Orders, and all affected employees shall be trained in accordance with such plan. [Moved to (b)(2)]

(7) Employers shall ensure that new protective clothing and equipment provided be furnished with a statement of performance declaring that the product has been tested and meets the requirements of these Orders.

(8) If the employer purchases personal protective equipment containing perfluoroalkyl and perfluoroalkyl substances (PFAS), the employer shall retain a copy of the written notice provided by the seller or manufacturer for three years from the date of the transaction. The

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written notice would indicate that the personal protective equipment contains PFAS chemicals and the reason PFAS chemicals were added to the equipment. [Health and Safety Code 13029]

(A) The employer shall provide a copy of the written notice to the fire fighter using the personal protective equipment upon initial issuance.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 147.4, Labor Code and Section 13029, Health and Safety Code.

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§3402. Definitions [No amendments proposed]

§3402.1. Purchase Quality Standards for Personal Protective Clothing and Equipment for Structural Fire Fighting and Proximity Fire Fighting.

(a) Helmets ordered or purchased on or after July 1, 2023, for use in structural fire fighting or proximity fire fighting shall meet the certification, labeling, design, performance, and testing requirements of the National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard.

(b) Eye or face protection ordered or purchased on or after July 1, 2023, for use in structural fire fighting or proximity fire fighting shall meet the certification, labeling, design, performance, and testing requirements of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard.

(c) Hoods ordered or purchased after on or after July 1, 2023 for use in structural or proximity fire fighting shall meet the certification, labeling, design, performance, and testing requirements of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard.

(d) Protective garments or clothing ordered or purchased on or after July 1, 2023, for use in structural or proximity fire fighting shall meet the certification, labeling, design, performance, and testing requirements of NFPA 1971, Standard on Protective Ensembles for Structural Fire

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Fighting and Proximity Fire Fighting, 2018 Edition, which is hereby incorporated as by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard.

(e) Hand protection ordered or purchased on or after July 1, 2023, for use in structural or proximity fire fighting shall meet the certification, labeling, design, performance, and testing requirements of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard.

(f) Protective footwear ordered or purchased on or after July 1, 2023, for use in structural or proximity fire fighting shall meet certification, labeling, design, performance, and testing requirements of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard.

(a) Personal protective clothing (ensemble elements) purchased on or after [**OAL to insert - 6 months after the effective date**], for use in structural or proximity fire fighting shall meet certification, labeling, design, performance, and testing requirements of National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1971 edition will be deemed as meeting the standard.

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(g) (b) Personal Alert Safety Systems purchased on or after July 1, 2023 shall meet the certification, labeling, design, performance and testing requirements of NFPA 1982, Standard on Personal Alert Safety Systems (PASS), 2018 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: PASS meeting the most current NFPA 1982 edition will be deemed as meeting the standard. [*To be discussed at a later date by Cal/OSHA Research and Standards*]

(h) (c) Open-circuit self-contained breathing apparatus (SCBA) purchased on or after July 1, 2023 shall meet the certification, labeling, design, performance and testing requirements of NFPA 1981, Standard on Open-Circuit Self Contained Breathing Apparatus (SCBA) for Emergency Services, 2019 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Open-circuit SCBA meeting the most current NFPA 1981 edition will be deemed as meeting the standard. [To be discussed at a later date by Cal/OSHA Research and Standards]

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§3402.2. Purchase Quality Standards for Personal Protective Clothing and Equipment for Wildland Fire Fighting. [New Material for April 2023 meeting]

(a) Wildland fire fighting personal protective clothing and equipment ordered or purchased on or after July 1, 2017 shall meet the requirements of the National Fire Protection Association (NFPA) 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2016 Edition, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

EXCEPTION: Protective ensemble or ensemble elements meeting the most current NFPA 1977 edition will be deemed as meeting the standard.

(b) Purchase Quality Standards for Fire Shelter. Fire shelters ordered or purchased on or after July 1, 2023 shall meet or exceed the U.S. Department of Agriculture, Forest Service Specification, Shelter, Fire (M-2002), 5100-606C, August 22, 2011, which is hereby incorporated by reference. In addition to any other applicability, the aforementioned purchase quality standards apply to discretionary equipment orders or purchases.

[In addition to fire shelter, does the department purchase other equipment that meet the specifications of Dept of Agriculture?]

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§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, <u>cared for</u>, inspected, <u>stored</u> 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, <u>2014</u> <u>2020</u> Edition, which is hereby incorporated by reference <u>without the Annex</u>, except for A 5.1.5.

NOTE: Any mention of chapters and subchapters in this section are in reference to the NFPA 1851 standard, 2020 edition.

[There were comments regarding clarity during the November AC. A suggestion was made to include a list the corresponding chapters of the NFPA. For example, selection refers to Chapter 5. The Chair revised subsection (a) to be discussed in the April 2023 meeting.]

(a) The employer shall establish and implement the procedures and requirements of NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2014 2020 Edition, which is hereby incorporated by reference without the Annex, except for A 5.1.5.

EXCEPTION: (b) In addition to the recordkeeping requirements of subchapter 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, 2014-2020 Edition, 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.

(b) Helmets that do not meet the requirements of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2007 Edition, which is hereby incorporated by reference, shall be retired 10 years from the date of manufacture.

#### (c) Effective Dates.

(1) Subchapter 4.1 (General), subchapter 4.2 (Program Organization for Structural Fire Fighting Ensembles and Ensemble Elements and Proximity Fire Fighting Ensembles and Ensemble Elements), and subchapter 4.3 (Records) of Chapter 4 (Program), Chapter 5 (Selection), Chapter 6 (Inspection), Chapter 7 (Cleaning and Decontamination), Chapter 8 (Repair), Chapter 9 (Storage), and Chapter 12 (Test Procedures) of NFPA 1851, Standard on Selection, Care, and

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Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2014 Edition, which is hereby incorporated by reference, shall be effective Jan. 1, 2024.

(2) Chapter 10 (Retirement, Disposition, and Special Incident Procedure) of 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, and subsection (b) shall be effective Jan. 1, 2026.

# (c) Training.

(1) The written standard operating procedures (SOPs) as required in chapter 4 Program, subchapter 4.2.2 of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 Edition shall include training requirements for users of protective ensembles, program administrators and selected personnel who are involved in the implementation of NFPA 1851, 2020 edition.

# [Unfinished Business]

(2) Program administrators and selected employees of manufacturer-trained organizations shall be trained according to the training requirements in chapter 4 Program, subchapter 4.2.4.5 of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 Edition and employees shall be permitted to perform the activities identified in Table 4.2.4 for manufacturer-trained organizations.

(2) Employees permitted to perform the activities listed in NFPA 1851 Chapter 4 Program Table 4.2.4 shall be trained according to Chapter to 4.2.4.5. [Suggestion from Cal/Fire to rephrase and remove program administrator from (c)(2)]

(2) The program shall be administered by a suitably trained program administrator. Employees designated by the employer to perform the activities listed in NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 edition, chapter 4 Program Table 4.2.4 shall be trained according to their duties.

[How long should the training records be kept?]

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# [Reference:

T8 Section 5144

(c) Respiratory protection program. This subsection requires the employer to develop and implement a written respiratory protection program with required worksite-specific procedures and elements for required respirator use. The program must be administered by a suitably trained program administrator.]

# (d) Manufacturer's Instruction.

(1) In addition to the requirements of chapter 4 Program, subchapter 4.4.3 of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 Edition, the employer shall provide the user of the protective ensemble a copy of the manufacturer's instruction within 10 business days, upon written request.

# [AC member suggested to replace employer with organization. The Chair is proposing to use "organization or employer"]

(e) Reporting Personal Protective Equipment (PPE) Health and Safety Concerns.
(1) To implement chapter 4 Program, subchapter 4.6.1 of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 Edition, the organization or employer shall notify the manufacturer and the certification organization in writing, within 20 business days, upon discovery of a PPE health and safety concern caused by a known or suspected element failure.

# [NFPA 1851, 2020

<u>3.3.64\* Organization. The entity that provides the direct management and supervision for the emergency services personnel.</u>

# (f) Risk Assessment.

(1) The selection criteria for comparing elements as required in chapter 5 Selection, subchapter 5.1.5 of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 Edition shall include the criteria listed in A.5.1.5

# (g) Inspection.

(1) The guidelines established by the employer for soiling as required by chapter 6 Inspection, subchapter 6.1.3 shall include the following:

<u>(A).....</u>

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# <u>(B)....</u> (C).....

(h) (g) Cleaning and Decontamination.

(1) Preliminary exposure reductions shall be carried out by the end user of the PPE as required by chapter 7 Cleaning and Decontamination, subchapter 7.2.2.1 of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 Edition.

EXCEPTION to (h)(g)(1):

Where it is infeasible to perform preliminary exposure reductions immediately, preliminary exposure reduction shall be performed as soon as practically possible.

(2) Ensembles and ensemble elements that are soiled or contaminated shall receive advanced cleaning as required in chapter 7 Cleaning and Decontamination, subchapter 7.3.3 of the NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2020 Edition as soon as practically possible.

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Amend Section 3403 to read:

§3403. Head, Eye and Face Protection. Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting.

(a) General. In-service protective ensembles shall meet the requirements of National Fire Protection Association (NFPA) 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2013 Edition, which is hereby incorporated by reference.

(a) (b) Head Protection. Head protection shall be provided to 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.

(1) In-Service Head Protection. Fire fighting helmets shall meet the NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2013 Edition.

[Note: Need to discuss with NFPA Chair, might need exception for subsection (a). NFPA helmets cannot be sold without the other components, but components can be bought separately from the helmet]

6.5.2 Helmets shall consist of at least all of the following assembled components: (1) shell

(2) energy absorbing system

(3) retention system

- (4) fluorescent and reflective trim
- (5) ear covers, faceshield or goggles, or both.

6.5.2.1 Where a faceshield is selected in accordance with 6.5.2 (6), the face shield component shall be attached to the helmet.

6.5.2.2 Where the goggle component is selected in accordance with 6.5.2(6), the goggles shall be permitted to be unattached, not assembled, to the helmet.]

(b) (c) Eye and Face Protection.

(1) Eye protection and/or face protection shall be provided to and used by each fire fighter to

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protect from eye or face injuries such as punctures, abrasions, contusions, or <u>burns as a result</u> <u>of resulting from</u> contact with flying particles, hazardous substances or projections which are inherent in the work or environment.

(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 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 287.1 2015, which are hereby incorporated by reference. In addition, it shall bear the mark "287+". [Replaced by §3403(a)]

(3) (2) Primary eye protection shall be required unless the self-contained breathing apparatus (SCBA) is being used. The full facepiece of SCBA shall be considered as face and eye protection when worn.

(A) If the facepiece has a face-mounted regulator that when disconnected provides a direct path for flying objects to strike the face or eye, the facepiece shall have the regulator attached in order to be considered as eye and face protection.

(4) (3) When operating in a hazardous area at an emergency scene without a full-face respirator, fire fighters shall wear primary eye protection that is designed to protect the eyes from the hazard.

(d) Ear and Neck Protection and Protective Hood Interface. Protection against burns or injury to the ears and neck shall be provided by one or more of the following: [From §3404 (a)]

(1) Ear flap attachment to helmet;

(2) Hood or shroud.

(e) Body Protection. Body protection shall be provided to and used by each fire fighter when exposed to the hazards of structural fire fighting and proximity fire fighting activities. Body protection shall consist of structural or proximity fire protective garments. [From §3405(a)]

(1) Body protection provided for other than structural fires shall be appropriate for the potential hazards. [From §3405(c)]

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(f) Hand and Wrist Protection. Protective gloves shall be provided to and used by each fire fighter when exposed to the hazards of structural and proximity fire fighting activities. Such protective gloves shall be suitable to the hazards encountered in fires and fire related emergencies. [From §3406(a)]

(g) Foot Protection. Foot protection shall be provided to and worn by fire fighters while engaged in structural and proximity fire fighting activities. [From 3407(a)]

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Amend Section 3404

§3404. Ear and Neck Protection and Protective Hood Interface. [Reserved]
(a) Protection against burns or injury to the ears and neck shall be provided by one or more of the following: [Moved to 3403(d)]
(1) Ear flap attachment to helmet;
(2) Hood or shroud.

(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 Edition, which is hereby incorporated by reference. [Replaced by §3403(a)]

(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 Edition, which is hereby incorporated by reference. [Replaced by §3403(a)]

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§3405. Body Protection. [Reserved]

(a) Body protection shall be provided to and 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. [Moved to §3403(e)]

(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 Edition, which is hereby incorporated by reference. [Replaced by §3403(a)]

(c) Body protection provided for other than structural fires shall be appropriate for the potential hazards. [Moved to §3403(d)(1)]

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§3406. Hand and Wrist Protection. [Reserved]

(a) Protective gloves shall be provided to and 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. [Requirement to provide moved to 3403(f), properly sized requirement moved to Section 3401 (b)(2)(B)]

(b) Protective gloves for fire fighters shall be made of durable outer material designed to withstand the effects of flame, heat, vapor, liquids, sharp objects and other hazards that are encountered in fire fighting. [Replaced by a general requirement in §3403(a) covered in NFPA 1971-2013 and 2018 edition]

(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 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. [Replaced by a general requirement in §3403(a), covered in NFPA 1971-2013 and 2018 edition]

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§3407. Foot Protection. [Reserved]

(a) Foot protection shall be provided to and worn by fire fighters while engaged in structural and proximity fire fighting activity. [Moved to 3403(g)]

(b) The use of foot protection shall be coordinated with the wearing of the protective clothing system to ensure full body protection. [Moved to 3401(b)(2)(A) to require that the entire ensemble be coordinated]

(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 Edition, which is hereby incorporated by reference. [Replaced by a general requirement in §3403(a)]

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 147.4, Labor Code.

§3408. Personal Alert Safety System (PASS) [Will be updated by Cal/OSHA Research and Standards]

§3409. Respiratory Protection [Will be updated by Cal/OSHA Research and Standards]

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§3410. Selection, Inspection, and Maintenance of Protective Ensembles for Wildland Fire Fighting. [New material for April 2023 meeting]

(a) The employer shall establish and implement the procedures and requirements of NFPA 1877, Standard on Selection, Care, and Maintenance of Protective Ensembles of Wildland Fighting Clothing and Equipment, 2022 Edition, which is hereby incorporated by reference without the Annex.

(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 fire fighters based on the following: *{NFPA Section 5.1]* (1) Type of duties performed while wearing wildland fire fighting PPE;

(2) Identification and characterization of hazards of the duties while wearing wildland fire fighting PPE;

(3) Geographic location, elevation, and climate;

(4) Seasonal effect;

(5) Garment configurations of the wildland fire fighting PPE (single-layer or multi-layer garment); [Addressed in NFPA 4.2.3]

(6) Organizational experience and lessons learned with current wildland fire fighting PPE; and (7) Proximity and location of private residences and other habitable structures in relation to wildland vegetation and areas of refuge.

(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: [NFPA Chapter 5. Selection, subchapter 5.1.11]

(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. Total Heat Loss (THL); and

4. Thermal Protective Performance (TPP).

(3) Identify other selection factors. For example design features, comfort, compatibility, and sizing.

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(c) Inspection. [NFPA Chapter 6. Inspection]

(1) Routine Inspection. PPE shall be inspected before and after every use.

(2) Annual Inspection. PPE shall be inspected annually by a qualified person other than the user.

(3) PPE shall be inspected for the following:

(A) Contamination and soiling.

1. If the garment is contaminated by blood or other potentially infectious material, the garment

shall be handled in accordance with Section 5193.

(B) Rips, tears, holes and any other irregularities.

(C) Damage to pockets.

(D) Fabric damage.

(E) Discoloration.

(F) Embrittlement.

(G) Burns or char.

(H) Seam integrity.

(I) Shrinkage.

(J) Closures.

(K) Hardware.

(L) Reinforcements.

(M) Loss of reflectivity.

(N) Proper fit or sizing of PPE.

(4) Defective PPE shall be repaired in accordance with the manufacturer's specification or removed from service and replaced.

(d) Cleaning. The employer shall implement cleaning procedures according to manufacturer's recommendations for cleaning PPE. The procedures shall include the following: [NFPA Chapter 7 Cleaning and Decontamination

(1) Frequency. The end user shall determine if the garment shall be spot cleaned or machine washed after every use.

(A) Protective garments shall be completely washed in a washing machine as often as necessary to remove soiling.

(2) Cleaning agents. The employer shall identify the type of cleaning agents appropriate for the garments and other PPE according to manufacturer's recommendations.

(3) Spot cleaning and machine washing procedures.

(4) Drying procedures.

(e) Training. Employees shall be trained on the following: [Not covered] (1) Proper fit or sizing of the PPE.

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(2) Limitations of the PPE.

(3) Proper use of the PPE.

(4) Donning and doffing of the PPE.

(5) Cleaning procedures.

(6) Inspection procedures and frequencies.

(7) Storage of the PPE.

# <u>(b) Training.</u>

(1) The written standard operating procedures (SOPs) as required in chapter 4 Program, subchapter 4.2.1 of the NFPA 1877, Standard on Selection, Care, and Maintenance of Protective Ensembles of Wildland Fighting Clothing and Equipment, 2022 Edition shall include training requirements for users of protective ensembles, program administrators and selected personnel who are involved in the implementation of NFPA 1877, 2022 Edition.

(2) The program must be administered by a suitably trained program administrator. Employees designated by the employer to perform the activities listed in chapter 4 Program, Table 4.2.2 of the NFPA 1877, Standard on Selection, Care, and Maintenance of Protective Ensembles of Wildland Fighting Clothing and Equipment, 2022 Edition, shall be trained according to their duties.

#### (f) Retirement.

(1) Protective garments shall be retired 10 years from the date of manufacture.

[NFPA 1877 does not have a 10 year limit to the life of protective ensemble. Should CA keep this requirement?]

(2) PPE that do not meet the requirements of NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2011 Edition, which is hereby incorporated by reference, shall be retired by July 1, 2023.

(3) Retired PPE shall be destroyed or disposed of in a manner that ensures it will not be used for any fire fighting.

(g) (c) Recordkeeping. In addition to the training requirements of chapter 4 Program, subchapter 4.3 of the NFPA 1877, Standard on Selection, Care, and Maintenance of Wildland Firefighting Protective Clothing and Equipment, 2022 Edition, the employer shall maintain the following records:

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# CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

# TITLE 8, DIVISION 1, CHAPTER 4

(1) Training records demonstrating the implementation of subsection (e) (b) shall be maintained for <u>3three</u> years. Records shall include employee name or other identifier, training dates, type(s) of training; make (manufacturer), model, and serial number of assigned PPE.
 (2) Records of retired PPE shall be maintained for <u>3three</u> years.

[NFPA Section 4.3 does not specify how long records should be kept. NFPA 1851 – 3 years] Note: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 147.4, Labor Code.

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# CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

# TITLE 8, DIVISION 1, CHAPTER 4

§3410.1. Personal Protective Equipment for Wildland 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.(B) Structural fire fighting helmet in accordance with Section 3402.3.

(3) Each helmet shall be durably and legibly labeled in a manner such that the label can be easily read without removing padding or any other permanent part, and shall include the following information:

- (A) Name or designation of manufacturer.
- (B) Month and year of manufacture.
- (C) Lot number.
- (D) Model designation.

# [The NFPA edition will change depending on when the proposal will be noticed. Editions may change depending on the outcome of discussion regarding section 3410.]

(b) In-service Eye Protection. Employees exposed to eye injury hazards shall be protected by 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 googles shall have a means of attachment that is designed to be used with head protection.

(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, or 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.

(d) Body Protection.

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(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.

(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.

(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.

(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.

(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.

(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.

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# CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

# **TITLE 8, DIVISION 1, CHAPTER 4**

§3411. Private Fire Brigades.

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(d) Personal Protective Clothing and Equipment shall be provided by the employer at no cost to the employee in accordance with this article commensurate with the fire fighting activity involved. With respect to structural fire fighting by private fire brigades, those personal protective clothing and equipment requirements shall be in accordance with <u>Sections 3402.1</u>, 3402.3, 3403, 3404, 3405, 3406, 3407, 3408, and 3409. [Reference sections must be adjusted. Should we include wildland sections here as well? Are there private fire brigades that do wildland firefighting?]