



First Revision No. 120-NFPA 1500-2018 [Global Input]

See attached document for extract changes

Supplemental Information

File Name

Description Approved

1500_chapter_3_extract_updates.docx

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Apr 02 10:46:44 EDT 2018

Committee Statement

Committee The committee has made these changes to update extract references/citations relating to

Statement: definitions that are used in the document as well as removing an extract citation as the committee

wants to retain the definition that is in 1500.

Response Message:

3.3.53 Hazardous Material.

A substance (either matter—solid, liquid, or gas—or energy) or energy that when released is capable of creating harm to people, the environment, and property, including weapons of mass destruction (WMD) as defined in 18 U.S. Code, Section 2332a, as well as any other criminal use of hazardous materials, such as illicit labs, environmental crimes, or industrial sabotage. [472, 2018]

3.3.93 Risk Assessment.

The process of hazard identification and the identifying threats and hazards to life, property, operations, the environment, and entities, and the analysis of probabilities, vulnerabilities, and impacts.

[1600,20162019]

3.3.94 Risk Management.

The process of planning, organizing, directing, and controlling the resources and activities of an organization in order to minimize detrimental effects on that organization. [1250, 2015]

3.3.96 SCBA.

Abbreviation for self-contained breathing apparatus. [1981, 2013] [See 3.3.94, Self-Contained Breathing Apparatus (SCBA).] [1981, 2019]

3.3.103 Technical **Search and Rescue.**

The application of special knowledge, skills, and equipment to safely resolve unique and/or complex search and rescue situations. [1670, 2017]

First Revision No. 118-NFPA 1500-2018 [Detail]

Change section title to:

14.5 Mitigation of Contaminant Exposure.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Mar 15 12:49:56 EDT 2018

Committee Statement

Committee The committee has made this change, by removing "Toxic" in several places and this detail

Statement: also makes that change.

Response Message:



First Revision No. 8-NFPA 1500-2018 [Section No. 1.3.1]

1.3.1

The requirements of this standard shall be applicable to organizations providing rescue, fire suppression, emergency medical services, hazardous materials mitigation, special operations, fire investigations, fire inspections, and other emergency services, including public, military, private, and industrial fire departments.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 12:08:07 EST 2018

Committee Statement

Committee The committee has made this change in order to maintain consistency with other sections

Statement: within this document.

Response Message:

Public Input No. 35-NFPA 1500-2018 [Section No. 1.3.1]

	2.2 NFPA Publications.	

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 10, Standard for Portable Fire Extinguishers, 2018 edition.

NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2017 edition.

NFPA 101[®], Life Safety Code[®], 2018 edition.

NFPA 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, 2018 edition.

NFPA 473, Standard for Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents, 2018 edition.

NFPA 1001, Standard for Fire Fighter Professional Qualifications, 2013 2019 edition.

NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, 2017 edition.

NFPA 1003, Standard for Airport Fire Fighter Professional Qualifications, 2015 2019 edition.

NFPA 1006, Standard for Technical Rescue Personnel Professional Qualifications, 2017 edition.

NFPA 1021, Standard for Fire Officer Professional Qualifications, 2014 2020 edition.

NFPA 1031, Standard for Professional Qualifications for Fire Inspector and Plan Examiner, 2014 edition.

NFPA 1033, Standard for Professional Qualifications for Fire Investigator, 2014 edition.

NFPA 1051, Standard for Wildland Firefighting Personnel Professional Qualifications, 2016 2020 edition.

NFPA 1091, Standard for Traffic Control Incident Management Personnel Professional Qualifications, 2015 2019 edition.

NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, 2016 2019 edition.

NFPA 1403, Standard on Live Fire Training Evolutions, 2018 edition.

NFPA 1404, Standard for Fire Service Respiratory Protection Training, 2013 2018 edition.

NFPA 1407, Standard for Training Fire Service Rapid Intervention Crews, 2015 2020 edition.

NFPA 1451, Standard for a Fire and Emergency Service Vehicle Operations Training Program, 2013 2018 edition.

NFPA 1521, Standard for Fire Department Safety Officer Professional Qualifications, 2015 2020 edition.

NFPA 1561, Standard on Emergency Services Incident Management System and Command Safety, 2014 2020 edition.

NFPA 1581, Standard on Fire Department Infection Control Program, 2015 edition.

NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments, 2018 edition.

NFPA 1583, Standard on Health-Related Fitness Programs for Fire Department Members, 2015 edition.

NFPA 1584, Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises, 2015 edition.

NFPA 1670, Standard on Operations and Training for Technical Search and Rescue Incidents, 2017 edition.

NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, 2016 2020 edition.

NFPA 1720, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments, 2014 2020 edition.

NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2014 2019 edition.

NFPA 1852, Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA), 2013 2019 edition.

NFPA 1855, Standard on Selection, Care, and Maintenance of Protective Ensembles for Technical Rescue Incidents, 2013 2018 edition.

NFPA 1901, Standard for Automotive Fire Apparatus, 2016 edition.

NFPA 1906, Standard for Wildland Fire Apparatus, 2016 edition.

NFPA 1911, Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles, 2017 edition.

NFPA 1912, Standard for Fire Apparatus Refurbishing, 2016 edition.

NFPA 1917, Standard for Automotive Ambulances, 2016 2019 edition.

NFPA 1925, Standard on Marine Fire-Fighting Vessels, 2013 2018 edition.

NFPA 1931, Standard for Manufacturer's Design of Fire Department Ground Ladders, 2015 2020 edition.

NFPA 1932, Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders, 2015 2020 edition.

NFPA 1936, Standard on Powered Rescue Tools, 2015 2020 edition.

NFPA 1951, Standard on Protective Ensembles for Technical Rescue Incidents, 2013 2020 edition.

NFPA 1952, Standard on Surface Water Operations Protective Clothing and Equipment, 2015 edition.

NFPA 1961, Standard on Fire Hose, 2013 2020 edition.

NFPA 1962, Standard for the Care, Use, Inspection, Service Testing, and Replacement of Fire Hose, Couplings, Nozzles, and Fire Hose Appliances, 2013 2018 edition.

NFPA 1964, Standard for Spray Nozzles, 2013 2018 edition.

NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 edition.

NFPA 1975, Standard on Emergency Services Work Clothing Elements, 2014 2019 edition.

NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2016 edition.

NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, 2013 2019 edition.

NFPA 1982, Standard on Personal Alert Safety Systems (PASS), 2013 2018 edition.

NFPA 1983, Standard on Life Safety Rope and Equipment for Emergency Services, 2017 edition.

NFPA 1984, Standard on Respirators for Wildland Fire-Fighting Operations, 2016 edition.

NFPA 1989, Standard on Breathing Air Quality for Emergency Services Respiratory Protection, 2013 2019 edition.

NFPA 1991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies and CBRN Terrorism Incidents, 2016 edition.

NFPA 1992, Standard on Liquid Splash–Protective Ensembles and Clothing for Hazardous Materials Emergencies, 2018 edition.

NFPA 1994, Standard on Protective Ensembles for First Responders to Hazardous Materials Emergencies and CBRN Terrorism Incidents, 2018 2020 edition.

NFPA 1999, Standard on Protective Clothing and Ensembles for Emergency Medical Operations, 2018 edition.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State:

Zip:

Submittal Date: Thu Jan 25 16:32:46 EST 2018

Committee Statement

Committee Statement: This is being added as it has been referenced in the main body of the document.

Response Message:

First Revision No. 103-NFPA 1500-2018 [Section No. 2.4]

2.4 References for Extracts in Mandatory Sections.

NFPA 1, Fire Code, 2018 edition.

NFPA 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, 2018 edition.

NFPA 600, Standard on Facility Fire Brigades, 2015 edition.

NFPA 921, Guide for Fire and Explosion Investigations, 2017 edition.

NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, 2017 edition.

NFPA 1006, Standard for Technical Rescuer Rescue Personnel Professional Qualifications, 2017 edition.

NFPA 1250, Recommended Practice in Fire and Emergency Service Organization Risk Management, 2015 -edition.

NFPA 1404, Standard for Fire Service Respiratory Protection Training, 2013 2018 edition.

NFPA 1451, Standard for a Fire and Emergency Service Vehicle Operations Training Program, 2013 2018 edition.

NFPA 1521, Standard for Fire Department Safety Officer Professional Qualifications, 2015 edition.

NFPA 1561, Standard on Emergency Services Incident Management System and Command Safety, 2014 edition.

NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments, 2018 edition.

NFPA 1600[®], Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs, 2016 2019 edition.

NFPA 1670, Standard on Operations and Training for Technical Search and Rescue Incidents, 2017 edition.

NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, 2016 edition.

NFPA 1901, Standard for Automotive Fire Apparatus, 2016 edition.

NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 edition.

NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2016 edition.

NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, 2013 2019 edition.

NFPA 1984, Standard on Respirators for Wildland Fire-Fighting Operations, 2016 edition.

NFPA 1991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies and CBRN Terrorism Incidents, 2016 edition.

NFPA 1994, Standard on Protective Ensembles for First Responders to Hazardous Materials Emergencies and CBRN Terrorism Incidents, 2018 edition.

NFPA 5000[®], Building Construction and Safety Code[®], 2018 edition.

Supplemental Information

File Name

Description Approved

FR-103_2.4_Legislative_Changes.docx

For Staff Use

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 14:48:48 EST 2018

Committee Statement

Committee These changes were made to update edition dates as well as to remove the reference to 1250 Statement:

due to not being allowed to reference a guide as part of this section as guides are not mandatory

or written in mandatory language.

Response Message:

4/19/2018, 12:48 PM 10 of 148

First Revision No. 17-NFPA 1500-2018 [Section No. 3.3.19]

3.3.19* Contaminant Contaminants.

A harmful Harmful, irritating, or nuisance material foreign to the normal atmosphere.

A.3.3.19 Contaminants.

These can be airborne, dermal, ocular, or respiratory hazards consisting of products of combustion, carcinogens, toxic chemicals, ultrafine particles, corrosive or sensitizing allergy-causing chemicals, potentially infectious body fluids, other infectious microorganisms, or CBRN terrorism agents and other incident health hazards.

3.3.20 Contaminated/Contamination.

The presence or the reasonably anticipated presence of contaminants on an item or surface.

Supplemental Information

File Name

Description Approved

FR-17_3.3.19_Legislative_Changes.docx

For Staff Use

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 15:13:01 EST 2018

Committee Statement

Committee Statement: The committee has made this change for document and project consistency.

Response Message:

Public Input No. 36-NFPA 1500-2018 [Section No. 3.3.19]

Public Input No. 38-NFPA 1500-2018 [New Section after 3.3.19]

First Revision No. 18-NFPA 1500-2018 [Section No. 3.3.20.3]

3.3.21.3 Fireground Contaminants.

Airborne, dermal, ocular, or respiratory hazards consisting of products of combustion, carcinogens, toxic chemicals, ultrafine particles, and other incident health hazards.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 15:17:56 EST 2018

Committee Statement

Committee The committee is deleting this as it has been incorporated into the definition that was

Statement: created in part by FR 17.

Public Input No. 37-NFPA 1500-2018 [Section No. 3.3.20.3]



First Revision No. 1-NFPA 1500-2018 [New Section after 3.3.25]

3.3.26 Decontamination.

The act of removing or neutralizing contaminants by a mechanical, chemical, thermal, or combined process.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 10:59:31 EST 2018

Committee Statement

Committee Statement: The committee has added this definition for document and project consistency.

Response Message:

Public Input No. 39-NFPA 1500-2018 [New Section after 3.3.25]

First Revision No. 90-NFPA 1500-2018 [New Section after 3.3.46]

3.3.49* Gross Decontamination.

A phase of the decontamination process where significant reduction of the amount of surface contamination takes place as soon as possible, most often accomplished by mechanical removal of the contaminant or initial rinsing from handheld hose lines, emergency showers, or other nearby sources of water.

A.3.3.49 Gross Decontamination.

Victims of a hazardous material release that is potentially life threatening due to continued exposure from contamination are initially put through a gross decontamination, which will significantly reduce the amount of additional exposure. This is usually accomplished by mechanical removal of the contaminant or initial rinsing from handheld hose lines, emergency showers, or other nearby sources of water. Responders operating in a contaminated zone in personal protective equipment (PPE) are put through gross decontamination, which will make it safer for them to remove the PPE without exposure and for members assisting them.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:25:29 EST 2018

Committee Statement

Committee The committee has added this new term as they have now included it in the main body of

Statement: the document.

Response Message:

Public Input No. 40-NFPA 1500-2018 [New Section after 3.3.74]

First Revision No. 96-NFPA 1500-2018 [Section No. 3.3.61]

3.3.95* Incident Safety Officer.

A generic title given to a member of the command staff responsible for monitoring and assessing safety hazards and unsafe situations, and for developing measures for ensuring personnel safety. within a fire department or emergency service organization who performs the functions of a health and safety officer, an incident safety officer, or who serves as an assistant to a person in either of those positions.

A.3.3.95 Incident Safety Officer.

The incident- safety officer can have assistants. There are agencies that identify the safety officer as an incident safety officer according to NFPA 1521.

For the purposes of this document, a safety officer is a member of the command staff responsible for monitoring and assessing safety hazards or unsafe situations and for developing measures for ensuring personnel safety.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:54:29 EST 2018

Committee Statement

Committee Statement: This change was made for project consistency.

Response Message:



First Revision No. 65-NFPA 1500-2018 [New Section after 3.3.77]

3.3.79 Peer Supporter.

<u>Trained members of the fire service who talk with other peers about behavioral health concerns and connect members with helpful services.</u>

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 17:57:22 EST 2018

Committee Statement

Committee Statement: The committee has added this new definition as they believe it is needed.

Response Message:

Public Input No. 42-NFPA 1500-2018 [New Section after 3.3.77]

First Revision No. 73-NFPA 1500-2018 [Section No. 3.3.99]

3.3.103 Tactical Level Management Component (TLMC).

A management unit identified in the incident management system commonly known as "division," "group," or "sector." [**1561**, -2014]

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 23 14:43:23 EST 2018

Committee Statement

Committee Statement: The committee is deleting this term as it is not a NIMS compliant term.

Response Message:

Public Input No. 32-NFPA 1500-2018 [Section No. 3.3.99]



First Revision No. 3-NFPA 1500-2018 [Section No. 4.1.2]

4.1.2*

The fire department shall prepare and maintain written policies and standard operating procedures that document the organization structure, membership, roles and responsibilities, expected functions, emergency operations, and training requirements, including the following:

- (1) The types of standard evolutions that are expected to be performed and the evolutions that must be performed simultaneously or in sequence for different types of situations
- (2) The minimum number of members who are required to perform each function or evolution and the manner in which the function is to be performed in accordance with NFPA 1710 or NFPA 1720
- (3) The number and types of apparatus and the number of personnel that will be dispatched to different types of incidents in accordance with NFPA 1710 or NFPA 1720
- (4) The procedures that will be employed to initiate and manage operations at the scene of an emergency incident
- (5) Post-incident control and mitigation of emergency scene contaminants

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 11:18:52 EST 2018

Committee Statement

Committee The committee has made these changes in order to include operational SOPs and post incident

Statement: mitigation of contaminants and the need for them to be addressed in this section.

Response Message:

Public Input No. 43-NFPA 1500-2018 [Section No. 4.1.2]

First Revision No. 4-NFPA 1500-2018 [New Section after 4.1.3]

4.1.4

The fire department shall evaluate current trends and research to determine if policies and procedures are appropriate at least annually or following a near miss or catastrophic event.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 11:25:58 EST 2018

Committee Statement

Committee Statement: The committee has added this to ensure that this is being done at least annually.

Response Message:

Public Input No. 44-NFPA 1500-2018 [New Section after 4.1.3]



First Revision No. 5-NFPA 1500-2018 [Section No. 4.2.2]

4.2.2

The risk management plan shall at least cover the risks associated with the following:

- (1) Administration
- (2) Facilities
- (3) Training
- (4) Vehicle operations, both emergency and non-emergency
- (5) Protective clothing and equipment
- (6) Operations at emergency incidents (see Annex C)
- (7)* Operations at non Non -emergency incidents services or activities

A.4.2.2(7)

These could include fire inspections of new construction, fire inspections of existing buildings, pre-fire planning activities, public education, mass gatherings, planned events, and community risk reduction activities. As an example, conducting fire inspections on a new construction job site has a specific set of risk exposures that should be incorporated into a risk management plan with appropriate risk mitigation practices including training and PPE.

- (8) Products of combustion, carcinogens, fireground contaminants, and other incident-related health hazards
- (9) Other related activities

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 11:37:50 EST 2018

Committee Statement

Committee The list does not appear to cover non-emergency services that a fire department may provide while Statement: not on the scene of an incident. These could include fire inspections of new construction, fire inspection of existing buildings, pre-fire planning activities, public education, community risk reduction activities. As an example, conducting fire inspections on a new construction job site has a specific set of risk exposures that should be incorporated into a risk management plan with appropriate risk mitigation practices including training and PPE. This is just one example of these types of activities that need to be covered within the scope.

Response Message:

Public Input No. 1-NFPA 1500-2017 [Section No. 4.2.2]



First Revision No. 93-NFPA 1500-2018 [Section No. 4.3.1]

4.3.1*

The fire department shall adopt an official written departmental occupational safety, health, and wellness policy that identifies specific goals and objectives for the prevention and elimination of accidents and occupational injuries; exposure to communicable disease; exposure to products of combustion, carcinogens, fireground contaminants, and other incident-related health hazards; illnesses; and fatalities.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:44:50 EST 2018

Committee Statement

Committee Statement: This change was made for document consistency.

Response Message:



First Revision No. 6-NFPA 1500-2018 [Section No. 4.3.3 [Excluding any Sub-Sections]]

The fire department shall evaluate the effectiveness of the occupational safety, health, and wellness program at least once every 3 years or following a catastrophic or near miss event.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 11:43:54 EST 2018

Committee Statement

Committee Statement: This was added for document consistency .

Response Message:

Public Input No. 45-NFPA 1500-2018 [Section No. 4.3.3 [Excluding any Sub-Sections]]

First Revision No. 7-NFPA 1500-2018 [Section No. 4.6.2]

4.6.2*

The data collection system shall also maintain <u>overall incident exposure data, as well as</u> individual records of any occupational exposure to known or suspected products of combustion, carcinogens, <u>fireground</u> contaminants, or other incident-related health hazards; toxic products; or infectious or communicable diseases.

A.4.6.2

Fire-fighter exposure data collection systems should include, at a minimum, the data elements and queries found in the DHS/FEMA/AFG funded National Fire Operations Reporting System (NFORS). The data elements and queries included in NFORS were developed by experts from the CDC, NIOSH, OSHA, University of Miami, University of Arizona, and experienced stakeholders in fire-fighter exposure systems from California and Washington State. NFORS data elements and exposure queries cover all aspects of fire-fighter response and provide individual fire fighters with a personal career diary. The list of NFORS data elements and queries can be viewed at www.nfors.com.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 11:45:57 EST 2018

Committee Statement

Committee The committee has added this as they have identified a gap and address it with this new

Statement: text.

Response Message:

Public Input No. 46-NFPA 1500-2018 [Section No. 4.6.2]



First Revision No. 10-NFPA 1500-2018 [New Section after 5.1.10]

5.1.11

Rapid intervention crew (RIC) and fire-fighter self-rescue training and exercises shall be conducted in accordance with NFPA 1407 .

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 13:00:01 EST 2018

Committee Statement

Committee Statement: The committee is adding this as this addresses a gap.

Response Message:

Public Input No. 49-NFPA 1500-2018 [New Section after 5.3.13.1]

First Revision No. 15-NFPA 1500-2018 [New Section after 5.1.11]

5.1.12

Members conducting fire inspections shall be trained in hazard identification, risk mitigation, and PPE selection that is relevant to the hazard.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 14:03:20 EST 2018

Committee Statement

Committee The committee has added this new text to ensure that the correct training is received based

Statement: on their occupation.

Response Message:



First Revision No. 9-NFPA 1500-2018 [Section No. 5.3.13 [Excluding any Sub-Sections]

1

All members shall be trained provided initial and ongoing training in the risks associated with workplace exposure to products of combustion, carcinogens, fireground contaminants, and other incident-related health hazards.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 12:55:06 EST 2018

Committee Statement

Committee Statement: The committee has made this change in order to include the need for ongoing training. **Response Message:**

Public Input No. 48-NFPA 1500-2018 [Section No. 5.3.13 [Excluding any Sub-Sections]]

First Revision No. 94-NFPA 1500-2018 [New Section after 5.3.13.1]

5.3.14

The fire department shall provide all members with training and education on behavioral health issues in the fire service to include the importance of addressing behavioral health problems, including, but not limited to, the impact of stigma associated with behavioral health and how to overcome it, substance use disorder, depression, post-traumatic stress, family and relationship concerns, factors that enhance resilience, suicide prevention, and available resources for behavioral health treatment.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:48:49 EST 2018

Committee Statement

Committee The committee is adding this new text as it addresses a gap in the document that was not

Statement: addressed in the current edition.

Response Message:

Public Input No. 47-NFPA 1500-2018 [New Section after 5.1.4]



First Revision No. 30-NFPA 1500-2018 [Section No. 6.1.3]

6.1.3

All new wildland fire apparatus shall be specified and ordered to meet the requirements of NFPA 1906 with the exception of Section 14.4 .

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 12:23:02 EST 2018

Committee Statement

Committee This change was made as the section in 1906 no longer exists due to a TIA that removed

Statement: that material from 1906.

Response Message:



First Revision No. 68-NFPA 1500-2018 [New Section after 6.1.4]

6.1.5

Fire departments that provide EMS shall use a power lift assist stretcher for the loading of patients into an automotive ambulance.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 22 11:38:00 EST 2018

Committee Statement

Committee Statement:

Each year thousands of fire service personnel suffer significant repetitive motion injuries to spines, discs, shoulders, and knees due to lifting patients from a low position to an elevated position, and

then loading the stretcher into the ambulance. Systems exist that can prevent these injuries, and

the cost of those systems is less than the loss from one injury.

Response Message:

Public Input No. 22-NFPA 1500-2018 [New Section after 6.1.9]



First Revision No. 19-NFPA 1500-2018 [Section No. 6.1.6]

6.1.7*

Where tools, equipment, or respiratory protection are carried within enclosed seating areas of fire apparatus or the patient compartment of an ambulance, such items shall be secured by either a positive mechanical means of holding the item in its stowed position or by placement in a compartment with a positive latching door in accordance with NFPA 1901, NFPA 1906, and NFPA 1917.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 16:30:31 EST 2018

Committee Statement

Committee Statement: This change was made to ensure the correct documents were referenced.

Response Message:

First Revision No. 20-NFPA 1500-2018 [New Section after 6.1.9]

<u>6.1.</u>11

Each person climbing the ladder on the aerial apparatus shall use a ladder belt and tether that meets the requirements of NFPA 1983 .

<u>6.1.11.1</u>

Each aerial apparatus shall carry correctly sized ladder belts and tethers to accommodate all members authorized to climb the ladder or ride in the platform of the apparatus.

6.1.11.2

Persons working on a ladder shall be anchored to a structural feature of the ladder or platform when one of the following occurs:

- (1) The device is in motion.
- (2) They are not actively entering or exiting the platform.
- (3) They are not actively climbing or descending the ladder.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 17:31:26 EST 2018

Committee Statement

Committee The committee has added this new text to ensure the safety of those that operate on aerial

Statement: apparatus

Response Message:



First Revision No. 69-NFPA 1500-2018 [New Section after 6.1.9]

6.1.12*

The fire department shall ensure that all contaminated PPE and contaminated fire-fighting equipment are decontaminated according to manufacturer's specifications on the scene upon the termination of the incident, or that all contaminated PPE and contaminated fire-fighting equipment are taken out of service and decontaminated according to manufacturer's specifications in a controlled environment.

A.6.1.12

Prolonged incidents such as wildland fire-fighting operations, widespread natural disasters, acts of terrorism, or other occurrences in which emergency operations are segmented into extended work periods might not be conducive to the decontamination of equipment or personnel when moving from one geographic location to another during the course of the work period. In such instances, the fire department should make every reasonable effort to decontaminate personnel and equipment at regular intervals or during rehabilitation periods. All personnel and PPE should be decontaminated at the end of every work period before being released from emergency operations.

In jurisdictions where mutual aide is not readily available, or where call volume is high, call concurrency could inhibit thorough decontamination upon termination of the initial incident. In such instances, the fire department shall ensure that all personnel, contaminated PPE, contaminated fire-fighting equipment, and any area of the fire apparatus or automotive ambulance that is exposed to contaminants are taken out of service following the completion of the concurrent incidents and decontaminated prior to being returned to service.

6.1.12.1

The fire department shall ensure that contaminated PPE and contaminated fire-fighting equipment will not be transported in the enclosed seating area of the fire apparatus or patient compartment of the automotive ambulance unless sealed in a puncture-resistant container and secured in accordance with 6.1.6.

6.1.12.2

If the enclosed seating area of the fire apparatus, patient compartment of the automotive ambulance, or exterior compartments of the fire apparatus or automotive ambulance are exposed to contaminants during an incident, those areas shall be decontaminated upon completion of the incident and prior to being placed back in service.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 22 11:44:33 EST 2018

Committee Statement

CommitteeThe committee has added this new text and annex material to ensure that contaminated PPE **Statement:**and fire fighting equipment is not in areas where fire fighters could be continuously exposed to

the off leading equipment is not in dreas where the lighters could be continuously exposed to

harmful contaminants.

Response Message:

Public Input No. 21-NFPA 1500-2018 [New Section after 6.1.9]

Public Input No. 29-NFPA 1500-2018 [New Section after 6.4.4]

Public Input No. 31-NFPA 1500-2018 [New Section after 7.20.6]



First Revision No. 70-NFPA 1500-2018 [New Section after 6.1.9]

6.1.13

Fire departments shall ensure that when operating at emergency incidents, engine exhaust is directed away from members operating at the incident.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 22 11:58:23 EST 2018

Committee Statement

Statement:

Committee At emergency incidents, particularly prolonged incidents, diesel exhaust that exits the apparatus from a ground level tail pipe exposes personnel to all of the harmful contaminants within that exhaust. Technology exists that allows that exhaust to be diverted away from personnel operating at

an incident, either by directing it upward or to the "street side" of the incident. This will reduce

personnel exposure to the carcinogenic substances in diesel exhaust.

Response Message:

Public Input No. 25-NFPA 1500-2018 [New Section after 6.1.9]

4/19/2018, 12:48 PM 34 of 148

First Revision No. 23-NFPA 1500-2018 [Section No. 6.2.1.2]

6.2.1.2

The AHJ shall establish the maximum speed that the apparatus shall operate at and post that speed on a placard mounted on the dash within view of the driver, stating "Maximum apparatus speed warning: Do "Do not exceed max speed of XX mph."

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 19:40:31 EST 2018

Committee Statement

CommitteeThe committee has made this change recognizing that there are too many words to make a **Statement:**feasible dashboard label. Trying to condense the wording while still getting the message to

apparatus operators.

Response Message:

Public Input No. 10-NFPA 1500-2017 [Section No. 6.2.1.2]



First Revision No. 24-NFPA 1500-2018 [New Section after 6.5.14]

6.5.15

All fire hose deployed during fire suppression operations that are exposed to contaminants shall be decontaminated in accordance with NFPA 1962 and the manufacturer's recommendations prior to being returned to service.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 19:43:34 EST 2018

Committee Statement

Committee Aside from PPE, of the equipment regularly used in fire suppression activities, fire hose represents

Statement: the greatest source of contamination. It routinely sits in standing water contaminated with all

varieties of products of combustion. It is routinely handled prior to being cleaned by personnel without PPE. And, it is routinely loaded without being decontaminated. This change will establish

guidelines to reduce the exposures by member to fire ground contaminants.

Response Message:

Public Input No. 30-NFPA 1500-2018 [New Section after 6.5.14]

First Revision No. 79-NFPA 1500-2018 [Section No. 7.1.2.1]

7.1.2.1*

The fire department shall provide appropriately <u>correctly</u> sized <u>and fitted</u> body armor to personnel who respond and are exposed to risks during civil unrest, active shooter incidents, or similar events where there are reasonably foreseen threats.

A.7.1.2.1

Body armor designed to be worn over the uniform generally comes with adjustable straps, and can generally be properly fitted using those straps and picking the proper size. Body armor designed to be worn under the uniform is much more customized, and needs to be fitted to the individual. Fire departments need to ensure that if they are going to deploy personnel using over-the-uniform body armor, there are sufficient sizes to meet the individual needs of the members; if they are going to deploy personnel using under-the-uniform body armor, each member is custom fitted with that armor.

7.1.2.1.1*

Body armor provided shall be, at a minimum, a Level Type IIIA ballistic vest as defined by the National Institute of Justice (NIJ) Standard 0101.06, Ballistic Resistance of Body Armor.

A.7.1.2.1.1

The NIJ establishes minimum performance standards for body armor and administers a program to test armor for compliance. Level Type IIIA ballistic panels provide ballistic penetration protection for most all standard handgun and shotgun ammunition. Also known as "soft armor" due to their ability to shape and mold to the body, these ballistic panels are constructed of Kevlar® laminate and can be easily removed for cleaning. The front and back ballistic panels are designed for a specific location, which is marked on the panel; the side ballistic panels are interchangeable.

A Type IV hard armor or plate insert will be tested by the manufacturer in accordance with this standard and found compliant as a stand-alone armor at its specified threat level. NIJ-approved hard armors and plate inserts must be clearly labeled as providing ballistic protection only when worn in conjunction with the NIJ-approved flexible armor system with which they were tested.

RTFs Rescue task forces are deployed with law enforcement personnel to provide point-of-wound care to victims where there is an ongoing but indirect ballistic or explosive threat. Indirect threat care is rendered once the casualty is no longer under fire (i.e., in the warm zone).

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Wed Jan 24 11:15:25 EST 2018

Committee Statement

Committee Statement: The committee has made these changes based upon the submission of PI 13 and PI 14. **Response Message:**

Public Input No. 14-NFPA 1500-2018 [Section No. 7.1.2.1.1]

Public Input No. 13-NFPA 1500-2018 [Section No. 7.1.2.1 [Excluding any Sub-Sections]]

Public Input No. 16-NFPA 1500-2018 [Section No. A.7.1.2.1.1]

First Revision No. 12-NFPA 1500-2018 [Section No. 7.1.2.2]

7.1.2.2

In addition to the requirements in 7.1.2.1, personnel assigned to a rescue task force (RTF) deployed during events as described in 7.1.2.1 shall be equipped at a minimum with the following:

- (1) A Level IIA The vest as set forth in 7.1.2.1 outfitted with Type IV plate inserts
- (2) A Type II ballistic helmet (NIJ Standard 0106.01 for Ballistic Helmets)
- (3) A flashlight
- (4) Medical exam gloves
- (5) A radio with remote microphone and earpiece for communication
- (6) An individual first aid kit that includes a tourniquet

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 13:18:44 EST 2018

Committee Statement

Committee Statement:

Type II helmets provide greater protection to personnel from rifle rounds. Members on a RTF should be outfitted at a minimum with an individual first aid kit for self care in the event of a

hostile situation.

Response Message:

Public Input No. 15-NFPA 1500-2018 [Section No. 7.1.2.2]



First Revision No. 67-NFPA 1500-2018 [Section No. 7.1.6.1]

7.1.6.1

Where such cleaning is conducted in fire stations, the fire department shall provide at least one NFPA 1581 NFPA 1851 —compliant washing machine for this purpose in the designated cleaning area specified in NFPA 1581.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 22 11:30:23 EST 2018

Committee Statement

Committee The committee has made this change to correct the referenced document as it is currently

Statement: incorrect.

Response Message:



First Revision No. 13-NFPA 1500-2018 [New Section after 7.2.1]

7.2.1.1

The member shall be provided with correctly sized and fitted protective clothing in accordance with manufacturer's recommendations.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 13:39:28 EST 2018

Committee Statement

Committee Statement: This has been added to ensure correctly fitted PPE

Response Message:

Public Input No. 50-NFPA 1500-2018 [New Section after 7.2.1]

First Revision No. 14-NFPA 1500-2018 [New Section after 7.4.4.2]

7.5 Protective Clothing and Equipment for Fire Inspections.

<u>7.5.1</u>

The fire department shall conduct a risk assessment of all fire inspection activities.

7.5.2

The fire department shall develop standard operating procedures (SOPs) outlining the minimum required levels of protection.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 13:45:31 EST 2018

Committee Statement

Committee The committee understand what the submitter was attempting to accomplish with the submitted

Statement: PI, however they believe this text meets the submitters intent.

Response Message:

Public Input No. 2-NFPA 1500-2017 [New Section after 7.4.4.2]



First Revision No. 104-NFPA 1500-2018 [Section No. 7.5.1.4]

7.6.1.4

Vapor-protective ensembles certified to the 2005 2016 edition of NFPA 1991 shall be permitted to be used for protection from chemical agents, biological agents, and radioactive particulate encountered during terrorism incidents.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:00:53 EST 2018

Committee Statement

Committee The committee has made this change due to the fact that any garment that had met the 2005

Statement: edition of 1991 would have to be retired in 2015.

Response Message:

r	-	
ı	.0.	l es.
ı	***	FIL
	.47	

First Revision No. 44-NFPA 1500-2018 [New Section after 7.7.3]

<u>7.8.4*</u>

The fire department shall ensure that personnel engaged in wildland fire-fighting operations have continuous access to potable water.

A.7.8.4

Wildfires can last hours, days, or weeks, depending on their severity. As a result, fire fighters can be required to work long shifts (i.e., 12 to 24 hours or more) over consecutive days or weeks, while performing a range of physically demanding tasks. Many of these tasks involve the presence of a live fire in wildfire suppression/urban interface fire-fighting, and some are performed away from the fire such as during preparation for, or "mopping up" after, a fire event. In addition to the physical demand imposed by fire-fighting, fire fighters frequently perform their duties under a range of extreme environmental conditions.

Given this combination of long hours, extreme environmental conditions, and physically demanding work, it is important for policy makers in the fire service to understand the impact of performing consecutive work shifts in the heat. If fire fighters cannot sustain their work performance over multiple work days, it can have negative implications for the fire suppression effort. Slowed productivity can result in an increase in the time taken to control a wildfire, which could ultimately place fire fighters, civilians, and civilians' property at undue risk. Most importantly, understanding the physiological and subjective responses to such work is important for fire service in preserving the health and safety of their personnel. This is particularly important, since it appears that fire fighters might have a propensity toward baseline dehydration. There is a strong imperative to encourage proper hydration before being on duty at an incident. Fire fighters also need to be able to better assess and maintain a safe hydration level while on duty, particularly during an extended attack or extreme heat days. This is especially important given the relationship between hydration levels, core temperature, and heart rate. As a person becomes dehydrated, their blood becomes thicker and causes the heart to work harder. This can lead to elevated maximum heart rate, core temperatures, and a myriad of other issues that can significantly diminish a fire fighter's health and safety.

We know from studies that one third of fire fighters routinely arrive for duty in some state of dehydration. The following strategies can be used to maintain proper hydration:

- (1) Before work Drink 1 to 2 cups of juice or water. Eat small amounts of salty foods to stimulate thirst.
- (2) <u>During work Take several fluid breaks per hour, drinking at least 1 quart of fluid during each hour of hard work in the heat. Fire fighters should drink as much as possible during their lunch break. Water is the body's greatest need during work in the heat. Studies show that workers drink more when lightly flavored beverages are available. Providing a portion of fluid replacement with sports drinks will help fire fighters retain fluids and maintain energy and electrolyte levels. The carbohydrate in sports drinks also helps to maintain immune function and mental performance. The sodium in sports drinks reduces urinary water loss.</u>
- (3) After work Continue drinking to replace lost fluid. The amount of thirst does not indicate the amount of fluids needed for rehydration, so fire fighters should drink more than they think they need. Rehydration is enhanced when fluids or foods contain sodium and potassium, electrolytes that replace those lost through sweat. Sodium also stimulates thirst. Including some protein can help muscles recover from hard work.

Fire fighters can burn as many calories as triathletes; therefore, proper nutrition is vital for mental acuity, immune functions, and energy.

Shift food, which is intermittent feeding throughout the day, maintains blood glucose and work output. Proteins such as meat, milk, and beans, and fats in nuts, meat, and dairy are essential to building muscle. In addition, adequate carbohydrate intake is critical to maintain energy and also helps to improve decision making.

According to NFPA 1584, the following products should be avoided:

- (1) Caffeine It acts as a diuretic and causes a loss of fluids.
- (2) Energy drinks They contain high amounts of caffeine and sugar.
- (3) Tobacco
- (4) Alcohol
- (5) Creatine and creatine supplement

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 14:57:14 EST 2018

Committee Statement

Committee NFPA 1500 1.1 Scope. states that this standard shall contain minimum requirements for a fire **Statement:** service—related occupational safety, health, and wellness program. The addition to section 7.7

Protective Clothing and Equipment for Wildland Fire Fighting will require each fire fighter to carry drinking water and the annex material provides insight on why it is a requirement to maintain proper

hydration and the possible issues.

Response Message:

Public Input No. 51-NFPA 1500-2018 [New Section after 7.7.3]



First Revision No. 16-NFPA 1500-2018 [New Section after 7.9.4]

7.11 Protective Clothing for Fire Investigators.

<u>7.11.1</u>

The fire department shall conduct a risk assessment of all fire investigation activities.

7.11.2

The fire department shall develop SOPs outlining the minimum required levels of protection based on the timeline and type of activities that are occurring on the fireground.

7.11.3

When exposed to chemicals or particulates at the fire investigation scene, outer layer garments shall be doffed at the fire investigation scene.

<u>7.11.4</u>

Outer layer garments shall be discarded or cleaned in accordance with 7.1.6.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 14:20:25 EST 2018

Committee Statement

Committee Statement:

The committee has added this text based on the submission of PI 34. The committee realizes what what the submitter what looking to accomplish with PI 34 however they believe the text they have developed is appropriate with the hopes that there will be submission of comments for this

FR.

Response Message:

Public Input No. 34-NFPA 1500-2018 [New Section after 7.9.4]

First Revision No. 95-NFPA 1500-2018 [Section No. 7.10.9]

7.12.9

Respiratory protection for any entry into the post-fire environment before or after overhaul shall be at least a fitted full-face air-purifying respirator (APR) with protection against fireground toxic contaminants when used in compliance with 14.5.2.1.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:51:01 EST 2018

Committee Statement

Committee Statement: This change was made for document consistency.

Response Message:



First Revision No. 105-NFPA 1500-2018 [Section No. 7.15.3]

7.17.3

SCBA cylinders used for structural fire fighting shall have a minimum gas capacity of $\frac{1699 \text{ L}}{1699 \text{ L}}$ of air.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:06:06 EST 2018

Committee Statement

Committee Statement: This change was made in order to comply with the NFPA MOS.

Response Message:



First Revision No. 106-NFPA 1500-2018 [Section No. 7.15.10.1]

7.17.10.1

An EEBSS shall not be initiated if the "donors" "donor" cylinder has less than 600 ± 21.18 ft $\frac{3}{4}$ (600 L) of air remaining.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:07:56 EST 2018

Committee Statement

Committee Statement: The committee has made this change in order to comply with the NFPA MOS.

Response Message:



First Revision No. 115-NFPA 1500-2018 [Section No. 7.15.12]

7.17.12*

Standardized IDLH exiting shall require that an exit strategy will be practiced when the SCBA cylinder reaches a level of 600 ± 21.18 ft $\frac{3}{100}$ (600 L) or more.

A.7.17.12

Table A.7.17.12 shows the approximate pressures associated with the 600 L $\underline{21.18~\text{ft}}$ $\underline{^3}$ $\underline{(600~\text{L})}$ minimums when exiting procedures should have already begun to take place.

Table A.7.17.12 Pressure Associated with 600 L 21.18 ft 3 (600 L) Minimum Exit Volume

	<u>2216 psi</u>	3000 psi	4500 psi
30 minute/ 1200 L <u>42.37 ft</u>	1100 psi	NA	2250 psi
30 minute/ 1700 L <u>60.03 ft</u>	NA	1050 psi	NA
45 minute/1 800 L <u>64 ft ³ (1800 L)</u>	750 psi	NA	1500 psi
60 minute/ 2400 L <u>85 ft</u> <u>3 (2400 L)</u>	550 psi	NA	1100 psi

NA: Not applicable.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:51:19 EST 2018

Committee Statement

Committee Statement: The changes were made in order to comply with the NFPA MOS.

Response Message:



First Revision No. 97-NFPA 1500-2018 [Section No. 7.16.2]

7.18.2*

Each member shall be provided with, use, and activate his or her PASS devices in all emergency situations that could jeopardize that person's safety due to atmospheres that could be IDLH, in incidents that could result in entrapment, in structural collapse of any type, or as directed by the incident commander or incident safety officer.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:56:05 EST 2018

Committee Statement

Committee Statement: The committee has made this change for project consistency.

Response Message:

First Revision No. 75-NFPA 1500-2018 [Section No. 8.1.6]

8.1.6

As incidents escalate in size and complexity, the incident commander shall divide the incident into tactical-level management components $\underline{\text{divisions or groups}}$ and assign an incident $\underline{\text{a}}$ safety officer to assess the incident scene for hazards or potential hazards.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 23 14:52:43 EST 2018

Committee Statement

Committee Statement: The committee has made these changes for document and project consistency.

Response Message:



First Revision No. 25-NFPA 1500-2018 [Section No. 8.1.8 [Excluding any Sub-Sections]

At an emergency incident, the incident commander shall have the responsibility for the following:

- (1) Arrive on-scene on scene before assuming command
- (2) Assume and confirm command of an incident and take an effective command position
- (3) Perform situation evaluation that includes risk assessment
- (4) Initiate, maintain, and control incident communications
- (5) Develop an overall strategy and an incident action plan and assign companies and members consistent with the standard operating procedures
- (6) Initiate an accountability and inventory worksheet and maintain a tactical worksheet or system, which maintains resource and personnel accountability and functions as the initial incident plan
- (7) Assign or assume responsibility of the safety officer in accordance with NFPA 1561
- (8) Develop an effective incident organization by managing resources, maintaining an effective span of control, and maintaining direct supervision over the entire incident, and designate supervisors in charge of specific areas or functions
- (9) Review, evaluate, and revise the incident action plan as required
- (10) Continue, transfer, and terminate command
- (11) On incidents under the command authority of the fire department, provide for liaison and coordination with all other cooperating agencies
- (12) On incidents where other agencies have jurisdiction, implement a plan that designates one incident commander or that provides for unified command
- (13) Determine the need for, and appoint a safety officer in accordance with NFPA 1561, 5.9.6

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 19:57:57 EST 2018

Committee Statement

Committee Statement: The committee has made this change based on PI 27 and PI 33.

Response Message:

Public Input No. 27-NFPA 1500-2018 [Section No. 8.1.8 [Excluding any Sub-Sections]]
Public Input No. 33-NFPA 1500-2018 [Section No. 8.1.8 [Excluding any Sub-Sections]]

First Revision No. 43-NFPA 1500-2018 [New Section after 8.1.8.1]

8.1.9

The responsibilities of a safety officer, which shall apply to any incident, include the following:

- (1) Communicate to the incident commander changing incident conditions, activities, operations, hazards, and unacceptable risk-taking circumstances that warrant a change in the incident action plan.
- (2) Exercise emergency authority to stop, alter, or suspend activities that are judged to present an imminent threat to responder safety.
- (3) Establish emergency incident hazard control zones, including collapse zones, based on current and changing fire conditions, building construction/structural factors, hazardous energy integrity, and incident operational effectiveness.
- (4) Communicate emergency incident hazard control zones to the incident commander and responders in accordance with Section 8.7 .
- (5) Ensure that members operating in IDLH environments have adequate means of rapid egress.
- (6) Ensure that personnel safety systems have been established including required PPE levels, "mayday" rapid intervention crew(s), and a personal accountability system that is in accordance with NFPA 1561, Section 8.5.
- (7) Monitor radio traffic so that barriers to effective communications are corrected.
- (8) Ensure that effective responder rehabilitation efforts have been established in accordance with NFPA 1584.
- (9) Communicate to the incident commander the need for assistant safety officers.
- (10) <u>Develop preventive measures for incident commander consideration to further reduce responder exposure to hazards.</u>
- (11) Ensure that contaminated personnel, tools, hose, equipment, and PPE are processed in accordance with contamination-reduction SOPs prior to being returned to service.
- (12) Begin investigation procedures for accidents that have occurred within the incident area.
- (13) Document safety officer actions, interventions, and post-incident follow-up needs.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 14:05:34 EST 2018

Committee Statement

Committee The committee has added this new text in order to provide a clarification as to what the

Statement: specific roles of the safety officer are.

Response Message:

Public Input No. 28-NFPA 1500-2018 [New Section after 8.1.8.1]

First Revision No. 98-NFPA 1500-2018 [Section No. 8.4.5]

8.4.5*

At significant incidents and special operations incidents, the incident commander shall assign an incident \underline{a} safety officer who has the expertise to evaluate hazards and provide direction with respect to the overall safety of personnel.

A.8.4.5

An incident \underline{A} safety officer should be established at all major incidents and at any high-risk incidents. The incident safety officer should be assigned to operate under the incident commander. Depending on the specific situation, this assignment could require one or more members. If the fire department's safety officer is not available or does not have the expertise necessary for the incident, the incident commander should assign one or more members that have the expertise to assume this responsibility. All members should be familiar with the basic duties and responsibilities of an incident \underline{a} safety officer.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:58:13 EST 2018

Committee Statement

Committee Statement: The committee has made this change for project consistency.

Response Message:



First Revision No. 76-NFPA 1500-2018 [Section No. 8.5.5]

8.5.5

Officers assigned the responsibility for a specific tactical level management component division or group at an incident shall directly supervise and account for the companies and/or crews operating in their specific area of responsibility.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 23 14:54:04 EST 2018

Committee Statement

Committee Statement: The committee has made this change for document and project consistency.

Response Message:



First Revision No. 77-NFPA 1500-2018 [Section No. 8.5.12]

8.5.12

The incident commander and members who are assigned a supervisory responsibility for a tactical level management component division or group that involves multiple companies or crews under their command shall have assigned a member(s) to facilitate the ongoing tracking and accountability of assigned companies and crews.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 23 14:55:15 EST 2018

Committee Statement

Committee Statement: The committee has made these changes for document and project consistency.

Response Message:

First Revision No. 122-NFPA 1500-2018 [Section No. 8.6.9 [Excluding any Sub-

Sections]]

When members are operating at a structure fire or performing special operations, the highest available level of emergency medical care shall be standing by at the scene with medical equipment and transportation capabilities.—Basic life support (BLS) shall be the minimum level of emergency medical care.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Wed Apr 11 12:50:24 EDT 2018

Committee Statement

Committee Statement: This text is being deleted as it has been moved to section 8.6.9.1

Response Message:



First Revision No. 26-NFPA 1500-2018 [New Section after 8.6.15.9.8]

8.6.16

<u>Fire departments shall develop an SOP for operations during a wildland fire in accordance with NFPA 1143</u>.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 20:29:45 EST 2018

Committee Statement

Committee Statement:

Chapter 8 is Emergency Operations, and NFPA 1500 speaks to wildland fire-fighting but does not address to the needed requirements for fire service—related occupational safety dealing with

wildland firefighting operations. This addition focuses on the requirements that wildland emergency

operations use NFPA 1143.

Response Message:

Public Input No. 52-NFPA 1500-2018 [New Section after 8.6.15.9.8]

First Revision No. 27-NFPA 1500-2018 [Section No. 8.7]

8.7 Emergency Incident Hazard Control Zones.

8.7.1

Hazard Emergency incident hazard control zones shall be established at every emergency incident to identify the level of risk to emergency responders and the appropriate level of PPE.

8.7.2

The perimeters of the <u>emergency incident</u> hazard control zones shall be designated by the incident commander.

8.7.3

If the perimeters change during the course of the incident, these changes shall be communicated to all members on the scene.

8.7.4*

Hazard Emergency incident hazard control zones shall be as follows:

- (1) Designated as no-entry, hot, warm, and cold (similar to hazardous materials incidents)
- (2) Marked with the applicable colored hazard tape, signage, or other appropriate means wherever possible
- (3) Communicated to all personnel attending the incident prior to being assigned to a hazard zone

A.8.7.4

Figure A.8.7.4 shows the concept of <u>emergency incident</u> hazard control zones. The hot zone is the area presenting the greatest risks to members and will often be classified as an IDLH atmosphere. The hot zone can include no-entry zones. Examples of no-entry zones could be holes in floors, explosive devices, crime scenes, and so forth.

The warm zone is a limited-access area for members directly aiding or in support of operations in the hot zone. Significant risk of human injury (respiratory, exposures, etc.) can still exist in the warm zone.

The cold zone establishes the public exclusion or clean zone. There are minimal risks for human injury and/or exposure in this zone.

It might not always be possible or practical to mark the <u>emergency incident</u> hazard control zones with colored tape, signage, or other appropriate means, depending on the nature or location of the incident, available resources, and so forth. If possible, these <u>emergency incident</u> hazard control zones should be clearly marked. Other means of marking <u>emergency incident</u> hazard control zones can include flashing beacons, streets, fences, and so forth. It is essential that the perimeters of these zones are communicated to all members at the incident and that they are aware of these zones and their implications.

When colored tape is being used to mark control zones, it is recommended that the following tape colors be used:

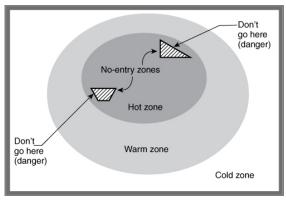
(1) No-entry zone: red/white chevron

(2) Hot zone: red

(3) Warm zone: yellow

(4) Cold zone: green

Figure A.8.7.4 Example of Control Zones.



8.7.4.1*

Hot zone (red tape) is the area presenting the greatest risks to members, will often be classified as an IDLH atmosphere, and presents the highest risk of human injury and/or exposure; therefore all members shall wear all of the PPE appropriate for the risks that might be encountered while in the hot zone.

A.8.7.4.1

A hot zone can include the area where exterior fire control activities are taking place. A hot zone can also include a no-entry zone (marked with red and white chevron tape or other means). No personnel should enter the no-entry zone due to imminent hazard(s) or the need to protect evidence. Examples of no-entry zones could be holes in floors, explosive devices, crime scenes, and so forth. Examples of the PPE are SCBA, flash hood, and so forth.

8.7.4.1.1*

All members operating within the hot zone shall have an assigned task.

8.7.4.2*

Warm zone (yellow tape) shall serve as a limited access area for members directly aiding or in support of operations in the hot zone where significant risk of human injury can still exist.

8.7.4.3

Cold zone (green tape) shall establish the public exclusion or clean zone where there are minimal risks for human injury or exposure, or both, in this zone.

8.7.4.4

No-entry zone (red/white chevron tape) is the area at an incident scene that no person(s) shall be permitted to enter due to imminent hazard(s), dangerous conditions, or the need to protect evidence.

8.7.4.4.1*

Where a no-entry zone is designated, no personnel shall enter regardless of PPE.

A.8.7.4.4.1

Any emergency incident hazard control zone can include a no-entry zone.

8.7.4.4.2*

Where red/white chevron tape is not readily available, no-entry zones shall be marked using three horizontal strands of yellow barrier tape, spaced 18 to 24 in. (46 to 61 cm) (460 to 610 mm) apart and securely fixed to stationary supports.

A.8.7.4.4.2

The intent of arranging three horizontal strands of yellow barrier tape spaced 18 to 24 in. (46-to 61-cm) (460 to 610 mm) apart and securely fixed to supports is to create a "picket fence" visual appearance to better warn members of the no-entry zone.

8.7.4.4.3*

No-entry zones shall be illuminated to enhance nighttime visibility.

8.7.4.4.4

Where the threat of a building collapse exists, a collapse zone shall be established.

8.7.4.4.4.1

A collapse zone shall be a No Entry Zone.

8.7.4.4.4.2*

Collapse zones shall be established around the perimeter of the building at a distance that is equal to a minimum of 1.5 times the height of the building.

8.7.5

The incident commander shall ensure that the designation of the appropriate <u>correct</u> protective clothing and equipment is commensurate with the hazard in the zone the member will be operating in.

876

All officers and members shall ensure the appropriate correct use of personnel protective equipment PPE within that zone.

8.7.7

The process of utilizing <u>emergency incident</u> hazard control zones shall continue until the incident hazards have been mitigated or the incident is over.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Consmitted Statement

City:Committee

These changes were made in order to differentiate between contamination control zones as

Statement: well as in order to comply with the NFPA MOS.

Resiponse

Mon Jan 15 20:32:02 EST 2018

Public Input No. 53-NFPA 1500-2018 [Section No. 8.7]

Public Input No. 54-NFPA 1500-2018 [Section No. A.8.7.4.1]



First Revision No. 108-NFPA 1500-2018 [Section No. 8.8.5.2]

8.8.5.2

The breathing air source shall have no less than 4200 ± 42.37 ft $\frac{3}{2}$ (1200 L) of breathing air before entering the hazard area.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:22:19 EST 2018

Committee Statement

Committee Statement: This change was made in order to comply with the NFPA MOS.

Response Message:



First Revision No. 28-NFPA 1500-2018 [New Section after 8.9.1.1]

8.9.2

Gross decontamination of PPE shall be performed prior to demobilization.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 20:40:05 EST 2018

Committee Statement

Committee NFPA 1854 Standard on Rehabilitation Process for Members During Emergency Operations and

Statement: Training Exercises does not place any requirements to perform any exposure reduction prior to

entering the rehabilitation area. By adding this addition to NFPA 1500 it will provide needed

direction to provide preliminary contamination control.

Response Message:

Public Input No. 55-NFPA 1500-2018 [New Section after 8.9.1.1]



First Revision No. 29-NFPA 1500-2018 [New Section after 8.9.1.1]

8.9.3

The rehabilitation process shall include on-scene personal hygiene immediately following the removal of PPE.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 15 20:42:12 EST 2018

Committee Statement

Committee The committee has added this as they believe that personal hygiene should be addressed

Statement: as part of the rehab process

Response Message:

Public Input No. 56-NFPA 1500-2018 [New Section after 8.9.1.1]



First Revision No. 110-NFPA 1500-2018 [Section No. 8.10.2]

8.10.2

Under no circumstances shall fire department equipment or personnel be used for crowd control or dispersement dispersion purposes.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:33:11 EST 2018

Committee Statement

Committee Statement: The committee has made this change based on the incorrect word choice.

Response Message:

First Revision No. 109-NFPA 1500-2018 [Section No. 8.10.11]

8.10.11

At civil disturbances or similar incidents where protective equipment generally considered as law enforcement–related, such as body armor, is in use, that protective equipment shall be utilized only by members who are trained and qualified to use such equipment.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:26:14 EST 2018

Committee Statement

Committee Statement: The committee has made this change for grammatical purposes.

Response Message:



First Revision No. 99-NFPA 1500-2018 [Section No. 8.11.2]

8.11.2

The fire department incident-safety officer shall be involved in the post-incident analysis as defined in NFPA 1521.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 17:00:09 EST 2018

Committee Statement

Committee Statement: The committee has made this change for project consistency.

Response Message:



First Revision No. 80-NFPA 1500-2018 [Section No. 9.4.3.1]

9.4.3.1

Ambulances shall be positioned in a safe-location to allow patient loading away from traffic.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Wed Jan 24 11:59:48 EST 2018

Committee Statement

Committee Statement: This change was editorial in nature.

Response Message:

First Revision No. 111-NFPA 1500-2018 [Section No. 9.4.5]

9.4.5*

The following warning devices shall be used to warn oncoming traffic of the emergency operations and the hazards to member(s) operating at the incident:

- (1) A minimum of 5 (five) 28 in. or greater (71 cm 710 mm or greater) fluorescent orange traffic cones with double reflective markings that are compliant with the *MUTCD*
- (2) Retro-reflective warning signs compliant with the MUTCD

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:35:12 EST 2018

Committee Statement

Committee Statement: This change was made in order to comply with the NFPA MOS.

Response Message:

First Revision No. 81-NFPA 1500-2018 [Section No. 9.4.6]

9.4.6

Warning devices shall be placed and utilized with proper considerations given to visual obstruction such as hills, curves, blind spots, or unusual localized weather conditions such as fog or rain.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Wed Jan 24 12:02:18 EST 2018

Committee Statement

Committee This change was editorial in nature due to the use of a "vague" work as per the NFPA

Statement: MOS

Response Message:



First Revision No. 31-NFPA 1500-2018 [New Section after 10.1.3.5]

10.1.3.6

Cooking equipment in fire department buildings shall comply with NFPA 96.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 12:30:04 EST 2018

Committee Statement

Committee There is a long history of cooking fires in fire stations due to cooking operations being interrupted by Statement: alarm incidents. Due to the amount and type of cooking in a fire stations, NFPA 96 applies to cooking appliances in fire stations. However, NFPA 96 does not callout specific types of occupancies where NFPA 96 is applicable. These can create a doubt in the mind of some if NFPA 96 applies to this application. Therefore, providing this provision in NFPA 1500 will address one of the major fire hazards in a fire station, ensure property and lives are protected from this hazard and bring clarity to the application of NFPA 96 in this particular use.

Response Message:

Public Input No. 7-NFPA 1500-2017 [New Section after 10.1.3.5]

First Revision No. 113-NFPA 1500-2018 [Section No. 10.1.4]

10.1.4

New buildings housing emergency fire, rescue, or ambulance services shall be protected throughout by approved <u>supervised</u> automatic sprinkler systems. [1:13:3.2.3]

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:38:42 EST 2018

Committee Statement

Committee Statement: This change was made based on the source document.

Response Message:



First Revision No. 32-NFPA 1500-2018 [Section No. 10.1.5]

10.1.5*

The fire department shall prevent exposure to fire fighters and contamination of living and sleeping areas to from exhaust emissions through the use of direct or source capture systems .

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 12:38:25 EST 2018

Committee Statement

Committee Exhaust emissions are one of the most dangerous and frequent exposure sources in the fire Statement: department, and certainly one that can be limited and controlled better than a fire scene. According to a study conducted by the Air Resources Board of California, diesel exhaust and its particulate matter are carcinogenic. Fire fighters are subject to exposure on calls, running tests on the apparatus indoors, and in many other instances not pertaining to living and sleeping area. Fire departments should take actions to limit exposure at all times when reasonable, and affirmatively prevent all exposure and contamination in sleeping areas and living quarters.

Response Message:

Public Input No. 85-NFPA 1500-2018 [Section No. 10.1.5]

Public Input No. 11-NFPA 1500-2017 [Section No. 10.1.5]

4/19/2018, 12:48 PM 77 of 148



First Revision No. 33-NFPA 1500-2018 [Section No. 10.1.6]

10.1.6

Any components No component of the protective ensemble that are contaminated shall not be allowed in sleeping and living areas.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 12:41:58 EST 2018

Committee Statement

Committee Statement:

The committee has made this change as there is no good way to determine if a piece of PPE is or is not contaminated, once placed into service, no piece of PPE needs to be in the living or

sleeping areas.

Response Message:

Public Input No. 57-NFPA 1500-2018 [Section No. 10.1.6]

First Revision No. 35-NFPA 1500-2018 [Section No. 10.1.7]

10.1.7

All fire department facilities shall be designated smoke free <u>and tobacco free</u>, <u>which includes electronic delivery systems known as e-cigarettes</u>, e-cigars, e-hookahs, and e-pipes.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 12:45:44 EST 2018

Committee Statement

Committee The committee has added this text to ensure that other means of smoking and tobacco use

Statement: are prohibited.

Response Message:



First Revision No. 82-NFPA 1500-2018 [New Section after 10.2.3]

10.2.4

A copy of all required health and safety inspection reports shall be provided to the fire department health and safety officer.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Wed Jan 24 15:25:40 EST 2018

Committee Statement

Committee Statement:

While section 10.2 requires inspections, there is no accountability created for conveying the information gathered during the course of such inspections. The department Health and Safety

Officer should be actively engaged in ensuring the inspections are completed and the results of

such inspections are reviewed and escalated when necessary.

Response Message:

Public Input No. 6-NFPA 1500-2017 [New Section after 10.2.2]



First Revision No. 36-NFPA 1500-2018 [New Section after 10.3]

10.4 Station Alerting.

<u>10.4.1</u>

The fire station alerting system shall incorporate the following features:

(1)* Progressive alerting tones

A.10.4.1(1)

Such systems can be set automatically to activate louder during the day and quieter at night.

- (2) Pre-announcement of a call such as initial soft voice messaging
- (3) Where lighting is automatically activated by the alerting system, graduated fire station interior lighting to allow the eyes to adjust in the sleeping quarters, or be focused solely on pathways
- (4)* Zoned alerting if the station has more than one company housed in the facility

A.10.4.1(4)

This feature allows only members of the dispatched needed company to be alerted.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 13:02:14 EST 2018

Committee Statement

Committee Statement:

The committee has added this new text as it was not previously covered in previous editions

and is addressing a health and safety issue.

Response Message:



First Revision No. 37-NFPA 1500-2018 [New Section after 10.3]

10.5 Contamination Control Inside Facilities.

10.5.1

All fire stations shall have zones designated indicating the likelihood of contamination exposure.

10.5.2

Contamination control zones shall be designated as follows:

- (1) Red Spaces likely to be exposed to contaminants or carcinogens (hot zone)
- (2) Yellow Transition area between contaminated area and clean area (warm zone)
- (3) Green Clean areas such as living, kitchen, dormitory, and so forth (cold/clean zone)

10.5.2.1

The green zone shall be higher pressure than areas leading into it.

10.5.2.2

The transition area (yellow) shall include restroom and shower facilities.

10.5.3

The decontamination of contaminated PPE, contaminated clothing, and contaminated equipment decontamination areas shall take place in the red zone.

10.5.4

PPE and fire-fighting equipment that is stored in a firehouse when not in use shall be in an enclosed and ventilated locker or in an enclosed area off the apparatus floor that prevents exposure to contaminants or UV light.

<u>10.5.5*</u>

Ice machines shall not be located in red or yellow zones.

A.10.5.5

<u>Ice machines should not be exposed to residual diesel exhaust and off-gassing of contaminated equipment and PPE.</u>

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 13:10:11 EST 2018

Committee Statement

Committee The committee has added this new text to ensure the potential for exposure of fire fighters to **Statement:** contaminants is reduced or eliminated entirely and when PPE is not in use by on duty personnel is

regularly exposed to UV light, diesel exhaust, and other contaminants while stored commonly in open lockers in the engine bay. This leads to PPE degradation and personnel exposures to contamination.

Response Message:

Public Input No. 12-NFPA 1500-2018 [New Section after 7.1.3]



First Revision No. 38-NFPA 1500-2018 [Section No. 11.1.1]

11.1.1

Candidates shall be medically evaluated and qualified for duty by the fire department physician. <u>Fire</u> department candidates shall meet the medical requirements specified in NFPA 1582, Chapter 6.

11.1.2

Members of a fire department shall be evaluated as specified in NFPA 1582, Chapter 7 and meet the medical requirements specified in NFPA 1582, Chapter 9.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 13:11:48 EST 2018

Committee Statement

Committee This requirement is more appropriately tied to NFPA 1582 and also reduces confusion, which

Statement: is why the committee has made this change.

Response Message:

Public Input No. 59-NFPA 1500-2018 [New Section after 11.1.1]

Public Input No. 58-NFPA 1500-2018 [Section No. 11.1.1]



First Revision No. 83-NFPA 1500-2018 [Section No. 11.1.3]

11.1.4

Candidates and members of a fire department shall meet the medical requirements specified in NFPA 1582 -

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Wed Jan 24 15:34:44 EST 2018

Committee Statement

Committee The committee is deleting this text as it is already covered, as noted in FR 39, in the previous

Statement: section and is thus redundant.

Response Message:

First Revision No. 112-NFPA 1500-2018 [Section No. 11.4.1.1]

11.4.1.1

The individual health file shall be separate from the personal/human resources file and shall be maintained in accordance with the American Americans with Disabilities Act (ADA), the Fair Labor Standards Act (FMLA) (FLSA), and 29 CFR 1910.1020, "Toxic and Hazardous Substances."

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:36:55 EST 2018

Committee Statement

Committee Statement: This change was made in order to correct a reference.

Response Message:

First Revision No. 40-NFPA 1500-2018 [New Section after 12.1.1.1]

12.1.1.2

Behavioral health programs that include a peer support component shall ensure that peers are provided with the knowledge and skills to provide support, educate members about behavioral health, serve as a bridge to behavioral health programs and community resources, and build or enhance their peer support programs.

12.1.1.3

The fire department shall provide training to all peer support members on the following topics:

- (1) Active listening skills
- (2) Recognition of mental health and substance abuse problems impacting members
- (3) Crisis intervention
- (4) How to access referrals to local resources and develop relationships with local behavioral health providers
- (5) How to build an effective peer support program

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 13:28:04 EST 2018

Committee Statement

Committee Statement: These changes provide clarity to the requirement.

Response Message:

Public Input No. 63-NFPA 1500-2018 [New Section after 12.1.1.1]

First Revision No. 41-NFPA 1500-2018 [Section No. 12.1.1.1]

12.1.1.1

The behavioral health assistance- program shall <u>at a minimum</u> include the capability to provide <u>diagnostic</u> assessment, basic <u>short-term</u> counseling, and- crisis intervention, assistance for stress, alcohol and substance abuse, anxiety, depression, traumatic exposure, suicidality, and referral for the following <u>behavioral health</u> and personal problems that could adversely affect the member, as well as fire department work performance. <u>:</u>

- (1) Substance use disorder
- (2) Anxiety
- (3) Depression
- (4) Suicidality
- (5) Potentially traumatic events
- (6) Acute stress reactions
- (7) Grief
- (8) Financial problems
- (9) Relationship and/or family problems

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 13:32:22 EST 2018

Committee Statement

Committee Statement: The changes provide clarity for the requirements.

Response Message:

Public Input No. 62-NFPA 1500-2018 [Section No. 12.1.1.1]

NFPA

First Revision No. 71-NFPA 1500-2018 [New Section after 12.1.2.1]

12.1.2.2 Confidentiality of Behavioral Health Information.

12.1.2.2.1*

Specific information concerning behavioral health interactions shall be released by the fire department physician only with written permission from the candidate or member, and/or as required by law.

A.12.1.2.2.1

Confidentiality of all behavioral health data is critical to the success of the program. Members need to feel assured that the information provided to the clinicians and peer support personnel will not be inappropriately shared.

12.1.2.2.2

No fire department personnel, other than the behavioral health specialist or appropriate clinical staff, shall have access to a member's records without the express written consent of that member.

12.1.2.2.3

Behavioral health records shall include all written and oral communications, notes, and reports arising out of a peer support interaction.

12.1.2.2.4

Member records maintained as part of a behavioral health program shall not become part of a member's personnel file.

12.1.2.2.5

Member participation in a behavioral health program shall not become part of a member's personnel file.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Mon Jan 22 12:05:37 EST 2018

Committee Statement

Committee The committee has added this new text in order to address the confidentiality of behavioral

Statement: health information of fire department members.

Response Message:

Public Input No. 67-NFPA 1500-2018 [Section No. 12.1.2.2]

Public Input No. 66-NFPA 1500-2018 [Section No. 12.1.2.2]

Public Input No. 65-NFPA 1500-2018 [Section No. 12.1.2.1]

First Revision No. 116-NFPA 1500-2018 [Section No. 12.1.2.1]

12.1.2.1

The fire department shall adopt and follow clear written policies regarding alcoholism, substance abuse <u>use disorder</u>, and other behavioral conditions that can adversely affect performance or fitness for duty, or both.

12.1.2.1.1

When fitness for duty is in question, such fitness shall be evaluated and determined in accordance with Section 11.7.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Fri Feb 16 13:40:38 EST 2018

Committee Statement

Committee Statement: This change was made to reflect current terminology and accepted practice.

Response Message:



First Revision No. 45-NFPA 1500-2018 [New Section after 12.1.4]

12.1.5

Members shall be permitted to utilize accrued leave, including medical leave, or be assigned alternate duty where possible, to access behavioral health services.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 15:24:40 EST 2018

Committee Statement

Committee The committee has added this to ensure that members could seek the assistance needed

Statement: using time off.

Response Message:

Public Input No. 68-NFPA 1500-2018 [New Section after 12.1.4]



First Revision No. 84-NFPA 1500-2018 [New Section after 12.1.4]

12.1.6

A member who voluntarily seeks treatment for substance use or behavioral health problems, and who is compliant with the individual treatment and rehabilitation plan established by the behavioral health specialist and/or treating specialist(s), shall not be subject to discipline related to the disclosure.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 15:03:48 EST 2018

Committee Statement

Committee The committee has added this new text in order to be clear about fire department members

Statement: and what they disclose and potential discipline.

Response Message:

First Revision No. 85-NFPA 1500-2018 [Section No. 12.2.2]

12.2.2*

The wellness program shall, wherever possible, employ prevention strategies and programs supported by peer-reviewed, published research for which published empirical research supports their safety and efficacy.

12.2.3

The fire department shall develop a policy on the use of tobacco products for all members.

12.2.3.1

The fire department shall provide a smoking/tobacco use cessation program. to incumbent tobacco users that is nonpunitive and operates with short-term and long-term goals.

12.2.3.2

The fire department shall develop a policy that candidates be tobacco-free upon appointment and throughout their length of service to the department.

12.2.3.3

Members shall not use tobacco products inside the worksite, within or on fire department apparatus, or inside training facilities.

Supplemental Information

File Name

Description Approved

FR-85_12.2.2_Legislative_Changes.docx

For Staff Use

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 15:13:40 EST 2018

Committee Statement

Committee The committee has made these changes as they believe that the current requirements are

Statement: not encompassing enough as written.

Response Message:

Public Input No. 69-NFPA 1500-2018 [Section No. 12.2.2.1]

First Revision No. 47-NFPA 1500-2018 [Chapter 13]

Chapter 13 Occupational Exposure to Atypically Stressful Potentially Traumatic Events

13.1* General.

A.13.1

Substantial research has been conducted and reported since the last revision of this standard, respecting occupational exposure to atypically stressful potentially traumatic events and interventions directed toward mitigating their impact. Certain well-engrained approaches, most specifically critical incident stress debriefing (CISD), have not been shown to be effective in controlled studies and have been reported to have resulted in paradoxical, adverse outcomes for at least some participants. A number of authoritative guidelines now recommend against routine debriefing. Accordingly, this revision specifically deletes reference to CISD/CISM (critical incident stress management) as a required or desirable intervention and shifts its emphasis toward the use of professional services.

13.1.1

The fire department physician shall maintain medical oversight of all clinical aspects of the program.

13.1.1.1

The fire department shall maintain a relationship with an appropriately licensed and/or certified licensed behavioral health specialist as defined by the occupational safety and health program in NFPA 1582.

13.1.1.2*

The behavioral health specialist shall have knowledge and experience working with the fire department culture and traumatic exposure.

A.13.1.1.2

The training of the behavioral health specialist should include regular opportunities for experiential learning such as ride-alongs and/or participation in live simulated training exercises, which help familiarize the behavioral health specialist with the daily working environment of the fire service.

13.1.2*

The fire department shall adopt and utilize a written policy outlining its protocols to address occupational exposure to atypically stressful potentially traumatic events.

A.13.1.2

Over the past 40-45 10 to 15 years, fire departments across the country have realized that some of the components and their implementation of the early critical incident stress management (CISM) programs have not met the needs of fire department members or responders from other emergency service departments and organizations.

Current approaches integrate information about the brain and brain trauma, understanding how repeated exposure to traumatic events can erode resilience, mentally and physically, mental and physical resilience and accumulates over time, affecting each person differently, and how to empower each individual to manage his or her own symptoms.

Some examples of potentially traumatic events are as follows:

- (1) Line-of-duty deaths
- (2) Suicide of a colleague
- (3) Serious work-related injury
- (4) Multicasualty/disaster/terrorism incidents
- (5) Events with a high degree of threat to the personnel
- (6) Significant events involving children
- (7) Events in which the victim is known to the personnel
- (8) Events with excessive media interest
- (9) Events that are prolonged and end with a negative outcome
- (10) Any significantly powerful, overwhelming distressing event
- (11) Administrative betrayal
- (12) Forced retirement

A behavioral health program for atypically stressful potentially traumatic events should include the following:

- (1) Selection of highly respected and trusted members to serve on the peer <u>support</u> team, along with the department's behavioral health specialist
- (2) Department-wide education on the program prior to implementation to include training for new members
- (3) <u>Trained chaplains who can recognize signs of distress and use a nondenominational approach to persons needing emotional or spiritual support.</u>
- (4) Regularly scheduled peer team meetings for ongoing education and incident review

Interventions should focus specifically on those directly exposed to the traumatic event. Not all members who respond to an event are exposed to the trauma, and if participating in the intervention, might be unnecessarily exposed to the details of the trauma and subsequently negatively impacted.

The fire department's written policy should indicate the responsibilities of the organization, its officers, and its members in ensuring that the impact of occupational events is systematically anticipated and considered. The policy should enhance support from officers, supervisors, and peers and full integration where indicated with the department's behavioral health assistance (see Chapter 12).

Research shows the importance of recognizing the long-term impacts of repeated exposure to stress and the need to educate organization members to recognize the signs of cumulative exposure. It is also critical to note that EMS providers, whether in a stand-alone EMS agency or part of a combined service, suffer at an even higher rate than many fire fighters. With the increasingly larger role the fire service plays in the delivery of EMS services, the data and consequences should not be ignored. Industry agencies are beginning to recognize and provide active support for stress-related issues.

13.1.3

The fire department shall clearly outline assistance and intervention available to affected members.

13.1.3.1

Participation in clinically related interventions shall be voluntary and at the member's election.

13.1.3.2*

Where specialty treatment is indicated, referral shall be made to licensed <u>specialists who are certified</u> and <u>certified specialists</u> competent to provide <u>specialized</u> evidence-based treatment.

A.13.1.3.2

Examples of licensed and certified specialists mental health providers include psychiatrists, psychiatric nurse practitioners, advanced practice psychiatric registered nurses, clinical psychologists, licensed clinical professional counselors, licensed mental health counselors, and clinical social workers.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 15:40:51 EST 2018

Committee Statement

Committee The committee has made these changes for the purposes of consistency and current trends as

Statement: well as to strengthen the current tobacco requirements.

Response Message:

Public Input No. 76-NFPA 1500-2018 [Section No. 13.1.3.2]

Public Input No. 75-NFPA 1500-2018 [Section No. 13.1.2]

Public Input No. 71-NFPA 1500-2018 [New Section after A.13.1]

Public Input No. 74-NFPA 1500-2018 [Section No. 13.1.1.1]

Public Input No. 73-NFPA 1500-2018 [Section No. A.13.1.3.2]

Public Input No. 72-NFPA 1500-2018 [Section No. A.13.1.2]



First Revision No. 117-NFPA 1500-2018 [Chapter 14 [Title Only]]

Exposure to Fireground Toxic Contaminants

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Mar 15 12:49:12 EDT 2018

Committee Statement

Committee Statement: previous chapter title not broad enough for emergency response exposures

Response Message:

Public Input No. 77-NFPA 1500-2018 [Chapter 14 [Title Only]]

First Revision No. 49-NFPA 1500-2018 [Section No. 14.1]

14.1* Training.

The AHJ shall provide training on the hazards associated with exposure to fireground toxic-contaminants.

A.14.1

Cancer has become one of the leading causes of line-of-duty deaths (LODDs) of fire fighters. Cancer rates of fire fighters have risen dramatically in correlation with the increase in toxicity of smoke. Smoke from a fire always contains contaminants, which are harmful to health when these toxins enter the body via mouth, respiratory tract, mucous tissue or skin. Research has shown that contaminants including volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs) settle on protective equipment and do not break down, leading to longer exposure times through off-gassing and an increased rate of various health problems. VOCs and PAHs are persistent toxins and remain constant in the air and on protective equipment. Additional hazards at the fireground might be caused by hazardous materials such as asbestos or flame retardant materials found in the products of combustion.

14.1.1

Training on the hazards associated with exposure to fireground toxic contaminants shall include the following:

- (1) Awareness
- (2) Prevention
- (3) Mitigation
- (4) Risk factors

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 15:51:22 EST 2018

Committee Statement

Committee The committee has made for the purposes of clarity and to provide the end user with

Statement: additional information.

Response Message:

Public Input No. 80-NFPA 1500-2018 [Section No. 14.1]

Public Input No. 79-NFPA 1500-2018 [Section No. 14.1 [Excluding any Sub-Sections]]



First Revision No. 50-NFPA 1500-2018 [New Section after 14.2]

14.3 Risk of Exposure to Contaminants.

An incident area where the risk of exposure to contaminants exists shall be treated as a hot zone as defined by Section 8.7 .

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 15:58:13 EST 2018

Committee Statement

Committee The committee has added this as there has been a gap Identified, which is now addressed

Statement: by this new text.

Response Message:

Public Input No. 88-NFPA 1500-2018 [New Section after 14.2]

First Revision No. 86-NFPA 1500-2018 [Section No. 14.2]

14.2 Prevention and Mitigation.

The AHJ shall provide standard operation procedures (SOPs) related to the prevention and mitigation of fire-fighter exposure to fireground toxic- contaminants.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 15:41:37 EST 2018

Committee Statement

Committee Statement: This change was made for document consistency.

Response Message:

First Revision No. 51-NFPA 1500-2018 [Section No. 14.3.2]

14.4.2

The AHJ shall ensure that soiled or contaminated protective clothing and equipment is removed from service until cleaned and disinfected in accordance with NFPA 1851.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 16:21:25 EST 2018

Committee Statement

Committee Statement: The committee has deleted this text as it is already covered in the document.

Response Message:

Public Input No. 87-NFPA 1500-2018 [Section No. 14.3.2]
Public Input No. 78-NFPA 1500-2018 [Section No. 14.3.2]



First Revision No. 88-NFPA 1500-2018 [Section No. 14.4.1]

14.5.1

Appropriate protective Protective clothing and equipment shall be worn during all phases of fireground operations.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 15:49:29 EST 2018

Committee Statement

Committee Statement: This change was made in order to comply with the NFPA MOS relative to vague words.

Response Message:



First Revision No. 52-NFPA 1500-2018 [Section No. 14.4.2.1.1]

14.5.2.1.1*

An APR with an appropriate chemical cartridge shall be permitted only when all of the following conditions are met:

- (1) The APR is <u>used</u> ≥30 minutes post-extinguishment.
- (2) No active overhaul is taking place.
- (3) Positive pressure ventilation is in place.
- (4) Continuous air monitoring is in place and levels are within the following acceptable short-term occupational exposure limits:
 - (a) Hydrogen cyanide (HCN) ≤ 4.7 ppm
 - (b) Carbon monoxide (CO) ≤ 35 ppm

A.14.5.2.1.1

The post-fire environment presents a wide range of chemical hazards, including gases, vapors, and particulates. Research from Underwriters Laboratories has concluded that the fire environment contains the following:

- (1) Asphyxiants, such as carbon monoxide, carbon dioxide, and hydrogen sulfide
- (2) <u>Irritants, such as ammonia, hydrogen chloride, particulates, nitrogen oxides, phenol, and sulfur dioxide</u>
- (3) Allergens
- (4) <u>Carcinogens, such as asbestos, benzene, styrene, polycyclic aromatic hydrocarbons (PAHs)</u> <u>and certain heavy metals</u>
- (5) Particulates, including particles in the ultrafine range (particles less than 0.1μ in diameter)

Exposure to these gaseous and particulate agents has been linked to acute and chronic effects resulting in increased fire-fighter mortality and morbidity, such as higher risk of specific cancers and cardiovascular disease. Research suggests that the use of air purifying respirators (APRs) fitted with chemical, biological, radiological, and nuclear (CBRN) canisters are effective in reducing occupational respiratory exposures in the post-fire environment. However, caution should be applied when using an APR, as cartridge breakthrough can occur with aldehydes and potentially with other chemical agents.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 16:22:57 EST 2018

Committee Statement

Committee Statement: The committee has added this text as they believe it provides clarity to the requirement.

Response Message:

Public Input No. 81-NFPA 1500-2018 [Section No. 14.4.2.1.1]

First Revision No. 53-NFPA 1500-2018 [Section No. 14.5]

14.6 Post- Incident Fireground Toxic Contaminant Exposure Contaminant Reduction and Personal Hygiene .

<u>14.6.1</u>

The AHJ shall adopt procedures to mitigate on-scene exposure to contaminants for personnel exiting the hot zone.

14.6.2

The AHJ shall train its members on the appropriate doffing and containment of contaminated protective clothing and equipment.

14.6.3

Training on doffing and containment of contaminated protective clothing and equipment shall include prevention of possible cross-contamination.

14.6.4

The AHJ shall provide standard operation procedures <u>SOPs</u> related to the decontamination of fire fighters exposed to <u>fireground toxic</u> contaminants.

14.6.5

The AHJ shall provide appropriate decontamination facilities and equipment for fire fighters exposed to fireground toxic contaminants.

14.6.6*

Fire-fighter personal hygiene following exposure to fireground toxic-contaminants shall include the following:

- (1) Wiping skin areas near the interfaces of protective clothing and equipment with a wet wipe immediately after doffing
- (2) Taking a soap-and-water shower within an hour of an incident where an exposure could have occurred
- (3) Changing into a clean uniform after a shower

<u>A.14.6.6</u>		

Saunas use a heat source or light source (in the case of infrared saunas) in a defined space to generate heat. "Wet" saunas use steam in addition to the heat source, to generate moist heat. Use of saunas results in sweating, which has been advocated by some as a way to remove chemical toxicants from the body.

The use of saunas for detoxification dates back to at least the 1980s when L. Ron Hubbard and the Scientology community utilized saunas in what has become known as the Hubbard program. This involves 20 to 30 minutes of aerobic exercise followed by as close to 5 hours spent in a sauna at 140°F to 180°F "as could be comfortably taken," nutritional supplements (vitamins and minerals), increasing niacin doses, water and various salts to avoid dehydration and salt depletion, balanced meals, adequate sleep, and avoidance of alcohol and illegal drugs. This method of removing toxicants from the body has been advocated by the alternative medicine community.

The results of the use of this program have been published on fire fighters, fire fighters and other workers exposed at the World Trade Center, and police officers exposed to methamphetamine labs. Reports on this extreme regimen, which requires users to discontinue their prescription medications, have cited obvious risks including "brief full blown 'LSD trips' with hallucinations." Furthermore, no publications of adequate quality to evaluate the effectiveness of the program have been identified. Specifically, existing publications on the Hubbard program have one or more of the following research problems: small participant numbers, inadequate control groups, lack of peer review, and subjective outcomes.

Saunas can cause dehydration and heat stress. Data supporting detoxification through sweating are very limited. A recent review summarized 24 articles that examined metal levels in sweat. However, although the authors conclude that sweating should receive additional consideration for toxic element detoxification, they noted that much of the data they reviewed was old and that research was needed to establish safe, effective therapeutic protocols. Additionally, they did not select their studies based on quality. Small participant numbers were common and variation in collection and measurement methods make comparisons difficult.

A research project entitled the "Blood, Urine, and Sweat (BUS) Study" analyzed these three fluids for approximately 120 chemicals. The authors reported that some toxic elements were present in sweat but not serum in some participants. As noted above, that might have been due to smaller volumes resulting in more concentrated, easier to measure chemical levels in sweat. The authors also noted loss of required trace minerals into sweat. They specifically mentioned fire fighters as a group "who by the nature of their occupations are exposed to toxic elements, may be advised to regularly undertake induced sweating." The authors noted that "Further research is required, however, to determine whether induced sweating on the day of exposure is beneficial or detrimental because enhanced circulation to the skin associated with sauna may stimulate greater absorption of toxicants on the skin." Importantly, this was a small study that included only 20 participants.

Fire fighters are concerned about reducing health risks from their occupational chemical exposures. However, there are a number of reasons why the use of saunas after fire suppression activities is not recommended:

- (1) The science on sauna use is still too limited to determine whether this increases excretion of chemicals in a significant way. Most chemicals are not stored long term in the body and are excreted normally.
- (2) Sauna use immediately after fire suppression activities has the potential to increase absorption. Chemicals on the skin could evaporate and be inhaled. The heat in the sauna increases blood flow to the skin, which also has the potential to increase absorption across the skin including any contaminants on the skin.
- (3) Fire suppression can cause heat stress and heat illnesses. Increased body temperature results in sweating and fluid loss, which can cause serum electrolyte changes and dehydration. The lower blood volume from dehydration causes less blood to be pumped with each heartbeat. These effects contribute to the well-documented increased risk of heart attack during and in the hours immediately after fire fighting. Use of saunas after fire fighting can increase the potential for dehydration, heat-related illnesses, and heart and kidney disorders. Just walking on a treadmill in turn-out gear increases body temperature.

In summary, at the present time, there is insufficient medical evidence to support a recommendation for use of saunas to remove toxicants from the body after fire fighting, and the potential adverse health effects outweigh potential benefits.

14.6.7

Any clothing worn beneath contaminated PPE shall be cleaned in accordance with NFPA 1581.

14.6.8

When personnel respond to an incident in their personal vehicle, the fire department shall ensure that the member is decontaminated.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 16:25:35 EST 2018

Committee Statement

Committee The committee has made these changes in order to address the need for the reduction in

Statement: exposure to contaminants that are potentially cancer causing as well as to provide some

information on practices that are potentially helpful as well as some that are unsafe.

Response Message:

Public Input No. 84-NFPA 1500-2018 [Section No. 14.5.3.1]

Public Input No. 86-NFPA 1500-2018 [Section No. 14.5.3.1]

Public Input No. 83-NFPA 1500-2018 [Section No. 14.5]



First Revision No. 121-NFPA 1500-2018 [Section No. 14.7]

14.7 Exposure Reporting Requirements.

14.7.1

The AHJ shall establish an exposure reporting system for its members to use to record possible exposure to fireground toxic contaminants, airborne hazards, dusts, or chemicals.

14.7.1.1

The exposure report records shall be maintained by the AHJ for at least 45 30 years following the member's separation from the AHJ-or until the death of the member, whichever occurs first.

14.7.1.2

The member shall have access to their personal exposure records.

14.7.2

All personnel potentially exposed to fireground toxic-containments contaminants, airborne hazards, dusts, or chemicals shall complete an exposure report.

Submitter Information Verification

Submitter Full Name: Sonia Barbosa **Organization:** [Not Specified]

Street Address:

City: State: Zip:

Submittal Date: Tue Apr 03 12:50:54 EDT 2018

Committee Statement

Committee Statement:

These changes were made for document consistency as the committee has chosen to remove, globally, the term "fireground toxic" from the document. Also, with regards to the number of years

related to records retention is to bring in line with federal law requirements relating to asbestos

exposures.

Response Message:

NEPA

First Revision No. 89-NFPA 1500-2018 [Section No. A.1.2.3]

A.1.2.3

It is possible that an existing program or policy can satisfy the requirements of this standard; if so, it can be adopted in whole or in part in order to comply with this standard. Examples of such existing programs and policies can be a mandatory SCBA rule, seat belt rule, corporate safety program, or municipal employee member assistance program (MAP). The achievement of these objectives is intended to help prevent accidents, injuries, and exposures and to reduce the severity of those accidents, injuries, and exposures that do occur. They will also help to prevent exposure to hazardous materials and contagious diseases and to reduce the probability of occupational fatalities, illnesses, and disabilities affecting fire service personnel.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 16:23:48 EST 2018

Committee Statement

Committee Statement: The committee has made this change for document consistency.

Response Message:

NEPA

First Revision No. 114-NFPA 1500-2018 [Section No. A.1.5.2]

A.1.5.2

For a fire department to evaluate its compliance with this standard, it must develop some type of logical process. The worksheet in Annex B (Figure B.2) illustrates one way that an action plan can be developed to determine code compliance.

This standard is intended to be implemented in a logical sequence, based upon a balanced evaluation of economic as well as public safety and personnel safety factors. The compliance schedule request assures that risk is objectively assessed and reasonable priorities set toward reaching compliance. Interim compensatory measures are intended to assure ensure that safety action is being addressed until full compliance is reached and formally adopted into the fire department organization's policies and procedures. This can include, but is not limited to, increased inspections, testing, temporary suspension or restriction of use of specific equipment, specialized training, and administrative controls.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Feb 13 15:40:51 EST 2018

Committee Statement

Committee Statement: This change was made due to incorrect word choice.

Response Message:

	A.12.1	

A unique understanding of the fire service and its inherent dynamics, as well as advanced knowledge about trauma and addictions, is required of behavioral health specialists and counselors clinicians to effectively address fire department members' behavioral issues and maintain overall behavioral health and wellness. The intrinsic value to the first responders of the availability of such behavioral health specialists trained in the unique cultural aspects of the fire service is essential to the success of the program. Such training should include regular opportunities for experiential learning such as ride-alongs and/or participation in live simulated training exercises, which help familiarize the behavioral health specialist with the daily working environment of the fire service.

Current research with first responders has shown that developing an understanding of how the body and brain respond to stress is essential. Developing coping mechanisms in helping first responders mechanisms that support the unique behavioral health need and challenges of first responders maintain ongoing personal behavioral health is a core component of this program. Providing first responders with techniques to help mitigate the impacts of traumatic exposures is critical to long-term personal health, interpersonal dynamics, and overall organizational health. The term *resiliency* is used to address this multifaceted approach for overall health and well-being.

Education and training should begin in recruit classes and continue into retirement and throughout the member's years of service.

A behavioral health and wellness program can encompass all or some of the following services:

- (1) Acute stress-reactions
- (2) Traumatic exposures
- (3) Post-traumatic stress (PTS)
- (4) Depression and grief
- (5) Grief
- (6) Family situations
- (7) Line of duty Line-of-duty death (LODD) support services
- (8) Stress management
- (9) Substance abuse use
- (10) Health and wellness concerns

EAP behavioral health problem identification and assessment

(11) Resiliency

Resiliency training

Leadership development

Executive coaching

Coaching for supervisors dealing with troubled employees

Traumatic exposure recovery programs

Health promotion materials/activities

"Back to work" conferences for employees after illness/injury

Other issues that can impact work productivity

A behavioral health and wellness program can utilize all or some of the following delivery methods to reach members:

- (1) Peer support program
- (2) MAP or EAP behavioral health problem identification, assessment, and grief counseling
- (3) Treatment and/or referrals to outside agencies, as appropriate
- (4) Family support and outreach
- (5) Follow-up services and case management
- (6) Leadership development

- (7) Executive coaching
- (8) Coaching for supervisors dealing with troubled employees
- (9) Workplace mediation
- (10) Conflict resolution
- (11) Health and psychoeducational materials/activities
- (12) Management of behavioral health care under insurance plans
- (13) Department diversity training
- (14) Officer and department-wide training
- (15) Chaplain services for spiritual needs

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 17:07:45 EST 2018

Committee Statement

Committee The committee has made these changes in order to provide some accuracy and clarity to

Statement: the end user.

Response Message:

Public Input No. 60-NFPA 1500-2018 [Section No. A.12.1]

	A.12.1.1			

Basic levels of assistance as enumerated in the standard should be available at the first step of access. The objective should be to provide these services in a manner that facilitates ease of access and usage, minimizes delays and obstacles, and encourages proactive utilization. Members and their families should be informed about the program, its services, and how to access its resources, both at the time that they enter the organization and regularly throughout their tenure. The behavioral health assistance program should also serve as a resource for identification of and access to other important community resources such as self-help groups (e.g., Alcoholics Anonymous, Alanon, and Alateen), community health resources, parenting resources, and the like so forth. The behavioral health assistance program should articulate collaborate with the fire department's program to address occupational exposure to atypically stressful events (see Chapter 13).

The fire department behavioral health assistance- program does not need to be operated or financed by the fire department. Many community/county/state mental health agencies provide such services and these can be available without charge or at reduced fees. Labor and employee organizations can also sponsor and/or operate such programs. The fire department needs to have the ability to identify when pertinent problems exist and be able to provide confidential referral for professional services when indicated. Program standards developed by the Association of Labor-Management Administrators and Consultants on Alcoholism (ALMACA) and the Employee Assistance Professional Association (EAPA) recommend the following:

- The physical location at which services are provided should facilitate easy access while ensuring confidentiality.
- (2) Medical and disability plans should be reviewed to ensure that plans provide adequate coverage for alcohol, substance, and mental health needs (including where feasible, access to outpatient, intensive outpatient, partial hospitalization, inpatient and residential care, and day treatment options).
- (3) Staff of the fire department behavioral health program should be sufficiently familiar with medical and disability benefit plans to facilitate adequate advising regarding the extent, nature, and cost of the recommended treatment and the reimbursement available.

Primary staff for the program should hold possess the following:

- (1) Appropriate managerial and administrative experience in a clinical setting
- (2) Skill in problem identification, <u>clinical</u> interviewing, <u>client motivation</u> <u>diagnostic assessment</u>, <u>treatment planning</u>, <u>grief counseling</u>, <u>case management</u></u>, and <u>appropriate referral referral/care coordination for behavioral health problems and disorders</u>
 - Appropriate training, licensure, and certification with respect to any direct clinical or counseling services that can be provided by primary staff
- (3) A Ph.D. or Master's degree in the field of psychology, clinical social work, mental health counseling, or psychiatric nursing
- (4) An active license in good standing in the state in which services will be delivered, as well as appropriate training and certification with respect to any direct clinical or counseling services relevant to the behavioral health issues in the fire service

Primary staff training should include regular opportunities for experiential learning such as ride-alongs and/or participation in live simulated training exercises, which help familiarize the behavioral health specialist with the daily working environment of the fire service.

Active and appropriately prepared peer personnel are often critical to the success of a fire serve service behavioral health program. These personnel serve most effectively as a bridge and a link- between the distressed member and professional services and serve providers of the program and their coworkers, friends, and associates. They can serve valuable roles in outreach, referral, connection, awareness, and support for those who could benefit from support but might be unaware of its availability or benefits, are resistant to seeking help, or are uncertain about its benefits or its. the confidentiality of services. With proper training, they peer personnel can help coworkers evaluate situations, consider alternatives, and access resources. Preparation should include training regarding resources, protocols, and procedures related to the peer support program, as well as active listening skills, assessment, outreach, and referral skills, and appropriate elements of program content for outreach and education. Preparation should emphasize boundaries between peer roles and staff responsibilities, especially with respect to counseling and intervention.

Peer personnel should operate in regular consultation with a licensed mental health provider, ideally the behavioral health specialist. It is important that members and their families are informed about the

program and the services it offers and are continually updated on its existence, availability, and confidentiality. Information about the program should be made available to all new members and their families.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 17:14:30 EST 2018

Committee Statement

Committee The committee has made these changes in order to provide the end user with accuracy and

Statement: with the addition of peer programs.

Response Message:

Public Input No. 61-NFPA 1500-2018 [Section No. A.12.1.1]

NEPA

First Revision No. 57-NFPA 1500-2018 [Section No. A.12.1.2]

A.12.1.2

Referrals for specialty care should be made whenever a member or family requires treatment beyond primary counseling. Specialists receiving referrals should be fully licensed and certified to provide care consistent with appropriate standards (e.g., American Society of Addiction Medicine for alcohol and substance abuse use treatment; the American Association for Marriage and Family Therapy for family and relationship issues; American Psychiatric Association, American Counseling Association, and National Association of Social Workers for the treatment of mental disorders) and current guidelines for evidence-based practice in the treatment of clinical diagnoses (e.g., published reviews of the Cochrane Collaboration).

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 17:16:52 EST 2018

Committee Statement

Committee Statement: The committee has made these changes as they believe that it provides clarity.

Response Message:

Public Input No. 64-NFPA 1500-2018 [Section No. A.12.1.2]

NEPA

First Revision No. 58-NFPA 1500-2018 [Section No. A.12.2.1]

A.12.2.1

Components of a prevention and health promotion program <u>include should focus on</u> cardiac risk reduction, smoking/tobacco cessation, blood pressure regulation, strength and aerobic physical fitness training, nutrition, stress management, diabetes prevention, metabolic syndrome prevention, weight management or control, <u>shift work and sleep hygiene</u>, <u>infectious disease and control</u>, and so forth, and should provide education and counseling for the purpose of preventing health problems and enhancing overall well-being.

The wellness program should also include education, resources, and counseling on a variety nonclinical issues relevant to member wellness and maintaining a balanced life, including, but not limited to, balancing emergency service work with marriage and family obligations, interpersonal communication skills, financial literacy, career/vocational guidance, and retirement planning.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 17:23:48 EST 2018

Committee Statement

Committee Statement: The committee has made these changes as they believe that it adds clarity.

Response Message:

Public Input No. 70-NFPA 1500-2018 [Section No. A.12.2.1]

First Revision No. 62-NFPA 1500-2018 [Section No. A.3.3.68]

A.3.3.70 Member.

A fire department member can be a full-time or part-time employee or a paid or unpaid volunteer, can occupy any position or rank within the fire department, and can engage in emergency or non-emergency operations.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 16 17:31:33 EST 2018

Committee Statement

Committee The current Annex A language is unclear as if by the inclusion of the "emergency" language it is Statement: intending to exclude those fire department employees that would otherwise be considered members under the core standard definition. The submitter of the is PI believes that the intent is to include all fire department employees, including those that would perform non-emergency operations, such as fire inspections, fire investigations, apparatus maintenance and administrative tasks. This PI has been written to add "non-emergency" so that it is clear those types of functions are covered as members. If that is not the intent to include all of those functions, then the TC should revise the definition of member and the associated annex text to clarify the limited scope of the application of the definition.

Response Message:

Public Input No. 3-NFPA 1500-2017 [Section No. A.3.3.68]

NEPA

First Revision No. 78-NFPA 1500-2018 [Section No. A.8.5.11]

A.8.5.11

These accountability supervisors should work with the incident commander and tactical-level management component the division or group supervisor to assist in the ongoing tracking and accountability of members.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 23 14:58:17 EST 2018

Committee Statement

Committee Statement: The committee has made these changes for document and project consistency.

Response Message:



First Revision No. 100-NFPA 1500-2018 [Section No. A.8.6.14]

A.8.6.14

Consideration for rescue of members working over, in, and around water should be addressed by the incident commander and incident-safety officer within the incident action plan.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 17:01:54 EST 2018

Committee Statement

Committee Statement: The committee has made this change for project consistency.

Response Message:



First Revision No. 74-NFPA 1500-2018 [Section No. A.8.8.7]

A.8.8.7

The difficulty in rescuing a downed member or member in trouble cannot be overstated. While one crew/company might suffice at a single-family dwelling, the act of rescuing a member who is lost, trapped, or missing will become increasingly difficult at a large commercial building or high-rise building.

The ability to rapidly deploy a rapid intervention crew/company from the command post to an area remote from the location of the command post can adversely affect the successful rescue of a member. Consideration should be given to assigning a RIC to each point of crew entry at a commercial building.

For example, if the incident commander has established a tactical level management component (TLMC) at the front and rear of a commercial building, consideration should be given to assigning a RIC to each TLMC. Likewise, at a working fire in a high-rise building, consideration should be given to assigning multiple RICs to vertical positions near the area(s) of operation. At incidents such as the ones described, it could be desirable for the incident commander to establish a RIC TLMC comprised of multiple companies, dependent upon the complexity of the incident.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Tue Jan 23 14:46:30 EST 2018

Committee Statement

Committee Statement: The committee is deleting this portion of text as "TLMC" is not a NIMS compliant term.

Response Message:

PĀ						

В	3.2	Fire Service Occupational Safety, Health, and Wellness Program Worksheet.	

The worksheet (see Figure B.2) in this annex was developed to provide a template for fire departments that are beginning implementation of an occupational safety and health program or that are evaluating the current status of their programs.

Figure B.2 Fire Service Occupational Safety Health, and Wellness Program Worksheet.

	Person(s) Co	mpleting Wo	rksheet	
Reference in Standard			Compliance Date	Remarks
Chantes I. Administration				
Chapter 1 Administration 1.4 Equivalency				
1.4.1 Equivalency levels of qualifications				
1.4.2 Training, education, competency, safety				
Chapter 4 Organization				
4.1 Fire Department Organizational Statement				
4.1.1 Written statement or policy				
4.1.2 Operational response criteria				
4.1.3 Statement available for inspection				
4.2 Risk Management Plan				
4.2.1 Written risk management plan 4.2.2 Risk management plan coverage				
4.2.2 Risk management plan components				
4.3.1 Written fire department occupational safety and health policy				
4.3.2 Program complies with NFPA 1500				
4.3.3 Evaluate effectiveness of plan				
4.4 Roles and Responsibilities				
4.4.1 Fire department responsibility				
4.4.2 Comply with laws				
4.4.3 Fire department rules, regulations, and SOPs				
4.4.4 Accident investigation procedure				
4.4.5 Accidents and illnesses investigated				
 Individuals cooperate, participate, and comply 				

FIRE DEPARTMENT OCCU		PA 1500 AFETY AND	HEALTH PROG	RAM WORKSHEET			
Fire Department: Date:							
Person(s) Completing Worksheet							
Name:		Title:					
Name:		Title:					
Name:		Title:					
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks			
Chapter 1 Administration							
1.4 Equivalency							
1.4.1 Equivalency levels of qualifications							
1.4.2 Training, education, competency, safety							
Chapter 4 Organization							
4.1 Fire Department Organizational Statement							
4.1.1 Written statement or policy							
4.1.2 Operational response criteria							
4.1.3 Statement available for inspection							
4.1.5 Pre-incident plan development							
4.2 Risk Management Plan							
4.2.1 Written risk management plan 4.2.2 Risk management plan coverage							
4.2.3 Risk management plan components							
4.3 Safety and Health Policy							
4.3.1 Written fire department occupational safety and health policy							
4.3.2 Program complies with NFPA 1500							
4.3.3 Evaluate effectiveness of plan							
4.4 Roles and Responsibilities							
4.4.1 Fire department responsibility							
4.4.2 Comply with laws	\vdash						
4.4.3 Fire department rules, regulations, and SOPs							
4.4.4 Accident investigation procedure 4.4.5 Accidents and illnesses	\vdash						
4.4.6 Individuals cooperate, participate,							
4.4.6 Individuals cooperate, participate, and comply							

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 4 Organization (continued)				
4.4.7 Member has right to be protected and participate				
4.4.8 Member organization role				
.5 Occupational Safety and Health Committee				
4.5.1 Establish committee				
4.5.2 Committee purpose				
4.5.3 Regular meetings				
4.5.4 Relevant NFPA standards training				
.6 Records				
4.6.1 Accidents, injury, illness, exposures, death records				
4.6.2 Occupational exposures				
4.6.3 Confidential health records				
4.6.4 Training records				
4.6.5 Vehicles and equipment records				
.7 Appointment of the Health and Safety Officer				
4.7.1 Appointed by fire chief				
4.7.2 Meets qualifications				
4.7.3 Given authority to administer program				
4.7.4 Performing functions in NFPA 1521				
4.7.5 Managing occupational safety and health program				
4.7.6 Additional safety officers and resources available				
Chapter 5 Training, Education, and Professi				
5.1.2 Training commensurate with duties and functions				
5.1.3 Training and education programs for new members				
5.1.4 Restrict the activities of new members				
5.1.5 Training on the risk management plan				
5.1.6 Training on department's written procedures				
5.1.7 Training for emergency medical services				

NFPA 1500 FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (continu							
FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (cot Reference in Standard Estimated Estimated Expected							
Reference in Standard	Compliance	Compty	Date	Remarks			
Chapter 4 Organization (continued)							
4.4.7 Member has right to be protected and participate							
4.4.8 Member organization role							
4.5 Occupational Safety and Health Committee							
4.5.1 Establish committee							
4.5.2 Committee purpose							
4.5.3 Regular meetings							
4.5.4 Relevant NFPA standards training							
4.6 Records							
4.6.1 Accidents, injury, illness, exposures, death records							
4.6.2 Occupational exposures							
4.6.3 Confidential health records							
4.6.4 Training records							
4.6.5 Vehicles and equipment records							
4.7 Appointment of the Health and Safety Officer							
4.7.1 Appointed by fire chief							
4.7.2 Meets qualifications							
4.7.3 Given authority to administer program							
4.7.4 Performing functions in NFPA 1521							
4.7.5 Managing occupational safety and health program							
4.7.6 Additional safety officers and resources available							
Chapter 5 Training, Education, and Profess	ional Developm	ent					
5.1 General Requirements							
5.1.1 Establish and maintain safety and health training							
5.1.2 Training commensurate with duties and functions							
5.1.3 Training and education programs for new members 5.1.4 Restrict the activities of new							
5.1.4 Restrict the activities of new members 5.1.5 Training on the risk management							
plan 5.1.6 Training on department's written							
procedures 5.1.7 Training for emergency medical							
services							

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
5.1.9 Maintaining proficiency in skills and knowledge				
5.1.10 Training includes safe exiting and accountability				
i.2 Member Qualifications				
5.2.5 Wildland fire fighters meet NFPA 1051				
5.2.6 Hazardous materials responders trained to at least operations level per NFPA 472				
5.2.7 Fire investigation training meeting NFPA 1033				
5.2.8 Fire inspection training meeting NFPA 1031				
i.3 Training Requirements				
5.3.1 Adopt or develop training and education curriculums				
5.3.4 Training for members when written policies, practices, procedures, or guidelines are changed				
5.3.5 SCBA training program per NFPA 1404				
5.3.6 Wildland fire fighters trained at least annually in the proper deployment of fire shelter				
5.3.7 Live fire training in accordance with NFPA 1403				
5.3.8 Supervised training				
5.3.9 Emergency medical services training				

NFPA 1500 FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (contin					
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks	
5.1.8 Training, Education, and Profess 5.1.8 Training on operatios, limitation, maintenance, and retirement criteria for personal protective	ional Developm	ent (continued			
equipment 5.1.9 Maintaining proficiency in skills and knowledge					
5.1.10 Training includes safe exiting and accountability					
5.1.13 Training includes incident management and accountability system used by the fire department					
i.2 Member Qualifications					
5.2.1 Fire fighters meet NFPA 1001					
5.2.2 Drivers/operators most NFPA 1002					
5.2.3 Airport fire fighters meet NFPA 1003					
5.2.4 Fire officers meet NFPA 1021 5.2.5 Wildland fire fighters meet NFPA 1051					
5.2.6 Hazardous materials responders trained to at least operations level per NFPA 472					
5.2.7 Fire investigation training meeting NFPA 1033					
5.2.8 Fire inspection training meeting NFPA 1031					
i.3 Training Requirements					
5.3.1 Adopt or develop training and education curriculums					
5.3.2 Training supports minimum qualifications and certifications of members					
5.3.3 Members practice assigned skill sets on a regular basis but not less than annually					
5.3.4 Training for members when written policies, practices, procedures, or guidelines are changed					
5.3.5 SCBA training program per NFPA 1404					
5.3.6 Wildland fire fighters trained at least annually in the proper deployment of fire shelter					
5.3.7 Live fire training in accordance with NFPA 1403					
5.3.8 Supervised training					
5.3.9 Emergency medical services training					

hapter 5 Training, Education, and Profe 5.3.10 Training on care, use, inspection, maintenance, and limitations of the protective dothing and equipment 5.3.11 Incident management training to NFPA 1601 5.3.12 Infectious disease control	nent (continued	
5.3.10 Training on care, use, inspection, maintenance, and limitations of the protective dothing and equipment 5.3.11 Incident management training to NFPA 1561 5.3.12 Infectious disease control		
of the protective dothing and equipment 5.3.11 Incident management training to NFPA 1561 5.3.12 Infectious disease control		
equipment 5.3.11 Incident management training to NFPA 1561 5.3.12 Infectious disease control		
5.3.11 Incident management training to NFPA 1561 5.3.12 Infectious disease control		
4 Special Operations Training		
5.4.2 Train members for support to special operations		
5.4.4 Rescue technician training to NFPA 1006 when required		
5.5.2 Monitor training progress		
5.5.3 Annual skills check		
6 Training Activities		
5.6.2 Live training and exercises to NFPA 1463		
medical capabilities at training si		
hapter 6 Fire Apparatus, Equipment, as	ons	
6.1.1 Safety and health concerns		
6.1.3 New wildland fire apparatus meets NFPA 1906		
6.1.4 New automotive ambulances mee NFPA 1917		
6.1.5 New marine fire-fighting vessels meet NFPA 1925		
properly secured 6.1.7 Apparatus refurbished per		
NFFA 1912 6.1.8 Restraints and harnesses for		
aircraft operations 6.1.9 Apparatus has hose storage area		
Department Apparatus 6.2.1 Successful completion of approved		

FIRE DEPARTMENT OCCUPATION	NFPA 1500 FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (continued								
Reference in Standard	Percent in Cost to Compliance		Expected Compliance	Romarks					
Chapter 5 Training, Education, and Professional Development (continued)									
5.3.10 Training on care, use, inspection,	ionai Developii	serie (continued	Ť T						
maintenance, and limitations of the protective clothing and equipment									
5.3.11 Incident management training to NFPA 1561									
5.3.12 Infectious disease control training to NFPA 1581									
5.4 Special Operations Training									
5.4.1 Advanced training for special operations									
5.4.2 Train members for support to special operations									
5.4.3 Technician level for hazardous materials mitigation									
5.4.4 Rescue technician training to NFPA 1006 when required									
5.5 Member Proficiency 5.5.1 Proficiency of members									
5.5.2 Monitor training progress									
5.5.3 Annual skills check									
5.6 Training Activities									
 5.6.1 Training and exercises conducted by qualified instructor 									
5.6.2 Live training and exercises to NFPA 1403									
5.6.3 Risk assessment to determine medical capabilities at training site									
Chapter 6 Fire Apparatus, Equipment, and	Drivere/Operate	N/R							
6.1 Fire Department Apparatus	Differ ar Operation	219							
6.1.1 Safety and health concerns									
related to fire apparatus									
6.1.2 New fire apparatus meets NFPA 1901									
6.1.3 New wildland fire apparatus meets NFPA 1906									
6.1.4 New automotive ambulances meet NFPA 1917									
6.1.6 New marine fire-fighting vessels meet NFPA 1925									
6.1.7 Tools, equipment, and SCBA properly secured									
6.1.8 Apparatus refurbished per NFPA 1912									
6.1.9 Restraints and harnesses for aircraft operations									
 1.10 Apparatus has hose storage area with positive means to prevent unintentional hose deployment 									
6.2 Drivers/Operators of Fire									
Department Apparatus 6.2.1 Successful completion of approved									
driver training 6.2.2 Complies with traffic laws									
including having valid driver's licenses									

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 6 Fire Apparatus, Equipment, and	Drivers/Operato	ors (continued)		
6.2.4 Drivers are responsible				
6.2.6 Drivers obey all traffic laws				
6.2.7 SOPs for non-emergency and emergency response				
6.2.8 Emergency response, drivers bring vehicle to a complete stop				
6.2.9 Proceed only when safe				
6.2.10 Stop at unguarded railroad grade crossings				
6.2.11 Use caution at guarded railroad grade crossings				
6.2.12 SOPs — engine, transmission and driveline retarders				
6.2.13 SOPs — manual brake limiting valves				
6.2.14 Rules and regulations for private vehicles for emergency response				
6.3 Riding in Fire Apparatus				
6.3.1 Seated and belted securely while riding in fire apparatus				
6.3.2 Tail steps and standing prohibited				
6.3.3 Seat belts not released while the vehicle is in motion				
6.3.4 Secured to vehicle while performing emergency medical care				
6.3.5 Hose loading operations				
6.3.6 Tiller training				
6.3.7 Helmets for riding in unenclosed areas				
6.3.8 Eye protection for riding in unenclosed areas				
6.4 Inspection, Maintenance, and Repair of Fire Apparatus				
 Fire apparatus inspection, maintenance, and repair per NFPA 1911 				
6.4.2 Pumpers service tested per NFPA 1911				
6.4.3 Aerial ladders and elevating platforms tested per NFPA 1911				
6.4.4 Apparatus and equipment disinfected per NFPA 1581				

FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (cont						
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks		
	D-1	(
Chapter 6 Fire Apparatus, Equipment, and 6.2.3 Rules and regulations for	Drivers/Operato	ors (continued)				
operating fire department vehicles						
6.2.4 Drivers are responsible						
6.2.5 All persons secured						
6.2.6 Drivers obey all traffic laws						
6.2.7 SOPs for non-emergency and emergency response						
6.2.8 Emergency response, drivers bring vehicle to a complete stop						
6.2.9 Proceed only when safe						
6.2.10 Stop at unguarded railroad grade crossings						
 Use caution at guarded railroad grade crossings 						
6.2.12 SOPs — engine, transmission and driveline retarders						
6.2.13 SOPs — manual brake limiting valves						
6.2.14 Rules and regulations for private vehicles for emergency response						
3.3 Riding in Fire Apparatus						
6.3.1 Seated and belted securely while riding in fire apparatus						
6.3.2 Tail steps and standing prohibited						
6.3.3 Seat belts not released while the vehicle is in motion						
6.3.4 Secured to vehicle while performing emergency medical care						
6.3.5 Hose leading operations						
6.3.6 Tiller training						
6.3.7 Helmets for riding in unenclosed areas						
6.3.8 Eye protection for riding in unenclosed areas						
6.3.9 Alternative transportation						
i.4 Inspection, Maintenance, and Repair of Fire Apparatus						
6.4.1 Fire apparatus inspection, maintenance, and repair per NFPA 1911						
6.4.2 Pumpers service tested per NFPA 1911						
6.4.3 Aerial ladders and elevating platforms tested per NFPA 1911						
6.4.4 Apparatus and equipment disinfected per NFPA 1581						

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 6 Fire Apparatus, Equipment, and				
6.5.1 Safety and health are primary concerns				
6.5.2 Hearing conservation				
6.5.3 New fire department ground Indders meet NFPA 1931				
6.5.4 New fire hose meets NFPA 1961				
6.5.6 Equipment inspected at least weekly and within 24 hours after any use				
6.5.7 Records maintained for the equipment				
6.5.8 Tested at least annually				
6.5.9 Defective or unserviceable equipment removed from service				
6.5.10 Tools and equipment cleaned per NFPA 1581				
6.5.11 Fire department ground ladders tested per NFPA 1902				
6.5.12 Fire hose inspected and tested per NFPA 1962				
6.5.13 Portable fire extinguishers in- spected and tested per NFPA 10				
6.5.14 Powered rescue tools meet NFPA 1936				
Chapter 7 Protective Clothing and Protecti	ve Equipment			
.1 General				
7.1.1 Fire department provides PPE				
7.1.2 Use of PPE				
7.1.3 Use of PPE specific to operation				
7.1.4 PPE deaned every 6 months per NFPA 1851				
7.1.5 Where worn, station work uniforms meet NFPA 1975				
7.1.7 Compliance training for a cleaning program for protective clothing and equipment				
7.2 Protective Clothing for Structural Fire Fighting				
7.2.1 Protective clothing meets NFPA 1971				
7.2.2 Minimum 2 in. (50 mm) overlap of all protective clothing layers				

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 6 Fire Apparatus, Equipment, and	Driver/Operator	s (continued)		
3.5 Tools and Equipment				
6.5.1 Safety and health are primary concerns				
6.5.2 Hearing conservation				
6.5.3 New fire department ground ladders meet NFPA 1931				
6.5.4 New fire hose meets NFPA 1961				
6.5.5 New sprny nozzles meet NFPA 1964				
6.5.6 Equipment inspected at least weekly and within 24 hours after any use				
6.5.7 Records maintained for the equipment				
6.5.8 Tested at least annually				
6.5.9 Defective or unserviceable equipment removed from service				
6.5.10 Tools and equipment cleaned per NFPA 1581				
6.5.11 Fire department ground ladders tested per NFPA 1932				
6.5.12 Fire hose inspected and tested per NFPA 1962				
6.5.13 Portable fire extinguishers in- spected and tested per NFPA 10				
6.5.14 Powered rescue tools meet NFPA 1936				
Chapter 7 Protective Clothing and Protecti	ve Equipment			
7.1 General				
7.1.1 Fire department provides PPE				
7.1.2 Use of PPE				
7.1.3 Use of PPE specific to operation				
7.1.4 PPE cleaned every 6 months per NFPA 1851				
7.1.5 Where worn, station work uniforms meet NFPA 1975				
7.1.7 Compliance training for a cleaning program for protective clothing and equipment				
7.2 Protective Clothing for Structural Fire Fighting				
7.2.1 Protective clothing meets NFPA 1971				
7.2.2 Minimum 2 in. (50 mm) overlap of all protective clothing layers				

Referen	ce in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 7	Protective Clothing and Protective	Equipment (cont	inued)		
	Gloves have proper interface				
7.2.6	Require all members to wear appropriate protective ensemble				
	ctive Clothing for Proximity Fighting Operations				
	Overlap not required on single- piece protection coveralls				
7.3.4					
	ctive Clothing for Emergency ral Operations				
7.4.1.1					
7.4.2	Members use emergency medical gloves				
7.4.3	Members use emergency medical body and face protection				
7.4.4					
	deal-Protective Clothing for relous Material Emergency ations				
	Members have and use vapor- protective garments that meet NFPA 1991 when appropriate				
	Members have and use liquid splash-protective garments that meet NPPA 1992 when appropriate				
7.6 Inspe of Ch	ction, Maintenance, and Disposal emical-Protective Clothing				
	Inspected and maintained per manufacturer's recommendation				

FI	RE D	EPARTMENT OCCUPATION		A 1500 AND HEALT	H PROGRAM W	ORKSHEET (continu
Re	ferenc	e in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Cha	pter 7	Protective Clothing and Protective	Equipment (cont	inued)		
	7.2.3	Overlap not required on single- piece protection coveralls				
	7.2.4.2	Gloves have proper interface				
	7.2.5.1	Program in place for selection, care, maintenance, and use of protective dothing				
	7.2.6	Require all members to wear appropriate protective ensemble				
		tive Clothing for Proximity ighting Operations				
	7.3.1	Risk assessment performed as required by Chapter 5 of NFPA 1851 to determine need for proximity ensembles				
	7.3.2	Preximity fire-fighting protective equipment meeting NFPA 1971 provided and used				
	7.3.3	Overlap not required on single- piece protection coveralls				
	7.3.4	SCBA protected				
.4	Protec Medic	tive Clothing for Emergency al Operations				
	7.4.1.1	Emergency medical protective dothing meeting NFPA 1999 provided and used				
	7.4.2	Members use emergency medical gloves				
	7.4.3	Members use emergency medical body and face protection				
	7.4.4	Infection control program for EMS protective clothing meets NFPA 1581				
	Chemi Hazare Operat	cal-Protective Clothing for dous Materials Emergency tions				
	7.6.1.1	Members have and use vapor- protective garments that meet NFPA 1991 when appropriate				
	7.6.2.1	Members have and use liquid splash-protective garments that meet NFPA 1992 when appropriate				
	7.6.3.1	Members have and use appropriate protective ensemble for CBRN terrorism incidents				
		tion, Maintenance, and Disposal mical-Protective Clothing				
	7.7.1	Inspected and maintained per manufacturer's recommendation				
	7.7.2	Dispose of contaminated garments				

Re		e in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
		ctive Clothing and Equipment				
		Fire shelter provided and worn properly				
7.8	Protec	ctive Ensemble for Technical e Operations				
	7.8.1	Selection, care, and maintenance as specified in NFPA 1855				
	7.8.4					
7.9	Protec Surfac	ctive Clothing and Equipment for the Water Operations				
	7.9.1	Members who engage in surface water operations use a protective ensemble meeting NFPA 1952				
	7.9.2					
	7.9.3					
	7.9.4					
		ratory Protection Program				
		Respiratory protection program addresses the selection, care, maintenance, and use				
	7.10.4					
		Equipment stored ready-for-use and properly protected				

NFPA 1500 FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (contin							
Re	eferenc	e in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks	
n.	nter 7	Protective Clothing and Protective Ed	udament (conti	inum (I)			
	Protes	ctive Clothing and Equipment Idland Fire Fighting	quipment (cont	norcy			
	7.8.1	SOPs for use of protective clothing					
		Protective dothing that meets NFPA 1977 provided and used					
	7.8.3	Fire shelter provided and worn properly					
7.9	Rescu	ctive Ensemble for Technical e Operations					
	7.9.1	Selection, care, and maintenance as specified in NFPA 1855					
		Technical rescue protective clothing meeting NFPA 1951 provided and used					
	7.9.3	Minimum 2 in. (50 mm) overlap of all protective clothing layers					
	7.9.4	Respiratory protection certified by NIOSH provided and used					
	7.9.5	Primary eye protection that meets NFPA 1951 provided and used					
	7.9.6	Protective clothing used and maintained per manufacturer's instructions					
7.10	Protec Surface	ctive Clothing and Equipment for re Water Operations					
	7.10.1	Members who engage in surface water operations use a protective ensemble meeting NFPA 1962					
	7.10.2	Surface water protective ensembles used and maintained in accordance to manufacturer's instructions					
	7.10.3	Fire department established main- tenance and inspection program for surface water operation protective ensembles					
	7.10.4	Proper decontamination procedures for surface water protective ensembles					
7.12	Respi	ratory Protection Program					
	7.12.1	Respiratory protection program addresses the selection, care, maintenance, and use					
	7.12.2	SOPs address respiratory protection					
		Members qualified at least annually in use					
		Reserve SCBA provided and maintained					
		Adequate reserve air supply					
	7.12.6	Equipment stored ready-for-use and properly protected					

			Expected	
Reference	in Standard	Percent in Compliance	Compliance Date	Remarks
	Protective Clothing and Protecti	ve Equipment (
	SCBA provided that meets NFPA 1981 and required to be used			
7.10.8	Members understand keeping facepiece in place			
7.10.9	Respiratory protection in the post-fire environment			
7.11 Bres	thing Air			
	iratory Protection Equipment			
	SCBA meet appropriate standards			
	esting			
	Records of facepiece fitting test			
7.14 Usin;	Respiratory Protection			
	Facepiece-to-face seal required			
	No beard and facial hair in area of seal			
	Spectacle strap or temple bars prohibited			
	Head covering breaking seal prohibited			

				PA 1500			
FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (conti							
Refer	евсе	in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks	
		Protective Clothing and Protecti	Fd				
	10.7	SCBA provided that meets NFPA 1981 and required to be used	ve Equipment (continuedy			
7.	10.8	Members understand keeping facepiece in place					
7.	10.9	Respiratory protection in the post-fire environment					
		hing Air					
	7.11	Breathing air meets NFPA 1989					
		ratory Protection Equipment SCBA meet appropriate standards					
1	7.14.2	Supplied-air respirators appropriate for intended application					
7	7.14.3	Air-purifying respirators NIOSH certified with policy for use					
.15 1	Fit Te	sting					
		Quantitative fit test annually					
7	7.15.2	New members fit tested before permitted in hazardous atmospheres					
1	7.15.3	Respirators quantitative fit testing in negative pressure mode					
	7.15.4	Records of facepiece fitting test					
1	7.15.5	Protection factor at least 500 for negative-pressure facepieces					
		Respiratory Protection					
		Facepiece-to-face seal required					
		Nothing passes through area of seal					
		No beard and facial hair in area of seal					
		Spectacles fitted to inside of facepiece					
		Spectacle strap or temple bars prohibited					
		Contact lenses permitted Head covering breaking seal					
		prohibited SCBA facepiecs/head harness					
		SCBA Incepiece/head harness worn under protective hood SCBA facepiece/head harness					
		worn under hazardous chemical- protective helmet					
7	7.16.10	Helmet does not interfere with the facepiece-to-face seal					

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 7 Protective Clothing and Protecti 7.15 SCBA Cylinders				
capacity 7.15.4 In-service SCBA cylinders stored charged				
prior to filling 7.15.6 Personnel protected during				
SCBA cylinder filling 7.15.7 Unique situations for rapid				
filling identified 7.15.8 Risk assessment process used to				
7.15.10 Emergency situation for air transfer permitted				
7.16 Personal Alert Safety Systems (PASS)				
7.16.2 Members provided with and use PASS device				
7.16.3 Tested at least weekly and prior to use				
7.17 Life Safety Rope and System Components				
7.17.4 Rope inspection by qualified person				
7.18 Face and Eye Protection				

FIRE DEPARTMENT OCCUPATION		PA 1500 AND HEA	LTH PROGRAM	WORKSHEET (contin
teference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
hapter 7 Protective Clothing and Protecti	us Equipment (- antinum di		
napter 7 Protective Clothing and Protecti 17 SCBA Cylinders	re Equipment (curanteety		
7.17.1 Inspected annually				
7.17.2 Hydrostatic test cylinders				
7.17.3 SCBA cylinders minimum gas capacity				
7.17.4 In-service SCBA cylinders stored charged				
 7.17.5 In-service SCBA cylinders inspected weekly, monthly, and prior to filling 				
7.17.6 Personnel protected during SCBA cylinder filling				
7.17.7 Unique situations for rapid filling identified				
7.17.8 Risk assessment process used to identify rapid filling situations 7.17.9 Rapid refilling of SCBA on				
7.17.9 Rapid refining of SCBA on person limited 7.17.10 Emergency situation for air				
transfer permitted 7.17.11 Transfilling per manufacturer's				
instructions 7.17.12 Exit strategy practiced when SCBA cylinder reaches 600 L				
or more 18 Personal Alert Safety Systems (PASS)				
7.18.1 PASS meet NFPA 1982				
7.18.2 Members provided with and use PASS device				
7.18.3 Tested at least weekly and prior to use				
19 Life Safety Rope and System Components				
7.19.1 Life safety rope and system components meet NFPA 1983				
7.19.2.1 Life safety rope used for other purposes removed from service 7.19.3 Reuse of life safety rope only				
after evaluation 7.19.4 Rope inspection by qualified				
person 7.19.5 Records document each life				
safety rope use				
20 Face and Eye Protection				
7.20.1 Eye protection appropriate for hazard provided and used 7.20.2 SCBA facepiece used as primary				
7.20.2 SCBA facepiece used as primary face and eye protection 7.20.3 Primary eye protection used				

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 7 Protective Clothing and Protective	re Equipment (i	continued)		
7.20 New and Existing Protective				
Clothing and Protective Equipment 7.20.1 New PPE meets current standards				
7.20.2 Existing PPE met standards when manufactured				
7.20.3 PPE retired in accordance with NFPA 1851				
7.20.4 Open circuit SCBA retired in accordance with NFPA 1852				
Chapter 8 Emergency Operations				
8.1 Incident Management				
8.1.3 IMS used at all emergency incidents				
 IMS applied to drills, exercises, and training 				
8.1.6 Incident safety officer assigned when needed				
8.1.7 Span of control				
8.1.8 Incident commander's responsibility				
8.2.2 Portable radios in warm or hot zones				
8.2.3 SOPs for use of clear text radio messages				
8.3 Crew Resource Management (CRM) During Emergency Operations 8.3.1 CRM function of incident commander				
8.4 Risk Management During Emergency Operations				
8.4.1 Risk management integrated in incident command				

FIRE DEPARTMENT OCCUPATIO		PA 1500 AND HEA	LTH PROGRAM	WORKSHEET (continu
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 7 Protective Clothing and Protecti	ve Equipment (c	continued)		
21 Hearing Protection				
7.21.1 Provided and used when apparatus noise in excess of 90 dBA				
7.21.2 Provided and used when tool and equipment noise in excess of 90 dBA				
7.21.3 Hearing conservation program				
7.22 New and Existing Protective Clothing and Protective Equipment 7.22.1 New PPE meets current				
standards 7.22.2 Existing PPE met standards				
when manufactured 7.22.3 PPE retired in accordance with NPPA 1851				
7.22.4 Open circuit SCBA retired in accordance with NFPA 1852				
7.22.5 Program for retirement and disposal of PPE				
7.22.6 Manufacturer criteria to be used				
Observa & Francisco Osservicas				
Chapter 8 Emergency Operations 8.1 Incident Management				
8.1.1 Prevent accidents and injuries				
8.1.2 Incident management system in				
writing and meets NFPA 1561 8.1.3 IMS used at all emergency				
incidents 8.1.4 IMS applied to drills, exercises,				
and training 8.1.5 Incident commander responsible for safety				
8.1.6 Safety officer assigned when needed				
8.1.7 Span of control 8.1.8 Incident commander's responsibility				
8.2 Communications				
8.2.1 Dispatch and incident communication systems meet				
NFPA 1561 and NFPA 1221 8.2.2 Portable radios in warm or hot zones				
8.2.3 SOPs for use of clear text radio messages				
8.2.4 Procedures for emergency traffic 8.2.5 Incident clock used				
8.3 Crew Resource Management (CRM) During Emergency Operations 8.3.1 CRM function of incident commander				
8.4 Risk Management During				
Emergency Operations 8.4.1 Risk management integrated in incident command				

teference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
hapter 8 Emergency Operations (continue	nd)			
8.4.4 Risk management principles routinely employed by supervisors				
8.4.5 Incident safety officer with proper expertise appointed				
8.4.6 Protective equipment appropriate for CBRN exposure				
5 Personnel Accountability During Emergency Operations				
8.5.1 Written SOPs for personnel accountability				
8.5.2 Local conditions and character- istics considered				
8.5.3 Members actively participate				
8.5.4 IC maintains awareness				
8.5.5 TLMC officers supervise assigned companies/crows				
8.5.6 Company officers responsible for members				
8.5.7 Members remain with company				
8.5.8 Member responsible for following personnel accountability system				
8.5.9 Personnel accountability system used at all incidents				
8.5.10 Accountability system effective				
8.5.11 Additional accountability officers				
6 Members Operating at Emergency Incidents				
8.6.1 Adequate number of personnel provided to safely conduct emergency operations				
8.6.4 Members operate in teams of two or more				
8.6.5 Crew members in communication with each other				

FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (conti						
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks		
Chapter 8 Emergency Operations (continue	nd)					
8.4.2 Risk management principles used						
8.4.3 IC evaluates risk to members						
8.4.4 Risk management principles routinely employed by supervisors						
8.4.5 Safety officer with proper expertise appointed						
8.4.6 Protective equipment appropriate for CBRN exposure						
8.5 Personnel Accountability During Emergency Operations						
8.5.1 Written SOPs for personnel accountability						
8.5.2 Local conditions and character- istics considered						
8.5.3 Members actively participate						
8.5.4 IC maintains awareness						
8.5.5 Officers supervise assigned companies/crews						
8.5.6 Company officers responsible for members						
8.5.7 Members remain with company						
8.5.8 Member responsible for following personnel accountability system						
8.5.9 Personnel accountability system used at all incidents						
8.5.10 Accountability system effective						
8.5.11 Additional accountability officers						
8.5.12 IC and supervisors responsible for tracking and accountability of assigned companies						
8.6 Members Operating at Emergency Incidents						
8.6.1 Adequate number of personnel provided to safely conduct emergency operations						
8.6.2 No evolutions outside of established safety criteria						
8.6.3 Inexperienced members directly supervised						
8.6.4 Members operate in teams of two or more						
8.6.5 Crew members in communication with each other						

	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
apter 8 Emergency Operations (continued				
8.6.6 Crew members operate in proximity to each other				
8.6.7 Two in, two out in initial stages				
8.6.8 At aircraft rescue and fire fighting, IDLH area wingtip to wingtip				
8.6.9 Highest available level of EMS available for special operations				
8.6.11 IC requests EMS to be available				
8.6.12 Members secured to aerial device				
8.6.13 PPE and SCBA used by fire investigators and others in IDLH atmosphere				
8.6.14 Water rescue members wear personal flotation devices				
Hazard Control Zones				
8.7.1 Hazard control zones established with members wearing appropriate lovel of PPE				
8.7.2 Hazard control zone perimeters established				
8.7.3 Changes in perimeters communi- cated to all members on scene				
8.7.4 Hazard control zones identified				
8.7.5 The IC ensures that the designation of the appropriate pretective cloth- ing and equipment is commensurate with the hazard zone the member is operating in				
8.7.6 All officers and members using appropriate PPE within that zone				
8.7.7 The use of hazard control zones continued until the hazards have been mitigated				

NFPA 1500 FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (contil					
Estimated Expected					
Reference in Standard	Percent in Compliance	Cost to Comply	Compliance Date	Remarks	
Chapter 8 Emergency Operations (continued	Ð				
8.6.6 Crew members operate in preximity to each other					
8.6.7 Two in, two out in initial stages					
8.6.8 At aircraft rescue and fire fighting, IDLH area wingtip to wingtip					
8.6.9 Highest available level of EMS available for special operations					
8.6.10 EMS personnel at hazmat operations meet NFPA 473					
8.6.11 IC requests EMS to be available					
8.6.12 Members secured to aerial device					
8.6.13 PPE and SCRA used by fire investigators and others in IDLH atmosphere					
8.6.14 Water rescue members wear personal flotation devices					
8.6.15 SOP for hazardous energy source operations					
.7 Hazard Control Zones					
8.7.1 Hazard centrol zones established with members wearing appropriate level of PPE					
8.7.2 Hazard control zone perimeters established					
8.7.3 Changes in perimeters communi- cated to all members on scene					
8.7.4 Hazard control zones identified					
8.7.5 The IC ensures that the designation of the appropriate protective cloth- ing and equipment is commensurate with the hazard zone the member is operating in					
8.7.6 All officers and members using appropriate PPE within that zone					
8.7.7 The use of hazard control zones continued until the hazards have been mitigated					

Re		n Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
	pter 8 E	mergency Operations (continue	d)			
5.8	Rapid I Member	ntervention for Rescue of				
	8.8.1					
	8.8.2.2	Standby members maintain awareness				
	8.8.2.3					
	8.8.2.4					
	8.8.2.6					
	8.8.2.7	Standby members don full PPE and SCBA before entering hazardous area				
	8.8.2.8	Standby member limitations				
	8.8.2.9					
	8.8.4	Rapid intervention crew equipped and available				
	8.8.6	Composure and structure of RIC flexible				
	8.8.7					
	5.5.5	RIC status in early stages				

FIRE DE	PARTMENT OCCUPATION		PA 1500 Y AND HEA	LTH PROGRAM	WORKSHEET (contin
Reference	in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chanter 8	Emergency Operations (continue				
	Intervention for Rescue of				
8.8.1	Personnel provided for rescue of members				
8.8.2.2	Standby members maintain awareness				
8.8.2.3	Standby members remain in communication				
8.8.2.4	Standby member permitted to perform other duties outside of the hazard area				
8.8.2.5	Standby member restricted activities				
8.8.2.6	Standby members have full PPE and SCBA				
8.8.2.7	Standby members don full PPE and SCBA before entering hazardous area				
8.8.2.8	Standby member limitations				
8.8.2.9	Rapid intervention crew deployed when incident no longer in initial stage				
8.8.2.10	In imminent life-threatening situation, action to prevent loss of life permitted with loss than four personnel				
8.8.4	Rapid intervention crew equipped and available				
8.8.6	Composure and structure of RIC flexible				
8.8.7	IC provides RICs appropriate for incident size				
8.8.8	RIC status in early stages				
8.8.11	RICs for special operations				

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 8 Emergency Operations (continue	rd)			
8.10 Violence, Civil Unrest, or Terrorism				
8.10.1 Fire department not involved in activity without law enforce- ment present				
8.10.2 Fire department personnel not involved in crowd control				
8.10.3 SOPs for member safety at civil disturbance				
8.10.4 Interagency agreement for protection of members				
8.10.5 Communication to indicate life- and-death situations				
8.10.6 Fire department to coordinate with law enforcement				
8.10.7 Fire department IC identifies and reacts to violent situations				
8.10.8 Fire department IC communicates with low enforcement IC				
8.10.9 Stage resources in a safe area until scene secure				
8.10.10 Secure law enforcement or withdraw when violence occurs				
8.10.11 Body armor used only by members trained and qualified				
8.10.12 Members supporting SWAT operations trained and operating under SOPs				
8.11 Post-Incident Analysis				
8.11.1 SOPs for standardized post- incident critique				
8.11.2 Incident safety efficer involved in critique				
8.11.3 Review of conditions and actions on the safety and health of members				

FIRE DEPARTMENT OCCUPATION	NAL SAFETY	AND HEA	LTH PROGRAM	WORKSHEET (continu
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 8 Emergency Operations (continue	nd)			
8.10 Violence, Civil Unrest, or Terrorism				
8.10.1 Fire department not involved in activity without law enforce- ment present				
8.10.2 Fire department personnel not involved in crowd control				
8.10.3 SOPs for member safety at civil disturbance				
8.10.4 Interagency agreement for protection of members				
8.10.5 Communication to indicate life- and-death situations				
8.10.6 Fire department to coordinate with law enforcement				
8.10.7 Fire department IC identifies and reacts to violent situations				
8.10.8 Fire department IC communicates with law enforcement IC				
8.10.9 Stage resources in a safe area until scene secure				
8.10.10 Secure law enforcement or withdraw when violence occurs				
8.10.11 Body armor used only by members trained and qualified				
8.10.12 Members supporting SWAT operations trained and operating under SOPs				
8.11 Post-Incident Analysis				
8.11.1 SOPs for standardized post- incident critique				
8.11.2 Safety officer involved in critique				
8.11.3 Review of conditions and actions on the safety and health of members				

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 8 Emergency Operations (continue	0)			
8.11.5 Analysis includes standard action plan				
Chapter 10 Facility Safety				
10.1.3 All facilities comply with NFPA 101				
10.1.3.4 All facilities have earbon monoxide detectors				
10.1.5 Methods to provent exhaust exposure				
10.1.6 Contaminated PPE not in living and sleeping areas				
10.1.7 Smoke-free facilities				
10.2 Inspections				
10.3 Maintenance and Repairs				
Chapter 11 Medical and Physical Requirem	ents			
11.1 Medical Requirements				
11.1.2 Medical evaluation considers risks and functions associated with duties				
11.1.4 Aircraft pilots comply with FAA regulations				
11.1.5 Members under influence of drugs or alcohol excluded from participation				

NFPA 1500 FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (contin				
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 8 Emergency Operations (continue	_			
8.11.4 Identify needed action to	a)			
improve welfare of members				
8.11.5 Analysis includes standard action plan				
Chapter 10 Facility Safety				
10.1 Safety Standards				
10.1.1 Comply with codes				
10.1.2 Facilities for disinfecting, cleaning, and storage per NFPA 1581				
10.1.3 All facilities comply with NFPA 101				
10.1.3.1 All facilities have smoke detectors				
10.1.3.4 All facilities have carbon monoxide detectors				
10.1.5 Methods to prevent exhaust exposure				
10.1.6 Contaminated PPE not in living and sleeping areas				
10.1.7 Smoke-free facilities				
10.1.8 Pole holes secured				
10.2 Inspections				
10.2.1 Annual code inspection				
10.2.2 Inspections documented				
10.2.3 Monthly safety and health inspection				
0.3 Maintenance and Repairs				
10.3 System to maintain facilities and correct safety or health hazards				
Chapter 11 Medical and Physical Requirem	ents			
11.1 Medical Requirements				
11.1.1 Medical qualified before becoming a member				
11.1.2 Members meet chapter 7 and chapter 9 of NFPA 1582				
11.1.3 Medical evaluation considers risks and functions associated with duties				
11.1.4 Aircraft pilots comply with FAA regulations				
11.1.5 Members under influence of drugs or alcohol excluded from participation				

	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
hapter 11 Medical and Physical Requirem				
1.2 Physical Performance				
Requirements 11.2.1 Fire department develops				
training				
11.3.4 Health and fitness coordinator acts as liaison				
1.4 Confidential Health Data Base				
11.4.1 Individual health file for each				
1.6 Fire Department Physician				
11.6.2 Provides medical guidance in management of safety and				
11.7 Fitness for Duty Evaluation				
11.7.1 Process for evaluating essential job functions				
member to perform essential job functions				
confirm member can return to duty				

NFPA 1500 FIRE DEPARTMENT OCCUPATIONAL SAFETY AND HEALTH PROGRAM WORKSHEET (conti				
Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 11 Medical and Physical Requirem	ents (continued	0		
11.2 Physical Performance				
Requirements				
11.2.1 Fire department develops requirements				
11.2.2 Candidates qualified prior to				
training				
11.2.3 Members annually qualified 11.2.4 Members not qualified not				
involved in emergency				
operations				
11.2.5 Physical performance rehabil- itation program available				
11.3 Health and Fitness				
11.3.1 Health and fitness program				
meets NFPA 1583 11.3.2 Fitness levels determined by				
individual's assigned functions				
11.3.3 Health and fitness coordinator				
administers the program 11.3.4 Health and fitness coordinator				
acts as liaison				
11.4 Confidential Health Data Base				
11.4.1 Individual health file for each member				
11.4.2 Health file complete				
11.4.3 Composite data base for analysis				
11.4.4 Autopsy results in health data base				
11.5 Infection Control				
11.5.1 Fire department limits or				
prevents member's exposure				
11.5.2 Infection control program meets NFPA 1581				
11.6 Fire Department Physician				
11.6.1 Fire department physician				
officially designated 11.6.2 Provides medical guidance in				
management of safety and				
health program 11.6.3 Physician licensed				
11.6.4 Available on urgent basis				
11.6.5 Health and safety officer and				
health fitness coordinator				
liaison with physician				
11.7.1 Process for evaluating essential				
job functions				
11.7.2 Evaluation by qualified person and confirmed by fire department physician				
11.7.3 Treatment provided to allow member to perform essential job functions				
11.7.4 Fire department physician to confirm member can return to duty				

Reference in Standard	Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
Chapter 12 Behavioral Health and Wellnes 12.1 Behavioral Health Program				
12.1.2 Program refers members to appropriate health care services				
12.1.4 Pregram that supports the enhancement of behavioral health and wellness through leadership development and organizational/group dynamics evaluation and training				
12.2 Wellness Program				
12.2.1 Wellness program preventative goals and strategies				
12.2.2 Wellness program uses peer reviewed and researched strategies supporting safety and efficacy of the program				
Chapter 13 Occupational Exposure to Aty	pically Stressful	Events		
13.1 General				
13.1.1 Physician to provide guidance				
13.1.2 Written policy that establishes program to relieve stress				

Reference in Standard			Percent in Compliance	Estimated Cost to Comply	Expected Compliance Date	Remarks
hap	pter 12	Behavioral Health and Wellness	Programs			
2.1	Behav	ioral Health Program				
	12.1.1	Provide member assistance program				
	12.1.2	Program refers members to appropriate health care services				
	12.1.3	Program to assist members in creating personal resiliency to stress and traumatic exposures				
	12.1.4	Program that supports the enhancement of behavioral health and wellness through leadership development and organizational/group dynamics evaluation and training				
2.2	Wellne	oss Program				
	12.2.1	Wellness program preventative goals and strategies				
	12.2.2	Wellness program uses peer reviewed and researched strategies supporting safety and efficacy of the program				
	12.2.3	Program on health effects with tobacco products				
Char	oter 13	Occupational Exposure to Pote	ntially Traumati	c Events		
3.1	Gener	al				
	13.1.1	Physician to provide guidance				
		Written policy that establishes program to relieve stress				
	13.1.3	Clearly outlined assistance and intervention available to affected members				

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Thu Jan 25 17:08:57 EST 2018

Committee Statement

Committee Statement:

The committee has made this change for project consistency by deleting the term "incident" in front of "incident safety officer" thus just making it "safety officer".

Response Message:



First Revision No. 102-NFPA 1500-2018 [Section No. C.1]

C.1

Fire fighters are being exposed to increased risks on the fireground. Buildings are being occupied in a manner different from that for which they were originally designed. The design of some buildings has changed so that the roofs and floors can and do fail at a faster rate. Mezzanines over the floor area have created hazards during fire-fighting operations. These changes have created safety hazards, which have increased the risks to fire fighters.

Fire departments should take appropriate measures to identify buildings that can cause hazardous conditions during emergency operations. A method that could be used is to add a letter or letters to the bottom white "specific hazard" area on existing placards as specified in NFPA 704. Some buildings are constructed utilizing several types of roof construction. The local fire department should determine which identifier is used based upon the construction feature or hazard that creates the greatest risk to fire fighters.

The identifier letter or letters that could be used are as follows:

- (1) **A** Artisans living in a commercial building
- (2) LT Lightweight trusses used in roof or floor construction (e.g., roofs-open web, wooden I-beams)
- (3) AT Arch trusses used in roof construction
- (4) **P** Panelized roof construction
- (5) M Mezzanines above floor area

Fire departments should initiate local actions that allow for the local adoption of NFPA 704 placards, with the same identifiers to be installed on nonplacarded buildings.

The NFPA 704 marking system could prove beneficial for first-responding companies and move-up companies, including companies used during mutual and automatic aid.

It is recommended that fire departments develop tactical plans to address safety concerns for fire fighters confronted with buildings placarded with specific hazards.

It is also recommended that there is a method that could be used that is contained in Annex E of NFPA 1 that would assist in the building marking system used by fire fighters.

Submitter Information Verification

Submitter Full Name: Ken Holland

Organization: National Fire Protection Assoc

Street Address:

City: State: Zip:

Submittal Date: Fri Feb 02 12:20:13 EST 2018

Committee Statement

Committee The committee has added this in order to provide the end user another option when it

Statement: comes to building markings.

Response Message:

Public Input No. 8-NFPA 1500-2017 [Section No. C.1]