

Chapter 296-305 WAC

Safety Standards for Firefighters

(Form Number 414-036-000)

This book contains rules for Safety Standards for fire fighters, as adopted under the Washington Industrial Safety and Health Act of 1973 (Chapter 49.17 RCW).

The rules in this book are effective December 2018. A brief promulgation history, set within brackets at the end of this chapter, gives statutory authority, administrative order of promulgation, and date of adoption of filing.

TO RECEIVE E-MAIL UPDATES:

- Sign up at https://public.govdelivery.com/accounts/WADLI/subscriber/new?topic_id=WADLI_19

TO PRINT YOUR OWN PAPER COPY OR TO VIEW THE RULE ONLINE:

- Go to <https://www.lni.wa.gov/safety-health/safety-rules/rules-by-chapter/?chapter=305/>

DOSH CONTACT INFORMATION:

- **Physical address:**

7273 Linderson Way
Tumwater, WA 98501-5414
(Located off I-5 Exit 101 south of Tumwater.)

- **Mailing address:**

DOSH Standards and Information
PO Box 44810
Olympia, WA 98504-4810.

- Telephone: 1-800-423-7233.
- For all L&I Contact information, visit <https://www.lni.wa.gov/agency/contact/>

Also available on the L&I Safety & Health website:

- DOSH Core Rules
- Other General Workplace Safety & Health Rules
- Industry and Task-Specific Rules
- Proposed Rules and Hearings
- Newly Adopted Rules and New Rule Information
- DOSH Directives (DD's)
- See <http://www.lni.wa.gov/Safety-Health/>

CHAPTER 296-305 WAC

SAFETY STANDARDS FOR FIREFIGHTERS

WAC 296-305-01001	Foreword.	1
WAC 296-305-01003	Scope and application.	1
WAC 296-305-01005	Definitions.	2
WAC 296-305-01007	Variance and procedure.	15
WAC 296-305-01501	Injury and illness reports for firefighters.	15
WAC 296-305-01503	Accident/incident investigation.	16
WAC 296-305-01505	Accident prevention program.	17
WAC 296-305-01507	Fire department health and safety officer.	18
WAC 296-305-01509	Management's responsibility.	18
WAC 296-305-01511	Employee's responsibility.	20
WAC 296-305-01513	Safe place standards.	20
WAC 296-305-01515	First-aid training and certification.	20
WAC 296-305-01517	First-aid kits.	21
WAC 296-305-02001	Personal protective equipment and protective clothing.	21
WAC 296-305-02002	Structural firefighting clothing (SFF).	23
WAC 296-305-02004	Protection ensemble for structural firefighting.	23
WAC 296-305-02012	Body armor.	26
WAC 296-305-02017	Personal alert safety system (PASS) protection.	26
WAC 296-305-02019	Life safety ropes, harnesses, and hardware protection.	27
WAC 296-305-02501	Emergency medical protection.	28
WAC 296-305-03002	Hazardous materials.	30
WAC 296-305-04001	Respiratory equipment protection.	31
WAC 296-305-04501	Automotive fire apparatus design and construction.	34
WAC 296-305-04503	Automotive fire apparatus equipment.	35
WAC 296-305-04505	Automotive apparatus operational rules.	36

WAC 296-305-04507	Fire apparatus maintenance and repair.	37
WAC 296-305-04510	Aerial apparatus.....	37
WAC 296-305-05000	Incident management.	40
WAC 296-305-05002	Fire suppression.	42
WAC 296-305-05004	Occupational exposure to heat and cold stress.	44
WAC 296-305-05013	Aircraft rescue and firefighting.	47
WAC 296-305-05101	Technical rescue general requirements.	47
WAC 296-305-05103	Technical rescue training.	48
WAC 296-305-05105	Technical rescue standard operating procedure.....	48
WAC 296-305-05109	Technical rescue equipment.	49
WAC 296-305-05111	Technical rescue safety.	49
WAC 296-305-05113	Technical rescue operational specialties.	50
WAC 296-305-05502	Training and member development.	55
WAC 296-305-06001	Fire service equipment.	61
WAC 296-305-06003	Testing fire service equipment.....	62
WAC 296-305-06006	Ground ladders.	62
WAC 296-305-06008	Electrical.	63
WAC 296-305-06501	Requirements for fire department facilities.	65
WAC 296-305-06503	General requirements.	65
WAC 296-305-06505	Sanitation, disinfection, cleaning, and storage areas.....	67
WAC 296-305-06507	Sleeping areas.....	68
WAC 296-305-06509	Apparatus areas.	68
WAC 296-305-06511	Indoor air quality.	68
WAC 296-305-06513	Refueling areas.....	69
WAC 296-305-06515	Hose drying towers.	69
WAC 296-305-06517	Drill tower training facilities.	70
WAC 296-305-06519	Fire station equipment and tools.....	70
WAC 296-305-07001	Wildland fire operations.	71

WAC 296-305-07002	Wildland fire personnel accountability.....	71
WAC 296-305-07004	Heat-related illness prevention for wildland firefighters.....	72
WAC 296-305-07006	Equipment for wildland firefighting.....	72
WAC 296-305-07008	Aircraft operations for fighting wildland fires.	73
WAC 296-305-07010	Training for wildland firefighting.	73
WAC 296-305-07012	Personal protective clothing and equipment for wildland firefighting.	74
WAC 296-305-07014	Apparatus standards for wildland firefighting.	75
WAC 296-305-07016	Falling and equipment in forest lands.	76
WAC 296-305-07018	Occupant restraints and enclosures for wildland firefighting.	79
WAC 296-305-08000	Appendices.	80

WAC 296-305-01001 Foreword.

These firefighter safety and health standards were adopted by the department of labor and industries in accordance with the provisions of the Washington Industrial Safety and Health Act (WISHA) of 1973 (chapter [49.17 RCW](#)), with recommendations from the fire service advisory committee.

The purpose of this chapter is to assist employers and employees in the reduction of work related injuries and illnesses. In addition to providing an enforceable set of safety and health standards for the fire protection services, it is the intent of the department that the provisions of this chapter be used to assist both employers and employees in achieving the safest workplace reasonably attainable under the conditions to which employees are or will be exposed.

WAC 296-305-01003 Scope and application.

- (1) The rules of this chapter apply with respect to any and all activities, operations and equipment of employers and employees involved in providing fire protection services which are subject to the provisions of the Washington Industrial Safety and Health Act of 1973 (chapter [49.17 RCW](#)).
- (2) The provisions of this chapter apply to all firefighters and their work places, including the fire combat scene. Although enforcement of applicable standards will result from provable violations of these standards at the fire combat scene, agents of the department will not act in any manner that will reduce or interfere with the effectiveness of the emergency response of a firefighting unit. Activities directly related to the combating of a fire will not be subjected to the immediate restraint provisions of [RCW 49.17.130](#).
- (3) In the development of this document many consensus standards of the industry were considered and evaluated as to adaptability to the Washington state fire service industry. Where adaptable and meaningful, the firefighter safety elements of these standards were incorporated into this WAC. Chapter 296-305 WAC, must be considered as the firefighter safety standards for the state of Washington.
- (4) The provisions of this chapter cover existing requirements that apply to all fire departments. All fire departments must have in place their own policy statement and operating instructions that meet or exceed these requirements. This chapter contains state and/or federal performance criteria that fire departments must meet.
- (5) Unless specifically stated otherwise by rule, if a duplication of regulations, or a conflict exists between the rules regulating wildland firefighting and other rules in the chapter, only the rules regulating wildland fire fighting will apply to wildland firefighting activities and equipment.
- (6) The provisions of this chapter must be supplemented by the provisions of the general safety and health standards of the department of labor and industries. In the event of conflict between any provision(s) of this chapter and any provision(s) of the general safety and health standards, the provision(s) of this chapter must apply.
- (7) Industrial fire brigades are covered under the provisions of chapter [296-811 WAC](#), Fire brigades.

WAC 296-305-01005 Definitions.

Unless the context indicates otherwise, words used in this chapter will have the meaning given in this section.

Accident. An unexpected event that interrupts or interferes with the orderly progress of the fire department operations and may or may not include personal injury or property damage.

Accountability (tracking) system. A system of firefighter accountability that provides for the tracking and inventory of all members.

ACGIH. American Conference of Governmental Industrial Hygienists.

ACM. Asbestos-containing material; any material containing more than 1 percent asbestos.

Aerial devices. Fire apparatus-mounted aerial ladders, elevated platforms, and water towers.

ANSI: American National Standards Institute.

Apparatus. A mobile piece of fire equipment such as a pumper, aerial, tender, automobile, etc.

Approved.

- (a) A method, equipment, procedure, practice, tool, etc., which is sanctioned, consented to, confirmed or accepted as good or satisfactory for a particular purpose or use by a person, or organization authorized to make such a judgment.
- (b) Approved by the director of the department of labor and industries or his/her authorized representative: *Provided, however,* That should a provision of this chapter state that approval by an agency or organization other than the department of labor and industries is required, such as Underwriters' Laboratories or the Bureau of Mines, the provisions of chapter [296-800](#) WAC must apply.

Asbestos. Includes chrysotile, amosite, crocidolite, tremolite, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated or altered.

Belt. See ladder belt and escape belt.

Bloodborne pathogens. Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Blowup (wildfire). Sudden increase in fire intensity or rate of spread sufficient to preclude direct control or to upset existing control plans. Often accompanied by violent convection and may have other characteristics of a fire storm.

CBRN. Chemical, biological, radiological, and nuclear.

Chief. The employer representative highest in rank who is responsible for the fire department's operation.

Cold zone. The control zone of an incident that contains the command post and such other support functions as are deemed necessary to control the incident.

Combat scene. The site where the suppression of a fire or emergency exists.

Confined space. A space that is all of the following:

- (a) Large enough and arranged so an employee can bodily enter and perform assigned work; and
- (b) Limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
- (c) Not designed for continuous employee occupancy.

Containment. The actions taken to keep a material in its container (e.g. stop the release of the material or reduce the amount being released.)

Contaminated. The presence or the reasonably anticipated presence of nuisance materials foreign to the normal atmospheres, blood, hazardous waste, or other potentially infectious materials on an item or surface.

Contaminated laundry. Laundry which has been soiled with blood or other potentially infectious materials or may contain contaminated sharps.

Contamination. The process of transferring a hazardous material from its source to people, animals, the environment, or equipment, which may act as a carrier.

dBA. A measure of noise level expressed as decibels measured on the “A” scale.

Decontamination.

- (a) The physical or chemical process of reducing and preventing the spread of contamination from persons or equipment used at a hazardous materials incident.
- (b) The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Direct attack. Any treatment applied directly to burning fuel such as wetting, smothering, or chemically quenching the fire or by physically separating the burning from unburned fuel.

Director. The director of the department of labor and industries, or his/her designated representative.

Disinfection. A procedure which inactivates virtually all recognized pathogenic microorganisms, but not necessarily all microbial forms (example: Bacterial endospores) on inanimate objects.

Disturb/disturbance. Refers to activities that disrupt the matrix of, crumble or pulverize, or generate visible debris from ACM or PACM.

Dive rescue (public safety diving). The act of searching for or rescuing a viable or presumably viable person(s), while working in water using underwater apparatus which supplies compressed breathing gas at the ambient pressure.

Double-layer woven clothing. Clothing worn in two layers allowing air to reach the skin. For example, coveralls worn on top of regular work clothes.

Drill tower. A structure which may or may not be attached to the station and which is principally used for training firefighters in fire service techniques.

Drinking water. Potable water that is suitable to drink. Drinking water packaged as a consumer product and electrolyte-replenishing beverages (i.e., sports drinks) that do not contain caffeine are acceptable.

Driver/operator. A person having satisfactorily completed the fire department's "requirements of driver/operator" of a specific piece of fire apparatus.

Emergency. A sudden and unexpected event calling for immediate action.

Emergency incident. A specific emergency operation.

Emergency medical care. The provision of treatment to, and/or transportation of, patients which may include first-aid, cardiopulmonary resuscitation, basic life support, advanced life support, and other medical procedures that occur prior to arrival at a hospital or other health care facility.

Emergency operations. Activities of the fire department relating to rescue, fire suppression, emergency medical care, and special operations, including response to the scene of an incident and all functions performed at the scene.

Employee. An employee of an employer who is employed in the business of his/her employer whether by way of manual labor or otherwise and every person in this state who is engaged in the employment of or who is working under an independent contract the essence of which is their personal labor for an employer under this chapter whether by way of manual labor or otherwise. Also see "Member."

Employer. Any person, firm, corporation, partnership, business trust, legal representative, or other business entity which engages in any business, industry, profession, or activity in this state and employs one or more employees or who contracts with one or more persons, the essence of which is the personal labor of such person or persons and includes the state, counties, cities, and all municipal corporations, public corporations, political subdivisions of the state, and charitable organizations.

Employer representative. A fire department officer authorized by the chief or director of the fire department to act in his/her behalf.

Engine (pumper). A piece of apparatus equipped with hose and a pump for the purpose of supplying water under pressure through hose lines.

Escape belt. A device that fastens around the waist only and is intended to be used by the wearer only as an emergency self-rescue device.

Escape rope. A single-purpose emergency self-escape (self-rescue) rope, not classified as a life safety rope.

Exclusion zone. The control zone designated to exclude all unauthorized personnel, responders, and equipment.

Note: Examples of exclusion zones could be holes in floors, explosive devices, or collapse hazards.

Extended attack. Suppression activity for a wildfire that has not been contained or controlled by initial attack or contingency forces and for which more firefighting resources are arriving, enroute, or being ordered by the initial attack incident commander.

Extended attack incident. A wildland fire that has not been contained or controlled by initial attack forces and for which more firefighting resources are arriving, enroute, or being ordered by the initial attack incident commander. Extended attack implies that the complexity level of the incident will increase beyond the capabilities of initial attack incident command.

Fire apparatus. A fire department emergency vehicle used for rescue, fire suppression, or other specialized functions.

Fire boat. A fire department watercraft having a permanent, affixed firefighting capability.

Fire department. An organization or consortium of organizations providing any or all of the following: Rescue, fire suppression, and other related activities. For the purposes of this standard the term “Fire Department” includes any public, private, or military organization engaging in this type of activity.

Fire department facility. Any building or area owned, operated, occupied, or used by a fire department on a routine basis. This does not include locations where a fire department may be summoned to perform emergency operations or other duties, unless such premises are normally under the control of the fire department.

Firefighter. A member of a fire department whose duties require the performance of essential firefighting functions or substantially similar functions.

Fire retardant. Any material used to reduce, stop or prevent the flame spread.

Fire suppression training. Training received by firefighters on the drill ground, drill tower, or industrial site to maintain the firefighter's proficiency.

Fly. Extendible sections of ground or aerial ladders.

Full body harness. See life safety harness.

Gross decontamination. The initial phase of the decontamination process during which the amount of surface contaminant is significantly reduced.

Ground jack. Heavy jacks attached to frame of chassis of aerial-equipped apparatus to provide stability when the aerial portion of the apparatus is used.

Guideline. An organizational directive that establishes a standard course of action.

Halyard. Rope used on extension ladders for the purpose of raising or lowering fly section(s). A wire cable may be referred to as a halyard when used on the uppermost fly section(s) of three or four section extension ladders.

Harness. See life safety harness.

Hazard communication program. A procedure to address comprehensively the issue of evaluating the potential hazards of chemicals and communicating information concerning hazards and appropriate protective measures to employees. See chapter [296-901](#) WAC.

Hazard control zones.

Cold zone. The control zone of an incident that contains the command post and such other support functions as are deemed necessary to control the incident.

Note: The cold zone established the public exclusion or clean zone. There are minimal risks of human injury or exposure in this zone.

Exclusion zone. The control zone designated to exclude all unauthorized personnel, responders, and equipment.

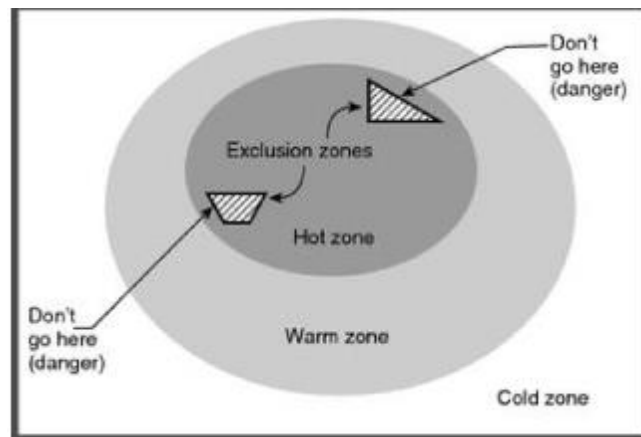
Note: Examples of exclusion zones could be holes in floors, explosive devices, or collapse hazards.

Hot zone: The control zone immediately surrounding the hazard area, which extends far enough to prevent adverse effects to personnel outside the zone. The hot zone is presenting the greatest risk to members and will often be classified as an IDLH atmosphere.

Warm zone: The control zone outside the hot zone where personnel and equipment decontamination and the hot zone support takes place.

Note: 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.

Hazard Zones:



Hazards. The characteristics of facilities, equipment, systems, property, hardware or other objects and those areas of structures or buildings posing a hazard greater than normal to the general occupancy or structures.

Hazardous area. The immediate area where members might be exposed to a hazard.

Hazardous atmosphere. An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (escape unaided from a permit-required confined space), injury or acute illness caused by one or more of the following:

- (a) Flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL);
- (b) Airborne combustible dust at a concentration that meets or exceeds its LFL;
- (c) Atmospheric oxygen concentration below 19.5% or above 23.5%;
- (d) Atmospheric concentration of any substance which may exceed a permissible exposure limit. For additional information about atmospheric concentration, see chapter [296-62](#) WAC, Parts F, G, and I, General occupational health standards and chapter [296-841](#) WAC, Airborne contaminants.

Hazardous condition. The physical condition or act which is causally related to accident occurrence. The hazardous condition is related directly to both the accident type and the agency of the accident.

Hazardous material. A substance (solid, liquid, or gas) that when released is capable of creating harm to people, the environment, and property.

Hazardous substances. Substances that present an unusual risk to persons due to properties of toxicity, chemical activity, corrosivity, etiological hazards of similar properties.

Health and safety officer. The member of the fire department assigned and authorized as the administrator of the fire department health and safety program.

Heat-related illness. A medical condition resulting from the body's inability to cope with a particular heat load, and includes, but is not limited to, heat cramps, heat rash, heat exhaustion, fainting, and heat stroke.

Hose bed. Portion of fire apparatus where hose is stored.

Hose tower. A vertical enclosure where hose is hung to dry.

Hot zone. The control zone immediately surrounding the hazard area, which extends far enough to prevent adverse effects to personnel outside the zone. The hot zone is the area presenting the greatest risk to members and will often be classified as an IDLH atmosphere.

Ice rescue. The rescue of a person(s) who is afloat within an opening in the frozen surface or on the frozen surface of a body of water.

Identify. To select or indicate verbally or in writing using recognized standard terms. To establish the identity of; the fact of being the same as the one described.

IDLH. Immediately dangerous to life and health.

Imminent hazard (danger). An act or condition that is judged to present a danger to persons or property and is so immediate and severe that it requires immediate corrective or preventative action.

Incident command system (ICS). A system that includes: Roles, responsibilities, operating requirements, guidelines and procedures for organizing and operating an on-scene management structure.

Incident commander. The person in overall command of an emergency incident. This person is responsible for the direction and coordination of the response effort.

Incident safety officer. The person assigned the command staff function of safety officer in the incident command system.

Incipient (phase) fire. The beginning of a fire; where the oxygen content in the air has not been significantly reduced and the fire is producing minute amounts of water vapor, carbon dioxide, carbon monoxide and other gases; the room has a normal temperature and can be controlled or extinguished with a portable fire extinguisher or small hose, e.g., a kitchen stove fire.

Indirect attack. A method of suppression in which the control line is located some considerable distance away from the fire's active edge. Generally done in the case of a fast-spreading or high-intensity fire and to utilize natural or constructed firebreaks or fuelbreaks and favorable breaks in the topography. The intervening fuel is usually backfired; but occasionally the main fire is allowed to burn to the line, depending on conditions.

Industrial fire brigade. An organized group of employees whose primary employment is other than firefighting, who are knowledgeable, trained and skilled in specialized operations based on site-specific hazards present at a single commercial facility or facilities under the same management.

Initial action. The actions taken by the first resources to arrive at a wildfire or wildland fire use incident. Initial actions may be size up, patrolling, monitoring, holding action or aggressive initial attack.

Initial attack. A planned response to a wildfire given the wildfire's potential fire behavior. The objective of initial attack is to stop the fire and put it out in a manner consistent with firefighter and public safety and values to be protected.

Initial fire suppression training. The training of firefighters in recognizing sources and locations of potential fires and the method of fire suppression to be used.

Initial stages. Tasks undertaken by the first arriving company with only one crew assigned or operating in the hot zone.

Injury. Physical damage suffered by a person that requires treatment by a practitioner of medicine (a physician, nurse, paramedic or EMT) within one year of the incident regardless of whether treatment was actually received.

Interior structural firefighting. The physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage. See structural firefighting.

Known rescue. A situation of compelling evidence where a member sees, hears, or is directly told of a trapped and viable victim by an occupant who has escaped or is a credible witness.

Ladder belt. A device that fastens around the waist only and is used as a positioning device for a person on a ladder.

Life safety or rescue rope. Rope dedicated solely for the purpose of constructing lines for supporting people during rescue, firefighting, or other emergency operations, or during training evolutions.

Life safety harness. A configuration of connected straps to distribute a fall arresting force over at least the thighs, shoulders and pelvis, with provisions for attaching a lanyard, lifeline, or deceleration devices.

Live fire. Any unconfined open flame or device that can propagate fire to the building, structure, or other combustible materials.

Live fire training. Any fire set within a structure, tank, pipe, pan, etc., under controlled conditions to facilitate the training of firefighters under actual fire conditions.

Locking in. The act of securing oneself to a ladder by hooking a leg over a rung and placing top of foot against the other leg or against the ladder.

May. A permissive use or an alternative method to a specified requirement.

Mayday. The nationally adopted “call for help” term used to indicate that an emergency responder is in a situation of imminent peril where they are in need of immediate help.

Member. A person involved in performing the duties and responsibilities of a fire department under the auspices of the organization. A fire department member may be a full-time or part-time employee or a paid or unpaid volunteer, may occupy any position or rank within the fire department, and engages in emergency operations. Also see **Employee**.

Mobile attack. The act of fighting wildland fires from a moving engine.

Must. Mandatory

NFPA. National Fire Protection Association.

NIMS. The National Incident Management System.

NIOSH. National Institute of Occupational Safety and Health.

Nonskid. The surface treatment that lessens the tendency of a foreign substance to reduce the coefficient of friction between opposing surfaces.

Occupational exposure. Means reasonably anticipated skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Officer.

- (a) Person in charge of a particular task or assignment.
- (b) A supervisor.

OSHA. Occupational Safety and Health Administration.

Other potentially infectious materials (OPIM).

- (a) The following body fluids: Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
- (b) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
- (c) HIV-containing cell or tissue cultures, organ cultures, and HIV-or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Outrigger. Manually or hydraulically operated metal enclosures and jacks which are extended and placed in contact with the ground to give the apparatus a wide, solid base to support different loads.

Overhaul. A firefighting term involving the process of final extinguishment after the main body of a fire has been knocked down. All traces of fire must be extinguished at this time.

PACM. Presumed asbestos-containing material. Thermal system insulation and surfacing material found in buildings, vessels and vessel sections constructed no later than 1980.

PASS. Personal alert safety system.

PEL. Permissible exposure limit.

Personal protective equipment (PPE).

- (a) The equipment provided to shield or isolate a person from the chemical, physical, and thermal hazards that may be encountered at a hazardous materials incident. Personal protective equipment includes both personal protective clothing and respiratory protection. Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, head, body, and hearing.
- (b) Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts, or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Platform. The portion of a telescoping or articulating boom used as a working surface.

Positive communication. Visual, audible, physical, safety guide rope, or electronic means which allows for two way message generation and reception.

PPE. Personal protective equipment.

Probable fatality.

- (a) An occupational injury or illness, which, by the doctor's prognosis, could lead to death.
- (b) An occupational injury or illness, which by its very nature, is considered life threatening.

Protective clothing. Equipment designed to protect the wearer from heat and/or hazardous materials contacting the skin or eyes. Protective clothing is divided into five types:

- (a) Structural firefighting protective clothing;
- (b) Liquid splash-protective clothing;
- (c) Vapor-protective clothing;
- (d) High temperature-protective proximity clothing; and
- (e) Wildland firefighting clothing.

Note: See Protective ensemble.

Protective ensemble. Multiple elements of clothing and equipment designed to provide a degree of protection for firefighters from adverse exposures to the inherent risks of structural firefighting operations and certain other emergency operations. The elements of the protective ensemble are helmets, coats, trousers, gloves, footwear, interface components (hoods), and if applicable, personal alert system (PASS) devices, and self-contained breathing apparatus.

Proximity protective clothing. Radiant reflective protective garments configured as a coat and trousers, or as a coverall, and interface components that are designed to provide protection for the firefighter's body from conductive, convective, and radiant heat.

Pumper. See engine.

Qualified. One who by possession of a recognized degree, certificate or professional standing, or who by knowledge, training or experience has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work or the project.

Rapid intervention crew (RIC). On-scene team of at least two members designated, dedicated and equipped to effect an immediate rescue of firefighters if the need arises (also known as RIT).

RCW. Revised Code of Washington.

Rehabilitation. The process of providing mental and medical evaluation, rest, hydration, and nourishment to members who are engaged in emergency operations.

Rescue. Those activities directed at locating endangered persons at an emergency incident and removing those persons from danger.

Rescue craft. Any fire department watercraft used for rescue operations.

Respirator. A device designed to protect the wearer from breathing harmful atmospheres. See respiratory protection.

Respiratory equipment. Self-contained breathing apparatus designed to provide the wearer with a supply of respirable atmosphere carried in or generated by the breathing apparatus. When in use, this breathing apparatus requires no intake of air or oxygen from the outside atmosphere.

- (a) Respirators (closed circuit): Those types of respirators which retain exhaled air in the system and recondition such air for breathing again.
- (b) Respirators (open circuit): Those types of respirators which exhaust exhaled air to the outside of the mask into the ambient air.
- (c) Respirators (demand): Those types of respirators whose input air to the mask is started when a negative pressure is generated by inhalation.
- (d) Respirators (pressure demand): Those types of respirators which constantly and automatically maintain a positive pressure in the mask by the introduction of air when the positive pressure is lowered (usually from .018 psi to .064 psi) through the process of inhalation or leakage from the mask.

Respiratory protection. Equipment designed to protect the wearer from the inhalation of contaminants. Respiratory protection is divided into three types:

- (a) Positive pressure self-contained breathing apparatus (SCBA);
- (b) Positive pressure airline respirators;
- (c) Negative pressure air purifying respirators.

Responding. The usual reference to the act of responding or traveling to an alarm or request for assistance.

Risk assessment. To set or determine the possibility of suffering harm or loss, and to what extent.

Rope rescue equipment. Components used to build rope rescue systems including life safety rope, life safety harnesses and auxiliary equipment.

Rope rescue system. A system composed of rope rescue equipment and an appropriate anchor system intended to support people during rescue, firefighting, or other emergency operations, or during training evolutions.

Safe and healthful working environment. The work surroundings of an employee with minimum exposure to unsafe acts and/or unsafe conditions.

Safety net. A rope or nylon strap net not to exceed 6-inch mesh, stretched and suspended above ground level at the base of drill tower, and at such a height that a falling body would be arrested prior to striking the ground.

Scabbard. A guard which will prevent accidental injury and covers the blade and pick of an axe or other sharp instrument when worn by the firefighter.

SCBA. Self-contained breathing apparatus.

Service testing. The regular, periodic inspection and testing of apparatus and equipment according to an established schedule and procedure, to ensure that it is in safe and functional operating condition.

Should. Recommended.

Standard operating procedure or guidelines. An organizational directive that establishes a standard course of action.

Standby firefighters. On-scene members designated to effect an immediate rescue of the initial team operating in the hot zone.

Station (fire station). Structure in which fire service apparatus and/or personnel are housed.

Structural firefighting. The activities of rescuing, fire suppression, and property conservation involving buildings, enclosed structures, aircraft, vehicles, vessels, or similar properties that are involved in a fire or emergency situation. See interior structural firefighting.

Structural firefighting protective clothing. This category of clothing, often called turnout or bunker gear, means the protective clothing normally worn by firefighters during structural firefighting operations. It includes a helmet, coat, pants, boots, gloves, and a hood. Structural firefighters' protective clothing provides limited protection from heat but may not provide adequate protection from the harmful gases, vapors, liquids, or dusts that are encountered during hazardous materials incidents.

Surf rescue. The rescue of a person(s) who is afloat on the surface or the subsurface retrieval of a person(s) submerged in ocean water or bodies of water that are connected to oceans that either experience a twice daily rise and fall of their surface caused by gravitational pull of the moon or experience a corresponding ebb and flow of water in response to tides with a surf height of 1 foot or greater.

Surface water rescue. The rescue of a person(s) who is afloat on the surface of a body of water. A trained rescuer (surface based swimmer) may dive for submerged victims, limited to the rescuer's ability, with no sustained underwater capability other than a mask, fins, and snorkel in relatively shallow depths and retrieve or mark a victim.

Swift water rescue. The removal of person(s) from threat or harm from water that is moving faster than walking pace (1 Knot, 1.85 km/hr., 1.15 mph).

Tail/running board. Standing space on the side or rear of an engine or pumper apparatus.

Team. Two or more individuals who are working together in positive communication with each other through visual, audible, physical, safety guide rope, electronic, or other means to coordinate their activities and who are in close proximity to each other to provide assistance in case of emergency.

Tillerman. Rear driver of tractor-trailer aerial ladder.

Trench. A narrow excavation made below the surface of the ground. The depth is generally greater than the width, but the width of a trench is not greater than 15 feet.

Turnout clothing. See structural firefighting protective clothing.

Turntable. The rotating surface located at the base of an aerial ladder, or boom, on aerial apparatus.

Uncontrolled fire. Any fire which threatens to destroy life, property, or natural resources; and (a) is not burning within the confines of firebreaks; or (b) is burning with such intensity that it could not be readily extinguished with ordinary tools commonly available.

Urban wildfire. An uncontained fire requiring suppression action, usually spreading through ground cover, vegetative fuels, brush, grass, and landscaping; often threatening residential and commercial structures within an urban environment with access to established roadways and water systems.

Vapor barrier. Material used to prevent or substantially inhibit the transfer of water, corrosive liquids and steam or other hot vapors from the outside of a garment to the wearer's body.

Vapor barrier clothing. Clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of nonbreathing clothing.

Variance. An allowed or authorized deviation from specific standard(s) when an employer substitutes measures which afford an equal degree of safety. Variances are issued as temporary or permanent with interim measures issued, when requested, until a determination or decision is made.

Vessel. Means every description of watercraft or other artificial contrivance used or capable of being used as a means of transportation on water, including special-purpose floating structures not primarily designed for or used as a means of transportation on water.

WAC. Washington Administrative Code.

Warm zone. The control zone outside the hot zone where personnel and equipment decontamination and hot zone support take place.

<p>Note: 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.</p>

Water rescue. Any incident that involves the removal of victim(s) from any body of water other than a swimming pool. This includes rivers, creeks, lakes, washes, storm drains, or any body of water, whether still or moving.

Wheel blocks (chocks). A block or wedge placed under a wheel to prevent motion.

Wildland. An area in which development is essentially nonexistent, except for roads, railroads, powerlines, and similar transportation facilities. Structures, if any, are widely scattered.

Wildland fire. Any nonstructure fire that occurs in the wildland.

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

Wildland firefighting enclosure. A fire apparatus enclosure with a minimum of three sides and a bottom.

Wildland urban interface. The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

WISHA. Washington Industrial Safety Health Act.

Work environment. The surrounding conditions, influences or forces to which an employee is exposed while working. Any premises, room or other place where an employee or employees are employed for the performance of labor or service over which the employer has the right of access or control. For the purposes of this code, fire ground and emergency scenes are also considered places of employment.

Work/rest ratio. An expression of the amount of rest that is required for each hour an individual is in work status. Current NWCG guidelines require one hour of rest for every two hours in work status.

WAC 296-305-01007 Variance and procedure.

- (1) Conditions may exist in operations that a state standard will not have practical use. The director may issue a variance from the requirements of the standard when another means of providing equal protection is provide.
- (2) Applications for variances will be reviewed and investigated by the department. Variances granted will be limited to the specific WAC code covered in the application and may be revoked for cause. The variance must remain prominently posted on the premises while in effect.

Note: Variance forms may be obtained from the department upon request. Requests for variance from safety and health standards must be made in writing to the assistant director, Consultation and Compliance Services Division, Department of Labor and Industries, P.O. Box 44600, Olympia, Washington 98504-4600.

WAC 296-305-01501 Injury and illness reports for firefighters.

- (1) Notice of injury or illness.
 - (a) Employees must report work-related injuries or illnesses to their employer before the end of their duty period, but not later than twenty-four hours after the incident.
 - (b) Exception: In the event that symptoms of an occupational injury or illness are not apparent at the time of the incident, the employee must report the symptoms to their employer within forty-eight hours after becoming aware of the injury or illness.
 - (c) Within eight hours after the fatality or probable fatality of any firefighter or employee from a work-related incident or the inpatient hospitalization of any employee as a result of a work-related incident, the employer of any employees so affected, must orally report the fatality/hospitalization by telephone (1-800-423-7233) or in person, to the nearest office of the department.

- (i) This requirement applies to each such fatality or hospitalization which occurs within thirty days of the incident.
 - (ii) Exception: If any employer does not learn of a reportable incident at the time it occurs and the incident would otherwise be reportable under this subsection, the employer must make a report within eight hours of the time the incident is reported to any agent or employee of the employer.
 - (iii) Each report required by this subsection must relate the following information: Establishment name, location of the incident, time of the incident, number of fatalities or hospitalized employees, contact person, phone number, and a brief description of the incident.
- (2) Recordkeeping - Written reports; all fire service employers must maintain records of occupational injuries and illnesses. Reportable cases include every occupational death, every occupational illness, or each injury that involves one of the following: Unconsciousness, inability to perform all phases of regular duty-related assignment, inability to work full time on duty, temporary assignment, or medical treatment beyond first aid.
- (3) All fire departments must record occupational injuries and illnesses on OSHA Form 300, Log of Work-Related Injuries and Illnesses.
- (4) Each employer must post an annual summary of occupational injuries and illnesses for each establishment. This summary must consist of a copy of the year's totals from OSHA Form 300A, Summary of Work-Related Injuries and Illnesses and the following information from that form: Calendar year covered, company name, establishment name, establishment address, certification signature, title, and date.

An OSHA Form 300A must be used in presenting the summary. If no injuries or illnesses occurred in the year, zeros must be entered on the totals line, and the form must be posted. The summary must be completed by February 1 each calendar year. The summary covering the previous calendar year must be posted no later than February 1st, and must remain in place until April 30th.

WAC 296-305-01503 Accident/incident investigation.

- (1) After the emergency actions following accidents that cause serious injuries with immediate symptoms or incidents resulting in exposure to occupational disease-causing chemicals or physical agents, a preliminary investigation of the cause must be conducted. The investigation must be conducted by a person designated as qualified by the employer. The fire department must establish a written procedure and a program for investigating, and evaluating the facts, relating to the cause of accidents. The findings of the investigation must be documented by the employer for reference at any following formal investigations.
- (2) Equipment involved in an accident resulting in an immediate or probable fatality must not be moved until a representative of the division of occupational safety and health investigates the accident and releases such equipment, except where removal is essential to prevent further accident. When necessary to remove the victim, such equipment may be moved only to the extent of making possible such removal.

- (3) Upon arrival of the department's investigator, the employer must assign personnel to assist the investigator as are deemed necessary by the department to conduct the investigation.
- (4) The fire department must preserve all records, photographic materials, audio, video, recordings, or other documentation concerning an accident.

WAC 296-305-01505 Accident prevention program.

- (1) All fire departments must develop and implement a written safety program.
- (2) Fire department safety programs must have an assigned health and safety officer.
- (3) Each employer must develop a formal accident-prevention program, tailored to the needs of the fire department and to the type of hazards involved. The department of labor and industries' consultation and compliance services division may be contacted for assistance in developing appropriate programs. A safety orientation program describing the employer's safety program must include:
 - (a) How and when to report injuries, including instruction as to the location of first-aid facilities.
 - (b) How to report unsafe conditions and practices.
 - (c) The use and care of required personal protective equipment.
 - (d) The proper actions to take in event of emergencies including the routes of exiting from areas during emergencies.
 - (e) Identification of the hazardous gases, chemicals or materials involved, along with the instructions on the safe use and emergency action following accidental exposure.
 - (f) A description of the employer's total safety program.
 - (g) An on-the-job review of the practices necessary to perform the initial job assignments in a safe manner.
- (4) Fire departments must have a safety committee to serve in an advisory capacity to the fire chief. The number of employer-selected members must not exceed the number of employee-elected members.
- (5) The frequency of safety meetings must be determined by the safety committee, but must not be less than one hour per calendar quarter, however, special meetings may be held at the request of either party.
- (6) Minutes must be taken of all safety meetings. After review by the chief or their designee the minutes must be conspicuously posted at all stations.
- (7) Employee submitted written suggestions or complaints must be considered. Action recommendations by the committee must be transmitted in writing to the fire chief. The chief or the designated agent will reply to the submitter.
- (8) Inspections of fire stations must be made at least monthly and records maintained to ensure that stations are reasonably free of recognized hazards. These inspections must include, but not be limited to, tools, apparatus, extinguishers, protective equipment, and life safety equipment.

WAC 296-305-01507 Fire department health and safety officer.

- (1) The duties and responsibilities of the fire department health and safety officer must include, but are not limited to:
 - (a) Plan and coordinate safety activities.
 - (b) Work closely with the safety committee.
 - (c) Ensure accidents are investigated.
 - (d) Devise corrective measures to prevent accidents.
- (2) Realizing safety training and recordkeeping are management's responsibility, the fire department health and safety officer must ensure the following requirements are being met:
 - (a) Ensure safety training for all employees.
 - (b) Ensure safety directives are complied with.
 - (c) Ensure that records are kept, but not limited to the following:
 - (i) Accidents;
 - (ii) Injuries;
 - (iii) Inspections;
 - (iv) Exposures;
 - (v) Medical Monitoring;
 - (vi) Safety meetings;
 - (vii) Apparatus;
 - (viii) Equipment;
 - (ix) Protective clothing;
 - (x) Other fire department safety activities.
- (3) The fire department health and safety officer, through the fire chief, must have the authority and responsibility to identify and recommend correction of safety and health hazards.
- (4) The fire department health and safety officer must maintain a liaison with staff officers regarding recommended changes in equipment, procedures, and recommended methods to eliminate unsafe practices and reduce existing hazardous conditions.

Additional Reference:

NFPA 1521 Standard for Fire Department Safety Officer, may be used as a guide for duties and responsibilities relating to the safety officer.

WAC 296-305-01509 Management's responsibility.

- (1) It must be the responsibility of management to establish, supervise, maintain, and enforce, in a manner which is effective in practice:

- (a) A safe and healthful working environment, as it applies to both nonemergency and emergency conditions.
 - (b) An accident prevention program as required by this chapter.
 - (c) Programs for training employees in the fundamentals of accident prevention.
 - (d) Procedures to be used by the fire department health and safety officer and incident commander to ensure that emergency medical care is provided for members on duty.
 - (e) An accident investigation program as required by this chapter.
 - (f) Policies that clarify “rules of engagement” or parameters when personnel should commit to work activities within a hot zone.
 - (g) Policies that clarify the right of every employee to notify the employer of potential life-threatening situations during emergency operations and processes that clarify how this notification is to occur.
- (2) The fire department must be responsible for providing suitable expertise to comply with all testing requirements in this chapter. Such expertise may be secured from within the fire department, from equipment and apparatus manufacturers, or other suitable sources.
 - (3) Members who are under the influence of alcohol or drugs must not participate in any fire department operations or other functions. This rule does not apply to persons taking prescription drugs as directed by a physician or dentist providing such use does not endanger the worker or others.
 - (4) Alcoholic beverages must not be allowed in station houses, except at those times when station houses are used as community centers, with the approval of management.
 - (5) A bulletin board or posting area exclusively for safety and health and large enough to display the required safety and health posters. The WISHA poster (WISHA form F416-081-909) and other safety education material must be provided. A bulletin board of “white background” and “green trim” is recommended.
 - (6) The fire department must develop and maintain a hazard communication program as required by WAC [296-901-14010](#), which will provide information to all employees relative to hazardous chemicals or substances to which they are exposed, or may routinely be exposed to, in the course of their employment.
 - (7) Personnel.
 - (a) The employer must ensure that employees are physically capable of performing duties that may be assigned to them.
 - (b) The employer must not permit employees with known physical limitations reasonably identifiable to the employer, for example, heart disease or seizure disorder, to participate in physically demanding activities unless the employee has been released to participate in such activities by a physician or other licensed health care professional (LHCP) who is qualified by training or experience as determined by the fire department to evaluate firefighters.

WAC 296-305-01511 Employee's responsibility.

- (1) Firefighters must cooperate with the employer and other employees in efforts to eliminate accidents.
- (2) Each firefighter or other employee must comply with the provisions of this chapter which are applicable to their own actions and conduct in the course of their employment.
- (3) Firefighters and other employees must notify the appropriate employer representative of unsafe work practices and of unsafe conditions of equipment, apparatus, or work places.
- (4) Firefighters and other employees must apply the principles of accident prevention in their work. They must use all required safety devices, protective equipment, and safety practices, as provided and/or developed by management.
- (5) Each firefighter must take proper care of all personal protective equipment.
- (6) Firefighters must attend, when on duty, required training and/or orientation programs designed to increase their competency in occupational safety and health.
- (7) Firefighters who are under the influence of alcohol or drugs must not participate in any fire department operations or other functions. This rule does not apply to persons taking prescription drugs as directed by a physician or dentist providing such use does not endanger the worker or others.

WAC 296-305-01513 Safe place standards.

- (1) The employer must furnish and require the use of appropriate safety devices and safeguards. All work methods, and operations must be so designed as to promote the safety and health of employees. The employer must do everything reasonably necessary to protect the safety and health of employees.
- (2) No firefighter or other employee, employer or employer representative must:
 - (a) Remove, displace, damage, destroy or carry off any safety device, safeguard, notice or warning furnished for use in any employment or place of employment.
 - (b) Interfere in any way with the use of any safety device, method or process adopted for the protection of any employee.

WAC 296-305-01515 First-aid training and certification.

- (1) All firefighters except directors of fire departments and the directors' designated personnel, must have as a minimum first-aid training as evidenced by a current, valid first-aid card, EMT or First Responder certification.
- (2) New firefighters must have such first-aid training within ninety days of the date of their employment or enroll for training in the next available class for which they are eligible.
- (3) Fire service duties include exposure to bloodborne pathogens. The requirements of this section and chapter [296-823](#) WAC, Occupational exposure to bloodborne pathogens, must apply.

WAC 296-305-01517 First-aid kits.

- (1) To ensure the emergency medical care of the firefighters there must be present at each emergency incident at least the following items:
 - 1 (one) utility scissors, EMT-type
 - 1 CPR barrier
 - 3 (three) rolls 1 inch adhesive tape
 - 6 (six) 4" x 4" sterile, individually wrapped gauze pads
 - 4 (four) combination pads, sterile, individually wrapped
 - 4 (four) soft roller bandages, assorted size, sterile, individually wrapped cling type
 - 2 (two) burn sheets, sterile, individually wrapped
 - 2 (two) triangular bandages
 - 1 (one) multi-trauma dressing, sterile
 - 2 (two) supply disposable gloves
 - 2 (two) wire splints or equivalent
- (2) All fire stations must maintain a first-aid kit. The kit must contain at least the following items:
 - 6 (six) 4" x 4" sterile, individually wrapped gauze pads
 - 4 (four) combination pads, sterile, individually wrapped
 - 2 (two) rolls 1 inch adhesive tape
 - 4 (four) soft roller bandages, assorted size, sterile, individually wrapped cling type
 - 2 (two) triangular bandages
 - 1 (one) utility scissors, EMT-type
 - 1 (one) pair tweezers
 - 1 (one) package assorted adhesive bandages
- (3) All fire apparatus must contain a first-aid kit as described in WAC [296-800-15020](#).
- (4) All fire departments providing emergency medical services to the public must conform to the requirements of chapter [18.73](#) RCW Emergency Care and Transportation Services (and if applicable, chapter 248-17 WAC, Ambulance Rules and Regulations) which require additional first-aid equipment.

WAC 296-305-02001 Personal protective equipment and protective clothing.

Note: For wildland firefighting personal protective equipment and clothing requirements see WAC 296-305-07012, Personal protective clothing and equipment for wildland firefighting.

- (1) Employers must provide and maintain at no cost to the employee the appropriate protective ensemble/protective clothing to protect from the hazards to which the member is or is likely to be exposed. Information on hazard assessments can be found in WAC [296-800-16005](#). Employers must ensure the use of all protective equipment and clothing required by this standard. Full protective equipment designated for the task, must be worn for all department activities.

- (2) Firefighters must be trained in the function, donning and doffing, care, use, inspection, maintenance and limitations of the protective equipment assigned to them or available for their use.
- (3) Protective clothing and protective equipment must be used and maintained in accordance with manufacturer's instructions. A written maintenance, repair, retirement, servicing, and inspection program must be established for protective clothing and equipment. Specific responsibilities must be assigned for inspection and maintenance. This requirement applies to firefighter's personally owned equipment as well as equipment issued by the employer.
- (4) The fire department must provide for the cleaning of protective clothing and contaminated station/work uniforms at no cost to the employee. Such cleaning must be performed by either a cleaning service, or at a fire department facility, that is equipped to handle contaminated clothing. If the fire department does its own cleaning, they must follow the manufacturer's recommended cleaning procedure or the 2008 edition of NFPA 1851, Standard on Selection, Care and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting.
- (5) Personal protective equipment and clothing must be of a type specified by NIOSH, MSHA, NFPA, ANSI, or as specifically referenced in the appropriate section of this chapter.
- (6) Station/work uniforms. Station/work uniforms are not themselves intended as primary protective garments.
 - (a) Station/work uniforms if provided, must meet the requirements as specified in the 1990 or 1994 edition of NFPA 1975, Standard on Station/Work Uniforms for Fire and Emergency Services. However, departments are not required to provide station/work uniforms for their employees.
 - (b) Station/work uniforms include trousers, and/or coveralls, but exclude shirts, underwear, and socks.
 - (c) Members must not wear any clothing that is determined to be unsafe due to poor thermal stability or poor flame resistance when engaged in or exposed to the hazards of structural firefighting. The fire department must inform members of the hazards of fabrics that melt, drip, burn, stick to the skin and cause burns to the wearer due to poor thermal stability or poor flame resistance, and must prohibit their use by employees. Garments that are not provided by the employer, and that are made from all or mostly cotton, will meet the requirements of this section.
 - (d) Garments meeting the requirements of WAC 296-305-07012(1), meet the intent of this section.
- (7) Proximity firefighting clothing:
 - (a) All turnout clothing used as proximity clothing must meet the requirements of the 2000 edition of NFPA, 1976 Standard on Protective Ensemble for Proximity Firefighting.
 - (b) There must be at least a two-inch overlap of all layers of the protective coat and the protective trousers so there is no gaping of the total thermal protection when the protective garments are worn. The minimum overlap must be determined by measuring the garments on the wearer, without SCBA, with the wearer in the most stretched position, hands together reaching overhead as high as possible.

- (c) Single piece protective coveralls must not be required to have an overlap of all layers as long as there is continuous full thermal protection.
- (d) Fire departments that provide protective coats with protective resilient wristlets secured through a thumb opening may provide gloves of the gauntlet type for use with these protective coats. Fire departments that do not provide such wristlets attached to all protective coats must provide gloves of the wristlet type for use with these protective coats.

WAC 296-305-02002 Structural firefighting clothing (SFF).

- (1) All SFF clothing purchased after January 1, 2014, must meet the requirements of the 1991 edition of NFPA 1971, Standard on Protective Clothing for Structural Fire Fighting, or the 1997 edition of NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting. Firefighters must not wear personal protective clothing manufactured prior to 1991, except for training purposes in nonhazardous areas.
- (2) SFF clothing must be maintained as specified by the manufacturer.
- (3) Repairs to SFF clothing must be done to the manufacturer's specification by qualified individuals approved by the manufacturer. Repairs must be made using materials and methods in accordance with the applicable standards under which the article was produced. Repairs include any and all alterations, modifications, additions, deletions or any other change made to the manufacturer's PPE article.
- (4) SFF clothing which is damaged or does not comply with this section must not be used.
- (5) All SFF clothing must be inspected semiannually by an individual qualified by the employer. Inspection intervals must not exceed six months.

WAC 296-305-02004 Protection ensemble for structural firefighting.

- (1) Face and eye protection.
 - (a) Face and eye protection must be provided for and used by firefighters engaged in fire suppression and other operations involving hazards to the eye and face at all times when the face is not protected by the full facepiece of the SCBA. Primary face and eye protection appropriate for a given specific hazard must be provided for, and used by, members exposed to that specific hazard. Such primary face and eye protection must meet the requirements of the 2003 edition of ANSI Z87.1.
 - (b) Persons whose vision requires the use of corrective lenses in spectacles, and who are required by this standard to wear eye protection, must wear goggles or spectacles of one of the following types:
 - (i) Spectacles with protective lenses that provide optical correction.
 - (ii) Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles.
 - (iii) Goggles that incorporate corrective lenses mounted behind the protective lens.

- (c) When limitations or precautions are indicated by the manufacturer, they must be transmitted to the user and care taken to see such limitations and precautions are strictly observed.
- (d) Care, use and maintenance for any type of eye or face protection must follow the manufacturer's suggested recommendations.
- (e) Goggles must be inspected, cleaned and disinfected prior to being reissued to other employees.
- (f) Helmet face shields must meet the requirements of the 2000 edition of NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting.

Note: The helmet face shield alone does not always provide adequate eye protection against flying particles, splash, gases and vapors. For known eye hazards, such as cutting with power saws, chopping, drilling and using extrication equipment, the face shield should be worn with additional eye protection.

- (g) For firefighters that do not have a helmet face shield, flexible or cushioned fitting goggles must be provided.
 - (h) Goggles must consist of a wholly flexible frame, forming a lens holder or a rigid frame with integral lens or lenses, having a separate, cushioned fitting surface on the full periphery of the facial contact area.
 - (i) Materials used must be chemical-resistant, nontoxic, nonirritating and slow burning.
 - (ii) There must be a positive means of support on the face, such as an adjustable headband of suitable material or other appropriate means of support to retain the frame comfortably and snugly in front of the eyes.
- (2) Hearing protection. Fire departments must address noise issues as required by chapter [296-817 WAC](#), Hearing loss prevention (noise).

Note: Although noise levels may exceed the 115 dBA ceiling limit for noise exposures during structural firefighting activities, hearing protection that will survive these conditions and not interfere with other essential PPE may not always be available. Fire departments must consider daily noise exposures and exposures to noise outside direct firefighting activities when selecting hearing protection and may use less protection during direct fire suppression when adequate hearing protection is not technically feasible.

- (3) Hand protection.
- (a) Firefighters' gloves must, when worn with turnout clothing, provide protection to the wrist area. In turnout clothing where wristlet protection is not provided firefighters' gloves must be tight-fitting at the top.

- (b) Fire departments must establish written policy and procedure for the care, use, cleaning, replacement or retirement criteria for gloves issued.
- (c) Firefighters' gloves used during structural firefighting operations including rescue of victims from fires or emergency medical operations where sharp or rough surfaces are likely to be encountered must meet the requirements of the 2000 edition of NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting.

Notes:

1. Firefighters' gloves are not designed to provide protection against all environments. For gloves needed to fulfill a specific requirement see that specific section of this chapter. It is the intent of this section to provide protection from intrusion through the glove by certain chemicals and from bloodborne pathogens. Consult the glove manufacturers' recommendations.
2. Firefighters' hands should be sized for compliance using the sizing chart specified in the 2000 edition of NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting.

- (4) Body protection. Body protection must be coordinated with torso, hand, head, foot, respiratory, and face protection as outlined in WAC 296-305-02001 through 296-305-02019 and 296-305-04001.
- (5) Foot protection.
 - (a) Protective footwear purchased after January 1, 2014, must comply with the 2007 or later edition of NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting.
 - (b) Fire departments must establish written policies and procedures on the use, maintenance, and retirement criteria for footwear in conjunction with the manufacturer's recommendations.

Note: Fire departments should establish cleaning and drying instructions for protective footwear, including applicable warnings regarding detergents, soaps, cleaning additives and bleaches.

- (c) Firefighter footwear may be resoled, but upon resoling the footwear must meet the requirements specified in this section.
- (6) Head protection. Firefighters who engage in or are exposed to the hazards of structural firefighting must be provided with and use helmets that meet, as a minimum, the requirements of the 1987 edition of NFPA 1972, Standard on Helmets for Structural Fire Fighting.
 - (a) Helmets purchased after January 1, 2014, must comply with the 2007 or later edition of NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting.

- (b) Fire departments must establish a written policy and procedure for the care, use, maintenance and retirement criteria for helmets, following the manufacturer's recommendations.
- (c) Helmet accessories must not interfere with the function of the helmet or its parts, and must not degrade the helmet's performance.
- (d) Firefighters must follow the manufacturer's recommendations regarding inspection, cleaning, painting, marking, and storage of helmets.

WAC 296-305-02012 Body armor.

Fire departments that use protective body armor must comply with the following:

- (1) If the employer's PPE assessment required by WAC [296-800-16005](#) documents a need for body armor, the employer must provide the necessary equipment and ensure that:
 - (a) The body armor fits properly;
 - (b) Employees are trained in the use and limitations of the body armor; and
 - (c) The body armor is worn when necessary.

Note: Employees may exceed the minimum requirements for body armor if they choose.

- (2) The fire department must develop and have in place written guidelines for the care, use and maintenance of the protective body armor in conjunction with the manufacturer's recommendations.
- (3) All protective body armor purchased prior to the effective date of this standard must meet or exceed the April 1987 edition of National Institute of Justice NIJ 0101.03, threat level II requirements, or be demonstrated by the employer to be equally effective. All protective body armor purchased after the effective date of this standard must meet either the September 2000 edition of NIJ 0101.04, threat level II requirements or the June 2001 revision, NIJ 0101.04A. All body armor made of decertified materials as outlined in the 2005 edition of NIJ 0101.05 should be removed from service as soon as replacement body armor is available.
- (4) Body armor must be correctly fitted following the manufacturer's recommendations and must not be used beyond the manufacturer's warranty.

Note: DOSH Directive 5.09, Body Armor as Personal Protective Equipment, can provide additional guidance regarding selection of body armor.

WAC 296-305-02017 Personal alert safety system (PASS) protection.

- (1) Each firefighter engaged in structural firefighting requiring the use of SCBA must wear and use a PASS device. PASS devices must meet the requirements of the 1993 edition of NFPA 1982, Standard on Personal Alert Safety Systems (PASS) for Firefighters. (See WAC 296-305-07001 through 296-305-07018 for wildland firefighting application.)

Note: Fire departments should provide one spare PASS device for each ten units in service. If a department has less than ten devices they should have one spare.

- (2) Each PASS device must be tested routinely to ensure it is ready for use and immediately prior to each use, and must be maintained in accordance with the manufacturers' instructions.
- (3) Fire departments must provide written procedures for the use of PASS devices.
- (4) Fire departments must establish a written procedure for the care, use, maintenance, and repair of PASS devices in conjunction with manufacturer's recommendations.

WAC 296-305-02019 Life safety ropes, harnesses, and hardware protection.

- (1) All previously purchased life safety ropes, harnesses, and hardware used by fire departments must meet the applicable requirements of the 2001 edition of NFPA 1983, Standard on Life Safety Rope and System Components. Ropes and equipment purchased after the effective date of this rule must meet the 2006 edition of NFPA 1983, Standards on Life Safety Rope and Equipment for Emergency Services.
- (2) Ropes used to support the weight of members or other persons during rescue, firefighting, other emergency operations, or during training evolutions must be life safety rope.
- (3) Life safety rope used for rescue at fires, or other emergency incidents, or for training, must be permitted to be reused if inspected before, and after, each such use in accordance with the manufacturer's instructions and provided:
 - (a) The rope has not been visually damaged by the exposure to heat, direct flame impingement, chemical exposure, or abrasion.
 - (b) The rope has not been subjected to any impact load.
 - (c) The rope has not been exposed to chemical liquids, solids, gases, mists, or vapors of any materials, known to deteriorate rope.
 - (d) If the rope used for rescue at fires or other emergency incidents, or for training, has been subjected to (a), (b), or (c) of this section, or fails the visual inspection, it must be destroyed after such use.
 - (e) If there is any question regarding the serviceability of the rope after consideration of the above, the safe course of action must be taken and the rope must be placed out of service. See Appendix B.
 - (f) Rope inspection must be conducted by qualified inspectors in accordance with rope inspection procedures established and recommended as adequate by the rope manufacturer to assure rope is suitable for reuse.
- (4) Fire departments must establish written procedures for the use of life safety ropes and rescue operations utilizing harnesses and ropes.

- (5) Records must provide a history of each life safety and training rope. The minimum information to be reflected in the record of history of life safety and training ropes must include: Date of manufacturer, organization serial number, date of use, type of use, date of inspection, inspectors name and space for comments.
- (6) The destruction of a rope means that it must be removed from service and altered in such a manner that it could not be mistakenly used as a life safety rope. This includes disposal or removal of labels and cutting into short lengths to be used for utility purposes.
- (7) All repairs to life safety harnesses must be done by an authorized manufacturer's representative, or the manufacturer.
- (8) At a minimum, ladder belts must be used for firefighter attachment to ladders and aerial devices.
- (9) Class II and Class III life safety harnesses must be utilized for fall arrest and rappelling operations. Class III harnesses must be used when the potential to become inverted exists.
- (10) Line safety ropes must be padded when deployed over edges or rough surfaces.

Note: See WAC 296-305-05113 for rope rescue applications.

WAC 296-305-02501 Emergency medical protection.

- (1) Firefighters who perform emergency medical care or otherwise may be exposed to blood or other body fluids must be provided with emergency medical face protection devices, and emergency medical garments that meet the applicable requirements of the 1999 edition of NFPA 1999, Standard on Protective Clothing for Emergency Medical Operations.

Note: Prior to purchase, fire departments should request the technical data package required in the 2003 edition of NFPA 1999, in order to compare glove and garment performance data. Departments reviewing these packages should ensure a relative ranking of the performance data before they purchase in order to provide the best performance of the EMS personal protective clothing.

- (2) Firefighters must don emergency medical gloves and eye protection prior to initiating any emergency patient care.
- (3) Firefighters must don emergency medical garments prior to any patient care during which splashes of body fluids can occur such as situations involving spurting blood or childbirth.

Note: Firefighter turnout gear and gloves with vapor barriers may be used in lieu of emergency medical gloves and garments

- (4) Contaminated emergency medical garments, emergency medical face and eye protection, gloves, devices, and emergency medical gloves must be cleaned and disinfected, or disposed of, in accordance with chapter [296-823](#) WAC, Occupational exposure to bloodborne pathogens.
- (5) Fire departments must establish a designated infection (exposure) control officer who must ensure that an adequate infection control plan is developed and all personnel are trained and supervised on the plan.
- (6) The infection control officer must be responsible for establishing personnel exposure protocols so that a process for dealing with exposures is in writing and available to all personnel.
- (7) The infection control officer or their designee will function as a liaison between area hospitals and fire department members to provide notification that a communicable disease exposure is suspected or has been determined by hospital medical personnel. The department infection control officer will institute the established exposure protocols immediately after report of an exposure. The infection control officer must follow the confidentiality requirements of chapter 246-100 WAC and the medical protocol requirements of chapter [296-802](#) WAC.
- (8) Fire departments must have a written infection control plan which clearly explains the intent, benefits, and purpose of the plan. The written document must cover the standards of exposure control such as establishing the infection control officer and all members affected; education and training; documentation and record keeping; cleaning/disinfection of personnel and equipment; and exposure protocols.
- (9) Policy statements and standard operating procedure guidelines must provide general guidance and specific regulation of daily activities. Procedures must include delegation of specific roles and responsibilities, such as regulation of infection control, as well as procedural guidelines for all required tasks and functions.
- (10) Fire departments must establish a records system for members health and training.
- (11) Firefighters must be trained in the proper use of P.E., exposure protection, post exposure protocols, disease modes of transmission as it related to infectious diseases.
- (12) Infectious disease programs must have a process for monitoring firefighters compliance with established guidelines and a means for correcting noncompliance.
- (13) Fire department members must be required to annually review the infectious disease plan, updates, protocols, and equipment used in the program.
- (14) Fire departments must comply with chapter [296-823](#) WAC, Occupational exposure to bloodborne pathogens, in its entirety.

- (15) Tuberculosis (TB) exposure and respiratory protection requirements.
- (a) Firefighters must wear a particulate respirator (PR) when entering areas occupied by individuals with suspected or confirmed TB, when performing high risk procedures on such individuals or when transporting individuals with suspected or confirmed TB in a closed vehicle.
 - (b) A NIOSH-approved, 95% efficient particulate air respirator is the minimum acceptable level of respiratory protection.
 - (i) Fit tests are required.
 - (ii) Fit tests must be done in accordance with chapter [296-842](#) WAC.
 - (c) Employee tuberculosis screening must be provided in accordance with current U.S. Centers for Disease Control and Prevention guidelines.

Note: If possible, the rear windows of a vehicle transporting patients with confirmed, suspected, or active tuberculosis should be kept open, and the heater or air conditioner set on a noncirculating cycle.

WAC 296-305-03002 Hazardous materials.

- (1) Fire department personnel involved in hazardous materials incidents must be protected against potential chemical hazards. Chemical protective clothing must be selected according to the technical data package provided by the clothing manufacturer and used to protect the skin, eyes, face, hands, feet, head and body.
- (2) Fire departments must select, provide, and require the use of additional personal protective equipment as required in chapter [296-842](#) WAC, Respiratory protection.
- (3) Hazardous chemical protective equipment must be classified by performance and is defined as:
 - (a) Vapor-protective suits (level A) meeting the criteria outlined in the 2000 edition of NFPA 991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies.
 - (b) Liquid splash-protective suits (level B) meeting the criteria outlined in the 2000 edition of NFPA 992, Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies.
 - (c) CBRN terrorism incident protective ensembles and ensemble elements meeting the criteria outlined in the 2001 edition of NFPA 994, Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents.
- (4) Vapor protective ensembles, liquid splash-protective ensembles, and CBRN protective ensembles must completely cover both the wearer and the wearer's respiratory protection unless the respiratory protection has been specifically designed by the manufacturer for that type of chemical exposure.
- (5) Vapor protective suits and liquid splash-protective suits must not be used alone for any firefighting applications or for protection from radiological, biological, or cryogenic agents or in flammable or explosive atmospheres.

- (6) Liquid splash-protective suits must not be used when operations are likely to result in significant exposure to chemicals or specific chemical mixtures with known or suspected carcinogenicity as indicated by any one of the following documents if it can be reasonably expected that the firefighters in vapor-protective suits would be significantly better protected:
 - (a) Dangerous Properties of Industrial Chemicals, 10th edition-2000, N. Irving Sax.
 - (b) NIOSH Pocket Guide to Chemical Hazards, 2006 edition.
 - (c) U.S. Coast Guard Chemical Hazard Response Information System (CHRIS), Volume 13, Hazardous Chemical Data.
- (7) Liquid splash-protective suits must not be used when operations are likely to result in significant exposure to chemicals or specific chemical mixtures with skin toxicity notations as indicated by the American Conference of Government Industrial Hygienists (ACGIH) Threshold Limit Values for Chemical Substances and Agents and Biological Exposure Indices for 2004 or 2007 if it can be reasonably expected that firefighters in vapor-protective suits would be significantly better protected.
- (8) Firefighters assigned to functional support operations outside the hot zone during hazardous chemical emergencies must be provided with and must use personal protective garments appropriate for the type of potential chemical hazard exposure.
- (9) Fire departments responding to uncontrolled release of hazardous materials must comply with chapter [296-824](#) WAC, Emergency response.

WAC 296-305-04001 Respiratory equipment protection.

- (1) Firefighter's self-contained breathing apparatus (SCBA) must, at a minimum, meet the requirements of the 1997 edition of NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire Fighters. Equipment purchased after the effective date of this rule must meet the 2007 edition of NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus for Emergency Services.
- (2) Closed circuit SCBA must:
 - (a) Be positive pressure;
 - (b) Be NIOSH certified; and
 - (c) Have a minimum thirty-minute service duration.
- (3) Members using SCBA's must operate in teams of two or more.
- (4) Except as otherwise provided in this chapter, fire departments must adopt, maintain and implement a written respiratory protection program that addresses the requirements of chapter [296-842](#) WAC, Respiratory protection. This includes program administration, medical limitations, equipment limitations, equipment selection, inspection, use, maintenance, training, fit testing procedures, air quality, and program evaluation.

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

- (5) Reserved.
- (6) When the fire department makes its own breathing air or uses vendor supplied breathing air, they must maintain documentation certifying breathing air quality. The breathing air must:
 - (a) Be tested at least quarterly by using an air sample taken from the same outlet and in the same manner as the respirator breathing air cylinders are filled or airline respirators are connected.
 - (b) Meet the requirements of either the 2003 edition of NFPA 1989, Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection or the 1997 edition of ANSI/CGA G6-1 - Commodity Specification for Air, with a minimum air quality of grade D.
 - (c) Meet a water vapor level of 24 ppm or less.
- (7) Fit testing must be conducted in accordance with this section and chapter [296-842](#) WAC, Respiratory protection.
 - (a) Each new member must be tested by a qualitative or quantitative method before being permitted to use SCBA's in a hazardous atmosphere.
 - (b) Only firefighters with a properly fitting facepiece must be permitted by the fire department to function in a hazardous atmosphere with SCBA.
 - (c) Fit testing must be repeated:
 - (i) At least once every twelve months.
 - (ii) Whenever there are changes in the type of SCBA or facepiece used.
 - (iii) Whenever there are significant physical changes in the user. Example: Weight change of ten percent or more, scarring of face seal area, dental changes, cosmetic surgery, or any other condition that may affect the fit of the facepiece seal.
 - (d) The fit testing is done only in a negative-pressure mode. If the facepiece is modified for fit testing, the modification must not affect the normal fit of the device. Such modified devices must only be used for fit testing.
 - (e) The fit test procedures and test exercises described in WAC [296-842-15005](#) and [296-842-22010](#) must be followed unless stated otherwise in this chapter.
 - (f) Respirator fit test records must include:
 - (i) Written guidelines for the respirator fit testing program including pass/fail criteria;
 - (ii) Type of respirator tested including manufacturer, model, and size;
 - (iii) Type of fit test and instrumentation or equipment used;
 - (iv) Name or identification of test operator;
 - (v) Name of person tested;
 - (vi) Date of test; and
 - (vii) Results of test.

Note: Firefighters should be issued individual facepieces.

- (8) Facial hair, contact lenses, and eye and face protective devices.
 - (a) A negative pressure respirator, any self-contained breathing apparatus, or any respirator which is used in an atmosphere immediately dangerous to life or health (IDLH) equipped with a facepiece must not be worn if facial hair comes between the sealing periphery of the facepiece and the face or if facial hair interferes with the valve function.
 - (b) The wearer of a respirator must not be allowed to wear contact lenses if the risk of eye damage is increased by their use.
 - (c) If a corrective lens must be worn with a facepiece, they must be worn so as to not adversely affect the seal of the facepiece to the face. See WAC [296-842-18005\(3\)](#).
 - (d) Straps or temple bars must not pass between the seal or surface of the respirator and the user's face.
- (9) At the end of suppression activities (to include fire overhaul) and before returning to quarters:
 - (a) Gross/field decontamination must be performed on firefighters prior to removal of their respirator whenever firefighting activities resulted in exposure to a hazardous substance.
 - (b) When exchanging air supply bottles during suppression or overhaul activities, reasonable precautions must be taken to maintain uncontaminated atmosphere to the breathing zone and facepiece supply hose.
- (10) Self-contained respiratory equipment must be available and used by all firefighters who enter into hazardous atmospheres during structural firefighting activities.
- (11) Reserved.
- (12) Respirators must be provided for, and must be used by, all personnel working in areas where:
 - (a) The atmosphere is hazardous;
 - (b) The atmosphere is suspected of being hazardous; or
 - (c) The atmosphere may rapidly become hazardous.

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

- (13) Reserved.
- (14) Firefighters using a properly functioning SCBA must not compromise the protective integrity of the SCBA by removing the facepiece for any reason in hazardous atmospheres or in atmospheres where the quality of air is unknown.
- (15) Firefighters must receive training for each type and manufacturer of respiratory equipment available for their use, the step-by-step procedure for donning the respirator and checking it for proper function. Required training must include:

- (a) Recognizing hazards that may be encountered;
 - (b) Understanding the components of the respirator;
 - (c) Understanding the safety features and limitations of the respirator; and
 - (d) Donning and doffing the respirator.
- (16) After completing such training, each firefighter must practice at least quarterly, for each type and manufacture of respirator available for use, the step-by-step procedure for donning the respirator and checking it for proper function.
 - (17) Members must be tested at least annually on the knowledge of respiratory protection equipment operation, safety, organizational policies and procedures, and facepiece seals, to the fire department's standard. Such records must remain part of the member training file.
 - (18) Members must be allowed to use only the make, model, and size respirator for which they have passed a fit test within the last twelve months.
 - (19) In cases where there is a reported failure of a respirator, it must be removed from service, tagged and recorded as such, and tested before being returned to service.
 - (20) Firefighters must be thoroughly trained in accordance with the manufacturer's instructions on emergency procedures such as use of regulator bypass valve, corrective action for facepiece and breathing tube damage, and breathing directly from the regulator (where applicable).
 - (21) Reserved.
 - (22) SCBA cylinders must be hydrostatically tested within the periods specified by the manufacturer and the applicable governmental agencies.

WAC 296-305-04501 Automotive fire apparatus design and construction.

- (1) All new fire apparatus with the exception of specialized equipment, must conform to the following minimum safety standards contained in the 2009 edition of NFPA 1901, Standard for Automotive Fire Apparatus, or the 2006 Edition of NFPA 1906, Standard for Wildland Fire Apparatus.
- (2) Used fire apparatus, purchased after the effective date of this rule, weighing 10,000 pounds or more must conform with the following U.S. Department of Transportation standards, when applicable:
 - (a) 49 C.F.R. Ch. V (10-03 edition) 571.121 "Air brake systems";
 - (b) 49 C.F.R. Ch. V (10-03 edition) 571.106 "Brake hoses";
 - (c) 49 C.F.R. Ch. V (10-03 edition) 571-103 "Hydraulic brake systems."
- (3) Employers acquiring used apparatus or used equipment must not be required to bring it under a more stringent code than the one in force at the time the apparatus was manufactured. However, such vehicle must meet applicable U.S. Department of Transportation standards and chapter [296-865](#) WAC, Motor vehicles.
- (4) Fire apparatus tailboards and steps must have a nonskid rough surface.

- (5) Exhaust systems must be installed and maintained in proper condition, and must be so designed as to minimize the exposure of the firefighter to the exhaust gases and fumes.
- (6) Spinner knobs must not be attached to the steering handwheel of fire apparatus.
- (7) The transmission shifting pattern of the apparatus must be clearly stenciled or labeled and posted so it can be clearly read by the driver while operating the apparatus.
- (8) The height of any apparatus, over seven feet in height from the ground to the top of the beacon or highest point of the apparatus, must be clearly labeled in a place where it can be easily and clearly read by the driver while operating the apparatus.
- (9) All apparatus in excess of 10,000 pounds loaded weight, must have the weight of the vehicle in pounds and tons clearly labeled in a place where it can be easily and clearly read by the driver while operating the apparatus.
- (10) All hoses and equipment must be secured to prevent unintentional or inadvertent deployment.
- (11) Fire departments that purchase nonmotorized equipment to be used in emergency response situations on all roadways must comply with [Title 46 RCW](#), Motor vehicles.

WAC 296-305-04503 Automotive fire apparatus equipment.

- (1) Vehicles used to transport firefighters and employer representatives must have compartments for carrying sharp tools, saws, chisels, axes, etc., or if carried on the outside of the apparatus, equipment with sharp points and edges must be covered to prevent injury to firefighters and employer representatives.
- (2) Personnel restraints for traveling.
 - (a) All persons riding on fire apparatus must be seated and secured to the vehicle by seat belts or safety harnesses at any time the vehicle is in motion.
 - (b) Seat belts must comply with U.S. Department of Transportation Part 49 C.F.R. Section 571, Standards 209 and 210.
 - (c) Riding on tail steps or in any other exposed position such as sidesteps or running boards must be specifically prohibited.
 - (d) Standing while riding must be specifically prohibited.
 - (e) Members actively performing necessary emergency medical care while the vehicle is in motion must be restrained to the extent consistent with the effective provision of such emergency medical care. All other persons in the vehicle must be seated and belted in approved seating positions while the vehicle is in motion.
 - (f) Fire departments permitting hose loading operations while the vehicle is in motion must develop a written policy and guidelines addressing all safety aspects.

Note: Policy and operating guidelines should address:

1. The assigning of a member as a safety observer who should have an unobstructed view of the hose loading operation and be in visual and voice contact with the driver.
2. Allowed maximum fire apparatus speed when hose loading;
3. Control of nonfire department vehicular traffic; and
4. Allowing members in the hose bed, but limit standing to only when the vehicle is not moving.

Note: See WAC 296-305-07018(3) for exceptions for wildland vehicles.

- (3) Each fire apparatus must carry a current U.S. Department of Transportation Emergency Response Guidebook in hardcopy or in electronic form for viewing on a digital reading device.
- (4) Ladders stowed on the sides of apparatus, which protrude past the tailboard, must have guards over the protruding ends.
- (5) No employer must permit automotive fire apparatus equipment which has an obstructed view to the rear, to be used in reverse gear unless the equipment has in operation a reverse signal alarm distinguishable from the surrounding noise level.

WAC 296-305-04505 Automotive apparatus operational rules.

- (1) Each employer of staffed fire apparatus must establish a written policy and procedure whereby the apparatus has a scheduled daily operational check. Each employer of unstaffed fire apparatus must establish a schedule appropriate to that department's activities.
- (2) Any item found to be in need of repair must be reported immediately to the officer in charge or other appropriate person.
- (3) Firefighting apparatus must be brought to a full stop before employees are allowed to step from the apparatus.
- (4) Firefighters must not be in the apparatus hose bed while hose is being run out from the bed.
- (5) Headlights must be on at all times when any fire or emergency vehicle is responding to a call.
- (6) All apparatus over 20,000 pounds (gross vehicle weight) must utilize wheel chocks, rated for the specific apparatus they are being used with, when parked at an emergency scene.
- (7) Apparatus responding to alarms must meet specifications in RCW [46.61.035](#), relating to operations of authorized emergency vehicles.
- (8) All operators of emergency vehicles must be trained in the operations of apparatus before they are designated as drivers of such apparatus. The training program must be established by each fire department. Once trained, all operators must familiarize themselves with any apparatus prior to operating such apparatus even for brief periods of time.

Additional Reference:

Washington Fire Chiefs - Emergency Vehicle Incident Prevention (EVIP) program or other Washington state accredited program.

WAC 296-305-04507 Fire apparatus maintenance and repair.

- (1) If at any time a fire apparatus is found to be in an unsafe condition, it must be reported immediately to the officer on duty.
- (2) If in the driver or duty officer's determination, the apparatus cannot be used in a safe manner, it must be taken out of service until it has been restored to a safe operating condition.
- (3) All repairs to the suppression components of emergency vehicles of the fire department must be done by an emergency vehicle technician, ASE certified technician or factory qualified individual. Repairs, maintenance or routine work to nonsuppression systems of suppression apparatus or other fire department vehicles and their equipment must be done by personnel qualified in the specific area of repair. Fire service pumps with a capacity of 499 gallons per minute or less and not used for interior structural firefighting operations are exempt from this requirement.
 - (a) A preventive maintenance program must be instituted and records maintained for each individual apparatus in order to record and track potential or on-going problems.
 - (b) Apparatus must be maintained and tested in accordance with the manufacturer's recommendations.

Note: Additional information can be found in the 2007 edition of NFPA 1911, Standard for the Inspection, Maintenance, Testing and Retirement of In-service Automotive Fire Apparatus. Qualifications for persons working on emergency response vehicles can be found in the 2000 edition of NFPA 1071, Standard for Emergency Vehicle Technician Professional Qualification, A.1.1 and A.2.1.

WAC 296-305-04510 Aerial apparatus.

- (1) All new aerial devices must be constructed and initially tested in accordance with the 2009 edition of NFPA 1901, Standard for Automotive Apparatus.
- (2) All aerial devices must be operated in accordance with the manufacturer's recommendations.
- (3) All aerial devices must be maintained, tested and repaired in accordance with the manufacturer's instructions and nonconflicting portions of the 2002 edition of NFPA 1911, Standard for the Inspection, Maintenance, Testing and Retirement of In-Service Automotive Fire Apparatus.
 - (a) All devices, as well as the section of the apparatus which supports the turntable, must be inspected at least once every year.

- (b) All devices, as well as the section of the apparatus which supports the turntable, must be nondestructively tested by a certified testing agency every five years.
 - (c) After any accident that causes structural damage, testing must be performed and all defects corrected before the apparatus is returned to service.
- (4) Aerial devices must be used according to the following requirements:
- (a) The number of firefighters permitted on aerial devices must be in accordance with the manufacturer's instructions.
 - (b) Aerial devices must not be positioned under dangerous cornices or other loose overhanging objects that may endanger firefighters and personnel working from or climbing the ladders, except where rescue operations are essential.
 - (c) When working near energized electrical lines, the following minimum working clearances for all equipment and personnel must be observed:
 - (i) For lines rated 50 kv or below, the minimum clearance between the lines and any part of the equipment must be ten feet.
 - (ii) For lines rated over 50 kv, the minimum clearance must be ten feet plus 0.4 inch (1 cm) for each 1 kv.
 - (iii) For low voltage lines (operating at 600 volts or less), the work must be performed in a manner to prevent the firefighters or equipment from contacting the energized conductor.
 - (d) Fire apparatus aerial devices must be positioned for the greatest stability feasible at the fire scene.
 - (e) The tip of the aerial device must not be forcefully extended against a solid structure.
- Note:** If allowed by manufacturer's recommendations, aerial devices may be utilized for ventilation in accordance with those recommendations.
- (f) Aerial ladders must not be extended or retracted while firefighters are climbing the ladder.
 - (g) Locking in must not be permitted. If it is necessary for firefighters to be positioned on the aerial device, they must be secured by at least a ladder belt.
 - (h) Ladder pipes, when in use, must be secured to the aerial in such a manner so that the ladder pipe cannot accidentally be dislodged while in operation.
 - (i) The operator of an aerial device must remain on the turntable whenever firefighters are working from the aerial. If the aerial device is used only as a ground ladder, no operator is needed on the turntable.
- (5) The following must regulate the design and use of the operating turntable and aerial device:
- (a) Ladders must have nonskid protection on the rungs.
 - (b) Turntable controls and valves for rotating, extending or elevating the aerial device must be clearly and distinctly marked as to function.

- (c) Aerial controls must be spring loaded and have a safety catch so that the controls will return to the neutral position if the operator is incapacitated.
 - (d) The operator of the aerial device must be provided with a nonskid surface on the turntable.
 - (e) A railing of approximately forty-four inches in height, and if possible, not less than thirty-six inches in length, must be installed on the turntable in back of the operator's position.
 - (f) A spotlight of not less than 75,000 candlepower (950,000 lumens) or a floodlight with not less than 850 cp (10,500 lumens) must be provided at the base to illuminate the aerial device at night in any position of operation.
- (6) The following must regulate the communication systems on the aerial devices and on the automotive fire apparatus:
- (a) A two-way voice communication system must be installed between the top fly of the ladder or platform and the lower control station.
 - (b) There must be some type of electrical signal or voice communication located in the tractor of tillered aerial for communication signals between the tillerman and driver. The apparatus must not be moved unless the proper signal, as shown in Appendix E, is received from the tillerman.
- (7) The automotive fire apparatus used in conjunction with aerial devices must be used according to the following:
- (a) Ground jacks or outriggers must be deployed before an aerial device is put into operation.
 - (b) Ground plates must be deployed under the outriggers or jacks at all times.
 - (c) Hand, airbrakes, and spring brakes must be set whenever an aerial device is in operation.
 - (d) In addition to ground jack supports and outriggers, wheel chocks must be used whenever the aerial device is in operation.
 - (e) Wheel chocks must be rated by the manufacturer of the chock for the apparatus it is to be used on.
 - (f) Sand or similar products must be put under jacks, outriggers, and ground plates when operating on ice or snow.
- (8) Railings on elevated platforms must be constructed so that there is no opening greater than twenty-four inches below them.
- (9) A plate must be located at the aerial device control units, clearly visible to the operator at the lower control position, listing the following information:
- (a) Model and serial number of the manufacturer.
 - (b) Rated capacity of the platform.
 - (c) Operating pressure of the hydraulic and pneumatic systems.

- (d) Cautions or restrictions of operation.
- (e) Control instructions.

WAC 296-305-05000 Incident management.

- (1) The fire department must establish an incident management system (IMS) consistent with the U.S. Department of Homeland Security National Incident Management System (NIMS) with written guidelines applying to all members involved in emergency operations.
 - (a) All members involved in emergency operations must be trained in the IMS system.
 - (b) Personnel must be trained and qualified by their department in the incident command system (ICS) that meets the requirements of NIMS prior to taking a role at an emergency scene.
 - (c) The incident management system must be applied to drills, exercises, and other situations that involve hazards similar to those encountered at actual emergency incidents and to simulated incidents that are conducted for training and familiarization purposes.
- (2) At all emergency incidents, the incident commander must be responsible for the overall safety of all members and all activities occurring at the scene.
- (3) All emergency incidents must be managed by an ICS; the incident commander must establish an organization with sufficient supervisory personnel to control the position and function of all members operating at the scene and to ensure that safety requirements are satisfied.
- (4) At all emergency incidents, the incident commander must have the responsibility to:
 - (a) Assume and confirm command and take an effective fixed physical command position.
 - (b) Perform situation evaluation that includes risk assessment.
 - (c) Initiate, maintain, and control incident communication.
 - (d) Develop an overall strategy and incident action plan.
 - (e) Develop an effective ICS organization by managing resources, maintaining an effective span of control, and maintaining direct supervision over the entire incident by creating geographical and/or functional area supervisors as appropriate for the scope and size of the incident.
 - (f) Review, evaluate, and revise the incident action plan as required.
 - (g) Continue, transfer, and terminate command.
- (5) The fire department must develop a risk management policy including rules of engagement that can be used by the incident commander in the development of incident strategies. The risk management policy should include direction and guidance to the incident commander in formulating incident planning relating to the level of risk that may be undertaken in any given incident to save lives and property in as safe a manner as dictated by the situation.
- (6) The fire department must establish an accountability system: Written procedures and guidelines for tracking all members operating at emergency incidents.

- (7) The incident commander must provide for control of access to hazardous areas of the incident scene. Procedures must identify methods for identification of hazardous areas and communication of necessary protective equipment and other protective measures necessary to operate in the hazardous area.
 - (a) Control zones must be established at emergency incidents.
 - (b) The perimeters of the control zones must be designated by the incident commander and communicated to all members.
 - (c) If the perimeters of the control zones change during the course of the incident, these changes must be communicated to all members on the scene.
 - (d) Hazard control zones must be designated as hot, warm, cold and exclusion zones.
 - (e) All members must wear the PPE (SCBA, flash hood, etc.) appropriate for the risks that might be encountered while in the hot zone.
 - (f) All members operating within the hot zone must have an assigned task.
 - (g) No unauthorized personnel must enter an exclusion zone that was designated due to the presence of imminent hazard(s) or the need to protect evidence.
- (8) Firefighters operating in a hot zone must operate in teams of two or more regardless of rank or assignment. Members of these teams must be in constant communication with each other through touch, visual, or voice means in order to provide assistance in case of emergency.
- (9) The fire department must provide personnel for the rescue of members operating at emergency incidents as the need arises.
- (10) The fire department must develop and maintain written guidelines for the safety of members at incidents that involve violence, unrest, or civil disturbance. Such situations may include, but not be limited to, riots, fights, violent crimes, drug related situations, family disturbances, deranged individuals, and people interfering with fire department operations.
- (11) When members are operating at an emergency incident and their assignment places them in potential conflict with motor vehicle traffic, all reasonable efforts must be made to protect the members.

Note: Chapters 6H and 6I of the Manual on Uniform Traffic Control Devices, 2003 edition revision 1, provides information on how to set up traffic control zones during emergency operations on different types of roadways. This information can be accessed for free at the following link: <http://mutcd.fhwa.dot.gov/pdfs/2003r1/pdf-index.htm>.

- (12) Responders must not manipulate equipment that they have not been trained or equipped to use.

- (13) In the event a firefighter becomes lost, trapped, seriously injured, has a medical emergency, has exhausted their breathing air, or finds themselves in any other form of life threatening situation they must immediately call for help, using the nationally adopted term “Mayday” to declare that an emergency situation now exists. The fire department must specifically establish and routinely practice standard procedures for managing a Mayday situation.
- (14) Emergency scene communications.
 - (a) Incident radio communication must use clear text terminology.
 - (b) Incident communication must use the phrase “emergency traffic” as the standard alert for all units operating on the scene to clear the air.
 - (c) The fire department must specifically establish and routinely practice standard procedures for managing an “emergency traffic” situation.

Note: The fire department communication center should start an incident clock when the first arriving unit is on scene of a working structure fire or when conditions appear to be time sensitive or dangerous. The dispatch center should notify the incident commander, at an interval established by their policy or procedure, until incident stabilization is achieved.

WAC 296-305-05002 Fire suppression.

- (1) Before beginning interior structural firefighting operations, the incident commander must evaluate the situation and risks to operating teams.
- (2) The “initial stages” of an incident must encompass the tasks undertaken by the first arriving company with only one crew assigned or operating in the hot zone.
- (3) In the initial stages of an incident where only one crew is operating in the hot zone at a working structural fire, a minimum of four individuals must be required, consisting of two individuals working as a crew in the hot zone and two individuals present outside the hot zone available for assistance or rescue of firefighters during emergency operations where entry into the hot zone is required.
- (4) Initial attack operations must be organized to ensure that if, on arrival at the emergency scene, responders find a known rescue situation where immediate action could prevent the loss of life or serious injury, such action must only be permitted when no less than three personnel (2-in/1-out) are present and equipped to provide emergency assistance or rescue of the team entering the hot zone.

No exception must be allowed when there is no possibility to save lives or no “known” viable victims.

- (5) Firefighters must not engage in interior structural firefighting in the absence of at least two standby firefighters (2-in/2-out) except as provided in WAC 296-305-05002(4).

- (6) Standby team members must comply with the following:
- (a) Members must remain aware of the status of firefighters in the hot zone.
 - (b) Members must remain in positive communication (radio, visual, voice or signal line) with the entry team, in full protective clothing with respiratory protection donned while in standby mode.
 - (c) Only one standby team member may be permitted to perform other duties outside the hot zone, provided constant communication is maintained with the team in the hot zone, and provided that those duties will not interfere with his or her ability to initiate a rescue as appropriate.
 - (d) No standby team members must be permitted to serve as a standby member of the firefighting crew when the other activities in which the firefighter is engaged inhibit the firefighter's ability to assist in or perform firefighter rescue or are of such importance that they cannot be abandoned without placing other firefighters in danger.

Note: Nothing in this section will prevent actions which may reasonably be taken by members first on the scene to determine the nature and extent of fire involvement.

- (7) Once a second crew arrives at the hot zone, the incident must no longer be considered to be in the "initial stage," and at least one rapid intervention crew should be assigned. For further guidance, see nonmandatory Appendix D.
- (8) Teams in the hot zone must have positive communication capabilities with the incident command structure in place. Incident radio communication capabilities within the incident management structure must include monitoring the incident-assigned frequencies (including mutual aid radio frequencies).
- (9) Officers at emergency scenes must maintain an awareness of the physical and mental condition of members operating within their span of control and ensure that adequate steps are taken to provide for their safety and health. The command structure must be utilized to request relief and reassignment of fatigued crews.
- (10) Personal protective clothing/equipment designed for wildfire suppression must not be used for interior structural firefighting.
- (11) Firefighters must not cut the electrical drip loop providing power to the structure nor pull the electrical meter.
- (12) Prior to overhaul, buildings must be surveyed for possible safety and health hazards. Firefighters must be informed of hazards observed during the survey and measures must be taken to protect firefighters from these hazards.

- (13) Self-contained breathing apparatus (SCBA) must be worn throughout overhaul. SCBA must also be worn during activities taking place in the area previously considered the hot zone after overhaul unless the officer in charge conducts an exposure evaluation to determine or reasonably estimate whether an employee is or could be exposed to either an airborne contaminant above a permissible exposure limit (PEL) listed in WAC [296-841-20025](#) Table 3 or other airborne hazards, such as biological/radiological/nuclear hazards. When the officer in charge cannot determine or reasonably estimate employee exposure they must conclude that an atmosphere is hazardous to the employees in accordance with WAC [296-842-13005](#).
- (14) During the overhaul phase officers must identify materials likely to contain asbestos, limiting the breaching of structural materials to that which is necessary to prevent rekindle.
- (15) Prior to removing firefighting ensembles worn in the hot zone, a gross decontamination must be performed to remove potentially harmful contaminants.
- (16) Members of the department conducting post-fire investigations must comply with subsections (12) through (15) of this section.
- (17) Employees working on, over, or along water where the chance of drowning exists must be provided with and must use approved personal flotation devices, unless it can be shown that conditions are such that flotation would not be achieved.

WAC 296-305-05004 Occupational exposure to heat and cold stress.

- (1) Fire departments must develop written guidelines that outline a systematic approach for the rehabilitation of members operating at incidents and training exercises. The following components must be included in this guideline:
 - (a) Supervisor's role in identifying climate conditions (hot or cold).
 - (b) The signs and symptoms of heat or cold stress and how to identify them in subordinates and fellow members.
 - (c) How to identify the climatic condition likely to produce heat or cold stress on members operating at emergency scenes or during training exercises.
 - (d) What steps the incident commander (IC) must take when the climatic condition poses a heat or cold stress hazard to members.
 - (e) What rest-to-work (recovery) schedule the IC must consider during climatic conditions that present a heat or cold stress hazard to members.

<p>Example: NFPA 1584 states that after members use 2 30-minute SCBA bottles or 1 45-to-60-minute SCBA bottle or 40 minutes strenuous work without an SCBA the member should go to rehabilitation for a 10 to 20 minute rest and rehydrate.</p>
--

- (f) Which active or passive cooling and warming techniques will be used based on the incident type and climatic condition.

- (g) What rehydration schedule will be followed, including the amount and type of fluids.
- (h) What the department will do to ensure caloric replacement and electrolyte replacement during longer term emergencies and exercises.
- (i) What medical monitoring will be provided to members in rehabilitation and what criteria will be used to release members from rehabilitation.
- (j) What the IC will do when a member is showing signs of heat or cold stress after completing the department's rest-to-work cycle.
- (k) What medical personnel will be present in rehabilitation to evaluate members sent to rehabilitation during the rest-to-work cycle. To determine what temperature triggers action at each worksite, select the general type of clothing or personal protective equipment each employee is required to wear and find the corresponding temperature in Table 1.

Table 1 Outdoor Temperature Action Levels	
Nonbreathing clothing including vapor-barrier clothing or chemical resistant suits	52°
Double-layer woven clothing including coveralls, jackets and sweatshirts	77°
All other clothing	89°

Note: There is no requirement to maintain temperature records. The temperatures in Table 1 were developed based on Washington state data and are not applicable in other states.

- (2) Employee training. Training on the following topics must be provided to all employees who may be exposed to outdoor heat at or above the temperatures listed in Table 1:
 - (a) The environmental factors that contribute to the risk of heat-related illness.
 - (b) General awareness of personal factors that may increase susceptibility to heat-related illness including, but not limited to, an individual's age, degree of acclimatization, medical conditions, drinking water consumption, alcohol use, caffeine use, nicotine use, and use of medications that affect the body's responses to heat. This information is for the employee's personal use.
 - (c) The importance of removing heat-retaining personal protective equipment such as nonbreathable chemical resistant clothing during all breaks.
 - (d) The importance of frequent consumption of small quantities of drinking water or other acceptable beverages.
 - (e) The importance of acclimatization.
 - (f) The different types of heat-related illness and their common signs and symptoms.

- (g) The importance of immediately reporting signs or symptoms of heat-related illness in either themselves or in coworkers to the person in charge and the procedures the employee must follow including appropriate emergency response procedures.
- (3) Supervisor training. Prior to supervising employees working in outdoor environments with heat exposure at or above the temperature levels listed in Table 1, supervisors must have training on the following topics:
 - (a) The information required to be provided to employees listed in subsection (1) of this section.
 - (b) The procedures the supervisor must follow to implement the applicable provisions of this section.
 - (c) The procedures the supervisor must follow if an employee exhibits signs or symptoms consistent with possible heat-related illness, including appropriate emergency response procedures.
 - (d) Procedures for moving or transporting an employee to a place where the employee can be reached by an emergency medical service provider if necessary.
 - (4) The fire department must rotate crews as necessary to allow for rehabilitation.
 - (5) All members must be provided training and information on how the body regulates core temperatures and how to recognize the signs, symptoms and controls for heat and cold stress.
 - (6) All members must be provided training on the department's guideline addressing heat and cold stress.
 - (7) Employees are responsible for monitoring their own personal factors for heat-related illness including consumption of water or other acceptable beverages to ensure hydration.
 - (8) A rehabilitation area must be designated with features that provide shade or air conditioning with a place to sit for extremely hot environments.
 - (9) A rehabilitation area must be designated with features that provide dry protected areas out of the wind or rain and a heated area with a place to sit for extremely cold or wet environments.
 - (10) Multiple rehabilitation areas must be set up if the geographical area or size of the scene creates barriers limiting members' access to rehabilitation.
 - (11) The rehabilitation area must be of sufficient size to accommodate the number of crews using the area at the same time.
 - (12) Members entering the rehabilitation area that feel warm or hot must remove their personal protective clothing. Personnel trained in basic life support must evaluate the member and institute active or passive cooling as indicated.
 - (13) At a minimum, a person trained in basic life support with the knowledge and training needed must be located in the rehabilitation area to conduct medical monitoring and evaluation of crews entering the rehabilitation area.
 - (14) Members must not be released from rehabilitation until a person trained in basic life support okays their return to work.

- (15) Supervisors must assess their crew at least every forty-five minutes and more frequently when climatic conditions warrant to determine their need for rehabilitation.
- (16) Members on emergency scenes and during exercises must be provided a minimum of one quart of water per hour when the climatic conditions present heat or cold stress hazards. After one hour, caloric and electrolyte replacement must be considered.
 - (a) The employer must ensure that a sufficient quantity of drinking water is readily accessible to employees at all times.
 - (b) Employers must ensure that all employees have the opportunity to drink at least one quart of drinking water per hour.
 - (c) Employers must encourage employees to frequently consume water or other acceptable beverages to ensure hydration.
- (17) Employees showing signs or complaining of symptoms of heat-related illness must be relieved from duty, provided with a sufficient means to reduce body temperature, and monitored to determine whether medical attention is necessary.

Note: For further guidance, sample policies and information please consult the 2008 edition of NFPA 1584, Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises or the United States Fire Administration's Emergency Incident Rehabilitation Manual FA-314 issued February 2008.

WAC 296-305-05013 Aircraft rescue and firefighting.

- (1) Fire departments that expect to respond to aircraft fires must meet the applicable portions of the 2008 edition of NFPA 402, Guide for Aircraft Rescue and Firefighting Operations.
- (2) Airport based fire departments must meet the applicable portions of the 2008 edition of the NFPA 402, Guide to Aircraft Rescue and Firefighting Operations.

WAC 296-305-05101 Technical rescue general requirements.

- (1) The following sections apply to fire departments that choose to operate for any type of technical rescue operations addressed in WAC 296-305-05113 at the following levels:
 - Operations level. This level represents the capability of organizations to respond to technical rescue incidents and to identify hazards, use equipment, and apply limited techniques specified in this rule to support and participate in technical rescue incidents.
 - Technician level. This level represents the capability of organizations to respond to technical rescue incidents, to identify hazards, use equipment, and apply advanced techniques specified in this rule necessary to coordinate, perform, and supervise technical rescue incidents.

Note: Awareness level represents the minimum capability of organizations that provide response to technical rescue incidents or discover technical rescue situations during emergency scene operations and takes no offensive action. This level requires no written procedures.

- (2) Members must not operate at a level that exceeds the identified level of capability established in subsection (1) of this section.
- (3) Basic life support must be provided by the fire department at technical rescue incidents.
- (4) Fire departments must meet all requirements in this section, along with all relevant requirements in the specific technical rescue sections, before operating at the operations or technician level at a technical rescue incident.
- (5) Fire departments choosing to not respond to technical rescue emergencies will ensure their employees can recognize when a technical rescue situation is present and what to do in those cases.

WAC 296-305-05103 Technical rescue training.

- (1) Training must be provided to correspond to the operational level of the fire department. All fire departments which will be expected to perform at the operations level or higher operational level must be trained to that level.

Note: The 2008 edition of NFPA 1006, Standard for Technical Rescuer Professional Qualifications outlines the minimum individual Job Performance Requirements for Level I (Operations) and Level II (Technician) rescuers.

- (2) Continuing education necessary to maintain all requirements of the level of capability must be provided by the fire department.
- (3) The training program must be evaluated annually to ensure the fire department is prepared to function at the established operational level.
- (4) All required training must be documented. Documentation must be maintained and available for inspection by employees, their representatives, and the department of labor and industries.

WAC 296-305-05105 Technical rescue standard operating procedure.

Fire departments that choose to operate above the awareness level for technical rescue incidents must establish written procedures outlining the operational level of their department that are specific to their chosen level of response and the type of technical rescue operations they plan to perform.

WAC 296-305-05107 Technical rescue incident response planning.

- (1) Fire departments or a consortium of departments that choose to operate at the operations level or above must create a written special operations incident response plan for the specific type(s) of technical rescue at which they plan to operate at or above the operations level.
- (2) When nonemergency resources may be required, procedures for acquisition of these resources for technical rescue incidents must be developed.
- (3) Fire departments that choose to respond to chemical, biological, radiological, and nuclear (CBRN) incidents must provide training and equipment to all members expected to respond.

WAC 296-305-05109 Technical rescue equipment.

- (1) Equipment.
 - (a) Equipment necessary for operations at technical rescue incidents, along with training exercises, must be provided by the fire department.
 - (b) Training must be provided to ensure that all equipment is used and maintained according to the manufacturer's instructions.
- (2) Personal protective equipment (PPE) specific to technical rescue.
 - (a) Departments will provide, at no cost to employees, protective clothing and equipment to provide protection from the specific hazards to which they could be exposed.
 - (b) Employees must be trained in the care, use, inspection, maintenance and limitations of the protective clothing and equipment.
 - (c) Employees are required to wear the protective clothing and equipment provided by the department's procedures and guidelines.

WAC 296-305-05111 Technical rescue safety.

- (1) General.
 - (a) All employees must be trained on:
 - (i) The hazards and risks associated with department's chosen level of technical rescue operations.
 - (ii) How to conduct technical rescue operations at the department's chosen level while minimizing threats to rescuers.
 - (iii) How to use PPE.
 - (b) Employees assigned specific duties and functions must be trained and qualified by their department prior to being assigned those duties or functions.
 - (c) When employees are operating in positions or performing functions that pose a high potential risk for injury, employees qualified in basic life support must be standing by.

- (2) Emergency evacuation. Departments must establish a procedure for members to abandon the technical rescue area and to account for their safety when an imminent hazard condition is discovered. This must include a method for notifying all members in the affected area immediately.
- (3) Technical rescue safety officer. The incident commander must assign an incident safety officer with the requisite knowledge and responsibility for the identification, evaluation, and with the authority to correct hazardous conditions and unsafe practices, at all emergency scene operations and training exercises.
- (4) Incident management. Departments must use an ICS at all technical rescue incidents and training exercises.

WAC 296-305-05113 Technical rescue operational specialties.



- (1) Structural collapse. Fire departments choosing to operate at the operations or technician level for structural collapse incidents must meet the requirements found in chapter 5 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
- (2) Rope rescue.
 - (a) Fire departments choosing to operate at the operations or technician level for rope rescue incidents must meet the requirements of this section and the nonconflicting portions of chapter 6 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
 - (b) Fire departments performing rope rescue operations must make sure previously purchased life safety ropes and equipment complies with the 2001 edition of NFPA 1983, Standard on Fire Service Life Safety Rope and System Components. Ropes and equipment purchased after the effective date of this rule must meet the requirements of the 2006 edition of NFPA 1983, Standard on Life Safety Rope and Equipment for Emergency Services.
 - (c) Life safety rope and rope rescue equipment must be inspected after purchase and prior to placing in service, after each use, and at least semiannually.
 - (d) Harnesses must be inspected for worn or broken stitching, rivets worn out of holes, and damage from abrasion, cuts, or chemicals.
 - (e) Descending/ascending hardware must be inspected for wear, cracks, distortion, sharp edges, and ease of operation.
 - (f) The manufacturer's recommended shelf life of life safety ropes must be followed. If no shelf life is specified, ropes greater than six years old must be taken out of service as a life safety rope.

Note: See WAC 296-305-02019, Life safety ropes, harnesses, and hardware protection, for further requirements.

- (3) Confined space rescue.
- (a) Fire departments choosing to operate at the operations or technician level for confined space rescue incidents must meet the requirements of this section, chapter [296-809](#) WAC Table 1, and the nonconflicting sections of chapter 7 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
 - (b) Fire departments must comply with chapter [296-809](#) WAC for their own confined spaces.
 - (c) Fire departments which will respond to calls to perform rescue from a permit-required confined space are required to have each member of a rescue team practice making permit space rescues at least every twelve months by means of simulated rescue operations in which they remove dummies, mannequins or actual persons from permit space. A permit is required for the practice permit space entry.
 - (d) During an actual rescue response, written or verbally recorded hazard size up will be allowed in lieu of the written permit requirements in WAC [296-809-50004](#) and must be completed prior to any entry. This size up must include at a minimum:
 - (i) Recognition and declaration of the situation as a confined space incident.
 - (ii) Denial of entry to unprotected persons.
 - (iii) Assessment of all readily available confined space documentation, e.g., SDSs, any existing permit, plans or blueprints of the space.
 - (iv) Assessment of number of victim(s), locations and injury conditions.
 - (v) Discussion with witnesses, supervisors, and other sources of information.
 - (vi) Assessment of any current or potential space hazards, in particular, any hazard(s) which lead to the necessary rescue.
 - (vii) Determination and declaration if the situation is a body recovery or a victim rescue.
 - (e) At confined space incidents, at least two people outside must be equipped with appropriate breathing apparatus to act as the back-up team, which must remain free of the contaminated area in order to rescue disabled firefighters.
 - (f) Written documentation of the rescue team's training on the fire department's confined space operating procedures, authorized entrant training, and the contracted host's confined space program must be kept. A record of each of the hazard sizes must be maintained for at least one year.
 - (g) Anytime firefighters are working inside a confined space, such persons must be provided with SCBA or airline respirator with escape bottle, and must use the equipment unless the safety of the atmosphere can be established by testing and continuous monitoring.

- (i) If the service life of the auxiliary air supply is fifteen minutes or less it must not be used for entry into an IDLH atmosphere but it may be used for escape purposes. The auxiliary air supply may be used for entry into an IDLH atmosphere only when the service life of the unit exceeds fifteen minutes and when not more than twenty percent of the noted air supply will be used during entry.
 - (ii) The maximum length of hose for supplied air respirators is three hundred feet (91 meters). Such hose must be heavy duty nonkinking and NIOSH approved.
- (4) Machinery rescue. Fire departments choosing to operate at the operations or technician level for machinery rescue incidents must meet the requirements of this section and the nonconflicting portions of chapter 12 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
- (5) Water rescue.
 - (a) Fire departments choosing to operate at the operations or technician level for water rescue incidents must meet the requirements of this section and the nonconflicting portions of chapter 9 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
 - (b) Organizations choosing to operate at the operations or technician level for dive rescue incidents must meet the requirements found in chapter 9 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
 - (c) Fire departments choosing to operate at the operations or technician level for dive recovery incidents must meet the requirements found in chapter [296-37 WAC](#), Standards for commercial diving operations, and the nonconflicting parts of chapter 9 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
 - (d) If a manufacturer's specifications are such that an engineer is required for the operation of a vessel, one must be provided.
 - (e) When fire boats perform rescue activities they must have two dedicated personnel. Any member not specifically required to operate the vessel, e.g., an operator (pilot) or engineer (if required by the manufacturer's specification) may be used as a deck hand. This may include the boat officer if their duties do not include operating the fire boat.
 - (f) Watercraft load capabilities must not exceed the manufacturer's specifications.
 - (g) Each fire department must determine the function of their watercraft; firefighting, rescue, or both.
 - (h) Watercraft operating within navigable waters of the state of Washington (as defined by the United States Coast Guard) must comply with all of the rules of the United States Coast Guard.
 - (i) Fire boats operating within navigable waters of the state of Washington (as defined by the United States Coast Guard) must have a fully dedicated pilot.
 - (j) The operator (pilot) of the watercraft is responsible for its safe operation.

- (k) Training for all personnel must cover the physical characteristics of the vessel involved and must be included in the employer's accident prevention program.
 - (i) All assigned personnel must be trained in safe operation of watercraft and the operations the craft is intended to perform.
 - (ii) All employees involved in water rescue must be trained in water rescue techniques and use Coast Guard approved personal flotation devices, Type III, minimum.

<p>Exception: Employees working below deck or in enclosed cabins or when working above, on or alongside still water where flotation would not be achieved, are exempt from this requirement.</p>

- (l) All employers operating watercraft in nonnavigable waters must be responsible for training all employees to local hazards.
- (6) Trench and excavation rescue.
- (a) Fire departments choosing to operate at the operations or technician level for trench and excavation rescue incidents must meet the requirements of this section and nonconflicting portions of chapter 11 of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
 - (b) Employees that directly engage in trench rescue operations must be under the direct supervision of person(s) with adequate training in trench and excavation hazard recognition, equipment use and operational techniques.
 - (c) Each employee in an excavation must be protected from cave-ins by an adequate protective system except when:
 - (i) Excavations are made entirely in stable rock; or
 - (ii) Excavations are less than four feet (1.22 meters) in depth and examination of the ground by a competent person provides no indication of a potential cave-in.
- (7) Mine and tunnel rescue.
- (a) Fire departments choosing to operate at the operations or technician level for mine and tunnel rescue incidents must meet the requirements of this section and the nonconflicting portions of chapter 14 (Mine and Tunnel Search and Rescue) of the 2009 edition of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents.
 - (b) The requirements of this section apply to agencies that provide varying degrees of response to tunnels under construction or other underground excavations formerly classified as mines or tunnels.
 - (c) The requirements of this section do not apply to operating mines, tourist mines, basements, or subterranean structures that are complete and in use or that meet the definition of a confined space.
 - (d) Emergency services that are the designated primary provider of rescue services for operational mines and tunnels under construction are required to comply with the nonconflicting portions of chapter [296-155](#) WAC Part Q, Underground construction.

- (e) Members who regularly enter a tunnel under construction as part of their regular duties must receive training meeting the requirements of the safety instruction required by WAC [296-155-730\(3\)](#).
- (f) Regardless of whether an atmospheric hazard is detected, any entrant into a tunnel under construction, mine or any related shaft or excavation must have a means of emergency egress respiratory protection with no less than a thirty minute rated service life immediately available. There must be at least one unit immediately available for each member in the tunnel.
MSHA or NIOSH approved “Self Rescuer” or “Self Contained Self Rescuer” devices fulfill this requirement provided the user has been trained in its use and the device is suitable for the type of potential hazards that may be encountered.
- (g) A rescue service entry team must have the ability at a minimum to continuously monitor the air for oxygen, carbon monoxide, hydrogen sulfide, and combustible gasses as well as any other atmospheric contaminants that are known or suspected.
- (h) The rescue service entry team must have at least two methods of communication with the surface, one of which must be voice communication.
This requirement may be satisfied by using both the “direct” and “trunked” features of the same radio systems provided adequate equipment is available to the entry team to provide constant simultaneous communication using both methods.
- (i) Rescue service entry teams that enter a mine or tunnel with a known atmospheric hazard must have a clearly defined “turnaround” benchmark to ensure adequate egress to an area of refuge or safety.
- (j) Each rescue service entry team that enters a mine or tunnel with a known or suspected atmospheric hazard must have at least one source of breathable air independent of each wearer's SCBA to be used in the event of an SCBA failure or “out of air” emergency. This source of air is to be independent of any device brought in for the use of victims.
- (k) A backup team with similar size and capabilities as the rescue service entry team must be immediately available to enter the space.
- (l) Each member of the organization who is designated as part of the technician level rescue service must practice making mine or tunnel rescues as part of a rescue team no less than once every twelve months. This may be accomplished by means of simulated rescue operations in which the team removes dummies, mannequins, or persons from actual mines and tunnels or from representative mines and tunnels.
- (m) Representative mine and tunnels should, with respect to opening size, configuration, and accessibility, simulate the types of mines and tunnels from which rescue is to be performed.

WAC 296-305-05502 Training and member development.

- (1) The employer must provide training, education and ongoing development for all members commensurate with those duties and functions that members are expected to perform.
 - (a) Training and education must be provided to members before they perform emergency activities.
 - (b) Fire service leaders and training instructors must be provided with training and education which is more comprehensive than that provided to the general membership of the fire department.
 - (c) The fire department must develop an ongoing proficiency cycle with the goal of preventing skill degradation.
- (2) Training on specific positions/duties deemed by the fire department critical to the safety of responders and the effectiveness of emergency operations (such as driver operators or support personnel) must be provided at least annually.
- (3) Firefighters must be trained in the function, care, use/operation, inspection, maintenance and limitations of the equipment assigned to them or available for their use.
- (4) Members who are expected to perform interior structural firefighting must be provided with an education session or training at least quarterly.
- (5) When firefighters are engaged in training above the ten-foot level, where use of lifelines or similar activities are to be undertaken, a safety net or other approved secondary means of fall protection recommended in chapter [296-880](#) WAC, Unified safety standards for fall protection, must be used.
- (6) Continuing education live fire training.
 - (a) All members who engage in interior structural firefighting in IDLH conditions must be provided live fire training appropriate to their assigned duties and the functions they are expected to perform at least every three years. Firefighters who do not receive this training in a three-year period will not be eligible to return to an interior structural firefighting assignment until they do. Responding to a fire scene with a full alarm assignment, an ICS established and a post-incident analysis will meet this requirement, but for no more than two training evolutions.
 - (b) All live fire training must be conducted by fire department qualified fire service instructors. When conducting their own training, fire departments must meet the requirements set out in the 2007 edition of the NFPA 1403, Standard on Live Fire Training Evolutions.
 - (c) An incident safety officer must be appointed for all live fire training evolutions. The incident safety officer function must be filled by a person who is trained and qualified in the IMS/Incident safety officer duties and who is not responsible for any other function at the training evolution other than the role of incident safety officer.
- (7) When using structures for live fire suppression training, activities must be conducted according to the 2007 edition of NFPA 1403, Standard on Live Fire Training Evolutions. When using structures for nonlive fire training, the following requirements must be met:

- (a) All structures used for training must be surveyed for potential hazardous substances, such as asbestos, prior to the initiation of any training activities. The survey must comply with chapter [296-62](#) WAC Part I-1 and must be conducted by an AHERA accredited inspector and performed in accordance with 40 C.F.R. 763, Subpart E. If the hazardous substances or asbestos containing materials of > 1% asbestos are to be disturbed during any training activity they must be removed prior to beginning that activity. Removal of asbestos < or = 1% is not required prior to live fire training.

In live fire training structures where < or = 1% asbestos has been disturbed, the fire department will provide written notice to the owner/agent that asbestos has been disrupted and remains on-site.

For structures built before 1978, you must assume that painted surfaces are likely to contain lead and inform workers of this presumption. Surveys for lead containing paints are not required. Lead containing paints are not required to be removed prior to training activities.

If the training activity will not disturb the hazardous substance, the material must be clearly marked and all participants must be shown the location of the substance and directed not to disturb the materials.

- (b) Acquired or built structures used for fire service training that does not involve live fire must be surveyed for the following hazards and those hazards abated prior to the commencement of training activities:
- (i) In preparation for training, an inspection of the training building must be made to determine that the floors, walls, stairs and other structure components are capable of withstanding the weight of contents, participants and accumulated water.
 - (ii) Hazardous materials and conditions within the structure must be removed or neutralized, except as exempted in (a) of this subsection.
 - (A) Closed containers and highly combustible materials must be removed.
 - (B) Oil tanks and similar closed vessels that cannot easily be removed must be vented sufficiently to eliminate an explosion or rupture.
 - (C) Any hazardous or combustible atmosphere within the tank or other vessel must be rendered inert.
 - (D) Floor openings, missing stair treads or railings, or other potential hazards must be repaired or made inaccessible.
 - (iii) If applicable, floors, railings and stairs must be made safe. Special attention must be given to potential chimney hazards.
 - (iv) Debris hindering the access or egress of firefighters must be removed before continuing further operations.
 - (v) Debris creating or contributing to unsafe conditions must be removed before continuing further operations.

- (c) Asbestos training. Firefighters must be provided asbestos awareness training, including communication of the existence of asbestos-containing material (ACM) and presumed-asbestos-containing material (PACM). Training must be provided prior to initial assignment and annually thereafter, and must include:
- (i) The physical characteristics of asbestos including types, fiber size, aerodynamic characteristics and physical appearance.
 - (ii) Examples of different types of asbestos and asbestos-containing materials to include flooring, wall systems, adhesives, joint compounds, exterior siding, fire-proofing, insulation, roofing, etc. Real asbestos must be used only for observation by trainees and must be enclosed in sealed unbreakable containers.
 - (iii) The health hazards of asbestos including the nature of asbestos related diseases, routes of exposure, dose-response relationships, synergism between cigarette smoking and asbestos exposure, latency period of diseases, hazards to immediate family, and the health basis for asbestos standards.
 - (iv) Instruction on how to recognize damaged, deteriorated, and delamination of asbestos-containing building materials.
 - (v) Decontamination and clean-up procedures.
 - (vi) Types of labels that are used within different industries to identify ACM or PACM that is present within structures. The labeling system the employer will use during training to identify asbestos and ACM/PACM during destructive drilling and training.
 - (vii) The location and types of ACM or PACM within any fire department owned or leased structures and the results of any “Good Faith Survey” done on fire department owned or leased structures.
- (8) Asbestos exposure during destructive training activities. Fire department employees are exempt from the requirements of chapter [296-65](#) WAC and WAC [296-62-077](#), provided they comply with the following requirements:
- (a) Fire departments must obtain a good faith asbestos inspection/survey from the property owner/agent prior to disturbing building materials. The good faith survey must comply with chapter [296-62](#) WAC Part I-1 and must be conducted by an AHERA accredited inspector and performed in accordance with 40 C.F.R. 763, Subpart E.
 - (b) Good faith surveys must be shared with all employers and employees prior to using any structure.
 - (c) Materials containing > 1% asbestos must be marked by a system recognized by all members. ACM/PACM may not be disturbed prior to, or during training, or must be removed by a certified asbestos abatement contractor prior to training activities. The incident safety officer for the training must walk all participants through the structure and inform them of the location of all ACM/PACM and that this material is not to be disturbed. If the structure is used for a black-out drill, the incident safety officer must instruct members that ACM/PACM is present and take precautions to ensure these materials are not disturbed during the training. A walk through is not required for black-out drills.

- (d) Destructive drilling must not occur in a structure until the fire department has received a good faith asbestos survey from the owner/agent and ensured that any ACM or PACM has been abated from substrates upon which destructive drill tasks are planned to be performed. All suspect asbestos materials designated for destructive drill tasks will be identified, evaluated and tested by an accredited AHERA lab.
- (e) Materials containing $< \text{ or } = 1\%$ asbestos must be labeled by a system recognized by all members. Prior to initiating any destructive drilling on materials containing $< \text{ or } = 1\%$ asbestos, the incident safety officer for the training must walk all participants through the structure and inform them of the location of asbestos.
- (f) Firefighters must wear SCBA and turnouts whenever exposed to asbestos.
- (g) Firefighters must be provided gross decontamination at the drill site by rinsing/brushing the firefighters turnouts and SCBA with water.
- (h) Hand tools and other asbestos contaminated equipment will be rinsed off prior to being returned to the apparatus or service. Tools and equipment that cannot be decontaminated on site must be placed in sealed containers until they can be decontaminated. Care must be taken to not spread the asbestos.
- (i) PPE that may have been contaminated with asbestos must be cleaned in a manner recommended by the manufacturer and that prevents the exposure of the employee cleaning the PPE. PPE that cannot be cleaned on-site must be placed in sealed containers until they can be decontaminated.
- (j) In structures scheduled for demolition, or that will be turned over to another employer, where $< \text{ or } = 1\%$ asbestos has been disturbed, the fire department will provide written notice to the owner/agent that asbestos has been disrupted and remains on-site. The fire department will inform the owner/agent, in writing, that access to the property must be limited to the demolition or asbestos contractor.

The fire department will secure the structure after all drills and at the conclusion of the use of the structure. Securing the structure may include but not be limited to, locking or boarding up windows, doors, and wall and roof openings. The site of the structure may also require fencing. When asbestos material of $< \text{ or } = 1\%$ has been disturbed by the fire department's drill activities, the site will be posted with warning signs. These signs will notify entrants onto the site that asbestos debris of $< \text{ or } = 1\%$ has been left on the site. For fire department members who plan to enter the structure or the building footprint, the signs will state the necessity of full turn-outs and SCBA with decontamination procedures. The signs will also state that entry into the building or the building footprint is prohibited by any persons other than the fire department and the demolition/abatement contractor.

- (9) Additional training. Training must be provided on topics according to the job duties and potential hazards as outlined in Table 2, Subject Specific Training.

Table 2 Subject Specific Training	
Topic	Training requirements found in:
HEALTH AND SAFETY	
Noise and hearing loss prevention	<ul style="list-style-type: none"> • Chapter 296-817 WAC, Hearing loss prevention (noise) • WAC 296-305-02004
Respiratory equipment	<ul style="list-style-type: none"> • Chapter 296-842 WAC, Respirators • WAC 296-305-04001
Employee right-to-know procedures	<ul style="list-style-type: none"> • WAC 296-901-14016 Employee information and training
Identification and handling of asbestos-containing materials likely to be encountered during a fire response	<ul style="list-style-type: none"> • WAC 296-62-07722(5) as appropriate to asbestos encountered during a fire response, or EPA awareness level asbestos two hour training course
FIRE SUPPRESSION	
Overhaul procedures and operations	<ul style="list-style-type: none"> • WAC 296-305-05000 and 296-305-05002
Live fire training in structures	<ul style="list-style-type: none"> • NFPA 1403, Standard on Live Fire Training Evolutions, 2007 Edition
Wildland fires	<ul style="list-style-type: none"> • WAC 296-305-07010 through 296-305-07018 • The National Wildfire Coordination Group (NWCG) firefighter II • All training for assigned wildland incident command positions must be completed prior to assignment by the IC

Table 2 Subject Specific Training (Cont.)	
Topic	Training requirements found in:
INCIDENT MANAGEMENT	
Incident management training	<ul style="list-style-type: none"> National Incident Management System NFPA 1561, Standard on Emergency Services Incident Management System, 2008 edition (available on-line)
EMERGENCY MEDICAL	
Emergency medical training	<ul style="list-style-type: none"> WAC 296-305-02501
HAZARDOUS MATERIALS	
Hazardous materials training	<ul style="list-style-type: none"> Chapter 296-824 WAC, Emergency response Nonconflicting portions of NFPA 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, 2008 edition
TECHNICAL RESCUE	
Confined space entry and/or rescue	<ul style="list-style-type: none"> Chapter 296-809 WAC, Confined spaces WAC 296-305-05004
	<ul style="list-style-type: none"> Nonconflicting portions of NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents, 2004 edition
	<ul style="list-style-type: none"> Nonconflicting portions of NFPA 1006, Professional Qualifications for Technical Rescue, 2008 edition
Other technical rescue situations, such as rope, structural collapse, transportation/machinery, trench, water, and wilderness rescue	<ul style="list-style-type: none"> NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents, 2004 edition Nonconflicting portions of NFPA 1006, Professional Qualifications for Technical Rescue, 2008 edition
POSITION SPECIFIC DEVELOPMENT	
Aircraft	<ul style="list-style-type: none"> NFPA 402, Guide for Aircraft Rescue and Firefighting Operations, 2008 edition
Driver training	<ul style="list-style-type: none"> WAC 296-305-04505(8)

WAC 296-305-06001 Fire service equipment.

- (1) All portable equipment must be inspected routinely to ensure that it is ready for use.
- (2) Any defective equipment must be removed from service.
- (3) Nylon utility straps or straps of equivalent strength should be used instead of hose belts. The utility strap must be of one-inch nylon, or equivalent belting, with a four-inch overlap and sewn with polyester thread and must measure at least 102 inches on the outside circumference.
- (4) The load capacity must be stenciled on each portable jack and the load capacity must not be exceeded.
- (5) The instruction plate on portable jacks must be maintained in a legible condition.
- (6) Portable powered cut-off saws (rescue saws) must be used in accordance with the manufacturer's recommendations.

Exception: The lower blade guard described in WAC [296-807-12005](#) is not required on hand-held portable powered cut-off saws used by fire/rescue personnel for rescue procedures and/or roof ventilation for smoke removal, provided the operator is wearing appropriate eye, face, head, and body protection as specified in WAC 296-305-02001 through 296-305-02012. This exception also applies to qualified persons (e.g., instructors) wearing personal protective equipment as described herein to instruct personnel in safe roof ventilation/rescue techniques.

- (7) When not in use, the cutting teeth on a chain saw must be covered either by an old section of hose, a wooden scabbard, or an equivalent method.
- (8) All axes worn by employees must be provided with a scabbard to guard against injury from the blade and pick of the axe.
- (9) The guards on smoke ejectors, as supplied by the manufacturer, must not be removed and the operator of the ejector must wear gloves.
- (10) Acetylene cylinders. Handling, storage and utilization of acetylene in cylinders must be in accordance with the Compressed Gas Association Pamphlet G-1 - 2003 edition.
- (11) Powder activated life-line guns and accessories must be stored in a box or container equipped with a lid or cover.
 - (a) The box must be kept closed when not in use.
 - (b) A loaded life-line gun must not be placed in the storage box.
 - (c) Instruction books, cleaning kits and hand tools needed for maintenance or breakdown purposes must be kept in the life-line gun storage box.
 - (d) The words "powder activated tool" must be conspicuously printed on the top of the storage box.

- (12) Abrasive blades in storage, not on a saw, must be protected from contact with water, liquids, petroleum products and their fumes.
- (13) Fiber rope that has been subjected to injurious chemicals or excessive heat must not be used for load carrying purposes.

WAC 296-305-06003 Testing fire service equipment.

- (1) All fire suppression and supply hose must be tested annually as well as when there is reason to believe the hose has been damaged. Testing must be in accordance with the 2003 edition of NFPA 1962, Standard for the Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose.
- (2) Safety nets must be tested annually by dropping a weight of not less than 400 pounds from the highest point to be used above the net. The test weight object may consist of two tightly tied rolls of two and one-half inch hose, each 100 feet long, or any other object having similar weight and dimension.
 - (a) The net suspension system must be designed and constructed with a safety factor of four and as a minimum, must withstand the test loading without permitting contact between the net and any surface or object below the net.
 - (b) Forged steel safety hooks or shackles must be used to fasten the net to its supports.
 - (c) Training requiring safety net protection must not be undertaken until the net is in place and has been tested by the weight of three firefighters on the net.
 - (d) Safety nets must extend eight feet beyond the edge of the work surface.
 - (e) The mesh size of nets must not exceed six inches by six inches.
 - (f) All nets must meet accepted performance standards of 17,500 foot pounds minimum impact resistance as determined and certified by the manufacturer, and must bear a label of proof test.
 - (g) Edge ropes must provide a minimum breaking strength of 5,000 pounds.
- (3) The method of testing a life line gun must be in accordance with the manufacturer's recommended procedure.

WAC 296-305-06006 Ground ladders.

This section establishes the minimum requirements for the construction, care and use of fire department ground ladders.

- (1) New ground ladders purchased after the effective date of this chapter must be constructed and certified in accordance with the 2004 edition of NFPA 1931, Standard on Design and Design Verification Tests for Fire Department Ground Ladders.
- (2) Firefighters must climb and descend ground ladders with the fly in, for safety purposes, when not in conflict with the manufacturer's recommendations. Even when ladders are routinely used in the fly-out configuration, in adverse conditions firefighters must be permitted to climb and descend ground ladders with the fly in to assure secure footing.

- (3) All ground ladders must be maintained in accordance with the manufacturer's recommendations and visually inspected at least once a month and after every use. The following ladder components must be visually inspected:
 - (a) Heat sensor labels, if provided, for a change indicating heat exposure.
 - (b) All rungs for snugness and tightness.
 - (c) All bolts and rivets for tightness.
 - (d) Welds for any cracks or apparent defects.
 - (e) Butt spurs for excessive wear or other defects.
 - (f) Halyards for fraying or breaking.
 - (g) Roof hooks for sharpness and proper operation.
 - (h) Beam and rungs for punctures, wavy conditions, worn serrations or deformation.
 - (i) Surface corrosion.
- (4) The following wood ladder components must be checked:
 - (a) Beams for dark streaks. When a wood ground ladder develops dark streaks in the beams, the ladder must be removed from service and service tested as specified in subsection (9) of this section.
 - (b) Loss of gloss on the protective finish of fiberglass or wood ladders, signifying damage or wear.
- (5) Any sign of damage or defect during a visual inspection must be cause to remove the ladder from service until it has been repaired. Scratches and dents must not be cause for a ladder to fail a test if it passes the appropriate service test.
- (6) If the heat sensor label has an expiration date, and that date has passed, the heat sensor label must be replaced.
- (7) Whenever any ground ladder has been exposed, or is suspected of having been exposed to direct flame contact, or wherever the heat sensor label has changed to indicate heat exposure, the ladder must be service tested according to subsection (9) of this section.
- (8) Temporary repairs must not be made to ground ladders.
- (9) When ground ladders are tested, they must be tested in accordance with the strength service testing procedures of the 2004 edition of NFPA 1932, Standard on Use, Maintenance and Service Testing of In-Service Ground Ladders, section 7.2.

WAC 296-305-06008 Electrical.

- (1) Temporary power and lighting with the use of 110 - 120 VAC and 220 - 240 VAC equipment.
 - (a) All lighting equipment must be provided with heavy duty flexible cords with SO or SJ jackets or equivalent. All lighting equipment must be used with heavy duty flexible extension cords rated for the intended load with SO or SJ jackets or equivalent.

- (b) Flexible cords and cables must be approved and suitable for conditions of use and location.
 - (c) Flexible cords must be used only in continuous lengths without splice or tap. Hard service flexible cords No. 12 or larger may be repaired if spliced so that the splice retains the insulation, outer sheath properties, and usage characteristics of the cord being spliced.
 - (d) Flexible cords must be connected to devices and fittings so that strain relief is provided which will prevent pull from being directly transmitted to joints or terminal screws.
 - (e) Flexible cords and cables must be protected from accidental damage. Sharp corners and projections must be avoided. Where passing through doorways or other pinch points, flexible cords and cables must be provided with protection to avoid damage.
 - (f) The path to ground from power cords, equipment, and temporary lights must be continuous.
 - (g) Electrical equipment, tools, and temporary lights that are used in wet or damp locations or other hazardous atmospheres must be approved for the purpose.
 - (h) Electrical equipment, tools, and temporary lights must be constructed so that water cannot enter or accumulate in wireways, lampholders or other electrical parts.
 - (i) Electrical equipment, tools, and temporary lights that are used in wet or damp locations or hazardous atmospheres must have 120 VAC single-phase 15 or 20 amp in-line resettable ground fault circuit interrupters.
 - (j) Temporary lights must be equipped with a handle and be insulated from heat and possible electrical shock.
 - (k) Temporary lights must not be suspended by their electrical cords unless cords and lights are designed and labeled for this means of suspension.
 - (l) Temporary lights must be protected by guards of a nonconductive or insulated material to prevent accidental contact with the bulb.
- (2) 120 VAC cord reels must be approved for use in wet or damp locations or hazardous atmospheres.
- (a) Bodies and caps must be weather tight, 15 amp rated at 120 VAC.
 - (b) Cords on cord reels that do not exceed one hundred fifty feet in length must be SO or SJ type jackets or equivalent.
 - (c) Cords that exceed one hundred fifty feet in length on reels, must have 10-gauge conductors.
 - (d) Cord reels that are not permanently mounted on a vehicle must be insulated from the ground when in use.
- (3) 12 volt portable type hand lanterns must be constructed of molded composition or other type approved for the purpose.
- (a) Portable hand lanterns used in wet or damp conditions or other hazardous atmospheres must be operated at a maximum of 12 volts.

- (b) Hand lamps must be equipped with a handle and a substantial guard over the bulb and attached to the lampholder.
- (4) Portable and vehicle-mounted generators.
 - (a) Portable generators. Under the following conditions, the frame of a portable generator is not required to be grounded and must be permitted to serve as the grounding electrode for a system supplied by the generator:
 - (i) The generator supplies only equipment mounted on the generator or cord-connected and plug-connected equipment through receptacles mounted on the generator, or both; and
 - (ii) The noncurrent-carrying metal part of equipment and the equipment grounding conductor terminals of the receptacles are bonded to the generator frame.
 - (b) Vehicle-mounted generators. Under the following conditions, the frame of a vehicle may serve as the grounding electrode for a system supplied by a generator located on the vehicle:
 - (i) The frame of the generator is bonded to the vehicle frame;
 - (ii) The generator supplies only equipment located on the vehicle and/or cord-connected and plug-connected equipment through receptacles mounted on the vehicle or on the generator; and
 - (iii) The noncurrent-carrying metal parts of equipment and the equipment grounding conductor terminals of the receptacles are bonded to the generator frame.
- (5) Electrical equipment used in classified locations must conform to the requirements set out in WAC [296-24-95613](#), Hazardous (classified) locations. Definitions pertaining to classified locations can be found in WAC [296-24-95601](#).

Additional references:

Article 250 National Electrical Code. Chapter [296-24](#) WAC, Part L and WAC [296-800-280](#).

WAC 296-305-06501 Requirements for fire department facilities.

WAC 296-305-06501 through 296-305-06519 pertain to all fire department facilities as defined in WAC 296-305-01005.

WAC 296-305-06503 General requirements.

- (1) Stations and administrative offices must comply with the requirements of the general occupational health standards, WAC [296-800-210](#), Lighting in the workplace.
- (2) Every new fire station, whether manned or unmanned, must be equipped with an approved emergency lighting system that will light dormitories, hallways, and apparatus bay areas in case of electrical power failure.
- (3) New fire stations or new additions to an existing fire station, that incorporate sliding poles or slides in their design or construction must meet the following requirements:

- (a) The sliding pole floor opening will be enclosed by walls with access provided to the floor opening only through a door.
 - (b) The door will have a latch or knobs no lower than five feet from the floor.
 - (c) The door will be equipped with a system that will automatically keep the door locked unless an alarm requiring a response sounds in the fire station. This automatic lock system will allow for a manual override, which will be used only to enable inspection, maintenance, repair or replacement of the sliding pole, the enclosure, the door, or other features of the sliding pole system. The automatic lock system will feature a warning light above or adjacent to the door that will indicate when the door is unlocked.
 - (d) Permanent illumination which cannot be manually turned off will be provided in the pole hole.
 - (e) The automatic lock system will be subject to monthly inspections.
 - (f) The sliding pole floor opening will be illuminated constantly in a manner that cannot be overridden manually, except as needed for inspection, repair, maintenance, or replacement.
 - (g) The bottom of the sliding pole will be cushioned by a minimum three-foot diameter rubber mat or its equivalent.
 - (h) Nothing will be stored or placed at the bottom of the sliding pole for a radius of three feet from the pole.
 - (i) Doors will not protrude within three feet of the pole.
 - (j) Proper sliding pole use will be included as part of the formal firefighter training program.
- (4) The requirements of chapter [296-878](#) WAC, window cleaning, must be followed when employees are engaged in window washing operations.
 - (5) All new fire stations and other new fire department facilities which contain sleeping quarters must be fully protected with automatic sprinkler systems.
 - (6) All existing fire stations and existing fire department facilities with sleeping quarters that undergo a major renovation that consists of more than sixty percent of the assessed evaluation of the existing structure must be fully protected with automatic sprinkler systems.
 - (7) Eye protection must be worn when charging, changing or adding fluid to storage batteries. Personnel that will be charging storage batteries must be qualified to perform this function by the employer. See WAC [296-800-16050](#).
 - (8) Stairway tread must be of a nonskid design. Examples of nonskid: Grip strut grating, serrated edge grating, metal grating, aluminum safety tread, abrasive metal stair tread, or pressure sensitive nonskid type.
 - (9) In existing facilities where sliding poles or slides are used, the pole or slide hole must be guarded in such a manner as to prevent anyone from walking directly into the pole or slide hole opening.

- (10) To absorb the shock to sliding employees, the bottom of all slide poles or slides must have a three-foot diameter cushioned rubber mat, or its equivalent.
- (11) Nothing must be stored or placed at the bottom of a pole or slide hole for a radius of three feet from the pole. Doors must not protrude within three feet of the pole or slide.
- (12) Stair and landing protection: Stairways, guardrails, landings, and handrails must be constructed to the requirements of chapter 19.27 RCW the State Building Code Act, and WAC [296-800-250](#).
- (13) A standard guard railing for a landing platform must include a toeboard, which is a vertical barrier, at floor level erected along exposed edges of a floor opening, wall opening, platform, runway or ramp to prevent falls of material.
- (14) Any new facility, or addition, alteration, or repair to an existing facility must be in compliance with chapter 19.27 RCW, the State Building Code Act.
- (15) New stations containing a kitchen, and station kitchens remodeled after the date of this chapter, must have an alarm activated service disconnect of fixed cooking appliances.
- (16) Asbestos in facilities, buildings, and properties used by fire departments.
 - (a) Fire department employees must be informed of the presence and location of asbestos-containing material (ACM) and presumed-asbestos-containing material (PACM) in areas of buildings where employees work.
 - (b) Damaged and deteriorating asbestos in fire stations and facilities must be repaired, removed, enclosed or encapsulated.
 - (c) ACM and PACM in fire stations and facilities must be labeled according to WAC [296-62-07721\(6\)](#).
 - (d) WAC [296-62-07723](#), Housekeeping, must apply to fire stations and facilities.
 - (e) Fire departments that do not comply with this section must comply with the requirements relating to asbestos set out in chapters [296-62](#) and [296-65](#) WAC.

WAC 296-305-06505 Sanitation, disinfection, cleaning, and storage areas.

- (1) Fire departments must provide facilities for disinfecting, cleaning, and storage.
- (2) A designated cleaning area must be provided for under the fire department's exposure control plan for the cleaning and disinfecting of protective equipment, portable equipment, and other clothing.
 - (a) Fire departments that engage in emergency medical operations must provide or have access to disinfecting facilities for the cleaning and disinfecting of emergency medical equipment.
 - (b) Disinfecting must not be conducted in fire station kitchen, living, sleeping, or personal hygiene areas.
 - (c) Disinfecting facilities in fire stations must be vented to the outside environment, and designed to prevent contamination of other fire station areas.
 - (d) The disinfecting facility must contain a sink with hot and cold water faucets. All surfaces must be nonporous surfaces.

- (e) Handwashing facilities must be readily accessible to members. Handwashing facility means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines. When provision of handwashing facilities is not feasible, the employer must provide either an appropriate antiseptic hand cleaner in conjunction with clean cloth/paper towelettes or antiseptic towelettes.
- (3) Protective clothing or equipment that is contaminated or potentially contaminated must not be allowed in any kitchen, living, sleeping, personal hygiene or other nonwork area.
- (4) The designated cleaning area must be physically separate from areas used for food preparation, cleaning of food and cooking utensils, personal hygiene, sleeping, and living areas.
- (5) Drying areas for protective clothing must be well ventilated.
- (6) Storage areas: Emergency medical supplies and equipment stored in fire stations, other than that stored on vehicles, must be stored in a dedicated enclosure and maintained per manufacturer's instructions.
- (7) Reusable emergency medical supplies and equipment, protective clothing, and protective equipment must not be stored in kitchen, living, sleeping, or personal hygiene areas, nor must it be stored in personal clothing lockers.

WAC 296-305-06507 Sleeping areas.

- (1) All sleeping areas in fire stations must be separated from vehicle storage areas by at least one-hour fire resistive assemblies.
- (2) Sleeping areas must be protected by smoke and carbon monoxide detectors.

WAC 296-305-06509 Apparatus areas.

- (1) Three feet of clearance must be maintained around apparatus parked within the station where the station's width permits.
- (2) All fire stations built after December 17, 1977, must have a minimum of three feet of clearance around the apparatus, which must be maintained free of any storage or obstruction.
- (3) The station's apparatus floors must be kept free of grease, oil, water and tripping hazards.
- (4) Floors must have slip-resistant surfaces on areas where personnel would normally mount or dismount apparatus.
- (5) No Class I or Class II flammable liquids must be used for cleaning purposes to remove grease or dirt from apparatus.

WAC 296-305-06511 Indoor air quality.

Air quality must be consistent with chapter [296-841](#) WAC, Airborne contaminants, and WAC [296-800-240](#), Environmental tobacco smoke.

- (1) If indoor air monitoring indicates over-exposure to contaminant PELs, engineering controls must be utilized to reduce firefighter exposure to the lowest feasible level.

- (2) All fixed internal combustion equipment such as, but not limited to emergency generators, must be effectively exhausted to the exterior of the fire stations.
- (3) All facilities dedicated to the maintenance and repair of internal combustion equipment must have means for effective ventilation to the exterior of the building.
- (4) All new fire stations must be designed and constructed to conform to ACGIH ventilation recommended criteria for exhaust of internal combustion engines.

Additional reference:

Industrial Ventilation Manual of Recommended Practices ISBN No.: 0-936712-65-1.

WAC 296-305-06513 Refueling areas.

- (1) Refueling pumps, if installed, must be in accordance with the provisions of the International Fire Code and WAC [296-24-33015](#).
- (2) Dispensing of Class 1 liquids must be as required in the International Fire Code.
- (3) Spillage of oil or fuel must be properly disposed of or completely evaporated and the fuel tank cap replaced before restarting engine.
- (4) Fueling areas must be posted – “NO SMOKING - STOP YOUR MOTOR.”

WAC 296-305-06515 Hose drying towers.

- (1) The floor openings on hose tower platforms must be equipped with a forty-two inch guardrail with midrail and must be capable of withstanding a force of 250 pounds applied in any direction at any point on the top rail. The work platform must be equipped with toeboards.
- (2) The requirements for offset ladder platforms and ladder cage guards, when ladders extend beyond twenty feet, must apply to hose drying towers.
- (3) Ropes and attachments used to hoist hose in the hose towers must have a breaking strength of 1500 pounds for a safe load strength of 300 pounds (five-to-one safety factor).
- (4) Approved head protection must be worn by all persons in the hose tower whenever hose handling/hanging operations are taking place.
- (5) Ropes utilizing a pulley block must be appropriately sized for the sheave to prevent possible jamming or damage to the rope.

WAC 296-305-06517 Drill tower training facilities.

- (1) Permanent fixed ladders on the outside of drill towers and drill buildings are exempt from the requirements of offset platform landings and ladder cage guards.
- (2) Drill tower construction and operations must comply with the following:
 - (a) Burn buildings used for live fire training must be engineered for such use.
 - (b) Drill towers must not be used for live fire training except when burn rooms are provided.
 - (c) Burn rooms, if included in the building, must be engineered into drill towers.
 - (d) All walking surfaces in the drill tower must be slip resistant.
 - (e) Railings must be designed with a four-to-one safety ratio for 250 pound firefighters who may be operating a charged hose line on the fire escape.
 - (f) Rappelling anchors must be engineered to support 5000 pounds per person supported by the anchor.
 - (g) Rappelling anchors must be readily identifiable.
 - (h) Rappelling anchors must be certified by a structural engineer.

WAC 296-305-06519 Fire station equipment and tools.

- (1) Equipment and tools in maintenance shops must be guarded as required by the guarding provisions of chapter [296-806](#) WAC, Machine safety, and chapter [296-807](#) WAC, Portable power tools.
- (2) Exposure of fan blades. When the periphery of the blades of a fan is less than ten feet above the floor or working level, the blades must be guarded. The guard must have openings no larger than one-half inch. This provision does not apply to residential ceiling fans.
- (3) Abrasive wheels and grinders.
 - (a) All abrasive wheels and grinders, must be guarded as required by chapter [296-806](#) WAC, Machine safety.
 - (b) Goggles or face shields must be used when grinding.
 - (c) Abrasive and composite blades must be stored and protected against exposure to fuel and oil.
 - (d) Work rests on bench mounted abrasive wheel grinders must be used to support the work. These must be of rigid construction and designed to be adjustable to compensate for wheel wear. Work rests must be kept adjusted sufficiently close to the wheel with a maximum opening of one-eighth inch to prevent the work from being jammed between the wheel and the rest. Adjustment of the work rest must not be made while the wheel is turning.

WAC 296-305-07001 Wildland fire operations. Definitions:

Urban wildfire. An uncontained fire requiring suppression action usually spreading through ground cover, vegetative fuels, brush, grass, and landscaping; often threatening residential and commercial structures within an urban environment with access to established roadways and water systems.

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

- (a) WAC 296-305-07010 through 296-305-07018 must only apply to personnel and agencies called on to provide services at any fire defined as a “wildland fire.”
- (b) Employers must provide, at no cost to the employee, the protective equipment and protective clothing required by this chapter. Personnel performing suppression actions on a wildland fire must wear and maintain the provided protective equipment and clothing as directed by their department's procedures and guidelines.

WAC 296-305-07002 Wildland fire personnel accountability.

- (1) Urban wildfire and wildland firefighters must not be required to wear personal alerting devices except when wearing self-contained respiratory equipment.
- (2) An officer must maintain positive communication with any individual during those times that the member is assigned an ancillary firefighting task (examples would include, but are not limited to, scout, incident safety officer, or lookout).
- (3) Urban wildfire and wildland firefighters engaged in direct fire attack must work in teams of two or more unless they are in visual or voice contact with an officer.
- (4) On initial attack fires, the incident commander must maintain the name and location of all personnel on the incident.
- (5) On extended attack fires, the incident commander must:
 - (a) Ensure the maintenance of the name and location of all personnel within their unit, division, or branch.
 - (b) Transfer/confirm personnel and unit information to the appropriate incident command system (ICS) staff as soon as possible.
 - (c) Announce transfer of command to all on scene.
 - (d) Ensure that personnel and unit information is recorded in the command post as soon as possible.
- (6) When a fire “blows up” or makes a run that crosses planned control lines, officers with affected crews must conduct an accounting of all personnel assigned to fire suppression and report any missing personnel to the incident commander.

WAC 296-305-07004 Heat-related illness prevention for wildland firefighters.

- (1) At all wildland fires, members must be provided with a minimum of one quart per hour of electrolyte drinks or potable water.
- (2) Officers at wildland fires must be trained in the symptoms of heat-related disorders and must observe their crews for such behavior. Appropriate action must be taken in the event a crew member displays such symptoms.
- (3) At all wildland fires, the incident commander must consider the circumstances of the incident and make adequate provisions early in the incident for the rest, rehabilitation and hydration of all members operating at the scene. These provisions must include fluid replenishment; other factors to consider are the extremes of the climatic conditions and other environmental factors that increase the firefighter's heat stress.
- (4) One hour is the maximum time that individuals can work in high temperatures in structural protective clothing. Agencies may substitute crews to avoid the one-hour bench mark or increase crew size to complete the job in less than one hour.
- (5) Members may be reassigned to return to duty throughout the incident cycle once a work-to-rest ratio (company and crew) rehabilitation rotation has been established.

Note: WAC 296-305-05004, Occupational exposure to heat and cold stress, may be of assistance while developing a plan, establishing training topics, and identifying environmental factors to consider for incident rehabilitation. The 2008 edition of NFPA 1584, Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises may also assist in establishing a rehabilitation plan.

WAC 296-305-07006 Equipment for wildland firefighting.

Note: Equipment is considered in this section as those items not configured as a part or portion of the vehicle body.

- (1) All equipment on an apparatus must be carried in an enclosed compartment or otherwise securely mounted on the apparatus and guarded, so that individuals cannot accidentally come in contact with equipment that may injure them.
- (2) All hand tools, when not in use, must have appropriate covers and guards to prevent injury.
- (3) Firefighters whose duties require them to operate a power chain saw must wear flexible ballistic nylon pads, sewn or otherwise fastened into the trousers, or other equivalent protection that must cover the full length of the thigh to the top of the boot. Additional trouser, eye, hearing, face and head protection as required by this chapter must be worn.
- (4) Employees must not use the chainsaw to cut directly overhead, or at a distance that would require the operator to relinquish a safe grip on the saw.
- (5) Only personnel trained in firing equipment must handle and use such equipment, and observe the manufacturers' recommendations.

WAC 296-305-07008 Aircraft operations for fighting wildland fires.

- (1) Whenever fixed wing and rotary aircraft are being utilized on an incident, personnel trained in air operations management must be assigned as necessary by the incident commander/operations section chief.
- (2) Prior to the initiation of air operations, all personnel operating in close proximity to an air drop must be notified of such activity.
- (3) Personnel must not intentionally operate in an area where it can reasonably be expected that they may be hit with retardants or suppressants from fixed wing or rotary aircraft.
- (4) Radio communications must be maintained between an aircraft/air attack group supervisor and the appropriate ground officer.
- (5) Personnel assigned to ride in fixed wing or rotary aircraft must be briefed in the correct approach, riding and off-loading procedures for the particular type of aircraft.

Note: The NWCG aircraft passenger briefing/checklist can be found in the “Incident Response Pocket Guide” at http://www.nwcg.gov/pms/pubs/IRPG_Jan2004.pdf

WAC 296-305-07010 Training for wildland firefighting.

- (1) This section applies to all personnel and agencies called on to provide services at any fire defined as a “wildland fire.”
- (2) This section does not apply to structural suppression crews' actions taken on urban wildfires.
- (3) Suppression personnel assigned to a wildland fire must be trained to a NWCG firefighter level II or a comparable class of training.
 - (a) “Comparable” training must be determined by the employer.
 - (b) Nothing in this section will preclude the use of local residents, affected parties or contracted firefighting resources to suppress wildland fires if they are under the direct supervision of a qualified fire line officer.
- (4) Supervisory personnel must be trained to a level commensurate to the position and responsibility they are to assume.
- (5) All personnel must be trained and capable of demonstrating competency in utilizing the Incident Command System (ICS).
- (6) All suppression personnel must annually review the ten fire orders, the eighteen “watch out” situations, and the four common denominators of tragedy fires.

Note: The National Interagency Fire Center's "Wildland Fire Safety Training Annual Refresher (WFSTAR)" is a good resource for training topics related to wildland firefighting. These resources can be found at <https://www.nwccg.gov/publications/training-courses/rt-130>

WAC 296-305-07012 Personal protective clothing and equipment for wildland firefighting.

- (1) Protective apparel and equipment for wildland firefighters must be designed to provide thermal protection for the firefighters against external heat sources with flame resistant clothing and equipment without creating high heat stress loads due to the prolonged work periods they experience. Members performing suppression on a wildland fire must wear a provided protective clothing ensemble as directed by their employer. The combined protective clothing ensemble includes:
 - (a) Hardhat/helmet;
 - (b) Upper and lower torso clothing;
 - (c) Gloves; and
 - (d) Goggles.

The 2005 edition of NFPA 1977, Standard Protective Clothing and Equipment for Wildland Firefighting, must serve as a guideline for determining performance characteristics of this clothing.

Note: This requirement does not apply to logging company employees whose primary job duty is not fire suppression, but are called upon to fight a wildland fire they discover.

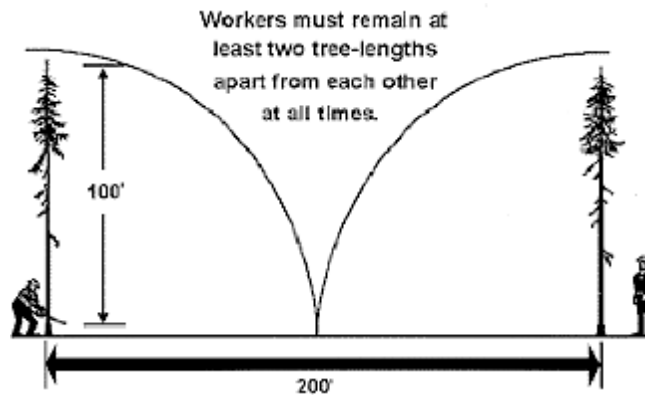
- (2) As a minimum, members must wear provided leather lace-up boots of sturdy construction which must extend upward a minimum of eight inches above the top of the sole to the lowest point of the top of the boot. The sole of the boot must be slip resistant.
- (3) Additional personal protective equipment to be provided and worn must include a fire shelter as directed by the incident commander. Persons provided fire shelters must be trained in their use and must receive refresher training at least annually.
- (4) Wildland protective clothing must comply with this standard.
- (5) Personnel operating Type 1 or Type 2 engines assigned to structural protection must carry structural firefighting ensembles for each firefighter on their assigned apparatus.
- (6) Wildland personnel protective clothing must not be used for interior structural firefighting.
- (7) Personnel wearing full structural firefighting clothing while engaged in fighting wildland fires must not expend more than one hour before rotating to rest and rehabilitation. Agencies may rotate crews to avoid the one-hour benchmark when containing and controlling wildland fires.

- (8) Fire departments must establish written procedures for the care, use, maintenance, and retirement criteria for wildland firefighting protective equipment in conjunction with the manufacturers' recommendations.
- (9) Fire departments must establish written procedures for the use of protective clothing and protective equipment while performing wildland firefighting activities.
- (10) All wildland fire shelters purchased after the effective date of this rule must meet or exceed the United States Forest Services' Missoula Technology and Development Center (MTDC) design criteria and performance requirements for "new generation fire shelters."

WAC 296-305-07014 Apparatus standards for wildland firefighting.

This section applies to wildland fire apparatus meeting the NIMS ICS typing of a Type 3 through Type 7 engine, and intended for use combating fires occurring in natural vegetation or occurring in natural vegetation and threatening improvements.

- (1) In a wildland fire, an engine may provide the primary protection for a crew in the event of unexpected fire behavior or an action that places the engine crew in a position of being exposed to heat and smoke.
- (2) Apparatus speed must be determined to be safe if in the judgment of the officer in charge, the following are taken into consideration:
 - (a) The particular wildland fire attack methods being utilized including, but not limited to, the nature of the fire, the type of terrain, weather conditions, equipment conditions, and whether personnel are positioned in wildland firefighting enclosures;
 - (b) The forgoing provision does not relieve a driver from the duty to drive with due regard for the safety of all persons in all conditions;
 - (c) Nor does such provision protect the driver from the consequences of their reckless disregard for the safety of others.
- (3) Because of the sheltering offered by an engine, the following minimum standards must be complied with:
 - (a) The number of individuals working/assigned as an engine crew must not exceed the manufacturer's cab capacity.
 - (b) Any time an engine is moved when not directly attacking a fire, personnel must ride in the vehicle's enclosed cabin area, in a seat-belted location, or be off the vehicle.
 - (c) Any time engines are used in a mobile attack configuration, and personnel other than the driver are on the apparatus, personnel must ride in the manufacturer's enclosed cabin, or use the personnel restraints and enclosures identified in WAC 296-305-07018.
 - (d) All personnel working on or around engines in a ground mobile attack mode or in riding positions must have visual or voice contact with the driver.
 - (e) Vehicles operating in smoke or dust must have their headlights, and if so equipped, a flashing or rotating roof light illuminated.

WAC 296-305-07016 Falling and equipment in forest lands.

- (1) The employer must assign work areas so that:
 - (a) Trees cannot fall into an adjacent occupied work area;
 - (b) The distance between work areas is at least two tree lengths of the trees being fell (see Figure 1: Distance Between Work Areas);
 - (c) The distance between work areas reflects the degree of slope, the density of the growth, the height of the trees, the soil structure and other hazards reasonably anticipated at the worksite; and
 - (d) A distance of more than two tree lengths is maintained between work areas on any slope where rolling or sliding of trees or logs is reasonably foreseeable.

Exception: This rule does not apply to a team of cutters working on the same tree.

- (2) Before falling or bucking, conditions such as, but not limited to, the wind, the lean of tree, dead limbs, and the location of other trees, must be evaluated by the cutter and precautions taken so a hazard is not created for an employee.
- (3) Employees must not approach a cutter closer than two tree lengths of trees being felled until the cutter has acknowledged that it is safe to do so.
- (4) A competent person, properly experienced in this type of work, must be placed in charge of falling and bucking operations. Inexperienced workers must not be allowed to fall timber, buck logs or windfalls unless working under the direct supervision of an experienced cutter.
- (5) Before an employee falls or bucks any tree:
 - (a) A sufficient work area must be swamped.
 - (b) The cutter must plan and clear an escape path.

- (i) The escape path must extend diagonally away from the expected felling line unless such an escape path poses a greater hazard than an alternate escape path.
 - (ii) An escape path must be used as soon as the tree or snag is committed to fall, roll, or slide.
- (6) If a cutter has determined a tree cannot be safely fell, the work must stop until the cutter has conferred with a supervisor or an experienced cutter and determined the safest possible work method or procedure.
- (7) The person in charge of cutting crews must regularly inspect the work of the cutting crews and is responsible to ensure the work is performed in a proper and safe manner.
- (8) All cutters must carry or have in near proximity at all times:
 - (a) An axe or suitable tool for driving wedges.
 - (b) A minimum of two wedges.
 - (c) A first-aid kit.
- (9) Where felled trees are likely to roll and endanger workers, cutting must proceed from the bottom toward the top of the slope, and uphill from previously fell timber.
- (10) A cutter must not be placed on a hillside immediately below another cutter or below other operations where there is probable danger.
- (11) Cutters must be informed of the movement and location of other employees placed, passing, or approaching the vicinity of trees being fell.
- (12) Trees must be fell into the open whenever conditions permit.
- (13) Domino falling of trees, including danger trees, is prohibited. Domino falling does not include the falling of a single danger tree by falling another single tree into it.
- (14) Undercuts large enough to safely guide trees and eliminate the possibility of splitting must be used on all trees over six inches diameter at breast height.
- (15) A cutter must place an adequate undercut and leave enough holding wood to ensure the tree will fall in the intended direction.
- (16) The two cuts that form the undercut must not cross where they meet.
- (17) The undercut must not be made while other workers are in an area into which the tree could fall.
- (18) A backcut must be made in each tree being fell.
 - (a) The backcut must be as level as possible;
 - (b) The backcut must leave enough hinge wood to hold the tree to the stump during most of its fall so that the hinge is able to guide the tree's fall in the intended direction; and
 - (c) The backcut must be above the level of the horizontal facecut to provide an adequate platform to prevent kickback.
- (19) Trees with facecuts and/or backcuts must not be left standing unless all the following conditions are met:
 - (a) The cutter clearly marks the tree;

- (b) Discontinues work in the hazardous area;
 - (c) Notifies all workers who might be endangered; and
 - (d) Takes appropriate measures to ensure that the tree is safely fell before other work is undertaken in the hazardous area.
- (20) Undercuts and backcuts must be made at a height above the highest ground level to enable the cutter to safely begin the cut, control the tree, and have freedom of movement for a quick escape from a falling tree.
- (21) Lodged trees must be clearly marked and identified by a predetermined method and all persons in the area must be instructed not to pass or work within two tree lengths of the trees except to ground them.
- (22) On slopes over fifty percent grade, tree(s) must at least be quartered to a degree that prevents employees from being exposed to the possibility of sliding or rolling trees or logs.
- (23) Each danger tree must be carefully checked for signs of loose bark, broken branches and limbs, or other damage before they are fell or removed. Accessible loose bark and other damage that may create a hazard for an employee must be removed or held in place before falling or removing the tree. When a danger tree has elevated loose bark that cannot be removed, the buddy system must be used to watch for and give warning of falling bark or other hazards.
- (24) Danger trees that are unsafe to cut must be blown down with explosives or fell by other safe methods.
- (25) To avoid use of wedges, which might dislodge loose bark or other material, danger trees must be fell in the direction of lean unless other means (mechanical or dynamite) are used.
- (26) All bosses and supervisors must survey their assigned work area for danger trees and mitigate them prior to crews commencing work in that area.

Definition.

Danger trees. Any tree of any height, dead or alive, that presents a hazard to workers because of rot, root, stem or limb damage, lean, or any other observable condition created by natural process or man-made activity.

- (27) All fallers and faller bosses must be trained in the type of timber they will be falling prior to being assigned to a falling crew.
- (28) All dozers, tractors, and similar machines in use where limbs or brush may injure the operator must be guarded as follows:
- (a) Shear or deflector guards must be installed on each side of the vehicle at an angle leading forward and down from the top front edge of the canopy of the vehicle, which will tend to slide the brush or limbs up and over the top of the canopy.
 - (b) Open mesh material with openings of a size that will reject the entrance of an object larger than one and three-quarter inches in diameter, must be extended forward as far as possible from the rear corners of the cab sides to give the maximum protection against obstacles, branches, etc., entering the cab area.

- (c) Deflectors must also be installed ahead of the operator to deflect whipping saplings and branches.
 - (d) Deflectors must be located so as not to impede entrance to or exit from the compartment area.
 - (e) The floor and lower portion of the cab must be completely enclosed with solid material, except at entrances, to prevent the operator from being injured by obstacles which otherwise could enter the cab compartment.
- (29) All dozers used on terrain that has sufficient slope or of such material as to hinder the movement of the dozer must have an attached winch or drum line that is in good working order. When such a situation is encountered, the dozer assistant must be knowledgeable in the operation of the dozer, winch or drum line operations, the hazards associated with winching or drum line operations, and line anchor selection.
- (30) Operators must operate and control their machines in a safe manner and avoid operations in areas where machine stability may not be maintained.
- (31) Employee work areas must be spaced and employee duties organized so the actions of one employee do not create a hazard for any other employee.

WAC 296-305-07018 Occupant restraints and enclosures for wildland firefighting.

- (1) While in motion, the driver and passengers in the cab must wear seat belts.
- (2) Seat belts must comply with the U.S. Department of Transportation, Part 49 C.F.R., Section 571, Standards 209 and 210.
- (3) Passengers on wildland vehicles must use a safety belt or a short lanyard securely connected to the apparatus.
 - (a) Safety belts or lanyards must be secured to an anchorage or structural member capable of supporting a minimum dead weight of one thousand five hundred pounds per person or a 4:1 safety factor.
 - (b) Safety lanyard lengths must not allow for the firefighter to reach the ground.
- (4) Safety belts must be constructed and maintained in compliance with ANSI A10.14-1975.
- (5) Lanyards must be a minimum of one-half inch nylon or equivalent with a nominal breaking strength of five thousand four hundred pounds.
- (6) The structural components for wildland vehicle enclosures must be constructed of metal tubing not less than one inch in diameter, capable of supporting a minimum of one thousand five hundred pounds per person, a 4:1 safety ratio or the equivalent. This applies to vehicle enclosures manufactured after the effective date of this chapter.
- (7) The enclosure must be constructed to a minimum toprail height of forty-two inches and must include a midrail and either a toeboard at least four inches high or a bottom rail a maximum of six inches from the platform.
- (8) Access door(s) and latching mechanisms to tail board enclosures must be constructed and mounted to achieve structural integrity comparable to the remainder of the enclosure.

- (9) A strap or butt-bar utilized for the fourth side of the enclosure must be a minimum of a four-inch nylon strap capable of supporting one thousand five hundred pounds dead weight.
- (10) While actively fighting a fire in the mobile attack mode, firefighters must either remain in a three-sided enclosure and use a safety lanyard, or remain in a four-sided enclosure.

WAC 296-305-08000 Appendices.

These appendices are nonmandatory and are included for reference and information purposes only.

Appendix B—Nonmandatory: Life safety ropes.

- (1) Life safety rope may be significantly weakened by abrasion, misuse, contamination, wear, and stresses approaching its breaking strength, particularly impact loading. Since there are no approved methods to service test a rope without compromising its strength, rope rescue and training operations should be carefully observed and monitored for conditions that could cause immediate failure or result in undetectable damage to the rope.
- (2) If a rope has been used in a situation that could not be supervised or where potential damage may have occurred, it must be removed from service and destroyed.
- (3) It is important that ropes be inspected for signs of wear by qualified individuals after each use. If indication of wear or damage are noted, or if the rope has been stressed in excess of the manufacturer's recommendation or impact loaded, it must be destroyed.
- (4) The destruction of the rope means that it must be removed from service and altered in such a manner that it could not be mistakenly used as a life safety rope. This alteration could include disposing of the rope, or removal of identifying labels and attachments, and cutting the rope into short lengths that could be used for utility purposes.
- (5) The assignment of “disposable” life safety ropes to members or to vehicles has proved to be an effective system to manage ropes that are provided for emergency use and are used infrequently. Special rescue teams, which train frequently and use large quantities of rope, should include members who are qualified to manage and evaluate the condition of their ropes and determine the limitations upon their reuse.

Appendix C—Nonmandatory: Decontamination.

- (1) A decontamination area should be established whenever civilians or fire department personnel have had known or suspected exposure to toxic chemicals.
- (2) Such decontamination areas should be established before any personnel are allowed to enter the “Hot” zone.
- (3) The decontamination area should be set up using the following guidelines:
 - (a) The decontamination area should be located uphill, upwind and at a right angle to the “Hot” zone.
 - (b) The decontamination area entry/exit point and boundaries should be clearly marked using flagging tape, ropes, cones, etc.

- (4) 4 to 6 mil poly sheeting should be spread on the ground in the decontamination area to control runoff.
- (5) The decontamination process is divided into stations. In most cases it will not be necessary to utilize all the stations. The decision to use all or part of the stations should be based on the following factors:
 - (a) The hazards associated with the product involved.
 - (b) The estimated levels of contamination.
 - (c) The type of protective equipment worn by contaminated responders.
 - (d) Recommendations from outside sources such as, but not limited to CHEMTREC, the agency for toxic substance and disease registry, poison control centers or the manufacturer of the product.
- (6) The following is a list of all the stations in a nine-step decontamination area set up for a worst case scenario involving a hazardous materials response team member whose chemical suit has been breached:
 - (a) Station #1 - Segregated equipment drop: Contaminated equipment that will be used again in the "Hot" zone, disposed of, or decontaminated at a later time or place, will be deposited here.
 - (b) Station #2 - Wash/rinse: Entry personnel will be washed with appropriate decontamination solution and rinsed with water by attendant(s) to remove gross contamination. This station may consist of multiple wash/rinse steps depending on the severity of the hazards involved.
 - (c) Station #3 - Outer protective clothing removal: Attendant(s) will remove the outer protective clothing from entry personnel being cautious to avoid touching the inside of the suit while removing it. Protective clothing that has been removed at this step must be placed in an over pack or other appropriate container for later testing and further decontamination, if needed.
 - (d) Station #4 - Removal of SCBA: The entry personnel are assisted in removing their SCBA by an attendant. The SCBA facepiece should be left in place and the low pressure hose held away from any potentially contaminated inner clothing.
 - (e) Station #5 - Removal of inner clothing: All clothing worn inside the suit must be removed in cases where the suit has been penetrated and the entry personnel are contaminated.
 - (f) Station #6 - Personal shower: Entry personnel should wash and rinse entire body with mild soap and water. Contain runoff water if possible, however this is an emergency situation and containment is secondary to removing contaminants from personnel.
 - (g) Station #7 - Drying off: Entry personnel that have showered should dry off using towels or whatever is available. Items used should be placed in an appropriate container for disposal. Emergency clothing such as disposable coveralls should be provided.

- (h) Station #8 - Medical evaluation: Entry personnel should be evaluated by paramedics - checking vital signs including temperature and level of consciousness. Records of the evaluation must be kept and given to the team safety officer to be included in the member's exposure records.
 - (i) Station #9 - Transport to emergency room: Any personnel exhibiting any signs or symptoms of exposure should be transported to the emergency room for evaluation and observation.
- (7) The hazardous materials response team van should carry premeasured packets of decontamination solution mixes for the purpose of decontaminating chemical protective clothing and other equipment at the scene of a hazardous materials emergency. These solutions are not to be used to decontaminate turnouts or exposed skin under any circumstances.
 - (8) The primary solution used will be a simple detergent and water mixture. Other special decontamination solution mixes will only be used in those situations when it is determined that the detergent and water solution is inappropriate.
 - (9) Contaminated civilians that are exhibiting signs or symptoms of exposure should be treated as patients. Due to the risk of secondary contamination, all patients should undergo emergency field decontamination at the scene before being evaluated by medical personnel or being transported to the emergency room. Medical personnel should not accept any patient that has not been grossly decontaminated.
 - (10) The emergency field decontamination process should consist of removing the clothing from all affected body parts of the exposed person and flushing with copious quantities of water from a garden hose or low pressure one and three-quarter inch handline to remove gross contamination. Patients will be flushed for up to fifteen minutes, depending on the material recommendations on patient decontamination.
 - (11) Members performing patient decontamination should wear, at a minimum, full turnouts and SCBA and should avoid splashes and overspray to the extent possible. They should also undergo decontamination when they have finished decontaminating the patient.
 - (12) Containment of the runoff water from patient decontamination is not required. Do not delay decontamination of patients to set up containment. However, some form of privacy screen should be erected to protect the modesty of those being decontaminated.
 - (13) Responders that are contaminated in the process of performing rescue or other tasks will, at the minimum, be flushed with water for a minimum of one minute. Further flushing will be performed depending on the extent of contamination and subsequent adverse health effects.

Appendix D-Nonmandatory: Guidelines for Managing Two-in/Two-out.

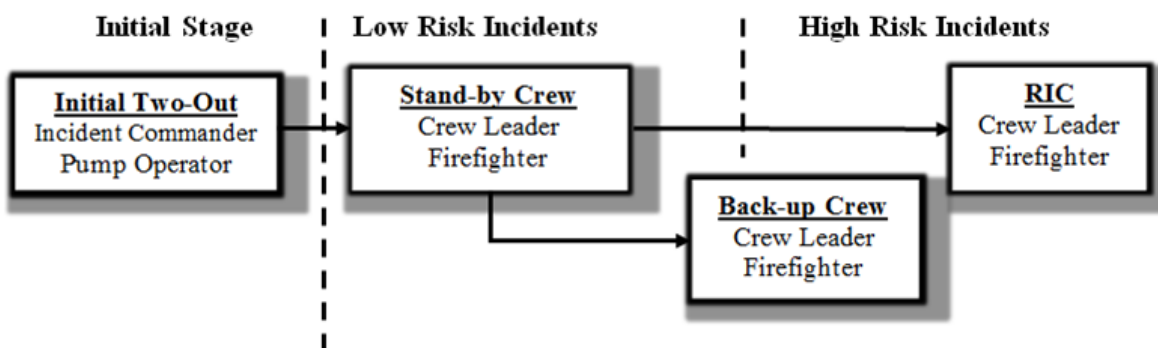
Rapid Intervention (Two-in/Two-out)

Incident Commander must maintain rapid intervention capability (Two-out) so that, should the need arise, a rescue crew is readily available to provide for the rescue of any responders operating within a hazard area (Two-in). A hazard area is defined as any area that requires the use of PPE or in which a responder is at risk of becoming lost, trapped, or injured by the environment or structure. This includes entering a structure reported to be on fire, operating in close proximity to the structure during exterior operations, confined space operations, rope rescue, haz-mat, etc.

Rapid intervention is the **systematic management** of response to a “Mayday” situation where the need for an immediate rescue of emergency responders has become necessary.

Responsibility: Incident Commanders are ultimately responsible for the incident outcome and the safety of all responders operating at the scene. Therefore, Incident Commanders must maintain a constant balance between the urgent need to perform critical tasks and the personal safety of the responders performing those tasks. To support this, and before responders can be assigned to operate within a hazard area, Incident Commanders must establish a Two-out resource capable of providing rapid intervention. Incident Commanders must maintain this capability throughout the incident until the risk to responders has been sufficiently mitigated.

Providing Two-out Capability: The methods for providing Two-out should match the incident’s degree of potential risk and can evolve as resources become available. The following flowchart provides a decision-making guideline, illustrating a model sequence for determining how, and to what extent, Two-out capability should be provided so that it corresponds with the incident stage, size, complexity, and level of risk to responders.



For high risk incidents, a RIC should be assigned, given time to prepare, while the Stand-by Crew provides Two-out. Once ready, the RIC replaces the Stand-by Crew who can move to up Back-up.

Two-out Staffing Options

Initiating Two-out: During the “initial stage” of an incident, the Two-out provision may be provided as a secondary responsibility by the Pump Operator and the Incident Commander.

The “initial stage” of an incident is defined as the stage that encompasses the tasks undertaken by the first arriving company with only one crew assigned or operating in the hot zone.

Once a second crew is assigned to operate within the hazard area, the incident is no longer in the “Initial Stage”. With multiple crews operating in a hazard area, the Incident Commander and Pump Operator’s ability to realistically function as an effective Two-out rescue crew drastically diminishes. At this point, the Incident Commander must assign a dedicated crews of Two-out, which may be in the form of a Stand-by Crew or RIC.

The IC and Pump Operator can only initiate Two-out during the Initial Stage

Stand-by Crew – A Stand-by Crew is assigned when the Incident Commander opts not to assign a RIC Crew. This would be done as a short term assignment for incidents that can be quickly and safely mitigated because they are contained, limited to contents, and are of minimal risk to responders. Examples include a smoldering mattress, an appliance fire, or a stovetop fire.

Stand-by Crews are assigned as a short-term Two-out provision for low risk incidents

A Stand-by Crew can also be assigned as an interim step while waiting for a RIC to arrive and/or assemble. A Stand-by Crew consists of at least two firefighters held outside the hazard area, available for immediate assistance or rescue of an entry crew. Once relieved by a RIC, the Stand-by Crew may be assigned to become a Back-up Crew.

Rapid Intervention Crew (RIC) – Functionally synonymous to a Stand-by Crew, a RIC is assigned for high risk Incidents involving sustained operations to replace the Stand-by Crew. A RIC consists of at least two firefighters held outside the hazard area available for immediate assistance or rescue of an entry crew operating within the hazard. It must be recognized that a RIC alone may not be adequate when it comes to actually conducting a rescue of a trapped firefighter.

RIC should be assigned to replace the Stand-by Crew during high risk incidents

Therefore, it must be understood that the primary role of a RIC is only to initiate the rescue effort.

The primary role of a Stand-by Crew of RIC is to:

1. **Locate** and gain access to the firefighter in peril;
2. Provide them with **emergency air** management; and to
3. Provide **reconnaissance** information to the Incident Commander for the coordination of additional crews assigned to support the rescue effort. **Rescue if able.**

RIC effectiveness is limited to only reacting to a rescue situation

Back-up Crews

Back-up Crews are strategically per-positioned in the immediate vicinity of crews operating in areas with a high level of risk. A pre-positioned Back-up Crew is the most familiar with the other crew's location, situation, the hazards they are exposed to, and the immediate surroundings. A Back-up Crew's placement also positions them to better recognize a potential or developing

"Mayday" situation, enabling them to immediately intervene, thus averting a "Mayday" situation.

Back-up Crews are intended to provide a crew of at least two members positioned offensively with a charged hose line and/or other applicable equipment.

Back-up Crews operate with three given priorities. In coordination with the Incident Commander and in order of priority, they are assigned for the specific purpose of:

1. As dictated by fire and/or other hazardous conditions, protecting the means of egress for interior crews;
2. Serving as the Incident Commander's eyes and ears specifically to assess conditions within the Hot Zone, conveying risk assessment reconnaissance information to the Incident Commander, monitoring conditions, and if conditions begin to deteriorate, immediately initiating the appropriate form of intervention;
3. If priorities 1 and 2 are accounted for, conducting a primary search, or supplement initial fire attack efforts.

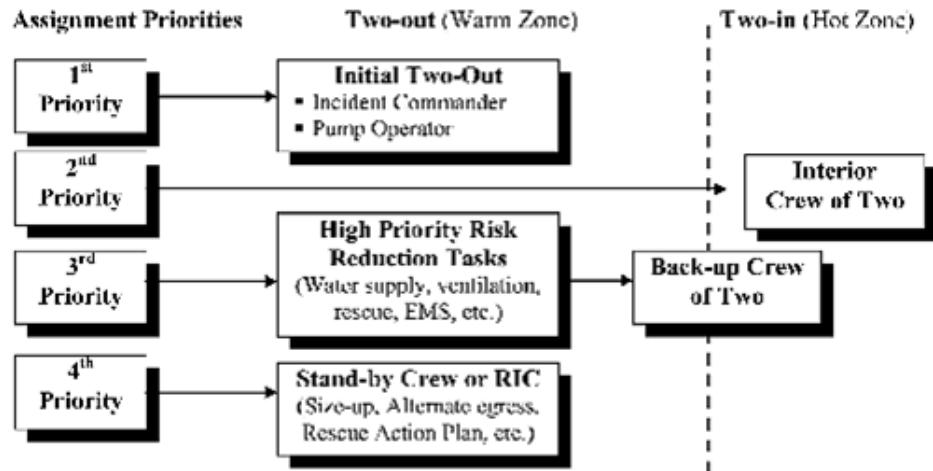
Back-up Crews provide protection because they are positioned in a manner that allows them to initiate actual intervention

Although protecting egress in the Back-up Crew's primarily responsibility, they may also support entry crews with hose advancement, victim removal, monitoring fire extension, etc.

As a general guideline, Back-up Crews are assigned with the following progression:

- If an entry crew is assigned to enter the hazard area, a Stand-by Crew or RIC must also be assigned as the Two-out provision for providing rapid intervention capability.
- If a RIC has been assigned, the Stand-by Crew can move up to become the Back-up Crew.

Deployment Order of Priority (Structure Fire Example). Though maintaining Two-in/Two out is a requirement, how the Incident Commander chooses to do so is flexible. The following flowchart provides a decision-making guideline for planning tactical assignments while maintaining Two-in/Two-out. The following sequence is intended to guide crew deployment in a manner that balances the need to initiate and establish a Two-out crew while assigning crews to critical incident mitigation tasks within the hazard area.



Adjacent and Additional Crews

Case studies prove that a Stand-by Crew or RIC operating alone may not be sufficient when rescuing a trapped firefighter when extrication and/or rescue are required. Rescue efforts will likely require the support of additional crews to provide extrication equipment and personnel. To create these supporting crews the Incident Commander can reassign adjacent crews or assign additional crews, generally a combination of the two.

Adjacent Crews – When a crew declares a “Mayday”, the rescue efforts initiated by other crews operating in close proximity is nearly effective as what a back-up crew can provide. Adjacent crews may be in a position to suspend their current assignment and immediately initiate rescue efforts. But if an adjacent crew is performing an activity that will protect rescue efforts, they should not be reassigned if suspending their current assignment would potentially compromise this protection. Reassignment of adjacent crews does not preclude the deployment of the Stand-by Crew or RIC. The primary role of the Stand-by Crew or RIC is to locate firefighters in peril, provide them with emergency air management, and to facilitate their rescue.

Crews must not self-dispatch!

Additional Crews – When a crew declares a “Mayday, Mayday, Mayday”, additional crews can be assigned by the Incident Commander to support rescue efforts or to replace adjacent crews who were reassigned to the rescue effort. Additional crews will generally be deployed from a staging area.

Resource Reserve – Incident Commanders should maintain a reserve of resources so that if a rapid intervention must be initiated, they have enough resources to support the rescue effort while continuing to sustain the original incident operations. Often this means calling for additional resources, second, or third alarms. Early consideration should be given to assure these reserve resources are on scene and available when needed.

Appendix E-Nonmandatory: Standard apparatus operation communications.

When firefighters ride in the tiller's seat or other remote location, an electrical signal or voice communication should be installed between the tiller's seat, work station, and driver's compartment.

- (1) These signals should be used between the driver and the firefighters:
 - (a) One long buzz means stop;
 - (b) Two buzzes mean forward;
 - (c) Three buzzes mean reverse.
- (2) Before any of the above functions are undertaken, with the exception of stopping, the same signal must be both sent and received. The driver should not act without sending and receiving a confirming signal.
- (3) When using hand signals, these signals are as follows:



STOP

Hold hand to the side, shoulder high, exposing palm to the driver. At night, hold hands in the same manner, with the addition of a flashlight in one hand shining at the driver. This will indicate and immediate **STOP**.



RIGHT OR LEFT

Point in the desired direction with one hand and motion in a circular “come-on” gesture with the other at the chest level. At night, direct a flashlight beam at the hand pointing in the desired direction.



DIMINISHING CLEARANCE

Hold the hands to one side of the body indicating the approximate amount of distance the apparatus is from the obstacle. Close hands accordingly as the driver slowly maneuvers the apparatus to point where the signal indicates immediate **STOP**. Always allow enough for drivers reaction time. At night, indicate in the same manner with the flashlight in the upper hands and beam directed at the palm of the other. On **STOP**, cover the flashlight beam with the hands.



AHEAD OR BACK UP

Hold hand directly in front, chest high, fingers on hands directed toward one another, and motion in a circular “come-on” gesture. At night hold a flashlight in one hand and direct the beam toward the other.

SUPPLEMENTARY RECORD OF OCCUPATIONAL INJURIES AND ILLNESSES

To supplement the Log and Summary of Occupational Injuries and Illnesses (OSHA No. 300), each establishment must maintain a record of each recordable occupational injury or illness. Worker's compensation, insurance, or other reports are acceptable as records if they contain all facts listed below or are supplemented to do so. If no suitable report is made for other purposes, this form (OSHA No. 101) may be used or the necessary facts can be listed on a separate plain sheet of paper. These records must also be available in the establishment without delay and at reasonable times for examination by representatives of the Department of Labor and the Department of Health and Human Services, and states accorded jurisdiction under the Act. The records must be maintained for a period of not less than five years following the end of the calendar year to which they relate.

Such records must contain at least the following facts:

- 1) **About the employer** - name, mail address, and location if different from mail address.
- 2) **About the injured or ill employee** - name, social security number, home address, age, sex, occupation, and department.
- 3) **About the accident or exposure to occupational illness** - place of accident or exposure, whether it was on employer's premise, what the employee was doing when injured, and how the accident occurred.
- 4) **About the occupational injury or illness** - description of the injury or illness, including part of body affected; name of the object or the substance which directly injured the employee; and date of injury or diagnosis of illness.
- 5) **Other** - name and address of physician; if hospitalized, name and address of hospital; date of report; and name and position of person preparing the report.

SEE DEFINITIONS ON THE BACK OF OSHA FORM 200.

OMB DISCLOSURE STATEMENT

We estimate that it will take an average of 20 minutes to complete this form including time for reviewing instructions; searching, gathering and maintaining the data needed; and completing and reviewing the form. If you have any comments regarding this estimate or any other aspects of this recordkeeping system, send them to the Bureau of Labor Statistics, Division of Management Systems (1220-0029), Washington, D.C. 20212 and to the Office of Management and Budget, Paperwork Reduction Project (1220-0029) Washington, D.C. 20503.

*U.S. Government Printing Office: 1990-262-256/15418

EXPOSURE REPORT FORM BLOOD AND BODY FLUID

(To be completed by emergency worker at the time of incident)

Exposed Employee Information:

Name: _____ Rank: _____

Soc. Sec. #: _____ Telephone: _____

Address: _____

City: _____ State: _____ Zip: _____

Ambulance Attendant
 Law Enforcement
 Firefighter

Incident Information:

Run #: _____ Shift: _____ Company: _____ District: _____

Incident Location: _____

Type of Incident (e.g., auto accident, trauma, etc.): _____

Exposure Description:

Date of Exposure: _____ Type of exposure: _____

1. What body fluid(s) were you in contact with?

Blood: _____ Feces: _____ Saliva: _____ Sputum: _____
 Sweat: _____ Tears: _____ Urine: _____ Vomitus: _____

Other

(describe: _____)

2. What was the method of contact:

Needle stick with contaminated needle
 Blood or body fluids into natural body openings (e.g., nose, mouth, eye)
 Blood or body fluids into cut, wound, sores, or rashes less than 24 hours old

Please specify: _____

Other (describe specifically) _____

3. How did the exposure occur? Be specific

4. What action was taken in response to the exposure to remove the contamination (e.g., handwashing)?

5. What personal protective equipment was being used at the time of exposure?

EXPOSURE REPORT FORM BLOOD AND BODY FLUID (Continued)

Exposure Description (continued)

6. Please describe any other information related to the incident (use a separate piece of paper if needed):

Source of Exposure:

Name of patient (source of exposure): _____ Sex: _____

Receiving Health Care Facility: _____

Transported by: _____

Patient's Physician: _____

Medical Information:

1. Did you seek medical attention? _____ Date: _____

If yes, where? _____

2. Did you contact the infection and control officer? _____

If yes, give date and time: _____

Name of infection control officer: _____

Employee's Signature _____ Date _____

Infection Control Officer's Signature _____ Date _____

To be completed by the Infection Control Officer

Communicable disease follow-up needed? Yes* _____ No _____

*If yes, infection control officer must complete the "Communicable Disease Exposure Follow-up Form." This procedure applies either if this is a known disease exposure or if such information is determined at a future date.

Form-3

INSTRUCTIONS FOR USING THE EXPOSURE REPORT FORM

For the Emergency Worker

When to complete this form: This form should be completed when an exposure occurs that may pose a health risk. This form should be completed so that the department infection control officer and physician can advise you regarding appropriate medical actions.

Significant exposure defined: A situation in which the body fluids (such as blood, saliva, urine, feces, etc.) of a patient are suspected of having entered your body through either a body opening (such as your nose, mouth, or eye), or a break in your skin (such as a cut, rash, or abrasion), a needle stick with a contaminated or used needle, intimate respiratory contact) such as CPR without a barrier), or any other situation in which a patient's body fluids may have entered your body.

What to do with this completed form: Make a copy. Promptly give the original to your infection control officer and keep the copy for yourself.

For Physicians

Patient's physician: This form indicates that an emergency worker (a member of an ambulance service, fire department, or law enforcement agency) was exposed to body fluids of the patient identified on the second page of this form. Should the exposure as described on this form pose a health risk to the emergency worker, the emergency worker's physician as identified on this form may contact you for information so the appropriate medical interventions may be initiated. If information pertinent to the exposure incident develops during the course of treatment (during hospitalization or post-treatment visits), please notify the emergency worker's physician so treatment for the emergency worker can be reevaluated. For further information, contact your local or state health department.

Emergency worker's physician: A copy of this report is being given to you as the primary physician of the emergency worker named on this form. This report is to notify you that you patient has sustained a significant exposure to blood or body fluids during their duties as an emergency worker. It does not necessarily mean that he/she was exposed to a contagious or communicable disease; however, should the exposure pose a health risk to your patient, please contact the source patient's physician as identified on this form so that the appropriate medical interventions may be initiated. For further information, contact your local or state health department. A copy of this report has also been provided to the transported patient's physician through the health care facility to which the patient was taken.

INFORMED CONSENT FORM FOR HEPATITIS B VACCINE

Name (please print): _____

Employer Name: _____

I have read the vaccine manufacturer's printed information **and** have attended a departmental informational session on (date)_____ regarding hepatitis B and the hepatitis B vaccine.

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself.

I have had the opportunity to ask any questions and consult my personal physician. I understand that there is no guarantee that I will become immune to hepatitis B or that I will not experience any adverse side effects from the vaccine. I also understand that I must have all three (3) doses of the vaccine to derive the benefit of the vaccine and that it is my responsibility to keep my scheduled appointments to receive all three (3) of them.

Employee's Signature

Date

Witness of employee's signature

Date

	Date vaccination scheduled	Date vaccination received	Employee's initials after receiving vaccination
1 st dose	_____	_____	_____
2 nd dose	_____	_____	_____
3 rd dose	_____	_____	_____

Signature of information session conductor

Date

Signature of department infection control officer

Date

INFORMED REFUSAL FORM FOR HEPATITIS B VACCINE

Name (please print): _____

Employer Name: _____

I have read the vaccine manufacturer’s printed information **and** have attended a departmental informational session on (date) _____ regarding hepatitis B and the hepatitis B vaccine.

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to myself.

Signature of information session conductor Date

Signature of department infection control officer Date

Signature of information session conductor Date

Signature of department infection control officer Date

EMPLOYEE VACCINE/IMMUNIZATION HISTORY
--

Employee Name: _____ Hire Date: _____

1. **HBV** vaccination series completion date: _____

Comments: _____

Results of subsequent antibody testing: _____

2. **Tuberculosis** skin test: Positive: _____ Negative: _____ Date: _____

Comments: _____

3. **Measles:**

Did you have measles as a child? Yes: _____ No: _____

If Yes, date: _____

If no, were you vaccinated before 1957?

Yes: _____ No: _____

4. **Mumps:** Vaccination date: _____ Contraction date: _____

5. **Rubella:** Vaccination date: _____ Contraction date: _____

6. **Polio:** Vaccination date: _____

7. **Chicken pox:** Contraction date: _____

8. **Tetanus/Diphtheria:** Last known vaccination: _____

Bureau of Labor Statistics U.S. Department of Labor
 Supplementary Record of Occupational Injuries and Illnesses

This form is required by public law 91-596 and must be kept in the establishment for 5 years. Failure to maintain can result in the issuance of citations and assessments of penalties.		Case or File No.	Form Approved O.M.B. No. 1220-0029
Employer		See O.M.B. Disclosure Statement on reverse.	
1. Name			
2. Mail address (<i>No. and street, city or town, state, and zip code</i>)			
3. Location, if different from mail address:			
Injured or Ill Employee			
4. Name (<i>First, middle, and last</i>)		Social Security No.	
5. Home address (<i>No. and street, city or town, and zip code</i>)			
6. Age	7. Sex (<i>Check one</i>) Male <input type="checkbox"/> Female <input type="checkbox"/>		
8. Occupation (<i>Enter regular job title, not the specific activity he/she was performing at time of injury.</i>)			
9. Department (<i>Enter name of department or division in which the injured person is regularly employed, even though he/she may have been temporarily working in another department at the time of injury.</i>)			
The accident or Exposure to Occupational Illness			
If accident or exposure occurred on employer's premises, give address of plant establishment in which it occurred. Do not indicate department or division within the plant or establishment. If accident occurred outside employer's premises at an identifiable address, give that address. If it occurred on a public highway or at any other place which cannot be identified by number and street, please provide place references locating the place of injury as accurately as possible.			
10. Place of accident or exposure (<i>No. and street, city or town, state, and zip code</i>)			
11. Was place of accident or exposure on employer's premises? Yes <input type="checkbox"/> No <input type="checkbox"/>			
12. What was the employee doing when injured? (<i>Be specific. If he/she was using tools or equipment or handling material, name them and tell what he/she was doing with them.</i>)			
13. How did the accident occur? <i>Describe fully the events which resulted in the injury or occupational illness. Tell what happened and how it happened. Name any objects or substances involved and tell how they were involved. Give full details on all factors which led or contributed to the accident. Use separate sheet for additional space.</i>			
Occupational Injury or Occupational Illness			
14. Describe the injury or illness in detail and indicate the part of body affected. (<i>e.g., amputation of right index finger at second joint; fracture of ribs; lead poisoning; dermatitis of left hand, etc.</i>)			
15. Name the object or substance which directly injured the employee. (<i>For example, the machine or thing he/she struck against or which struck him/her; the vapor or poison he/she inhaled or swallowed; the chemical or radiation which irritated their skin; or in cases of strains, hernias, etc., the thing he/she was lifting, pulling, etc.</i>)			
16. Date of injury or initial diagnosis of occupational illness		17. Did employee die? (Check one) Yes <input type="checkbox"/> No <input type="checkbox"/>	
Other			
18. Name and address of physician			
19. If hospitalized, name and address of hospital			

Date of report	Prepared by	Official position
----------------	-------------	-------------------

OSHA No. 101 (Feb. 1981)

Public reporting burden for this collection of information is estimated to vary from 4 to 30 (time in minutes) per response with an average of 15 (time in minutes) per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding this estimate or any other aspect of this information collection, including suggestions for reducing this burden, please send them to the OSHA Office of Statistics and/or the Department of Labor, Office of IRM Policy, Room N-1301, 200 Constitution Avenue, N.W., Washington, D.C. 20210

<p>Log and summary of Occupational Injuries and Illnesses</p> <p>Each employer who is subject to the recordkeeping requirements of the Occupational Safety and Health Act of 1970 must maintain for each establishment a log of all recordable occupational injuries and illnesses. This form (OSHA 200) may be used for that purpose. A substitute for the OSHA No. 200 is acceptable if it is as detailed, easily readable, and understandable as the OSHA No. 200</p> <p>Enter each recordable case on the log within six (6) workdays after learning of its occurrence. Although other records must be maintained at the establishment to which they refer, it is possible to prepare and maintain the log at another location, using data processing equipment if desired. If the log is prepared elsewhere, a copy updated to within 45 calendar days must be present at all times in the establishment.</p> <p>Logs must be maintained and retained for five (5) years following the end of the calendar year to which they relate. Logs must be available (normally at the establishment) for inspection and copying by representatives of the Department of Labor, or the Department of Health and Human Services, or states accorded jurisdiction under the Act. Access to the log is also provided to employees, former employees and their representatives.</p> <p>Changes in Extent or of Outcome of Injury or Illness</p> <p>If, during the 5-year period the log must be retained, there is a change in an extent and outcome of an injury or illness which affects entries in columns 1,2,6,8,9, or 13, the first entry should be lined out and a new entry made. For example, if an injured worker at first required only medical treatment but later lost workdays away from work, the check in column 6 should be lined out, and checks entered in columns 2 and 3 and the number of lost workdays entered in column 4.</p> <p>In another example, if an employee with an occupational illness lost workdays, returned to work, and then died of the illness, any entries in columns 9 through 12 should be lined out and the date of death entered in column 8.</p> <p>The entire entry for an injury or illness should be lined out if later found to be nonrecordable. For example, an injury which is later determined not to be work related, which was initially thought to involve medical treatment but later was determined to have involved only first aid.</p> <p>Posting Requirements</p> <p>A copy of the totals and information following the fold line of the last page for the year must be posted at each establishment in the place or places where notices to employees are customarily posted. This copy must be posted no later than <i>February 1 and must remain in place until March 1.</i></p> <p>Even though there were no injuries or illnesses during the year, zeros must be entered on the total lines, and the form posted.</p> <p>The person responsible for the <i>annual summary totals</i> must certify that the totals are true and complete by signing at the bottom of the form.</p> <p>Instructions for Completing Log and Summary of Occupational Injuries and Illnesses.</p> <p>Column A - CASE OR FILE NUMBER. Self-explanatory</p>	<p>Column B-DATE OF INJURY OR ONSET OF ILLNESS.</p> <p>For occupational injuries, enter the date of the work accident which resulted in injury. For occupational illnesses, enter the date of initial diagnosis of illness, or, if absence from work occurred before diagnosis, enter the first day of the absence attributable to the illness which was later diagnosed or recognized.</p> <p>Columns C through F - Self-explanatory.</p> <p>Columns 2 and 9 INJURIES OR ILLNESSES-RELATED DEATHS. Self-explanatory.</p> <p>Any injury which involves days away from work, or days of restricted work activity, or both must be recorded since it always involves one or more of the criteria for recordability.</p> <p>Columns 3 and 10 INJURIES OR ILLNESSES INVOLVING WORKDAYS AWAY FROM WORK. Self-explanatory.</p> <p>Columns 4 and 11 LOST WORKDAYS-DAYS AWAY FROM WORK.</p> <p>Enter the number of workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness. The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.</p> <p>NOTE: For employees not having a regularly scheduled shift, such as certain truck drivers, construction workers, farm labor, casual labor, part-time employees, etc., it may be necessary to estimate the number of lost workdays. Estimates of lost workdays must be based on prior work history of the employee AND days worked by employees, not ill or injured, working in the department and/or occupation of the ill or injured employee.</p> <p>Columns 5 and 12 LOST WORKDAYS-DAYS OF RESTRICTED WORK ACTIVITY.</p> <p>Enter the number of workdays (consecutive or not) on which because of injury or illness:</p> <ol style="list-style-type: none"> (1) the employee was assigned to another job on a temporary basis, or (2) the employee worked at a permanent job less than full time, or (3) the employee worked at a permanently assigned job but could not perform all duties normally connected with <p>The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.</p>	<p>Columns 6 and 13 INJURIES OR ILLNESSES WITHOUT LOST WORKDAYS. Self-explanatory.</p> <p>Columns 7a through 7g TYPE OF ILLNESS</p> <p>Enter a check in only one column for each illness.</p> <p>TERMINATION OR PERMANENT TRANSFER- Place an asterisk to the right of the entry in columns 7a through 7g (type of illness) which represented a termination of employment or permanent transfer.</p> <p>Totals</p> <p>Add number of entries in columns 1 and 8.</p> <p>Add number of checks in columns 2,3,6,7,9,10, and 13.</p> <p>Add number of days in columns 4,5,11, and 12.</p> <p>Yearly totals for each column (1-13) are required for posting. Running or page totals may be generated at the discretion of the employer.</p> <p>Definitions</p> <p>OCCUPATIONAL INJURY is any injury such as a cut, fracture, sprain, amputation, etc., which results from a work accident or from an exposure involving a single incident in the work environment.</p> <p>NOTE: Conditions resulting from animal bites, such as insect or snake bites or from one-time exposure to chemicals, are considered to be injuries.</p> <p>OCCUPATIONAL ILLNESS of an employee is any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion, or direct contact.</p> <p>The following lists gives the categories of occupational illnesses and disorders that will be utilized for the purpose of classifying recordable illnesses. For the purpose of information, examples of each category are given. These are typical examples, however, and are not to be considered the complete listing of the types of illnesses and disorders that are to be counted under each category.</p> <p>7a.Occupational Skin Diseases or Disorders</p> <p>Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; chrome ulcers; chemical burns or inflammations; etc.</p> <p>7b.Dust Diseases of the Lungs (Pneumoconiosis)</p> <p>Examples: Silicosis, asbestosis, and other asbestos-related disorders; coal worker's pneumoconiosis, byssinosis, siderosis, and other pneumoconiosis.</p> <p>7c.Respiratory Conditions Due to Toxic Agents</p> <p>Examples: Pneumonitis, pharyngitis, rhinitis or acute congestion due to chemicals, dusts, gases, or fumes; farmer's lung; etc.</p> <p>7d.Poisoning (Systematic Effects of Toxic Materials)</p> <p>Examples: Poisoning by lead, mercury, cadmium, arsenic or other metals, poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays such as parathion, lead arsenate; poisoning by other chemicals such as formaldehyde, plastics, and resins, etc.</p>	<p>7e.Disorders Due to Physical Agents (Other than Toxic Materials)</p> <p>Examples: Heatstroke, sunstroke, heat exhaustion, and other effects of environmental heat; freezing, frostbite, and effects of exposure to low temperatures; caisson disease; effects of ionizing radiation (isotopes, X-rays, radium); effects of nonionizing radiation (welding flash, ultraviolet rays, microwaves, sunburn); etc.</p> <p>7f.Disorders Associated With Repeated Trauma</p> <p>Examples: Noise-induced hearing loss; synovitis, tenosynovitis, and bursitis. Raynaud's pneumonia; and other conditions due to repeated motion, vibration, or pressure.</p> <p>7g. All Other Occupational Illnesses</p> <p>Examples: Anthrax, brucellosis, infectious hepatitis, benign tumors, food poisoning, histoplasmosis, mycosis, etc.</p> <p>Medical Treatment includes treatment (other than first aid) administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does NOT include first aid treatment (one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care) even though provided by a physician or registered professional personnel.</p> <p>ESTABLISHMENT: A single physical location where business is conducted or where services or industrial operations are performed (for example: a factory, mill store, hotel, restaurant, movie theater, farm, ranch, bank, sales office, warehouse, or central administrative office). Where distinctly separate activities are performed at a single physical location, such as construction activities operated from the same physical location as a lumber yard, each activity must be treated as a separate establishment.</p> <p>For firms engaged in activities which may be physically dispersed, such as agriculture; construction; transportation; communications; and electric, gas, and sanitary services, records may be maintained at a place to which employees report each day.</p> <p>Records for personnel who do not primarily report or work at a single establishment, such as traveling salesmen, technicians, engineers, etc., must be maintained at the location from which they are paid or the base from which personnel operate to carry out their activities.</p> <p>WORK ENVIRONMENT is comprised of the physical location, equipment, materials processed or used, and the kinds of operations performed in the course of an employee's work, whether on or off the employer's premises.</p>
--	--	---	---

WAC 296-305-01001 Foreword.

[Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01001, filed 5/10/96, effective 1/1/97]

WAC 296-305-01003 Scope and application.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01003, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01003, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 06-01-073 (Order 0520), § 296-305-01003, filed 12/20/2005, effective 03/01/2006. RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-01003, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.040. 99-05-080 (Order 98-14) § 296-305-01003, filed 02/17/99, effective 06/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01003, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01005 Definitions.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01005, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-02-066 (Order 16-30), § 296-305-01005, filed 01/03/17, effective 02/04/17. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01005, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-01005, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.040. 99-05-080 (Order 98-14) § 296-305-01005, filed 02/17/99, effective 06/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01005, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01007 Variance and procedure.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01007, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01007, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01007, filed 5/10/96, effective 1/1/97.]

WAC 296—305-01501 Injury and illness reports for firefighters.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01501, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01501, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01501, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01503 Accident/Incident investigation.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01503, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01503, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-01-058 (Order 08-27), § 296-305-01503, filed 12/23/08, effective 03/01/09. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01503, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01505 Accident prevention program.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01505, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01505, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01505, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01507 Fire department health and safety officer.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01507, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01507, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01507, filed 5/10/96, effective 1/1/97.]

WAC 296-305-15109 Management's responsibility.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01509, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-02-066 (Order 16-30), § 296-305-01509, filed 01/03/17, effective 02/04/17. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01509, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-01509, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.040. 99-05-080 (Order 98-14), § 296-305-01509, filed 02/17/99, effective 06/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01509, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01511 Employee's responsibility.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01511, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01511, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01513 Safe place standards.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01513, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01513, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01513, filed 5/10/96, effective 1/1/97.]

WAC 296-305-01515 First-aid training and certification.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01515, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 04-07-160 (Order 03-31), § 296-305-01515, filed 03/23/04, effective 05/01/04. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 03-09-110 (Order 02-29), § 296-305-01515, filed 04/22/03, effective 08/01/03. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-01515, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01515, filed 5/10/96, effective 1/1/97.]

WAC 296-307-01517 First-aid kits.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-01517, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-01517, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-01517, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-01517, filed 5/10/96, effective 1/1/97.]

WAC 296-305-02001 Personal protective equipment and protective clothing.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-02001, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-02001, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.040. 99-05-080 (Order 98-14), § 296-305-02001, filed 02/17/99, effective 06/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-02001, filed 5/10/96, effective 1/1/97.]

WAC 296-305-02002 Structural firefighting clothing (SFF).

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-02002, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-02002, filed 02/09/13, effective 01/01/14.]

WAC 296-305-02004 Protection ensemble for structural firefighting.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-02004, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-02004, filed 02/09/13, effective 01/01/14.]

WAC 296-305-02012 Body armor.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-02012, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-02012, filed 02/09/13, effective 01/01/14.]

WAC 296-305-02017 Personal alert system (PASS) protection.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-02017, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-02017, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-02017, filed 5/10/96, effective 1/1/97.]

WAC 296-305-02019 Life safety ropes, harnesses, and hardware protection.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-02019, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-02019, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-02019, filed 5/10/96, effective 1/1/97.]

WAC 296-305-02501 Emergency medical protection.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-02501, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-02501, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-305-02501, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 04-10-026 (Order 03-04), § 296-305-02501, filed 04/27/04, effective 08/01/04. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 03-09-110 (Order 02-29), § 296-305-02501, filed 04/22/03, effective 08/01/03. Statutory Authority: RCW 49.17.010, .040, .050. 99-10 (Order 98-10), § 296-305-02501, filed 05/04/99, effective 09/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-02501, filed 5/10/96, effective 1/1/97.]

WAC 296-305-03002 Hazardous materials.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-03002, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-03002, filed 02/09/13, effective 01/01/14.]

WAC 296-305-04001 Respiratory equipment protection.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-04001, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-04001, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-305-04001, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.17.010, .040, .050. 02-12-98 (Order 00-20) § 296-305-04001, filed 06/05/02, effective 08/01/02. Statutory Authority: RCW 49.17.040. 99-05-080 (Order 98-14) § 296-305-04001, filed 02/17/99, effective 06/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-04001, filed 5/10/96, effective 1/1/97.]

WAC 296-305-04501 Automotive fire apparatus design and construction.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-04501, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-04501, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-16-099 (Order 04-18), § 296-305-04501, filed 08/02/05, effective 10/01/05. Statutory Authority: RCW 49.17.040. 99-05-080 (Order 98-14), § 296-305-04501, filed 02/17/99, effective 06/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-04501, filed 5/10/96, effective 1/1/97.]

WAC 296-305-04503 Automotive fire apparatus equipment.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-04503, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-04503, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.040. 99-05-080 (Order 98-14), § 296-305-04503, filed 02/17/99, effective 06/01/99. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-04503, filed 5/10/96, effective 1/1/97.]

WAC 296-305-04505 Automotive apparatus operational rules.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-04505, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-04505, filed 02/09/13, effective 01/01/14. Statutory Authority: Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-04505, filed 5/10/96, effective 1/1/97.]

WAC 296-305-04507 Fire apparatus maintenance and repair.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-04507, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-04507, filed 02/09/13, effective 01/01/14. Statutory Authority: Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-04507, filed 5/10/96, effective 1/1/97.]

WAC 296-305-04510 Aerial apparatus.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-04510, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-04510, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05000 Incident management.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05000, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05000, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05002 Fire suppression.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-30505002, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05002, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05004 Occupational exposure to heat and cold stress.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05004, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05004, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05013 Aircraft rescue and firefighting.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-30505013, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05013, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-05013, filed 5/10/96, effective 1/1/97.]

WAC 296-305-05101 Technical rescue general requirements.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05101, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05101, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05103 Technical rescue training.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05103, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05103, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05105 Technical rescue standard operating procedure.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05105, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05105, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05107 Technical rescue incident response planning.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05107, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05107, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05109 Technical rescue equipment.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05109, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05109, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05111 Technical rescue safety.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05111, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05111, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05113 Technical rescue operational specialties.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05113, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05113, filed 02/09/13, effective 01/01/14.]

WAC 296-305-05502 Training and member development.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-05502, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-02-066 (Order 16-30), § 296-305-05502, filed 01/03/17, effective 02/04/17. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-05502, filed 02/09/13, effective 01/01/14.]

WAC 296-305-06001 Fire service equipment.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06001, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06001, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06001, filed 5/10/96, effective 1/1/97. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-06001, filed 11/30/83; Order 77-20, § 296-305-06001, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06003 Testing fire service equipment.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06003, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06003, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06003, filed 5/10/96, effective 1/1/97. Statutory Authority: Chapter 49.17 RCW. 88-14-108 (Order 88-11), § 296-305-06003, filed 7/6/88. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-06003, filed 11/30/83; Order 77-20, § 296-305-06003, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06006 Ground ladders.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06006, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06006, filed 02/09/13, effective 01/01/14.]

WAC 296-305-06008 Electrical.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06008, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06008, filed 02/09/13, effective 01/01/14.]

WAC 296-305-06501 Requirements for fire department facilities.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06501, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06501, filed 5/10/96, effective 1/1/97. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-06501, filed 11/30/83; Order 77-20, § 296-305-06501, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06503 General requirements.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06503, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06503, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-06503, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06503, filed 5/10/96, effective 1/1/97. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-06503, filed 11/30/83; Order 77-20, § 296-305-06503, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06505 Sanitation, disinfection, cleaning, and storage areas.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06505, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06505, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06505, filed 5/10/96, effective 1/1/97. Statutory Authority: Chapter 49.17 RCW. 88-14-108 (Order 88-11), § 296-305-06505, filed 7/6/88. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-06505, filed 11/30/83; Order 77-20, § 296-305-06505, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06507 Sleeping areas.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06507, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06507, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06507, filed 5/10/96, effective 1/1/97. Statutory Authority: Chapter 49.17 RCW. 88-14-108 (Order 88-11), § 296-305-06507, filed 7/6/88; Order 77-20, § 296-305-06507, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06509 Apparatus areas.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06509, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06509, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06509, filed 5/10/96, effective 1/1/97. Statutory Authority: Chapter 49.17 RCW. 88-14-108 (Order 88-11), § 296-305-06509, filed 7/6/88. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-06509, filed 11/30/83; Order 77-20, § 296-305-06509, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06511 Indoor air quality.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06511, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06511, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-06511, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06511, filed 5/10/96, effective 1/1/97; Order 77-20, § 296-305-06511, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06513 Refueling areas.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06513, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06513, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06513, filed 5/10/96, effective 1/1/97; Order 77-20, § 296-305-06513, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06515 Hose drying towers.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06515, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06515, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-305-06515, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06515, filed 5/10/96, effective 1/1/97; Order 77-20, § 296-305-06515, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06517 Drill tower training facilities.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06517, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06517, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06517, filed 5/10/96, effective 1/1/97. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-06517, filed 11/30/83; Order 77-20, § 296-305-06517, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-06519 Fire station equipment and tools.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-06519, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 13-05-070 (Order 08-34), § 296-305-06519, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 04-14-028 (Order 01-12), § 296-305-06519, filed 06/19/04, effective 01/01/05. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-06519, filed 5/10/96, effective 1/1/97.]

WAC 296-305-07001 Wildland fire operations. Definitions:

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07001, filed 02/09/13, effective 01/01/14. Statutory Authority: RCW 49.17.010, [49.17].050 and [49.17].060. 96-11-067, § 296-305-07001, filed 5/10/96, effective 1/1/97. Statutory Authority: Chapter 49.17 RCW. 88-14-108 (Order 88-11), § 296-305-07001, filed 7/6/88. Statutory Authority: RCW 49.17.040 and 49.17.050. 83-24-013 (Order 83-34), § 296-305-07001, filed 11/30/83; Order 77-20, § 296-305-07001, filed 10/18/77 and Emergency Order 77-24, filed 11/17/77, effective 12/17/77.]

WAC 296-305-07002 Wildland fire personnel accountability.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07002, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07004 Heat-related illness prevention for wildland firefighters.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07004, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07006 Equipment for wildland firefighting.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07006, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07008 Aircraft operations for fighting wildland fires.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07008, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07010 Training for wildland firefighting.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07010, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07012 Personal protective clothing and equipment for wildland firefighting.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07012, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07014 Apparatus standards for wildland firefighting.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07014, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07016 Falling and equipment in forest lands.

[Statutory Authority: RCW 49.17.010, .040, .050, .060. 18-22-116 (Order 1628), § 296-305-07016, filed 11/06/2018, effective 12/07/2018. Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07016, filed 02/09/13, effective 01/01/14.]

WAC 296-305-07018 Occupant restraints and enclosures for wildland firefighting.

[Statutory Authority: Statutory Authority: RCW 49.17.010, .040, .050, and.060. 13-05-070 (Order 08-34), § 296-305-07018, filed 02/09/13, effective 01/01/14.]

WAC 296-305-08000 Appendices.