Chapter 7
Safety and Risk Management

Introduction

The primary means by which we prevent accidents in wildland fire operations is through aggressive risk management. Our safety philosophy acknowledges that while the ideal level of risk may be zero, a hazard-free work environment is not a reasonable or achievable goal in fire operations. Through organized, comprehensive, and systematic risk management, we will determine the acceptable level of risk that allows us to provide for safety yet still achieve fire operations objectives. Risk management is intended to minimize the number of injuries or fatalities experienced by wildland firefighters.

Policy

Firefighter and public safety is our first priority. All fire management plans and activities must reflect this commitment. The commitment to and accountability for safety is a joint responsibility of all firefighters, managers, and administrators. Every supervisor, employee, and volunteer is responsible for following safe work practices and procedures, as well as identifying and reporting unsafe conditions.

Agency-specific safety policy documents:

- **BLM** – BLM Handbook 1112-1, DOI Occupational Safety and Health Program – Field Manual
- **NPS** – DO-50 and RM-50 Loss Control Management Guideline
- **FS** – FSM 5100 and chapters, FSH-6709.11 Health and Safety Code Handbook

For additional safety guidance, refer to:

- **Incident Response Pocket Guide (IRPG)** (PMS 461, NFES 1077)

Guiding Principles

The primary means by which we implement command decisions and maintain unity of action is through the use of common principles of operations. These principles guide our fundamental wildland fire management practices, behaviors, and customs, and are mutually understood at every level of command. They include Risk Management, Standard Firefighting Orders and Watch Out Situations, LCES and the Downhill Line Construction Checklist. These principles are fundamental to how we perform fire operations and are intended to improve decision making and firefighter safety. They are not absolute rules. They require judgment in application.
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SAFETY AND RISK MANAGEMENT

1 Goal

The goal of the fire safety program is to provide direction and guidance for safe and effective management in all activities. Safety is the responsibility of everyone assigned to wildland fire and must be practiced at all operational levels from the national fire director, state/regional director, and unit manager to employees in the field. Agency administrators need to stress that firefighter and public safety always takes precedence over property and resource loss. Coordination between the fire management staff and unit safety officer(s) is essential in achieving this objective.

2 Definitions

Safety: A measure of the degree of freedom from risk or conditions that can cause death, physical harm, or equipment or property damage.

Hazard: A condition or situation that exists within the working environment capable of causing physical harm, injury, or damage.

Risk: The likelihood or possibility of hazardous consequences in terms of severity or probability.

Risk management: The process whereby management decisions are made and actions taken concerning control of hazards and acceptance of remaining risk.

3 Risk Management Process

Fire operations risk management is outlined in the IRPG. The five-step process provides firefighters and fire managers a simple, universal, and consistent way to practice risk management by:

• Establishing situation awareness by identifying hazards.
• Assessing hazard potential.
• Developing hazard controls and making risk management decisions.
• Implementing hazard controls.
• Supervising implementation and evaluating effectiveness.

4 Job Hazard Analysis/Risk Assessment

A completed job hazard analysis (JHA)/risk assessment (RA) is required for:

• "High-risk" work activities, projects, or tasks where unintended outcomes could result in serious injuries, illnesses, fatalities, or significant property damage.
• Jobs that may require the employee to use non-standard personal protective equipment (PPE).
• Changes in equipment, work environment, conditions, policies, or materials.

Supervisors and appropriate line managers must ensure that established JHAs/RAs are reviewed and signed prior to any non-routine task or at the beginning of the fire season.
• **BLM** – Additional RA information can be obtained at https://doimspp.sharepoint.com/sites/blm-wo-700/safetyhealthandemergency/SitePages/Risk%20Management.aspx.

• **FWS** – See also 240 FW 1, Exhibit 1, Job Hazard Assessment.

• **FS** – JHAs must include a description of the emergency medical procedures, identification of key individuals, and actions that will be taken to ensure prompt and effective medical care and evacuation. See FSH 6709.11, section 21.1 for more information. The FS Operational Risk Management Guide, process, and forms for conducting an RA can be found on the USDA Forest Service website for risk management at https://www.fs.usda.gov/managing-land/fire/safety.

### Work/Rest

To mitigate fatigue, agency administrators, fire managers, supervisors, incident commanders (IC), and individual firefighters should plan for and ensure that all personnel are provided a minimum 2:1 work/rest ratio (for every 2 hours of work or travel, provide 1 hour of sleep and/or rest). Work shifts that exceed 16 hours and/or consecutive days that do not meet the 2:1 work/rest ratio should be the exception. When this occurs, the following actions are required:

- Personnel will resume 2:1 work/rest ratio as quickly as possible.
- The IC or agency administrator will justify work shifts that exceed 16 hours and/or consecutive days that do not meet 2:1 work to rest ratio. Justification will be documented in the daily incident records, made available to the employee by the finance section/local unit, and must include mitigation measures used to reduce fatigue.
- The time officer’s/unit leader’s approval of the Emergency Firefighter Time Report (OF-288), or other agency pay document, certifies that the required documentation is on file and no further documentation is required for pay purposes.

The work/rest guidelines do not apply to aircraft pilots assigned to an incident. Pilots must abide by applicable Federal Aviation Administration (FAA) guidelines, or agency policy if more restrictive.

### Length of Assignment

**Assignment Definition**

An assignment is defined as the time period (days) between the first full operational period at the first incident or reporting location on the original resource order and the last day worked prior to commencement of return travel to the home unit.

**Length of Assignment**

Standard assignment length is 14 days, exclusive of travel from and to the home unit, with possible extensions identified below. Time spent in staging and preposition status counts toward the 14-day limit, regardless of pay status, for all personnel, including incident management teams (IMT). Contracted aircraft are
not restricted by length of assignment. In order to limit disruption to operations, reduce strain on the ordering system and reduce unnecessary mobilization and demobilization of these high-cost resources, exclusive-use aviation personnel are encouraged to utilize a personnel rotation schedule that meets staffing criteria required of the resource.

14-day Scenario

Days Off
To assist in mitigating fatigue, days off are allowed during and after assignments. Agency administrators (incident host or home unit) may authorize time off supplementary to mandatory days off requirements.


After completion of a 14-day assignment and return to the home unit, two mandatory days off will be provided (also referred to as “2 after 14”). Days off must occur on the calendar days immediately following the return travel in order to be charged to the incident (See Section 12.1-2.) (5 U.S.C. 6104, 5 CFR 610.301-306, and 56 Comp. Gen. Decision 393 (1977). If the next day(s) upon return from an incident is/are a regular workday(s), a paid day(s) off will be authorized. Regulations may preclude authorizing this for non-National Wildfire Coordinating Group (NWCG) and State/local employees.

- **FS** – After completion of a 14-day assignment and return to the home unit, three mandatory days off will be provided (also referred to as “3 after 14”). Pay entitlement, including administrative leave for a paid day(s) off, cannot be authorized on the individual’s regular day(s) off at their home unit. Agencies will apply holiday pay regulations, as appropriate. A paid day off is recorded on home unit time records according to agency requirements. Administratively Determined (AD) personnel are not entitled to paid day(s) off upon release from the incident or at their point of hire.

Contract resources are not entitled to paid day(s) off upon release from the incident or at their point of hire.

- **DOI** – After completion of a 14-day assignment and return travel, the mandatory days off will be charged to administrative leave (code 061, Weather and Safety) if they fall on a regularly scheduled workday.

Home unit agency administrators may authorize additional day(s) off with compensation to further mitigate fatigue. If authorized, home unit program funds will be used.
Assignment Extension

Extensions beyond 14-day assignments should be made sparingly. Consider the health, readiness, and capability of incident personnel prior to authorizing back-to-back assignments. The health and safety of incident personnel and resources will not be compromised under any circumstance.

Assignments may be extended when:
- Life and property are imminently threatened.
- Suppression objectives are close to being met.
- A military battalion is assigned.
- Replacement resources are unavailable or have not yet arrived.

Upon completion of the standard 14-day assignment, an extension of up to an additional 14 days may be allowed (for a total of up to 30 days, inclusive of mandatory days off, and exclusive of travel).

21-day Scenario

A 21-day assignment is exclusive of travel from and to home unit. Time spent in staging and preposition status counts toward the 21-day assignment, regardless of pay status, for all personnel, including IMTs.

30-day Scenario

An assignment longer than 22 days is exclusive of travel from and to home unit. Time spent in staging and preposition status counts toward the assignment, regardless of pay status, for all personnel, including IMTs. For an assignment exceeding 21 days, two mandatory days off will be provided prior to the 22nd day of the assignment.

- FS – For an assignment exceeding 21 days, two mandatory days off will be provided prior to the 22nd day of the assignment. Upon completion of the assignment and return to the home unit, three mandatory days off will be provided.

Contracts, incident blanket purchase agreements (I-BPA), and emergency equipment rental agreements (EERA) should be reviewed for appropriate pay requirements and length of assignment. If the contract, I-BPA, or EERA do not address this, the incident Finance/Administration Section chief or the procurement official should be consulted as to whether compensation for a day off is appropriate.
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Single Resource/Kind Extensions
The section chief or IC will identify the need for assignment extension and will obtain the affected resource’s concurrence. The section chief and affected resource will acquire and document the home unit supervisor’s approval.

The IC approves the extension. If a convened Geographic Multi-Agency Coordinating Group (GMAC) or the National Multi-Agency Coordinating Group (NMAC) directs, the IC approves only after GMAC/NMAC concurrence.

If the potential exists for reassignment to another incident during the extension, the home unit supervisor and the affected resource will be advised and must concur prior to reassignment.

Incident Management Team Extensions
Incident management team extensions are to be negotiated between the incident agency administrator, the IC, and the GMAC/NMAC, if directed.

Maximum Consecutive Days Worked – Home Unit
During extended periods of activity at the home unit, personnel will have a minimum of 1 day off in any 21-day period.

- **FS** – During extended periods of activity in support of local fire management, personnel will have a minimum of 2 days off in any 14-day period.

Driving Standard
Employees driving motor vehicles are responsible for the proper care, operation, maintenance, and protection of the vehicle, as well as obeying all Federal and State laws.

The use of Government-owned, -rented, or -leased motor vehicles is for official business only. Unauthorized use is prohibited.

General Driving Policy
- Employees must have a valid State driver’s license in their possession for the appropriate vehicle class before operating the vehicle. Operating a Government-owned or -rental vehicle without a valid State driver’s license is prohibited.
- All drivers whose job duties require the use of a motor vehicle will receive initial defensive driver training within three months of entering on duty and refresher driver training every three years thereafter.
- **BLM/FS** – Driver training is required prior to operating a vehicle for official purposes.
- All traffic violations or parking tickets will be the operator’s responsibility.
- All driving requiring a commercial driver’s license (CDL) will be performed in accordance with applicable Department of Transportation regulations.
- Drivers and all passengers are required to use seat belts at all times when the motor vehicle is in motion.
• **BLM** – BLM Form 1112-11 will be used to document every BLM fire and fire aviation employee’s authorization to drive Government vehicles or to drive private or rental vehicles for Government business. Employees are required to self-certify their physical ability to operate vehicles which they are authorized to use. Drivers of vehicles that require a CDL may be required to have additional driver, medical, and fitness testing as required by local and/or State laws. Employees will immediately inform their supervisor and update BLM Form 1112-11 if a change in medical condition impedes their driving ability or if a State driving privilege is restricted for any reason. Supervisors will review the updated form and take appropriate action as necessary. BLM Form 1112-11 is available at https://doimspp.sharepoint.com/sites/blm-oc/dbs/eForms%20Library/Forms/Safety.aspx.

• **BLM** – Employees, volunteers, contractors, and cooperators are prohibited from using any mobile voice/data communication or electronic data retrieval device while operating a government owned, leased, or rented vehicle or while operating a personally-owned vehicle for official government business, and are further prohibited from using any government-owned mobile communication or data retrieval device while operating a personally-owned vehicle, except where permitted by state law and in hands-free mode. Government purchased two-way radios are exempt from this requirement. The use of any of these devices during an emergency situation (immediate threat to life) is limited to the extent necessary to convey vital information. When there is a passenger in the vehicle and the vehicle is in motion, the passenger shall manage communications to prevent driver distraction.

• **FWS** – The safest way to use a cell phone or other electronic device while driving is to pull over and stop the vehicle or use a passenger to manage communications. When this is not possible, all operators acting on behalf of the FWS may use cell phones or other electronic devices while operating vehicles ONLY in hands-free mode and as allowed by their State or local authority. Operators must not text while operating vehicles and pre-program electronic devices, such as Global Positioning System (GPS) units, before moving the vehicle. Emergency communications using a two-way radio is exempt.

• **NPS** – The safest way to use a cellular telephone while driving is to pull over and stop the vehicle. When this is not possible, all employees, volunteers, youth program enrollees or any individual acting on behalf of the National Park Service are prohibited from using a cellular or car telephone unless they can be operated in a hands-free operation mode. In addition, Executive Order 13513 of October 1, 2009 states, “Federal employees shall not engage in text messaging (a) when driving GOV, or when driving POV while on official Government business, or (b) when using electronic equipment supplied by the Government while driving.”
• **NPS** – For NPS employees engaged in activities other than wildfire or prescribed fire, refer to the current NPS Official Travel Driving Policy for restrictions.

• **FS** – Policy requires all operators of Government-owned, or -leased vehicles to have a Forest Service issued Operator’s Identification Card (OF-346) indicating the type of vehicles or equipment the holder is authorized and qualified to operate.

• **FS** – Drivers shall not engage in cellular phone or mobile radio communications while the vehicle is in motion unless actively engaged in an emergency such as wildland firefighting. During non-emergency situations, the driver shall identify a safe location to stop the vehicle and then engage in cellular phone or mobile radio communications. These restrictions apply whether or not hands-free technology is available.

Employees operating a motor vehicle that meets any of the following criteria must possess a valid CDL with all applicable endorsements:

• Has a gross combination weight rating or gross combination weight of 26,001 pounds or more, whichever is greater, inclusive of a towed unit(s) with a gross vehicle weight rating or gross vehicle weight of more than 10,000 pounds, whichever is greater; or

• Has a gross vehicle weight rating or gross vehicle weight of 26,001 pounds or more, whichever is greater; or

• Is designed to transport 16 or more passengers, including the driver; or

• Is of any size and is used in the transportation of hazardous materials.

Hazardous materials means any material that has been designated as hazardous under 49 U.S.C. 5103 and is required to be placarded under subpart F of 49 CFR part 172 or any quantity of a material listed as a select agent or toxin in 42 CFR part 73.

• **DOI** – Employees under the age of 21 that possess a CDL may operate commercial motor vehicles (CMV) across State lines for interstate commerce purposes under the following conditions:

  ○ Drivers with a CDL may operate a CMV in accordance with the issuing authority (i.e., the State) that issued the CDL and must comply with the issuing authority’s CMV operational requirements and any special requirements and endorsements applicable to the CMV license classification of the CDL holder; and

  ○ Supervisors must **annually** establish and document that those drivers have a valid driver’s license (i.e., that the license has not been suspended, revoked, canceled, or that he/she has not been otherwise disqualified from holding a license – 485 DM 16.3D (1)), have the ability to operate the vehicle(s) safely in the operational environment assigned (485 DM 16.3B (2)), and review and validate the employee’s driving record (485 DM 16.3D (4)).

**Non-Incident Operations Driving**

Refer to the current driving standards for each individual agency.
• **BIA** – Per Indian Affairs Manual (IAM), part 25, chapter 4: employees will not exceed 8 hours of driving time (behind the wheel), to include use of specialized equipment, during a 16-hour duty day.

**Mobilization and Demobilization**

To manage fatigue, every effort should be made to avoid off-unit mobilization (excluding initial attack response) and demobilization travel between 2200 hours and 0500 hours.

**Incident Operations Driving**

This policy addresses driving by personnel actively engaged in wildland fire or all-hazards activities, including driving while in support, mobilization, and demobilization to an assigned incident; or during initial attack fire response (includes time required to control the fire and travel to a rest location).

- Agency resources assigned to an incident or engaged in initial attack fire response will adhere to the current agency work/rest policy for determining length of duty day.
- No driver will drive (behind the wheel) more than 10 hours within any duty-day.
- Multiple drivers in a single vehicle may drive up to the duty-day limitation provided no driver exceeds the individual driving (behind the wheel) time limitation of 10 hours.
- A driver shall drive only if they have had at least 8 consecutive hours off duty before beginning a shift. Exception to the minimum off-duty hour requirement is allowed when essential to:
  - Accomplish immediate and critical suppression objectives.
  - Address immediate and critical firefighter or public safety issues.
- As stated in the current agency work/rest policy, documentation of mitigation measures used to reduce fatigue is required for drivers who exceed 16-hour work shifts. This is required regardless of whether the driver was still compliant with the 10-hour individual (behind-the-wheel) driving time limitations.

**Fire Vehicle Operation Standards**

Operators of all vehicles must abide by State traffic regulations and agency policy, and must operate within the limits specified by the vehicle manufacturer such as tire maximum speed ratings and gross vehicle weight ratings.

**Management Controls to Mitigate Risks to Responders**

Management controls, engineering controls, equipment guards, and administrative procedures are the first line of defense against exposing an employee to a hazard. Personal protective equipment will be used to protect employees against hazards that exist after all management controls are exhausted.
Wildland Fire Field Attire

Polyester, polypropylene, and nylon materials are not to be worn, because most synthetic fibers melt when exposed to flame or extreme radiant heat. Personnel should wear only undergarments made of 100 percent or the highest possible content of natural fibers, aramid, or other flame-resistant materials.

Personal Protective Equipment

All personnel are required to use personal protective equipment (PPE) appropriate for their duties and/or as identified in JHAs/RAs. Employees must be trained to use safety equipment effectively.

Flame-resistant clothing should be cleaned or replaced whenever soiled, especially when soiled with petroleum products. Flame-resistant clothing will be replaced when the fabric is so worn as to reduce the protection capability of the garment or is so faded as to significantly reduce the desired visibility qualities.

Any modification to PPE that reduces its protection capability, such as iron-on logos, and staging of pants, is an unacceptable practice and will not be allowed.

Required Fireline PPE

- Wildland fire boots
- Fire shelter M-2002, Forest Service specification 5100-60
- Helmet with chinstrap; must comply with NFPA 1977
- Goggles/safety glasses (as identified by JHAs/RAs)
- Ear plugs/hearing protection
- Long-sleeved, flame-resistant shirt (yellow recommended); must comply with NFPA 1977
  - NPS/FS – Shirt used by USFS personnel must meet Forest Service Specification 5100-91 or comply with NFPA 1977.
- Flame-resistant trousers; must comply with NFPA 1977
  - NPS/FS – Trousers used by USFS personnel must meet Forest Service Specification 5100-92 or comply with NFPA 1977.
- Leather or leather/flame-resistant combination gloves. Flame-resistant flight gloves or NFPA-1977-compliant driving gloves can be used by heavy equipment operators, drivers, and fireline supervisors when not using fireline hand tools.
  - NPS/FS – Gloves used by USFS personnel must meet Forest Service Specification 6170-5 or comply with NFPA 1977.
- Additional PPE as identified by local conditions, Safety Data Sheet (SDS), or JHA/RA.

Wildland Fire Boot Standard

Personnel assigned to wildland fires must wear a minimum of 8-inch-high, lace-type, exterior-leather work boots with melt-resistant, lug soles. The 8-inch height requirement is measured from the bottom of the boot heel to the top of the boot. Alaska is exempt from the lug sole requirement.
All boots that meet the wildland fire boot standard as described above are required for firefighting and fireline visits, considered non-specialized PPE, and will be purchased by the employee (including AD/EFF) prior to employment.

The agencies have authorized payment of a boot stipend. See agency specific guidance for implementation.

**Fire Shelters**


Training in inspection and deployment of fire shelters will be provided prior to issuance. Fire shelters do not have a shelf life; serviceability depends on the shelter’s condition. Firefighters will inspect their shelter at the beginning of each fire season and periodically throughout the year to ensure serviceability. Inspection criteria can be found at https://www.fs.usda.gov/t-d/php/library_card.php?p_num=1151%202301P.

Regular sized fire shelters manufactured prior to 2006 should be removed from service. Fire shelters manufactured prior to 2006 are identified as having a white or pink paper insert label. If replacement fire shelters are not readily available, replacement fire shelters should be ordered immediately and pre-2006 shelters removed from service when replacements are available. Pre-2006 fire shelters should be destroyed, or clearly marked as non-operational shelters, if retained.

Training shelters will be deployed at required Wildland Fire Safety Training Annual Refresher (RT-130). No live fire exercises for the purpose of fire shelter deployment training will be conducted.

Fire shelters will be carried in a readily accessible manner by all line personnel. The deployment of shelters will not be used as a tactical tool. Supervisors and firefighters must never rely on fire shelters instead of using well-defined escape routes and safety zones. When deployed on a fire, fire shelters will be left in place if it is safe to do so and not be removed pending approval of authorized investigators. Firefighters must report the shelter deployment incident to their supervisor as soon as possible.

**Head Protection**

All personal in the fire area will wear helmets at all times. Helmets must be equipped with a chinstrap which must be fastened while riding in, or in the vicinity of, helicopters. Acceptable helmets for fireline use must meet NFPA 1977.

- **BLM** – Helmets and hats used for protection from impact of falling and flying objects and from limited electric shock and burn must meet the specifications of American National Standards Institute (ANSI) Z89.1. Equivalent helmet meeting ANSI Z89.1 type I, class G or NFPA 1977.
Helmets consist of the shell and the suspension, which work together as a system. Both components require frequent inspection and maintenance. Detailed helmet inspection procedures can be found at https://www.nwcg.gov/committees/fire-shelter-and-personal-protective-equipment-subcommittee.

Eye and Face Protection
The following positions require the wearing of eye protection (meets ANSI Z87.1 standards):
- Nozzle operator
- Chainsaw operator/faller
  - Eye or face protection meeting ANSI Z87.1 must be worn during all chainsaw operations including cleaning and fueling.
- Helibase and ramp personnel
- Wildland fire chemical mixing personnel
- Other positions identified within JHAs/RAs

Full-face protection in the form of a face shield in compliance with ANSI Z87.1 shall be worn when working in any position where face protection has been identified as required in the job-specific JHA/RA (batch mixing for Terra-Torch®, power sharpener operators, etc.)

Hearing Protection
Personnel exposed to noise levels in excess of 85 dB must wear agency-provided hearing protection. Personnel include, but are not limited to:
- Chainsaw operators/fallers
- Pump operators
- Helibase and aircraft ramp personnel
- Wildland fire chemical mixing personnel

Other duties may require hearing protection as identified in a specific JHA/RA.

The Code of Federal Regulations (29 CFR 1910.95) requires employers to administer a continuing, effective hearing conservation program. Consult with local safety and health personnel for specifics regarding unit hearing conservation programs.

Neck Protection
Face and neck shrouds are not required PPE. The use of shrouds is not required and should be as a result of onsite risk analysis. If used, face and neck shrouds shall meet the requirements of FS Specification 5100-601 or NFPA 1977.

Shrouds should be positioned in a manner that allows for immediate use. For additional information see MTDC Tech Tip Improved Face and Neck Shroud for Wildland Firefighters, 2004 (0451-2323-MTDC) at https://www.fs.usda.gov/t-d/php/library_card.php?p_num=0451%202323.
Leg Protection

All chainsaw operators will wear chainsaw chaps meeting the United States Forest Service Specification 6170-4F, 4G, or newer. Swampers should wear chainsaw chaps when the need is demonstrated by a risk analysis considering proximity to the sawyer, slope, fuel type, etc. All other chainsaw chaps must be removed from service. Chainsaw chaps shall be maintained in accordance with MTDC Publication, Inspecting and Repairing Your Chainsaw Chaps – User Instructions (0567-2816-MTDC) available at https://www.fs.usda.gov/t-d/php/library_card.php?p_num=0451%202324P.

Respiratory Protection

Respiratory protection should only be implemented once engineering and administrative controls are exhausted. The need for respiratory protection during wildland fire operations must be determined by each agency. The requirements for respirator use are found in 29 CFR Part 1910.134.

Only NIOSH-approved respirators shall be used.

Managers and supervisors will not knowingly place wildland firefighters in positions where exposure to toxic gases or chemicals that cannot be mitigated and would require the use of self-contained breathing apparatus.

Managers will not sign cooperative fire protection agreements that would commit wildland firefighters to situations where exposure to toxic gases or chemicals would require the use of self-contained breathing apparatus.

- **FS – FSM 5130, Self-Contained Breathing Apparatus: Wildland firefighters may use only SCBA which are compliant with NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services. SCBA may only be used when contaminants from vehicle, dump, structure, or other non-wildland fuel fire cannot be avoided while meeting wildland fire suppression objectives (29 CFR 1910.134, Respiratory Protection). If such an apparatus is not available, avoid exposure to smoke from these sources. The acquisition, training, proper use, employee health surveillance programs, inspection, storage, and maintenance of respiratory protection equipment must comply with applicable NFPA standards and 29 CFR 1910.134 and be justified by a JHA or RA. Where the acquisition and use of an SCBA is approved, it may be carried only on a fire engine; and its use must be consistent with FSM 5130.**

Specialized or Non-Standard Personal Protective Equipment

Specialized PPE not routinely supplied by the agency (e.g., prescription safety glasses; static-resistant clothing; cold-weather, flame-resistant outerwear, etc.) required to perform a task safely must be procured in accordance with agency direction and supported by a JHA/RA.

A JHA/RA must be completed and reviewed by the unit safety officer; supervisor approval is required. Items must meet agency and industry standards for the intended use. Cold-weather, flame-resistant outerwear shall be in compliance with NFPA 1977. All cold-weather innerwear should be composed
of 100 percent—or the highest possible content of—natural fibers (cotton, wool
or silk) or other flame-resistant material, such as aramid.

High-Visibility Safety Apparel
In order to meet 23 CFR 634, high-visibility apparel should be worn whenever a
firefighter is working on or in the public roadway right-of-way.

Employees must wear high-visibility safety apparel that meets ANSI/ISEA 107,
class 2 or 3, or ANSI/ISEA 207.

Exceptions
The high-visibility safety apparel should not be worn if:
• There is a reasonable chance that the employee may be exposed to flames,
  high heat, or hazardous materials.
• The high-visibility garment hinders an employee’s ability to do their job
  because it prevents necessary motion or because it limits access to
  necessary equipment, such as radios or fire shelters.

Additional information is available in the National Technology and
Development Program (NTDP) formerly known as Missoula Technology and
Development Center (MTDC) report, High-Visibility Garments and Worker
Safety on Roadways (1251-2818P-MTDC) at https://www.fs.usda.gov/t-
d/php/library_card.php?p_num=1251%202818P.

Fireline Safety

Incident Briefings
Fire managers must ensure that safety briefings are occurring throughout the fire
organization, and that safety factors are addressed through the IC or their
designee and communicated to all incident personnel at operational briefings.
The identification and location of escape routes and safety zones must be
stressed. A briefing checklist can be found in the Incident Response Pocket
Guide (IRPG).

LCES – A System for Operational Safety
LCES will be used in all operational briefings and tactical operations as per the
Incident Response Pocket Guide (IRPG).
• L – Lookout(s)
• C – Communication(s)
• E – Escape Route(s)
• S – Safety Zone(s)

Right to Refuse Risk
Every individual has the right to turn down unsafe assignments. When an
individual feels an assignment is unsafe, they also have the obligation to
identify, to the degree possible, safety alternatives for completing that
assignment. The IRPG contains a process for properly refusing risk.
Aerial Drop Safety Considerations

- Maintain prompt communications with aerial resources. Prioritize air-to-ground as appropriate.
- Establish a designated monitor for air-to-ground communications. Specific drops may not be accomplished unless communications are maintained and clearance is assured. Keep informed of the aerial firefighting objectives, tempo, and aircraft type.
- Anticipate when line clearance may be requested. Tempo can change very quickly as aerial resources become available. Anticipate the clearance requirement based on the volume of delivery.
- Evaluate the environment for gravity hazards (tree limbs, rocks, logs, and dispensed retardant/water). Broken trees and tree limbs, rolling rocks, and logs all move with gravity. If clearance is downhill of the drop, heightened awareness is warranted.
- If clearance is impractical, where fuels and/or terrain obstruct lateral clearance, notify aerial supervisor or the initial attack resource immediately.
- If escape is not possible, lie face-down with head toward incoming aircraft with hardhat in place. Hold hand tool away from your body, and if possible, grasp something firm to prevent being carried or rolled about by the dropped liquid.

Smoke and Carbon Monoxide

Smoke is one of the potential risks faced by wildland firefighters. Identify and document site-specific hazards and mitigations to reduce firefighter exposure to smoke and potential carbon monoxide in the JHA/RA. Evaluate and balance all risks associated with the operational objectives.

From an incident management perspective, smoke impacts need to be analyzed and an RA completed using the Incident Action Plan (IAP) Safety Analysis (ICS-215A) worksheet. For additional information, reference NWCG Memorandum EB-M-12-006, Monitoring and Mitigating Exposure to Carbon Monoxide and Particulates at Incident Base Camps at https://www.nwcg.gov/executive-board/correspondence. Consider ordering air resource advisors (ARA, technical specialist) when smoke impacts are of concern in the ICS-215A. Ordering ARAs to the maximum extent practicable as identified by the 2019 Dingell Act on all type 1 fires; consider assigning ARAs on type 2 fires.

Location of Fire Camps and Plans to Remain in Place

Fire camps should be located in areas that will service the incident for the long term without having to relocate. Due to such factors as extreme fire behavior, fire camp locations might be compromised. ICs are to be especially vigilant to quickly identify situations that may put their fire camp(s) or any other adjacent fire camps in jeopardy. As such, planning for evacuation and/or remain in place actions should be considered. Evacuation plans at a minimum shall include:

- Documented risk assessment
- Trigger points
- Egress routes
- Transportation for all personnel
- Accountability for all personnel
- Individuals not meeting NWCG Standards for Wildland Fire Position Qualifications (PMS 310-1) qualifications are considered escorted visitors.
  - FS – At a minimum, plans shall also include:
    - ICP protection strategy referenced in the IAP.
    - Livability considerations, including air quality index guidelines, functionality of location and facilities, and safety factors for post-burn conditions.

**Standard Safety Flagging**

The following flagging is recommended for wildland fire activities:

- Escape routes - hot-pink flagging marked “Escape Route” (NFES 0566).
- Crews with colorblind members may wish to carry and utilize fluorescent chartreuse flagging (NFES 2396).
- Hazards – yellow with black diagonal stripes, 1-inch wide (NFES 0267).

If the above recommendations are not utilized on an incident, the incident will need to identify the selected color and make it known to all firefighters.

**Emergency Medical Planning and Services**

To provide for quick and effective response, all units (including dispatch centers) will develop and implement plans that specify emergency procedures, actions, and roles/responsibilities to ensure injured personnel are provided prompt and effective medical care and evacuation.

**Incident Medical Emergency Management Planning**

In 2010, NWCG approved the standardized incident emergency protocol developed by the Dutch Creek Serious Accident Task Team and issued direction that these emergency medical procedures be adopted by all IMTs during daily operations.

- Although some of the procedures are specific to larger type 1 and type 2 incidents when key unit leader positions are filled, these same procedures and protocols can be adapted for local unit use when managing type 5, 4, and 3 incidents, as well as during normal field operations. Local unit emergency medical plans must take into account all types and management levels of incidents.
- All IMTs will use the standard Medical Incident Report (MIR) in their medical plan and communication protocols. The MIR is found in the IRPG under Emergency Medical Care Guidelines (red pages) and with the medical plan (ICS-206-WF) form available at https://www.nwcg.gov/publications/ics-forms.

To achieve successful medical response, agency administrators will ensure that their units have completed the following items prior to each field season:

- A medical emergency plan that identifies medical evacuation options, local/county/State/Federal resource capabilities, capacities, ordering
procedures, cooperative agreements, role of dispatch centers, and key contacts or liaisons.

- Standardized incident and communication center protocols identified in the Medical Incident Report in the IRPG.
- For incidents that require the preparation of an IAP, ICS-206-WF will be used. This form is available at https://www.nwcg.gov/publications/ics-forms.

**Air Ambulance Coordination**

Unit- and state-/regional-level fire program managers should ensure that procedures, processes, and/or agreements for use of local and regional air ambulance services are stated in writing and effectively coordinated between the fire programs, the dispatch/logistics centers, and the service providers. These procedures, processes, and/or agreements should address contact frequencies, coordinate format requirements, and identify capabilities/limitations of the air ambulance (e.g., night flying, unimproved helispots, and weather restrictions).

**Incident Emergency Medical Services**

Incident medical information can be found on the NWCG Emergency Medical Committee website at https://www.nwcg.gov/committees/emergency-medical-committee.

NWCG has published *Clinical Treatment Guidelines for Wildland Fire Medical Units* (PMS 551). These guidelines establish a national approach for medical care during large incidents that expand the typical emergency management services (EMS) scope of practice to include the mission of managing and maintaining the health and wellness of wildland fire personnel. These guidelines are available at https://www.nwcg.gov/publications/551.

Home units that choose to utilize and support higher-level medical responders to provide medical support for internal agency medical emergencies (beyond basic first aid/CPR) may do so; however, certification and credentialing must follow respective State laws and protocols unless there is other agency direction.

**Burn Treatment Guidelines**

The following standards will be used when any firefighter sustains burn injuries, regardless of agency jurisdiction.

All significant burns should be treated as a medical emergency and after on-site medical response, the patient should be transferred to a higher level of care. In most cases, this will be the nearest emergency department (e.g., hospital emergency room) receive an initial evaluation. After initial medical stabilization, and evaluation are completed, the agency administrator or designee having jurisdiction for the incident and/or firefighter representative (e.g., crew boss, medical unit leader, compensations for injury specialist, etc.) should discuss and coordinate with the attending physician to ensure that the injured firefighter understands the plan of care.
The spectrum of burn care treatment is complex and can include only wound care and local follow up, to consultation by phone or with videos to a burn center, or even immediate transfer to a burn center.

Burn centers are specialized hospitals that provide surgical and other interventions to burn patients. The American Burn Association has created certain transfer criteria that are to be used by referring physicians and can be found at https://ameriburn.org/resources/.

Agency administrators and the patient should understand that burns develop over days and the full extent or exact definitive treatment that will eventually be required may not be able to be determined on the initial emergency department visit. If a patient is discharged from the emergency department, the patient needs to understand when to follow up to have the burn reevaluated.

This referral or follow-up care recommendation is very important for OWCP and should be specified in the discharge documentation. Furthermore, this documentation must be signed by a PHYSICIAN. Workers’ compensation benefits may be denied in the event the employee seeks follow-up without a referral from the attending physician after already being seen by a medical provider. A report prepared by a Physicians’ Assistant or Nurse Practitioner must be countersigned by a physician to be accepted as medical evidence. A definition of “physician” can be found at https://www.dol.gov/owcp/dferegs/compliance/DFECfolio/FECA-PT3/#30100.

The agency administrator or designee for the incident will coordinate with the employee’s home unit to identify a workers’ compensation liaison to assist the injured employee with workers’ compensation claims and procedures.

The flowsheet below and emergency department information for attendings can be used as well. See https://www.nwcg.gov/committees/emergency-medical-committee for additional information.
Burn Injury Care Guidelines

Thank you for taking care of our wildland firefighters! The information below is provided to help clinicians provide the best care possible for this unique work force.

Demographics for Wildland Firefighters

- Wildland firefighters are a diverse group, but generally are under 35 years of age.
- They LOVE their job and want to return from an injury as soon as possible.
- They tend to be very stoic individuals that are accustomed to physical labor.
- They are away from home most of the fire season and are often stationed in another state.

Occupational Hazards which could result in Impaired Burn Wound Healing and Potential Infection

- Dirty, dusty, smoky work environment.
- Lack of a clean environment to change dressings.
- Living in a tent and large communal camp settings.
- Extreme heat and sometimes cold environments.
- Lifting and carrying heavy loads (up to 85 lbs.) long distances.
- Working in remote and isolated sites.
- Extensive walking and hiking with significant exertional stress.
- Long hours with limited and disrupted sleep.
- Hunger and irregular meals, dehydration.
- Extreme stress in rapid pull-out emergency situations whether fire, falling rocks, or falling trees.
Important Information for Emergency Department Providers

- Most wildland firefighters do not have a Primary Care Provider (PCP) at home and are working remote from where they live.
- A referral paper trail is important for our workmen’s compensation claims. If they are discharged, please include where and approximately when to follow up. Most EMR discharge instructions will suffice so long as it includes the service (e.g., wound care, surgery, burn center). A specific physician name is not needed but please do not put “PRN.” Without this referral, significant delays can occur.
- If local follow-up for a minor injury is needed, please provide specific instructions as transport and/or alternative living conditions may need to be arranged by the fire personnel.
- If the injured firefighter is not told specifically that they cannot return to the fireline, they will do so. Please list any specific instructions you feel are indicated (e.g., daily dressing changes, do not use right hand until seen at wound care, etc.). Please do not just state “light duty.”
- Wildland firefighters may be accompanied by an agency representative to help them with transport/instructions and act as a liaison with the fire, home unit, and family for the patient.
- The fire may have a medical unit that can help with some minor care. These units consist of EMTs in a remote area who only have access to basic over-the-counter medications.
- Telehealth burn follow up or follow up with a burn center is preferred if available.
  - BLM – For emergency assistance with burn injuries, contact the BLM duty officer at 208-387-5876.

Explosives, Munitions, and Unexploded Ordnance

When encountering explosives, munitions, unexploded ordnance (UXO), or suspected UXO, never pick up, handle, uncover, or touch suspected explosives or military munitions. Retreat and secure the area from entry. Immediately notify the local dispatch office and gather as much information as possible from a safe distance. Never compromise safety to collect information.

- Location of the explosive/munitions using a map, GPS coordinates, or landmarks (use of a GPS receiver is acceptable because it is a receive-only device).
- Picture of the explosive if it can be obtained from a safe distance.
- Name and contact information of person discovering the explosive/munitions.
- Condition of the explosive/munitions (e.g., buried, partially exposed, fully exposed, deteriorated, or punctured).
- Number and type of visible explosive/munitions (e.g., blasting caps, dynamite, bomb, grenade, etc.).
- Estimated size (e.g., length and diameter) of explosive/munitions.
• Distinctive features (e.g., shape, color, markings) of explosive/munitions.
• Nearby structures, if any (so inhabitants can be contacted and evacuated if necessary).
• Public access (i.e., open or closed to motor vehicles) to the vicinity.

Notifications
Local dispatch centers are responsible for notifying:
• Agency law enforcement;
• Unit safety officer;
• agency administrator; and
• Local law enforcement.

Discovery of Explosives, Munitions, Unexploded Ordnance Associated with Former Defense Sites
The military retains liability and responsibility for munitions removal and for remedial actions on all lands transferred (or transferring) from the military to the land management agencies and is responsible for explosives safety at former defense sites. The military must be notified for all UXO on these lands.

Local law enforcement is responsible for contacting the appropriate military authority. If the responsible military unit is unknown, then local law enforcement should contact the U.S. Army Forces Command (FORSCOM), 52nd Ordnance Group (EOD), at its 24-hour emergency response number, (931) 431-3824.

For additional UXO safety information, see the IRPG.

Industrial and Naturally Occurring Hazardous Materials Exposure
Firefighters can potentially be exposed to hazards in the wildland fire environment. Encountered hazards can be both human and environmentally borne.

This section provides information and mitigations for most encountered industrial and naturally occurring potential exposures. Recognizing there may be unique/area specific hazardous exposures (e.g., fungus causing valley fever, erionite, coal seams), the following standards apply to all hazards:
• Identifying unit-specific environmental hazards;
• Develop JHAs/Ras for those hazards;
• Develop and provide specific training and SOPs;
• Provide briefings/training for those who may be exposed;
• If exposure is suspected, immediately disengage, and leave the area; and
• Seek immediate medical attention if exposure symptoms occur.

Hazardous Materials Response
Hazardous materials response or control is not a functional responsibility of wildland fire suppression resources. These incidents have tremendous potential to cause significant health and life safety issues. In order to protect the health and safety of agency personnel, no employee shall be directed or dispatched...
(including self-dispatching) to an incident involving hazardous materials unless they are provided with the required PPE and the appropriate certification level. Agency personnel on incidents involving hazardous material will limit their actions to those emergency services necessary for the immediate protection of themselves and the public and the prompt notification of appropriate public safety agencies. All wildland firefighters who are likely to witness or discover hazardous substances are required to complete their agency’s First Responder Awareness (Level I) program.

**Dump and Spill Sites**

Employees that discover any unauthorized waste dump or spill site that contains indicators of potential hazardous substances (e.g., containers of unknown substances, pools of unidentifiable liquids, piles of unknown solid materials, unusual odors, or any materials out of place or not associated with an authorized activity) should take the following precautions:

- Follow the procedures in the IRPG;
- Treat each site as if it contains harmful materials;
- Do not handle, move, or open any container, breathe vapors, or make contact with the material;
- Move a safe distance upwind from the site;
- Contact appropriate personnel. Generally, this is the hazardous materials coordinator for the local office; and
- Firefighters need to immediately report hydrogen sulfide (H₂S) or potential exposure and seek immediate medical care.

○ **BLM/NPS/FWS** – Agencies require that all field personnel complete First Responder Awareness training. Firefighters are required to take an annual refresher for hazardous material protocol.

The following general safety rules shall be observed when working with chemicals:

- Read and understand the SDSs.
- Keep the work area clean and orderly.
- Use the necessary safety equipment.
- Label every container with the identity of its contents and appropriate hazard warnings.
- Store incompatible chemicals in separate areas.
- Substitute less toxic materials whenever possible.
- Limit the volume of volatile or flammable material to the minimum needed for short operation periods.
- Provide means of containing the material if equipment or containers should break or spill their contents.

**Wildland Fires Within or Near Oil/Gas Operations**

For units with oil and gas operations within their jurisdiction, the following are the minimum standard operating procedures to help ensure the health and safety of wildland firefighters:
• Firefighters shall receive annual oil and gas hazard recognition and mitigation training;
• Local unit shall complete a JHA/RA for wildland fire activities in oil and gas areas and provide a copy with a briefing to all local and incoming resources;
• Establish response protocols and proper decontamination procedures to minimize exposure to additional employees, equipment, and facilities. Protocols will include notification procedures to respective oil and gas company(s);
• Ensure oil and gas resource advisors are consulted;
• Ensure that at least one member of each squad or engine crew is knowledgeable in the use and data interpretation of the hydrogen sulfide gas monitor. Training on the device will include at a minimum:
  ○ Equipment charging and maintenance of sensors;
  ○ Startup, zeroing, calibration, and bump testing procedures as recommended by the manufacturer; and
  ○ How the monitor elicits a warning alarm (visual, auditory, vibration).
• Understand peak reading, short-term exposure limits (STEL), and time weighted averages;
  ○ Understand how to set the monitors alarm threshold.
• The monitor’s alarm shall be set at the current American Conference on Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (10 PPM 2008) and STEL (15 PPM 2008);
• If hydrogen sulfide gas is encountered, immediately disengage and leave area; and
• Do not establish incident base camps or staging areas in or near oil and gas operations.

The following websites provide additional information and training resources:
• https://www.wildfirelessons.net/irdb
• https://www.nfpa.org/
• A template for briefing IMTs is available in the “Additional Resources” section of the NIFC Safety website at https://www.nifc.gov/programs/safety.

Wildland Fires Within or Near Radioactive Locations
Abandoned uranium mines and other potential radioactive sites exist in many areas of public lands. When these areas are identified, local management should provide information and direction on operations to be used. General knowledge and understanding of potential radiation exposure is necessary for wildland fire program management to make valid risk management decisions in these areas.

Wildland Fires Within or Near Coal Seams
Coal is naturally occurring black or brownish rock usually located in rock strata in layers or veins, coal beds, or coal seams (smoldering exposed/underground
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coal deposit). Exposed coal seams are abundant through southeast and central
Montana, western North Dakota, South Dakota, and Alaska.

Risks
Coal seam fires pose a serious problem that can be a hazard to firefighter’s
health and safety. Coal seam fires can emit highly toxic gases, including carbon
monoxide (colorless, odorless, and tasteless), sulfur dioxide (colorless with an
irritating, pungent odor), and other potentially hazardous gases.

Some symptoms of exposure to these gases may include headaches, nausea,
dizziness, fatigue, shortness of breath, coughing, and eye irritation. Because of
the variances in symptoms and exposure levels, seek medical attention for a
complete diagnosis if firefighters have been exposed to toxic gases from coal
seam fires and symptoms persist.

Firefighters exposed to coal ash, smoke, or vapor should trade in their PPE for
fresh PPE. Individually bag PPE that has been contaminated.

Required Actions/Precautions
Firefighters are typically not equipped or trained for coal seam fires and should
not attempt to extinguish such fires with hand tools and engines.

Putting water on coal seam fires is normally useless. Mitigation crews will need
to excavate the burning coal seam and mix the hot material with soil and water
to cool. The area can be reclaimed by backfilling the seam and re-vegetating the
disturbed area.

Signs of a coal seam fire may include a rotten egg smell, smoking white ash, and
continuous or non-continuous lines of what appears to be smoldering black rock
(coal) where the flame may or may not be visible. Avoid low-lying terrain in
known coal seam fire areas especially early morning when air temperatures are
cool. Gas tends to sink when air is cool and will accumulate in low-lying areas.

Do not depend on sense of smell to detect coal seam fires. At high
concentrations, the sense of smell will be almost immediately overwhelmed or
become numb. At lower levels, the sense of smell will slowly deteriorate as
levels build in the bloodstream. Do not stand downwind of coal smoke under
any conditions especially during suppression operations.

Report the location of all coal seam fires to the IC or supervisor. ICs should
notify agency representatives of locations of coal seam fires. Agencies should
have resource advisors notify incoming incident command teams and
firefighting resources of known locations of exposed coal seams, coal mines, or
abandoned coal mines adjacent to ongoing incidents and the risks and
precautions to take when working around coal seam fires.

Hazardous Water Sources
Many water sources used during wildland fire operations may appear harmless,
but contain hazardous materials (e.g., hydraulic fracturing fluid, cyanide,
sewage, corrosives). These hazardous water sources may pose threats to
personnel health and firefighting equipment. Indicators that a water source may be hazardous include proximity to active or inactive mining operations, gas/oil wells, water treatment facilities, or other industrial operations. In many cases, these hazardous water sources may not be fenced, and no warning signs may be present.

Fire personnel should evaluate water sources to ensure they do not contain potentially hazardous materials. If unsure of the contents of a water source, personnel should not utilize the water source until its contents can be verified. Dispatch centers, resource advisors, or on-scene personnel can assist with verification of safe water sources. Information about known hazardous water sources should be included in operational briefings.

**Hydrogen Cyanide Exposure**

Synthetic materials (plastics, nylon, Styrofoam®, and polyurethane) routinely dumped on the wildland can produce hydrogen cyanide (HCN) when burned. HCN exposure can disrupt the body’s ability to use oxygen and can cause asphyxia and/or carbon monoxide poisoning.

Symptoms of HCN poisoning include bitter almond odor on breath, burning taste in mouth, stiffness of lower jaw, feeling of numbness or constriction in throat, weakness, and headache.

Follow hazardous materials protocols contained in the IRPG to mitigate exposure to HCN. Immediately refer all personnel potentially exposed to HCN to a health care facility capable of toxicology testing and treatment.

**Safety for Personnel Visiting Fires**

A wide variety of personnel (agency administrators, other agency personnel, dignitaries, members of the news media, etc.) may visit incidents. The following standards apply to all visitors.

**Visits to Incident Base Camps or Non-Fireline Field Locations**

Recommended field attire includes:

- Lace-up, closed toe shoes/boots with traction soles and ankle support
- Trousers
- Long-sleeved shirt
- Field uniform (agency personnel)

**Fireline Logistical Support**

Personnel performing fireline logistical support duties (e.g., bus drivers, supply delivery/retrieval, incident drivers, non-tactical water delivery, etc.) must meet the following requirements:

- Successfully complete fire shelter training.
- Wear the required fireline PPE (“See Required Fireline PPE”).
- Receive an incident briefing.
- Ensure adequate communications are established.
• Provide proof of a current WCT, as the position requires.
• Other requirements as established by the IC.

Minimum Requirements for Visits to the Fireline/Prescribed Fire Burns
Visits (e.g., media visits or political/administrative tours) to hazardous areas of
the fire or areas that pose a fire behavior threat will be managed by meeting the
requirements below:
• Visits to the fireline must have the approval of the IC/burn boss.
• Visitors must maintain communications with the division supervisor or
  appropriate fireline supervisor of the area to be visited.
• Visitors must wear the required fireline PPE (see “Required Fireline PPE”).
• Required field attire includes undergarments made of 100 percent or the
  highest possible content of natural fibers or flame-resistant materials.
• Required equipment/supplies include:
  ○ Hand tool
  ○ Water canteen

Visitors to the fireline/prescribed fire burns may be “non-escorted” or “escorted”
depending on the following requirements:

Non-escorted Visits
Unescorted visitors to the fireline must have:
• An incident qualification with a minimum physical fitness level of “light”
• Adequate communications and radio training
• Completed the following training:
  ○ Introduction to Fire Behavior (S-190)
  ○ Firefighter Training (S-130)
  ○ Wildland Fire Safety Training Annual Refresher (RT-130), including
    fire shelter training

Deviation from these requirements must be approved by the IC or burn boss.

Escorted Visits
All visitors lacking the requirements of a non-escorted visit must be escorted
while on the fireline.
• Visitors must receive training in the proper use of fireline PPE.
• Escorts will determine hand tool and water requirements.
• Visitors must be able to walk in mountainous terrain and be in good
  physical condition with no known limiting conditions.
• Escorts must be minimally qualified as single resource boss.

Deviation from these requirements must be approved by the IC or burn boss.

Helicopter Observation Flights
Visitors who take helicopter flights to observe fires must receive approval from
the IC, a passenger briefing, and meet the following requirements:
• Required PPE:
  ○ Flight helmet
Leather boots
○ Flame-resistant clothing
○ Flight gloves (type GS/FRP-2) constructed of a soft leather palm and stretchable Nomex® fabric for the back are preferred. These gloves have a long cuff extending several inches above the wrist providing total coverage when the flight suit sleeve is properly worn. Gloves should fit snugly to provide maximum finger dexterity for the wearer. All-leather gloves (without synthetic liners) are acceptable if they provide the wearer with wrist coverage and finger dexterity. Gloves that meet the flame-resistant Nomex® and leather design (conforms to Military Specification MIL-DTL-81188C) are available that are compatible with modern touchscreen devices. These are preferred when touchscreen devices are mission essential.

Occasional passengers/visitors have no training requirement; however, a qualified flight manager must supervise loading and unloading of passengers.

Fixed-Wing Observation Flights
No PPE is required for visitors and agency personnel who take fixed-wing flights to observe fires. However, a passenger briefing is required, and the flight level must not drop below 500 feet AGL.

6 Minutes for Safety Training
Daily 6 Minutes for Safety training should be conducted to focus on high-risk, low-frequency activities that fire personnel may encounter during a fire season. A daily national 6 Minutes for Safety briefing can be found at https://www.nwcg.gov/committees/6-Minutes-for-safety or within the National Incident Management Situation Report.

SAFENET
SAFENET is a form, process, and method for reporting and resolving safety concerns encountered in any aspect (e.g., preparedness, training, etc.) of wildland fire, prescribed fire, or all-hazards incident management. The information provided on the form provides important, safety-related data to the National Interagency Fire Center (NIFC) for determining long-term trends and problem areas.

The objectives of the form and process are:
• To provide immediate reporting and correction of unsafe situations or close calls in wildland fire.
• To provide a means of sharing safety information throughout the fire community.
• To provide long-term data that will assist in identifying trends.

Individuals who observe or who are involved in an unsafe situation shall initiate corrective actions if possible, and then report the occurrence using SAFENET. Originators are encouraged, but not required, to put their name on the report.
Prompt replies to the originator (if name provided), timely action to correct the problem, and discussion of filed SAFENETs at local-level meetings encourage program participation and active reporting.

SAFENET submission does not replace accident reporting or any other valid agency reporting method; however, SAFENETs are an efficient way to report a safety concern and involves front line firefighters in the daily job of being safe and keeping others safe by documenting and helping to resolve safety issues.

SAFENETs may be filed:
- Electronically at https://safenet.nifc.gov
- Verbally by telephone at 1-888-670-3938
- By the SAFENET Field Card

The SAFENET Field Card can be used by wildland fire personnel to immediately identify and report unsafe situations or close calls that should receive immediate resolution/mitigation. If the situation cannot be resolved at the local/Incident level, the reporting individual is encouraged to follow the formal SAFENET submission process stated above. SAFENET Field Cards are available at https://safenet.nifc.gov.

**Alert System**

The Alert System is intended as another mechanism to provide safety-related information to the field. The expectation is that the messages will be forwarded throughout the wildland fire community in a relatively short period of time. There are three types of safety alert:
- Safety Warning – A time-sensitive alert to the wildland fire community addressing wildland fire safety hazards that pose an imminent threat, or have potential to pose a threat, to life or property. Red hash-marked bordered stationary will be associated with this type of alert.
- Advisory – A time-sensitive alert from an NWCG committee to the wildland fire community regarding procedural changes, equipment information and/or use updates, potential safety hazards, etc. Yellow hash-marked bordered stationary will be associated with this type of alert.
- Bulletin – A general alert from an NWCG committee to the wildland fire community regarding the release of subject-specific information such as technical information, equipment updates, accident reports, etc. Depending on the origin and/or the subject content, a green hash-marked bordered stationary may be associated with this type of alert.

A database of all alerts can be found at https://www.nwcg.gov/alerts.

**Accident/Injury Reporting**

The Occupational Safety and Health Administration (OSHA) mandates that all accidents and injuries be reported in a timely manner. Accident and injury reporting is important for the following reasons:
- To protect and compensate employees for on-the-job incidents.
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To assist supervisors and safety managers in taking corrective actions and establish safer work procedures.

To determine if administrative controls or PPE are needed to prevent a future incident of the same or similar type.

To provide a means for trend analysis.

Agency Reporting Requirements

Employees are required to immediately report every job-related accident to their supervisor. Managers and supervisors shall ensure that an appropriate level of investigation is conducted for each accident and record all personal injuries and property damage. Coordinate with your Human Resources office or administrative personnel to complete appropriate Office of Workers’ Compensation (OWCP) forms. Reporting is the responsibility of the injured employee’s home unit regardless of where the accident or injury occurred.

- **BLM/NPS/FWS** – Employees will report accidents using the Safety Management Information System (SMIS) at https://smis.doi.net. Supervisors shall complete the SMIS report within six working days after the accident/injury.
- **FS** – Employees will use the eSafety system through the Forest Service Dashboard at https://fsweb.wo.fs.fed.us/hrm/workers-compensation/index.php#esafety.
- **BIA** – In addition to reporting accidents using SMIS, fire management officers will complete the Early Alert at https://www.bia.gov/bia/ots/dfwfm/bwfm/safety, and submit to regional fire management officers within 24 hours after the accident/injury.

OSHA Reporting Requirements

For accidents/injuries meeting the “serious accident criteria (found in chapter 18), OSHA must be notified within 8 hours.

For other work-related accidents/injuries requiring in-patient hospitalizations, amputations, or loss of an eye, OSHA must be notified within 24 hours. In-patient hospitalization is defined as formal admission to the in-patient service of a hospital or clinic for care or treatment (does not include admission for observation or diagnostic testing only).

Supervisors will coordinate with the unit safety manager where the accident/injury occurred to ensure notifications are made to the appropriate OSHA regional office.

OSHA reporting information is available at https://www.osha.gov/recordkeeping/2014.

Critical Incident Management

The NWCG Agency Administrator’s Guide to Critical Incident Management (PMS 926) is designed to assist agency administrators with the chronological steps in managing a critical incident through a series of checklists outlining functional area oversight and responsibilities.
The guide is not intended to replace local emergency plans or other specific guidance that may be available but should be used in conjunction with existing agency policy, line-of-duty-death (LODD)/loss-of-human-life (LOHL) handbooks, or other critical incident guidance. Local units should complete the guide or equivalent, and review and update at least annually.

**Critical Incident Stress Management**

Critical Incident Stress Management (CISM) is a comprehensive, integrated, systematic, and multicomponent crisis intervention program that was developed to manage traumatic experiences. CISM is a package of tactics that are designed to mitigate the impact of a traumatic event, facilitate normal recovery processes, restore adaptive function, and identify people who would benefit from additional support services. CISM intervention services can be applied to wildland fire, law enforcement, or other emergency responses. CISM interventions should never be used for grief counseling, mediation, or a replacement for mental health care professionals.

The agency administrator is responsible for identifying an event as a critical incident.

**Critical Incident Peer Support**

Critical Incident Peer Support (CIPS) is an intervention tactic designed for colleagues or people of “mutual respect” to help each other through difficult situations. CIPS is the foundation of the interagency wildland fire CISM program since peers understand the unique traumas, fears, job-related stresses, and offer instant trust, respect, credibility, and empathy. Camaraderie among peers has credibility that academic training cannot create.

**Critical Incident Peer Support Groups**

CIPS groups are assembled at the time of request and can be ordered through the dispatch/coordination system. For more information go to https://gacc.nifc.gov/cism/.