

## Chapter 07 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, 1112-2*
- *FWS - Service Manual 241 FW7, Firefighting*
- *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:

- *Fireline Handbook (PMS 410-1, NFES 0065).*
- *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.

**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.

**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.

**Risk Management Process**

Fire operations risk management is outlined in the *NWCG Incident Response Pocket Guide (IRPG)*. The five step process provides firefighters and fire managers a simple, universal, and consistent way to practice risk management by:

- Establishing situation awareness.
- Identifying hazards and assessing the risk.
- Controlling or eliminating hazards.
- Making decisions based on acceptability of remaining risk.
- Evaluating effectiveness of hazard controls and continuously re-evaluating the situation.

**Job Hazard Analysis (JHA)/Risk Assessment (RA)**

A completed JHA/RA is required for:

- Jobs or work practices that have potential hazards.
- New, non-routine, or hazardous tasks to be performed where potential hazards exist.
- Jobs that may require the employee to use non-standard personal protective equipment (PPE).
- Changes in equipment, work environment, conditions, policies, or materials.

- 1 • Supervisors and appropriate line managers must ensure that established  
2 JHAs are reviewed and signed prior to any non-routine task or at the  
3 beginning of the fire season.
- 4 ○ **BLM-** *Additional RA information can be obtained at:*  
5 *<http://web.blm.gov/portal/employeeresources/allemployees/safety/riskm>*  
6 *anagement.php*
- 7 ○ **FS - JHA's** *must include a description of the emergency medical*  
8 *procedures, identification of key individuals, and actions that will be*  
9 *taken to ensure prompt and effective medical care and evacuation. See*  
10 *FSH 6709.11, section 21.1 for more information.*

## 11 **Work/Rest**

12  
13 To mitigate fatigue, Agency Administrators, fire managers, supervisors, Incident  
14 Commanders, and individual firefighters should plan for and ensure that all  
15 personnel are provided a minimum 2:1 work/rest ratio (for every 2 hours of  
16 work or travel, provide 1 hour of sleep and/or rest). Work shifts that exceed 16  
17 hours and/or consecutive days that do not meet the 2:1 work/rest ratio should be  
18 the exception. When this occurs, the following actions are required:

- 19
- 20 • Personnel will resume 2:1 work/rest ratio as quickly as possible.
  - 21 • The Incident Commander or Agency Administrator will justify work shifts  
22 that exceed 16 hours and/or consecutive days that do not meet 2:1 work to  
23 rest ratio. Justification will be documented in the daily incident records,  
24 and must include mitigation measures used to reduce fatigue.
  - 25 • The Time Officer's/Unit Leader's approval of the Emergency Firefighter  
26 Time Report (OF-288), or other agency pay document, certifies that the  
27 required documentation is on file and no further documentation is required  
28 for pay purposes.

29  
30 The work/rest guidelines do not apply to aircraft pilots assigned to an incident.  
31 Pilots must abide by applicable Federal Aviation Administration (FAA)  
32 guidelines, or agency policy if more restrictive.

## 33 **Length of Assignment**

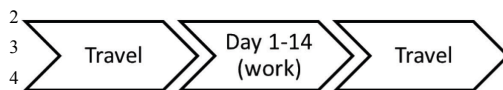
### 34 **Assignment Definition**

35  
36 An assignment is defined as the time period (days) between the first full  
37 operational period at the first incident or reporting location on the original  
38 resource order and the last day worked prior to commencement of return travel  
39 to the home unit.

### 40 **Length of Assignment**

41  
42 Standard assignment length is 14 days, exclusive of travel from and to home  
43 unit, with possible extensions identified below. Time spent in staging and  
44 preposition status counts toward the 14-day limit, regardless of pay status, for all  
45 personnel, including Incident Management Teams.

46 **Release Date: January 2013**

1 14-Day Scenario6 **Days Off**

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

10

11 The authority to grant a day off with pay lies within 5 U.S.C. 6104, 5 CFR  
12 610.301-306, and 56 Comp. Gen. Decision 393 (1977).

13

14 After completion of a 14 day assignment and return to the home unit, two  
15 mandatory days off will be provided (2 after 14). Days off must occur on the  
16 calendar days immediately following the return travel in order to be charged to  
17 the incident. (See Section 12.1-2) (5 U.S.C. 6104, 5 CFR 610.301-306, and 56  
18 Comp. Gen. Decision 393 (1977)). If the next day(s) upon return from an  
19 incident is/are a regular work day(s), a paid day(s) off will be authorized.  
20 Regulations may preclude authorizing this for non-NWCG and state/local  
21 employees.

22

23 Pay entitlement, including administrative leave, for a paid day(s) off cannot be  
24 authorized on the individual's regular day(s) off at their home unit. Agencies  
25 will apply holiday pay regulations, as appropriate. A paid day off is recorded on  
26 home unit time records according to agency requirements. Casuals (AD) are not  
27 entitled to paid day(s) off upon release from the incident or at their point of hire.

28

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

31

32 Home unit Agency Administrators may authorize additional day(s) off with  
33 compensation to further mitigate fatigue. If authorized, home unit program  
34 funds will be used. All length of assignment rules apply to aviation resources,  
35 including aircraft pilots, notwithstanding the FAA and agency day off  
36 regulations.

37

38 **Assignment Extension**

39 Prior to assigning incident personnel to back-to-back assignments, their health,  
40 readiness, and capability must be considered. The health and safety of incident  
41 personnel and resources will not be compromised under any circumstance.

42 • Assignments may be extended when:

- 43 ○ Life and property are imminently threatened.
- 44 ○ Suppression objectives are close to being met.
- 45 ○ A military battalion is assigned.
- 46 ○ Replacement resources are unavailable, or have not yet arrived.

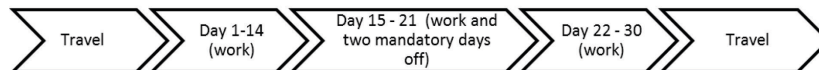
1 Upon completion of the standard 14-day assignment, an extension of up to an  
 2 additional 14 days may be allowed (for a total of up to 30 days, inclusive of  
 3 mandatory days off, and exclusive of travel).

#### 5 21-Day Scenario



10 A 21-day assignment is exclusive of travel from and to home unit. Time spent  
 11 in staging and preposition status counts toward the 21-day assignment,  
 12 regardless of pay status, for all personnel, including Incident Management  
 13 Teams.

#### 15 30-Day Scenario



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

25 Contracts, Incident Blanket Purchase Agreements (I-BPA), and Emergency  
 26 Equipment Rental Agreements (EERA) should be reviewed for appropriate pay  
 27 requirements and length of assignment. If the contract, I-BPA, or EERA do not  
 28 address this, the incident Finance/Administration Section Chief or the  
 29 procurement official should be consulted as to whether compensation for a day  
 30 off is appropriate.

#### 32 **Single Resource/Kind Extensions**

33 The section chief or Incident Commander will identify the need for assignment  
 34 extension and will obtain the affected resource's concurrence. The section chief  
 35 and affected resource will acquire and document the home unit supervisor's  
 36 approval.

38 The Incident Commander approves the extension. If a convened geographic or  
 39 national multi-agency coordinating group (GMAC/NMAC) directs, the Incident  
 40 Commander approves only after GMAC/NMAC concurrence.

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

**1 Incident Management Team Extensions**

2 Incident management team extensions are to be negotiated between the incident  
3 Agency Administrator, the Incident Commander, and the GMAC/NMAC (if  
4 directed).

**6 Maximum Consecutive Days Worked- Home Unit**

7 During extended periods of activity at the home unit, personnel will have a  
8 minimum of 1 day off in any 21-day period.

**10 Driving Standard**

11 All employees driving motor vehicles are responsible for the proper care,  
12 operation, maintenance, and protection of the vehicle, and to obey all federal  
13 and state laws.

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

**19 General Driving Policy**

- 20 ● Employees must have a valid state driver's license in their possession for  
21 the appropriate vehicle class before operating the vehicle. Operating a  
22 government-owned or rental vehicle without a valid state driver's license is  
23 prohibited.
- 24 ● All drivers whose job duties require the use of a motor vehicle will receive  
25 initial defensive driver training within three months of entering on duty and  
26 refresher driver training every three years thereafter.
  - 27 ○ *BLM/FS- Driver training is required prior to operating a vehicle for*  
28 *official purposes.*
- 29 ● All traffic violations or parking tickets will be the operator's responsibility.
- 30 ● All driving requiring a CDL will be performed in accordance with  
31 applicable Department of Transportation regulations.
- 32 ● Drivers and all passengers are required to use provided seat belts at all times  
33 when the motor vehicle is in motion.
- 34 ● Employees operating any motor vehicle with a Gross Vehicle Weight  
35 Rating (GVWR) of 26,000 pounds or more, towing a vehicle 10,000 pounds  
36 GVWR or more, hauling hazardous material requiring the vehicle to be  
37 placarded, or transporting 16 or more persons (including the driver) must  
38 possess a valid Commercial Drivers License (CDL) with all applicable  
39 endorsements. Program funds are authorized to pay for the cost of CDL  
40 licensing fees and exams, necessary for employees to operate fire  
41 equipment. In those cases where a test has been failed and must be retaken,  
42 the employee will be responsible for costs associated with additional  
43 testing.
  - 44 ○ *BLM- BLM Form 1112-11 will be used to document every fire and*  
45 *aviation employee's authorization to drive government vehicles or to*  
46 *drive private or rental vehicles for government business. BLM Form*

- 1 1112-11 replaces form OF-345, form DI-131, and any equivalent form  
2 that has been created for local or state level use. Employees are  
3 required to self-certify their physical ability to operate vehicles which  
4 they are authorized to use. Drivers of vehicles that require a  
5 Commercial Driver's License may be required to have additional  
6 driver, medical, and fitness testing as required by local and/or state  
7 laws. Employees will immediately inform their supervisor and update  
8 BLM Form 1112-11 if a change in medical condition impedes their  
9 driving ability or if a state driving privilege is restricted for any  
10 reason. Supervisors will review the updated form and take appropriate  
11 action as necessary. BLM Form 1112-11 is available at:  
12 <http://web.blm.gov/blmforms/>
- 13 ○ **FS** - Policy requires all operators of government owned, or leased  
14 vehicles to have a Forest Service issued Operator's Identification Card  
15 (OF-346) indicating the type of vehicles or equipment the holder is  
16 authorized and qualified to operate.
  - 17 ○ **BLM/FWS/NPS** – The DOI has granted wildland fire agencies a  
18 waiver to allow employees between the ages of 18 and 21 to operate  
19 agency commercial fire vehicles using a state issued CDL under the  
20 specific conditions as stated below:
    - 21 ■ Drivers with a CDL may only drive within the state that has issued  
22 the CDL and must comply with the state's special requirements  
23 and endorsements.
    - 24 ■ These drivers must only drive vehicles that are equipped with visible  
25 and audible signals, and are easily recognized as fire fighting  
26 equipment. This excludes, but is not limited to, school buses used  
27 for crew transport and "low-boy" tractor trailers used for  
28 construction equipment transport.
    - 29 ■ Supervisors must annually establish and document that these drivers  
30 have a valid license (i.e. that the license has not been suspended,  
31 revoked, canceled, or that the employee has not been otherwise  
32 unqualified from holding a license - 485 DM 16.3.B (1), ensure  
33 that the employee has the ability to operate the vehicle(s) safely in  
34 the operational environment assigned (485 DM 16.3.B (2), and  
35 review and validate the employee's driving record (485 DM  
36 16.3.B(4)).

### 37 **Non-Incident Operations Driving**

38 Refer to the current driving standards for each individual agency.

### 39 **Mobilization and Demobilization**

40 To manage fatigue, every effort should be made to avoid off unit (excluding IA  
41 response) mobilization and demobilization travel between 2200 hrs and 0500  
42 hrs.  
43  
44  
45  
46

**1 Incident Operations Driving**

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

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

**25 Fire Vehicle Operation Standards**

26 Operators of all vehicles must abide by state traffic regulations. Operation of all  
27 vehicles will be conducted within the limits specified by the manufacturer.  
28 Limitations based on tire maximum speed ratings and GVWR restrictions must  
29 be followed. It is the vehicle operator's responsibility to ensure vehicles abide  
30 by these and any other limitations specified by agency or state regulations.

**32 Management Controls to Mitigate Exposure**

34 Management controls, engineering controls, equipment guards, and  
35 administrative procedures are the first line of defense against exposing an  
36 employee to a hazard. Personal protective equipment (PPE) will be used to  
37 protect employees against hazards that exist after all management controls are  
38 exhausted.

**40 Wildland Fire Field Attire**

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



## 1 **Personal Protective Equipment (PPE)**

2

3 All personnel are required to use Personal Protective Equipment (PPE)  
4 appropriate for their duties and/or as identified in JHAs/RAs. Employees must  
5 be trained to use safety equipment effectively.

6

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

12

13 Any modification to personal protective equipment that reduces its protection  
14 capability such as iron-on logos, and sagging of pants, is an unacceptable  
15 practice and will not be allowed on fires.

16

### 17 **Required Fireline PPE includes:**

- 18 ● Wildland fire boots
- 19 ● Fire shelter (M-2002)
- 20 ● Hard hat with chinstrap
- 21 ● Goggles/safety glasses (as identified by JHAs/RAs)
- 22 ● Ear plugs/hearing protection
- 23 ● Yellow-long-sleeved flame resistant shirt
- 24 ● Flame resistant trousers
- 25 ● Leather or leather/flame resistant combination gloves. Flight gloves are not  
26 approved for fireline use.
- 27 ● Additional PPE as identified by local conditions, material safety data sheet  
28 (MSDS), or JHA/RA

29

- 30 ○ *FS- Shirt, trousers, and gloves used by USFS personnel must meet*  
31 *Forest Service specification 5100-91 (shirt), 5100-92 (trousers), 6170-*  
32 *5 (gloves), or be certified to the National Fire Protection Association*  
33 *(NFPA) 1977, Standard on Protective Clothing and Equipment for*  
34 *Wildland Fire Fighting.*

35

### 36 **Wildland Fire Boot Standard**

37 Personnel assigned to wildland fires must wear a minimum of 8-inch high, lace-  
38 type exterior leather work boots with Vibram-type, melt-resistant soles. The 8-  
39 inch height requirement is measured from the bottom of the heel to the top of the  
40 boot. Alaska is exempt from the Vibram-type sole requirement.

41

42 All boots that meet the wildland fire boot standard as described above are  
43 required for firefighting and fireline visits, considered non-specialized PPE, and  
44 will be purchased by the employee (including AD/EFF) prior to employment.

- 1 • **DOI-** *The DOI has issued policy authorizing payment of a boot stipend by*  
2 *DOI agencies. See agency-specific guidance for implementation of the DOI*  
3 *policy.*  
4

#### 5 **Fire Shelters**

6 New Generation Fire Shelters (M-2002, Forest Service Specification 5100-606)  
7 are required for all wildland firefighters. For more information, refer to  
8 [http://www.nifc.gov/fireShelt/fshelt\\_main.html](http://www.nifc.gov/fireShelt/fshelt_main.html)  
9

10 Training in inspection and deployment of new generation fire shelters will be  
11 provided prior to issuance. Firefighters will inspect their fire shelters at the  
12 beginning of each fire season and periodically throughout the year, to ensure  
13 they are serviceable.  
14

15 Training shelters will be deployed at required Annual Fireline Safety Refresher  
16 Training. No live fire exercises for the purpose of fire shelter deployment  
17 training will be conducted.  
18

19 Fire shelters will be carried in a readily accessible manner by all line personnel.  
20 The deployment of shelters will not be used as a tactical tool. Supervisors and  
21 firefighters must never rely on fire shelters instead of using well-defined escape  
22 routes and safety zones. When deployed on a fire, fire shelters will be left in  
23 place if it is safe to do so and not be removed pending approval of authorized  
24 investigators. Firefighters must report the shelter deployment incident to their  
25 supervisor as soon as possible.  
26

#### 27 **Head Protection**

28 Personnel must be equipped with hardhats and wear them at all times while on  
29 the fireline. Hardhats must be equipped with a chinstrap, which must be  
30 fastened while riding in, or in the vicinity of, helicopters.  
31 Acceptable hardhats for fireline use are:

- 32 • “Wildland Firefighter’s Helmet” listed in a current or past edition of the  
33 GSA Wildland Fire Equipment Catalog. To view a current catalog, go to  
34 [www.gsa.gov/fireprogram](http://www.gsa.gov/fireprogram); or  
35 • equivalent hardhat meeting the *(NFPA) 1977 Standard on Protective*  
36 *Clothing and Equipment for Wildland Fire Fighting* requirements, or  
37 • equivalent hardhat meeting ANSI Z89.1-2003 Type 1, Class G or ANSI  
38 Z89.1-2009 Type 1, Class G.  
39

40 Hardhats consist of two components - the shell and the suspension - which work  
41 together as a system. Alteration of either of these components compromises the  
42 effectiveness of the system (e.g. wearing hardhat backwards) and is not allowed.  
43 Both components require periodic inspection and maintenance. The useful  
44 service life begins when the hardhat is put into service, not the manufacture date  
45 specified on the hardhat. Specific inspection and maintenance instructions are

1 found in Missoula Technology and Development Center (MTDC) Tech Tip  
2 publication, *Your Hardhat: Inspection and Maintenance* (0267-2331-MTDC).  
3 <http://www.fs.fed.us/t-d/pubs/htmlpubs/htm02672331/index.htm> and the  
4 Hardhat Update: Summer 2012 Notice also issued by MTDC at  
5 <http://www.fs.fed.us/t-d/pubs/htmlpubs/htm12512825/>.

### 7 **Eye and Face Protection**

8 The following positions require the wearing of eye protection (meets *ANSI*  
9 *Z87.1* Standards):

- 10 • Nozzle operator
- 11 • Chainsaw operator/faller
- 12 • Helibase and ramp personnel
- 13 • Wildland fire chemical mixing personnel
- 14 • Other duties may require eye protection as identified in a specific JHA/RA

15  
16 Full face protection in the form of a face shield in compliance with *ANSI Z87.1*  
17 shall be worn when working in any position where face protection has been  
18 identified as required in the job specific JHA/RA: Batch Mixing for Terra-  
19 Torch®, power sharpener operators, etc.

### 21 **Hearing Protection**

22 Personnel who are exposed to a noise level in excess of 85db must be provided  
23 with, and wear, hearing protection. This includes, but is not limited to:

- 24 • Chainsaw operators/fallers.
- 25 • Pump operators.
- 26 • Helibase and aircraft ramp personnel.
- 27 • Wildland fire chemical mixing personnel.

28  
29 Other duties may require hearing protection as identified in a specific JHA/RA.  
30 Employees may be required to be placed under a hearing conservation program  
31 as required by *29 CFR 1910.95*. Consult with local safety & health personnel  
32 for specifics regarding unit hearing conservation programs.

### 34 **Neck Protection**

35 Face and neck shrouds are not required PPE. The use of shrouds is not required  
36 and should be as a result of onsite risk analysis. If used, face and neck shrouds  
37 shall meet the requirements of FS specification 5100-601 or *NFPA 1977*  
38 *Standard on Protective Clothing and Equipment for Wildland Fire Fighting*.

39  
40 Shrouds should be positioned in a manner that allows for immediate use. For  
41 additional information see MTDC Tech Tip *Improved Face and Neck Shroud*  
42 *for Wildland Firefighters, 2004* (0451-2323-MTDC).  
43 <http://fsweb.mtdc.wo.fs.fed.us/pubs/htmlpubs/htm04512323/index.htm>

44  
45

**1 Leg Protection**

2 All chainsaw operators will wear chainsaw chaps meeting the United States  
3 Forest Service Specification 6170-4F or 4G. Swampers should wear chaps  
4 when the need is demonstrated by a risk analysis considering proximity to the  
5 sawyer, slope, fuel type, etc. All previous Forest Service specification chainsaw  
6 chaps must be removed from service. Chainsaw chaps shall be maintained in  
7 accordance with MTDC Publication, *Inspecting and Repairing Your Chainsaw*  
8 *Chaps - User Instructions* (0567-2816-MTDC)  
9 <http://www.fs.fed.us/t-d/pubs/htmlpubs/htm05672816/page01.htm>.

10

**11 Respiratory Protection**

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

16

17 Only NIOSH-approved respirators shall be used. Several respiratory-type  
18 products are marketed to wildland firefighters but are not NIOSH-approved (e.g.  
19 shrouds with filtration devices).

20

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

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

- 27 • **FS - FSM – 5130- Self-Contained Breathing Apparatus - Wildland**  
28 *firefighters may use only SCBA which are compliant with NFPA 1981,*  
29 *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for*  
30 *Emergency Services. SCBA may only be used when contaminants from*  
31 *vehicle, dump, structure, or other non-wildland fuel fire cannot be avoided*  
32 *while meeting wildland fire suppression objectives (29 CFR 1910.134,*  
33 *Respiratory Protection). If such an apparatus is not available, avoid*  
34 *exposure to smoke from these sources. The acquisition, training, proper*  
35 *use, employee health surveillance programs, inspection, storage, and*  
36 *maintenance of respiratory protection equipment must comply with*  
37 *applicable National Fire Protection Association standards and 29 CFR*  
38 *1910.134, and be justified by a Job Hazard Analysis. Where the acquisition*  
39 *and use of an SCBA is approved, it may be carried only on a fire engine and*  
40 *its use must be consistent with FSM 5130.*

41

**42 Specialized or Non Standard Personal Protective Equipment (PPE)**

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

1 A JHA/Risk Assessment must be completed and reviewed by the Unit Safety  
2 Officer and the supervisor's approval is required. Items must meet agency and  
3 industry standards for specific intended use. Cold weather flame resistant  
4 outerwear shall be in compliance with NFPA 1977, *Standard on Protective*  
5 *Clothing and Equipment for Wildland Fire Fighting*. All cold weather inner  
6 wear should be composed of 100% or the highest possible content of natural  
7 fibers (cotton, wool or silk) or other flame resistant material such as aramid.

8

### 9 **High Visibility Vests**

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

12

13 Employees must wear high visibility safety apparel that meets ANSI/ISEA 107-  
14 2004, Class 2 or 3, or ANSI/ISEA 207-2006.

15

16 Exceptions:

17 The high visibility safety apparel should not be worn if:

- 18 • There is a reasonable chance that the employee may be exposed to flames,  
19 high heat, or hazardous materials.
- 20 • The high visibility garment hinders an employee's ability to do their job  
21 because it prevents necessary motion or because it limits access to  
22 necessary equipment such as radios or fire shelters.

23

24 Additional information is available in the Missoula Technology and  
25 Development Center (MTDC) report, *High-Visibility Garments and Worker*  
26 *Safety on Roadways* (1251-2818P-MTDC).

27 <http://fsweb.mtdc.wo.fs.fed.us/pubs/htmlpubs/html12512818>

28

## 29 **Fireline Safety**

30

### 31 **Incident Briefings**

32 Fire managers must ensure that safety briefings are occurring throughout the fire  
33 organization, and that safety factors are addressed through the IC or their  
34 designee and communicated to all incident personnel at operational briefings.

35 The identification and location of escape routes and safety zones must be  
36 stressed. A briefing checklist can be found in the *Incident Response Pocket*  
37 *Guide (IRPG)*.

38

### 39 **LCES - A System for Operational Safety**

40 LCES will be used in all operational briefings and tactical operations as per the  
41 *Incident Response Pocket Guide (IRPG)*.

- 42 • L - Lookout(s)
- 43 • C - Communication(s)
- 44 • E - Escape Route(s)
- 45 • S - Safety Zone(s)

46

**1 Right to Refuse Risk**

2 Every individual has the right to turn down unsafe assignments. When an  
3 individual feels an assignment is unsafe, they also have the obligation to  
4 identify, to the degree possible, safety alternatives for completing that  
5 assignment. The IRPG contains a process for How to Properly Refuse Risk.

6

**7 Smoke and Carbon Monoxide**

8 It is important to note that smoke is just one of the potential risks faced by  
9 wildland firefighters. Site-specific hazards and mitigations need to be identified  
10 (using JHA/RA) to reduce firefighter exposure to smoke and potential carbon  
11 monoxide which includes evaluating and balancing all the risks associated with  
12 the operational objectives.

13

14 From an incident management perspective, smoke impacts need to be analyzed  
15 and a risk assessment completed using the ICS-215A, Incident Action Plan  
16 Safety Analysis worksheet. For additional information, reference NWCG memo  
17 NWCG#006-2012, *Monitoring and Mitigating Exposure to Carbon Monoxide*  
18 *and Particulates at Incident Base Camps at*  
19 <http://www.nwcg.gov/general/memos/nwcg-006-2012.html>.

20

**21 Location of Fire Camps and Plans to Remain in Place**

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

- 29 • Documented risk assessment
- 30 • Trigger points
- 31 • Egress routes
- 32 • Transportation for all personnel
- 33 • Accountability for all personnel
- 34 • Those individuals not meeting 310-1 qualifications will be considered  
35 escorted visitors as addressed elsewhere in this chapter.
  - 36 ○ **FS-** *At a minimum, plans shall also include:*
    - 37 ■ *ICP protection strategy referenced in the IAP.*
    - 38 ■ *Live-ability considerations including air quality, functionality of*  
39 *location and facilities, and safety factors for post burn conditions.*

40

**41 Standard Safety Flagging**

42 The NWCG recommends the following Safety Zone/Escape Route flagging for  
43 wildland fire activities:

- 44 • Hot-pink flagging marked “Escape Route” (NFES 0566). Crews with  
45 colorblind members may wish to carry and utilize fluorescent chartreuse  
46 flagging (NFES #2396).

- 1 • Hazards. Yellow with black diagonal stripes, 1 inch wide (NFES 0267). If  
2 the above recommendation is not utilized on an incident, the incident will  
3 need to identify the selected color and make it known to all firefighters.  
4

## 5 **Emergency Medical Planning and Services**

6

7 To provide for quick and effective response, all units (including dispatch  
8 centers) will develop and implement plans that specify emergency procedures,  
9 actions, and roles/responsibilities to ensure injured personnel are provided  
10 prompt and effective medical care and evacuation.  
11

### 12 **Incident Emergency Management Planning**

13 In 2010, NWCG approved the standardized incident emergency protocol  
14 developed by the Dutch Creek Serious Accident Task Team, and issued  
15 direction that these emergency medical procedures be adopted by all IMT's  
16 during daily operations.  
17

18 Although some of the procedures are specific to larger Type 1 and Type 2  
19 incidents when key unit leader positions are filled, these same procedures and  
20 protocols can be adapted for local unit use when managing Type 5, 4, and 3  
21 incidents as well as during normal field operations. Local unit emergency  
22 medical plans must take into account all types and management levels of  
23 incidents.  
24

25 To achieve successful medical response, Agency Administrators will ensure that  
26 their units have completed the following items prior to each field season:

- 27 • An Incident Emergency Plan that identifies medical evacuation options,  
28 local/county/state/federal resource capabilities, capacities, ordering  
29 procedures, cooperative agreements, role of dispatch centers, and key  
30 contacts or liaisons;
- 31 • Standardized communication center protocols that include the following  
32 components:
  - 33 ○ Determine the nature of the emergency;
  - 34 ○ If the emergency is a medical injury/illness, determine if the  
35 injury/illness is life threatening;
  - 36 ○ If the injury is life threatening, then clear designated frequency for  
37 emergency traffic;
  - 38 ○ Identify the on-scene point of contact by position and last name (i.e.  
39 TFLD Smith);
  - 40 ○ Ensure that the Medical Unit Leader (if assigned) is contacted  
41 immediately;
  - 42 ○ Identify number injured, patient assessment(s) and location (geographic  
43 and/or GPS coordinates);
  - 44 ○ Identify on-scene medical personnel by position and last name (i.e.  
45 EMT Jones);
  - 46 ○ Identify preferred method of patient transport;

- 1 ○ Determine any additional resources or equipment needed;
- 2 ○ Document all information received and transmitted on the radio or
- 3 phone;
- 4 ○ Document any changes in the on-scene point of contact or medical
- 5 personnel as they occur;
- 6 ● For incidents that require the preparation of an IAP, an incident medical
- 7 plan that satisfies the requirements found in NWCG memo number 025-
- 8 2010 is required, and will include an expanded block eight of the ICS-206
- 9 Medical Plan detailing available resources (ground and air), roles,
- 10 responsibilities, and hazard mitigations.

11  
12 For more information, refer to NWCG 025-2010 at  
13 <http://www.nwcg.gov/general/memos/nwcg-025-2010.html>

#### 14 **Air Ambulance Coordination**

15 Unit and state/regional level fire program managers should ensure that  
16 procedures, processes, and/or agreements for use of local and regional air  
17 ambulance services are stated in writing and effectively coordinated between the  
18 fire programs, the dispatch/logistics centers, and the service providers.

#### 20 **Incident Emergency Medical Services**

21 Agencies will follow interim NWCG minimum standards for incident  
22 emergency medical services as defined in Appendix K (NWCG#011-2208) to  
23 assist wildland fire Incident Commanders with determining the level and  
24 number of emergency medical resources and related supplies needed based upon  
25 the number of incident personnel. This standard as well as other incident  
26 medical information can be found on the NWCG Incident Emergency Medical  
27 Subcommittee website at:  
28 <http://www.nwcg.gov/branches/pre/rmc/iems/index.html>

29  
30  
31 Incidents that have established Medical Units shall follow the direction as  
32 outlined in *Interim NWCG Minimum Standards for Medical Units Managed By*  
33 *NWCG Member Agencies* at:  
34 [http://www.nwcg.gov/branches/pre/rmc/iems/policyguides/minimum\\_stds\\_for\\_](http://www.nwcg.gov/branches/pre/rmc/iems/policyguides/minimum_stds_for_medical_units.pdf)  
35 [medical\\_units.pdf](http://www.nwcg.gov/branches/pre/rmc/iems/policyguides/minimum_stds_for_medical_units.pdf)

36  
37 NWCG has published *Clinical Treatment Guidelines for Wildland Fire Medical*  
38 *Units (PMS 551)*. These guidelines establish a national approach for medical  
39 care during large incidents that expand the typical emergency management  
40 services (EMS) scope of practice to include the mission of managing and  
41 maintaining the health and wellness of wildland fire personnel. These  
42 guidelines are available at:  
43 <http://www.nwcg.gov/branches/pre/rmc/iems/index.html>

44  
45 Home units that choose to utilize and support higher level medical responders to  
46 provide medical support for internal agency medical emergencies (beyond basic



1 first aid/CPR) may do so; however, certification and credentialing must follow  
2 respective state laws and protocols.

3

#### 4 **Required Treatment for Burn Injuries**

5

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

8

9 After on-site medical response, initial medical stabilization, and evaluation are  
10 completed, the Agency Administrator or designee having jurisdiction for the  
11 incident and/or firefighter representative (e.g. Crew Boss, Medical Unit Leader,  
12 Compensations for Injury Specialist, etc.) should coordinate with the attending  
13 physician to ensure that a firefighter whose injuries meet any of the following  
14 burn injury criteria is immediately referred to the nearest regional burn center.

15

16 It is imperative that action is expeditious, as burn injuries are often difficult to  
17 evaluate and may take 72 hours to manifest themselves. These criteria are based  
18 upon American Burn Association criteria as warranting immediate referral to an  
19 accredited burn center.

20

21 The decision to refer the firefighter to a regional burn center is made directly by  
22 the attending physician or may be requested of the physician by the Agency  
23 Administrator or designee having jurisdiction and/or firefighter representative.

24

25 The Agency Administrator or designee for the incident will coordinate with the  
26 employee's home unit to identify a Workers Compensation liaison to assist the  
27 injured employee with workers compensation claims and procedures.

28 Workers Compensation benefits may be denied in the event that the attending  
29 physician does not agree to refer the firefighter to a regional burn center.

30

31 During these rare events, close consultation must occur between the attending  
32 physician, the firefighter, the Agency Administrator or designee and/or  
33 firefighter representative, and the firefighter's physician to assure that the best  
34 possible care for the burn injuries is provided.

35

#### 36 **Burn Injury Criteria**

- 37 • Partial thickness burns (second degree) involving greater than 5% Total  
38 Body Surface Area (TBSA).
- 39 • Burns (second degree) involving the face, hands, feet, genitalia, perineum,  
40 or major joints.
- 41 • Third-degree burns of any size are present.
- 42 • Electrical burns, including lightning injury are present.
- 43 • Inhalation injury is suspected.
- 44 • Burns are accompanied by traumatic injury (such as fractures).
- 45 • Individuals are unable to immediately return to full duty.

- 1 • When there is any doubt as to the severity of the burn injury, the  
2 recommended action should be to facilitate the immediate referral and  
3 transport of the firefighter to the nearest burn center.  
4
- 5 A list of burn care facilities can be found at:  
6 <http://www.blm.gov/nifc/st/en/prog/fire/im.html>.  
7
- 8 For additional NWCG incident emergency medical information see:  
9 <http://www.nwcg.gov/branches/pre/rmc/iems/index.html>  
10

### 11 **Explosives, Munitions, and Unexploded Ordnance**

12  
13 When encountering explosives, munitions, unexploded ordinance (UXO), or  
14 suspected UXO, never pick up, handle, uncover, or touch suspected explosives  
15 or military munitions. Retreat and secure the area from entry. Immediately  
16 notify the local dispatch office, and gather as much information as possible from  
17 a safe distance.

18  
19 Gather the following information and provide it to the dispatch center:

- 20 • Location of the explosive/munitions using a map, GPS coordinates, or  
21 landmarks (use of a GPS receiver is acceptable because it is a receive-only  
22 device).  
23 • Picture of the explosive if it can be obtained from a safe distance.  
24 • Who discovered the explosive/munitions and how they can be contacted.  
25 • Condition of the explosive/munitions (e.g., buried, partially exposed, fully  
26 exposed, deteriorated, or punctured).  
27 • Number and type of explosive/munitions visible (e.g., blasting caps,  
28 dynamite, bomb, grenade, etc.).  
29 • Estimated size of explosive/munitions (e.g., length and diameter).  
30 • Distinctive features of explosive/munitions (e.g., shape, color, markings).  
31 • Nearby structures, if any (so inhabitants can be contacted and evacuated if  
32 necessary).  
33 • Public access to the vicinity (i.e., open or closed to motor vehicles).  
34

35 Never spend more time near munitions, suspected explosives, or UXO than is  
36 absolutely necessary. Only collect the above information as long as it is safe to  
37 do so from a distance. Never compromise safety to collect information.  
38

### 39 **Notifications**

40 Local dispatch centers are responsible for notifying:

- 41 • Agency law enforcement;  
42 • Unit safety officer;  
43 • Agency Administrator; and  
44 • Local law enforcement.

1 **Discovery of Explosives/Munitions/UXO Associated with Former Defense**  
2 **Sites**

3 The military retains liability and responsibility for munitions removal and for  
4 remedial actions on all lands transferred (or transferring) from the military to the  
5 land management agencies, and is responsible for explosives safety at former  
6 defense sites. The military must be notified for all UXO on these lands.

7  
8 Local law enforcement is responsible for contacting the appropriate military  
9 authority. If the responsible military unit is unknown, then local law  
10 enforcement should contact the U.S. Army Forces Command (FORSCOM),  
11 52nd Ordnance Group (EOD), at its 24-hour emergency response number, (931)  
12 431-3824.

13  
14 For additional UXO safety information, see the current IRPG.

15  
16 **Industrial and Naturally Occurring Hazardous Exposures**

17  
18 Firefighters can potentially be exposed to hazards in the wildland fire  
19 environment. Encountered hazards can be both human and environmentally  
20 borne.

21  
22 This section provides information and mitigations for most commonly  
23 encountered industrial and naturally occurring potential exposures. Recognizing  
24 there may be unique/area specific hazardous exposures (e.g., fungus causing  
25 valley fever, erionite, coal seams), the following standards apply to all hazards:

- 26 • Identifying unit-specific environmental hazards;
- 27 • Develop Risk Assessments/Job Hazard Analyses (RA/JHAs) for those  
28 hazards;
- 29 • Develop and provide specific training and standard operating procedures  
30 (SOPs);
- 31 • Provide briefings/training for those who may be exposed;
- 32 • If exposure is suspected, immediately disengage and leave the area; and
- 33 • Seek immediate medical attention if exposure symptoms occur.

34  
35 **Dump and Spill Sites**

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

- 41 • Follow the procedures in the IRPG;
- 42 • Treat each site as if it contains harmful materials;
- 43 • Do not handle, move, or open any container, breathe vapors, or make  
44 contact with the material;
- 45 • Move a safe distance upwind from the site;

- 1 • Contact appropriate personnel. Generally, this is the Hazardous Materials  
2 Coordinator for the local office; and
- 3 • Firefighters need to immediately report hydrogen sulfide (H<sub>2</sub>S) or potential  
4 exposure and seek immediate medical care.
- 5 • *BLM/FWS/NPS - Agencies require that all field personnel complete First  
6 Responder Awareness training. Firefighters are required to take an annual  
7 refresher for Hazardous Material protocol.*

8  
9 The following general safety rules shall be observed when working with  
10 chemicals:

- 11 • Read and understand the Material Safety Data Sheets.
- 12 • Keep the work area clean and orderly.
- 13 • Use the necessary safety equipment.
- 14 • Label every container with the identity of its contents and appropriate  
15 hazard warnings.
- 16 • Store incompatible chemicals in separate areas.
- 17 • Substitute less toxic materials whenever possible.
- 18 • Limit the volume of volatile or flammable material to the minimum needed  
19 for short operation periods.
- 20 • Provide means of containing the material if equipment or containers should  
21 break or spill their contents.

### 22 23 **Responding to Wildland Fires in or near Oil/Gas Operations**

24 For those offices with oil and gas operations within their fire suppression  
25 jurisdiction, the following is the minimum standard operating procedures to help  
26 ensure the health and safety of wildland firefighters:

- 27 • Firefighters shall receive annual oil and gas hazard recognition and  
28 mitigation training;
- 29 • Local unit shall complete a JHA/RA for wildland fire suppression activities  
30 in oil and gas areas and provide a copy with a briefing to all local and  
31 incoming resources;
- 32 • Establish Response Protocols and proper decontamination procedures to  
33 minimize exposure to additional employees, equipment, and facilities.  
34 Protocols will include notification procedures to respective oil and gas  
35 company(s);
- 36 • Ensure oil and gas resource advisors are consulted;
- 37 • Ensure that at least one member of each squad or engine crew is  
38 knowledgeable in the use and data interpretation of the H<sub>2</sub>S gas monitor.  
39 Training on the device will include at a minimum:
  - 40 ○ Equipment charging and maintenance of sensors;
  - 41 ○ Startup, zeroing, calibration, and bump testing procedures as  
42 recommended by the manufacturer; and
  - 43 ○ How the monitor elicits a warning alarm (visual, auditory, vibration).
- 44 • Understand Peak Reading, Short Term Exposure Limits (STEL), and Time  
45 Weighted Averages;

- 1     ○ Understand how to set the monitors alarm threshold.
- 2     ● The monitor's alarm shall be set at the current American Conference on
- 3       Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (10
- 4       PPM 2008) and STEL (15 PPM 2008);
- 5     ● If H<sub>2</sub>S gas is encountered, immediately disengage and leave area; and
- 6     ● Do not establish incident base camps or staging areas in or near oil and gas
- 7       operations.
- 8
- 9     The following websites provide additional information and training resources:
- 10    ● <http://www.nifc.gov/video/HazMat.wmv>
- 11    ● <http://iirdb.wildfirelessons.net/main/Reviews.aspx>
- 12    ● [www.nfpa.org/assets/files/pdf/Sup10.pdf](http://www.nfpa.org/assets/files/pdf/Sup10.pdf)
- 13

#### 14 **Responding to Wildland Fires in or Near Radioactive Locations**

- 15 Abandoned uranium mines and other potential radioactive sites exist in many
- 16 areas of public lands. When these areas are identified, local management should
- 17 provide information and direction on operations to be used. General knowledge
- 18 and understanding of potential radiation exposure is necessary for wildland fire
- 19 program management to make valid risk management decisions in these areas.
- 20 The following websites provide this information and general guidelines:
- 21    ● [http://www.nifc.gov/policies/red\\_book/doc/RadiationDocument.pdf](http://www.nifc.gov/policies/red_book/doc/RadiationDocument.pdf)
  - 22    ● [http://www.nifc.gov/policies/red\\_book/doc/RadiationGuidance.pdf](http://www.nifc.gov/policies/red_book/doc/RadiationGuidance.pdf)
  - 23

#### 24 **Hazardous Water Sources**

- 25 Many water sources used during fire suppression activities may appear
- 26 harmless, but contain hazardous materials (e.g. hydraulic fracturing fluid,
- 27 cyanide, sewage, corrosives). These hazardous water sources may pose threats
- 28 to personnel health and firefighting equipment. Indicators that a water source
- 29 may be hazardous include proximity to active or inactive mining operations,
- 30 gas/oil wells, water treatment facilities, or other industrial operations. In many
- 31 cases, these hazardous water sources may not be fenced and no warning signs
- 32 may be present.
- 33

- 34 Suppression personnel should evaluate water sources to ensure they do not
- 35 contain hazardous materials. If unsure of the contents of a water source,
- 36 personnel should not utilize the water source until its contents can be verified.
- 37 Dispatch centers, Resource Advisors, or on-scene personnel can assist with
- 38 verification of safe water sources. Information about known hazardous water
- 39 sources should be included in operational briefings.
- 40

#### 41 **Hydrogen Cyanide (HCN) Exposure**

- 42 Synthetic materials such as plastics, nylon, Styrofoam®, and polyurethane can
- 43 produce HCN. HCN exposure can disrupt the body's ability to use oxygen,
- 44 cause asphyxia, and cause carbon monoxide poisoning. Common items such as

1 sofas, carpeting, vehicles, and other products routinely found in the wildland can  
2 produce smoke with HCN.

3

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

7

8 Follow hazardous materials protocols contained in the IRPG to mitigate  
9 exposure to HCN. If personnel may have been exposed to HCN, immediate  
10 referral to a health care facility capable of toxicology testing and treatment of  
11 HCN exposure is required.

12

### 13 **Safety for Non-Operational Personnel Visiting Fires**

14

15 A wide variety of personnel such as Agency Administrators, other agency  
16 personnel, dignitaries, members of the news media, etc., may visit incidents.  
17 The following standards apply to all visitors.

18

#### 19 **Visits to an Incident Base**

20 Recommended field attire for visits to incident base camps and other non-  
21 fireline field locations:

- 22 • Lace-up, closed toe shoes/boots with traction soles and ankle support.
- 23 • Trousers.
- 24 • Long-sleeve shirt.
- 25 • For agency personnel, the field uniform is appropriate.

26

#### 27 **Fireline Logistical Support**

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

- 31 • Complete fire shelter training
- 32 • Fireline PPE
- 33 • Receive an incident briefing
- 34 • Ensure adequate communications are established
- 35 • Other requirements (if any) established by the Incident Commander
- 36 • A Work Capacity Test (WCT) is not required unless required for a specific  
37 position defined in the PMS 310-1.

38

#### 39 **Minimum Requirements for Visits to the Fireline/RX Burns**

40 Visits (such as media visits or political/administrative tours) to hazardous areas  
41 of the fire or areas that pose a fire behavior threat will be managed by meeting  
42 the requirements below.

- 43 • Visits to the fireline must have the approval of the IC/Burn Boss.
- 44 • Visitors must maintain communications with the DIVS or appropriate  
45 fireline supervisor of the area they are visiting.

- 1 • Required PPE:
- 2     ○ Wildland fire boots.
- 3     ○ Yellow long-sleeved flame resistant shirts.
- 4     ○ Flame resistant trousers.
- 5     ○ Hard hat with chinstrap.
- 6     ○ Leather or leather/flame resistant combination gloves. Flight gloves
- 7         are not approved for fireline use.
- 8     ○ Fire shelter (M-2002), must also receive fire shelter training.
- 9 • Required field attire:
- 10    ○ Undergarments made of 100 percent or the highest possible content of
- 11       natural fibers or flame-resistant materials.
- 12 • Required equipment/supplies:
- 13    ○ Hand tool.
- 14    ○ Water canteen.

15  
16 Visitors to the Fireline/RX Burns may be “Non-Escorted” or “Escorted”  
17 depending on the following requirements:

#### 18 **Non-Escorted Visits**

19 Visitors must have an incident qualification with a minimum physical fitness  
20 level of “light” to visit the fireline unescorted.

- 21 • Must have adequate communications and radio training.
- 22 • Completed the following training:
- 23     ○ Introduction to Fire Behavior (S-190).
- 24     ○ Firefighter Training (S-130).
- 25     ○ Annual Fireline Safety Refresher Training, including fire shelter
- 26         training.
- 27
- 28 • Deviation from this requirement must be approved by the IC or Burn Boss.
- 29 The law enforcement physical fitness standard is accepted as equivalent to a
- 30 “light” WCT work category.

#### 31 **Escorted Visits**

32 All non-incident, non-agency visitors lacking the above training and physical  
33 requirements must be escorted while on the fireline.

- 34 • Visitors must receive training in the proper use of PPE.
- 35 • Requirement for hand tool and water to be determined by escort.
- 36 • Visitors must be able to walk in mountainous terrain and be in good
- 37     physical condition with no known limiting conditions.
- 38 • Escorts must be minimally qualified as Single Resource Boss. Any
- 39     deviation from this requirement must be approved by the IC or Burn Boss.
- 40

#### 41 **Helicopter Observation Flights**

42 Visitors who take helicopter flights to observe fires must receive approval from  
43 the Incident Commander, a passenger briefing, and meet the following  
44 requirements:  
45

- 1 • Required PPE:
  - 2     o Flight helmet
  - 3     o Leather boots
  - 4     o Flame-resistant clothing
  - 5     o All leather or leather and aramid gloves
- 6 Occasional passengers/visitors have no training requirement, but a qualified  
7 flight manager must supervise loading and unloading of passengers.

#### 9 **Fixed-Wing Observation Flights**

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

#### 14 **Six Minutes for Safety Training**

16 It is recommended that daily Six Minutes for Safety training be conducted that  
17 focuses on high-risk, low frequency activities that fire personnel may encounter  
18 during a fire season. A daily national Six Minutes for Safety briefing can be  
19 found at: [http://www.nifc.gov/sixminutes/dsp\\_sixminutes.php](http://www.nifc.gov/sixminutes/dsp_sixminutes.php) or the National  
20 Incident Management Situation Report.

#### 22 **SAFENET**

24 SAFENET is a form, process, and method for reporting and resolving safety  
25 concerns encountered in any aspect (e.g., preparedness, training, etc.) of  
26 wildland fire or all hazard incident management. The information provided on  
27 the form will provide important, safety-related data to the National Interagency  
28 Fire Center, and determine long-term trends and problem areas.

29 The objectives of the form and process are:

- 30 • To provide immediate reporting and correction of unsafe situations or close  
31 calls in wildland fire.
- 32 • To provide a means of sharing safety information throughout the fire  
33 community.
- 34 • To provide long-term data that will assist in identifying trends.
- 35 • Primarily intended for wildland and prescribed fire situations, however,  
36 SAFENET can be used for training and all hazard events.

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

45 SAFENET is not the only way to correct a safety-related concern and it does not  
46 replace accident reporting or any other valid agency reporting method. It is an



- 1 efficient way to report a safety concern. It is also a way for front line  
2 firefighters to be involved in the daily job of being safe and keeping others safe,  
3 by documenting and helping to resolve safety issues. SAFENETs may be filed:  
4 • Electronically at <http://safenet.nifc.gov>;  
5 • Verbally by telephone at 1-888-670-3938; or  
6 • By SAFENET Field Card

7  
8 The SAFENET Field Card is can be used by wildland fire personnel to  
9 immediately identify and report unsafe situations or close calls that should  
10 receive immediate resolution/mitigation. If the situation cannot be resolved at  
11 the local/incident level, the reporting individual is encouraged to follow the  
12 formal SAFENET submission process stated above. SAFENET Field Cards are  
13 available at: <http://safenet.nifc.gov>

#### 14 **Accident/Injury Reporting**

15  
16  
17 The Occupational Safety and Health Administration (OSHA) mandates that all  
18 accidents and injuries be reported in a timely manner. This is important for the  
19 following reasons:

- 20 • To protect and compensate employees for incidents that occur on-the-job.  
21 • To assist supervisors and safety managers in taking corrective actions and  
22 establish safer work procedures.  
23 • To determine if administrative controls or personal protective equipment are  
24 needed to prevent a future incident of the same or similar type.  
25 • To provide a means for trend analysis.

26  
27 Employees are required to immediately report to their supervisor every job-  
28 related accident. Managers and supervisors shall ensure that an appropriate  
29 level of investigation is conducted for each accident and record all personal  
30 injuries and property damage. Coordinate with your human resources office or  
31 administrative personnel to complete appropriate Office of Worker's  
32 Compensation (OWCP) forms. Reporting is the responsibility of the injured  
33 employee's home unit regardless of where the accident or injury occurred.

- 34 • **DOI-** employees will report accidents using the Safety Management  
35 Information System (SMIS) at <https://www.smis.doi.gov/>. Supervisors shall  
36 complete SMIS report within six working days after the accident/injury.  
37 • **FS-** employees will use the Safety and Health Information Portal System  
38 (SHIPS) through the Forest Service Dashboard at  
39 [http://fsweb.asc.fs.fed.us/HRM/owcp/WorkersComp\\_index.php](http://fsweb.asc.fs.fed.us/HRM/owcp/WorkersComp_index.php)

#### 40 **Critical Incident Management**

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42  
43 The NWCG has published the *Agency Administrator's Guide to Critical*  
44 *Incident Management* (PMS 926). This guide is designed as a working tool to  
45 assist Agency Administrators with the chronological steps in managing a critical

1 incident. This document includes a series of checklists, which outline Agency  
2 Administrator's and other functional area's oversight and responsibilities. The  
3 guide is not intended to replace local emergency plans or other specific guidance  
4 that may be available, but should be used in conjunction with existing SOPs.  
5 Local units should complete the guide, and review and update at least annually.  
6 This guide is only available electronically at:  
7 <http://www.nwcg.gov/pms/pubs/pubs.htm>.

8

### 9 **Critical Incident Stress Management (CISM)**

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11 A critical incident may be defined as a fatality or other event that can have  
12 serious long term affects on the agency, its employees and their families or the  
13 community. Such an event may warrant stress management assistance. The  
14 local Agency Administrator may choose to provide CISM for personnel that  
15 have been exposed to a traumatic event.

16

17 The availability of CISM teams and related resources (e.g. defusing teams)  
18 varies constantly - it is imperative that local units pre-identify CISM resources  
19 that can support local unit needs. Some incident management teams include  
20 personnel trained in CISM who can provide assistance.