

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:

- *Wildland Fire Incident Management Field Guide (PMS 210)*
- *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 by identifying hazards.
- Assessing hazard potential.
- Developing hazard controls and making risk management decisions.
- Implementing hazard controls.
- Supervising implementation and evaluating effectiveness.

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](http://web.blm.gov/portal/employeeresources/allemployees/safety/riskmanagement.php)*
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**

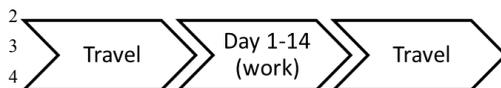
34 **Assignment Definition**

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 2014**

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 • **BLM/FWS-** *After completion of a 14-day assignment and return travel, the*
33 *mandatory days off will be charged to Administrative Leave if they fall on a*
34 *regularly-scheduled work day.*

35

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

41

42 **Assignment Extension**

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

46

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

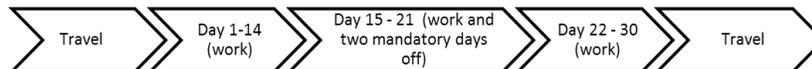
6
 7 Upon completion of the standard 14-day assignment, an extension of up to an
 8 additional 14 days may be allowed (for a total of up to 30 days, inclusive of
 9 mandatory days off, and exclusive of travel).

10 21-Day Scenario



15
 16 A 21-day assignment is exclusive of travel from and to home unit. Time spent
 17 in staging and preposition status counts toward the 21-day assignment,
 18 regardless of pay status, for all personnel, including Incident Management
 19 Teams.

20 30-Day Scenario



24
 25 An assignment longer than 22 days is exclusive of travel from and to home unit.
 26 Time spent in staging and preposition status counts toward the assignment,
 27 regardless of pay status, for all personnel, including Incident Management
 28 Teams. For an assignment exceeding 21 days, two mandatory days off will be
 29 provided prior to the 22nd day of the assignment.

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

37 **Single Resource/Kind Extensions**

38 The section chief or Incident Commander will identify the need for assignment
 39 extension and will obtain the affected resource's concurrence. The section chief
 40 and affected resource will acquire and document the home unit supervisor's
 41 approval.

42
 43
 44 The Incident Commander approves the extension. If a convened Geographic or
 45 National Multi-Agency Coordinating Group (GMAC/NMAC) directs, the
 46 Incident Commander approves only after GMAC/NMAC concurrence.

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

4 **Incident Management Team Extensions**

6 Incident Management Team extensions are to be negotiated between the incident
7 Agency Administrator, the Incident Commander, and the GMAC/NMAC (if
8 directed).

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

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

12 **Driving Standard**

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

17
18 The use of government-owned, rented, or leased motor vehicles is for official
19 business only. Unauthorized use is prohibited.

20 **General Driving Policy**

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

- 1 the employee will be responsible for costs associated with additional
2 testing.
- 3 ○ **BLM-** *BLM Form 1112-11 will be used to document every fire and*
4 *aviation employee's authorization to drive government vehicles or to*
5 *drive private or rental vehicles for government business. BLM Form*
6 *1112-11 replaces form OF-345, form DI-131, and any equivalent form*
7 *that has been created for local or state level use. Employees are*
8 *required to self-certify their physical ability to operate vehicles which*
9 *they are authorized to use. Drivers of vehicles that require a*
10 *Commercial Driver's License may be required to have additional*
11 *driver, medical, and fitness testing as required by local and/or state*
12 *laws. Employees will immediately inform their supervisor and update*
13 *BLM Form 1112-11 if a change in medical condition impedes their*
14 *driving ability or if a state driving privilege is restricted for any*
15 *reason. Supervisors will review the updated form and take appropriate*
16 *action as necessary. BLM Form 1112-11 is available at:*
17 *<http://web.blm.gov/blmforms/>*
 - 18 ○ **FS -** *Policy requires all operators of government owned, or leased*
19 *vehicles to have a Forest Service issued Operator's Identification Card*
20 *(OF-346) indicating the type of vehicles or equipment the holder is*
21 *authorized and qualified to operate.*
 - 22 ○ **BLM/FWS/NPS –** *The DOI has granted wildland fire agencies a*
23 *waiver to allow employees between the ages of 18 and 21 to operate*
24 *agency commercial fire vehicles using a state issued CDL under the*
25 *specific conditions as stated below:*
 - 26 ■ *Drivers with a CDL may only drive within the state that has issued*
27 *the CDL and must comply with the state's special requirements*
28 *and endorsements.*
 - 29 ■ *These drivers must only drive vehicles that are equipped with visible*
30 *and audible signals, and are easily recognized as fire fighting*
31 *equipment. This excludes, but is not limited to, school buses used*
32 *for crew transport and "low-boy" tractor trailers used for*
33 *construction equipment transport.*
 - 34 ■ *Supervisors must annually establish and document that these drivers*
35 *have a valid license (i.e. that the license has not been suspended,*
36 *revoked, canceled, or that the employee has not been otherwise*
37 *unqualified from holding a license - 485 DM 16.3.B (1), ensure*
38 *that the employee has the ability to operate the vehicle(s) safely in*
39 *the operational environment assigned (485 DM 16.3.B (2), and*
40 *review and validate the employee's driving record (485 DM*
41 *16.3.B(4)).*
 - 42 ○ **NPS-** *For NPS employees engaged in activities other than wildfire or*
43 *prescribed fire, refer to the current NPS Official Travel Driving Policy*
44 *for restrictions.*
 - 45 ● **BLM/FWS/NPS-** *Employees, volunteers, and contractors (for BLM, this*
46 *includes co-operators) are prohibited from using any mobile voice/data*

- 1 *communication or electronic data retrieval device while operating a*
2 *government owned, leased, or rented vehicle or while operating a*
3 *personally-owned vehicle for official government business, and are further*
4 *prohibited from using any government-owned mobile communication or*
5 *data retrieval device while operating a personally-owned vehicle.*
6 *Government purchased two-way radios are exempt from this requirement.*
7 *The use of any of these devices during an emergency situation (immediate*
8 *threat to life) is limited to the extent necessary to convey vital information.*
9 *When there is a passenger in the vehicle and the vehicle is in motion, the*
10 *passenger shall manage communications to prevent driver distraction.*
11 • **FS-** *Drivers shall not engage in cellular phone or mobile radio*
12 *communications while the vehicle is in motion unless actively engaged in an*
13 *emergency such as wildland firefighting. During non-emergency situations,*
14 *the driver shall identify a safe location to stop the vehicle and then engage*
15 *in cellular phone or mobile radio communications. These restrictions apply*
16 *whether or not hands-free technology is available.*
17

18 **Non-Incident Operations Driving**

19 Refer to the current driving standards for each individual agency.
20

21 **Mobilization and Demobilization**

22 To manage fatigue, every effort should be made to avoid off unit (excluding IA
23 response) mobilization and demobilization travel between 2200 hrs and 0500
24 hrs.
25

26 **Incident Operations Driving**

- 27 This policy addresses driving by personnel actively engaged in wildland fire or
28 all-hazard activities; this includes driving while in support, mobilization, and
29 demobilization to an assigned incident, or during initial attack fire response
30 (includes time required to control the fire and travel to a rest location).
31 • Agency resources assigned to an incident or engaged in initial attack fire
32 response will adhere to the current agency work/rest policy for determining
33 length of duty day.
34 • No driver will drive more than 10 hours (behind the wheel) within any duty-
35 day.
36 • Multiple drivers in a single vehicle may drive up to the duty-day limitation
37 provided no driver exceeds the individual driving (behind the wheel) time
38 limitation of 10 hours.
39 • A driver shall drive only if they have had at least 8 consecutive hours off
40 duty before beginning a shift. Exception to the minimum off-duty hour
41 requirement is allowed when essential to:
42 ○ Accomplish immediate and critical suppression objectives.
43 ○ Address immediate and critical firefighter or public safety issues.
44 • As stated in the current agency work/rest policy, documentation of
45 mitigation measures used to reduce fatigue is required for drivers who
46 exceed 16 hour work shifts. This is required regardless of whether the

1 driver was still compliant with the 10 hour individual (behind the wheel)
2 driving time limitations.

3

4 **Fire Vehicle Operation Standards**

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

10

11 **Management Controls to Mitigate Exposure**

12

13 Management controls, engineering controls, equipment guards, and
14 administrative procedures are the first line of defense against exposing an
15 employee to a hazard. Personal Protective Equipment (PPE) will be used to
16 protect employees against hazards that exist after all management controls are
17 exhausted.

18

19 **Wildland Fire Field Attire**

20

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

25

26 **Personal Protective Equipment (PPE)**

27

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

31

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

37

38 Any modification to Personal Protective Equipment that reduces its protection
39 capability such as iron-on logos, and sagging of pants, is an unacceptable
40 practice and will not be allowed on fires.

41

42 **Required Fireline PPE includes:**

- 43 ● Wildland fire boots
- 44 ● Fire shelter (M-2002)
- 45 ● Hard hat with chinstrap
- 46 ● Goggles/safety glasses (as identified by JHAs/RAs)

Release Date: January 2014

- 1 • Ear plugs/hearing protection
- 2 • Yellow long-sleeved flame resistant shirt
- 3 • Flame resistant trousers
- 4 • Leather or leather/flame resistant combination gloves. Flight gloves are not
- 5 approved for fireline use.
- 6 • Additional PPE as identified by local conditions, material safety data sheet
- 7 (MSDS), or JHA/RA
- 8
- 9 ○ *FS- Shirt, trousers, and gloves used by USFS personnel must meet*
- 10 *Forest Service specification 5100-91 (shirt), 5100-92 (trousers), 6170-*
- 11 *5 (gloves), or be certified to the National Fire Protection Association*
- 12 *(NFPA) 1977, Standard on Protective Clothing and Equipment for*
- 13 *Wildland Fire Fighting.*

14

15 **Wildland Fire Boot Standard**

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

20

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

- 24 • *DOI- The DOI has issued policy authorizing payment of a boot stipend by*
- 25 *DOI agencies. See agency-specific guidance for implementation of the DOI*
- 26 *policy.*

27

28 **Fire Shelters**

29 New Generation Fire Shelters (M-2002, Forest Service Specification 5100-606)
30 are required for all wildland firefighters. For more information, refer to
31 http://www.nifc.gov/fireShelt/fshelt_main.html

32

33 Training in inspection and deployment of New Generation Fire Shelters will be
34 provided prior to issuance. Firefighters will inspect their fire shelters at the
35 beginning of each fire season and periodically throughout the year, to ensure
36 they are serviceable.

37

38 Training shelters will be deployed at required Annual Fireline Safety Refresher
39 Training. No live fire exercises for the purpose of fire shelter deployment
40 training will be conducted.

41

42 Fire shelters will be carried in a readily accessible manner by all line personnel.
43 The deployment of shelters will not be used as a tactical tool. Supervisors and
44 firefighters must never rely on fire shelters instead of using well-defined escape
45 routes and safety zones. When deployed on a fire, fire shelters will be left in
46 place if it is safe to do so and not be removed pending approval of authorized

1 investigators. Firefighters must report the shelter deployment incident to their
2 supervisor as soon as possible.

3

4 **Head Protection**

5 Personnel must be equipped with hardhats and wear them at all times while on
6 the fireline. Hardhats must be equipped with a chinstrap, which must be
7 fastened while riding in, or in the vicinity of, helicopters.

8 Acceptable hardhats for fireline use are:

- 9 • “Wildland Firefighter’s Helmet” listed in a current or past edition of the
10 GSA Wildland Fire Equipment Catalog. To view a current catalog, go to
11 www.gsa.gov/fireprogram; or
- 12 • equivalent hardhat meeting the *(NFPA) 1977 Standard on Protective*
13 *Clothing and Equipment for Wildland Fire Fighting* requirements, or
- 14 • equivalent hardhat meeting ANSI Z89.1-2003 Type 1, Class G or ANSI
15 Z89.1-2009 Type 1, Class G.

16

17 Hardhats consist of two components - the shell and the suspension - which work
18 together as a system. Alteration of either of these components compromises the
19 effectiveness of the system (e.g. wearing hardhat backwards) and is not allowed.
20 Both components require periodic inspection and maintenance. The useful
21 service life begins when the hardhat is put into service, not the manufacture date
22 specified on the hardhat. Specific inspection and maintenance instructions are
23 found in Missoula Technology and Development Center (MTDC) Tech Tip
24 publication, *Your Hardhat: Inspection and Maintenance* (0267-2331-MTDC).
25 <http://www.fs.fed.us/t-d/pubs/htmlpubs/htm02672331/index.htm> and the
26 Hardhat Update: Summer 2012 Notice also issued by MTDC at
27 <http://www.fs.fed.us/t-d/pubs/htmlpubs/htm12512825/>.

28

29 **Eye and Face Protection**

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

- 32 • Nozzle operator
 - 33 • Chainsaw operator/faller
 - 34 • Helibase and ramp personnel
 - 35 • Wildland fire chemical mixing personnel
 - 36 • Other duties may require eye protection as identified in a specific JHA/RA
- 37 Full face protection in the form of a face shield in compliance with *ANSI Z87.1*
38 shall be worn when working in any position where face protection has been
39 identified as required in the job specific JHA/RA: Batch Mixing for Terra-
40 Torch®, power sharpener operators, etc.

41

42 **Hearing Protection**

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

- 45 • Chainsaw operators/fallers.

- 1 • Pump operators.
- 2 • Helibase and aircraft ramp personnel.
- 3 • Wildland fire chemical mixing personnel.

4
5 Other duties may require hearing protection as identified in a specific JHA/RA.
6 Employees may be required to be placed under a hearing conservation program
7 as required by 29 CFR 1910.95. Consult with local safety & health personnel
8 for specifics regarding unit hearing conservation programs.

9 10 **Neck Protection**

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

15
16 Shrouds should be positioned in a manner that allows for immediate use. For
17 additional information see MTDC Tech Tip *Improved Face and Neck Shroud*
18 *for Wildland Firefighters, 2004* (0451-2323-MTDC).
19 <http://fsweb.mtdc wo.fs.fed.us/pubs/htmlpubs/htm04512323/index.htm>

20 21 **Leg Protection**

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

30 31 **Respiratory Protection**

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

36
37 Only NIOSH-approved respirators shall be used. Several respiratory-type
38 products are marketed to wildland firefighters but are not NIOSH-approved (e.g.
39 shrouds with filtration devices).

40
41 Managers and supervisors will not knowingly place wildland firefighters in
42 positions where exposure to toxic gases or chemicals that cannot be mitigated
43 and would require the use of self-contained breathing apparatus.

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

- 1 • **FS - FSM – 5130- Self-Contained Breathing Apparatus - Wildland**
2 *firefighters may use only SCBA which are compliant with NFPA 1981,*
3 *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for*
4 *Emergency Services. SCBA may only be used when contaminants from*
5 *vehicle, dump, structure, or other non-wildland fuel fire cannot be avoided*
6 *while meeting wildland fire suppression objectives (29 CFR 1910.134,*
7 *Respiratory Protection). If such an apparatus is not available, avoid*
8 *exposure to smoke from these sources. The acquisition, training, proper*
9 *use, employee health surveillance programs, inspection, storage, and*
10 *maintenance of respiratory protection equipment must comply with*
11 *applicable National Fire Protection Association standards and 29 CFR*
12 *1910.134, and be justified by a Job Hazard Analysis. Where the acquisition*
13 *and use of an SCBA is approved, it may be carried only on a fire engine and*
14 *its use must be consistent with FSM 5130.*

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

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

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

30 **High Visibility Vests**

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

34 Employees must wear high visibility safety apparel that meets ANSI/ISEA 107-
35 2004, Class 2 or 3, or ANSI/ISEA 207-2006.

37 Exceptions:

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

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

45 Additional information is available in the Missoula Technology and
46 Development Center (MTDC) report, *High-Visibility Garments and Worker*

1 *Safety on Roadways* (1251-2818P-MTDC).
2 <http://fsweb.mtdc.wv.fs.fed.us/pubs/htmlpubs/html12512818>

3

4 **Fireline Safety**

5

6 **Incident Briefings**

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

13

14 **LCES - A System for Operational Safety**

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

- 17 • L - Lookout(s)
- 18 • C - Communication(s)
- 19 • E - Escape Route(s)
- 20 • S - Safety Zone(s)

21

22 **Right to Refuse Risk**

23 Every individual has the right to turn down unsafe assignments. When an
24 individual feels an assignment is unsafe, they also have the obligation to
25 identify, to the degree possible, safety alternatives for completing that
26 assignment. The IRPG contains a process for properly refusing risk.

27

28 **Smoke and Carbon Monoxide**

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

34

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

41

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

43 Fire camps should be located in areas that will service the incident for the long
44 term without having to relocate. Due to such factors as extreme fire behavior,
45 fire camp locations might be compromised. Incident Commanders are to be
46 especially vigilant to quickly identify situations that may put their fire camp(s)

- 1 or any other adjacent fire camps in jeopardy. As such, planning for evacuation
2 and/ or remain in place actions should be considered. Evacuation plans at a
3 minimum shall include:
- 4 • Documented risk assessment
 - 5 • Trigger points
 - 6 • Egress routes
 - 7 • Transportation for all personnel
 - 8 • Accountability for all personnel
 - 9 • Those individuals not meeting 310-1 qualifications will be considered
10 escorted visitors as addressed elsewhere in this chapter.
 - 11 ○ **FS-** *At a minimum, plans shall also include:*
 - 12 ■ *ICP protection strategy referenced in the IAP.*
 - 13 ■ *Live-ability considerations including air quality, functionality of*
14 *location and facilities, and safety factors for post burn conditions.*

16 **Standard Safety Flagging**

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

- 19 • Hot-pink flagging marked “Escape Route” (NFES 0566). Crews with
20 colorblind members may wish to carry and utilize fluorescent chartreuse
21 flagging (NFES #2396).
- 22 • Hazards. Yellow with black diagonal stripes, 1 inch wide (NFES 0267). If
23 the above recommendation is not utilized on an incident, the incident will
24 need to identify the selected color and make it known to all firefighters.

26 **Emergency Medical Planning and Services**

27
28 To provide for quick and effective response, all units (including dispatch
29 centers) will develop and implement plans that specify emergency procedures,
30 actions, and roles/responsibilities to ensure injured personnel are provided
31 prompt and effective medical care and evacuation.

33 **Incident Emergency Management Planning**

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

38
39 Although some of the procedures are specific to larger Type 1 and Type 2
40 incidents when key unit leader positions are filled, these same procedures and
41 protocols can be adapted for local unit use when managing Type 5, 4, and 3
42 incidents as well as during normal field operations. Local unit emergency
43 medical plans must take into account all types and management levels of
44 incidents.

45

- 1 To achieve successful medical response, Agency Administrators will ensure that
2 their units have completed the following items prior to each field season:
- 3 • An Incident Emergency Plan that identifies medical evacuation options,
4 local/county/state/federal resource capabilities, capacities, ordering
5 procedures, cooperative agreements, role of dispatch centers, and key
6 contacts or liaisons;
 - 7 • Standardized communication center protocols that include the following
8 components:
 - 9 ○ Determine the nature of the emergency;
 - 10 ○ If the emergency is a medical injury/illness, determine if the
11 injury/illness is life threatening;
 - 12 ○ If the injury is life threatening, then clear designated frequency for
13 emergency traffic;
 - 14 ○ Identify the on-scene point of contact by position and last name (i.e.
15 TFLD Smith);
 - 16 ○ Ensure that the Medical Unit Leader (if assigned) is contacted
17 immediately;
 - 18 ○ Identify number injured, patient assessment(s) and location (geographic
19 and/or GPS coordinates);
 - 20 ○ Identify on-scene medical personnel by position and last name (i.e.
21 EMT Jones);
 - 22 ○ Identify preferred method of patient transport;
 - 23 ○ Determine any additional resources or equipment needed;
 - 24 ○ Document all information received and transmitted on the radio or
25 phone;
 - 26 ○ Document any changes in the on-scene point of contact or medical
27 personnel as they occur;
 - 28 • For incidents that require the preparation of an IAP, an incident medical
29 plan that satisfies the requirements found in NWCG memo number 025-
30 2010 is required, and will include an expanded block eight of the ICS-206
31 Medical Plan detailing available resources (ground and air), roles,
32 responsibilities, and hazard mitigations.

33
34 For more information, refer to NWCG 025-2010 at
35 <http://www.nwcg.gov/general/memos/nwcg-025-2010.html>

37 **Air Ambulance Coordination**

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

43 **Incident Emergency Medical Services**

44 Agencies will follow interim NWCG minimum standards for incident
45 emergency medical services as defined in Appendix K (NWCG#011-2208) to
46 assist wildland fire Incident Commanders with determining the level and

1 number of emergency medical resources and related supplies needed based upon
2 the number of incident personnel. This standard as well as other incident
3 medical information can be found on the NWCG Incident Emergency Medical
4 Subcommittee website at:
5 <http://www.nwcg.gov/branches/pre/rmc/iems/index.html>

6
7 Incidents that have established Medical Units shall follow the direction as
8 outlined in *Interim NWCG Minimum Standards for Medical Units Managed By*
9 *NWCG Member Agencies* at:
10 [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)
11 [medical_units.pdf](http://www.nwcg.gov/branches/pre/rmc/iems/policyguides/minimum_stds_for_medical_units.pdf)

12
13 NWCG has published *Clinical Treatment Guidelines for Wildland Fire Medical*
14 *Units (PMS 551)*. These guidelines establish a national approach for medical
15 care during large incidents that expand the typical emergency management and
16 services (EMS) scope of practice to include the mission of managing and
17 maintaining the health and wellness of wildland fire personnel. These
18 guidelines are available at:
19 <http://www.nwcg.gov/branches/pre/rmc/iems/index.html>

20
21 Home units that choose to utilize and support higher level medical responders to
22 provide medical support for internal agency medical emergencies (beyond basic
23 first aid/CPR) may do so; however, certification and credentialing must follow
24 respective state laws and protocols.

25 26 **Required Treatment for Burn Injuries**

27
28 The following standards will be used when any firefighter sustains burn injuries,
29 regardless of agency jurisdiction.

30
31 After on-site medical response, initial medical stabilization, and evaluation are
32 completed, the Agency Administrator or designee having jurisdiction for the
33 incident and/or firefighter representative (e.g. Crew Boss, Medical Unit Leader,
34 Compensations for Injury Specialist, etc.) should coordinate with the attending
35 physician to ensure that a firefighter whose injuries meet any of the following
36 burn injury criteria is immediately referred to the nearest regional burn center.
37 It is imperative that action is expeditious, as burn injuries are often difficult to
38 evaluate and may take 72 hours to manifest themselves. These criteria are based
39 upon American Burn Association criteria as warranting immediate referral to an
40 accredited burn center.

41
42 The decision to refer the firefighter to a regional burn center is made directly by
43 the attending physician or may be requested of the physician by the Agency
44 Administrator or designee having jurisdiction and/or firefighter representative.

45

1 The Agency Administrator or designee for the incident will coordinate with the
2 employee's home unit to identify a workers compensation liaison to assist the
3 injured employee with workers compensation claims and procedures.
4 Workers compensation benefits may be denied in the event that the attending
5 physician does not agree to refer the firefighter to a regional burn center.

6
7 During these rare events, close consultation must occur between the attending
8 physician, the firefighter, the Agency Administrator or designee and/or
9 firefighter representative, and the firefighter's physician to assure that the best
10 possible care for the burn injuries is provided.

11 **Burn Injury Criteria**

- 12 • Partial thickness burns (second degree) involving greater than 5% Total
13 Body Surface Area (TBSA).
- 14 • Burns (second degree) involving the face, hands, feet, genitalia, perineum,
15 or major joints.
- 16 • Third-degree burns of any size are present.
- 17 • Electrical burns, including lightning injury are present.
- 18 • Inhalation injury is suspected.
- 19 • Burns are accompanied by traumatic injury (such as fractures).
- 20 • Individuals are unable to immediately return to full duty.
- 21 • When there is any doubt as to the severity of the burn injury, the
22 recommended action should be to facilitate the immediate referral and
23 transport of the firefighter to the nearest burn center.
- 24
- 25

26 A list of burn care facilities can be found at:
27 <http://www.blm.gov/nifc/st/en/prog/fire/im.html>.

28
29 For additional NWCG incident emergency medical information see:
30 <http://www.nwcg.gov/branches/pre/rmc/iems/index.html>

31 **Explosives, Munitions, and Unexploded Ordnance**

32
33
34 When encountering explosives, munitions, unexploded ordinance (UXO), or
35 suspected UXO, never pick up, handle, uncover, or touch suspected explosives
36 or military munitions. Retreat and secure the area from entry. Immediately
37 notify the local dispatch office, and gather as much information as possible from
38 a safe distance.

39 Gather the following information and provide it to the dispatch center:

- 40 • Location of the explosive/munitions using a map, GPS coordinates, or
41 landmarks (use of a GPS receiver is acceptable because it is a receive-only
42 device).
- 43 • Picture of the explosive if it can be obtained from a safe distance.
- 44 • Who discovered the explosive/munitions and how they can be contacted.

- 1 • Condition of the explosive/munitions (e.g., buried, partially exposed, fully
- 2 exposed, deteriorated, or punctured).
- 3 • Number and type of explosive/munitions visible (e.g., blasting caps,
- 4 dynamite, bomb, grenade, etc.).
- 5 • Estimated size of explosive/munitions (e.g., length and diameter).
- 6 • Distinctive features of explosive/munitions (e.g., shape, color, markings).
- 7 • Nearby structures, if any (so inhabitants can be contacted and evacuated if
- 8 necessary).
- 9 • Public access to the vicinity (i.e., open or closed to motor vehicles).

10

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

14

15 **Notifications**

16 Local dispatch centers are responsible for notifying:

- 17 • Agency law enforcement;
- 18 • Unit safety officer;
- 19 • Agency Administrator; and
- 20 • Local law enforcement.

21

22 **Discovery of Explosives/Munitions/UXO Associated with Former Defense** 23 **Sites**

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

28

29 Local law enforcement is responsible for contacting the appropriate military
30 authority. If the responsible military unit is unknown, then local law
31 enforcement should contact the U.S. Army Forces Command (FORSCOM),
32 52nd Ordnance Group (EOD), at its 24-hour emergency response number, (931)
33 431-3824.

34

35 For additional UXO safety information, see the current IRPG.

36

37 **Industrial and Naturally Occurring Hazardous Exposures**

38

39 Firefighters can potentially be exposed to hazards in the wildland fire
40 environment. Encountered hazards can be both human and environmentally
41 borne.

42

43 This section provides information and mitigations for most commonly
44 encountered industrial and naturally occurring potential exposures. Recognizing

- 1 there may be unique/area specific hazardous exposures (e.g., fungus causing
2 valley fever, erionite, coal seams), the following standards apply to all hazards:
- 3 • Identifying unit-specific environmental hazards;
 - 4 • Develop Risk Assessments/Job Hazard Analyses (RA/JHAs) for those
5 hazards;
 - 6 • Develop and provide specific training and standard operating procedures
7 (SOPs);
 - 8 • Provide briefings/training for those who may be exposed;
 - 9 • If exposure is suspected, immediately disengage and leave the area; and
 - 10 • Seek immediate medical attention if exposure symptoms occur.

11

12 **Dump and Spill Sites**

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

- 18 • Follow the procedures in the IRPG;
- 19 • Treat each site as if it contains harmful materials;
- 20 • Do not handle, move, or open any container, breathe vapors, or make
21 contact with the material;
- 22 • Move a safe distance upwind from the site;
- 23 • Contact appropriate personnel. Generally, this is the Hazardous Materials
24 Coordinator for the local office; and
- 25 • Firefighters need to immediately report hydrogen sulfide (H₂S) or potential
26 exposure and seek immediate medical care.
- 27 • *BLM/FWS/NPS - Agencies require that all field personnel complete First
28 Responder Awareness training. Firefighters are required to take an annual
29 refresher for Hazardous Material protocol.*

30

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

- 33 • Read and understand the Material Safety Data Sheets.
- 34 • Keep the work area clean and orderly.
- 35 • Use the necessary safety equipment.
- 36 • Label every container with the identity of its contents and appropriate
37 hazard warnings.
- 38 • Store incompatible chemicals in separate areas.
- 39 • Substitute less toxic materials whenever possible.
- 40 • Limit the volume of volatile or flammable material to the minimum needed
41 for short operation periods.
- 42 • Provide means of containing the material if equipment or containers should
43 break or spill their contents.

44

45

1 Wildland Fires In or Near Oil/Gas Operations

2 For units with oil and gas operations within their jurisdiction, the following are
3 the minimum standard operating procedures to help ensure the health and safety
4 of wildland firefighters:

- 5 ● Firefighters shall receive annual oil and gas hazard recognition and
6 mitigation training;
- 7 ● Local unit shall complete a JHA/RA for wildland fire activities in oil and
8 gas areas and provide a copy with a briefing to all local and incoming
9 resources;
- 10 ● Establish Response Protocols and proper decontamination procedures to
11 minimize exposure to additional employees, equipment, and facilities.
12 Protocols will include notification procedures to respective oil and gas
13 company(s);
- 14 ● Ensure oil and gas resource advisors are consulted;
- 15 ● Ensure that at least one member of each squad or engine crew is
16 knowledgeable in the use and data interpretation of the H₂S gas monitor.
17 Training on the device will include at a minimum:
 - 18 ○ Equipment charging and maintenance of sensors;
 - 19 ○ Startup, zeroing, calibration, and bump testing procedures as
20 recommended by the manufacturer; and
 - 21 ○ How the monitor elicits a warning alarm (visual, auditory, vibration).
- 22 ● Understand Peak Reading, Short Term Exposure Limits (STEL), and Time
23 Weighted Averages;
 - 24 ○ Understand how to set the monitors alarm threshold.
- 25 ● The monitor's alarm shall be set at the current American Conference on
26 Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (10
27 PPM 2008) and STEL (15 PPM 2008);
- 28 ● If H₂S gas is encountered, immediately disengage and leave area; and
- 29 ● Do not establish incident base camps or staging areas in or near oil and gas
30 operations.

31
32 The following websites provide additional information and training resources:

- 33 ● <http://www.nifc.gov/video/HazMat.wmv>
- 34 ● <http://iirdb.wildfirelessons.net/main/Reviews.aspx>
- 35 ● www.nfpa.org/assets/files/pdf/Sup10.pdf
- 36 ● A template for briefing Incident Management Teams is available in the
37 "Additional Resources" section of the NIFC Safety website at
38 www.nifc.gov

40 Wildland Fires In or Near Radioactive Locations

41 Abandoned uranium mines and other potential radioactive sites exist in many
42 areas of public lands. When these areas are identified, local management should
43 provide information and direction on operations to be used. General knowledge
44 and understanding of potential radiation exposure is necessary for wildland fire

1 program management to make valid risk management decisions in these areas.

2 The following websites provide this information and general guidelines:

- 3 • http://www.nifc.gov/policies/red_book/doc/RadiationDocument.pdf
- 4 • http://www.nifc.gov/policies/red_book/doc/RadiationGuidance.pdf

5

6 **Hazardous Water Sources**

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

15

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

22

23 **Hydrogen Cyanide (HCN) Exposure**

24 Synthetic materials such as plastics, nylon, Styrofoam®, and polyurethane can
25 produce HCN. HCN exposure can disrupt the body's ability to use oxygen,
26 cause asphyxia, and cause carbon monoxide poisoning. Common items such as
27 sofas, carpeting, vehicles, and other products routinely found in the wildland can
28 produce smoke with HCN.

29

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

33

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

38

39 **Safety for Personnel Visiting Fires**

40

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

44

45

46

1 Visits to an Incident Base

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

- 4 • Lace-up, closed toe shoes/boots with traction soles and ankle support.
- 5 • Trousers.
- 6 • Long-sleeve shirt.
- 7 • For agency personnel, the field uniform is appropriate.

9 Fireline Logistical Support

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

- 13 • Complete fire shelter training
- 14 • Fireline PPE
- 15 • Receive an incident briefing
- 16 • Ensure adequate communications are established
- 17 • Other requirements (if any) established by the Incident Commander
- 18 • A Work Capacity Test (WCT) is not required unless required for a specific
19 position defined in the PMS 310-1.

21 Minimum Requirements for Visits to the Fireline/RX Burns

22 Visits (such as media visits or political/administrative tours) to hazardous areas
23 of the fire or areas that pose a fire behavior threat will be managed by meeting
24 the requirements below:

- 25 • Visits to the fireline must have the approval of the IC/Burn Boss.
- 26 • Visitors must maintain communications with the DIVS or appropriate
27 fireline supervisor of the area they are visiting.
- 28 • Required PPE:
 - 29 ○ Wildland fire boots.
 - 30 ○ Yellow long-sleeved flame resistant shirts.
 - 31 ○ Flame resistant trousers.
 - 32 ○ Hard hat with chinstrap.
 - 33 ○ Leather or leather/flame resistant combination gloves. Flight gloves
34 are not approved for fireline use.
 - 35 ○ Fire shelter (M-2002), must also receive fire shelter training.
- 36 • Required field attire:
 - 37 ○ Undergarments made of 100 percent or the highest possible content of
38 natural fibers or flame-resistant materials.
- 39 • Required equipment/supplies:
 - 40 ○ Hand tool.
 - 41 ○ Water canteen.

42
43 Visitors to the Fireline/RX Burns may be “Non-Escorted” or “Escorted”
44 depending on the following requirements:

45

1 Non-Escorted Visits

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

- 4 • Must have adequate communications and radio training.
 - 5 • Completed the following training:
 - 6 ○ Introduction to Fire Behavior (S-190).
 - 7 ○ Firefighter Training (S-130).
 - 8 ○ Annual Fireline Safety Refresher Training, including fire shelter
9 training.
 - 10 • Deviation from this requirement must be approved by the IC or Burn Boss.
- 11 The law enforcement physical fitness standard is accepted as equivalent to a
12 “light” WCT work category.

13

14 Escorted Visits

15 All visitors lacking the above training and physical requirements must be
16 escorted while on the fireline.

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

23

24 Helicopter Observation Flights

25 Visitors who take helicopter flights to observe fires must receive approval from
26 the Incident Commander, a passenger briefing, and meet the following
27 requirements:

- 28 • Required PPE:
 - 29 ○ Flight helmet
 - 30 ○ Leather boots
 - 31 ○ Flame-resistant clothing
 - 32 ○ All leather or leather and aramid gloves

33

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

36

37 Fixed-Wing Observation Flights

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

41

42 Six Minutes for Safety Training

43

44 It is recommended that daily Six Minutes for Safety training be conducted that
45 focuses on high-risk, low frequency activities that fire personnel may encounter

1 during a fire season. A daily national Six Minutes for Safety briefing can be
2 found at: http://www.nifc.gov/sixminutes/dsp_sixminutes.php or the National
3 Incident Management Situation Report.

5 **SAFENET**

6
7 SAFENET is a form, process, and method for reporting and resolving safety
8 concerns encountered in any aspect (e.g., preparedness, training, etc.) of
9 wildland fire or all hazard incident management. The information provided on
10 the form will provide important, safety-related data to the National Interagency
11 Fire Center, and determine long-term trends and problem areas.

12 The objectives of the form and process are:

- 13 • To provide immediate reporting and correction of unsafe situations or close
14 calls in wildland fire.
- 15 • To provide a means of sharing safety information throughout the fire
16 community.
- 17 • To provide long-term data that will assist in identifying trends.
- 18 • Primarily intended for wildfire and prescribed fire situations, however,
19 SAFENET can be used for training and all hazard events.

20
21 Individuals who observe or who are involved in an unsafe situation shall initiate
22 corrective actions if possible, and then report the occurrence using SAFENET.
23 You are encouraged, but not required, to put your name on the report.
24 Prompt replies to the originator (if name provided), timely action to correct the
25 problem, and discussion of filed SAFENETs at local level meetings encourage
26 program participation and active reporting.

27
28 SAFENET is not the only way to correct a safety-related concern and it does not
29 replace accident reporting or any other valid agency reporting method. It is an
30 efficient way to report a safety concern. It is also a way for front line
31 firefighters to be involved in the daily job of being safe and keeping others safe,
32 by documenting and helping to resolve safety issues. SAFENETs may be filed:

- 33 • Electronically at <http://safenet.nifc.gov>;
- 34 • Verbally by telephone at 1-888-670-3938; or
- 35 • By SAFENET Field Card

36
37 The SAFENET Field Card can be used by wildland fire personnel to
38 immediately identify and report unsafe situations or close calls that should
39 receive immediate resolution/mitigation. If the situation cannot be resolved at
40 the local/incident level, the reporting individual is encouraged to follow the
41 formal SAFENET submission process stated above. SAFENET Field Cards are
42 available at: <http://safenet.nifc.gov>

43
44
45
46

1 **Accident/Injury Reporting**

2

3 The Occupational Safety and Health Administration (OSHA) mandates that all
4 accidents and injuries be reported in a timely manner. This is important for the
5 following reasons:

- 6 • To protect and compensate employees for incidents that occur on-the-job.
- 7 • To assist supervisors and safety managers in taking corrective actions and
8 establish safer work procedures.
- 9 • To determine if administrative controls or Personal Protective Equipment
10 are needed to prevent a future incident of the same or similar type.
- 11 • To provide a means for trend analysis.

12

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

- 20 • *DOI- employees will report accidents using the Safety Management*
21 *Information System (SMIS) at <https://www.smis.doi.gov/>. Supervisors shall*
22 *complete SMIS report within six working days after the accident/injury.*
- 23 • *FS- employees will use the Safety and Health Information Portal System*
24 *(SHIPS) through the Forest Service Dashboard at*
25 *http://fsweb.asc.fs.fed.us/HRM/owcp/WorkersComp_index.php*

26

27 **Critical Incident Management**

28

29 The NWCG has published the *Agency Administrator's Guide to Critical*
30 *Incident Management* (PMS 926). This guide is designed as a working tool to
31 assist Agency Administrators with the chronological steps in managing a critical
32 incident. This document includes a series of checklists, which outline Agency
33 Administrator's and other functional area's oversight and responsibilities. The
34 guide is not intended to replace local emergency plans or other specific guidance
35 that may be available, but should be used in conjunction with existing agency
36 policy, line of duty death (LODD) handbooks, or other critical incident
37 guidance. Local units should complete the guide, and review and update at least
38 annually. This guide is only available electronically at:
39 <http://www.nwcg.gov/pms/pubs/pubs.htm>.

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41 **Critical Incident Stress Management (CISM)**

42

43 A critical incident may be defined as a fatality or other event that can have
44 serious long term affects on the agency, its employees and their families or the
45 community. Such an event may warrant stress management assistance. The

- 1 local Agency Administrator may choose to provide CISM for personnel that
- 2 have been exposed to a traumatic event.
- 3
- 4 The availability of CISM teams and related resources (e.g. defusing teams)
- 5 varies constantly - it is imperative that local units pre-identify CISM resources
- 6 that can support local unit needs. Some incident management teams include
- 7 personnel trained in CISM who can provide assistance.