

Chapter 07 Safety

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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. Individuals must be responsible for their own performance and accountability.

Every supervisor, employee, and volunteer is responsible for following safe work practices and procedures, as well as identifying and reporting unsafe conditions.

All firefighters, fireline supervisors, fire managers, and agency administrators have the responsibility to ensure compliance with established safe firefighting practices.

Agency Specific Safety Policy Guides:

- **BLM** - *BLM Handbook 1112-1, 1112-2*
- **FWS** - *Service Manual 241 FW7, Firefighting*
- **NPS** - *DO-50 and RM-50 Loss Control Management Guideline*
- **FS** - *FSH-6709.11 Health and Safety Code Handbook*

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. For additional safety guidance and reference refer to:

- *Fireline Handbook (PMS 410-1, NFES 0065).*
- *Incident Response Pocket Guide (PMS 461, NFES 1077).*
- *Wildland Firefighter Health & Safety Report (Annual MTDC Publication).*
- *National Interagency Mobilization Guide (NFES 2092).*

1 **Risk Management Process**

2 The Risk Management Process identified in the *NWCG Incident Response*
3 *Pocket Guide (IRPG)* helps ensure that critical factors and risks associated with
4 fireline operations are considered during decision making. This process
5 enhances safety practices when applied to fire operations prior to taking action.
6 The Risk Management Process is found on the inside of the back cover of this
7 document.

8

9 **Job Hazard Analysis (JHA)**

10 A completed Job Hazard Analysis is required for:

- 11 • Jobs or work practices that have potential hazards.
- 12 • New, non-routine, or hazardous tasks to be performed where potential
13 hazards exist.
- 14 • Jobs that may require the employee to use non-standard personal protective
15 equipment (PPE).
- 16 • Changes in equipment, work environment, conditions, policies, or
17 materials.
- 18 • Supervisors and appropriate line managers must ensure that established
19 JHAs are reviewed and signed prior to any non-routine task or at the
20 beginning of the fire season. Additional JHA information can also be
21 obtained at: http://www.fs.fed.us/r1/people/jha/jha_index_www.html.
- 22 • **BLM** - A risk assessment (in lieu of JHA) must be completed for all non-
23 suppression work practices/projects that have potential hazards.

24

25 **Work/Rest**

26 To assist in mitigating fatigue, days off are allowed during and after
27 assignments. If necessary to reduce fatigue, the Type 1 or 2 Incident
28 Commander (IC) or agency administrator (AA) (incident host or home unit) may
29 provide time off supplementary to mandatory days off requirements. For Type
30 3-5 incidents, paid days off should be rare exceptions. However, if necessary,
31 the agency administrator (incident host or home unit) may authorize day(s) off
32 with pay.

33

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

- 36 • Plan for and ensure that all personnel are provided a minimum 2:1 work to
37 rest ratio (for every 2 hours of work or travel, provide 1 hour of sleep
38 and/or rest).
- 39 • Work shifts that exceed 16 hours and/or consecutive days that do not meet
40 the 2:1 work/rest ratio should be the exception, and no work shift should
41 exceed 24 hours. However, in situations where this does occur (for
42 example, initial attack), incident management personnel will resume 2:1
43 work/rest ratio as quickly as possible.
- 44 • The Incident Commander or agency administrator must justify work shifts
45 that exceed 16 hours and those that do not meet 2:1 work to rest ratio.

- 1 Justification will be documented in the daily incident records.
2 Documentation shall include mitigation measures used to reduce fatigue.
3 • The Time Officer's/Unit Leader's approval of the Emergency Firefighter
4 Time Report (OF-288), or other agency pay document, certifies that the
5 required documentation is on file and no further documentation is required
6 for pay purposes.
7
8 The work/rest guidelines do not apply to aircraft pilots assigned to an incident.
9 Pilots must abide by applicable Federal Aviation Administration (FAA)
10 guidelines, or agency policy if more restrictive.

11

12 **Length of Assignment**

13

14 **Assignment Definition**

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

18

19 **Length of Assignment**

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

24

25 **Days Off**

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

34

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

40

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

43

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

Release Date: January 2007

07-3

1 All length of assignment rules apply to aviation resources, including aircraft
2 pilots, notwithstanding the FAA and Agency day off regulations.

3

4 **Assignment Extension**

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

- 8 • Assignments may be extended when:
 - 9 ➤ life and property are imminently threatened,
 - 10 ➤ suppression objectives are close to being met,
 - 11 ➤ a military battalion is assigned,
 - 12 ➤ replacement resources are unavailable, or have not yet arrived.

13

14 Upon completion of the standard 14 day assignment, an extension of up to an
15 additional 14 days may be allowed (for a total of up to 30 days, inclusive of
16 mandatory days off, and exclusive of travel). Regardless of extension duration,
17 two mandatory days off will be provided prior to the 22nd day of the
18 assignment.

19

20 Contracts and Emergency Equipment Rental Agreements (EERA) should be
21 reviewed for appropriate pay requirements and length of assignment. If the
22 contract or EERA do not address this, the incident Finance/Administration
23 Section Chief or the procurement official should be consulted as to whether
24 compensation for a day off is appropriate.

25

26 **Single Resource/Kind Extensions**

27 The Section Chief or Incident Commander will identify the need for assignment
28 extension and will obtain the affected resource's concurrence. The Section
29 Chief and affected resource will acquire and document the home unit
30 supervisor's approval.

31

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

35

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

39

40 **Incident Management Team Extensions**

41 Incident management team extensions are to be negotiated between the incident
42 Agency administrator, the Incident Commander, and the GMAC/NMAC (if
43 directed).

44

45 Upon release from the assignment, regardless of extension duration, two
46 mandatory days off will be provided immediately following the return to the

1 home unit, and are chargeable to the incident. (See above for compensation and
2 days off guidelines).

3

4 **Management Directed Days Off at Home Unit**

5 Supervisors must manage work schedules for initial attack, dispatch and incident
6 support personnel during extended incident situations. During periods of non-
7 routine or extended activity, these employees will have a minimum of 1 day off
8 in any 21-day period.

9

10 **Driving Standard**

11 All employees driving motor vehicles are responsible for the proper care,
12 operation, maintenance and protection of the vehicle. The use of government-
13 owned, rented, or leased motor vehicles is for official business only.
14 Unauthorized use is prohibited.

15

16 **General Driving Policy**

- 17 • Employees must have a valid state driver's license in their possession for
18 the appropriate vehicle class before operating the vehicle. Operating a
19 government-owned or rental vehicle without a valid state driver's license
20 could result in disciplinary action.
- 21 • All drivers whose job duties require the use of a motor vehicle will receive
22 initial defensive driver training within three months of entering on duty
23 and refresher driver training every three years thereafter.
- 24 • The operator and all passengers are required to wear seat belts and obey all
25 federal and state laws.
- 26 • All traffic violations or parking tickets will be the operator's responsibility.
- 27 • All driving requiring a CDL will be performed in accordance with
28 applicable Department of Transportation regulations.
- 29 • **BLM** - All employees operating a Government motor vehicle will be
30 required to submit Form DI-131 (Application for U.S. Government Motor
31 Vehicle Operator's Identification Card) and OF-345 (Physical Fitness
32 Inquiry for Motor Vehicle Operators). When the supervisor signs the DI-
33 131, the employee is authorized to operate Government-owned or leased
34 vehicles, or privately-owned vehicles on official business. Individual office
35 forms equivalent to the OF-345 and DI-131 are acceptable.
- 36 • **BLM** - Employees operating any motor vehicle with a GVWR of 26,000
37 pounds or more, towing a vehicle 10,000 pounds GVWR or more, hauling
38 hazardous material requiring the vehicle to be placarded, or transporting,
39 16 or more persons, including the driver, must possess a valid Commercial
40 Drivers License (CDL) with all applicable endorsements.
- 41 • **BLM** - Seat belts must be available and used in Bureau motor vehicles.
42 Without exception, seat belts must be worn at all times by motor vehicle
43 operators and passengers, regardless of the distance to be traveled or the
44 time involved. If any employee fails to fasten their seat belt while riding in

- 1 *a vehicle on official business, they are subject to disciplinary action as*
2 *determined by local management.*
- 3 • **FS** - Policy requires all operators of government owned, or leased vehicles
4 to have a Forest Service issued identification card indicating the type of
5 vehicles or equipment the holder is authorized and qualified to operate.
 - 6 • **BLM/FWS/NPS** - The DOI has granted wildland fire agencies a waiver to
7 allow employees between the ages of 18 and 21 to operate agency
8 commercial fire vehicles using a state issued CDL under the specific
9 conditions as stated below:
 - 10 ➤ Drivers with a CDL may only drive within the state that has issued
11 the CDL and must comply with the state's special requirements and
12 endorsements.
 - 13 ➤ These drivers must only drive vehicles that are equipped with visible
14 and audible signals, and are easily recognized as fire fighting
15 equipment. This excludes, but is not limited to, school buses used for
16 crew transport and "low-boy" tractor trailers used for construction
17 equipment transport.
 - 18 ➤ Supervisors must annually establish and document that these drivers
19 have a valid license (i.e. that the license has not been suspended,
20 revoked, canceled, or that the employee has not been otherwise
21 unqualified from holding a license - 485 DM 16.3.B (1), ensure that
22 the employee has the ability to operate the vehicle(s) safely in the
23 operational environment assigned (485 DM 16.3.B (2), and review
24 and validate the employee's driving record (485 DM 16.3.B(4)).
 - 25 ➤ Wildland fire driving safety statistics from the Safety Management
26 Information System (SMIS) will be reviewed at the end of the 2007
27 fire season to determine if there is any reason why the waiver should
28 not become permanent policy.

30 **Non-incident Operations Driving**

31 Refer to the current Driving Standards for each individual agency.

33 **Incident Operations Driving**

34 This policy addresses driving by personnel actively engaged in wildland fire
35 suppression or all-risk activities; including driving while assigned to a specific
36 incident (check-in to check-out) or during initial attack fire response (includes
37 time required to control the fire and travel to a rest location).

- 38 • Agency resources assigned to an incident or engaged in initial attack fire
39 response will adhere to the current agency work/rest policy for determining
40 length of duty day.
- 41 • No driver will drive more than 10 hours (behind the wheel) within any
42 duty-day.
- 43 • Multiple drivers in a single vehicle may drive up to the duty-day limitation
44 provided no driver exceeds the individual driving (behind the wheel) time
45 limitation of 10 hours.

- 1 • A driver shall drive only if they have had at least 8 consecutive hours off
2 duty before beginning a shift. Exception to the minimum off-duty hour
3 requirement is allowed when essential to:
 - 4 ➤ Accomplish immediate and critical suppression objectives.
 - 5 ➤ Address immediate and critical firefighter or public safety issues.
- 6 • As stated in the current agency work/rest policy, documentation of
7 mitigation measures used to reduce fatigue is required for drivers who
8 exceed 16 hour work shifts. This is required regardless of whether the
9 driver was still compliant with the 10 hour individual (behind the wheel)
10 driving time limitations.
- 11 • *FWS/NPS - Program funds are authorized to pay for the cost of CDL*
12 *licensing fees and exams, necessary for employees to operate fire*
13 *equipment, with one exception. That exception involves those cases where*
14 *a test has been failed and must be retaken, in which case the employee will*
15 *be responsible for costs associated with additional testing.*

17 **Fire Vehicle Operation Standards**

18 Operators of all vehicles must abide by state traffic regulations. Operation of all
19 vehicles will be conducted within the limits specified by the manufacturer.
20 Limitations based on tire maximum speed ratings and Gross Vehicle Weight
21 restrictions must be followed. It is the vehicle operator's responsibility to
22 ensure vehicles abide by these and any other limitations specified by agency or
23 state regulations.

24
25 Headlights and taillights will be illuminated at all times while the vehicle is in
26 motion. Emergency lighting will not be used except when performing
27 suppression or prescribed fire operations, or to mitigate serious safety hazards.
28 Overhead lighting and other emergency lighting must meet state code
29 requirements, and will be illuminated whenever the visibility is reduced to less
30 than 300 feet. Blue lights are not acceptable for wildland fire operations.

32 **Personal Protective Equipment (PPE)**

33 All personnel are required to use Personal Protective Equipment (PPE)
34 appropriate for their duties and/or as identified in JHAs. Employees must be
35 trained to use safety equipment effectively. PPE devices will be used only when
36 equipment guards, engineering controls, or management control do not
37 adequately protect employees.

- 38 • *NPS - No required personal protective equipment will be purchased that*
39 *does not meet or exceed USDA-Forest Service or National Fire Protection*
40 *Association Standards.*

42 **Required Fireline PPE includes:**

- 43 • 8-inch high, lace-type exterior leather work boots with non-slip, Vibram-
44 type, melt-resistant soles. The 8-inch height requirement is measured from
45 the bottom of the heel to the top of the boot. Alaska is exempt from the

- 1 Vibram-type sole requirement. All boots that meet the footwear standard
2 as described above are authorized for firefighting.
- 3 • fire shelter
 - 4 • hard hat with chinstrap
 - 5 • goggles/safety glasses
 - 6 • ear plugs/hearing protection
 - 7 • yellow aramid shirts
 - 8 • aramid trousers
 - 9 • leather gloves
 - 10 • Wear additional PPE as identified by local conditions, material safety data
11 sheet (MSDS), or JHA.

12
13 Permanent-press materials are not to be worn, as they melt and stick to the skin
14 when exposed to flame or heat. Because most synthetic fibers melt when
15 exposed to flame or extreme radiant heat, personnel should wear only
16 undergarments made of 100 percent cotton or wool, aramid, or other fire
17 resistant materials.

18
19 Aramid clothing should be cleaned or replaced whenever soiled, especially
20 when soiled with petroleum products. Aramid clothing will be replaced when
21 the fabric is so worn as to reduce the protection capability of the garment or is so
22 faded as to significantly reduce the desired visibility qualities. Any modification
23 to personal protective equipment that reduces the fire protection capability such
24 as iron-on logos, and staging of pants, is an unacceptable practice and will not
25 be allowed on fires.

26 **Head Protection**

27 Personnel must be equipped with hard hats and wear them at all times while on
28 the fireline. Hard hats must be equipped with a chinstrap, which must be
29 fastened while riding in, or in the vicinity of, helicopters.

30
31
32 Acceptable helmets for fireline use are “Helmet, Safety, Plastic” (NFES #0109,
33 NSN 8415-01-055-2265) listed in NWCG *National Fire Equipment System*
34 *Catalog: Fire Supplies and Equipment*, or equivalent helmets meeting the
35 National Fire Protection Association (NFPA) Standard 1977, *Standard on*
36 *Protective Clothing and Equipment for use in Wildland Firefighting* and
37 American National Standards Institute (ANSI) Z89.1-1986.

38
39 Hard hats consist of two components - the shell and the suspension - which work
40 together as a system. Both components require periodic inspection and
41 maintenance. Specific inspection and maintenance instructions are found in
42 Missoula Technology and Development Center (MTDC) Tech Tip publication,
43 *Your Hardhat: Inspection and Maintenance* (0267-2331-MTDC).

44
45

1 Eye and Face Protection

2 The following positions require the wearing of eye protection:

- 3 • nozzle operator
- 4 • chainsaw operator/faller
- 5 • helibase and ramp personnel
- 6 • retardant mixing crews
- 7 • other duties may require eye protection as identified in a specific JHA.

8
9 In addition to goggles full face protection in the form of a face shield in
10 compliance with ANSI Z87.1 shall be worn when working in any position where
11 face protection has been identified as required in the job specific JHA/risk
12 assessment: Terra-Torch®, power sharpener operators, etc.

15 Hearing Protection

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

- 18 • chainsaw operators/fallers
- 19 • pump operators
- 20 • helibase and aircraft ramp personnel
- 21 • retardant mixing personnel
- 22 • any other personnel exposed on a regular basis to damaging noise levels.

23
24 Other duties may require hearing protection as identified in a specific JHA.

25
26 Employees with a time weighted average exposure of 85 db or higher are
27 required to be placed under a hearing conservation program as required by 29
28 *CFR 1910.9*. Consult with local safety & health personnel for specifics.

30 Neck Protection

31 Face and neck shrouds are not required PPE. However, if used, face and neck
32 shrouds shall meet the requirements of FS specification 5100-601 or *NFPA 1977*
33 *Standard on Protective Clothing and Equipment for Wildland Fire Fighting,*
34 *1998 ed.*

35
36 Shrouds should not routinely worn throughout the operational period, due to
37 increases in physiological heat stress.

39 Leg Protection

40 All chainsaw operators will wear chainsaw chaps meeting the FS 6170-4
41 specification. Chainsaw chaps shall be maintained in accordance with MTDC
42 Publication, *Inspecting and Repairing Your Chainsaw Chaps User Instructions*
43 (0567-2816-MTDC).

1 **Foot Protection**

2 Personnel assigned to fires must wear 8-inch high, lace-type exterior leather
3 work boots with non-slip, Vibram-type, melt-resistant soles. The 8-inch height
4 requirement is measured from the bottom of the heel to the top of the boot.
5 Alaska is exempt from the Vibram-type sole requirement. All boots that meet
6 the footwear standard as described above are authorized for firefighting.

7
8 The boots are a condition of employment for firefighting positions and are
9 purchased by the employee prior to employment.

- 10 • *FWS - Red carded fireline permanent, temporary and seasonal Fish and
11 Wildlife personnel will be provided with these boots from station funds not
12 more often than every three years. Emergency or casual firefighters will
13 provide their own boots. Some refuge situations may require special
14 footwear such as waders, hip boots, snake boots, etc.*
- 15 • *NPS - Government funds will be utilized for purchase of wildland fire
16 boots for those employees currently red carded/certified in positions which
17 require wildland and prescribed fireline duties. The individual employee
18 must be available to perform those duties when assigned; if not routinely
19 available for park fire assignments, FIREPRO funds should not be used to
20 purchase boots for that employee.*
- 21 • *NPS - FIREPRO funds, not to exceed \$100 a pair, may be used to
22 purchase or repair boots. Other government funds, such as from safety,
23 protection or maintenance accounts, may also be used for purchase or to
24 augment FIREPRO funds, dependent on local management direction.
25 Costs to repair boots not damaged on fire should be charged to other
26 appropriate accounts.*
- 27 • *NPS - It is the responsibility of the local FMO to determine those
28 employees requiring boots as personal protective equipment, and the
29 frequency of necessary replacement or repair. Boots will be considered
30 similar to uniform items and will not be subject to cache item return, due
31 to health, sanitation, and individual sizing considerations.*

32 **Respiratory Protection**

33
34 The use of respiratory protection (e.g., dust masks, half-mask respirators) must
35 be in compliance with agency safety and health regulations and OSHA's
36 Respiratory Protection Standard 29 CFR 1910.134.

- 37 • *BLM/FWS/NPS - Managers and supervisors will not knowingly place
38 wildland firefighters in positions where exposure to noxious gases or
39 chemicals would require the use of self-contained breathing apparatus.*
- 40 • *FS - FSM - 5135.3 - Self-Contained Breathing Apparatus - Wildland
41 firefighters may use only an open-circuit, self-contained breathing
42 apparatus (SCBA) of the positive pressure type when smoke from vehicle,
43 dump, structure, or other non-wildland fuel fire cannot be avoided while
44 meeting wildland fire suppression objectives (29 CFR 1910.134,
45 Respiratory Protection). If such an apparatus is not available, avoid
46 exposure to smoke from these sources.*

- 1 • *FS - The acquisition, training, proper use, employee health surveillance*
2 *programs, inspection, storage, and maintenance of an SCBA must comply*
3 *with the National Fire Protection Association Standard, NFPA-1981 and*
4 *29 CFR 1910.134I, and be justified by a Job Hazard Analysis. Where an*
5 *SCBA is approved, it may be carried only on a fire engine and its use must*
6 *be consistent with FSM 5130.2 and FSM 5130.3.*

7 **Fire Shelters**

9 Fire shelters will be issued and carried in a readily accessible manner by all line
10 personnel. Fire shelters will be inspected regularly, to ensure they meet agency
11 and manufacturer standards. New Generation fire shelters will replace existing
12 stock of old fire shelters by the end of calendar year 2008 for all federal
13 wildland firefighters and by the end of calendar year 2009 for all other
14 firefighters. Training in the deployment of new generation fire shelters will be
15 provided prior to issuance.

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

20
21 The deployment of shelters is to be viewed as a last resort, and will not be used
22 as a tactical tool. Supervisors and firefighters must never rely on fire shelters
23 instead of using well-defined escape routes and safety zones. When deployed
24 on a fire, fire shelters will be left in place and not be removed pending approval
25 of authorized investigators.

26 **Specialized or Non Standard PPE**

27 Specialized Personal Protective Equipment not routinely supplied by the agency
28 required to perform a task safely must be ordered in accordance with agency
29 direction.

30
31
32 A JHA/risk assessment must be completed and reviewed by the Unit Safety
33 Officer and the supervisor's approval is required. Items must meet agency and
34 industry standards for specific intended use. Cold weather flame resistant outer
35 wear shall be in compliance with NFPA 1977, *Standard on Protective Clothing*
36 *and Equipment for Wildland Firefighting*. All cold weather inner wear should
37 be composed of 100% cotton/wool, or of aramid and other flame resistant
38 materials.

39 **Fireline Safety**

40 **Incident Briefings**

41
42 Fire managers must ensure that safety briefings are occurring throughout the fire
43 organization, and that safety factors are addressed through the IC and
44 communicated to all incident personnel at operational briefings. The
45

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

3

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

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

- 7 • L - Lookout(s)
- 8 • C - Communication(s)
- 9 • E - Escape Route(s)
- 10 • S - Safety Zone(s)

11

12 **Incident Safety Oversight**

13 Agency administrators must be actively involved in the management of wildland
14 fires, and personally visit an appropriate number of escaped fires each year. Fire
15 and aviation management staff can provide the appropriate PPE and guidance.

- 16 • *FS - Agency administrators, Fire Program Managers, and/or Safety and*
17 *Health Program Managers shall conduct after action reviews on all type 3*
18 *fires and a minimum of 10% of their unit's Type 4, and 5 fires and*
19 *document their inspections in the incident records.*

20

21 Incident Commanders are responsible for personnel safety. Additional safety
22 oversight may be requested when:

- 23 • A fire escapes initial attack or when extended attack is probable.
- 24 • There is complex or critical fire behavior.
- 25 • There is a complex air operation.
- 26 • The fire is in an urban intermix/interface.

27

28 Every individual has the right to turn down unsafe assignments. When an
29 individual feels an assignment is unsafe they also have the obligation to identify,
30 to the degree possible, safety alternatives for completing that assignment. The
31 *IRPG* contains process for *How to Properly Refuse Risk*.

32

33 **Unit/Area Closures**

34 Threats to public safety may require temporary closure of a unit/area, or a
35 portion of it. When a fire threatens escape from the unit/area, adjacent
36 authorities must be given as much advance notice as possible in order to achieve
37 orderly evacuation.

38

39 **Standard Safety Flagging**

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

- 42 • Hot-pink flagging marked "Escape Route" (NFES 0566). Crews with
43 colorblind members may wish to carry and utilize XXX fluorescent
44 chartreuse flagging (NFES #2396).
- 45 • Hazards. Yellow with black diagonal stripes, 1 inch wide (NFES 0267).

1 If the above recommendation is not utilized on an incident, the incident
2 will need to identify the selected color and it make known to all
3 firefighters.

4 **Unexploded Ordnance (UXO)**

5 General guidance is as follows: If UXO is suspected, do not enter the area.
6 Small arms (rifle and shotgun) munitions areas should be flagged and avoided
7 by fire personnel. For suspected larger munitions, the area must be avoided by
8 fire personnel and contact local law enforcement bomb squad or nearest
9 Department of Defense agency. Each unit will determine which employees are
10 authorized to enter known or potential hazardous substance release sites, and the
11 responsibility for these determinations remains with each agency administrator.
12 The general rule of UXO is, “if you did not drop it, do not pick it up, kick it or
13 hit it with equipment”.

14 **Hazardous Materials**

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

- 20 • Follow the procedures in the Incident Response Pocket Guide.
- 21 • Treat each site as if it contains harmful materials.
- 22 • Do not handle, move, or open any container, breathe vapors, or make
23 contact with the material.
- 24 • Move a safe distance upwind from the site.
- 25 • Contact appropriate personnel. Generally, this is the Hazardous Materials
26 Coordinator for the local office.
- 27 • *BLM/FWS/NPS - Agencies require that all field personnel complete a
28 First Responder Awareness training. Firefighters are required to take an
29 annual refresher for Hazardous Material protocol.*

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

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

1 Heat Stress

2 There are three forms of heat stress. The mildest is heat cramps. Heat stress can
3 progress to heat exhaustion and eventually heat stroke. Heat stroke is a medical
4 emergency. Delayed treatment can result in brain damage and even death. At
5 the first sign of heat stress, stop work, get into the shade, and begin drinking
6 fluid. *See Chapter 05 of Fitness and Work Capacity, 2nd ed. (1997).*

8 Smoke and Carbon Monoxide

9 For information of this subject call USDA Forest Service, Technology and
10 Development Program, Publications, (406) 329-3978, and ask for *Health*
11 *Hazards of Smoke, Recommendations of the Consensus Conference, April 1997*
12 *(item Number 97512836)*. Copies are available free of charge in limited
13 numbers.

15 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 and in the
20 National Situation Report.

22 Safety for Non-Operational Personnel Visiting Fires

23 A wide variety of personnel such as agency administrators, other agency
24 personnel, dignitaries, members of the news media, etc may visit incidents. The
25 following standards apply to all visitors.

27 Visits to an Incident Base

28 The minimum recommendation for PPE at an incident base is the same as all
29 field locations.

- 30 • Lace-up shoes with non-slip soles and heels
- 31 • Long trousers
- 32 • Long-sleeve shirt
- 33 • For agency personnel, the field uniform is appropriate; however for more
34 flexibility the aramid fire shirts and trousers or flight suit may be worn.
- 35 • **BLM** - Refer to *BLM Handbook 1112-2, 3.3 BLM requires 6” shoes*.

37 Visits to the Fireline

38 Visits to the fireline must have the approval of the IC.

- 39 • Visitors must maintain communications with the DIVS or appropriate
40 fireline supervisor of the area they are visiting.
- 41 • Required PPE:
 - 42 ➤ 8-inch high, lace-type exterior leather work boots with non-slip,
43 Vibram-type, melt-resistant soles. The 8-inch height requirement is
44 measured from the bottom of the heel to the top of the boot. Alaska
45 is exempt from the Vibram-type sole requirement. All boots that

- 1 meet the footwear standard as described above are authorized for
2 firefighting.
- 3 ➤ Yellow aramid shirts
 - 4 ➤ aramid trousers
 - 5 ➤ hard hat with chinstrap
 - 6 ➤ leather gloves
 - 7 ➤ fire shelter
- 8 • Required equipment/supplies:
 - 9 ➤ hand tool
 - 10 ➤ water canteen

11
12 Visitors to the Fireline may be “Escorted” or “Non-Escorted” depending on the
13 following requirements:

14 15 **Non-Escorted Visits**

- 16 • Visitors must have a minimum physical fitness level of “light”.
 - 17 ➤ Must have adequate communications and radio training.
 - 18 ➤ Completed the following training:
 - 19 ▪ Introduction to Fire Behavior (S-190)
 - 20 ▪ Firefighter Training (S-130)
 - 21 ▪ Annual Fireline Safety Refresher Training.
 - 22 ➤ Deviation from this requirement must be approved by the IC for other
23 non-escorted support personnel involved in vehicle operations or
24 other support functions on established roadways and working in areas
25 which pose no fire behavior threat.
- 26 • *BLM/FWS - Law Enforcement physical fitness standard is accepted as*
27 *equivalent to a “light” WCT work category.*

28 29 **Escorted Visits**

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

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

38 39 **Helicopter Observation Flights**

40 Visitors who take helicopter flights to observe fires must receive a passenger
41 briefing and meet the following requirements:

- 42 • **Required PPE:**
 - 43 ➤ Flight helmet
 - 44 ➤ Leather boots
 - 45 ➤ Fire-resistant clothing

1 ➤ All leather or leather and aramid gloves

2

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

5

6 **Fixed-Wing Observation Flights**

7 • **Required PPE**

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

11

12 **SAFENET**

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

18 The objectives of the form and process are:

- 19 • To provide immediate reporting and correction of unsafe situations or close
20 calls in wildland fire.
- 21 • To provide a means of sharing safety information throughout the fire
22 community.
- 23 • To provide long-term data that will assist in identifying trends.
- 24 • Primarily intended for wildland and prescribed fire situations, however,
25 SAFENET can be used for training and all-risk events.

26

27 Individuals who observe or who are involved in an unsafe situation shall initiate
28 corrective actions if possible, and then report the occurrence using SAFENET.

29 You are encouraged, but not required, to put your name on the report.

30 Prompt replies to the originator (if name provided), timely action to correct the
31 problem, and discussion of filed SAFENETs at local level meetings encourage
32 program participation and active reporting.

33

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

- 39 • electronically at <http://safenet.nifc.gov>
- 40 • postage paid mail-in form (PMS 405-2, NFES 2633)
- 41 • verbally by telephone at 1-888-670-3938.

42

43

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1 **Accident/Injury Reporting**

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

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

11

12 Employees are required to immediately report to their supervisor every job-
13 related accident or incident. Managers and supervisors shall ensure that an
14 appropriate level of investigation is conducted for each incident and record all
15 personal injuries and property damage. Coordinate with your human resources
16 office or administrative personnel to complete appropriate Officer of Worker's
17 Compensation (OWCP) forms.

- 18 • Reporting is the responsibility of the injured employee's home unit
19 regardless of where the accident or injury occurred.
- 20 • DOI employees will report accidents using the Safety Management
21 Information System (SMIS) at www.smis.doi.gov within six working days
22 of the incident.
- 23 • Forest Service employees will use the Safety and Health Information Portal
24 System (SHIPS) through the Forest Service Dashboard at
25 <https://asp.talx.com/dashboard/usdafs/> within six working days of the
26 incident.

27

28 **Critical Incident Management**

29 The National Wildfire Coordinating Group has published the *Agency*
30 *Administrator's Guide to Critical Incident Management (PMS 926, NFES*
31 *1356)*. The guide is a series of subject-area checklists designed to be reviewed in
32 detail before a critical incident occurs, during the actual management of the
33 incident, and after the incident has taken place. It is a compilation of lessons
34 learned and suggestions that are designed to assist an agency administrator in the
35 management of a critical incident. The guide is not intended to replace local
36 emergency plans or other specific guidance that may be available, but should be
37 used in conjunction with existing SOPs. It is available through the Publications
38 Management System website <http://www.nwccg.gov/pms/pubs/PMS926->
39 DRAFT.pdf