

## Chapter 18 Reviews and Investigations

### Introduction

Reviews and investigations are used by wildland fire and aviation managers to assess and improve the effectiveness and safety of organizational operations. Information (other than factual) derived from safety reviews and accident investigations should only be used by agencies for accident prevention and safety purposes.

### Multiagency Cooperation

Many reviews and investigations involve cooperation between Federal, State, County, and Municipal Agencies. To comply with each agency's authorities, policies, and responsibilities, a multi-agency review or investigation may be necessary. A multiagency Delegation of Authority should be provided to outline roles, responsibilities, and expected deliverables.

The Team Leader or delegating official(s) should establish cooperative relationships with the other agencies involved in the review or investigation to ensure policies and responsibilities are met. This may involve negotiations, cooperative agreements, and coordination with the agency Designated Agency Safety and Health Official (DASHO) or the agency official who signs the Delegation of Authority.

### Federal Interagency Investigations

Close calls or accidents that involve interagency (USFS or DOI) personnel and/or jurisdiction (e.g. USFS firefighter injured on FWS jurisdictional wildland fire & vice versa) shall be reviewed or investigated cooperatively and conducted at the appropriate level as outlined in this chapter.

Agency Administrators will ensure that affected agencies are involved throughout the review/investigation process.

When an incident does not meet the serious accident criteria, the affected Agency Administrators should jointly decide what type and level of investigation will be conducted based on agency processes outlined in this chapter. Questions should be addressed to your agency wildland fire safety program manager.

### Reviews

Reviews are methodical examinations of system elements such as program management, safety, leadership, operations, preparedness, training, staffing, business practices, budget, cost containment, planning, and interagency or intra-

1 agency cooperation and coordination. Reviews do not have to be associated  
 2 with a specific incident. The purpose of a review is to ensure the effectiveness  
 3 of the system element being reviewed, and to identify deficiencies and  
 4 recommend specific corrective actions. Established review types are described  
 5 below and include:

- 6 • Preparedness Reviews;
- 7 • After Action Reviews;
- 8 • Fire and Aviation Safety Team Reviews;
- 9 • Aviation Safety and Technical Assistance Team Reviews;
- 10 • Large Fire Cost Reviews;
- 11 • Individual Fire Reviews;
- 12 • Lessons Learned Reviews; and
- 13 • Escaped Prescribed Fire Reviews.

14

15 **Review Types and Requirements**

Type	When Conducted	Delegating or Authorizing Official
Preparedness Review	Annually, or management discretion	Local/State/Region/National
After Action Review	Management discretion	N/A
Fire and Aviation Safety Team Review	As fire activity dictates	Geographic Area Coordinating Group
Aviation Safety and Technical Assistance Team Review	As aviation activity dictates	State/Regional Aviation Manager or MACG
Large Fire Cost Review	Refer to NWCG Memorandum #003-2009	Agency Director
Individual Fire Review	Management discretion	Local/State/Region/National
Lessons Learned Review	Management discretion	Local/State/Region/National
Escaped Prescribed Fire Review	See <i>Interagency Prescribed Fire Planning and Implementation Procedures Guide</i> (2008)	

16

17 **Preparedness Reviews**

18 Preparedness Reviews assess fire programs for compliance with established fire  
 19 policies and procedures outlined in the current *Interagency Standards for Fire  
 20 and Fire Aviation Operations* and other pertinent policy documents.

21

22 Preparedness Reviews identify organizational, operational, procedural,  
 23 personnel, or equipment deficiencies, and recommend specific corrective  
 24 actions. Interagency Preparedness Review Checklists can be found at:  
 25 [http://www.nifc.gov/policies/pol\\_ref\\_intgncy\\_prepcheck.html](http://www.nifc.gov/policies/pol_ref_intgncy_prepcheck.html)

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**1 After Action Reviews (AAR)**

2 An AAR is a learning tool intended for the evaluation of an incident or project  
3 in order to improve performance by sustaining strengths and correcting  
4 weaknesses. An AAR is performed as soon after the event as possible by the  
5 personnel involved. An AAR should encourage input from participants that is  
6 focused on:

- 7 • What was planned?
- 8 • What actually happened?
- 9 • Why it happened?
- 10 • What can be done the next time?

11

12 An AAR is a tool that leaders and units can use to get maximum benefit from  
13 the experience gained on any incident or project. When possible, the leader of  
14 the incident or project should facilitate the AAR process. However, the leader  
15 may choose to have another person facilitate the AAR as needed and  
16 appropriate. AARs may be conducted at any organizational level. However, all  
17 AARs follow the same format, involve the exchange of ideas and observations,  
18 and focus on improving proficiency. The format can be found in the *Interagency Response*  
19 *Pocket Guide (IRPG)*, PMS #461, NFES #1077. Additional AAR information is  
20 available at <http://wildfirelessons.net/AAR.aspx>  
21

22

**23 Fire and Aviation Safety Team (FAST) Reviews**

24 Fire and Aviation Safety Teams assist Agency Administrators during periods of  
25 high fire activity by assessing policy, rules, regulations, and management  
26 oversight relating to operational issues. They can also do the following:

- 27 • Provide guidance to ensure fire and aviation programs are conducted safely.
- 28 • Assist with providing immediate corrective actions;
- 29 • Review compliance with OSHA abatement plan(s), reports, reviews, and  
30 evaluations; and
- 31 • Review compliance with *Interagency Standards for Fire and Fire Aviation*  
32 *Operations*.

33

34 FAST reviews can be requested through geographic area coordination centers to  
35 conduct reviews at the state/regional and local level. If a more comprehensive  
36 review is required, a national FAST can be ordered through the National  
37 Interagency Coordination Center.

38

39 FASTs include a team leader, who is either an Agency Administrator or fire  
40 program lead with previous experience as a FAST member, a safety and health  
41 manager, and other individuals with a mix of skills from fire and aviation  
42 management.

43

44 FASTs will be chartered by their respective Geographic Area Coordinating  
45 Group (GACG) with a Delegation of Authority, and report back to the GACG.

1 FAST reports will include an executive summary, purpose, objectives,  
2 methods/procedures, findings, recommendations, follow-up actions (immediate,  
3 long-term, national issues), and a letter delegating authority for the review.  
4 FAST reports should be submitted to the Geographic Area Coordinating Group  
5 with a copy to the Federal Fire and Aviation Safety Team (FFAST) chair within  
6 30 days. See Appendix L for sample FAST Delegation of Authority.

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#### 8 **Aviation Safety and Technical Assistance Team (ASTAT) Reviews**

9 Refer to Chapter 16 for ASTAT information.

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#### 11 **Large Fire Cost Reviews**

12 Information on large fire cost reviews can be found in Chapter 11 (Incident  
13 Management), and at [http://www.nwcg.gov/general/memos/nwcg-003-](http://www.nwcg.gov/general/memos/nwcg-003-2009.html)  
14 [2009.html](http://www.nwcg.gov/general/memos/nwcg-003-2009.html)

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#### 16 **Individual Fire Reviews**

17 Individual fire reviews examine all or part of the operations on an individual  
18 fire. The fire may be ongoing or controlled. These reviews may be local,  
19 state/regional, or national. These reviews evaluate decisions and strategies,  
20 correct deficiencies, identify new or improved procedures, techniques or tactics,  
21 determine cost-effectiveness, and compile and develop information to improve  
22 local, state/regional, or national fire management programs.

23

#### 24 **Lessons Learned Reviews (LLRs)**

25 The purpose of a LLR is to focus on the near miss events or conditions in order  
26 to prevent potential serious incident in the future. In order to continue to learn  
27 from our near misses and our successes it is imperative to conduct a LLR in an  
28 open, non-punitive manner. LLRs are intended to provide educational  
29 opportunities that foster open and honest dialog and assist the wildland fire  
30 community in sharing lessons learned information. LLRs provide an outside  
31 perspective with appropriate technical experts assisting involved personnel in  
32 identifying conditions that led to the unexpected outcome and sharing findings  
33 and recommendations.

34

35 A LLR should be tailored to the event being reviewed. The scope of the review  
36 should be commensurate with the severity of the incident. A LLR will not be  
37 substituted for a Serious Accident Investigation (SAI) or Accident Investigation  
38 (AI), should the criteria for either of those be met, but may be used as a  
39 supplement to the SAI or AI.

- 40 • **FS- Facilitated Learning Analysis (FLA)** may be used for incidents meeting  
41 the AI criteria.

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43 A LLR will be led by a facilitator not involved in the event. A facilitator should  
44 be an appropriate fire management expert who possesses skills in interpersonal  
45 communications, organization, and be unbiased to the event. Personnel  
46 involved in the event will be participants in the review process. Depending

- 1 upon the complexity of the event, the facilitator may request assistance from  
2 technical experts (e.g., fire behavior, fire operations, etc.).  
3 The LLR facilitator will convene the participants and:
- 4 ● Obtain a Delegation of Authority from appropriate agency level. See  
5 appendix J for a sample LLR Delegation of Authority;
  - 6 ● Identify facts of the event (sand tables maybe helpful in the process) and  
7 develop a chronological narrative of the event;
  - 8 ● Identify underlying reasons for success or unintended outcomes;
  - 9 ● Identify what individuals learned and what they would do differently in the  
10 future;
  - 11 ● Identify any recommendations that would prevent future similar  
12 occurrences;
  - 13 ● 24 and 72 hour reports may be produced, but are not required; and
  - 14 ● Provide a final written report including the above items to the pertinent  
15 Agency Administrator(s) within two weeks of event occurrence unless  
16 otherwise negotiated. Names of involved personnel should not be included  
17 in this report (reference them by position).
- 18
- 19 A copy of the final report will be submitted to the respective agency's national  
20 fire safety lead who will provide a copy to the Wildland Fire Lessons Learned  
21 Center (LLC). E-mail: llcdocsubmit@gmail.com
- 22 ● *FS - The Forest Service has combined the Accident Prevention Analysis*  
23 *(APA) with the Facilitated Learning Analysis (FLA). A guide for the FLA*  
24 *process is available at [http://wildfirelessons.net/documents/FLA\\_Guide.pdf](http://wildfirelessons.net/documents/FLA_Guide.pdf)*

#### 25 **Escaped Prescribed Fire Reviews**

- 26 An escaped prescribed fire is a prescribed fire which has exceeded, or is  
27 expected to exceed, its prescription. Escaped prescribed fire review direction is  
28 found in these agency documents:  
29 *Interagency Prescribed Fire Planning and Implementation Procedures*  
30 *Reference Guide (August 2008)*
- 31 ● *BLM - IM No. OF&A 2012-005*
  - 32 ● *FWS - Fire Management Handbook, Chapter 17*
  - 33 ● *NPS - RM-18, Chapter 7 & 17*
  - 34 ● *FS - FSM 5140*
- 35

#### 36 **Investigations**

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- 39 Investigations are detailed and methodical efforts to collect and interpret facts  
40 related to an incident or accident, identify causes (organizational factors, local  
41 workplace factors, unsafe acts), and develop control measures to prevent  
42 recurrence.
- 43
- 44 Distinct types of wildland fire incidents and accidents have specific  
45 investigation requirements.

- 1 **Wildland Fire Incident and Accident Types and Definitions**
- 2 • **Serious Wildland Fire Accident**
- 3 An unplanned event or series of events that resulted in death; injury,
- 4 occupational illness, or damage to or loss of equipment or property. For
- 5 wildland fire operations, a serious accident involves any of the following:
- 6 ○ One or more fatalities;
- 7 ○ Three or more personnel who are inpatient hospitalized as a direct
- 8 result of or in support of wildland fire operations;
- 9 ○ Property or equipment damage of \$250,000 or more; and/or
- 10 ○ Consequences that the Designated Agency Safety and Health Official
- 11 (DASHO) judges to warrant Serious Accident Investigation.
- 12 • **Wildland Fire Accident**
- 13 An unplanned event or series of events that resulted in injury, occupational
- 14 illness, or damage to or loss of equipment or property to a lesser degree than
- 15 defined in “Serious Wildland Fire Accident”.
- 16 • **Near-miss**
- 17 An unplanned event or series of events that could have resulted in death;
- 18 injury; occupational illness; or damage to or loss of equipment or property
- 19 but did not.
- 20 • **Entrapment**
- 21 A situation where personnel are unexpectedly caught in a fire behavior-
- 22 related, life-threatening position where planned escape routes or safety
- 23 zones are absent, inadequate, or compromised. Entrapment may or may not
- 24 include deployment of a fire shelter for its intended purpose. Entrapment
- 25 may result in a serious wildland fire accident, a wildland fire accident, or a
- 26 near-miss.
- 27 • **Fire Shelter Deployment**
- 28 The removing of a fire shelter from its case and using it as protection
- 29 against fire. Fire shelter deployment may or may not be associated with
- 30 entrapment. Fire shelter deployment may result in a serious wildland fire
- 31 accident, a wildland fire accident, or a near-miss.
- 32 • **Fire Trespass**
- 33 The occurrence of unauthorized fire on agency-protected lands where the
- 34 source of ignition is tied to some type of human activity.
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- 18-6
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1 **Investigation Types and Requirements**

<b>Wildland Fire Event</b>	<b>Investigation Type</b>	<b>Management Level Requiring Notification<sup>1</sup></b>	<b>Management level that determines review type and authorizes review<sup>2</sup></b>
Serious Wildland Fire Accident	Serious Accident Investigation (SAI)	National	National
Wildland Fire Accident	Accident Investigation (AI)  <i>FS- FLA may be used</i>	<i>BLM/NPS-National</i>  <i>FS/FWS-Management Discretion</i>	Region/State/Local
Entrapment	SAI, AI, LLR, depending on severity	National	National
Fire Shelter Deployment	SAI, AI, LLR, depending on severity	National	National
Near-miss	LLR, AAR	Management Discretion	Region/State/Local
Fire Trespass	Fire Cause Determination & Trespass Investigation	Local	Local

2 <sup>1</sup>In the event that a wildland fire entrapment or fatality occurs, immediate  
 3 notification to NICC is required. A *Wildland Fire Entrapment/Fatality Initial*  
 4 *Report* (PMS 405-1) should be completed and mailed to NICC electronically or  
 5 by fax machine within 24 hours. Submit this report even if some data is  
 6 missing. The PMS 405-1 is located at the following web site:  
 7 [http://www.nifc.gov/nicc/logistics/coord\\_forms.htm](http://www.nifc.gov/nicc/logistics/coord_forms.htm).

8 <sup>2</sup> Higher level management may exercise their authority to determine the type of  
 9 review or investigation.

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- **BLM-** *BLM Accidents that involve fire and aviation employees or equipment will be investigated according to the requirements stated in this chapter. Investigations will occur regardless of land jurisdiction. Facts will be collected, causes (organizational factors, local workplace factors, unsafe acts) identified, and an accident investigation report produced. The report will include recommended corrective actions and control measures. Report issuance and follow-up will be through established command channels. BLM Agency Administrators may jointly delegate authority to investigate accidents in cases of mixed jurisdiction or employee involvement. Joint delegations must ensure that BLM investigation*

- 1 requirements are met. The Facilitated Learning Analysis (FLA) process  
2 may be used as a supplemental element to required BLM accident  
3 investigation processes.
- 4 • **FS-** Forest Service Line Officers are the deciding officials regarding what  
5 type of accident investigation or analysis method is to be used for accidents  
6 or near misses occurring under Forest Service jurisdiction. FLAs are a  
7 type of Lessons Learned Review.

## 9 Investigation Processes

### 11 Processes Common to All Wildland Fire Accident Investigations

- 12 • **Site Protection** - The site of the incident should be secured immediately  
13 and nothing moved or disturbed until the area is photographed and visually  
14 reviewed by the investigation team. Exact locations of injured personnel,  
15 entrapments, injuries, fatalities, and the condition and location of personal  
16 protective equipment, property, and other equipment must be documented.
- 17 • **Management of Involved Personnel** - Treatment, transport, and follow-up  
18 care must be immediately arranged for injured and involved personnel. The  
19 Agency Administrator or delegate should develop a roster of involved  
20 personnel and supervisors and ensure they are available for interviews by  
21 the investigation team. The Agency Administrator should consider  
22 relieving involved supervisors from fireline duty until the preliminary  
23 investigation has been completed. Attempt to collect initial statements from  
24 the involved individuals prior to a Critical Incident Stress Management  
25 (CISM) session.
- 26 • **Delegation of Authority** - A Delegation of Authority shall be issued to the  
27 investigation team leader. The Delegation of Authority will outline roles,  
28 responsibilities, and expected deliverables. Delegation of Authority  
29 templates are available at  
30 [http://www.nifc.gov/safety/safety\\_reptsInvest.html](http://www.nifc.gov/safety/safety_reptsInvest.html)
- 31 • **Critical Incident Stress Management (CISM)** - CISM is the  
32 responsibility of local Agency Administrators, who should have individuals  
33 pre-identified for critical incident stress debriefings. Also refer to the  
34 *Agency Administrator's Guide to Critical Incident Management (PMS 926)*,  
35 available at: <http://www.nwcg.gov/pms/pubs/pms926.doc>. Individuals or  
36 teams may be available through Employee Assistance Programs (EAPs) or  
37 Geographic Area Coordination Centers (GACCs).

## 39 Wildland Fire Serious Accident Investigation Process

### 41 Fire Director Responsibilities

42 The Fire Director(s) or designee(s) of the lead agency, or agency responsible for  
43 the land upon which the accident occurred, will:

- 44 • Notify the agency safety manager and Designated Agency Safety and  
45 Health Official (DASHO);



- 1 ● Immediately appoint, authorize (through Delegation of Authority), and  
2 deploy an accident investigation team;
- 3 ● Provide resources and procedures adequate to meet the team's needs.
- 4 ● Receive the factual and management evaluation reports and take action to  
5 accept or reject recommendations;
- 6 ● Forward investigation findings, recommendations, and corrective action  
7 plan to the DASHO (the agency safety office is the "office of record" for  
8 reports);
- 9 ● Convene an accident review board/ board of review (if deemed necessary)  
10 to evaluate the adequacy of the factual and management reports and suggest  
11 corrective actions;
- 12 ● Ensure a corrective action plan is developed, incorporating management  
13 initiatives established to address accident causal factors; and
- 14 ● Ensure Serious Accident Investigations remain independent of other  
15 investigations.

#### 17 **Agency Administrator Responsibilities**

- 18 ● Develop local preparedness plans to guide emergency response.
- 19 ● Identify agencies with jurisdictional responsibilities for the accident.
- 20 ● Provide for and emphasize treatment and care of survivors.
- 21 ● Ensure the Incident Commander secures the accident site.
- 22 ● Conduct an in-briefing to the investigation team.
- 23 ● Facilitate and support the investigation as requested.
- 24 ● Determine need and implement Critical Incident Stress Management  
25 (CISM).
- 26 ● Notify home tribe leadership in the case of a Native American fatality.
- 27 ● Prepare and issue the required 24 Hour Preliminary Report unless formally  
28 delegated to another individual.

#### 30 **Notification**

31 Agency reporting requirements will be followed. As soon as a serious accident  
32 is verified, the following groups or individuals should be notified:

- 33 ● Agency Administrator;
- 34 ● Public affairs;
- 35 ● Agency Law Enforcement;
- 36 ● Safety personnel;
- 37 ● County sheriff or local law enforcement as appropriate to jurisdiction;
- 38 ● National Interagency Coordination Center (NICC) through the local  
39 dispatch center and GACC. Provide a *Wildland Fire Entrapment/Fatality*  
40 *Initial Report* (PMS 405-1) directly to NICC within 24 hours;
- 41 ● Agency headquarters; and
- 42 ● OSHA (within 8 hours if the accident resulted in one or more fatalities or if  
43 three or more personnel are inpatient hospitalized).

44

1 Notification to the respective agency's fire national safety/risk management lead  
2 is required.

3

#### 4 **Designating the Investigation Team Lead**

5 The 1995 Memorandum of Understanding between the U.S. Department of the  
6 Interior and the U.S. Department of Agriculture states that serious wildland fire-  
7 related accidents will be investigated by interagency investigation teams.  
8 Following initial notification of a serious accident, the National Fire Director(s)  
9 or their designee(s) will designate a Serious Accident Investigation Team  
10 Lead(s) and provide that person(s) with a written Delegation of Authority to  
11 conduct the investigation and the means to form and deploy an investigation  
12 team.

- 13 • *BLM- The Fire and Aviation Directorate Safety Program Manager*  
14 *mobilizes SAI teams in coordination with the SAI Team Leader.*

15

16 Accidents involving more than one agency will require a collaboratively  
17 developed Delegation of Authority that is signed by each of the respective  
18 agencies.

19

#### 20 **Serious Accident Investigation Team (SAIT) Composition**

21 SAI Team members should not be affiliated with the unit that sustained the  
22 accident.

- 23 • **Team Leader (Core Team Member)**

24 A senior agency management official, at the equivalent associate/assistant  
25 regional/state/area/division director level. The team leader will direct the  
26 investigation and serve as the point of contact to the Designated Agency  
27 Safety and Health Official (DASHO).

- 28 • **Chief Investigator (Core Team Member)**

29 A qualified accident investigation specialist is responsible for the direct  
30 management of all investigation activities. The chief investigator reports to  
31 the team leader.

- 32 • **Accident Investigation Advisor/Safety Manager (Core Team Member)**

33 An experienced safety and occupational health specialist or manager who  
34 acts as an advisor to the team leader to ensure that the investigation focus  
35 remains on safety and health issues. The accident investigation  
36 advisor/safety manager also works to ensure strategic management issues  
37 are examined. Delegating Officials or their designee may, at their  
38 discretion, fill this position with a trained and qualified NWCG Safety  
39 Officer, Line (SOFR), Safety Officer, Type 2 (SOF2), or Safety Officer,  
40 Type 1 (SOF1).

- 41 • **Interagency Representative**

42 An interagency representative will be assigned to every fire-related Serious  
43 Accident Investigation Team. They will assist as designated by the team  
44 leader and will provide outside agency perspective. They will assist as  
45 assigned by the Team Leader and will provide a perspective from outside  
46 the agency.

- 1 • **Technical Specialists**  
2 Personnel who are qualified and experienced in specialized occupations,  
3 activities, skills, and equipment, addressing specific technical issues such as  
4 specialized fire equipment, weather, and fire behavior.
- 5 • **Public Affairs Officer**  
6 For investigations with high public visibility and significant news media  
7 interest, a public affairs officer (PAO) should be considered a part of the  
8 team. The PAO should develop a communications plan for the team, be a  
9 designated point of contact for news media, and oversee all aspects of  
10 internal and external communications. Ideally, the PAO should be qualified  
11 as a Type 1 or Type 2 public information officer and be familiar with SAI  
12 team organization and function.
  - 13 ○ **BLM** - All media related documents (news releases, talking points,  
14 etc.) should be cleared through NIFC Public Affairs prior to external  
15 release.

16  
17 Core SAI Team members are required to take the Interagency Serious Accident  
18 Investigation Course 1112-05 prior to serious accident investigation assignment.  
19 This training is also required every 5 years for recurrency.

- 20 • **FS/BLM/FWS**- This training is required every 5 years to retain currency.

#### 21 **SAI 24 and 72 Hour Reports**

22 Final 24 and 72 hour reports will be approved by the SAI delegating official,  
23 then sent to the agency fire safety/risk management lead for national  
24 distribution, which may include posting through the NWCG Safety Alert  
25 System.  
26

- 27 • **24-Hour Preliminary Report**- This report contains known basic facts about  
28 the accident. It will be completed and forwarded by the responsible Agency  
29 Administrator to the SAI delegating official. Names of injured personnel  
30 will not be included in this report. Personnel may be referenced by  
31 position.
- 32 • **72-Hour Expanded Report**- This report provides additional factual  
33 information, if available. The information may include the number of  
34 victims and severity of injuries. The focus should be on information that  
35 may have immediate impact on future accident prevention. This report will  
36 be completed and forwarded by the SAI team to the SAI delegating official.  
37 Names of injured personnel will not be included in this report. Personnel  
38 may be referenced by position.

#### 39 **SAIT Final Report**

40 Within 45 days of the incident, a final report consisting of a Factual Report (FR)  
41 and a Management Evaluation Report (MER) will be produced by the  
42 investigation team to document facts, findings, and recommendations and  
43 forwarded to the Designated Agency Safety and Health Official (DASHO)  
44 through the agency Fire Director(s).  
45

46

1 Factual Report and Management Evaluation Report formatting can be found on  
2 the NIFC website at: [http://www.nifc.gov/safety/accident\\_resources.htm](http://www.nifc.gov/safety/accident_resources.htm)

3

- 4 • **Factual Report** This report contains a brief summary or background of the  
5 event, and facts based only on examination of technical and procedural  
6 issues related to equipment and tactical fire operations. It does not contain  
7 opinions, conclusions, or recommendations. Names of injured personnel  
8 are not to be included in this report (reference them by position). Post-  
9 accident actions should be included in this report (emergency response  
10 attribute to survival of a victim, etc).

11

12 Factual Reports will be submitted to Wildland Fire Lessons Learned Center  
13 (LLC) by the respective agency's fire safety/risk management leads.

14 E-mail: [lldocssubmit@gmail.com](mailto:lldocssubmit@gmail.com)

15

- 16 • **Management Evaluation Report (MER)**

17 The MER is intended for internal use only and explores management  
18 policies, practices, procedures, and personal performance related to the  
19 accident. The MER categorizes findings identified in the factual report and  
20 provides recommendations to prevent or reduce the risk of similar  
21 accidents.

22

- 23 **Accident Review Board/Board of Review**

24 An Accident Review Board/Board of Review is used by some agencies to  
25 evaluate recommendations, and develop a corrective action plan. Refer to the  
26 respective agency's Safety and Health policy.

27

## 28 **Wildland Fire Accident Investigation Process**

29

30 Accident investigations and reports should be commensurate with the  
31 complexity and/or severity of the accident. Investigations and reports may range  
32 from large investigation teams producing in-depth reports to first-level  
33 supervisors initiating investigations and reporting injury/property damage in  
34 agency reporting systems.

35

- 36 **Notification**

37 When an accident occurs, agency notification requirements will be followed.

38 Notification requirements universally include:

- 39 • Local dispatch center
- 40 • Unit Fire Management Officer
- 41 • Agency Administrator

42

- 43 **Investigation Team Membership**

44 Investigation team membership should be commensurate with the complexity  
45 and/or severity of the accident. An investigation team should consist of a team  
46 leader and an adequate number of technical specialists and subject matter

1 experts. For complex investigations, team membership may also include a chief  
2 investigator, a safety advisor/manager, and additional technical specialists, and a  
3 writer/editor. Team members may have dual roles (e.g., chief investigator/safety  
4 advisor).

5

#### 6 **Investigation Methodology**

7 Accident Investigations (AI) are detailed and methodical efforts to collect and  
8 interpret facts related to an accident and to provide specific recommendations to  
9 prevent recurrence. The AI should include the following actions:

- 10 • Visual inspection of involved site, equipment, or material;
- 11 • Detailed analysis of equipment or material, as necessary;
- 12 • Interviews with involved personnel, witnesses, managers, and other  
13 pertinent persons;
- 14 • Collection and review of written statements;
- 15 • Review of records, archives, plans, policies, procedures, and other pertinent  
16 documents;
- 17 • Consideration of environmental, equipment, material, procedural, and  
18 human factors as they related to the incident; and
- 19 • Development of specific findings and related recommendations for the AI  
20 report.

21

#### 22 **AI 24 and 72 Hour Reports**

23 24 and 72 hour reports should be completed when a formal AI will be  
24 conducted. Final 24 and 72 hour reports will be approved by the AI delegating  
25 official, then sent to the agency fire safety/risk management lead for national  
26 distribution, which may include posting through the NWCG Safety Alert  
27 System.

- 28 • 24-Hour Preliminary Report- This report contains known basic facts about  
29 the accident. It will be completed and forwarded by the responsible Agency  
30 Administrator to the next higher level (e.g. District Manager forwards to  
31 Sate Director). Names of injured personnel will not be included in this  
32 report. Personnel may be referenced by position.
- 33 • 72-Hour Expanded Report- This report provides additional factual  
34 information, if available. The information may include the number of  
35 victims and severity of injuries. The focus should be on information that  
36 may have immediate impact on future accident prevention. This report will  
37 be completed and forwarded by the AI team to the AI delegating official.  
38 Names of injured personnel will not be included in this report. Personnel  
39 may be referenced by position.

40

#### 41 **AI Final Report**

42 Within 45 days of the accident, a final report including facts, findings, and  
43 recommendations shall be submitted to the senior manager dependent upon the  
44 level of investigation (e.g., local Agency Administrator, State/Regional Director,  
45 and Agency Fire Director or their designee). If a lower level investigation is

1 conducted, a courtesy copy of the final report shall be sent to the respective  
2 agency's national fire safety/risk management lead.  
3 The Final Report (minus names of employees- they should be referenced by  
4 position) will be submitted to Wildland Fire Lessons Learned Center (LLC) by  
5 the respective agency's National Fire Safety Leads.  
6 E-mail: llcdocsuubmit@gmail.com

7

#### 8 **Accident Investigation Report Standard Contents**

- 9 • **Executive Summary** - A brief narrative of the facts involving the accident  
10 including dates, locations, times, name of incident, jurisdiction(s), number  
11 of individuals involved, etc. Names of injured personnel or personnel  
12 involved in the accident are not to be included in this report (reference them  
13 by position).
- 14 • **Narrative** - A detailed chronological narrative of events leading up to and  
15 including the accident, as well as rescue and medical actions taken after the  
16 accident. This section will contain who, what, and where.
- 17 • **Investigation Process**- A brief narrative of actions taken by the  
18 investigation team. This narrative should include investigation team  
19 membership, Delegation of Authority information (from who and contents,  
20 include a copy as an appendix), investigative actions and timeline (when the  
21 team conducted interviews, inspections, site visits, etc.), and if other sources  
22 were consulted (i.e. professional accident reconstruction experts, equipment  
23 manufacturers, etc.). This section should also address if environmental,  
24 equipment, material, procedural, and human factors were present, and state  
25 how findings/recommendations were developed.
- 26 • **Findings/Recommendations**
  - 27 ○ **Findings** are developed from the factual information. Each finding is a  
28 single event or condition. Each finding is an essential step in the  
29 accident sequence, but each finding is not necessarily causal or  
30 contributing. Findings should only include information necessary to  
31 explain the specific event or condition. Findings must be substantiated  
32 by the factual data. Findings should not include opinion or speculation.
  - 33 ○ **Discussion** –This provides explanation or information pertinent to a  
34 specific finding.
  - 35 ○ **Recommendations** - Recommendations are proposed actions intended  
36 to prevent similar accidents. Recommendations should be directly  
37 related to findings, should not contain opinion or speculation, and  
38 should identify the specific individual responsible for completing the  
39 recommended action. Recommendations will be evaluated and may be  
40 incorporated into future operational direction through established  
41 processes.
- 42 • **Conclusions and Observations** - Investigation team's opinions and  
43 inferences, and "lessons learned" may be captured in the section. This  
44 section is not required.

45

46

- 1 • **Reference Materials**
- 2 ○ **Maps/Photographs/Illustrations** - Graphic information used to
- 3 document and visually portray facts.
- 4 ○ **Appendices** - Reference materials (e.g., fire behavior analysis,
- 5 equipment maintenance reports, agreements, Delegation of Authority).
- 6 ○ **Records** - Factual data and documents used to substantiate facts
- 7 involving the accident.
- 8
- 9 An AI Delegation of Authority template, AI report template and examples of AI
- 10 reports can be found at the NIFC Safety website:
- 11 [http://www.nifc.gov/safety/safety\\_reprtsInvest.html](http://www.nifc.gov/safety/safety_reprtsInvest.html)
- 12

## 13 **Fire Cause Determination and Trespass Investigation**

### 14 **Introduction**

15 Agency policy requires determination of cause, origin, and responsibility for all  
16 wildfires. Accurate fire cause determination is a critical first step for a  
17 successful fire investigation and for targeting fire prevention efforts. Proper  
18 investigative procedures, which occur concurrent with initial attack, more  
19 accurately pinpoint fire causes and can preserve valuable evidence that would  
20 otherwise be destroyed by suppression activities. Fire trespass refers to the  
21 occurrence of unauthorized fire on agency-protected lands where the source of  
22 ignition is tied to some type of human activity.

### 23 **Policy**

24 The agency must pursue cost recovery, or document why cost recovery is not  
25 required, for all human-caused fires on public lands. The agency will also  
26 pursue cost recovery for other lands under fire protection agreement where the  
27 agency is not reimbursed for suppression actions, if so stipulated in the  
28 agreement.

29 For all human-caused fires where negligence can be determined, trespass actions  
30 are to be taken to recover cost of suppression activities, land rehabilitation, and  
31 damages to the resource and improvements. Only fires started by natural causes  
32 will not be considered for trespass and related cost recovery.

33 The determination whether to proceed with trespass action must be made on  
34 “incident facts,” not on “cost or ability to pay.” Trespass collection is both a  
35 cost recovery and a deterrent to prevent future damage to public land. It is  
36 prudent to pursue collection of costs, no matter how small. This determination  
37 must be documented and filed in the unit office’s official fire report file.

38 The Agency Administrator has the responsibility to bill for the total cost of the  
39 fire and authority to accept only full payment. On the recommendation of the  
40 State/Regional Director, the Solicitor/Office of General Counsel may  
41 compromise claims of the United States, up to the monetary limits (\$100,000)

42 **Release Date: January 2013**

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1 established by law 31 U.S.C. 3711[a], 4 CFR 103-104, and 205 DM 7.1 and 7.2.  
2 The Solicitor/Office of General Counsel will refer suspension or termination of  
3 the amount, in excess of \$100,000, exclusive of interest, penalties, or  
4 administrative charges, to the Department of Justice.

5  
6 Unless specified otherwise in an approved protection agreement, the agency that  
7 has the land management jurisdiction/administration role is accountable for  
8 determining the cause of ignition, responsible party, and for obtaining all  
9 billable costs, performing the billing, collection, and distribution of the collected  
10 funds. The agency with the fire protection responsibility role must provide the  
11 initial determination of cause to the agency with the land management  
12 jurisdiction/administration role. The agency providing fire protection shall  
13 provide a detailed report of suppression costs that will allow the jurisdictional  
14 agency to proceed with trespass procedures in a timely manner.

15  
16 Each agency's role in fire trespass billing and collection must be specifically  
17 defined in the relevant Cooperative Fire Protection Agreement. The billing and  
18 collection process for federal agencies is:

- 19 • For example, a federal agency fire occurs on another federal agency's land  
20 and is determined to be a trespass fire. BLM provides assistance, and  
21 supplies costs of that assistance to the federal agency with jurisdictional  
22 responsibility for trespass billing. The responsible federal agency bills and  
23 collects trespass, and BLM then bills the federal agency and is reimbursed  
24 for its share of the collection.
- 25 • For example, where BLM administered land is protected by a state agency,  
26 the billing and collection process is:
  - 27 ○ The state bills BLM for their suppression costs. The BLM will pursue  
28 trespass action for all costs, suppression, rehabilitation, and damages,  
29 and deposits the collection per BLM's trespass guidance.

30  
31 Initiation of fire cause determination must be started with notification of an  
32 incident. Initial attack dispatchers are responsible for capturing all pertinent  
33 information when the fire is reported and throughout the incident. The initial  
34 attack Incident Commander and the initial attack forces are responsible for  
35 initiating fire cause determination and documenting observations starting with  
36 their travel to the fire. If probable cause indicates human involvement, an  
37 individual qualified in fire cause determination (INVF or cooperator equivalent)  
38 should be dispatched to the fire.

39 Agency references:

- 40 • *BLM - 9238-1*
- 41 • *FWS - Fire Management Handbook*
- 42 • *NPS - RM-18, Chapter 6 and RM-9*
- 43 • *FS - FSM 5130 and FSM 5300*

44  
45  
46



1 **Related Policy Documents**

2  
 3 These documents provide specific direction related to incident and accident  
 4 investigations.

	Safety	Prescribed Fire
<b>DOI</b>	485 DM Chapter 7	
<b>BLM</b>	Manual 1112-2, 1112-1	
<b>FWS</b>	Service Manual 095	
<b>NPS</b>	DO/RM-50B, RM-18 Chapter 3	RM-18, Chapter 7
<b>FS</b>	FSH-6709.11	FSM-5140
	FSM-5100 and FSH-6709.11, FSM 5720 (Aviation), FSM 5130 (Ground Operations), FSM 6730 (Specific policy), FSH 6709.12 Chapter 30 (General guidance), and most recent <i>Accident Investigation Guide</i> , for specific guidance.	
<b>Interagency</b>	Information on accident investigations may be found at: <a href="http://www.nifc.gov/safety/accident_resources.htm">http://www.nifc.gov/safety/accident_resources.htm</a> . For reporting use <i>PMS 405-1, Wildland Fire Fatality and Entrapment Initial Report</i> , on the NWCG website.	

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