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## 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 the agency(ies) for accident prevention and safety purposes.

### Multiagency Cooperation

Many reviews and investigations involve cooperation between Federal, State, County, and Municipal Agencies. To fulfill each agencies authorities, policies, and responsibilities a multi-agency review or investigation may be necessary.

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-agency cooperation and coordination. Reviews do not have to be associated with a specific incident. The purpose of a review is to ensure the effectiveness of the system element being reviewed, and to identify deficiencies and

1 recommend specific corrective actions. Established review types are described  
2 below and include:

- 3 • Preparedness Review
- 4 • After Action Review
- 5 • Fire and Aviation Safety Team Review
- 6 • Aviation Safety and Technical Assistance Team Review
- 7 • Large Fire Cost Reviews
- 8 • Individual Fire Review
- 9 • Lessons Learned Review
- 10 • Escaped Prescribed Fire Review

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#### 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)	

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#### Preparedness Reviews

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

17

18 Preparedness Reviews identify organizational, operational, procedural,  
19 personnel, or equipment deficiencies, and recommend specific corrective  
20 actions. Interagency Preparedness Review Checklists can be found at:  
21 [http://www.nifc.gov/policies/preparedness\\_reviews/preparedness\\_reviews.htm](http://www.nifc.gov/policies/preparedness_reviews/preparedness_reviews.htm)  
22

23

#### After Action Reviews (AAR)

24 An AAR is a learning tool intended for the evaluation of an incident or project  
25 in order to improve performance by sustaining strengths and correcting  
26

1 weaknesses. An AAR is performed as soon after the event as possible by the  
2 personnel involved. An AAR should encourage input from participants that is  
3 focused on:

- 4 • What was planned?
- 5 • What actually happened?
- 6 • Why it happened?
- 7 • What can be done the next time?

8  
9 An AAR is a tool that leaders and units can use to get maximum benefit from  
10 the experience gained on any incident or project. When possible, the leader of  
11 the incident or project should facilitate the AAR process. However, the leader  
12 may choose to have another person facilitate the AAR as needed and  
13 appropriate. AARs may be conducted at any organizational level. However, all  
14 AARs follow the same format, involve the exchange of ideas and observations,  
15 and focus on improving proficiency. The AAR should not be utilized as an  
16 investigational review. The format can be found in the *Interagency Response*  
17 *Pocket Guide (IRPG), PMS #461, NFES #1007*

#### 18 **Fire and Aviation Safety Team (FAST) Reviews**

19 Fire and Aviation Safety Teams assist agency administrators during periods of  
20 high fire activity by assessing policy, rules, regulations, and management  
21 oversight relating to operational issues. They can also do the following:

- 22 • Provide guidance to ensure fire and aviation programs are conducted safely.
- 23 • Assist with providing immediate corrective actions.
- 24 • Review compliance with OSHA abatement plan(s), reports, reviews and  
25 evaluations.
- 26 • Review compliance with *Interagency Standards for Fire and Fire Aviation*  
27 *Operations*.

28  
29  
30 FAST reviews can be requested through geographic area coordination centers to  
31 conduct reviews at the state/regional and local level. If a more comprehensive  
32 review is required, a national FAST can be ordered through the National  
33 Interagency Coordination Center.

34  
35 FASTs include a team leader, who is either an agency administrator or fire  
36 program lead with previous experience as a FAST member, a safety and health  
37 manager, and other individuals with a mix of skills from fire and aviation  
38 management.

39  
40 FASTs will be chartered by their respective Geographic Area Coordinating  
41 Group (GACG) with a delegation of authority, and report back to the GACG.

42  
43 Fast reports will include an executive summary, purpose, objectives,  
44 methods/procedures, findings, recommendations, follow-up actions (immediate,  
45 long-term, national issues), and a letter delegating authority for the review.

1 FAST reports should be submitted to the Geographic Area Coordinating Group  
2 with a copy to the Federal Fire and Aviation Safety Team (FFAST) chair within  
3 30 days. See Appendix O for sample FAST Delegation of Authority.

#### 4 5 **Aviation Safety and Technical Assistance Team (ASTAT) Reviews**

6 Refer to Chapter 16 for ASTAT information.

#### 7 8 **Large Fire Cost Reviews**

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

#### 12 13 **Individual Fire Reviews**

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

#### 20 21 **Lessons Learned Reviews (LLRs)**

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

30  
31 A LLR should be tailored to the event being reviewed and the extent of the  
32 review should be commensurate with the severity of the incident. An LLR  
33 should not be used in lieu of a Serious Accident Investigation (SAI) or Non-  
34 Serious Accident Investigation (NSAI) if the SAI/NSAI criteria have been met.

- 35 • *FS- Facilitated Learning Analysis (FLA)/Accident Prevention Analysis*  
36 *(APA) may be used for incidents meeting the NSAI criteria.*

37  
38 A LLR will be led by a facilitator not involved in the event. A facilitator should  
39 be an appropriate fire management expert who possesses skills in interpersonal  
40 communications, organization, and be unbiased to the event. Personnel  
41 involved in the event will be participants in the review process. Depending  
42 upon the complexity of the event, the facilitator may request assistance from  
43 technical experts (e.g., fire behavior, fire operations, etc.).

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- 1 The LLR facilitator will convene the participants and:
- 2 ● Obtain delegation of authority from appropriate agency level. See appendix
  - 3 K for a sample LLR Delegation of Authority.
  - 4 ● Identify facts of the event (sand tables maybe helpful in the process) and
  - 5 develop a chronological narrative of the event.
  - 6 ● Identify underlying reasons for success or unintended outcomes.
  - 7 ● Identify what individuals learned and what they would do differently in the
  - 8 future.
  - 9 ● Identify any recommendations that would prevent future similar
  - 10 occurrences.
  - 11 ● Provide a final written report including the above items to the pertinent
  - 12 agency administrator(s) within two weeks of event occurrence unless
  - 13 otherwise negotiated. Names of involved personnel should not be included
  - 14 in this report (reference them by position).

15  
16 A copy of the final report will be submitted to the respective agency's national  
17 fire safety lead who will provide a copy to the Wildland Fire Lessons Learned  
18 Center (WFLLC). Website: <http://wildfirelessons.net/Home.aspx>.

- 19 ● *FS - The Forest Service has developed two processes for conducting*
- 20 *Lessons Learned Reviews: the Facilitated Learning Analysis (FLA) and the*
- 21 *Accident Prevention Analysis (APA). Guides have been produced for these*
- 22 *processes and are available at:*
- 23 *[http://www.wildfirelessons.net/documents/Organizational\\_Learning\\_APA\\_](http://www.wildfirelessons.net/documents/Organizational_Learning_APA_)*
- 24 *[FLA\\_Guides\\_2010.pdf](http://www.wildfirelessons.net/documents/Organizational_Learning_APA_)*

### 25 26 **Escaped Prescribed Fire**

27 A prescribed fire which has exceeded or is expected to exceed its prescription.

### 28 29 **Escaped Prescribed Fire Reviews**

30 Escaped prescribed fire review direction is found in these agency documents:  
31 *Interagency Prescribed Fire Planning and Implementation Procedures*  
32 *Reference Guide (August 2008)*

- 33 ● *BLM - IM No. OF&A 2009-014*
- 34 ● *FWS - Fire Management Handbook*
- 35 ● *NPS - RM-18, Chapter 7 & 17*
- 36 ● *FS - FSM 5140*

### 37 38 **Investigations**

39  
40 Investigations are detailed and methodical efforts to collect and interpret facts  
41 related to an incident or accident, identify causes (organizational factors, local  
42 workplace factors, unsafe acts), and develop control measures to prevent  
43 recurrence.

1 **Wildland Fire Incident and Accident Definitions**

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- **Serious Wildland Fire Accident**

An unplanned event or series of events that resulted in death; injury, occupational illness, or damage to or loss of equipment or property. For wildland fire operations, a serious accident involves any of the following:

- One or more fatalities.
- Three or more personnel who are inpatient hospitalized as a direct result of or in support of wildland fire operations.
- Property or equipment damage of \$250,000 or more.
- Consequences that the Designated Agency Safety and Health Official (DASHO) judges to warrant Serious Accident Investigation.

- **Non-Serious Wildland Fire Accident**

An unplanned event or series of events that resulted in injury, occupational illness, or damage to or loss of equipment or property to a lesser degree than defined in “Serious Wildland Fire Accident.”

- **Near-miss**

An unplanned event or series of events that could have resulted in death; injury; occupational illness; or damage to or loss of equipment or property but did not.

- **Entrapment**

A situation where personnel are unexpectedly caught in a fire behavior-related, life-threatening position where planned escape routes or safety zones are absent, inadequate, or compromised. Entrapment may or may not include deployment of a fire shelter for its intended purpose. Entrapment may result in a serious wildland fire accident, a non-serious wildland fire accident, or a near-miss.

- **Fire Shelter Deployment**

The removing of a fire shelter from its case and using it as protection against fire. Fire shelter deployment may or may not be associated with entrapment. Fire shelter deployment may result in a serious wildland fire accident, a non-serious wildland fire accident, or a near-miss.

- **Fire Trespass**

The occurrence of unauthorized fire on agency-protected lands where the source of ignition is tied to some type of human activity.

1 **Investigation Types and Requirements**

Wildland Fire Event	Investigation Type	Notification Requirement	Management level that determines review type and authorizes review*
Serious Wildland Fire Accident	Serious Accident Investigation (SAI)	National	National
Non Serious Wildland Fire Accident	Non-Serious Accident Investigation (NSAI)  <i>FS only- APA/FLA may be used</i>	<i>BLM/NPS-National</i>  <i>FS/FWS-Management Discretion</i>	Region/State/Local
Entrapment	SAI, NSAI, LLR, depending on severity	National	National
Fire Shelter Deployment	SAI, NSAI, 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 \* Higher level management may exercise their authority to determine the type of  
 3 review or investigation.

4

5 **Investigation Processes**

6

7 **Processes Common to Serious and Non-Serious Wildland Fire**

8 **Investigations**

- 9 • **Site Protection** - The site of the incident should be secured immediately  
 10 and nothing moved or disturbed until the area is photographed and visually  
 11 reviewed. Exact locations of injured personnel, entrapments, injuries,  
 12 fatalities, and the condition and location of personal protective equipment,  
 13 property, and other equipment must be documented.
- 14 • **Management of Involved Personnel** - Treatment, transport, and follow-up  
 15 care must be immediately arranged for injured and involved personnel. The  
 16 agency administrator or delegate should develop a roster of involved  
 17 personnel and supervisors and ensure they are available for interviews by  
 18 the investigation team. The agency administrator should consider relieving  
 19 involved supervisors from fireline duty until the preliminary investigation  
 20 has been completed. Attempt to collect initial statements from the involved  
 21 individuals prior to a Critical Incident Stress Management (CISM) session.

- 1 • **Critical Incident Stress Management (CISM)** - CISM is the  
2 responsibility of local agency administrators, who should have individuals  
3 pre-identified for critical incident stress debriefings. Also refer to The  
4 Agency Administrator's Guide to Critical Incident Management (PMS 926),  
5 available at: <http://www.nwcg.gov/pms/pubs/pms926.doc>. Individuals or  
6 teams may be available through Employee Assistance Programs (EAPs) or  
7 Geographic Area Coordination Centers (GACCs).
- 8 • **24-Hour-Preliminary Report** - This report contains known basic facts  
9 about the accident. It will be completed and forwarded by the agency  
10 administrator responsible for the jurisdiction where the accident occurred.  
11 Names of injured personnel are not to be included in this report (reference  
12 them by position).
- 13 • **72-Hour Expanded Report** - This report provides more detail about the  
14 accident and may contain the number of victims, severity of injuries, and  
15 information focused on accident prevention. It will be completed and  
16 forwarded by the SAI Team. Names of injured personnel are not to be  
17 included in this report (reference them by position).
- 18 • **24 and 72 Hour Reports** shall be sent to the respective agency's fire  
19 safety/risk management lead for national distribution and potential posting  
20 through NWCG Safety Alert System.

## 21 **Wildland Fire Serious Accident Investigation Process**

### 22 **Fire Director Responsibilities**

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

- 25 • Notify the agency safety manager and Designated Agency Safety and  
26 Health Official (DASHO).
- 27 • Immediately appoint, authorize, and deploy an accident investigation team.
- 28 • Provide resources and procedures adequate to meet the team's needs.
- 29 • Receive the factual and management evaluation reports and take action to  
30 accept or reject recommendations.
- 31 • Forward investigation findings, recommendations, and corrective action  
32 plan to the DASHO (the agency safety office is the "office of record" for  
33 reports).
- 34 • Convene an accident review board/ board of review (if deemed necessary)  
35 to evaluate the adequacy of the factual and management reports and suggest  
36 corrective actions.
- 37 • Ensure a corrective action plan is developed, incorporating management  
38 initiatives established to address accident causal factors.
- 39 • Ensure Serious Accident Investigations remain independent of other  
40 investigations.
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**1 Agency Administrator Responsibilities**

- 2 ● Develop local preparedness plans to guide emergency response.
- 3 ● Identify agencies with jurisdictional responsibilities for the accident.
- 4 ● Provide for and emphasize treatment and care of survivors.
- 5 ● Ensure the Incident Commander secures the accident site.
- 6 ● Conduct an in-briefing to the investigation team.
- 7 ● Facilitate and support the investigation as requested.
- 8 ● Determine need and implement Critical Incident Stress Management
- 9 (CISM).
- 10 ● Notify home tribe leadership in the case of a Native American fatality.
- 11 ● Prepare and issue required 24 Hour Preliminary Report.

**13 Notification**

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

- 16 ● Agency administrator
- 17 ● Public affairs
- 18 ● Agency Law Enforcement
- 19 ● Safety personnel
- 20 ● County sheriff or local law enforcement as appropriate to jurisdiction
- 21 ● National Interagency Coordination Center (NICC)
- 22 ● Agency headquarters
- 23 ● OSHA (within 8 hours if the accident resulted in one or more fatalities or if
- 24 three or more personnel are inpatient hospitalized)

25  
26 Notification to the respective agency's fire national safety/risk management lead  
27 is required.

**29 Designating the Investigation Team Lead**

30 The 1995 Memorandum of Understanding between the U.S. Department of the  
31 Interior and the U.S. Department of Agriculture states that serious wildland fire-  
32 related accidents will be investigated by interagency investigation teams.  
33 Following initial notification of a serious accident, the National Fire Director(s)  
34 or their designee(s) will designate a Serious Accident Investigation Team  
35 Lead(s) and provide that person(s) with a written delegation of authority to  
36 conduct the investigation and the means to form and deploy an investigation  
37 team.

38  
39 Accidents involving more than one agency will require a collaboratively  
40 developed delegation of authority that is signed by each of the respective  
41 agencies.

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1 **Serious Accident Investigation Team Composition**

2 • **Team Leader (Core Team Member)**

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

7 • **Chief Investigator (Core Team Member)**

8 A qualified accident investigation specialist is responsible for the direct  
9 management of all investigation activities. The chief investigator reports to  
10 the team leader.

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

12 An experienced safety and occupational health specialist or manager who  
13 acts as an advisor to the team leader to ensure that the investigation focus  
14 remains on safety and health issues. The accident investigation  
15 advisor/safety manager also works to ensure strategic management issues  
16 are examined.

17 • **Interagency Representative**

18 An interagency representative will be assigned to every fire-related Serious  
19 Accident Investigation Team. They will assist as designated by the team  
20 leader and will provide outside agency perspective.

21 • **Technical Specialists**

22 Personnel who are qualified and experienced in specialized occupations,  
23 activities, skills, and equipment, addressing specific technical issues such as  
24 specialized fire equipment, weather, and fire behavior.

25 • **Public Affairs Officer**

26 For investigations with high public visibility and significant news media  
27 interest, a public affairs officer (PAO) should be considered to be part of the  
28 team. The PAO generally should not be affiliated with the home unit. The  
29 PAO should develop a communications plan for the team, be a designated  
30 point of contact for news media, and oversee all aspects of internal and  
31 external communications. Ideally, the PAO should be qualified as a Type 1  
32 or Type 2 public information officer and be familiar with SAI team  
33 organization and function.

34 • ***BLM - All media related documents (news releases, talking points, etc.)***  
35 ***should be cleared through NIFC Public Affairs prior to external release.***

36 • ***BLM - Coordination and mobilization is done by Fire and Aviation***  
37 ***Directorate's Safety and Health Manager.***

38  
39 Core SAI Team members will be required to take the Interagency Serious  
40 Accident Investigation Course 1112-05 prior to serious accident investigation  
41 assignment. This training is also required every 5 years for recurrency.

42  
43 **SAIT Final Report**

44 Within 45 days of the incident, a final report consisting of a Factual Report (FR)  
45 and a Management Evaluation Report (MER) will be produced by the

1 investigation team to document facts, findings, and recommendations and  
2 forwarded to the Designated Agency Safety and Health Official (DASHO)  
3 through the agency Fire Director(s).

4  
5 Factual and Management Evaluation Report formatting can be found on the  
6 NIFC website at: [http://www.nifc.gov/safety/accident\\_resources.htm](http://www.nifc.gov/safety/accident_resources.htm)

#### 7 8 **Factual Report**

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

16  
17 Factual Reports will be submitted to Wildland Fire Lessons Learned Center  
18 (LLC) by the respective agency's fire safety/risk management leads.  
19 <http://iirdb.wildfirelessons.net/main/Reviews.aspx>.

#### 20 21 **Management Evaluation Report (MER)**

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

#### 26 27 **Accident Review Board/Board of Review**

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

### 31 32 **Wildland Fire Non-Serious Accident Investigation Process**

#### 33 34 **Notification**

35 Agency specific reporting requirements shall be followed. In most instances,  
36 supervisors will notify unit fire management officer, who will then make  
37 notification through chain of command.

#### 38 39 **Investigation Team Membership**

40 Investigation team membership should be commensurate with the complexity  
41 and/or severity of the accident. For complex investigations, the team should  
42 consist of a chief investigator, a safety advisor/manager, and one technical  
43 specialist. Team members may have dual roles (e.g., chief investigator/safety  
44 advisor). More complex accidents may require the need for a Team Leader and  
45 multiple technical specialists.

46

1 **Final Report**

2 Within 45 days of the accident, a final report detailing the accident to include  
3 facts, findings, and recommendations shall be submitted to the senior manager  
4 dependent upon the level of investigation (e.g., Local agency administrator,  
5 State/Regional Director, and Agency Fire Director or their designee). If a lower  
6 level investigation is conducted, a courtesy copy of the final report shall be sent  
7 to the respective agency's fire safety/risk management lead.

8  
9 The Final Report (minus names of employees- they should be referenced by  
10 position) will be submitted to Wildland Fire Lessons Learned Center (LLC) by  
11 the respective agency's National Fire Safety Leads. Website:  
12 <http://iirdb.wildfirelessons.net/main/Reviews.aspx>.

13  
14 **Non-Serious Accident Investigation Report Standard Format**

- 15 ● **Executive Summary** - A brief narrative of the facts involving the accident  
16 including dates, locations, times, name of incident, jurisdiction(s), number  
17 of individuals involved, etc. Names of injured personnel or personnel  
18 involved in the accident are not to be included in this report (reference them  
19 by position).
- 20 ● **Narrative** - A detailed chronological narrative of events leading up to and  
21 including the accident, as well as rescue and medical actions taken after the  
22 accident. This section will contain who, what, and where.
- 23 ● **Investigation Process** - A brief narrative stating the team was assigned to  
24 investigate the accident. It should include a standard statement that human,  
25 material, and environmental factors were considered. If one of these factors  
26 is determined to be noncontributing to the accident it should be addressed  
27 first and discounted. For example, if the investigation revealed that there  
28 were no environmental findings that contributed to the accident, simply note  
29 the fact and move on to the next factor. Human factors or material factors  
30 paragraphs should not be formulated so as to draw conclusions, nor should  
31 they contain adjectives or adverbs that describe and thus render an opinion  
32 into pertinent facts.
- 33 ● **Findings** - Findings are developed from the factual information. Each  
34 finding is a single event or condition. Each finding is an essential step in  
35 the accident sequence, but each finding is not necessarily causal. Do not  
36 include any more information in each finding than is necessary to explain  
37 the event occurrence. Findings must be substantiated by the factual data  
38 and listed in chronological order within the report.
- 39 ● **Discussion** - Provide a brief explanation of factual and other pertinent  
40 information that lead to the finding(s).
- 41 ● **Recommendations** - Recommendations are the prevention measures that  
42 should be taken to prevent similar accidents. Provide recommendations that  
43 are consistent with the findings and identify at which level the action needs  
44 to occur.
- 45 ● **Conclusions and Observations** - Investigation team's opinions and  
46 inferences may be captured in the section.

- 1 • **Maps/Photographs/Illustrations** - Graphic information used to document  
2 and visually portray facts.
- 3 • **Appendices** - Reference materials (e.g., fire behavior analysis, equipment  
4 maintenance reports, agreements).
- 5 • **Records** - Factual data and documents used to substantiate facts involving  
6 the accident.

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

### 10 **Introduction**

11 Agency policy requires any wildfire to be investigated to determine cause,  
12 origin, and responsibility. Accurate fire cause determination is a necessary first  
13 step in a successful fire investigation. Proper investigative procedures, which  
14 occur concurrent with initial attack, more accurately pinpoint fire causes and can  
15 preserve valuable evidence that would otherwise be destroyed by suppression  
16 activities.

17  
18 The agency or its employees must pursue cost recovery or document why cost  
19 recovery is not initiated for all human caused fires on public and/or other lands  
20 under protection agreement.

21  
22 Fire trespass refers to the occurrence of unauthorized fire on agency-protected  
23 lands where the source of ignition is tied to some type of human activity.

### 25 **Policy**

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

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

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

42  
43 The agency administrator has the responsibility to bill for the total cost of the  
44 fire and authority to accept only full payment. On the recommendation of the  
45 State/Regional Director, the Solicitor/Office of General Counsel may  
46 compromise claims of the United States, up to the monetary limits (\$100,000)

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 All fires must be thoroughly investigated to determine cause. Initiation of cause  
32 determination must be started with notification of an incident. The initial attack  
33 incident commander and the initial attack forces are responsible for initiating  
34 fire cause determination and documenting observations starting with their travel  
35 to the fire. If probable cause indicates human involvement, an individual trained  
36 in fire cause determination should be dispatched to the fire.

37  
38 Agency references:

- 39 • *BLM - 9238-1*
- 40 • *FWS - Fire Management Handbook*
- 41 • *NPS - RM-18, Chapter 8 and RM-9*
- 42 • *FS - FSM 5130 and FSM 5300*

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44  
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1 **Related Policy Documents**

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

5

	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> ,: <a href="http://www.nwcg.gov/pms/forms_otr/pms405-1.pdf">http://www.nwcg.gov/pms/forms_otr/pms405-1.pdf</a> .	

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