

14 - Reviews & Investigations



There are four general types of reviews; program management, preparedness reviews, specific fire reviews, and fire and aviation safety reviews.

Program Reviews

Program reviews include the following:

- Operations evaluation review.
- Bureau fire program review.
- FMP review.

Fire Program Review

The Office of Fire and Aviation will convene an ad hoc team to review Bureau-wide fire activity during any year in which significant, unusual or controversial fire activity occurs. This review team will analyze the reports from national level reviews and appropriate State/Geographic Area reviews to determine what, if any, policy or operational changes should be initiated.

The review team will develop findings and recommendations and establish priorities for action.

Review Levels

Reviews are accomplished at three levels, Field Office, State, and National.

Local Level Review This review should be conducted by the local manager or his or her designated representative. The manager will appoint other qualified persons, including the Fire Management Officer (or an official who has designated fire program management responsibilities) to be a part of the review.

The purpose of this review is to provide the Field Office Manager with information to recognize commendable actions and to take needed corrective action(s). As a minimum an oral review will be conducted. A written evaluation, prepared by the incident commander is required for all extra-period fires.

Costs associated with the review will be charged to the account assigned to the fire with the approval of the State Fire Management Officer. A copy of the complete report will be sent to the State Fire Management Officer, who will review it and, if appropriate, forward a copy to the Director, Office of Fire and Aviation.

State Level Review A State level review will generally be conducted for any fire that:

- Involves serious injury or significant property damage;
- Results in controversy involving another agency;
- Results in adverse media attention; or
- Results in a large expenditure of funds (\$250,000 or WFSA projections of over \$250,000).

The State level review normally will be conducted at the Field Office where the fire occurred. It will be convened by the State Fire Management Officer or his/her designated representative. It will be attended by the Field Office Manager. The Fire Management Officer, the incident commander(s) for the fire, and other individuals agreed upon by the State Director and Field Office Manager.

If possible, the review team should visit the actual fire site as part of the review. A copy of the review report will be sent to the Director of the Office of Fire and Aviation. Costs associated with the review will be charged to the account assigned to the fire.

National Level Review A National level review will generally be conducted for any fire that involves Bureau-wide or national issues, including:

- Fatality(ies) or multiple, serious fire-related injuries
- Significant adverse media or political interest
- Multi-regional resource response
- A substantial loss of equipment or property
- Large expenditure of funds (over \$500,000)
- Any other fire that the director wants reviewed

The National level review normally will be conducted at the Field Office where the fire occurred. It will be convened by the Director, Office of Fire and Aviation, or designated representative. It will be attended by the Field Office Manager, Fire Management Officer, State Fire Management Officer, Incident Commander(s) for the fire, and other individuals agreed upon by the Director and State Director.

The review team should visit the actual site of the fire as part of the review. All costs associated with the review will be charged to the account assigned to the fire.

Operational Evaluations

Operational evaluations of Field Offices and States will include the review of fire management programs to assure compliance with established Bureau standards.

Pre-season preparedness reviews are intended to provide comprehensive operational inspections, evaluations, and reports on BLM fire programs. Standards for conducting fire preparedness reviews are found in the "Interagency Fire Readiness Review Guide, 1996" and the BLM "Fire Preparedness Review Guide 1998." State Offices must ensure reviews of all Field Offices with fire programs are done on an annual basis. The reviews are to take place at the beginning of the fire season. Involvement of line management, and cooperators, where applicable, is critical. The National Office of Fire and Aviation must be notified once inspections are completed. Notification should include assistance needed to correct any critical deficiencies.

Purpose

The purpose of the fire preparedness review is to assist the agency administrator in preparing for and operating during the fire season. It also serves as a mechanism to identify deficiencies, recommend corrective actions and establish the need for follow up to the corrective actions.

Objective

The objective of the fire preparedness review is to provide a comprehensive evaluation and report on BLM fire preparedness.

Preparedness reviews are required to be conducted on an annual basis.

Policy

Elements

The following major elements must be considered when conducting a fire preparedness review. Safety considerations are the most important aspect of the review. Standard elements required to be addressed in the review are as follows:

- Management Direction and Consideration (Line Management and Fire)
- Fire Operations and Procedures
- Fire Business Management and Administration Support
- Fire Equipment
- Fire Dispatch Operations
- Fire Safety
- Fire Facilities
- Training
 - Fire
 - Physical
- Organization and Staffing
- Fire Management Planning Level
- Fire Air Operations
- Prescribed Fire Operations

Review Teams

As a minimum, participation should include expertise in the areas of:

- Line Management
- Fire Operations
- Fire Management
- Fire Business Management Practices
- Dispatch/Logistics
- Aviation

This expertise can be internal, interagency, or contract services. It is encouraged within the parameters of the internal review to bring in expertise from other States. This would facilitate technology transfer of ideas. Managers will determine the makeup of the review teams when the preparedness reviews are conducted at the Field Office level. The State Director shall determine the makeup of the review teams when the reviews are conducted as part of a statewide preparedness review. The Director, Office of Fire and Aviation, will determine the makeup of the review team for national reviews.

Frequencies

Field Office Managers will conduct preparedness inspections on an annual basis. State Directors will conduct preparedness reviews to evaluate all Field Offices within two years. The Director, Office of Fire and Aviation, will conduct preparedness reviews annually so that all States are reviewed within a three-year period.

Fire Preparedness Standards State Offices have the responsibility for conducting fire preparedness evaluations of all BLM offices in their state. BLM fire preparedness review standards are found in the “BLM Fire Preparedness Guide.”

- A final report for each Field Office will be prepared and routed through the State Director to the Field Office Manager.
- A copy of each report will be sent to the National Office by July 15 of each year, with any notification of assistance required to correct identified critical deficiencies.
- When performing reviews of interagency dispatch centers, the review team will conduct a close-out meeting with the local interagency management group.

Fire Reviews

Purpose

The purpose of fire reviews is to examine all or part of the operations on an individual fire. Generally they occur because of a safety concern, large financial expenditures, or operational deficiency. Fire reviews should also be conducted on well run and efficient fires in order to document efficient procedures for future use.

Objectives

Each review will be conducted as a constructive assessment aimed at determining the facts related to the specific fire or fire management program. The review will identify commendable actions, techniques, and decisions as well as areas which need improvement. **Reviews are intended to resolve operational issues, not impose punitive actions.**

Policy

All wildland fires and fire-related incidents, will be reviewed. The approving signature on a DI-1202 will serve as sufficient documentation of an informal review on simple fires involving small acreage and in which no unusual events occurred.

Sufficient information on all other fires will be provided to allow the State Fire Management Officer, in consultation with the Field Office, to recommend the appropriate level of review, if any. This must be done within thirty days after the fire has been declared out. The Field Office Manager and/or State Director will act upon that recommendation and schedule the review.

Fire reviews include the following:

- "Hotline" review
- Incident management team closeout and review
- Wildland fire review
- Prescribed fire review.
- Entrapment and/or fire shelter deployment review.

"Hotline" Review The purpose of the hotline review is to examine the progress of an on-going fire incident, regardless of size. The review will provide a confirmation of the decisions being made daily in the Wildland Fire Situation Analysis or determine where the decision process has been faulty and corrective actions are needed.

The "hotline" review is normally conducted by the Fire Management Officer (or an official who has designated fire program management responsibilities) in conjunction with the Incident Commander on the fire.

These reviews require no special reporting. Documentation of "hotline" reviews should be included in the normal fire report narrative.

Incident Management Team (IMT) Closeout and Review

The agency administrator will conduct a close-out review with the IMT prior to their release from the fire incident. The purpose of this review is to ensure complete transition of the incident management back to the local unit, to evaluate the status of any incomplete fire business, and to bring forward any issues, both positive and those addressing areas in need of improvement.

Wildland Fire Review These reviews are conducted to examine the progress of an on-going fire incident and to confirm effective decisions or correct deficiencies; to identify new or improved procedures, techniques or tactics; to compile consistent and complete information to improve or refine Field Office, State or National fire management programs; to examine anomalous fire-related incidents in order to determine cause(s), contributing factors, and where applicable, recommend corrective actions(if negligence is indicated, the circumstances will be reported and investigated in accordance with applicable regulations, policies or guidelines); and to determine the cost effectiveness of a fire operation.

Prescribed Fire Review A prescribed fire that escapes and requires an expenditure of suppression funds or results in injuries or fatalities will be investigated. Bureau Manual 1112- Safety, Paragraph .22 outlines accident investigation procedures. The following guidelines apply to escaped fire reviews.

The objectives of the prescribed fire review are:

- To prevent future escapes from occurring and to establish accountability.
- To determine if the Prescribed Fire Plan was adequate for the project.
- To determine if the prescription, actions, and procedures set forth on the Prescribed Fire Plan were followed.
- To determine if overall policy, guidance, and procedures relating to prescribed fire operations are adequate.
- To determine the level of awareness and the understanding of the personnel involved, in regard to procedures and guidance.
- To determine the extent of prescribed fire training and experience levels of personnel involved.

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Responsibilities for prescribed fire reviews are as follows:

- **Fire Management Officer** – The Fire Management Officer is required to

make an investigation of all escaped prescribed fires either personally or through an appropriate designated investigator.

- **Field Office Manager** – The Field Office Manager is responsible for ensuring adequate and proper investigation of all escaped prescribed fires that result in personal injury, burn onto private or other agency land, or have expenditures of up to \$50,000 for suppression and/or property damage. The Field Office Manager may appoint an investigation team or request that one be appointed consistent with Manual Section 1112 - Safety, paragraph .22D, Accident Investigations.

The Field Office Manager will notify the State Director of escaped prescribed fires meeting the criteria in the Prescribed Fire Handbook, within 24 hours. Copies of the completed review report will be sent to the State Director and SFMO.

- **State Director** – The State Director is responsible for ensuring adequate and proper investigation of all escaped prescribed fire that result in serious or multiple personal injury, significant burned area on private or other agency land, or has an estimated expenditure from \$50,000 to \$100,000 for suppression and/or property damage.

The State Director will notify the Director, Office of Fire and Aviation, of escaped prescribed fires meeting the criteria in the Prescribed Fire Handbook, within 24 hours. Copies of the completed review report will be sent to the Director (FA-100).

- **BLM Director (FA-100)** – The Director is responsible for ensuring adequate and proper investigation of all escaped prescribed fire resulting in fatality(ies), injury to people not involved in the prescribed fire operation, fire shelter deployment(s), a major transportation route closure, smoke significantly impacting a major population center or causing a public health concern, or has expenditures exceeding \$100,000 for suppression and/or property damage.

The documentation required for a review are listed below. A review team will be provided with all of the **original** documents related to the incident.

- The prescribed fire plan, a chronology of events including the prescribed fire report and unit logs or individual statements, the fire investigation report, weather forecasts including any spot forecasts, RAWs data, and NFDRS data for the day of the escape for the nearest weather station, photos, and any appraisal of damages.
- Documents pertaining to the qualifications and experience of the Prescribed Fire Burn Boss, Ignition Specialist, Holding Specialist, and other key

overhead. This includes red cards, training and experience records, and task books.

- Dispatch logs, radio logs, and any aviation records or logs.

Outline for Final Reports of Fire Reviews

This format is provided to develop consistency in the Bureau fire review reporting system. This format will assure more efficient review of reports at the Field Office, State, and National levels.

Fire reviews will follow the general outline listed below. The list of subjects is included for consideration, but only those subjects that the review team identifies as commendable actions, policy issues or correctable deficiencies need be included in the written report.

- **Introduction** – This section will include the names, titles, agency/home units, fire qualifications and business phone numbers of the review team members. Information regarding the date and place of the review will also be included.
- **Summary Narrative** – This section should contain the basic who, what, when, where, how and why, and should serve the purpose of an executive summary. Unusual major events should be mentioned but not detailed.
- **Findings and Recommendations**
- **Action Items**

Distribution of Reviews

State fire management officers will be responsible for determining specific information from fire reviews that might be of interest or concern to other areas. Such information might be specific problems that occurred or recommendations that might be applicable elsewhere. SFMOs will forward such information within 30 days to the Office of Fire and Aviation for appropriate distribution.

Appendices

Include all documents relevant or required for the particular fire to provide a clear and detailed picture of the incident, including:

- WFSAs with all updates.
- IAPs showing incident strategy and any changes in tactics.
- Map of the fire, by burning periods.
- Incident Status Summaries (ICS-209).

- Precipitation record and NFDRS ten day fire danger records with graph of fire danger indices.
- Weather information including previous day's forecast, subsequent daily forecasts throughout the incident, and all fire behavior predictions generated as a result of these forecasts.
- Completed Individual Fire Report, DI-1202.
- Display maps showing fuel models, transportation system, communication points, and any other information deemed necessary to understanding of the incident.
- Personnel and equipment charts showing buildups by burning periods.
- Detailed financial summary of the incident.

Fire and Aviation Safety Team

Purpose

To assist the Agency Administrator(s) during periods of high fire activity, the Fire and Aviation Safety Team (FAST) will provide an assessment of overall policy, rules, regulations and management oversight; ensure an effective execution of safety-related fire and aviation issues; and provide suggestions and guidance for safe and effective programs.

There are two levels of Fire and Aviation Safety Reviews. Field units are encouraged to establish and dispatch Fire and Aviation Safety Teams through their Geographic Area Coordination Centers for reviews at the State and Field Office level. If a more comprehensive review is necessary a national FAST can be ordered.

Objectives

Agency Administrators should review the following before developing specific objectives for the assigned FAST. These are suggested objectives; you are not limited to them:

- Compliance with existing/current OSHA abatement plan(s), reports, reviews, and evaluations.
- Compliance with BLM's Standards for Fire Operations (qualifications, policies, process, procedures). Specifically address preparedness plan, work/rest, qualifications and training, adherence to 10 Standard Fire Orders and 18 Watch Out Situations, fire and aviation operations, personal protective equipment, briefings, management oversight and involvement, incident

operations when appropriate, and general safety attitude in the overall program.

- Evaluate risk, management, oversight needs, and operational procedures.
- Work with appropriate Agency Administrators, fire and aviation staff, and safety managers to assess safety-related issues and recommend actions.

Recommended Team Makeup

- Team Leader (Line Officer, Fire Program Lead with previous experience as a FAST member).
- Other member with a mix of skills—complex program fire manager, operations, safety, aviation, etc.
- Safety and Health Manager, depending on need.

Roles and Responsibilities

Team Leader:

- 1 Ensure the Team has an initial and closeout briefing with Agency Administrator(s) and staff(s) to identify areas of concern and what is going well!
- 2 Report to appropriate authority (National, Geographic Area, etc.) on observations and findings.
- 3 Receive specific objective(s) from the appropriate authority.
- 4 Communicate with designated national FAST liaison for tracking purposes and support.
- 5 Ensure that all Team members travel in one group as much as possible.
- 6 Promote good Team attitude; coach for success.
- 7 Ensure coordination with Aviation Safety and Technical Assistance Teams, if a separate assignment occurs.
- 8 Assure draft report is completed prior to closeout with requesting unit.
- 9 Submit a final report within 7 days.

Safety and Health Manager:

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- 1 Review program for compliance with designated agency safety and health program, including OSHA standards.

- 2 Review accident reports for accident trends.

National FASTeam Liaison:

- 1 Participate in Team selection.
- 2 Coordinate with National Interagency Coordination Center for ordering and mobilization.
- 3 Brief and coordinate with National FAST, Fire Directors, Federal Fire and Aviation Leadership Council, et al.
- 4 Provide general briefing, expectations, and ongoing guidance to the Team. Include length of assignment and itinerary.

Follow-up

The Team will gather and review all reports prior to end of calendar year to ensure identified corrective actions have been taken.

Report Elements

- Executive Summary
- Purpose
- Objectives
- Methods/Procedures
- Findings
- Recommendations
- Follow-up actions
 - Immediate
 - Long-term
 - National issues
- Delegation (request letter)

Mobilization

Mobilization of a National Fire and Aviation Safety Team will be through the National Interagency Coordination Center. Mobilization of a Geographic Area FAST will be through the Geographic Area Coordination Center.

Team Expectation

- Length of assignment will depend on complexity and objectives, usually (5 days).
- Equipment will include field and office clothing, laptop computer, cellular telephone or pager.
- Travel dependent on location and need.
- Funding will be assigned on the resource order.
- Standard protocol will include, but is not limited to:
 1. Assisting the ordering office in providing fire and aviation oversight.
 2. At mobilization, the Team will be given a briefing from the National Fire and Aviation Safety Team Liaison. The briefing will include ordering office, funding code, overview of situation, report time, location, person to report to, general request information, and mission.
 3. The Team will be assigned a liaison with the National Fire and Aviation Safety Team.
 4. Upon arrival at the ordering unit, the Team will receive an Agency Administrator's briefing, objectives, and (when appropriate) a delegation of authority.
 5. When entering an administrative unit, it is common courtesy to check with Agency Administrator and fire staff. The Team is there to assist and correct problems; not to review and find fault.
 6. Close out with the ordering unit and submit reports.

Fire Accident Reporting & Investigation

Introduction

Reporting is imperative to the safe operation of any program. Accurate and timely reporting provides many benefits to everyone involved in fire and aviation. Hazardous trends, unsafe conditions, and faulty equipment are identified and can be addressed to correct the situation.

Policy

In fire accident reporting and investigation, BLM units will follow BLM safety reporting requirements that are commensurate with the specific accident. Proper application of these procedures is dependent on accurate interpretation of the accident/incident scope to ensure appropriate reporting.

NWCG
**Wildland Fire Entrapment/Fatality
 Initial Report**

Timely reporting of entrapments or fatalities is necessary for the rapid dissemination of accurate information to the fire management community. It will also allow fire safety and equipment specialists to quickly respond to these events as appropriate. This initial report does not replace agency reporting or investigative responsibilities, policies or procedures. Complete this report for fire-related entrapment and/or fatalities. Immediately notify the National Interagency Coordination Center (NICC) attn: Intelligence Section. Submit this written report to the address given below within 24 hours. Submit even if some data are missing.

NICC-National Interagency Fire Center 3833 S. Development Avenue Boise, Idaho 83705-5354	Phone-(208)387-5400 FAX-(208)387-5414	NICC Intelligence Section DG-A.INT:WO2A IAMS-FCNICCOR
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I. General Information

- A. Date _____
- B. Fire name and location _____
- C. Number of personnel involved _____
- D. Number of injuries _____
- E. Number of fatalities _____

II. Fire Related Information

- A. Fuel Model _____
- B. Temperature _____ R.H. _____ Wind _____ (mph)
- C. Topography _____ Slope _____ %
- D. Fire size at time of incident/accident _____ Acres

- E. Urban/wildland intermix Yes No
- F. Cause of Fire Natural Incendiary Accidental Unknown

III. Entrapment

A situation where personnel are unexpectedly caught in a fire-behavior related, life threatening position where escape routes or safety zones are absent, inadequate or have been compromised. An entrapment may or may not include deployment of a fire shelter.

- A. Entrapment information
 - 1. Firefighter trapped with fire shelter without fire shelter
 - 2. Burns/smoke injuries incurred while in fire shelter Yes No
 - 3. Burns/smoke injuries incurred while escaping entrapment Yes No
 - 4. Burns/smoke injuries incurred while fighting fire Yes No
 - 5. Fire shelter performed satisfactorily Yes No

6. Fire shelter was available, but not used Yes No

B. Personal Protective Equipment Used

<input type="checkbox"/> 1. Fire Shelter	Yes No	<input type="checkbox"/> 5. Protective Shirt	Yes No
<input type="checkbox"/> 2. Protective Pants	Yes No	<input type="checkbox"/> 6. Hard hat	Yes No
<input type="checkbox"/> 3. Gloves	Yes No	<input type="checkbox"/> 7. Boots	Yes No
<input type="checkbox"/> 4. Face/Neck Protection	Yes No	<input type="checkbox"/> 8. Goggles	Yes No

IV. Fatalities

A. Type of accident

- | | |
|---|--|
| <input type="checkbox"/> 1. Aircraft | <input type="checkbox"/> 5. Vehicle |
| <input type="checkbox"/> 2. Natural (lightning, drowning, etc.) | <input type="checkbox"/> 6. Smoke |
| <input type="checkbox"/> 3. Medical (heart, stroke, heat, etc.) | <input type="checkbox"/> 7. Entrapment |
| <input type="checkbox"/> 4. Struck by Falling Object | <input type="checkbox"/> 8. Other |

B. Where fatality(s) occurred

- | | |
|---|--|
| <input type="checkbox"/> 1. Fire site | <input type="checkbox"/> 3. In transit |
| <input type="checkbox"/> 2. Incident Base | <input type="checkbox"/> 4. Other |

C. Fatalities

1. Name _____ D.O.B. _____

Employment Status Career Seasonal Casual Other

2. Name _____ D.O.B. _____

Employment Status Career Seasonal Casual Other

3. Name _____ D.O.B. _____

Employment Status Career Seasonal Casual

4. Name _____ D.O.B. _____

Employment Status Career Seasonal Casual

Note: In the event of fatality(s), do not release name(s) until next of kin are notified.

D. Employing agency _____

E. Unit name and address _____

F. Firefighting part of employee's job description Yes No

G. Person to contact for additional information _____ Phone _____

Home unit address _____

H. Brief description of accident _____

Entrapment

Scope

A situation where personnel are unexpectedly caught in a fire behavior-related, threatening position where planned escape routes or safety zones are absent, inadequate, or have been compromised. An entrapment may or may not include deployment of a fire shelter for its intended purpose. These situations may or may not result in injury. They include “near misses.”

Fire Entrapment Investigation and Review

Guidelines

Purpose NWCG hereby recommends guidelines for investigation and review of fire entrapment situations. These guidelines are not intended to replace agency-specific investigation protocol.

The intended purpose for developing these guidelines is to provide standardized data to assist in identifying and analyzing trends. From those trend analyses, preventative recommendations may be made.

These investigation and review guidelines will:

- Outline investigation elements, and
- Clarify management and command responsibilities.

Through the NWCG Safety and Health Working Team, the review process will:

- Provide an effective distribution mechanism of findings, and
- Develop a framework for implementation of recommendations.

Definitions

Agency Administrator – That line officer having responsibility for management of land and/or resources on an organizational unit, and having accountability for overall results of management actions.

Entrapment – A situation where personnel are unexpectedly caught in a fire behavior-related, threatening position where planned escape routes or safety zones are absent, inadequate, or have been compromised. An entrapment may or may not include deployment of a fire shelter for its intended purpose. These situations may or may not result in injury. They include “near misses.”

Entrapment Investigation Elements The following elements most commonly contribute to entrapment situations. As a minimum, each of these elements should be addressed in an entrapment investigation and subsequent report, even if the investigation indicates that the element did not contribute to the entrapment. Exhibit I, “Entrapment Investigation Element Matrix,” may be utilized to expedite the process.

Fire Behavior

- Fuels
- Weather
- Topography
- Predicted v. Observed

Environmental Factors

- Smoke
- Temperature
- Visibility
- Slope
- Other

Incident Management

- Incident Objectives
- Strategy
- Tactics
- Safety Briefings/Major Concerns Addressed
- Instructions Given

Control Mechanism

- Span of Control
- Communications
- Ongoing Evaluations
- 10 Standard Fire Orders/18 Watch Out Situations

Involved Personnel Profiles

- Training/Qualifications
- Operational Period Length/Fatigue
- Attitudes
- Leadership
- Experience Levels

Equipment

- Availability
- Performance/Non-performance
- Clothing and Equipment
- Used for Intended Purpose?

Management and Command Responsibilities Incident Commander Responsibilities (in addition to those identified in ICS 410-1, *Fireline Handbook*):

Upon notification of an entrapment the Incident Commander should consider:

- Removing involved personnel from the fireline, ensuring appropriate medical attention as necessary. When hospitalization or fatalities occur, relevant facilities and organizations should be advised to preserve all involved personnel's protective clothing and equipment.
- Ensuring that the entrapment or deployment scene is secured and that all pertinent evidentiary items are secured (in place if possible), particularly fire

shelters and personal protective equipment as required by the Occupational Safety and Health Act.

- Immediately notifying the Agency Administrator and providing details on the incident status summary (ICS-209).
- Initiating a preliminary investigation of the entrapment or deployment to determine the facts of the entrapment, insofar as possible. The initial investigation will be completed within 24 hours of the entrapment.
- Relieving involved supervisors from fireline duty until the preliminary investigation has been completed.
- Ensuring that personnel and supervisors are readily available for interviews by the Entrapment Investigation Team (EIT, below defined). "Available" means present at the incident base or nearby R&R center.
- As soon as possible, providing the results of the Incident Commander's preliminary investigation to the Entrapment Investigation Team. Ensure preparation of a roster of individuals involved in the entrapment. The roster must minimally contain their names, employing agency, genders, ages, addresses, incident position titles, and appropriate employee identification numbers.

Agency Administrator Responsibilities Upon notification of an entrapment or deployment, the Agency Administrator should assure that the following activities take place within 24 hours of notification:

- Convene an Entrapment Investigation Team (EIT) to investigate the entrapment. It is recommended that the EIT be interagency in nature, initially requested through Geographic Coordination Center, and should include personnel with the following skill areas:
 - Incident Commander or Operations Section Chief (Type 1).
 - Fire behavior analysis, qualified in the specific fuel type.
 - Safety officer, with investigative expertise.
 - Wildfire operations, with expertise at the peer level of the person(s) directly involved.
 - Agency representative of involved person(s).
 - Employee representation (union, peer at operations level).

- Fire weather meteorology.
- Personal protective equipment specialist, from a lab such as the USDA-Forest Service's Missoula Technology and Development Center.
- Instruct the EIT to arrive on scene within 24 hours.
- Advise the Incident Management Team of the EIT's time of arrival and team composition.
- As required by the Occupational Safety and Health Act of 1970, advise the nearest office of the Occupational Safety and Health Administration (Federal or State as applicable) if the entrapment involves a fatality or the hospitalization of 5 or more personnel. Advise OSHA office that a formal investigation is being conducted by a designated Entrapment Investigation Team.
- Arrange for a critical incident stress debriefing team for the personnel involved in the entrapment.
- Notify the home unit agency administrator of all individuals involved in the entrapment/deployment.
- Submit a copy of the EIT's final report to the NWCG Safety and Health Working Team within 60 days of receipt from the EIT.

Entrapment Investigation Team Responsibilities

- The EIT will conduct the investigation, identify causal factors and list findings for the entrapment situation. Recommendations for corrective actions should be included in the letter of transmittal.
- The EIT will brief the Agency Administrator and the Incident Commander of their preliminary findings prior to leaving the incident.
- Within 30 days of the EIT's dispatch, the EIT's final report and recommendations for corrective actions will be submitted to the Agency Administrator.

NWCG Safety and Health Working Team Responsibilities

- Within 30 days of receipt of each entrapment report, the SHWT will distribute a summary of the applicable findings to NWCG agencies and the National Fire Protection Association, per the NWCG "Safety Gram." This summary will not include any incriminating agency references or information identified as sensitive by the agency.

- The SHWT will periodically review all entrapment reports, determine trends,

and incorporate findings to develop specific prevention recommendations for implementation by NWCG agencies.

Exhibit 1 – Entrapment Investigation Element Matrix

FIRE BEHAVIOR	Did Not Contribute	*Influenced	*Significant Contribution
Fuels			
Weather			
Topography			
Predicted v. Observed			
ENVIRONMENTAL FACTORS			
Smoke			
Temperature			
Visibility			
Slope			
Other			
INCIDENT MANAGEMENT			
Incident Objectives			
Strategy			
Tactics			
Safety Briefing/Major Concerns Addressed			
Instructions Given			
CONTROL MECHANISMS			
Span of Control			
Communications			
Ongoing Evaluations			
“Standard Fire Orders/18 Watch Out Situations”			
INVOLVED PERSONNEL PROFILES			
Training/Quals/Physical Fitness			
Operational Period Length/Fatigue			
Attitudes			

Leadership			
Experience Levels			
EQUIPMENT	Did Not Contribute	*Influenced	*Significant Contribution
Availability			
Performance/Non-Performance			
Clothing and Equipment			
Used for Intended Purpose?			

* Element items must be supported with written documentation.

Wildland Fire Serious Accident Investigation

Purpose

This manual supplement augments Department of the Interior 485 DM 7 "Serious Accident Investigation," and USDA-Forest Service FSM 6730, "Accident Reporting and Investigation." This single document complies with joint investigation obligations established in the Interdepartmental Memorandum of Understanding Between the US Department of the Interior and the US Department of Agriculture, October 26, 1995. It also results from direction received 1/29/97 from both Departmental Designated Agency Safety and Health Officers (DASHOs).

This supplement specifies the requirements for conducting investigations involving "wildland" fire-related non-aviation accidents and incidents.

Scope

This supplement applies to accidents occurring to personnel participating in wildland fire suppression or prescribed burning operations, or to personnel working in direct support of those activities, which result in one or more fatalities or the hospitalization of three or more personnel. It is strongly recommended that agencies also utilize these procedures for accidents or "incidents with potential" that had less serious results.

Procedures

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Notification In addition to routine agency administrative notification procedures, the following notification process will apply in "wildland" fire-related accidents/incidents.

- The **National Interagency Coordination Center**, when advised by the incident and/or the local agency administrator per standard operating procedures of the interagency coordination system, will advise the national Fire Director(s) or designee(s).
- The **Fire Director(s)** or designee(s) will ensure the following notifications, as a minimum, are made as soon as reasonably possible:
 - agency DASHO
 - agency safety manager
 - OSHA (within 48 hours after the occurrence-29 CFR 1960.70)
 - Chief Investigator (mutually acceptable)
 - technical specialists
 - interagency partners, as appropriate
- The **agency DASHO** will assure that the appropriate notifications are made, such as to the Departmental DASHO and safety manager.

Joint Accident Investigation Responsibilities

The Lead Agency DASHO or designee will:

- Exercise the authority of the agency head and immediately appoint and authorize an accident investigation Team Leader and the Safety and Health Manager. The Team Leader will be provided a Delegation of Authority, investigation objectives, and briefing.
- Ensure that the investigation Team Leader and Safety and Health Manager are promptly dispatched, and that resources and procedures to do so are in place.
- Receive the Factual and Management Evaluation Reports and take action to accept or reject recommendations. The DASHO will advise the agency director of the investigation findings and recommendations.
- Convene a Board of Review, to evaluate the adequacy of the Factual and Management Evaluation Reports and suggest corrective actions.
- Ensure that a corrective action plan is developed, incorporating management initiatives developed to address the causal factors of the accident, based on the investigation recommendations.
- Transmit the investigation Factual Report and the Management Evaluation Report, together with the corrective action plan to the departmental DASHO.

Line Management will:

- Identify agencies that have statutory/accident jurisdictional responsibilities for the incident.

- Develop local preparedness plans to guide emergency response to critical incidents.
- Provide for and emphasize the treatment and care of survivors.
- Brief investigation team.
- Facilitate and support investigation as requested.
- Implement critical incident stress management.
- In case of serious injury or death to a Native American, immediately contact home tribe leadership for cultural considerations.
- Assure that the fire Incident Commander acts to secure the accident site to protect physical evidence.

Agency Fire Director(s) will:

- Assure that adequate notification procedures are in place to promptly begin the accident investigation.
- Ensure that an appropriately qualified Chief Investigator and technical specialists and resources are available and immediately dispatched to conduct and support an investigation.

Accident Investigation Team Composition

The accident investigation team will be comprised as follows, with duties, responsibilities, qualifications and training identified on pages 58-62.

- **Team Leader**—a senior management official. The Team Leader will direct the investigation.
- **Safety and Health Manager**—an experienced Occupational Safety and Health specialist or manager. As a team member, ensures that the investigation focus remains on safety and health issues.
- **Chief Investigator**—a qualified accident investigation specialist responsible for the direct management of all investigation operations. This person should be mutually acceptable to involved Fire Directors in a co-lead investigation.
- **Technical Specialists**—experienced personnel to address specific technical issues (weather, fuels, equipment, etc.).

* Entrapments will be investigated by an Entrapment Investigation Team (EIT)

- Administrative support personnel should be available to facilitate gathering of factual information and evidence, and to assist in document preparation and briefing materials.

Wildland Fire Accident Investigation Process

The **24-Hour Preliminary Brief** will be completed and forwarded by the local agency administrator having the accident. This Brief is intended to give only the most obvious and basic facts about the accident. The factual Brief may be widely distributed to managers and used to enhance accident prevention based on preliminary findings. The Brief may be a simple paragraph outlining limited facts; in the case of an entrapment and/or fire fatality(ies), this Brief takes the form of the NWCG "Wildland Fire Entrapment/Fatality Initial Report", NFES 0869.

Upon initial notification of a serious accident, agency Fire Director(s) will immediately dispatch a Chief Investigator and technical specialists to the accident location to begin initial gathering of factual information and evidence. This includes photographs of the accident scene, environmental information, examination of equipment and materials, and other time-sensitive data.

The **Team**, when assembled, will:

- Receive an **in-briefing** from the local Agency Administrator, to include the 24-Hour Preliminary Brief, as well as other general information about the accident.
- Produce a **72-Hour Expanded Brief**. This Brief is an expanded 24-Hour Brief, providing more detailed information about the accident. It may contain such information as number of victims, severity of injuries and other details to further enhance accident prevention. This is the first product of the investigation team.
- Examine technical and procedural issues related to equipment and tactical fire management. They will then produce the **Factual Report**. This Report contains only information of a factual nature and is entirely free of opinions, conclusions, and recommendations.
- Produce a **Management Evaluation Report**. This Report is considered for internal use only, and explores management policies, practices, procedures and personal performance aspects involved with the accident. This Report may contain opinions by investigators as to the cause of the accident; conclusions and observations; confidential information; and recommendations of corrective measures to prevent future occurrences.

The Factual and Management Evaluation Reports will be completed within 45 calendar days of the accident; extensions require departmental DASHO approval. The Reports will be in a format as identified in the Interagency Wildland Fire Accident Investigation Handbook, and will be signed by the Team Leader, Chief Investigator, and Safety and Health Manager. The Reports will be submitted directly to the agency DASHO.

Review and Recommendations

The agency DASHO will appoint a **Board of Review** before receipt of the Factual and Management Evaluation Reports. Within 21 calendar days of receipt of the two Reports, the Board of Review will convene, develop and forward to the agency DASHO a recommended corrective action plan. Within the same 21 calendar days, the agency DASHO will transmit the Board's recommendations and the two reports to the departmental DASHO, with a statement of concurrence or nonconcurrence on the Board's recommendations. The agency DASHO will also make the Factual Report available for release.

In the event of a co-lead investigation, the same procedures and time limits will apply. Involved agency DASHO's will jointly appoint the Board of Review and jointly concur or nonconcur with the Board's recommendations.

The agency Safety Office will be the **Office of Record** for the entire investigation file. That Office will prepare an abstract of the accident for entry into the Departmental Safety Management Information System to share with other agencies, and the Occupational Safety and Health Administration.

The agency DASHO may make a presentation to the DASHO Council and/or other senior agency/departmental managers concerning opinions, findings, recommendations, and corrective actions included in the report.

The agency director(s) may be requested to personally brief the Secretary(ies) to explain the accident and corrective measures being implemented to prevent recurrence.

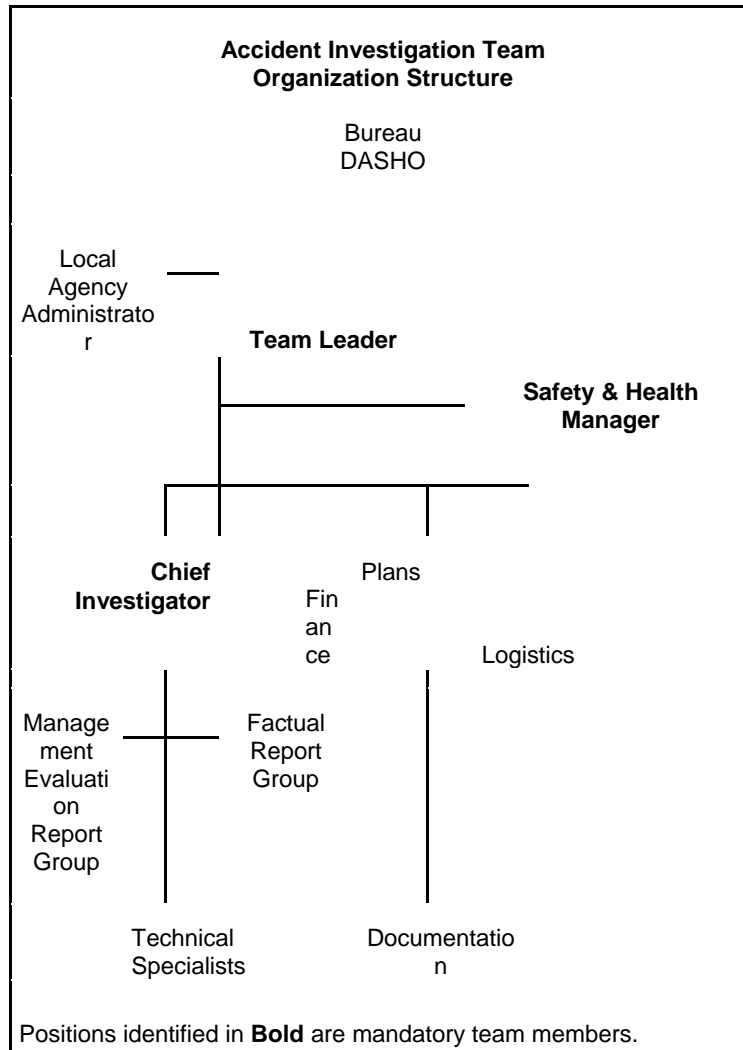
Occupational Safety & Health Administration (OSHA)

OSHA should be offered the opportunity to participate in the investigation. They may choose to conduct a separate investigation of the accident. Nevertheless, all factual information and evidence will be made available to their investigators.

Upon completion of the investigation and Reports, OSHA, upon its request, will be provided with appropriate information, as identified in 29 CFR 1960.29(d).

Accident Investigation Personnel

The following qualifications and training standards follow the National Wildfire Coordinating Group approach to qualifications and standards for the Incident Command System and fire skill positions: identify positions, describe duties and responsibilities, define qualifications requirements and recommend training courses.



The Accident Investigation Team organization structure follows the Incident Command System organization structure and philosophy. The structure may be expanded or contracted as the investigation complexity increases or decreases. Mandatory team members retain responsibility and authority for all duties assigned to their position, until the complexity of the investigation requires expansion, whereupon responsibility may be assigned to additional team members.

Team Leader

The Team Leader receives the Delegation of Authority and is responsible for all activities to accomplish the objectives of the investigation.

Duties and Responsibilities

- Serves as the agency DASHO's representative.
- Contacts the unit that had the accident and determines the status of the investigation in progress and other pertinent information.
- Ensures that "Just-In-Time" team orientation training is accomplished.
- Coordinates an in-briefing with the local affected Agency Administrator.
- Ensures that accommodations and resources needed by the team are available.
- Coordinates the investigation with the affected local Agency Administrator.
- Develops the strategy for the investigation.
- Approves daily plans.
- Briefs participants in the investigation.
- Coordinates all media releases about the investigation.
- Approves requests for resources and their release from the investigation.
- Conducts meetings.
- Authorizes and coordinates expenditure of appropriated funds to be charged to the Agency in the official accident investigation.
- Arranges for drug testing of personnel, analyses, medical reports and other tests as appropriate.
- Ensures safety of the operations.
- Establishes liaison with and involves appropriate local, state and federal officials.
- Releases physical materials, documents, papers and other information pertinent to the investigation to the appropriate local officials when the accident investigation is complete.

- Distributes any safety messages to the agencies identifying safety measures needed for immediate correction to prevent a similar accident.
- Distributes an initial report of the accident within 24 hours of the team's assembling.
- Prepares, signs and transmits the Factual Report and Management Evaluation Report to the Agency Administrator/DASHO.

Qualifications

- Currently is a senior management official.

Required Training

- Team leadership or equivalent.
- "Just-In-Time" Serious Accident Investigation training, as identified by DOI and bureaus.

Recommended Training

- OSHA CFR Part 29- 1960- Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters.
- I-100, "Introduction to the IC System" self study guide and video.
- "Fire Management Leadership" (national course for Agency Administrators).

Safety and Health Manager

The Safety and Health Manager is a safety and health professional responsible for advising the Team Leader on occupational safety and health issues pertinent to the investigation.

Duties and Responsibilities

- Advises the Team Leader and other team members on occupational safety and health issues related to the accident.
 - Advises and supports the investigation team in the identification of management failures or weaknesses which may have contributed to the accident.
 - Advises the Team Leader in the conduct of the investigation to ensure compliance with OSHA, DOI, and bureau safety and health program requirements.
- 14
- Coordinates the availability and procurement of additional safety and health expertise and resources in support of the investigation.

- Signs the Factual Report and Management Evaluation Report.

Qualifications

- Currently a safety and occupational health professional in the GS-018, 803, or 690 classification series. Exceptions to these identified series may occur with USDA-Forest Service personnel.
- Experience in serious accident investigation, either as a member of an investigation team or through conduct of independent investigations.

Required Training

- Satisfactory completion of serious accident investigation course, such as the OSHA Serious Accident Investigation Course or equivalent.
- “Just-In-Time” Serious Accident Investigation training, as identified by DOI and bureaus.

Recommended Training

- Wildland fire experience, with commensurate fire suppression/prescribed fire training.
- Advanced safety and occupational health professional training, such as offered through the DOI Occupational Safety and Health Professional Development Program.
- I-100, “Introduction to the IC System” self study guide and video.

Chief Investigator

The Chief Investigator is the qualified accident investigation specialist responsible for the direct management of all investigation activities.

Duties and Responsibilities

- Organizes, staffs and manages the resources and processes of the accident investigation to implement the investigation plan.
- Reviews work and work products of the investigation team for inclusion in the accident investigation package.
- Ensures that the investigation addresses pertinent issues and concerns.
- Coordinates the development of the Factual Report and the Management Evaluation Report for the accident investigation team within agency guidelines and delivers them to the Team Leader.
- Reviews information presented by specialists for inclusion in the documentation package.

- Recommends release of personnel assigned to the accident investigation when their services are no longer needed.
- Signs the Factual Report and Management Evaluation Report.

Qualifications

- Satisfactorily served as a team member on a serious accident investigation team.

Required Training

- I-200, "Basic Incident Command System."
- "Just-In-Time" Serious Accident Investigation training, as identified by DOI and bureaus.
- Satisfactorily completed a recognized accident investigation course, such as the OSHA Serious Accident Investigation 80 hour course or equivalent.

Recommended Training

- Wildland fire management experience, with commensurate fire suppression/management/ prescribed fire training.
- Interagency accident investigation workshop participation.

Technical Specialists

Technical Specialists are individuals with technical expertise or skills needed to support accident investigation operations. An example of a Technical Specialist is a **Human Factors Specialist**.

Duties and Responsibilities

- Report to the Chief Investigator.
- Apply skills to gather information concerning an accident for the use of an accident investigation team.
- Organize and conduct work directed by the Chief Investigator.
- Document, sign, and date activities and information developed during the course of the investigation.

Qualifications

- Currently possess the qualifications recognized by the specialty represented, e.g., NWCG Qualification System, professional credentials.
- Experience in reviews, investigations or other inquiries related to the specialty.

Required Training

- “Just-In-Time” Serious Accident Investigation training, as identified by DOI and bureaus.

Recommended Training

- Interagency accident investigation workshop participation.
- I-200, “Basic Incident Command System.”

Documentation Unit Leader

The Documentation Unit Leader, when assigned, is responsible for maintaining accurate and complete investigation files, providing duplication services, completing the accident investigation file package, ensuring appropriate security of materials, and preparing documents for the investigation team.

Duties and Responsibilities

- Organizes and manages the documentation package for the accident investigation formal record.
- Prepares, signs, and delivers the draft Factual Report and Management Evaluation Report to the Chief Investigator.
- Submits the accident investigation documentation package to the Chief Investigator.
- Coordinates with investigation personnel to obtain documentation required.
- Establishes a system to securely maintain documentation of written, photographic, physical and other forms of information and property so as to maintain documentation package integrity.
- Provides information to members of the investigation team for their use in the investigation.

Qualifications

- Is or has been a Documentation Unit Leader.
- Served as a trainee Documentation Unit Leader on an accident investigation.

Required Training

- I-100, “Introduction to the IC System” self study guide and video.
- “Just-In-Time” Serious Accident Investigation training, as identified by DOI and bureaus.

Recommended Training

- I-200, "Basic Incident Command System."