

**EXHIBIT 1-7**

1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
<p><b>U.S. Department of Agriculture Forest Service</b> <b>Job Hazard Analysis (JHA)</b> Reference-FSH 6709.11 and 12 (Instructions on Reverse)</p>	<p><b>5. Job Title</b></p>	<p><b>6. Date</b></p>
<p><b>7. Tasks / Procedures</b></p>	<p><b>8. Hazards</b></p>	<p><b>9. Abatement Actions</b></p>
<p><b>Motorized Vehicle</b></p>	<p><b>Qualifications.</b> All Forest Service employees who operate Government vehicles (or private vehicles used on official duty) shall hold a valid State driver's license with the proper endorsements for the size and class being driven and a Forest Service-issued identification card indicating the type of vehicle or equipment the operator is authorized and qualified to operate (FSM 7134.1).</p> <p><b>Training.</b> Defensive driving training is required for all Forest Service employees who drive Government or private vehicles on official duty. Drivers must attend a Forest Service or National Safety Council or equivalent defensive driving course at least every 3 years.</p>	<p>Employees shall not operate a motor vehicle while under the influence of alcohol and drugs nor while sick or suffering from excessive fatigue or emotional stress.</p> <p><b>Drivers/Operators.</b> Drivers/operators have the responsibility to: Inform their supervisors of any physical, mental, or emotional condition that might impair their ability to safely drive a motorized vehicle or operate machinery.</p> <p>Know and observe all State and local traffic regulations.</p>
<p>Fatigue Particulates (dust) Weather Insects and animals Walking surfaces Smoky conditions</p>		

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
		<p>Observe the "Circle of Safety" rule. Walk around the vehicle.</p> <p>Check the windshield, wipers, and wiper fluid level.</p> <p>Adjust mirrors.</p> <p>Drive safely while operating the vehicle within its mechanical limits.</p> <p>Always wear your safety belt(s). The vehicle operator shall ensure passengers also wear safety belts.</p> <p>Monitor vehicle performance when driving. Inspect a vehicle after use. Correct or report problems before a vehicle is used again.</p> <p>Do not compromise your safety, the safety of your passengers, or public safety when driving.</p> <p>Pull off the road for a break or to change drivers if you experience any of these warning signs:</p> <p>Vehicle begins to feel too warm.</p> <p>Drowsiness, especially after meals.</p> <p>Eyestrain.</p> <p>Inattention, daydreaming.</p>	

Exhibit 1-7—Job hazard analysis.

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
		<p><b>Work/rest guidelines.</b> Vehicle operators must comply with these work/rest guidelines. Operate a vehicle:</p> <p>Only if you have had at least 8 consecutive hours off duty before beginning a shift.</p> <p>No more than 2 hours without a rest stop.</p> <p><b>Equipment.</b> Ensure that Government vehicles are equipped with:</p> <p>Safety belts for all passengers. Refer to 49 CFR 392.9 for exception of bus passengers.</p> <p>Warning markers or reflectors and flashlight.</p> <p>First aid kit. The standard first aid kit in all Government vehicles must contain two packets of the standard protective equipment (rubber gloves, face masks, eye protection, and cardiopulmonary resuscitation (CPR) clear-mouth barrier).</p> <p>Fire extinguishers.</p> <p><b>Defensive driving techniques.</b> Drive slowly and use transmission gearing, engine compression, and gravity to slow the vehicle as it travels uphill. Conversely, use engine compression and gearing on downhill grades.</p> <p>Do not use cell phones while driving. Have a passenger answer</p>	

Exhibit 1-7—Job hazard analysis.

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
		<p>the phone for you or pull off to side of the road.</p> <p>Keep right. Drive as far to the right as possible without driving on the shoulder.</p> <p><b>Special hazards while driving on Forest Service roads.</b></p> <p>Road width. Roads with narrow driving surfaces, roads classified as single-lane with turnouts, and roads with few places to park or turn around.</p> <p>Surface. A variety of road surfaces, including those that may be affected by weather.</p> <p>Sight distance. Sight distance that may be limited by adverse weather, blind curves, foliage, dust, smoke, and ambient light.</p>	
<b>Helicopter</b>	<p>Flying objects Particulates (dust) Noise</p>	<p>Get a safety briefing from Helitack managers prior to assignment.</p>	<p><b>Equipment.</b> Flight suits or fire nomex shirts and pants, helmets or hardhats, leather or nomex flight gloves, and hearing protection.</p>
<b>Walking and Hiking</b>	<p>Falling objects Walking surfaces Fatigue</p>		<p><b>Safety practices.</b> Slips, trips, and falls are the leading causes of field and office accidents and injuries.</p>

Exhibit 1-7—Job hazard analysis.

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
	Weather Insects and animals Poisonous plants	<p><b>General requirement.</b> Wear shoes with slip-resistant heels and soles with firm, flexible support.</p> <p><b>Specific requirement.</b> For fire-related activities, wear all-leather, lace-up, 8-inch tall (minimum) boots.</p> <p>When hiking in the field, boots and a hardhat are required.</p> <p>Watch footing, look for tripping hazards, maintain balance.</p> <p>Be alert for snags and notify others of snag locations. Take breaks at regular intervals to prevent fatigue. Use sunscreen to protect against sunburn.</p> <p>Be alert for poisonous plants, such as poison oak or ivy. If exposed, wash affected areas and wash clothing.</p> <p>Be alert for poisonous insects and animals.</p>	
<b>Field Investigation Activities</b>	Falling objects Walking surfaces Fatigue Particulates (dust) Weather Temperature Insects and animals Diseases Poisonous plants	Required PPE.  Hardhat Leather work boots Leather gloves Nomex shirt and pants (for fire-related accidents) Fire shelter (for fire-related accidents) Eye protection/goggles	

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U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
		<p>Daily briefings by the team leader, chief investigator, and safety manager will outline tasks to be accomplished and the required safety procedures.</p> <p>Manage fatigue, take breaks as appropriate, allow for adequate rest. Eat well-balanced meals and drink plenty of fluids.</p> <p>Check clothing for ticks during and after each shift.</p> <p>Be alert for snakes.</p>	
<b>Security</b>		<p><b>Security procedures.</b> Establish building evacuation procedures for work area being utilized, make sure all employees are aware of exits and safety meeting area.</p> <p>Inform team members of the process to report any accidents or injuries.</p> <p>Provide all team members with incident emergency phone numbers and the process to follow for rapid notification in the event of an emergency.</p> <p>Check-out/check-in systems (such as a sign out board) shall be located and utilized for team use.</p> <p>Advise the appropriate person(s) on the accident investigation team of travel plans with expected times of arrival and return when traveling to and from the investigation site or isolated locations. Ensure vehicles are operating properly and are</p>	

Exhibit 1-7—Job hazard analysis.

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
<b>Bloodborne Pathogen Program</b>		<p>equipped for the specific task. Travel in pairs where warranted.</p> <p>Ensure that communications equipment is operating properly and replacement batteries are available for hand-held radios.</p> <p><b>Training.</b> All employees shall receive general HIV/AIDS education training. For employees whose jobs put them at risk for an occupational exposure, training shall cover the major elements of the OSHA bloodborne pathogens regulation.</p>	
	Diseases	<p>To further minimize employee risk, all employees, regardless of job classification or duties, shall observe universal precautions at all times. Observing universal precautions is an approach to infection control in which human blood and human body fluids are treated as if known to be infectious for HIV, HBV, or other bloodborne pathogens.</p>	
<b>Hot Conditions</b>	Fatigue Weather	<p><b>Working in hot conditions.</b> Individual differences in heat tolerance are related to fitness, hydration, illness, drugs and medication, and fatigue.</p> <p>Heat stress occurs when the body's core temperature rises beyond safe limits. Evaporation of sweat is the body's main line of defense against heat. As sweat evaporates, it cools the body. When water lost by sweating is not replaced, the body's heat controls break down and body temperature climbs dangerously. Three factors that can contribute to heat stress are low or poor physical fitness, excess weight, and hypertension.</p>	

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
		<p>Schedule the hardest work during the cooler hours of the day. Set a moderate work pace. As the temperature increases, stop for frequent rest periods of at least 15 minutes. Always have an adequate supply of water available and ensure that employees are getting needed liquids.</p> <p>Plan ahead for drinking water; don't allow water supplies to run out.</p> <p>To prevent dehydration:</p> <p>Drink 8 to 16 ounces of water before work.</p> <p>Take frequent drinks during each hour of work (1 quart or 1 liter per hour).</p> <p>Drink as much water as possible at lunch and the evening meal.</p> <p>Continue replacing fluids throughout the evening.</p> <p>Limit caffeine drinks, such as coffee or cola.</p> <p>Avoid alcoholic drinks.</p> <p>Provide well-planned meals and healthy snacks that are vital to maintain work capacity and to avoid heat disorders through adequate replacement of water, salt, and potassium. Carbohydrate/electrolyte beverages are recommended.</p>	

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
		<p>Wear hardhats; they protect your head and keep you cooler.</p> <p>Prevent sunburn by wearing lightweight, light-colored, loose clothing, which allows air to circulate and sweat to evaporate, and offers protection from direct sun. Bare skin absorbs the sun's radiant heat and raises body temperature.</p> <p>During periods of continued extreme temperatures (90 °F or above), ensure that supervisors monitor employees and that employees watch each other for signs of heat-stress disorders, including heat cramps, heat exhaustion, and heatstroke.</p> <p>Heat cramps are identified by muscular pains and cramps, with leg and abdominal muscles usually affected first. Remedies include stretching and gently massaging cramped muscles and applying a heating pad or hot water bottle to help relieve muscle spasms.</p> <p>Heat exhaustion is characterized by fatigue, weakness, and collapse. The skin becomes pale, cool, and clammy. Individuals experience nausea, dizziness, a throbbing headache, breathing problems, and diarrhea. Recommended actions include moving to a cool, shady place, lying with the feet raised 8 to 12 inches above the head, loosening clothing, and applying cool compresses to the skin. If there is no improvement quickly, seek medical attention at once.</p>	

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation	2. Location	3. Unit NF/Station
		Heatstroke is a medical emergency. Unacclimatized employees are especially prone to heatstroke. Symptoms are confusion, high body temperature, hot (often dry) skin, rapid pulse, convulsions, loss of consciousness, and coma. Lack of sweating is one sign of imminent heatstroke. Do not delay treatment. Cool the body down immediately. Administer fluids and transport the victim to a medical facility as quickly as possible.	
<b>Lightning and Thunderstorms</b>	Other physical hazard: Lightning striking employees	<b>Lightning and thunderstorms.</b> Heavy rain, hail, and lightning occur only in the mature stage of a thunderstorm. Keep informed; know what the storm is doing.	
<b>Solar Radiation</b>		When there is no shelter, avoid tall objects such as lone trees. If only isolated trees are nearby or if you are in open country, the best protection is to make yourself as small a target as possible. Drop to your knees, bend forward with your hands resting on your knees, and keep a distance of twice the height of the nearest tree between you and the tree. To minimize the flow of the current, keep your feet together. Keep away from wire fences, telephone lines, electrically conductive objects, and railroad tracks.  Advise team members that if they feel an electrical charge, if their hair stands on end, or their skin tingles, a lightning strike may be imminent.	

Exhibit 1-7—Job hazard analysis.

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**EXHIBIT 1-7 (continued)**

U.S. Department of Agriculture Forest Service	1. Work Project/Activity Accident Investigation Burns	2. Location	3. Unit NF/Station
		<p><b>To minimize UV exposure:</b></p> <p>Keep exposed skin covered by wearing a hat, a bandanna, and a long-sleeved shirt (with sleeves rolled down and collar turned up).</p> <p>Wear sunglasses that filter out 100 percent of the UV rays. The use of non-UV protected sunglasses or photogrey glasses can increase the chance of UV damage to the retina and are not recommended.</p> <p>Provide and use protective sunscreen lotion, cream, oil, and lip balm as identified in the JHA.</p> <p>When possible, stay indoors during the peak exposure time in the summer or find worksites that are shady.</p> <p>Alter work schedules where appropriate to avoid peak summer exposure.</p>	
Evacuation Plan (see attached Evacuation Plan) <b>10. Line Officer Signature</b>		<b>11. Title</b> Team Leader	<b>12. Date</b>

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**EXHIBIT 1-7**

HOSPITAL:  
PHONE NUMBER:

(Air evacuation should be obtained through the supervisor’s office (SO) dispatcher, if needed.)

EMERGENCY EVACUATION TRAVEL ROUTES: Attach map with roads for evacuation to main highway to above hospital (and helispots, if appropriate) highlighted.

In the event of an accident during a fire incident contact incident base during field site visits, follow incident emergency evacuation processes.

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INVESTIGATION TEAM MEMBERS SHOULD PROVIDE THE FOLLOWING WHEN CALLING FOR ASSISTANCE:

- nature of injury or accident (do not broadcast victim(s) name(s);
- type of assistance needed;
- number, and (for air transport) estimated weight, of persons to be transported;
- location of injured, using landmarks identifiable on ground and/or map;
- current information about weather and travel hazards/obstacles.
- (Crew should remain in contact with home unit until evacuation team arrives, if possible.)

*Copies of this plan should be provided to investigation team member(s) and home base coordinator(s), prior to beginning work.*





## EXHIBIT 1-8

### Actions to be Taken by the Unit

#### Secure the Site

Upon completion of rescue and medical assistance, the scene must be secured by Forest Service law enforcement officers until released by the accident investigation team. Methods to secure the site:

- Ropes
- Signs
- Barrier tape
- Flashing lights
- Cones
- Posted guards

**Do not move** equipment, shelters, or any other items at the scene. Do not walk around the scene unless it's necessary for rescue or medical assistance. Nothing should be removed from the scene without permission from the accident investigation team leader or chief investigator/QT1. Evidence must be preserved at the scene. Photograph the scene (video or stills) if evidence could be lost before the accident investigation team arrives, such as by a rainstorm, washing away ruts or fluid spills.

#### Autopsies

Request an autopsy for all fatalities. Offer to pay for the autopsy if funding is an issue. Ask your local law enforcement officer (LEO) to provide a liaison to the county medical examiner or coroner. Access to emergency (911) logs and police reports may be needed.

In case of a fire-related fatality: immediately provide the county medical examiner or coroner with a copy of the FA-156 *Firefighter Autopsy Protocol*.

#### Employee Assistance Program

DO NOT provide critical incident stress counseling or debriefings to witnesses and coworkers before the arrival of the accident investigation team unless there is some critical need to do so. If that is the case, contact the team leader and explain the need for this action.

#### Witness Statements

Gather witnesses for accident investigation team interviews. If that is not possible and witnesses need to be released, have them write, date, and sign a statement before they leave. Use the following procedures.

Separate witnesses and have them write statements in their own words. Witness statements should be in the witness' own handwriting or typed by them on a computer. The witness statement should include:

- Name, work address, and phone number of the witness.
- What attracted the witness' attention to the accident.
- What actions the witness took at the accident site.
- Description of what happened.
- Time and location of the events.
- Environment (weather, lighting, temperature, noise, and so forth).
- Positions of people, equipment, and material, as well as the witness.
- What has been moved, repositioned, turned off or on, or taken from scene.
- Description of the sequence of events leading to accident.
- Other witnesses or involved people (include names if known).

#### Accident Investigation Team Administrative Support

The investigation team will need the following:

- Investigation team local unit liaison, including phone numbers and fax numbers.
- Lodging/meeting place for the investigation team (including private interview room). Coordinate with the team leader.
- Office supplies (including flip charts, markers).
- Documentation support (at the discretion of team leader)
  - Shredder
  - Fax
  - Computers
  - Printer
  - Vehicles
  - Speaker phones
  - Copier

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**EXHIBIT 1-8 (continued)****Actions to be Taken by the Unit (continued)****Evidence Collection**

Collect all or as many of the following applicable items as possible:

- Radio logs (written and recorded)
- Dispatch logs
- Occupant emergency plans
- Maps
- Job hazard analyses
- Safety briefings
- Team briefings
- Employee training records
- Medical examination records
- Work capacity test results
- Qualifications/certifications (including red cards)
- Work/rest (timesheets) for at least two pay periods (current and before the accident)
- Recent fire assignments
- Equipment maintenance records
- Equipment performance tests
- Inspection documents
- Fire management plan
- RAWs (remote automated weather system information)
- Weather (forecast/conditions)
- Fire behavior
- Incident action plans/personnel lists

- Delegation of authority
- Memorandum of understanding (MOUs)/agreements
- Specifications/drawings
- Press releases
- Autopsy/toxicology report
- Death certificate
- 911 Log
- Witness statements
- Internal policies/guidelines
- Tailgate safety session documentation
- Unit's safety plan

**Contacts**

Designate someone to provide the following:

- Family liaison—The purpose of the family liaison is to maintain open lines of communication between the Forest Service and the family. The liaison will provide the family support, assistance, and information during the crisis situation.
- PAO—If there is significant media interest, contact the regional PAO for assistance.

**EXHIBIT 1-9**

**United States Department of Agriculture  
Forest Service  
Office of Safety and Occupational Health**

**Safety Alert**

NO. 200x-xx

DATE:

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SUBJECT:

AREA OF CONCERN:

DISTRIBUTION:

DISCUSSION:

**POINT OF CONTACT:**

(Name)

(National-level safety manager)

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**EXHIBIT 1-10**

**United States Department of Agriculture  
Forest Service**

**Aviation Safety Alert**

**NO. 200x-xx**

**DATE:**

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**SUBJECT:**

**AREA OF CONCERN:**

**DISTRIBUTION:**

**DISCUSSION:**

**RECOMMENDATION:**

/s/ (First and last name)  
(National aviation safety and training manager)

/s/ (First and last name)  
(National aviation operations officer)

**Exhibit 1-10**

