



FOREST SERVICE MANUAL NATIONAL HEADQUARTERS (WO) WASHINGTON, DC

FSM 6700 - SAFETY AND HEALTH PROGRAM

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New Document(s):	6700-2002-1_transmittal	2 Pages
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	6720	4 Pages
	6730	7 Pages
	6740	30 Pages
Superseded Document(s) by Issuance Number and Effective Date	!6700 Contents (Amendment 6700-95-2, 4/11/95)	2 Pages
	6700 Zero Code (Amendment 6700-90-1, 6/1/90)	4 Pages
	!6710 Contents (Amendment 6700-95-1, 4/11/95)	2 Pages
	6710 (Amendment 6700-93-1, 4/8/93)	5 Pages
	6720 (Amendment 6700-90-1, 6/1/90)	3 Pages
	6730 (Amendment 6700-90-1, 6/1/90)	6 Pages
	6740 (Amendment 6700-2001-1, 10/23/2001)	33 Pages

Digest:

6700 - This is a technical amendment that converts the format and style of this Forest Service Manual (FSM) title (previously in "Applixware") to the new FSM template using the agency's current corporate word processing software. Where chapters were previously organized into more than one document, they are now merged into one chapter whenever possible.

Although some minor typographical and technical errors have been corrected, this amendment contains no changes to the substantive direction in this title.

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6701 - AUTHORITY

The authorities for the Forest Service safety and health program follow:

1. 29 U.S.C. 651 et seq., Occupational Safety and Health.
2. Executive Order 12196, issued February 27, 1980, Occupational Safety and Health Programs for Federal Employees.
3. 29 CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs (FSH 6709.12, ch. 40).
4. 5 U.S.C., Chapter 81, Compensation For Work Injuries.
5. FSH 6109.41, FPM/DPM 792 and supplements.
6. Departmental Regulation 4400-1, Departmental Occupational Safety and Health Management.
7. Departmental Regulation 4410-1, Occupational Safety and Health Standards and Program Elements (FSH 6709.12, ch. 40).
8. Departmental Regulation 4450-1, Incident Reporting System (FSH 6709.12, ch. 40).

6702 - OBJECTIVE

The objective of the Forest Service safety and health program is to ensure adequate protection for Forest Service employees and property, Human Resource Program participants, and the visiting public. This includes providing safe and healthful workplaces, ensuring safe transportation of employees and materials, and protecting Forest Service property from accidental loss and damage.

6703 - POLICY

1. Safety and health program requirements shall be integrated into functional activities (1) to ensure the objective in FSM 6702 is addressed in all activities of the Forest Service and (2) to reduce managerial and work errors that lead to injuries, illnesses, excessive costs, production failures, property losses, and damage to the environment.
2. Safety and health of all involved individuals are the highest priorities on any job.
3. The Forest Service shall provide safe and healthful facilities for visitors.

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4. Line officers should consider using safety and health committees or teams to advise on and assist in developing unit safety and health programs and policy. Give employees and representatives of employees an opportunity to participate.

6704 - RESPONSIBILITY

6704.1 - Line Officers

Line officers shall:

1. Integrate safety and health requirements into functional activities.
2. Ensure that supervisors inform employees of safety and health hazards associated with their jobs or workplaces.
3. Appoint teams to investigate serious accidents, personally leading the team when the implications of the accident warrant.

6704.2 - Deputy Chiefs

Deputy Chiefs shall establish Forest Service national safety and health standards and issue direction to comply with safety and health regulations for the programs in their areas of responsibility. Specific safety and health responsibilities may be delegated to the Staff Directors with those functional responsibilities.

6704.3 - Deputy Chief for Business Operations

This official is the designated agency safety and health official and is responsible for overall administration of the safety and health program and chairs the Safety and Health Steering Committee.

6704.4 - Director of Human Resources Management

Is responsible for program development. Responsibilities include:

1. Review of proposed safety and occupational health policy and direction to ensure the objectives are met (FSM 6702).
2. Review and evaluation of unit safety and occupational health programs.
3. Advising and consulting with Forest Service managers on safety and occupational health matters.

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6704.5 - Safety and Occupational Health Program Manager

Responsibilities for managing the program include:

1. Advising Forest Service managers on safety and occupational health matters.
2. Reviewing and evaluating unit programs onsite.
3. Providing industrial hygiene services.
4. Coordinating safety and health concerns with employees or employee representatives.
5. Overseeing injury, illness, and accident reporting and investigation.
6. Providing analysis of accidents to management.
7. Coordinating activities of the WO Safety and Health Steering Committee.
8. Providing technical advice and assistance to Regional, Station, and Area safety and health managers.
9. Recommending Service-wide policy and program goals.

6704.6 - Forest Service Safety and Health Steering Committee

This committee is responsible for identifying safety and health program areas needing special attention and for recommending policies and programs to the Chief.

6704.7 - Regional Foresters, Station Directors, and Area Director

Responsibilities include:

1. Initiating and managing a safety and health program consistent with national direction.
2. Appointing a qualified individual to manage unit safety and occupational health programs.
3. Approving use of prescription medication (FSM 6723).

6704.8 - Forest Supervisors

Responsible for developing and implementing a safety and health program consistent with national and regional policy and direction.

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6704.9 - Project Leaders

Responsible for incorporating safety and health considerations into all research study plans.

6705 - DEFINITIONS

1. Forest Service Safety and Health Steering Committee. The Deputy Chief for Business Operations chairs this committee. Members include the Deputy Chief for Programs and Legislation, Associate Deputy Chief National Forest System, Associate Deputy Chief for Research and Development, Associate Deputy Chief for State and Private Forestry, Director of Financial Management, Director of Engineering, and employee representatives as appropriate. The Forest Service Safety and Health Manager acts as executive secretary to the committee.

6709 - HANDBOOKS

6709.11 - Health and Safety Code Handbook

This handbook is the primary source of safety and health operating standards for first line supervisors and work leaders and the basic source of standards for workplace and project inspections.

6709.12 - Safety and Health Program Handbook

This handbook contains information and guidance for those who manage unit safety and health programs.

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6710.6 - Tools, Equipment, and Facilities [Reserved]

6711 - ACCIDENT FREQUENCY RATES

6711.1 - Reporting

Frequency rates are reported via the Management Attainment Report. FSH 6709.12, section 31.3, explains frequency rate calculations. Report frequency rates in the following categories:

1. Chargeable occupational injury and illness (FSH 6709.12, ch. 30).
2. Chargeable motor vehicle accident (FSH 6709.12, ch. 30).
3. Forest Service fixed-wing aircraft accidents (FSM 5720).
4. Forest Service rotary-wing aircraft accidents (FSM 5720).

The injury and illness experiences of all employees and Human Resource Program (HRP) enrollees, except Job Corps members, are included when calculating chargeable occupational injury and illness frequency rates. All chargeable motor vehicle accidents are included to calculate motor vehicle accident frequency rates. The employment status of the driver is not a factor.

6712 - ACCOUNTABILITY FOR INJURIES, ILLNESSES, FATALITIES, AND AIRCRAFT ACCIDENTS

1. Injuries, Illnesses, and Fatalities. Report chargeable traumatic injuries, chargeable occupational illnesses, and occupational fatalities to the employee's home unit per Department of Labor, Office of Workers' Compensation, chargeback procedures. See FSH 6709.12, chapter 30, for definitions.

2. Aircraft Accident. Charge Forest Service aircraft accidents to the benefiting unit. This unit is responsible from the time the aircraft is ordered to the unit until it is released.

6713 - STANDARDS

6713.1 - Adoption of Standards

Use the Department of Labor's occupational safety and health standards (29 CFR 1910 and 1926) where they apply to Forest Service operations. The Health and Safety Code Handbook (FSH 6709.11) is the source of standards for safety and health workplace and project inspections and safe work procedures.

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6714 - INSPECTIONS

There are two formal types of inspections carried out under the Forest Service safety and health program: facility inspections made by Engineering Staff in accordance with FSH 7309.11, and workplace/project inspections made by personnel trained and qualified to recognize and evaluate hazards of the work environment and to suggest general abatement procedures. Workplace and project inspectors shall apply the standards contained in the Health and Safety Code Handbook (FSH 6709.11).

A team approach, using engineering facility inspectors and workplace inspectors, is recommended.

As a third type of inspection, employees may request an inspection of their workplace if they believe an unsafe or unhealthful condition exists (see FSM 6714.2).

6714.03 - Policy

Qualified safety and health specialists shall perform workplace and project inspections where there is an increased risk of accident, injury, or illness due to the work performed. FSH 6709.12, section 11.04, describes a qualified inspector.

6714.1 - Frequency

At least annually inspect:

1. Regularly used Forest Service-owned and -leased facilities.
2. Workplace and project locations.

See FSH 7309.11 and FSH 6709.12, section 41 (29 CFR 1960). Inspect more frequently when there is an increased risk of accident, injury, or illness due to the nature of the work performed.

Inspect human resource program locations and significant seasonal activities during the first two weeks of operation.

6714.2 - Inspection of Unsafe or Unhealthful Working Conditions

Employees who believe that an unsafe or unhealthful working condition exists in any workplace shall report the condition to their supervisor. See 29 CFR 1960.28 in the appendix to FSH 6709.12.

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Employees may request an inspection of their workplace (1) by giving verbal or written notice of the alleged unsafe or unhealthful working condition to the immediate supervisor, or (2) if no action results, by submitting a written report to the next higher organizational level. In imminent danger situations, employees shall make reports first by telephone. Confirm telephone reports in writing as soon as practicable thereafter. This does not preclude employees from exercising their rights under FSH 6709.12, section 41, 29 CFR 1960.28.

The report shall state the grounds for the alleged complaint and should be signed by the employee or representative of employees. Upon request of the person making such report, the Deputy Regional Forester or the Assistant Director for Research Support Services shall not disclose the name of the person or others referred to in the report to anyone other than an authorized representative of the Secretary of Labor.

Employees reporting unsafe or unhealthful conditions must be notified in writing of action taken or planned by the unit receiving the report.

If an employee is dissatisfied with the final disposition by the Forest Service, the employee may forward the complaint in writing to the Director, Office of Finance and Management, U.S. Department of Agriculture, Washington, D.C. 20250. If disposition still is unsatisfactory, the employee may write the Office of Federal Agency Safety and Health Programs, Occupational Safety and Health Administration, U.S. Department of Labor, Washington, D.C. 20210.

6714.21 - Inspection Records

Keep safety and health inspection records for 5 years.

6715 - CONTRACTOR, COOPERATOR, AND PERMITTEE SAFETY AND HEALTH

Contractors, cooperators, and permittees are covered under Federal OSHA and State safety requirements. If these personnel operate in violation of applicable safety requirements, notify the appropriate agency for enforcement action.

The Forest Service has a responsibility to identify unusual hazards and to require the contractor to minimize hazards through contract or permit specifications.

6716 - PERSONAL PROTECTIVE EQUIPMENT

6716.03 - Policy

Acquire, maintain, and use personal protective equipment for all recognized hazardous jobs when engineering and administrative means of eliminating the hazard are not feasible.

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Employees shall report to work in appropriate dress that enables them to perform their regular duties. In most cases for fieldwork, this means long-sleeved work shirt, cuffless work trousers, and high-topped, leather, lace-up boots.

The need for personal protective equipment is determined by job conditions. Any requirement of personal protection equipment identified in an approved job hazard analysis, form FS-6700-7, or otherwise identified and approved by a line officer, shall be provided. See FSH 6709.12, section 14. Personal protective equipment for jobs identified in chapter 3 of FSH 6709.11, Health and Safety Code Handbook, does not require purchase justification. Review and replacement of safety and health items shall be done regularly.

6716.04 - Responsibilities

Regional Foresters and Directors have approval authority for purchase of personal protective equipment. This may be delegated to the District Ranger and Research Project Leader level. Purchase protective equipment by submitting a requisition, with a justification statement, through normal procurement channels. A line officer's signature is required.

6716.1 - Requirements for Specific Items of Personal Protective Clothing and/or Equipment

6716.11 - Hard Hats

6716.11a - Requirements

Hard hats (helmets) must meet the following requirements to be acceptable for use by a Forest Service employee, unless an exception has been approved as set forth in FSM 6716.11b. Helmets meeting these requirements are available in the General Services Administration (GSA) Wildfire Protection Equipment and Supplies Catalog.

1. The helmet must meet the requirement for Class A and B helmets as specified in the American National Standards Institute (ANSI) Standard Z89.1, 1986;
2. The helmet must be made from polycarbonate or polythalamate, with a melting point not less than 350 degrees Fahrenheit; and
3. The helmet must be yellow for Forest Service usage, for reasons of both easy visibility and standardization.

6716.11b - Exception to the Hard Hat Requirements

An exception to these requirements may be requested if there are justifiable reasons to order a different color helmet or if there are applications that require a different model helmet. To request an exception, complete the following steps:

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1. Coordinate with the appropriate safety and health manager in completing a Job Hazard Analysis, using Form FS-6700-7 (FSM 6716.03; FSH 6709.12, sec. 14), as a request for a variance from the hard hat requirements; and
2. Obtain the appropriate line officer's approval of the Job Hazard Analysis and forward to the appropriate procurement official.

6717 - PROMOTIONAL ACTIVITIES

6717.03 - Policy

Promote supervisor and employee awareness and understanding of the safety and health program through use of publications, posters, individual and group awards, and special emphasis programs.

6717.04 - Chief's Safety and Health Award

A Safety and Health Award may be presented to any organizational unit, individual, or group in recognition of significant achievement in safety and health (see FSM 6709.12, chapter 10).

6718 - EMPLOYEE HEALTH SERVICES

Forest Service line officers should sponsor educational and informational programs to increase employee awareness of the importance of proper nutrition, good health practices, and appropriate physical activity.

6719 - TRAINING

1. Unit Safety and Health Managers shall receive sufficient training to ensure effective safety and health programs (FSH 6709.12, sec. 13).
2. Line officers shall receive sufficient orientation to enable them to manage the safety and health program (FSH 6709.12, sec. 13.1).
3. Employees preparing hazardous materials for shipment shall attend the Forest Service Hazardous Materials Training Course or similar training.

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6720.2 - Objective

The objective of the Forest Service occupational health program is to protect employee health by minimizing exposure to occupational health hazards.

6720.3 - Policy

It is Forest Service policy to:

1. Minimize employee exposure to work hazards that can cause loss of life or deterioration of employee health. Monitor employee exposure to specific chemicals (FSH 6709.12, sec. 21).
2. Correct or abate hazards through engineering or administrative controls. When this is not practical, use personal protective equipment.
3. Inform all employees of health hazards associated with materials they use. See FSH 6709.12, section 41, 29 CFR 1960.34(d).
4. Establish and administer an occupational health program in each Region, Station, and Area.

6720.4 - Responsibility

Regional Foresters, Station Directors, and Area Director shall appoint trained personnel to manage the occupational health program and ensure proper use and care of equipment (FSH 6709.12, chapter 20).

6721 - ELEMENTS OF THE FOREST SERVICE OCCUPATIONAL HEALTH PROGRAM

6721.1 - Environmental Sampling

This must include qualitative and quantitative evaluations of work area hazards.

6721.2 - Respiratory Protection

The Forest Service shall use engineering or administrative controls to reduce employee exposure to occupational health hazards created by dusts, fumes, or mists. When effective engineering and/or administrative controls are not feasible, employees shall use appropriate respirators.

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1. Each location where employees use respirators for protection against toxic exposures must have a comprehensive respiratory protection program that incorporates the basic elements established in 29 CFR 1910.134.

2. Job locations where employees use respirators solely for nuisance exposures need not have a respiratory protection program. The use of disposable respirators during dusty operations such as heavy equipment operations is an example.

6721.3 - Hearing Conservation

Permissible noise levels appear in 29 CFR 1910.95. Employees must use hearing protectors when noise levels exceed these permissible limits. Employees working where noise exposures exceed allowable limits shall receive audiograms (FSH 6709.12, ch. 20). Certain types of personnel, including heavy equipment operators and pilots, must be included in the hearing conservation program.

6721.4 - Medical Records

Follow provisions of 29 CFR 1910.20 and FSH 6109.41-FPM 339, subchapter 4, for maintenance of employee exposure records and medical records.

6722 - MEDICAL TESTS, PHYSICAL EXAMINATIONS, AND IMMUNIZATIONS

6722.1 - Medical Tests and Physical Examinations

Each Region, Station, and Area shall have a program for conducting medical tests and physical examinations, including baseline physicals of Forest Service employees occupationally exposed to hazardous levels of chemical, biological, or physical agents. These tests should be performed by a physician versed in occupational medicine. (See FSH 6709.12, ch. 20).

6722.11 - Pilot Physicals

Employees designated as aircraft pilots must comply with Federal Aviation Administration regulations concerning pilot medical examinations. The cost of these periodic examinations will be borne by the Government.

6722.2 - Immunizations

FSH 6109.41-FPM 792, subchapter 2, authorizes expenditure of appropriated funds for immunizations used for disease prevention when employees are exposed to specific diseases, poisonous plants, or insect stings on the job.

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6723 - PRESCRIPTION MEDICATIONS

Forest Service first aid kits and medical field stations intended for servicewide (inter-regional) use will not include any prescription medications.

Regional Foresters and Directors may approve administration of prescription medications (including Demerol) by Forest Service employees within their Regions, Stations, or Area. This authority may not be redelegated. Policies and procedures for controlling and administering these medications (including training of employees) must be implemented to meet local, State and Federal requirements.

Properly dispose of all medications that have reached their expiration date.

6724 - AUTHORIZED EMPLOYEE HEALTH SERVICES

A health unit or other medical facility may provide health screening examinations, immunizations, and medical tests that are unrelated to occupational exposures. Employees may be charged for these services except when contractual arrangements provide for them at Government expense.

6725 - EMERGENCY MEDICAL SERVICES

Unit managers shall identify and provide for needed levels of emergency medical services. These services may be provided through local medical care providers or through trained Forest Service personnel.

The cost of training Forest Service personnel, up to basic emergency medical technician qualification, will be borne by the Government. This includes the cost of State or national registry emergency medical technician certification and recertification.

Employees functioning in positions formally designated as emergency medical technician (EMT) positions must have current State or national registry certification. Employees providing EMT services in connection with Forest Service or cooperating agency operations may perform these duties at locations outside of their certifying State.

See FSM 6723 for use of prescription drugs.

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CHAPTER 6730 – ACCIDENT REPORTING AND INVESTIGATION

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CHAPTER 6730 – ACCIDENT REPORTING AND INVESTIGATION**

6730.1 - Authority

1. FSH 6109.41, Federal Personnel Manual Chapter 810, "Injury Compensation."
2. U.S. Department of Labor, Employment and Training Handbook No. 860, "Safety and Occupational Health for Job Corps members."

6730.2 - Objective

The objective of accident reporting and investigation is to prevent similar accidents by determining the cause of the accident.

6730.3 - Policy

Investigate all accidents that involve the Forest Service and result in death, injury, illness, and/or property damage. This includes investigation and reporting of serious injury or death to visitors, contractors, cooperators, and permittees, or their employees. Reporting and investigation shall be in accordance with FSM 5720 or FSH 6709.12 and this chapter.

6730.4 - Responsibility

6730.41 - Chief

The Chief shall appoint an investigation team for any accident involving multiple employee fatalities, and for other accidents, as he deems necessary (sec. 6731.1).

6730.42 - Regional Foresters, Station Directors, and Area Director

Regional Foresters, Station Directors, and Area Director shall appoint an investigation team for any accident with serious potential or serious consequences that are not investigated by a Chief's Office or Washington Office-appointed team. They shall also convene accident review boards as necessary (FSM 6732.3).

6730.43 - Chief Investigators

Chief Investigators are delegated line authority to make critical decisions in imminent danger situations.

6730.5 - Definitions

Forest Service Aircraft Accident and Incident. For aircraft accident and incident definitions, see FSM 5720.

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Motor Vehicle Accident. Any occurrence involving the use of a Government-owned, -leased, or -rented automobile, truck or bus that results in death, injury, illness, and/or combined damage of \$350 or more, regardless of whose property was damaged or who was injured. This definition also applies to private vehicles when used on official duty. See FSH 6709.12, chapter 30, for chargeable motor vehicle accident.

Occupational Fatality. Death resulting from a job-related injury or illness.

Occupational Illness or Disease. An illness or disease produced by: (1) systemic infections; (2) continued or repeated stress or strain; (3) exposure to toxins, poisons, fumes, and so forth; or (4) continued and repeated exposure to other conditions of the work environment. These conditions must occur over a period of time longer than 1 day or 1 work shift. See FSH 6709.12, chapter 30, for a definition of chargeable occupational illness or disease.

Property Damage Accident. An accident that occurs in the course of a Forest Service activity and results in a combined total of \$350 or more damage to Government and/or private property.

Traumatic Injury. A job-related wound or other condition of the body caused by external force, including stress and strain. The injury must be identifiable as to time and place of occurrence and member or function of the body affected, and be caused by a specific event or incident or series of events or incidents within a single day or work shift. See FSH 6709.12, chapter 30, for chargeable traumatic injury.

6731 - ACCIDENT INVESTIGATIONS

Accident investigation procedures are in FSH 6709.12 and FSM 5720. Regardless of who ultimately conducts the complete investigation, the unit on which the accident occurred shall initiate the investigation.

6731.1 - Chief's Office Investigations

A Chief's Office team may investigate any accident or incident. The chief investigator shall be a Deputy or Associate Deputy Chief. A Chief's Office team shall be appointed in every case involving multiple employee fatalities (FSH 6709.12, chapter 30).

6731.2 - Washington Office-Appointed Aviation Investigations

A Washington Office-appointed investigation team may be assigned to investigate Forest Service aircraft incidents with serious potential and Forest Service aircraft accidents. The chief investigator shall be a qualified technical investigator (FSM 5720).

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6731.3 - Region, Station, and Area Investigations

A team appointed by the Regional Forester, Station Director, or Area Director shall investigate accidents with serious potential or serious consequences that are not investigated by a Chief's Office team or by a Washington Office-appointed team. See FSH 6709.12, chapter 30, and FSM 5720 for investigation of accidents and incidents.

6731.4 - National Transportation Safety Board Investigations

By interagency agreement, the Forest Service may call upon the National Transportation Safety Board (NTSB) to conduct investigations of Forest Service aviation accidents or to assist in a Forest Service investigation. Consider requesting an NTSB investigation when:

1. Loss of life has occurred.
2. Substantial damage to private property has occurred.
3. Considerable public interest in the accident is anticipated.
4. Sufficient Forest Service investigative resources are not available.

Coordinate all requests for NTSB assistance with the Washington Office, Human Resources Management and Fire and Aviation Management Staffs. The Chief, acting on the recommendation of the Deputy Chiefs for Business Operations and National Forest System, shall decide whether or not to request NTSB assistance.

6731.5 - Multi-agency Investigations

Conduct joint investigations of accidents involving the Forest Service and other Federal or State agencies. The degree of Forest Service participation shall depend on the circumstances of the accident.

Region, Station, or Area aviation and safety personnel shall coordinate with the involved Forest Service unit, the appropriate Washington Office staffs, and the other agency headquarters.

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6732 - ACCIDENT NOTIFICATION, REPORTING, AND REVIEW

6732.1 - Notification

6732.11 - Mandatory Washington Office Notification

Region, Station, and Area safety and health personnel shall promptly notify the Washington Office, Human Resources Management Staff, Leader, Safety and Health Group, of the following occurrences. Also notify the Washington Office, Fire and Aviation Management Staff when aircraft are involved and the Washington Office Engineering Staff when hazardous substances are involved.

1. One or more employees or enrollees suffer severe or fatal injury or severe illness.
2. The Forest Service is involved, and one or more private citizens or employees of other government agencies suffer a severe or fatal injury.
3. Accidental property damage of \$100,000 or more, excluding forest fire damage to natural resources.
4. Forest Service aircraft incident with potential to cause major damage or serious injury.
5. Forest Service aircraft accident.
6. Release of a reportable quantity of a hazardous substance into the environment (see 40 CFR Parts 117 and 302, and Federal Register dated September 29, 1986, for reportable quantities. Also see National Contingency Plan, 40 CFR 300.51 and 300.61) or suspected contamination during shipment of radioactive or etiologic agents (see 49 CFR 171-177).

See FSH 6709.12, chapter 30, for specific information to report and Washington Office personnel to contact.

7. Incidents resulting from pesticide use on National Forest lands or in cooperative State pest suppression programs that may affect public welfare or that may be of special interest to the public or the media. See FSH 6709.12, section 32.1, exhibit 5. Submit written follow-up Report FS-2100-D, Pesticide Accident and Incident Report (FSH 2109.14).

In addition, if reportable quantities of certain pesticides are discharged into or upon watercourses, adjoining shorelines, into or upon the contiguous zone, the accidental spill must be reported to the U.S. Coast Guard, State and local governments, and the Environmental Protection Agency as required (40 CFR 117). See FSH 2109.14 for reportable quantities of spilled pesticides.

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6732.12 - Job Corps Enrollees

In addition to notifying the Washington Office, report the following incidents to the Job Corps national headquarters through the appropriate Department of Labor Regional Safety and Health Manager within 24 hours.

1. Accidents resulting in occupational injury to five or more Corps members.
2. Injuries or illnesses resulting in death of a Corps member.
3. Accidents resulting in property damage of \$100,000 or more.

6732.13 - Private Citizens

Notify the local fiscal officer of accident cases with potential for claims either by or against the Government.

6732.2 - Accident Reporting

6732.21 - Release of Reports

Accident reports are subject to both the Privacy Act and Freedom of Information Act (FOIA). Consult the local FOIA coordinator upon receipt of such a request. Opinions and recommendations expressed in letters of transmittal accompanying accident reports generally are not subject to the Freedom of Information Act as they are internal working documents used in the development of agency policy (FSM 6271.2).

6732.22 - Forest Service Employees, Volunteers, and Human Resource Program Enrollees

Follow the provisions of the Department of Agriculture Incident Reporting System (IRS), included in chapter 40 of FSH 6709.12, when reporting occupational injuries, illnesses, and fatalities involving Forest Service employees, volunteers, and Human Resource Program enrollees except Job Corps members (FSM 6732.23).

6732.23 - Job Corps Enrollees

Report Job Corps member injuries, illnesses, and fatalities on U.S. Department of Labor Form DI-440, Supervisor's Report of Accident/Injury/Illness. Prepare and submit this form in accordance with Employment and Training Handbook No. 860. Do not enter Job Corps member accidents into the Incident Reporting system.

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6732.24 - Visitors, Contract Employees, Cooperators, and Permittees

Use Form FS-6700-8, Report of Incident to Other Than Employees, to report serious injuries and fatalities to these persons that occur on National Forest land. Do not report deaths from natural causes, suicides, homicides, non-Forest Service aircraft accidents, and those fatalities occurring on easements administered by other jurisdictions (FSH 6709.12, ch. 30).

6732.25 - Property Damage Accidents and Motor Vehicle Accidents

Report property damage accidents and motor vehicle accidents in accordance with the Incident Reporting System (FSH 6709.12, ch. 30 and 40).

6732.26 - Other Agency Personnel

Report injury or illness of other agency personnel (for example, a Bureau of Land Management firefighter injured on a Forest Service fire) according to that agency's procedures and the provisions of the Federal Employee's Compensation Act. Do not enter these reports into the Incident Reporting System.

6732.27 - Fires

Report fires resulting in property damage via the Incident Reporting System (IRS). This includes fires to aircraft, automobiles, buildings and their contents, property owned or controlled by a Federal agency, or private property damaged by the agency's activities. Do not report damage to natural resources such as forest, grass, or tundra.

6732.3 - Accident Report Review

In cases of serious injury or illness, major property damage, aircraft accident, incident with serious potential, or death, the Chief, Regional Forester, or Director shall convene an accident report review board within 45 days of the accident. Review boards shall be appointed by the Chief for Chief's Office investigations, and by the Regional Forester or Director for regional investigations and for Washington Office-appointed aviation investigations. See FSH 6709.12, chapter 30.

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6741 - RADIATION PROTECTION

See FSM 2160 and FSH 6709.11 for further direction on radioactive materials and radiation-emitting equipment and devices (radiation sources). All Forest Service employees using radiation sources must hold a current radiation source permit issued by the USDA Radiation Safety Staff. Procedures for permit application and renewal are in FSM 6741.2. Application forms include:

1. Form RSS-10, Radiation Worker Registration.
2. Form RSS-20, Application To Use Radiation Producing Sources.
3. Form RSS-21, Application for Radioactive Materials Use.
4. Form RSS-22, Application To Use Nuclear Gauges.
5. Form RSS-23, Application To Use Electron Capture Detectors.
6. Form RSS-24, Application To Use Self-Shielded Irradiators.
7. Form RSS-25, Application To Use X-Ray Producing Equipment.
8. Form RSS-29, X-Ray Producing Equipment Inventory Record.
9. Form RSS-70, Personnel Dosimetry Request.

6741.01 - Authority

1. Title 10, Code of Federal Regulations, parts 20 and 30 (10 CFR 20 and 30). U.S. Nuclear Regulatory Commission regulations in part 20 establish standards for protection against radiation; part 30 covers domestic licensing of by-product material.
2. Title 29, Code of Federal Regulations, sections 1910.96 and 1926.53 (29 CFR 1910.96 and 1926.53). U.S. Department of Labor Occupational Safety and Health Administration regulations establish standards for employee protection from overexposure to ionizing radiation within general industry and construction activities.
3. Title 40, Code of Federal Regulations, parts 171-178 (40 CFR 171-178). U.S. Department of Transportation regulations in these parts establish requirements for transport and handling of hazardous materials.
4. U.S. Department of Agriculture, Safety and Health Manual. This manual, issued by the Office of Human Resources Management, Safety and Health Management Division, establishes safety and health requirements at the Departmental and agency level throughout USDA.

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5. U.S. Department of Agriculture, Radiation Safety Handbook. This handbook, issued by the Office of Human Resources Management, Safety and Health Management Division, Radiation Safety Staff, establishes requirements for Radiation Safety Programs at the Departmental and agency level throughout USDA.

6741.02 - Objective

To achieve safe, accident-free use, handling, storage, and transportation of radiation sources in the Forest Service for satisfactorily accomplishing research, engineering applications, and other uses, thereby preventing exposure of employees, the public, visitors, facilities, and the environment to radiation contamination.

6741.03 - Policy

1. Comply with all applicable Federal, State, and local laws and regulations governing the use, handling, storage, and transportation of radiation sources.

2. Protect employees, the public, visitors, facilities, and the environment from the risk of radiation hazards that could result from the use, handling, storage, and transportation of radiation sources under the control of the Forest Service.

6741.04 - Responsibility

6741.04a - Chief

The Chief is responsible for:

1. Ensuring agency compliance with radiation-related laws and regulations and with USDA Radiation Safety Program policies, procedures, and practices.

2. Nominating qualified individuals to serve as members and alternates on the USDA Radiation Safety Committee.

6741.04b - Regional Foresters, Station Directors, Area Director, and Institute Director

Regional Foresters, Station Directors, the Area Director, and the Institute Director are responsible for:

1. Appointing a Radiation Protection Coordinator at the Region, Station, Area, and Institute headquarters level.

2. Ensuring that managers at each location using radiation sources designate a Location Radiation Protection Officer.

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3. Terminating any activity or practice involving the unsafe use of radiation sources, or as recommended by the USDA Radiation Safety Committee or Director of USDA Radiation Safety Staff based on results of field inspections and program audits.

4. Ensuring that employees who are occupationally exposed to radiation sources receive appropriate training and information on the associated hazards, risks, and safeguards of ionizing radiation.

6741.04c - Field Location Managers

Field Location Managers are responsible for:

1. Reviewing and concurring on initial and renewal requests for radiation source permit applications submitted by Radiation Source Users at the unit.

2. Appointing a Location Radiation Protection Officer to coordinate the location radiation protection program.

3. Ensuring that all individuals who are permit holders have appropriate safety elements in their performance plans and that job descriptions clearly define actual duties and responsibilities involving radiation sources.

4. Supporting the location radiation protection program.

5. Ensuring prompt abatement of identified hazardous conditions.

6741.04d - Director, Human Resources Management, Washington Office

The Director of Human Resources Management, Washington Office, is responsible for:

1. Ensuring that managers, supervisors, and Location Radiation Protection Officers at locations using radiation sources that emit ionizing radiation are evaluated on their compliance with the USDA Radiation Safety Program and the Forest Service Radiation Protection Program.

2. Appointing the National Radiation Protection Program Manager from within the Safety, Health, and Uniforms Branch.

3. Appointing the Radiation Technical Advisor.

6741.04e - National Radiation Protection Program Manager

The National Radiation Protection Program Manager, Human Resources Management Staff, Safety, Health, and Uniforms Branch, Washington Office, is responsible for administering radiation safety oversight of the Forest Service Radiation Protection Program, to include:

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1. Serving as liaison with the USDA Radiation Safety Committee, USDA Radiation Safety Staff, and Forest Service Radiation Protection Coordinators to resolve Forest Service radiation safety issues affecting compliance with Nuclear Regulatory Commission regulations and other applicable requirements.
2. Representing the Forest Service as the primary member on the USDA Radiation Safety Committee.
3. Reviewing permit applications and other radiation safety issues at the request of Radiation Protection Coordinators.
4. Reviewing and updating annually the Forest Service Location Radiation Protection Officer - Radiation Source User list at the beginning of each fiscal year.
5. Evaluating and monitoring the Forest Service Radiation Protection Program annually to ensure compliance with Nuclear Regulatory Commission regulations and USDA Radiation Safety Program requirements.
6. Requesting the services of the Forest Service Radiation Technical Advisor, as necessary, to resolve Forest Service radiation safety issues.
7. Recommending a Radiation Technical Advisor to the Director of Human Resources Management, Washington Office, for appointment from the Research and Development Deputy Area.
8. Reporting all incidents of radiation exposure/leakage to the USDA Radiation Safety Staff upon notification from a Radiation Protection Coordinator, Location Radiation Protection Officer, or Radiation Source User.

6741.04f - Radiation Technical Advisor

The Radiation Technical Advisor, Research and Development Deputy Area, is responsible for:

1. Advising the National Radiation Protection Program Manager on technical issues, problems, regulatory interpretations, and other radiation matters, as requested.
2. Assisting with special projects that promote radiation protection, as necessary, when requested or authorized by the National Radiation Protection Program Manager.

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6741.04g - Radiation Protection Coordinators

Radiation Protection Coordinators at the Region, Station, Area, and Institute headquarters offices are responsible for:

1. Informing the USDA Radiation Safety Staff of changes to individual location radiation sources.
2. Coordinating Region, Station, Area, and Institute radiation activities in accordance with Federal, State, and local laws and regulations, and USDA Radiation Safety Program and Forest Service Radiation Protection Program requirements.
3. Ensuring that Location Radiation Protection Officers are aware of Department and Forest Service requirements and other communications related to the USDA Radiation Safety Program and Forest Service Radiation Protection Program requirements.
4. Processing initial and renewal applications for radiation source permits received from Location Radiation Protection Officers, to include other administrative actions regarding the use, handling, storage, and transportation of radiation sources, as required.
5. Coordinating training programs for Location Radiation Protection Officers.
6. Submitting updated lists of Location Radiation Protection Officers and radiation source inventories to the National Radiation Protection Program Manager upon request.
7. Reporting all incidents of radiation exposure/leakage to the National Radiation Protection Program Manager within six hours.

6741.04h - Location Radiation Protection Officers

Location Radiation Protection Officers at field unit locations in the Regions, Stations, Area, and Institute are responsible for:

1. Maintaining an inventory of all radiation sources and users in the unit and reporting all changes to the Radiation Protection Coordinator.
2. Maintaining radiation source inventories and reporting all changes to the Radiation Protection Coordinator.
3. Ensuring that the unit takes adequate steps to protect Forest Service personnel, the public, visitors, facilities, and the environment from unacceptable levels of radiation exposure from radiation sources under Forest Service control.

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4. Reporting all incidents of radiation exposure/leakage from radiation sources under Forest Service control to the Radiation Protection Coordinator within 24 hours.

5. Ensuring that all radiation sources on the unit are purchased, used, handled, stored, transported, and disposed of according to applicable Federal, State, and local laws and regulations; USDA Radiation Safety Program requirements; and Forest Service Radiation Protection Program requirements.

6. Reporting all unsafe practices and conditions related to radiation sources to the field location manager and Radiation Protection Coordinator.

7. Complying with the requirements contained in the USDA Radiation Safety Handbook (FSM 6741.01).

8. Providing appropriate training, notification, and protective measures to prevent occupational exposure to radiation of visitors and ancillary staff (see FSM 6741.4). This responsibility may be delegated to Radiation Source Users.

6741.04i - Radiation Source Users

Radiation Source Users are responsible for:

1. Using, handling, storing, transporting, and disposing of radiation sources in accordance with Federal, State, and local laws and regulations; USDA Radiation Safety Program requirements; and Forest Service Radiation Protection Program requirements.

2. Meeting minimum standards for permit issuance by the USDA Radiation Safety Staff. See FSM 6741.2 for permit requirements.

3. Providing the Location Radiation Protection Officer and Radiation Protection Coordinator copies of all administrative actions taken regarding radiation sources and users.

4. Forwarding initial and renewal applications for radiation source permits to the Location Radiation Protection Officer for processing through the Radiation Protection Coordinator.

5. Reporting within two hours to the Location Radiation Protection Officer all incidents of radiation source exposure, leakage, and spills, and providing information on actions taken to correct and decontaminate the workplace.

6. Discontinuing all operational and administrative radiation source use in a responsible and timely manner before the effective dates of any retirement, transfer, termination, or other personnel action that affects the status and responsibilities of Radiation Source Users.

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7. Maintaining currency in technical use, health physics, and administration of radiation sources by meeting training or refresher course requirements in compliance with the USDA Radiation Safety Program and Forest Service Radiation Protection Program requirements.

8. Complying with the requirements contained in the USDA Radiation Safety Handbook (FSM 6741.01).

9. Providing appropriate training, notification, and protective measures to prevent occupational exposure to radiation of visitors and ancillary staff (see FSM 6741.4) when delegate the Location Radiation Protection Officer or when local conditions dictate.

6741.05 - Definitions

Ancillary Staff. Auxiliary or support staff personnel (for example, administrative, janitorial, maintenance, academic, and research personnel).

Health Physics. The application of radiation safety techniques to recognizing, evaluating, and controlling the effects of ionizing radiation and the use of its sources and generating equipment and devices.

Location. A building, facility, research center, area, region, or State that has been designated as a single entity for purposes of radiation protection.

Location Radiation Protection Officer. An individual who has been designated to provide advice and assistance regarding the USDA Radiation Safety Program and the Forest Service Radiation Protection Program requirements at a specific location where radioactive materials and/or radiation-emitting devices and equipment are used.

Radiation-Emitting Equipment and Devices. Equipment and devices capable of producing or emitting ionizing radiation; for example, x-ray machines, electron microscopes, and x-ray diffraction units.

Radiation Sources. Radioactive materials and/or radiation-emitting equipment and devices.

Radioactive Materials. Substances containing an element that emits ionizing radiation upon decay.

6741.06 - Role of U.S. Department of Agriculture in Radiation Safety

1. The Assistant Secretary for Administration has overall responsibility for the USDA Radiation Safety Program. Routine operational aspects of the USDA Radiation Safety Program have been delegated to the Director of the USDA Radiation Safety Staff, Safety and Health Management Division, Office of Human Resources Management. The USDA Radiation Safety Staff manages the daily functional operations for the safe use and control of radiation sources.

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2. The USDA Radiation Safety Committee establishes general policies regarding the USDA Radiation Safety Program and conducts periodic inspections and program audits of field locations and an annual audit of the USDA Radiation Safety Staff. The committee includes representatives from the USDA Office of Human Resources Management, Safety and Health Management Division; Agricultural Marketing Service; Animal and Plant Health Inspection Service; Agricultural Research Service; Food Safety and Inspection Service; Forest Service; Grain Inspection, Packers, and Stockyard Administration; and Natural Resources Conservation Service.

6741.1 - Procurement, Use, and Disposal of Radiation Sources

1. Radiation Source Users shall coordinate purchase, use, and disposal of all radiation sources through the Location Radiation Protection Officer.

2. All Forest Service Radiation Source Users must hold a current and valid radiation source permit issued by the USDA Radiation Safety Staff before engaging in any activity requiring the purchase, use, handling, storage, transfer, transportation and/or disposal of radiation sources. See FSM 6741.2 for detailed direction on the permit application process.

3. Radiation Source Users are subject to permit review, field inspections, and program audits at the discretion of the Director of USDA Radiation Safety Staff, USDA Radiation Safety Committee, and Forest Service National Radiation Protection Program Manager.

4. Disposal of radiation sources, including transferring and recycling, shall be fully documented by contractual agreement or other equivalent instrument. To ensure proper disposal of radiation sources:

- a. Identify all radiation sources for disposal in the contract.
- b. Verify Nuclear Regulatory Commission or State licensing of the contractor to receive identified radiation sources.
- c. Assess the contractor's ability to perform by contacting Federal, State, and local nuclear regulatory agencies and former clients of the contractor.
- d. Include a contractual requirement for the contractor to certify that proper disposal of identified sources has been effected.

6741.2 - USDA Radiation Source Use Permits

1. All uses of radiation sources require the issuance of a USDA radiation source permit. Since USDA has been issued a specific license that regulates the use of by-product material by the Nuclear Regulatory Commission, the control of all radioactive materials and radiation-emitting equipment and devices, including x-ray, is required.

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2. Radiation Source Users must apply for radiation source permits issued by the USDA Radiation Safety Staff in order to use radioactive or radiation producing sources. Complete Form RSS-10, Radiation Worker Registration, and Form RSS-20, Application To Use Radiation Producing Sources, along with the appropriate form for the specific radiation source needed, and forward these forms to the Location Radiation Protection Officer after concurrence by the appropriate Field Location Manager.

3. The USDA Radiation Safety Staff issues permits in five general categories. Applications for permits can include more than one category or may address a specific research or program requirement that is outside of the categories listed. The five general categories are:

- a. General radioactive material (Form RSS-21).
- b. Moisture/density gauges (Form RSS-22).
- c. Electron capture devices (Form RSS-23).
- d. Self-shielded irradiators (Form RSS-24).
- e. X-ray producing equipment (Form RSS-25).

4. Refer to chapter 5 of the USDA Safety and Health Manual (FSM 6741.01) for application requirements for specific radiation sources.

6741.3 - Transportation of Radiation Sources

Comply with the U.S. Department of Transportation requirements in 49 CFR parts 171-178 regarding transportation of radiation sources (FSM 6741.01).

6741.4 - Protection of Ancillary Staff from Occupational Radiation Exposure

1. Ensure that appropriate training and notification are provided and protection measures are taken to prevent occupational exposure to radiation of visitors and ancillary staff (FSM 6741.05) who do not hold radiation source permits issued by the USDA Radiation Safety Staff as required by the USDA Safety and Health Manual. For example, protection measures including timing/scheduling, distance, and shielding may be supplemented with a health physics presentation to all persons in the vicinity of radiation sources (FSM 6741.01).

2. Post placards and labels in restricted areas regarding the presence of radiation sources in accordance with USDA Radiation Safety Staff requirements and 10 CFR 20.

3. Post the following information in such a manner that individuals can read the information on their way into or out of restricted areas:

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- a. Nuclear Regulatory Commission Form-3, Notice to Employees.
 - b. 10 CFR 19 and 20.
 - c. Section 206 of the Atomic Energy Act of 1974, as amended.
 - d. USDA license and license application.
 - e. Results of Nuclear Regulatory Commission inspections and Notice of Violations and Department responses.
4. Notify local emergency response units (police, fire department, and emergency medical services) of the presence of any radiation sources that may be a potential exposure when responding to an emergency.
5. Ensure that clerical personnel responsible for purchasing, shipping, and receiving radiation sources are properly trained in their role in handling materials labeled as radiation sources.

6742 - HAZARDOUS CHEMICALS

For further direction on hazardous materials, see FSM 2160.

6742.01 - Authority

1. Title 49, Code of Federal Regulations, parts 100-199 (49 CFR 100-199). U.S. Department of Transportation regulations in these parts establish requirements for transportation of hazardous materials by rail, aircraft, vessel, and highway.
2. Title 40, Code of Federal Regulations, parts 152-186 (40 CFR 152-186). U.S. Environmental Protection Agency regulations in these parts establish requirements for implementing the Federal Insecticide, Fungicide, and Rodenticide Act.
3. National Fire Protection Association 49, Hazardous Chemicals Data (NFPA 49). National Fire Protection Association consensus standards list data on the health, flammability, and instability of approximately 325 chemicals.
4. National Fire Protection Association 704 (NFPA 704). National Fire Protection Association consensus standards establish requirements for the identification of the fire hazards of materials for emergency response.
5. State and Local Requirements. States and local jurisdictions may issue additional requirements that may apply to the agency's hazardous chemicals procurement, use, labeling, transportation, storage, and disposal.

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6742.04 - Responsibility

6742.04a - Regional Foresters, Station Directors, Area Director, and Institute Director

Regional Foresters, Station Directors, the Area Director, and the Institute Director have the responsibility to appoint a Hazardous Materials Management Coordinator who is responsible for technical information concerning hazardous materials.

6742.04b - Hazardous Materials Management Coordinators

For responsibilities of Hazardous Materials Management Coordinators, see FSM 2160.43a to 2160.43e.

6742.1 - Procurement

1. Obtain a Material Safety Data Sheet from the manufacturer when purchasing chemicals other than common household chemicals. All chemical manufacturers must provide these information sheets on request, but it is the responsibility of the purchaser to initiate the request.
2. Order the smallest amount of chemicals feasible to prevent accumulation of unused chemicals.

6742.2 - Labeling

1. During transportation, chemicals must be labeled in accordance with 49 CFR 172.400, General Labeling Requirements.
2. Pesticides must be labeled in accordance with 40 CFR 156, Labeling Requirements for Pesticides and Devices.
3. Chemicals identified as hazardous wastes that are being stored until disposal must be labeled in accordance with 40 CFR 262, Standards Applicable to Generators of Hazardous Waste.
4. Additional requirements and guidance on chemical labeling are in the National Fire Protection Administration 325M, Guide to Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids (NFPA 325) and FSH 6709.11, chapter 60, Hazardous Materials.

6742.3 - Transportation

See 49 CFR subchapter C, Hazardous Materials Regulation, and FSH 6709.11, Health and Safety Code Handbook, chapter 61.17, for transportation requirements.

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6742.4 - Storage

For requirements on the storage of hazardous chemicals, see the following:

1. NFPA 30, Flammable and Combustible Liquids Code.
2. NFPA 45, Standards on Fire Protection for Laboratories Using Chemicals.
3. FSH 6709.11, Health and Safety Code Handbook, section 61.71.

6742.5 - Disposal

See FSM 7460 for direction on the proper disposal of hazardous chemicals. Where State and Federal disposal regulations differ, follow the more stringent regulation.

6742.6 - Pesticides

See FSM 2150 and FSH 2109.14 for direction on the use, storage, and disposal of pesticides.

6743 - ASBESTOS

6743.1 - Purchase and Use

1. Forest Service employees shall not purchase or use asbestos in any form that may disperse fibers into the air (friable asbestos).
2. Employees shall not be exposed to levels of airborne asbestos above permissible exposure limits established by the Department of Labor, Occupational Safety and Health Administration (OSHA).

6743.2 - Removal

No Forest Service employee shall remove friable asbestos products. A qualified contractor shall perform all necessary removal operations (FSH 6709.11, sec. 61.8).

6743.3 - Sealing

Encapsulating or sealing asbestos in place rather than disturbing it by removal is more advantageous in many cases. Qualified individuals who are trained and certified in asbestos control must make this determination.

6743.4 - Reporting

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Report all discoveries of suspected asbestos to the appropriate Hazardous Materials Management Coordinator (FSM 6742.04).

6744 - TRAINING

Employees handling or supervising the use, storage, or transportation of hazardous materials shall receive appropriate training. Training resources are available through the National Technical Information Service.

6745 - EXPLOSIVES AND BLASTING MATERIALS

Direction in this section applies to Forest Service operations and activities involving explosives and blasting materials to accomplish project works, avalanche control, and fire suppression activities. Related direction is in FSM 2160 and 7103.5 and in FSH 6709.11. Forest Service operations and activities related to the use, storage, and transportation of explosives and blasting materials must also comply with requirements in the most recent edition of the Guide for Using, Storing, and Transporting Explosives and Blasting Materials, published by the Missoula Technology and Development Program.

The term "blaster" used in this section applies to Forest Service employees who are currently certified blasters or blasters-in-training. Requirements governing contractor blaster operations and activities are specifically identified in FSM 6745.3.

6745.01 - Authority

6745.01a - Use

Requirements and constraints on the use of explosives and blasting materials are in:

1. Title 29, Code of Federal Regulations:
 - a. Section 1910.109, Explosives and Blasting Agents (29 CFR 1910.109).
 - b. Part 1926, subpart U, Blasting and the Use of Explosives (29 CFR 1926, subpart U).
2. Title 30, Code of Federal Regulations:
 - a. Part 56, subpart E, Explosives (30 CFR 56, subpart E).
 - b. Part 57, subpart E, Explosives (30 CFR 57, subpart E).

6745.01b - Storage

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Requirements for storage of explosives and blasting materials are in Title 27, Code of Federal Regulations, part 55, Storage (27 CFR part 55).

6745.01c - Transportation

Requirements for the transportation of explosives and blasting materials are in:

1. Title 33, Code of Federal Regulations:
 - a. Part 125, Identification Credential for Persons Requiring Access to Waterfront Facilities or Vessels (33 CFR 125).
 - b. Part 126, Handling of Class 1 (Explosive) Materials or Other Dangerous Cargoes Within or Contiguous to Waterfront Facilities (33 CFR 126).
2. Title 49, Code of Federal Regulations:
 - a. Part 172, Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements (49 CFR 172).
 - b. Part 173, Shippers-General Requirements for Shipments and Packaging (49 CFR 173).
 - c. Part 174, Carriage by Rail (49 CFR 174).
 - d. Part 175, Carriage by Aircraft (49 CFR 175).
 - e. Part 176, Carriage by Vessel (49 CFR 176).
 - f. Part 177, Carriage by Public Highway (49 CFR 177).
 - g. Part 390, Federal Motor Carrier Safety Regulations; General (49 CFR 390).
 - h. Part 391, Qualifications of Drivers (49 CFR 391).
 - i. Part 392, Driving of Commercial Motor Vehicles (49 CFR 392).
 - j. Part 393, Parts and Accessories Necessary for Safe Operation (49 CFR 393).
 - k. Part 395, Hours of Service of Drivers (49 CFR 395).
 - l. Part 396, Inspection, Repair, and Maintenance (49 CFR 396).

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m. Part 397, Transportation of Hazardous Materials; Driving and Parking Rules (49 CFR 397).

3. Department of Transportation (DOT), Research and Special Programs Administration, Exemption Number DOT-E 9198, which authorizes the U.S. Department of the Interior and U.S. Department of Agriculture Forest Service to transport hazardous materials in aircraft under their exclusive direction and control (FSM 5714.2).

6745.01d - Disposal

1. Requirements for disposal of explosives and excess blasting materials declared as hazardous waste are in Title 40, Code of Federal Regulations, part 264, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (40 CFR 264).

2. Special policies and procedures governing the utilization, donation, sale, exchange, or other disposition of hazardous materials, dangerous property, and other categories of property with special utilization and disposal requirements are in Title 41, Code of Federal Regulations, part 101-42, Utilization and Disposal of Hazardous Materials and Certain Categories of Property (41 CFR 101-42).

6745.02 - Objectives

1. To ensure safe and secure storage, transportation, and use of explosives and blasting materials.

2. To use explosives and blasting materials in the safest manner possible as cost-effective tools to accomplish project work.

6745.03 - Policy

(See FSM 7103.5 for additional policies related to explosives and blasting materials; see FSM 6745.2 for general standards applicable to blasting operations and activities.) To ensure that employees and the public are protected from injury:

1. Comply with applicable Federal, State, and local laws and regulations for all work connected with explosives and blasting materials. Follow the most stringent requirements where a difference appears.

2. Ensure that all Forest Service blasters take and pass a regional written test, oral examination, and field exercise to attain blaster certification. The certification shall specify the type of blasting qualifications (FSM 6745.1).

3. Ensure that all Forest Service blasters involved in the transportation of explosives and avalanche ammunition comply with requirements to hold a State-issued Commercial Driver's

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License (CDL) with Hazardous Materials Endorsement and a current Medical Examiner's Certificate.

4. Ensure that all personnel responsible for monitoring or inspecting blasting operations and activities are trained to recognize unsafe or unlawful practices and procedures.

5. Use only explosives and blasting materials on the approved Forest Service list (FSM 6745.04f). Ensure that a Material Safety Data Sheet (MSDS) for explosives and blasting materials is available at the workplace or job site, and that a job hazard analysis is conducted in accordance with FSH 6709.11.

6. Use exploding bridgewire or non-electric detonators as the detonation system of choice in all Forest Service blasting operations and activities, unless contraindicated by a particular blasting application.

7. Prohibit the use of cap and fuse in general blasting operations and activities for both force account and contract.

8. Require special training for use of cap and fuse in avalanche control.

9. Ensure that all force account blasting operations and activities (including transportation, use, mixing of component explosives, storage, magazine inspection, and disposal) are conducted by or under the direct supervision of a certified Forest Service blaster in accordance with FSM 6745.1.

10. Designate one certified Forest Service blaster as the Blaster-in-Charge when two or more blasters are working together. Either the respective supervisor or the blasters themselves may designate the Blaster-in-Charge.

11. Use contractors for blasting operations and activities when it is the most cost-effective and efficient alternative for the Government. Ensure that blasting contracts comply with the same standards, laws, and regulations that are applicable to Forest Service blasting operations and activities (FSM 6745.3).

6745.04 - Responsibility

6745.04a - Chief

The Chief is responsible for ensuring agency compliance with explosives and blasting materials policies, procedures, and practices.

6745.04b - Deputy Chief for Business Operations

The Deputy Chief for Business Operations, as the Designated Agency Safety and Health Official, has the responsibility to consider recommendations from the National Explosives and

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Blasting Technical Advisory Group and other officials, and to resolve national issues, concerns, and policies related to explosives and blasting materials that affect the work environment and safety of employees.

6745.04c - National Explosives and Blasting Technical Advisory Group

The National Explosives and Blasting Technical Advisory Group, composed of all Regional Blaster Examiners and Blaster Coordinators, the Director of the National Avalanche Center (or designee), and a Technology and Development Center representative, is responsible for:

1. Developing standardized national training programs on all categories of blasting operations and activities.
2. Developing certification criteria for blasters (general, avalanche, and fireline).
3. Establishing accepted practices and procedures for the safe use, handling, storage, and transportation of explosives and blasting materials in compliance with applicable laws and regulations.
4. Addressing national issues at the annual National Blaster Examiners' and Coordinators' Workshop that affect the Forest Service explosives and blasting materials program.
5. Providing information on newly developed explosives and blasting materials and associated technology to the Technology and Development Centers and the National Avalanche Center for development of the approved explosives and blasting materials list.

6745.04d - National Explosives Safety Program Manager

The National Explosives Safety Program Manager, Safety, Health and Uniforms Branch, Human Resources Management Staff, Washington Office, is responsible for:

1. Providing overall program leadership and safety oversight for the National Explosives Safety Program.
2. Ensuring that the list of explosives, blasting materials, and avalanche ammunition for use, including all explosives, blasting equipment, and avalanche ammunition approved by the Technology and Development Centers and the National Avalanche Center is updated and issued on an annual basis when new items are approved for Forest Service use.
3. Reviewing the most current edition of the Guide for Using, Storing, and Transporting Explosives and Blasting Materials on an annual basis, and updating as appropriate (FSM 6745.06).
4. Ensuring distribution of the latest revision of the Department of Transportation (DOT), Research and Special Programs Administration, Exemption Number DOT-E 9198,

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which authorizes the U.S. Department of the Interior and U.S Department of Agriculture Forest Service to transport hazardous materials in aircraft under their exclusive direction and control.

6745.04e - Managers of Technology and Development Centers and Director of National Avalanche Center

The Managers of the Technology and Development Centers at Missoula, Montana, and San Dimas, California, and the Director of the National Avalanche Center, Ketchum, Idaho are responsible for:

1. Serving as technical advisors to the National Explosives Safety Program manager.
2. Providing technical support to Regional Blaster Examiners and Coordinators on the use, acquisition, transport, and storage of explosives and blasting materials.
3. Suspending and/or removing from Service-wide use any explosive or blasting material that is considered an immediate threat to the safety and health of employees and the public.
4. Developing and issuing the approved explosives and blasting materials list with input from the Regional Blaster Examiners and Coordinators.

6745.04f - Regional Foresters

Regional Foresters are responsible for:

1. Authorizing all explosives and blasting materials to be used by properly certified blasters within the Region from the approved explosives and blasting materials developed by the Technology and Development Centers and the National Avalanche Center (FSM 6745.04e).
2. Appointing a Regional Blaster Coordinator and Regional Blaster Examiner (FSM 6745.04j and 6745.04k).
3. Providing workshops and training to keep certifications current for blasters.

6745.04g - Regional Blaster Coordinators

Regional Blaster Coordinators are responsible for:

1. Recommending to Regional Foresters those blasting operations and activities that may be accomplished through force account or contract.
2. Determining Regional training needs and coordinating and monitoring Regional training programs that cover contracting and force account use of explosives and blasting materials.

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3. Coordinating and monitoring all categories of explosives and blasting certification.
4. Developing and maintaining a tracking system for pertinent information on all respective blasters. This system should include: name; location; telephone number; electronic mail address; certification and re-certification date(s); type(s) of blasting certification; skill level; and special blasting skills.
5. Recommending appointment of Regional Blaster Examiners (FSM 6745.04k).
6. Coordinating the development of Regional supplements to the Manual and Handbooks related to explosives and blasting materials.
7. Coordinating with affected staffs to secure sufficient funding levels and support for the administration of the Regional blasting program (FSM 6745.04k).

6745.04h - Regional Blaster Examiners

Regional Blaster Examiners are responsible for:

1. Developing training programs for all categories of explosives and blasting certification (FSM 6745.1) for force account use of explosives and blasting materials.
2. Providing training for inspection of contracted blasting operations and activities.
3. Keeping explosives and blasting certification references and training materials up-to-date with Federal laws and regulations for the safe transportation, storage, use, and disposal of explosives and blasting materials.
4. Conducting or supervising certification classes (written, practical field exercises, and oral examination programs) for blasters.
5. Being available to assist with all blasting training, as needed.
6. Recommending for approval by Forest Supervisors/Unit Managers the issuance of Explosives and Blasting Certificates (Form FS-6700-27) to applicants who satisfactorily complete blaster-in-training and blaster certification requirements (FSM 6745.12).
7. Recommending to Forest Supervisors/Unit Managers revocation or suspension of certificates when such action is justified (FSM 6745.1).
8. Making periodic monitoring trips and assistance visits to field units.
9. Assisting in the investigation and documentation of all accidents and infractions of security and safety requirements related to blasting operations and activities.

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10. Ensuring permanent storage facilities and locations for explosives and blasting materials comply with 27 CFR 55 (FSM 6745.01b).

11. Assisting or advising with large or more difficult blasting projects.

12. Maintaining explosives and blasting certification (FSM 6745.1).

6745.04i - Forest Supervisors and Unit Managers

Forest Supervisors and Unit Managers are responsible for:

1. Issuing Explosives and Blasting Certificates (Form FS-6700-27) on Regional Blaster Examiners' recommendations to blasters-in-training and blasters.

2. Designating certified Lead Blasters based on the Regional Blaster Examiners' recommendations.

3. Suspending or revoking certificates when such action is justified (FSM 6745.11).

4. Ensuring that all blasting operations and activities, including special uses and projects under contract or agreement, are monitored for compliance with all Federal, State, and local laws and regulations and applicable Forest Service requirements for explosives and blasting materials.

6745.04j - Contracting Officers

Contracting Officers are responsible for:

1. Incorporating contractor requirements listed in FSM 6745.3 into contracts for blasting operations and activities conducted within National Forest System boundaries or other land and properties under the control of the Forest Service.

2. Ensuring that all blasting contracts are reviewed by a certified blaster or qualified Engineering Representative/Contracting Officer Representative for safety and resource protection issues before they are released for solicitation.

6745.04k - Lead Blasters

Lead Blasters are responsible for:

1. Directing or providing on-the-job training for blasters.

2. Keeping individual files on each blaster (including themselves), with records containing, at a minimum, the following information:

a. Copy of application from last certification class attended.

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- b. Current list of activities.
 - c. Copy of blast record for each shot made.
3. Maintaining sufficient copies of the most current edition of the Guide for Using, Storing, and Transporting Explosives and Blasting Materials so that they are readily available to blasters in the field (FSM 6745.06).
 4. Reviewing current qualifications of blasters and making recommendations to Regional Blaster Examiners on certification and re-certification of current blasters, and estimating personnel, training, and certification needs for future activities.
 5. Securing and maintaining State and local licenses or certificates required for the purchase, use, storage, and disposal of explosives and blasting materials.
 6. Distributing a list of blasters approved to purchase explosives and blasting materials with their certificates or State license numbers to appropriate distributors and officials.
 7. Annually inspecting explosives and blasting materials storage facilities and records.
 8. Monitoring performance of blasters.
 9. Assisting in or conducting training sessions to qualify blasters.
 10. Reviewing plans for or conducting major force account blasting projects.
 11. Destroying or supervising the destruction of all explosives and excess blasting materials designated as hazardous waste (if properly certified).
 12. Assisting in the investigation of blasting accidents and incidents or infractions of safety and security requirements.
 13. Maintaining explosives and blasting certification (FSM 6745.1).

6745.04I - Blasters - General/Fireline/Avalanche

Blasters - General/Fireline/Avalanche are responsible for:

1. Completing appropriate blast plans in accordance with the most current edition of the Guide for Using, Storing, and Transporting Explosives and Blasting Materials (FSM 6745.06).
2. Complying with general standards listed in FSM 6745.2 when conducting blasting operations and activities.

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3. Meeting certification requirements in accordance with FSM 6745.1.

6745.05 - Definitions

Avalanche Ammunition. All ammunition and propellant that is designated by the military for use in 75-mm, 105-mm, and 106-mm recoilless rifles; 75-mm pack howitzers; and 105-mm howitzers; or commercially available device made specifically for avalanche control (such as the avalauncher) that is officially recognized by the National Avalanche Center as acceptable and safe for avalanche control.

Explosives and Blasting Materials. All ammunition, munitions fillers, demolition material, solid rocket motors, liquid propellants, cartridges, pyrotechnics, and bombs, including associated explosives and blasting equipment and avalanche ammunition.

General Blasting. All explosives and blasting operations and activities exclusive of fireline, avalanche, and specialty blasting.

Level 1 Blaster-in-Training. The entry level for general blasters and blasters designated to use fireline explosives for wildfire suppression and prescribed burns.

6745.06 - Reference

Guide for Using, Storing, and Transporting Explosives and Blasting Materials, Missoula Technology and Development Program, Technical Service-Explosives (current edition). Copies of this guide are available from Lead Blasters in field units and from the Missoula Technology and Development Center.

6745.1 - Certification

The basis for certification is eligibility, knowledge, experience, and testing. Use Form FS-6700-24, Application for Explosives and Blasting Certification, Part I, Part II, and Part III, respectively, to apply for an explosives and blasting certificate. Minimum certification requirements are:

1. Demonstrating knowledge of and compliance with safety and security requirements.
2. Exercising reasonable and prudent judgment in all situations.
3. Possessing knowledge of current Federal, State, and local laws and regulations applicable to blasting operations and activities (FSM 6745.2).
4. Maintaining certification as specified for the levels indicated in exhibit 01.

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6745.1 - Exhibit 01

Explosives and Blasting Certification Requirements								
	CERTIFICATION LEVELS							
REQUIREMENTS To certify or recertify, possess the following certificates and licenses, and meet the indicated requirements for each certification level	^{1,2} Blaster-in-Training Level 1	² General Blaster Level 2	² General Blaster Level 3	² Lead Blaster	² Blaster Examiner	² Avalanche	² Fireline (Prescribed)	² Fireline (Wildfire)
Prerequisites								
Hazard Communication Standard (Employee Right-to-Know)	****	****	****	****	****	****	****	****
First Aid	****	****	****	****	****	****	****	****
Hazardous Materials Course (49 CFR 172) ³	****	****	****	****	****	****	****	****
Endorsements and Licensing								
Commercial Driver's License (CDL)	****	****	****	****	****	****	****	****
Hazardous Materials Endorsement	****	****	****	****	****	****	****	****
Medical Examiner's Certificate	****	****	****	****	****	****	****	****
General Requirements								
Every 3 years attend a 16-hour minimum classroom training on using, storing, and transporting explosives and blasting materials								
Pass 8-hour field practical exercise/test	****	****	****			****		
Pass written examination								
Pass oral examination								
Complete 1-year minimum field work with a minimum of 3 shots and have the recommendation of lead blaster		****	****					
Present shot records since last certification	****	****	****	****	****	****	****	****
Shoot a minimum of 3 shots per year	****	****	****	****	****	****	****	****
Attend a yearly lead blaster's workshop				****				
Participate in Blaster's Workshops (Certification)				****				
Additional Avalanche and FLE Requirements								
Every 3 years attend a 4-hour minimum classroom training on using cap and fuse, and avalanche blasting materials						****		
Pass 4-hour field practical exercise/test								
Pass avalanche school						****		
Pass military weapons training						****		
Pass yearly military weapons 8-hour refresher						****		
Pass national fireline explosives training							****	****
Pass yearly fireline explosives refresher							****	****

6745.1 - Exhibit 01--Continued

Explosives and Blasting Certification Requirements								
	CERTIFICATION LEVELS							
REQUIREMENTS To certify or recertify, possess the following certificates and licenses, and meet the indicated requirements for each certification level	^{1,2} Blaster-in-Training Level 1	² General Blaster Level 2	² General Blaster Level 3	² Lead Blaster	² Blaster Examiner	² Avalanche	² Fireline (Prescribed)	² Fireline (Wildfire)
Specialty and Other Blasting Authorizations⁴								
Stumps		****						
Ditches		****						
Misfires		****						
Delays		****						
40+ Hole Shots			****					
Quarries			****					
Wildlife Ponds/Beaver Dams			****					
Hazard Tree Blasting		****	****				****	****
Seismic			****					
Other (Specify)		****	****					

****** INDICATES REQUIREMENTS FOR EACH CERTIFICATION LEVEL**

¹Level 1-Blaster-in-Training requirements apply to general, fireline (FLE), and avalanche certifications

²CDL only required when transporting explosives

³Hazardous materials may be taught as part of the blaster's training course

⁴Work with and be recommended by master performer/lead blaster

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6745.11 - Steps in Certification Process

1. Certified Blaster-in-Training Requirements. To become a certified blaster-in-training, an applicant must:

- a. Possess a current multi-media first aid card.
- b. Attend current hazardous materials general awareness training.
- c. Attend 16-hours classroom training session at a minimum and pass an examination demonstrating applicant proficiency in the blasting level for which the applicant applies.

2. Certified Blaster Requirements. To become a certified blaster, a certified blaster-in-training must:

- a. Work under the direct supervision of a certified blaster for a minimum of one year to develop the necessary knowledge, skills, and experience required to perform safely and effectively.
- b. Attend and successfully complete a blaster's training course.
- c. Provide current shot records indicating proficiency at the level applied for (exhibit 01).
- d. Have a commercial driver's license (CDL) with hazardous materials endorsement and a current medical examiner's card (ICC) when transporting explosives and avalanche ammunition.

3. Maintaining Certification. To maintain certification, a blaster must:

- a. Conduct a minimum of three shots per year.
- b. Maintain shot records of each shot.
- c. Attend a recertification class every three years and pass an examination demonstrating blaster proficiency at the level of blasting currently certified.
- d. Maintain the required licenses, certifications, and training required by Federal, State, and local governing agencies.

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6745.12 - Certificate

As evidence of certification, issue Form FS-6700-27, Explosives and Blasting Certificate (ex. 01) to applicants. Exhibit 01 displays an electronic facsimile of Form FS-6700-27, which is available only in a paper copy format. Certificates are valid for three years from the date of issue, unless temporarily suspended or revoked by the issuing Forest Supervisor/unit manager at any time during that period. Certificate renewal or reissue is the same as for original certificates. Reasons for temporary suspension or revocation include, but are not limited to, the following:

1. Conviction for violating any law or regulation relating to explosives and blasting materials.
2. Lax security or unsafe procedures and practices relating to explosives and blasting materials.
3. Lack of proficiency, as demonstrated by the following:
 - a. Involvement in an accident or incident related to explosives and/or blasting materials. The blaster may be reinstated only after an investigation warrants such action.
 - b. Unsatisfactory performance or less than three shots per year.

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6745.12 - Exhibit 01

FS-6700-27 (7/99)

EXPLOSIVES AND BLASTING CERTIFICATE

Agency: USDA Forest Service Issue Date: 6/7/96

Name: Gerry P. Everyone

SSN: 555-55-5555 Birth Date: 6/28/44

State License # AR 5679

Height: 5'4" Weight: 160

Level/Class: 2

Issued by S.T. Truly
Blaster Examiner/Officer

Approved by W.E. Marshall
Supervisor

PHOTO

WORK AUTHORIZATION LEVELS

GENERAL

LEVEL 1 - GENERAL/FIRELINE BLASTER-IN-TRAINING

Store/Inspect/Transport

LEVEL 2 - GENERAL/FIRELINE-PRESCRIBED

Store/Transport/Inspect

Rocks/~~Stumps~~/~~Ditches~~

10 Holes/~~Clear~~ ~~Misfires~~

Fireline-Prescribed

Other _____

LEVEL 3 - GENERAL/DEMOLITION

Store/Transport/Inspect

Quarries/40+ Holes

Wildlife Ponds/Beaver Dams

Other _____

FIRELINE-WILDFIRE

Store/Transport/Inspect

FLEI (Initial Attack)

FLEB (Blaster-in-Charge)

FLEA (Advisor)

FLEC (Crewmember)

AVALANCHE/GUNNER OPERATIONS

Store/Transport/Inspect

Blaster-in-Training

Avalanche Gunner

Avalanche Hand Charges

Other _____

SPECIALTY BLASTING

Tree Topping

Hazard Trees

Other _____

INTLS

STT
STT
STT

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6745.2 - General Standards

Conduct all blasting operations and activities in accordance with the policies in FSM 6745.03 and 7103.5, and the requirements in the following:

1. Warnings and instructions adopted by the Institute of Makers of Explosives (IME), which are contained in every box of explosives and blasting caps.
2. Federal, State, and local laws and regulations (see FSM 6745.01 - 6745.01d for applicable Federal regulations and FSM 6745.01c, para. 3 for the Department of Transportation exemption).
3. Current edition of the Forest Service Guide for Using, Storing and Transporting Explosives and Blasting Materials (FSM 6745.06).

6745.3 - Contractor Requirements

Contracting officers shall ensure that the following requirements are included in contracts for blasting operations and activities conducted within National Forest System lands or on other lands and properties administered by the Forest Service (FSM 6745.04m):

1. Contractors are to prepare blast plans in accordance with the most current edition of the Guide for Using, Storing, and Transporting Explosives and Blasting Materials (FSM 6745.06) before commencing any contracted blasting operations and activities within National Forest System boundaries or on other lands and properties administered by the Forest Service. Such blast plans shall include, but are not limited to:
 - a. Precautions necessary to maximize safety and protect the contractor's employees, Forest Service employees, and the general public during blasting operations and activities.
 - b. Methods proposed to prevent damage to resources outside the immediate blast area by minimizing earth vibrations, air blast, and thrown fragments.
2. The contractor is to provide the contracting officer copies of magazine records and shot logs to account for all explosives items and components and blasting materials brought onto, used, and removed from the contract area.
3. The contractor must conduct all blasting operations and activities in accordance with warnings and instructions adopted by the Institute of Makers of Explosives (IME) contained in every box of explosives and blasting caps, and in compliance with applicable Federal, State, and local laws and regulations.