

**Forest Service Handbook
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**Forest Service Handbook 6709.11 – Health and Safety Code Handbook
Chapter 20 - Work Projects and Activities**

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Digest: Following is an explanation of the changes throughout the directive by section.

21.21: Revises and updates direction regarding First Aid and Cardiopulmonary Resuscitation (CPR).

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21 - General Project Planning

This chapter provides general guidance for planning and accomplishing a variety of work projects and activities.

21.01 - Authority

The authority for Forest Service work projects and activities is Title 29, Code of Federal Regulations (29 CFR), Parts 1910, 1926, and 1960.

21.04 - Responsibility

Line Officers and supervisors are responsible for carrying out the following:

1. Ensure the safety of both employees and the public.
2. Ensure risk assessments (RAs) are conducted for high-risk work activities that may result in serious injuries, fatalities, or significant property damage.
3. Analyze tools, equipment, and facility needs necessary for safe and healthful operations.
4. Ensure personal protective equipment (PPE) requirements are documented where required for safe work completion.
5. Select tools and PPE to accommodate employee gender, size, and other special needs.

21.1 - Risk Assessments (RAs)

RAs help identify potential hazards associated with work employees perform and provide opportunities to better mitigate and manage risk. RAs must be conducted for all “high risk” work activities, projects, or tasks where unintended outcomes could result in serious injuries, fatalities, or significant property damage. Refer to FSM 6719, Job Hazard Analysis (JHA).

21.12 - Training

Training. Before beginning any work project or activity, supervisors shall ensure employees are properly trained to identify and manage potential risks and basic safety and health precautions of which they should be aware in order to perform the work safely.

Supervisors shall ensure employees have a working knowledge of the tools, devices, and PPE they will use; the hazards to be faced; and defenses against those hazards. Supervisors shall never assume employees have the necessary training and experience.

Where employees are required to utilize specialized equipment or devices to complete their work, such as radios, global positioning systems (GPS), and satellite emergency notification devices (SENDs), employees shall receive adequate training to utilize the equipment or devices.

21.13 - Personal Protective Equipment (PPE)

21.13a - General Requirements

For general requirements concerning PPE, employees should refer to 29 CFR 1910.132. Employees shall follow these safety and health practices for selecting, training in, using, and maintaining PPE.

1. Select PPE based on the potential hazards of the work to be performed.
 - a. PPE must fit properly.
 - b. Defective, damaged, or unsanitary PPE must not be used.
 - c. Supervisors shall be responsible to assure the adequacy (as well as proper maintenance and sanitation) of employee-owned equipment.
2. Supervisors shall ensure employees are trained to properly wear PPE. Training must include the following:
 - a. Identify necessary PPE and when and where it should be worn.
 - b. How to properly put on, adjust, wear, and remove PPE.
 - c. PPE proper care, maintenance, useful life, limitations, and disposal.
3. Before performing any work project or activity requiring or recommending PPE, supervisors shall ensure that employees can demonstrate an understanding of their training.
4. Supervisors shall provide additional training as necessary. Circumstances in which supervisors should provide additional training include the following:
 - a. Workplace changes that make earlier training obsolete.
 - b. Changes in the PPE to be used.
 - c. Evidence that an employee's knowledge or use of PPE is not adequate.

21.13b - Specific Requirements

1. Occupational eye and face protection. Supervisors shall ensure that employees wear appropriate eye and/or face protection (including side protection) when exposed to eye or face hazards such as flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. These stipulations apply to employees and to visitors while they are in hazardous areas. Eyewear retention devices, such as elastic straps for goggles or for eyeglasses, are recommended. For specific requirements, refer to 29 CFR 1910.133. Eye protection must meet the standards of American National Standards Institute (ANSI) Z87 (latest edition).

2. Occupational noise exposure. Supervisors shall provide protection against the effects of noise when the exposure for an eight-hour time-weighted average (TWA) measured on the A scale of a standard sound-level meter at slow response is 85 decibels or above. For specific requirements, refer to 29 CFR 1910.95.

When employees are subjected to sounds exceeding those listed in exhibit 01, supervisors shall institute administrative or engineering controls to reduce noise levels to acceptable levels. Where such controls are not practical (for example, in some field work situations) or fail to meet noise standards, supervisors shall provide PPE and employees shall use PPE.

Hearing conservation programs must be implemented in workplaces where employee noise exposure equals or exceeds an eight-hour TWA of 85 decibels.

In this program, supervisors shall include employee hearing tests (audiograms) that must serve as baseline data for interpreting the results of future hearing tests. After obtaining the baseline audiogram, supervisors shall test affected employees annually.

Supervisors shall keep a current list of employees exposed to noise levels that exceed those in exhibit 01 and include these employees in all aspects of the hearing conservation program.

Supervisors shall provide and explain audiogram results to tested employees and maintain results in their medical folders (per 29 CFR 1910.95).

Supervisors shall provide a variety of suitable hearing protection devices and ensure that employees wear the devices in designated high-noise areas.

Supervisors shall inform employees of the following:

- a. The effects of noise on hearing.
- b. The advantages, disadvantages, and attenuation of various types of protectors as well as instructions on selection, fitting, use, and care.

3. Respiratory Protection. Supervisors shall not assign employees tasks requiring respirator use unless they are physically able to perform the work and can use the equipment properly. For specific requirements, refer to 29 CFR 1910.134.

- a. Supervisors shall ensure proper respirators are selected for employee use based on the hazards exposed.
- b. Supervisors shall instruct employees in the proper use, fit, maintenance, and storage of respirators and their limitations.
- c. Employees shall complete a medical evaluation and a fitness test prior to being assigned duties that require the use of a respirator.
- d. Supervisors shall ensure that employees attend required hazard communication training when they have a potential exposure risk to a hazardous chemical under normal conditions of use or in a foreseeable emergency.
- e. Supervisors shall ensure that respirators are National Institute of Safety and Health (NIOSH) certified.
- f. Employees shall inspect clean, disinfect, and store respirators in a convenient, clean, and sanitary location. Worn or deteriorated parts must be replaced.
- g. Supervisors shall monitor work area conditions and the degree of employee exposure or stress levels.

4. Occupational head protection. Employees shall wear appropriate head protection when working where there is potential for head injuries. Supervisors shall ensure that hardhat/helmet protection meets appropriate ANSI or National Fire Protection Association (NFPA) standards based on the type of work to be performed. Refer to 29 CFR 1910.132 and 1910.135.

Employees shall inspect shells daily for dents, cracks, penetration, or any other damage that might compromise protection. The suspension systems, headbands, sweatbands, and any accessories must also be inspected daily.

Employees shall follow manufacturer's recommended cleaning practices.

5. Occupational hand protection. Employees shall wear hand protection when working where there is potential to sustain severe cuts, lacerations, severe abrasions, punctures, chemical burns, thermal burns, and harmful temperature extremes. Supervisors shall ensure that the type of protection selected protects employees from the specific hazards identified. For specific requirements, refer to 29 CFR 1910.138.

6. Occupational foot protection. Employees shall wear protective footwear when working where there is a danger of foot injuries due to falling or rolling objects, objects

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piercing the soles of footwear, and electrical hazards. Many different types of footwear are available. Supervisors shall provide direction to employees as to which type of foot protection is best suited for their particular project or activity. Refer to 29 CFR 1910.136.

Refer to FSH 6709.11, chapter 70 for an extensive list of PPE to consider for a variety of tasks agency employees perform.

21.13b - Exhibit 01

Permissible Noise Exposure

<i>Duration per Day-Hours</i>	<i>Sound Level dBA Slow Response</i>
8	85
8	90
6	92
4	95
3	97
2	100
1-1/2	102
1	105
1/2	110
1/4 or less	115

21.14 - Procedures

By review and signature approval of the RA, a Line Officer or other competent person shall approve and document the assignment of employees to work alone. If there is a significant potential hazard to a lone worker, additional personnel must be assigned.

Supervisors shall discuss the approved RA with employees before they start the job. Specifically, the following must be provided:

1. Prepare instructions for each work project or activity not covered in other applicable documents.
2. Correct recognized hazards before beginning work projects and activities.
3. Identify hazards that cannot be corrected. Inform all involved personnel as an initial abatement action of the hazards. Do not allow performance of work projects and activities having unacceptable risks.
4. Where hazardous chemicals/materials may be encountered, provide the applicable safety data sheet (SDS) and discuss the implications of the work with affected employees.
5. Where applicable, develop emergency evacuation procedures and pinpoint individual responsibilities for implementation.
6. Conduct and document tailgate sessions as needed. Tier the sessions to the risks associated with the project/task and requirements.

21.2 - First-Aid Training

21.21 - First Aid and Cardiopulmonary Resuscitation (CPR)

Each field crew and office group shall have at least one person currently certified by a nationally recognized organization to perform CPR and at least one person currently certified by a nationally recognized organization or the Forest Service Field Work Lifesaver Course to render first aid (29 CFR 1910.151, 1910.1030, and 1926.50). Supervisors shall ensure that employees receive training or retraining in first aid and CPR before certifications expire. Refer to section 52.3 for direction on the bloodborne pathogens program.

21.22 - First-Aid Equipment

Supervisors shall ensure first-aid supplies are readily available at each work site, whether in the field or office, when the work location is not in close proximity to an emergency infirmary, clinic, or hospital. Close proximity has been defined by Federal Occupational Safety and Health Administration (OSHA) as three to four minutes for field work sites and up to 15 minutes for office work locations. Supervisors shall also ensure the following:

1. One or more persons is trained to render first aid, including CPR.
2. A competent person checks first-aid supplies and equipment at regular intervals and restocks as needed, paying particular attention to items with expiration dates.
3. Worksite first-aid supplies are selected based on the site's distance from medical facilities and anticipated types of injuries.
4. Where employees may be exposed to injurious corrosive materials, eye-flushing facilities are available at the work area. Eyewash stations are maintained in accordance with ANSI Z358.1 and inspected per the manufacturer's instructions. Where the installation of plumbed eyewash stations is not feasible, portable, self-contained units that can deliver 15 minutes of water at 30-psi can be used. Portable squeeze bottles do not meet the ANSI Z358.1 criteria.

21.31 - Hunting Season Precautions

Hunting season presents its own unique situations such as back-road travel, fire-arm safety, camping restrictions, and road closures. Supervisors shall ensure the following activities are carried out:

1. Signs near work sites warn hunters of crew and employee locations. "No Shooting" signs are posted for administrative sites and public use areas, such as campgrounds and trailheads, located in hunting areas.
2. Workers wear hunter's orange vests.
3. Jobs are rescheduled to allow crews to safely work away from hunters when possible.

22 - Protection and Development

22.1 - Firearms

The Chief has the sole authority to issue law enforcement personnel permission to use firearms. Regional Foresters, Forest Supervisors, or Area, Institute, and Station Directors may authorize non-law enforcement personnel to carry firearms when necessitated by functions or circumstances related to official duties (FSH 6709.11, chapter 50, section 51.21).

22.2 - Search and Rescue

22.21a - Authority and Responsibility

Usually the County Sheriff or State Police are responsible for search and rescue (SAR) operations on National Forest System lands. Forest Service employees may provide assistance at the local SAR agency's request.

1. A memorandum of understanding or interagency agreement may be established with the local SAR agency (FSM 1500 and FSH 1509.11).
2. Forest Service employees should receive instruction from the local SAR agency on recommended emergency procedures.
3. Forest Service employees are authorized to take the temporary lead in the initial stage of an SAR operation only in situations where personnel from the local SAR agency are not immediately available (FSM 1599.03).

If it becomes apparent that the incident will be extended or that it would benefit from resources available through other agencies, the SAR operation must be turned over to the responsible SAR agency.

22.21b - Procedures

Basic search and rescue (SAR) procedures are as follows:

1. Ensure that rescuers follow safe procedures. Employees shall recognize that situations exist where a rescue cannot be accomplished in a safe manner. Employees shall not put their lives in jeopardy, even if the victims are unable to help themselves.
2. Ensure that a clear command structure is in place. Unless the local SAR agency otherwise instructs, use the Incident Command System for managing emergency operations.
3. Establish and maintain clear communications.
4. Involve only competent, trained personnel.
5. Use proven techniques and equipment.