Title 210 – National Engineering Manual

# Part 512 – Construction

## Subpart G – Safety

Amended November 2023

### 512.60 General

A. Safety is a major concern for all parties on a construction site, including contractor, subcontractor, and NRCS personnel. NRCS is required to furnish a place of employment free from recognized hazards that cause or are likely to cause death or serious physical harm.

B. Occupational Safety and Health Administration (OSHA) rules must be followed by all parties doing construction work, including OSHA Parts 1910 and 1926. Additionally, NRCS Supplement to OSHA Parts 1910 and 1926 must be included for project work construction activities. This supplement can be found at 210 NEH Part 645, Appendix F.

### 512.61 Personal Protective Equipment

A. All NRCS personnel on a construction site must be provided with a government-issued hard hat and high-visibility vest at a minimum. It is the employee's responsibility to comply with safety and occupational health requirements, wear prescribed safety and health equipment, report unsafe conditions or activities, prevent avoidable accidents, and work in a safe manner. Employees must use all personal protective equipment (PPE), government-issued or otherwise, that may be required to minimize the possibility of injury. Employees must not place themselves into a work environment that requires PPE without the necessary safety equipment.

B. PPE is considered to be safety equipment required for employees to safely perform their required work duties. Non-safety related personal expenses such as clothing cannot be provided by the NRCS.

C. Non-NRCS personnel on a construction site must be temporarily issued a hard hat and high-visibility vest when near active construction operations.

D. All NRCS personnel on a construction site with heavy equipment (including concrete trucks) must be issued steel-toed work boots, snug fitting gloves, and ear plugs in addition to a hard hat and high-visibility vest. Standard steel-toed work boots include oil-resistant and non-skid soles that have an impact resistance rating of 75 and a compression resistance rating of 75.

E. Steel-toed work boots must meet American Society for Testing and Materials F2413, which should be referenced in purchase contracts to ensure that minimum performance requirements are met.

F. All hard hats must meet American National Standards Institute (ANSI) Z89.1 standard. Hard hats and bands should be replaced every 2 to 5 years, depending on the amount of use. Hard hats must be replaced immediately if any damage is observed.

G. Each state determines policy concerning the replacement schedule of PPE; however, any PPE that is worn or damaged and does not provide adequate protection must be replaced immediately.

H. State agencies or contract documents may require more stringent PPE requirements, which must be followed by all onsite personnel.

I. Job Hazard Analysis

1. Safety hazards should be identified before construction by doing a job hazard analysis.

2. For Federal Acquisition Regulation (FAR) contracts, the contractor's safety plan, in accordance with FAR 52.236-13, "Accident Prevention," must include a job hazard analysis. See 210 NEM § 512.70, "Exhibit A – OSHA 3071 Job Hazard Analysis."

3. Exhibit B may be used for federal or non-federal projects. For non-federal projects the NRCS state safety manager or state conservation engineer may or may not require a job hazard analysis. See 210 NEM § 512.71, "Exhibit B – NRCS Job Hazard Analysis Form."

4. After identifying job site safety hazards, the job hazard analysis results, if applicable, will specify engineering and administrative controls that minimize or eliminate the identified hazards as well as identifying any specialty PPE needed.

5. NRCS must provide or pay for any specialty PPE identified in the job hazard analysis.

J. Specialty PPE

1. Protective Footwear. OSHA 1910.136 requires that NRCS personnel use protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects or objects piercing the sole, or when the use of protective footwear will protect the affected employee from an electrical hazard, such as a static discharge or electrical shock hazard. Protective footwear includes:

   a. Metatarsal Protective Footwear. Required when there is a risk of crushing injury to the upper part of the foot, between the toes, and to the heels.
   b. Conductive Protective Footwear. Required when there is a risk of exposure to static electricity buildup and a possibility of igniting explosives.
   c. Electrical Hazard Resistant Footwear. Required when there is a risk of electrocution in dry areas. Provides protection up to 18,000 V at 60 Hz for 1 minute.
   d. Puncture Resistant Footwear. Required when sharp objects, such as nails, wire, tacks, screws, metal cutoffs, or other objects may puncture the sole of the footwear.
   e. Static Dissipative Footwear. Required when static electricity is likely to build up. Commonly used in computer handling facilities, processing plants, and manufacturing facilities.

f. Dielectric Insulating Footwear. Required when there is a risk of electrical shock from high voltages or in wet environments.

2. Payment for specialty footwear. OSHA 1910.132(h)(1)–(2) requires the government to furnish any specialty footwear even if worn off the jobsite, except as provided by paragraphs (h)(3)–(6).

3. Eye and face protection. NRCS personnel that may be exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation must be provided with government-issued eye and face protection designed for the anticipated hazard. Side protection must be provided if there is a hazard from flying objects.

   a. Protection against radiant energy must meet the requirements of OSHA 1910.133(a)(5). Protective eye and face protection must meet ANSI Z87.1 standards.
   b. All NRCS personnel who wear prescription lenses must be supplied with eye protection that does not disturb the proper position of the prescription lenses, or the eye protection must incorporate the prescription in its design.

4. Personal flotation devices (PFD). OSHA 1918.105 requires that the employee be provided with, and must wear, a government-issued PFD while engaged in work in which the employee might fall into the water. PFDs must be approved by the United States Coast Guard, designated as Type I, II, III, or V, and marked for use as a work vest for commercial use or for use on vessels.

## 512.62 Training

A. A minimum of 4 hours of safety training must be completed every 2 years for all NRCS personnel working on a construction site for engineering job classes VI to VIII. State conservation engineers (SCE) may increase this requirement at their discretion.

B. Options for safety training may include OSHA safety training courses (10-hour or 30-hour), instructor-led safety training (in-house or commercial), and online or webinar safety training courses. A self-study plan approved by the SCE may also count toward this requirement.

C. The OSHA safety training courses are generally available as distance learning (online) and may also be required for renewing contracting officer's representatives' certifications. NRCS has produced several webinars directed toward construction safety, which can be found online by searching for "OSHA" in the Science and Technology Training Library.