

#### **Highway Maintenance Manual**

**Bureau of Highway Maintenance** 

Chapter 05 Traffic Services and Safety

**July 2015** 

Section 02 Traffic Safety

Subject 10 Personal Protective Equipment (PPE)

# 1.0 General Policy

All highway maintenance personnel must wear high-visibility safety vests meeting ANSI Class 2 standards at all times when in the field performing any maintenance activities on state highways, roadways and roadsides.

# 1.1 Department Employees

The Safety Manual specifies safety policies for department personnel in the sections listed below:

Foot Protection: Safety Directive 30 1. 2. Eve Protection: Safety Directive 36 3. Protective Headgear, Hard Hats: Safety Directive 51 4. High Visibility Apparel: Safety Directive 57 5. Fall Protection: Safety Directive 58 Hearing Protection: Safety Directive 95 6.

# 2.0 County Highway Department Employees

When county personnel are performing highway maintenance activities for the department, use the following as guidelines.

#### 2.1 Foot Protection

- a. Employees must wear foot protection when faced with possible foot or leg injuries from falling or rolling objects or from crushing or penetrating materials. Supervisors are included in this requirement, and must enforce this policy.
- b. The following are examples of situations where employees, supervisors, and visitors must wear foot protection:
  - On all construction projects;
  - Maintenance Personnel: on field assignments;
  - All mechanics and mechanics helpers: at all times;
  - Building and grounds maintenance personnel: when operating or repairing equipment, moving furniture, or mowing.

The following are examples of situations where employee should wear foot protection and/or leg protection:

- When heavy objects such as barrels or tools might roll onto or fall on the employee's feet;
- Working with sharp objects such as nails or spikes that could pierce the soles or uppers of ordinary shoes;
- Exposure to molten metal that might splash on feet or legs;
- Working on or around hot, wet or slippery surfaces; and
- Working when electrical hazards are present.
- c. Supervisors shall define specific areas and duties requiring the use of protective footgear and these

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areas and duties posted when practical.

## 2.2 Eye Protection

- a. Employees and supervisors must wear eye protection when in work areas where eye injuries can occur. Supervisors must insist employees wear appropriate eye and face protection if they are exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially infected material or potentially harmful light radiation.
- b. The following are examples of situations where employees, supervisors, and visitors must wear eye protection:
  - When repairing, removing or installing any electrical or communications equipment;
  - When exposed to splashing chemicals or dangerous radiant energy.
- c. Supervisors shall define specific areas and duties requiring the use of protective eyewear and full face protection, and post these areas and duties when practical.
- d. Wear safety goggles over other eyewear when:
  - · Work locations require the use of protective eyewear
  - Signs posted in the area announce protective eyewear is required
  - An employee is awaiting delivery of prescription safety glasses and requires eye protection

Example of potential eye or face injuries include:

- Dust, dirt, metal or wood chips entering the eye from activities such as chipping, grinding, sawing, hammering, the use of power tools or even wind forces;
- Chemical splashes from corrosive substances, hot liquid, solvents or other hazardous solutions;
- Objects swinging into the eye or face, such as tree limbs, chains, tools, or ropes;
- Radiant energy from welding, harmful rays from the use of laser or other radiant light (as well as heat, glare, sparks, splash and flying particles).

#### 2.3 Head Protection – Hard Hats

- a. All employees and supervisors must wear head protection when in work areas where head injuries from falling or flying objects or electrical shocks or burns can occur. Supervisors shall insist head protection be worn at all appropriate times.
- b. The following are examples of situations where employees, supervisors, and visitors must wear head protection:
  - On field assignment;
  - During bridge inspection or repair;
  - While operating or working around machinery such as forklifts, augers, cranes and other large pieces of equipment;
  - During brushing and clearing operations.
- c. Furnish visitors with head protection when entering the above work sites.
- d. Head protection is not necessary while riding in an enclosed vehicle.
- e. Supervisors must define specific areas and duties requiring the use of head protection, and these

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areas and duties posted when practical. Minimum standards for head protection shall meet the requirements of OSHA standard ANSI Z89.1-2009 Type I or II.

# 2.4 High Visibility Safety Apparel

- Employees working on highways, roads, streets or their easements must wear an approved safety vest. The High Visibility Safety Apparel shall meet or exceed ANSI/ISEA 107-2004 Class 2 or Class 3.
- b. Approved safety vests and pants are required to be worn by employees during the hours of darkness (½ hour before sunset & ½ hour after sunrise or during low visibility).
- c. Per ANSI/ISEA 107-2004, wearing high visibility pants in addition to the vest makes the Vest and Pant a Class 3 ensemble. Class 3 apparel is required at all times for flagging activities and nighttime work.
- d. Supervisors must ensure high visibility safety apparel is worn at all times as required and training requirements are met.

#### 2.5 Fall Protection

Falls are among the most common causes of serious work related injuries and deaths. Employee who are exposed to fall hazards such as overhead platforms, elevated work stations or holes must wear approved personal fall arrest equipment and be properly trained on them.

- a. Employees must be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems when on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge, which is 6 feet or more above a lower level.
- b. Employees must wear fall protection (Full-Body Safety Harness & Lanyard) at all times when employees are exposed to fall hazards greater than six (6) feet.
- c. Employees and supervisors must wear approved personal fall arrest equipment and be properly trained on then when exposed to fall hazards.
- d. Supervisors must ensure fall protection is worn and used at all times in areas where there are hazards that could cause injury due to a fall and training requirements are met and documented.

### 2.6 Hearing Protection

Noise, or unwanted sound, is one of the most pervasive occupational health problems. It is a by-product of many construction or industrial processes. Exposure to high levels of noise causes hearing loss and may cause other harmful health effects as well. The extent of damage depends primarily on the intensity of the noise and the duration of the exposure. Refer to Wisconsin Department of Transportation Safety Directive (SD) 95 for additional guidance.

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