OSHA 1926 Subpart D
Occupational Health & Environmental Controls
1926.50 Medical Services and First Aid

Medical services
(a) must be available for advice and consultation
(b) provide for prompt medical attention for injuries before construction work begins
(c) If medical services are not reasonably accessible (time and distance) for treatment of injuries, a person on site must have a first aid certificate
(d) First aid supplies
  (1) easily accessible when required
  (2) contents in individual sealed packages, and inventory checked before being sent to the job and checked weekly thereafter
1926.50 Medical Services and First Aid

(f) If 911 is not available post telephone numbers of a physicians, hospitals or ambulances

(g) If the eyes or body are exposed to corrosive materials, provide facilities to quickly drench or flush the eyes and body in the work area
1926.51 Sanitation

(a) Potable Water

(1) Adequate supply must be provided

(2) Containers can be closed and equipped with a tap. No dipping into the water.

(3) Containers clearly marked and used for no other purpose

(4) No common drinking cups

(5) Paper cups have sanitary dispensers for fresh cups and receptacle for used cups
1926.51 Sanitation (continued)

(b) Nonpotable Water
   (1) Outlets shall be clearly marked that water is unsafe for drinking, washing, or cooking

(c) Toilets
   20 workers or less 1 needed
   21 to 199 workers 1 toilet seat & 1 urinal per 40 workers
   200 or more 1 toilet seat & 1 urinal per 50 workers

(f) Washing Facilities
   (1) Adequate washing facilities must be provided for workers engaged in the application of paints, coating, herbicides, or insecticides, or where other contaminants are used. Facilities must be near to the worksite and adequately equipped.
1926.51 Sanitation (continued)

(3) Lavatories

– (i) Required at all places of employment. This does not apply to mobile crews if workers have transportation to nearby washing facilities

– (ii) shall be hot and cold running water or tepid running water

– (iii) Hand soap or other cleansing agent to be provided

– (iv) Provide either:

  individual hand towels (cloth or paper)
  warm air blowers
  clean continuous cloth toweling
1926.52 Occupational Noise Exposure

(a) Noise exposure must be limited to acceptable levels in terms of decibels and duration

- 90 db 8 hours
- 95 db 4 hours
- 100 db 2 hours
- 110 db 1/2 hour
1926.54 Nonionizing Radiation

(a) only qualified employees assigned to install, adjust, and operate laser equipment.
(b) operator to carry proof of certification
(c) warning placards telling of laser use
(g) never direct laser beams on employees
(h) lasers not used in rain, snow, dust, etc.
1926.55 Gases, Vapors, Fumes, Dusts & Mists

Exposure to inhalation, ingestion, skin absorption, or contact with any material or substance above the Threshold Limit Values of Airborne Contaminants shall be avoided.

1926.56 Illumination

(a) Table D-3 specifies the minimum illumination intensities in foot-candles. Most construction areas to have at least 5 foot candles of light.

1926.57 Ventilation

(a) When dusts, fumes, mists, vapors, or gases are in the air, their concentrations shall not exceed the threshold limit values for the particular materials. Ventilation of the area is advised and should conform to the OSHA standards.
OSHA 1926 Subpart E
Personal Protective & Life Saving Equipment
Personal Protective Equipment (PPE) and High Visibility Clothing

Objectives:

• Recognize Requirements for PPE
• Recognize Relevant OSHA Standards
• Recognize Main Components of the Respiratory Standard
• Recognize Method for Selecting Appropriate Respiratory Protection
• Recognize Importance of High Visibility Apparel and Classes of Garments
PPE and Worker Protection

According to federal data:

- Of all the workers who suffer head injuries, only 16% wear hard hats
- Only 1% of those suffering face injuries wore face protection
- Only 23% of those workers with foot injuries wear safety shoes or boots, and
- About 40% of those suffering eye injuries wear eye protective equipment
Management Responsibilities

It is management’s responsibility to develop an in-depth evaluation of the equipment needed to protect against the hazards at the workplace. In addition, management is required to develop:

• operating procedures
• employee training covering use, maintenance, and cleaning of equipment
Encouraging Use of PPE

Employees must understand their health and lives may depend upon the correct use of equipment. Employees must be aware that the equipment does not eliminate the hazard. If the equipment fails, exposure will occur.

To reduce the possibility of failure, equipment must be properly fitted and maintained.
PPE Education Program

PPE program should contain:
- Identification and evaluation of hazards
- PPE selection, maintenance and use
- Employee training, and
- Continuous program review
Who Pays for PPE?

In most situations, it is the employer’s responsibility to provide PPE.

Some PPE of a personal nature may be the responsibility of the employee.

When employees provide their own protective equipment, the employer has a duty to assure its adequacy.
1926.96 Foot and Leg Protection

This section points to ANSI Standard for “Men’s Safety Toe Footwear.” Foot and leg protection must be provided due to:

– falling or rolling objects
– sharp objects
– molten metal and hot surfaces
– wet, slippery surfaces

Workers should use appropriate foot guards, safety shoes or boots and leggings.
1926.100 Head Protection

Hard hats must be worn when there is a “possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns...”
Noise is probably one of the most common hazards in construction. Often it goes unrecognized because hearing loss is gradual.

Exposure to too much noise can be deadly since noise can be a distraction and warnings may not be heard.

Exposure to high noise levels can cause irreversible hearing loss or impairment (ringing known as tinnitus)

Noise can also create physical and psychological stress
Noise levels can be reduced by:

- Utilizing quieter equipment
- Maintaining equipment properly
- Utilizing sound barriers

Note that:
disposable earplugs should be used once and thrown away;
non-disposable earplugs should be cleaned after each use for proper maintenance;
makes sure hearing protection fits and is comfortable; and
get a baseline hearing test - then test once a year to insure ear protection is working properly.
1926.101 Hearing Protection

(a) If noise levels cannot be reduced to acceptable levels, ear protective devices shall be provided and used.

(b) Ear protective devices inserted in the ear shall be fitted by a competent person.

(c) Plain cotton in the ear is not acceptable.
1926.102 Eye and Face Protection

Protection should be based on kind and degree of hazard present and should be:

- reasonably comfortable
- fit properly
- durable
- cleanable
- sanitary, and
- in good condition
1926.102 Eye and Face Protection

(a)(1) Eye and face protection must be provided when there is a potential injury from physical, chemical or radiation agents

(3) Workers who need corrective lenses can:
– (i) wear spectacles whose protective lenses provide correction
– (ii) wear goggles that can be worn over corrective spectacles
– (iii) wear goggles that incorporate corrective lenses mounted behind the protective lenses
1926.103 Respiratory Protection

This section points to 1910.134. Respiratory protection is necessary to control those occupational diseases caused by breathing air contaminated with harmful dust, fogs, fumes, mites, gases, sprays, or vapors. Key considerations regarding respiratory protection:

- Responsibility (Providing and Wearing)
- Inspection
- Maintenance
- Cleaning
- Storage
- Training
- Record Keeping
- Medical Requirements
- Respirator Fit
Fall Prevention & Protection

Fall Arrest:

–Lifelines, harnesses, safety belts, and lanyards are designed for use as fall arrest protection
1926.104 Fall Prevention & Protection

Safety Nets

–Safety nets are required when workplaces are more than 25 feet above the ground or water surface

–In roadway construction, safety nets are most often used during bridge construction
1926.104 Fall Prevention & Protection

Working over water:

– Employees working over or near water, where the danger of drowning exists, must be provided with U.S. Coast Guard-approved life jacket or buoyant work vests

– OSHA standards require at least one lifesaving skiff be immediately available at locations where employees are working over or adjacent to water
1926.104 Safety Belts, Lifelines and Lanyards

(a) Any lifeline, safety belt, or lanyard that is subjected to in-service loading (not static loading) shall be removed from service

(b) Lifelines shall be secured above the point of operation to an anchorage capable of supporting a minimum dead weight of 5,400 pounds

(c) Lifelines subjected to abrasion or cutting shall be a minimum of 7/8” wire core manila rope. Otherwise a 3/4” manila or equivalent shall be used. Breaking strength to be at least 5,400 pounds

(d) Safety belt lanyard a minimum of 1/2” nylon or equivalent.
   – Maximum fall distance permitted is 6 feet
   – Minimum breaking strength is 5,400 pounds
1926.105 Safety Nets

(a) Nets are to be used when ladders, scaffolds, platforms and safety belts are impractical and the fall height is over 25 feet above the ground, water surface or other surface.

(c)(1) Nets
   – extend 8 feet beyond the edge of the work
   – installed as close to the work area as possible
   – fall distance not to exceed 25 feet

(d) Mesh opening
   – not larger than 6” by 6”
Arm and Hand Protection

Burns, cuts, electrical shock, amputation and absorption of chemicals are examples of hazards associated with arm and hand injuries.
Arm and Hand Protection

Insulating gloves and sleeves must conform to ANSI standards
Torso Protection

Many hazards can threaten the torso: heat, splashes from hot asphalt and liquids, impacts, cuts, acids, and radiation.

A variety of protective clothing is available: vests, jackets, aprons, coveralls, and full body suits.
Torso Protection

In road construction, heat stress is often a concern. Over the past few years, new clothing has been introduced that provides cooling effects for workers in hot environments.
High Visibility Clothing

*High visibility clothing* refers to reflective garments that workers should wear whenever their work place contains hazards related to low visibility or when they work near vehicles or moving equipment.
ANSI/ISEA 107-2004

In 1999 a new industry standard was developed — ANSI/ISEA 107-1999—to provide a national standard for high visibility garments. Standard creates three classes of garments
Class 1 Garments

- For workers who have ample separation from traffic
- Traffic speeds do not exceed 25 mph
- Delivery vehicle drivers, parking lot attendants, warehouse workers
Class 2 Garments

- For workers who need visibility in inclement weather conditions
- Traffic speeds between 25 mph and 50 mph
- Targeted for law enforcement conducting traffic control, toll gate personnel, airport ground crews, etc.
Class 3 Garments

• Very conspicuous
• Wide range of weather conditions
• Traffic speed exceeds 50 mph
• Targeted at road construction, utility workers, survey crews, etc.
OSHA Review Commission Reverses Reflective Vest Citation In Favor Of Ruhlin!
Mark Potnick

The Occupational Safety and Health Review Commission, the agency which reviews contested OSHA citations, has over-ruled its Law Judge and concluded that OCA member, Ruhlin Company did not violate the Act when it did not require all of its employees to wear high visibility vests.

The situation occurred at a construction site, where flaggers, but not other employees, were wearing high visibility vests. Such vests were available to all Ruhlin employees, but only flaggers were actually required to wear the vests.
The citation that issued against Ruhlin alleged a violation of the protective equipment standard of the Act (1926.95(a)), that protective equipment, including equipment for eyes, face, head and extremities, respiratory devices and other items are to be provided when necessary “by reason of hazards or processes or environment.”

The Law Judge found that this standard was not violated. In that portion of his decision that the Commission affirmed, and that could affect other issues as to warning devices, he concluded that the standard required or dealt with protective equipment that provides actual physical barriers. The warning vest, he concluded, only serves as a warning signal in contrast to protective equipment.
The Review Commission upheld the Law Judge’s position, contending that the Secretary of Labor’s interpretation of the standard was not reasonable.

The Law Judge, however, had also found a violation of the General Duty clause of the Act. The Commission disagreed and dismissed the citation. It ruled that there was not adequate and sufficient notice to provide that wearing of such vests will be required of all employees on a construction job site.

According the Commission, Ruhlin lacked fair notice that it could have had, under the General Duty clause, a requirement for reflective vests for all its employees.
The OCA played a pivotal role in the successful outcome of this matter. Mark Potnick, OCA's Director of Safety Affairs, assisted Ruhlin with the initial research and preparation of arguments, and represented Ruhlin at the informal conference hearing in OSHA's Cleveland Area Office. When OSHA failed to vacate the citation and continued with its prosecution, the OCA, through its legal counsel, Roger Sabo and John Krimm, participated before the Law Judge and the Review Commission in filing amicus curiae brief.
By its participation in this case, the OCA is not proposing that highway construction workers should not wear high visibility clothing or vests. Our position is that OSHA should not attempt to create new regulations via field enforcement. Due process must be followed to properly implement regulations, so that interested parties in the affected industry will have proper advance notice, may participate in the regulation process, and will have an opportunity to prepare for compliance prior to enforcement proceedings.