OREGON OCCUPATIONAL SAFETY AND HEALTH DIVISION DEPARTMENT OF CONSUMER AND BUSINESS SERVICES

PROGRAM DIRECTIVE

Program Directive: <u>A-211</u> Issued: <u>January 2, 1996</u> Revised: <u>November 27, 2012</u>

SUBJECT:	Personal Protective Equipment: General Industry	
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AFFECTED CODES/

DIRECTIVES: Division <u>2/1</u> Personal Protective Equipment, 437-002-0134, 437-002-0139, 437-002-1139, 1910.134 and 1910.137

Division 2/H Hazardous Materials, <u>1910.120</u> Hazardous Waste Operations and Emergency Response

Division 2/J General Environmental Controls, <u>1910.146</u> Permit-Required Confined Space

Division 2/Q Welding, Cutting & Brazing <u>1910.252</u> Welding, Cutting, and Brazing

Division 2/R Special Industries, <u>1910.268</u> Telecommunications

Division 2/Z Toxic & Hazardous Substances, <u>1910.1030</u> Bloodborne Pathogens

- **PURPOSE:** This directive provides policy guidance related to Personal Protective Equipment (PPE) standards in Division 2, Subdivision I. The standards address the selection, use and maintenance of PPE as well as the obligation to pay for PPE.
- **BACKGROUND:** The Oregon OSHA standards for PPE are contained in Subdivision I of Oregon OSHA's general industry standards. The original standards were adopted in 1971 from established Federal standards and national consensus standards.

The general requirements of <u>437-002-0134</u> contain provisions that: 1) require employers to select appropriate PPE based on the hazards present or likely to be present in the workplace, 2) prohibit the use of defective or damaged PPE, and 3) require that employees be trained so that each affected employee can properly use the assigned PPE.

	clarific Federa specifi to prov	vember 2007, Federal OSHA revised the standard and added cation on when employers must pay for PPE. In this rulemaking al OSHA requires employers to pay for the provided PPE, except for ic items. The rule does not change the PPE employers are required wide. Instead, the rule stipulates that the employer must pay for ed PPE, except in the limited cases specified in the standard.
	clarify	cember 2008, Federal OSHA amended its standards to add language ing the employer's duty to provide PPE and training requirements ery employee covered by the standard.
SCOPE:	This directive applies to all of Oregon OSHA.	
	addres require	n OSHA revised portions of the general industry safety standards sing PPE. The revised standards include those containing general ements for all PPE 437-002-0134 and standards that set design, on, and use requirements for specific types of PPE.
	addres	vision I, nonmandatory Appendix A; References; and Appendix B, sing Hazard Assessment and PPE Selection, provide additional ace to employees and employers with regard to PPE.
GENERAL		
INSPECTION GUIDELINES:	Personal Protective Equipment <u>437-002-0134</u>	
	Determine whether employers assessed the workplace to determine if hazards are present, or likely to be present, which necessitates the use of PPE.	
	A.	Inspect workplaces subject to the PPE standard according to the Field Inspection Reference Manual (FIRM).
	B.	Evaluate employer's compliance with the specific requirements of the PPE standard. The following guidelines provide a general framework to assist the Compliance Safety/Health Officer (CSHO) during workplace inspections involving PPE.
	C.	Verify that the employer has conducted a workplace hazard assessment and has a written certification that identifies the evaluated workplace, the person certifying that the evaluation has been performed, and the dates of the hazard assessment. The document must be identified as a certification of hazard assessment.

D. Cite more specific requirements where appropriate.

Examples:

The hazardous waste operations and emergency response standard contains assessment and PPE selection requirements (1910.120(c)(5)(i) - (iv); 1910.120(g)(3)(i) through (vi), and 1910.120(q)(3)(iii), (iv)).

The permit-required confined space standard requires PPE when engineering and work practice controls do not adequately protect employees at 1910.146(d)(4)(iv). The standard also requires PPE and rescue equipment needed to conduct rescues safely (1910.146(k)(2)(i)).

The welding standard's PPE selection requirement addresses proper and suitable helmets, hand shields, and eye protection needed for the job (1910.252(b)).

The telecommunications standard requires PPE needed for the work to be performed (1910.268(e)).

The bloodborne pathogens standard requires employers to provide PPE for occupational exposures to blood or other potentially infectious materials (1910.1030(d)(3)). See also <u>Program</u> <u>Directive A-154</u> Bloodborne Pathogens.

- E. Determine if the employer has selected and is enforcing use of the appropriate, properly fitting PPE and has communicated selection decisions to each employee.
- F. Determine if the employer is ensuring that any employee-owned PPE is adequate for the job, appropriate for the hazards, properly fits, is properly maintained, and in sanitary condition.
- G. Determine if the employer is using defective or damaged PPE. Defective or damaged PPE must not be used.
- H. Evaluate the employer's training programs to determine whether the programs meet the PPE standard requirements. Determine if employees are trained to know at least the following:
 - 1. When PPE is necessary
 - 2. What PPE is necessary

- 3. How to properly don, doff, adjust, and wear PPE
- 4. The limitations of the PPE
- 5. The proper care, maintenance, useful life, and disposal of PPE
- I. An employer may determine if an employee has the necessary knowledge and skill to use PPE properly based on the employee's prior experience or training according to 437-002-0134(3)(c)
- J. Cite 437-002-0134(2) when the employer does **not** provide PPE, does not ensure employees use the equipment, or does not maintain equipment. Protective equipment includes equipment for eyes, face, head, torso and extremities, protective clothing, respiratory devices and protective shields and barriers.
- K. OAR 437-002-0134 also requires that PPE be regularly inspected, checked by workers at the beginning of their shift, and worn and used in a manner to take full advantage of its protective properties. This rule also prohibits jewelry when it may come into contact with power-driven machinery or electric circuitry.

SPECIFIC PPE INSPECTION PROCEDURES:

Determine whether the following items are in compliance with the standard:

A. <u>Flame-resistant (FR) clothing:</u> Employers are required to provide, at no cost to employees, FR clothing for applications such as, but not limited to, the handling of flammable chemicals.

Cite 437-002-0134(2)(b), for failure to provide and ensure the use of flame-resistant clothing necessary to protect employees from burns due to flash fires.

Cite 437-002-0134(2)(a) for failure to ensure that employee-owned FR clothing is properly maintained and sanitary.

Cite 437-002-0134(6) for failure to have employees wear appropriate FR clothing that is of safe design and construction for the work being performed. Refer to consensus standards such as NFPA 2112, Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire, and NFPA 2113, Standard on Selection, Care, Use, and Maintenance of Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire.

- B. <u>Eve and face protection</u> 437-002-0134(8): Each affected employee must use appropriate eye or face protection when 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.
 - 1. Detachable side protectors (e.g., clip-on or slide-on side shields) meeting the pertinent requirements of this section are acceptable.
 - 2. Ensure that each employee who wears prescription lenses while engaged in operations that involve eye hazards is wearing eye protection that incorporates the prescription in its design, Eye protection can be worn over the prescription lenses if it does not disturb the proper position of the prescriptive lenses.
 - 3. Ensure that each affected employee using protective eyewear with filter lenses has eyewear with a shade number appropriate for the work being performed for protection from harmful light radiation.
 - 4. Eye and face protection used for chemical hazards must adequately protect against those hazards. This includes:
 - Splash hazards including the source, direction, and quantity
 - After-effects of a splash, such as dripping
 - Other chemical hazards, such as gasses, mists, and fumes

Evaluate the eye protection for the types and effects of exposures to determine compliance. Factors to consider include the chemical's properties and physical state, concentration, pH, temperature reactions or reaction with other chemicals, handling and transfer, etc. To evaluate the effects of any chemical on the eye, refer to the toxicological information on the MSDS, as well as other sources such as the NIOSH Pocket Guide, Toxicology of the Eye, and Patty's Toxicology. 5. Protective eye and face devices purchased after July 5, 1994 must comply with ANSI Z87.1-1989, "American National Standard Practice for Occupational and Educational Eye and Face Protection," or must be demonstrated by the employer to be equally effective.

Eye and face protective devices purchased before July 5, 1994 must comply with the ANSI Z87.1-1968 "USA Standard for Occupational and Educational Eye and Face Protection," or must be demonstrated by the employer to be equally effective.

- 6. ANSI Z87-2010 includes tests and markings for splash/droplet, dust, and fine dust. Devices manufactured to these specifications may include a mark of D3 for splash/droplets, D4 for dust, and D5 for fine dust.
- C. <u>Head Protection</u> 437-002-0134(9): Each affected employee must wear protective helmets when working in areas where there is potential for injury to the head from falling objects. Protective helmets must be designed to reduce electrical shock hazards when employees are working near exposed electrical conductors. In general, hard hats or protective helmets must resist penetration by objects, absorb the shock of a blow, be water-resistant, and have slow-burning properties. Manufacturers' instructions explaining proper adjustment and replacement of the suspension and headband should be followed. Employers must replace protective helmets and their suspension systems when damaged or deteriorated, and at intervals specified by the manufacturer.

When evaluating damage or deterioration consider the following:

- 1. Metal hard hats are not serviceable if:
 - a. Anything has compromised the structural integrity of the hat such as :
 - There are dents in 3 ribs or more.
 - The hat is severely dented, then pounded back out.
 - There are holes drilled in the hat.
 - b. The suspension is bad.

- c. They don't meet or it can't be demonstrated they are as effective as the appropriate ANSI standard.
- 2. Plastic hats are not serviceable if:
 - a. Anything has compromised the structural integrity of the hat such as:
 - There are visible cracks.
 - There is discoloration due to ultraviolet light (sun light).
 - If squeezing the sides of a hardhat causes a popping sound (indicating plastic is breaking down-doesn't have resiliency).
 - b. They don't meet or it can't be demonstrated that they are as effective as the appropriate ANSI standard.
 - c. The suspension is bad
- D. <u>Foot Protection 437-002-0134(10)</u>: Each affected employee must wear protective footwear when working in areas where there is a danger of foot injuries due to falling and rolling objects, objects piercing the sole, and where employee's feet are exposed to electrical hazards.

Metatarsal guards are designed to protect the top of the foot from the toes to the ankle over the instep of the foot. This protection is required when there is a potential for injury to that part of the foot from impact or compression hazards. Examples include handling heavy pipes or similar activities where loads could drop on or roll over an employee's foot. These guards are made of aluminum, steel, composites, fiber or plastic, and may be attached to the outside of shoes.

Toe guards fit over the toes of regular shoes to protect the toes from impact and compression hazards. They may be made of steel, aluminum, or plastic.

NOTE: ANSI Z41-1991, American National Standard for Personal Protection- Protective Footwear, which is incorporated by reference, requires at paragraph 1.4 that the toe box be incorporated into the footwear during construction and shall be an integral part of the footwear. An employer who chooses to provide employees with toe guards must demonstrate that they are as equally protective as the Z41-1991 standard.

Combination foot and shin guards protect the lower legs and feet, and may be used in combination with toe guards when greater protection is needed.

Safety shoes or boots provide protection against impact (impactresistant toes), compression and puncture hazards, and have heatresistant soles that protect against hot work surfaces.

Electrically conductive shoes provide protection against the buildup of static electricity. Employees working in actual or potentially explosive and hazardous locations must wear conductive shoes to reduce the risk of static electricity buildup on the body that could produce a spark and cause an explosion or fire. Foot powder should not be used with protective conductive footwear because foot powder provides insulation and reduces the conductive ability of the shoes. Silk, wool, and nylon socks can produce static electricity and should not be worn with conductive footwear. Conductive shoes must be removed when the task requiring their use is completed.

NOTE: Employees exposed to electrical hazards must never wear conductive shoes.

Electrical hazard, safety-toe shoes or boots are intended to provide protection against open circuits of 600 volts or less under dry conditions. This footwear is designed to reduce hazards due to contact with electrically energized parts and is only intended to provide secondary electrical hazard protection on surfaces that are substantially insulated. They also provide toe protection.

NOTE: Electrical hazard footwear is not meant for use in explosive or hazardous locations where conductive footwear is required. Nonconductive footwear must not be used in an explosive or hazardous location. The insulating protection of electrical hazard shoes may be compromised if: the shoes become wet, the soles are worn through, metal particles become embedded in the sole or heel or employees touch conductive items that are grounded.

E. <u>Electrical Protective Equipment</u> 1910.137: Each affected employee must use electrical protective equipment such as gloves and sleeves made of rubber when exposed to electrical hazards.

- 1. Cite 1910.137(b)(2)(ii) when the employer has not ensured that the insulating equipment has been inspected for damage before each day's use and immediately following any incident that can reasonably be suspected of having caused damage.
- 2. Cite 1910.137(b)(1) when protective equipment has not been maintained in a safe, reliable condition.
- 3. Cite 1910.137(b)(2)(viii) when electrical protective equipment has not been periodically tested.

NOTE: Insulated protected tools and testing equipment are not considered to be personal protective equipment when working in proximity to exposed electrical parts. These tools are designed to make contact with exposed energized conductors or circuit parts.

- 4. Oregon OSHA's existing clothing requirement in <u>1910.269(1)(6)(iii)</u> does not require employers to protect employees from electric arcs through the use of flame-resistant clothing. Rather, it requires that an employee's clothing does not increase the extent of an injury when exposed to flames or electric arcs.
- 5. Cite <u>1910.333(a)</u> when employers fail to select and use work practices to prevent electric shock from direct or indirect electrical contacts when work is performed near or on equipment or circuits which are or may be energized. Specific work practice requirements are detailed in paragraph (c) of this section.
- 6. Cite <u>1910.335(a)(2)(ii)</u> when the employer fails to use safeguards, such as shields, barriers, or insulating material, to protect employees from shock, burns, or other electrically related injuries. In situations where safeguards that are not fully protective safeguards are used, Oregon OSHA's citation policy for minimal violations may apply if the employer has implemented supplemental measures, which could include the use of arc-rated clothing, to fully protect employees from all residual energy (e.g., the resultant thermal effects from the electric arc that passes the initial safeguard).

- F. <u>**Hand Protection**</u> 437-002-0134(12): Employers must select and require affected employees to use appropriate hand protection when employee's hands are exposed to hazards such as those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns, and harmful temperature extremes.
- G. <u>Work Clothing OAR 437-002-0134(6):</u> While the employer is not required to provide and pay for work clothing, there is still a requirement for employees to wear appropriate work clothing, based on the working conditions and hazards they are exposed to.

Examples of work clothing includes closed-toed shoes for employees who work with or around hot liquids, all-cotton coveralls for employees who work around flammable liquids, rain gear for employees who work outdoors in inclement weather, etc.

This rule prohibits all loose clothing when employees work with or near moving machinery. It also requires removing any clothing saturated with chemicals that are hazardous to the skin.

- H. <u>High Visibility Garments:</u> Divisions 2, 3, and 4 require employees exposed to street or highway traffic to wear highly visible upper body garments. The purpose is to increase the visibility of the employee. The requirement to wear highly visible garments is not necessarily determined by the relative position of the work vehicle. Rather it is determined by the employee's exposure to moving vehicles on streets or highways, especially in environments with construction obstructions, heavy equipment, or reduced visibility. The employer must determine the need for high visibility garments, like other types of protective equipment, based on an evaluation of the potential hazards. This is a performance based standard; therefore, it is the employer's responsibility to evaluate and define the parameters for the employee's use of highly visible garments.
 - 1. Emergency responders/firefighters/law enforcement officers: The requirement for high visibility garments for these employees is dependent on the situation.
 - During duress or emergency situations: Oregon OSHA rules about high visibility garments do not apply to emergency responders during duress or emergency situations. Duress situations include a routine traffic stop, foot pursuit, or similar crisis when an officer cannot stop to put on highly visible garments.

Emergency situations include the initial stages of response to an accident or fire when the responder cannot stop to put on highly visible garments.

- When the emergency or duress situation is over: Oregon OSHA rules about high visibility garments apply once the initial emergency response or duress situation has passed and the employee begins other routine activities such as traffic control, investigation, scene documentation, or area clean up, and the work exposes them to the hazards of street or highway traffic. Responders sufficiently off the roadway, or otherwise protected from traffic by objects, are not required to wear high visibility garments.
- 2. Service vehicles and incidental service of work-related vehicles: Tow truck drivers and operators of roadside service vehicles with exposure to street or highway traffic are typically required to wear high visibility garments.

Employees, whose normal job duties do not include roadside vehicle service, but who must change a flat tire or put on tire chains during a work-related commute are not typically required to wear high visibility garments.

3. Delivery truck drivers and couriers: Employers can either require their employees to consistently wear high visibility garments or they can provide the garments along with clear guidelines for when employees must use the garments. Guidelines should include an evaluation of the intensity, frequency, and duration of anticipated exposure to street or highway traffic and a consideration of environmental factors. Risk factors increase in steady or fast vehicular traffic, competing ambient backgrounds, complex or chaotic environments, and wet or foggy conditions that reduce visibility. The employee should have a clear understanding of the risk factors for a safe crossing and the need for additional safety equipment to increase visibility.

The following is an example of when the employee's exposure to these risk factors is low and when high visibility garments are not typically required.

• When crossing a residential street with a speed limit of 25 mph or less, with only light or intermittent vehicular

traffic, for very short periods during the workday, and with good environmental visibility.

Examples of when the employee's exposure to these risk factors increase and high visibility garments are required:

- When crossing a busy city street or a highway with heavy, steady, or fast vehicular traffic, or
- When the exposure to vehicular traffic is for long periods of time such as unloading goods or making frequent deliveries to multiple establishments, or
- When environmental factors decrease normal visibility.

I. <u>Leg protection</u> 437-002-0134(11).

Hot substances or dangerous chemical spills: Employees must wear leggings or high boots of leather, rubber, or other suitable material when they are working in areas or doing things that could reasonably expose them to hot substances or dangerous chemical spills.

Chainsaw cuts: Employees using a chain saw must wear chaps or leg protectors that cover the leg from the upper thigh to mid-calf or trousers. The protector must be of material designed to resist cuts from the chain saw and the employers must provide this protection at no cost to the employee (437-002-0134(4)).

J. **Fall protection** 437-002-0134(5)

When employees are working from or on elevated surfaces they must be protected from falling when the fall could be more than 10 feet above the next lower level or at any height when working above dangerous equipment.

Most primary walking or working surfaces that are elevated and used on a predictable and regular basis have requirements for fall protection at 4 feet. Oregon OSHA considered a predictable and regular basis to mean, at least one instance of exposure every two weeks, or a combined total of four hours or more of exposure during any sequential four-week period by one or more persons. See <u>Program Directive A-197</u> Fall Protection: General Industry.

When employees walk or work on elevated surfaces less frequent than a regular predictable basis then the Oregon rules for Fall Protection, OAR 437-002- 0134(5) apply and that requirement is triggered at 10 feet.

When employers choose personal fall arrest or fall restraint systems they must ensure that the fall protection system is provided, installed, and used according to the criteria in 1926.502(d), and 437-003-0502 in Division 3/M, Construction/Fall Protection.

EMPLOYER OBLIGATION TO PAY FOR PERSONAL PROTECTIVE EQUIPMENT:

437-002-0134(4) establishes the employer's obligation to provide PPE to employees. Any PPE necessary to protect employees must be provided and paid for by the employer. As an example, Oregon OSHA considers ballistic vests (body armor) to be PPE. In situations where ballistic vests are necessary due to the nature of the job, such as police or security, the employer is required to provide and pay for this protection.

The only exceptions to payment are listed below:

- A. Non-specialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots) and non-specialty prescription safety eyewear provided that the employer permits such items to be worn off the job site.
- B. Shoes or boots with built-in metatarsal protection when metatarsal guards are provided.
- C. Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots.
- D. Winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, skin creams, sunscreen, or other clothing or items used solely for protection from weather.

Additionally, the employer must pay for replacement PPE, except when the employee has lost or intentionally damaged the PPE.

Appendix A includes lists of items that are normally paid for by the employer and items that are not normally paid for by the employer.

Appendix A

Examples of PPE where employer payment is normally required

Aluminized gloves. Barrier creams (unless used solely for weather-related protection). Body armor Bump caps. Chemical resistant gloves, aprons, and clothing. Climbing ensembles used by linemen (e.g., belts and climbing hooks). Encapsulating chemical protective suits. Face shields Fall protection. Fire fighting PPE (helmet, gloves, boots, proximity suits, full gear). Goggles Hard hat. Hearing protection. Items used in medical and laboratory settings to protect from exposure to infectious agents (Aprons, lab coats, goggles, disposable gloves, shoe covers, etc). Ladder safety device belts. Laser safety goggles. Mesh cut proof gloves, mesh or leather aprons. Metatarsal foot protection. Non-prescription eye protection. Non-specialty gloves: Payment is required if they are PPE, e.g., protection from dermatitis, severe cuts or abrasions. Payment is not required if they are only for keeping clean or for cold weather (with no safety or health consideration). Personal flotation devices (life jacket). Prescription eyewear inserts/lenses for full face respirators. Prescription eyewear inserts/lenses for welding and diving helmets. Reflective work vests. Respiratory protection. Rubber boots with steel toes. Rubber insulating gloves. Rubber sleeves. Self-contained breathing apparatus, atmosphere-supplying respirators (escape only). Shoe covers--toe caps and metatarsal guards. Special boots for longshoremen working logs. Welding PPE. Window cleaner safety straps.

Table 2

Examples of PPE where employer payment is not normally required

Back belts. Dust mask/respirators used under the voluntary use provisions in 1910.134. Lineman's boots. Long pants. Long sleeve shirts. Non-specialty safety-toe protective footwear (e.g., steel-toe shoes/ boots). Non-specialty prescription safety eyewear. Ordinary cold weather gear (coats, parkas, cold weather gloves, and winter boots). Ordinary rain gear. Sturdy work shoes. Sunglasses/sunscreen.