

# **Personal Protective Equipment**

**MSC-PRO-45009**

**Revision 3**

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**Topic: Worker Protection**

Approved for Public Release;  
Further Dissemination Unlimited

## Personal Protective Equipment

### CHANGE SUMMARY

#### Rev. 2

##### **Description of Change:**

Change Section 5.4 #2 NOTE 4 as follows:

**NOTE 4:** *Substantial footwear excludes high heels, open toes/heels, canvas/cloth, moccasins, sandals, tennis shoes, flip-flops, and synthetic composition of lesser protective quality than leather. Document any exception in work planning documents such as the hazard analysis.*

#### Rev. 3

##### **Description of Change:**

Replace third paragraph in Appendix C with new wording to better describe the current process and eliminate the links.

# Personal Protective Equipment

## 1.0 PURPOSE

This procedure establishes requirements for the use of Personal Protective Equipment (PPE) when an industrial hazard exists and a need is indicated for using such equipment to adequately reduce the hazard to MSA personnel, visitors, and/or subcontractors.

## 2.0 SCOPE

The process in this document is applicable to all Mission Support Alliance, LLC (MSA) employees and MSA subcontractors performing under the Mission Support Contract.

*PPE specifically addressed by other safety and industrial hygiene procedures will not be addressed within this procedure; examples of these procedures are Hanford Site Respiratory Protection Program (DOE-0352), Fall Protection (MSC-RD-43284), Hanford Site Fall Protection Program (DOE-0346), Hanford Site Electrical Safety Program (DOE-0359), Occupational Noise Exposure and Hearing Conservation (MSC-RD-11812), and MSC Radiological Control Manual (MSC-5173). Additionally, it is not the intent of this procedure to govern the use of Hanford Fire Fighter and Hanford Patrolmen specific PPE that is specifically addressed in procedures written by the Hanford Fire Department or Safeguards and Security.*

This document partially implements the ISMS Guiding Principle #6, Hazard Controls Tailored to Work Being Performed and Core Function #3, Develop and Implement Hazard and Environmental Controls.

## 3.0 IMPLEMENTATION

This procedure is effective upon publication.

## 4.0 REQUIREMENTS

PPE as specified in section 5.0 step 1 of this procedure is required to be used in all areas under the control of MSA unless specifically excluded or exempted. Determination of exclusion areas/activities is a function of management, with worker and Safety & Health participation/engagement in the decision-making process. General exceptions consist of the following, unless such need is established as the result of a job-specific Automated Job Hazard Analysis (AJHA) or other hazard analysis:

- Contamination Areas, High Contamination Areas, and Airborne Radioactivity Areas.
- Parking lots
- Access routes
- Administrative work areas

## Personal Protective Equipment

This procedure implements the requirements of:

10 CFR 851, Section 21(a)(6) & Section 22(b), *Worker Safety and Health Program*

29 CFR 1910, Subpart I, *Personal Protective Equipment*

29 CFR 1926.28, *Personal Protective Equipment*

### 5.0 PROCESS

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
All Employees	1.	Safety glasses with side shields, shirt with sleeves over the shoulder, full length pants and substantial footwear shall be worn as the minimal PPE dress code, unless the work area or work activity is expressly excluded or exempted by Project/Facility management.
		<b>NOTE:</b> <i>Radiological work, where modesty clothing is expected, is an exception. Other exceptions shall be noted in work planning documents.</i>
All employees	2.	PPE shall be used: <ul style="list-style-type: none"> <li>• When engineering and/or administrative controls cannot be used to control hazards that could potentially injure employees.</li> <li>• Employees may request PPE in addition to that specified in the Hazard Analysis however, its use must be approved by Safety or Industrial Hygiene and documented in work planning documents.</li> </ul>
Senior management	3.	Ensure uniformity and consistency in the application and use of PPE controls across MSA Projects/Organizations.
Manager/ Construction Supervisor/ Superintendent (M/CS/S)	4.	Conduct a hazard analysis of each work area and work activity to determine if hazards requiring the use of PPE are present.
	5.	A reassessment for workplace hazards must be completed based on the planned startup of new processes or equipment, change in hazardous material usage, change in process or how equipment is used, and when trend analysis identifies a pattern in PPE-related accidents.
	6.	Facility, area, and job-specific PPE requirements must be clearly identified to employees, as well as resident and visiting personnel, to provide hazard warning and information on the appropriate type of protection required.
	7.	As appropriate, post facility or area PPE requirements prominently to ensure that nonresident or visiting personnel are made aware of potential hazards. Refer to MSC-RD-29096, <i>Tags, Signs, and Barriers</i> .

## Personal Protective Equipment

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
	8.	Find engineered or administrative actions that ensure greater hazard control instead of continued use of PPE, and implement where feasible.
All Employees	9.	Maintain reusable safety equipment in clean and sanitary condition, and stored in such a manner as to provide protection from damage and accumulation of dust and dirt.
		<b>NOTE:</b> <i>When used in a radiological environment, evaluate such equipment prior to reuse per MSC-5173.</i>
	10.	Defective or damaged PPE shall not be used. Report defective/damaged PPE to supervision for repair or replacement, and immediately remove from service. Modifications to PPE must be approved, in writing, by the manufacturer and/or Safety & Health.

### 5.1 Training

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
M/CS/S	1.	<p>Provide training for each employee who uses PPE which covers the following:</p> <ul style="list-style-type: none"> <li>• When the PPE is necessary.</li> <li>• What PPE is required to be worn.</li> <li>• How to properly don, doff, adjust, and wear the PPE.</li> <li>• Limitations of the PPE.</li> <li>• Proper selection, care, use, inspection/maintenance, lifespan, and disposal criteria.</li> </ul> <p><b>NOTE:</b> <i>HGET training addresses each of these elements for employees who wear hard hats, safety glasses, gloves, and standard foot protection.</i></p>
	2.	<p>Maintain written or electronic (i.e. ITEM) documentation to verify that the training was both provided and understood. Documented training shall include the following information:</p> <ul style="list-style-type: none"> <li>• identity the Trainer and trainees,</li> <li>• specify the date(s) of training.</li> </ul>
	3.	<p>Provide retraining when there is a change in the work function or task, when there are changes to the PPE selection, or when employee demonstrates a lack of understanding and skill.</p>

## Personal Protective Equipment

### 5.2 Eye and Face Protection

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
M/CS/S	1.	Provide protective eye and/or face protection.
		<p><b>NOTE 1:</b> <i>An Eye and Face Protection Selection Chart, which provides general guidance, is located in Appendix B of 29 CFR 1910, Subpart I. (To maximize viewing: On the TOOLS Menu of Internet Explorer, toggle into Internet Options, General Tab, and Accessibility. Then, activate Ignore Font Styles).</i></p> <p><b>NOTE 2:</b> <i>Where prescription lenses are needed to enhance/correct vision and exposure to eye hazards exist, employees may use ANSI-approved protective eyewear that incorporates the prescription in its design, or use eye protection that can be effectively worn over the prescription lenses. Contact lenses may be worn for vision correction, with the appropriate industrial safety eyewear.</i></p>
All Employees and visitors	2.	At a minimum wear safety glasses with approved side shields unless the work area or work activity is expressly excluded or exempted by Project/Facility management.
All Employees	3.	Protective eyewear shall conform to the criteria specified by ANSI Z87.1, and be marked to indicate the impact resistance level. The BASIC IMPACT level marking is "Z87" or "Z87-2"; the HIGH IMPACT level marking includes a "+" mark/sign.
		<p><b>NOTE:</b> <i>MSA program criteria for prescription safety glasses/eyewear are located in <a href="#">Appendix C</a>.</i></p>
	4.	Tinted glasses may not be worn inside of buildings, offices, facilities or enclosures - except under written medical prescription <u>and</u> in cases where the blockage of visible light does not create a greater hazard by impeding vision.
		<p>Transition lenses may be authorized by management and the Safety Representative, but only for employees who do not operate equipment between indoor and outdoor locations, or who are not otherwise involved in activities requiring critical acuity (fast reaction to visual stimuli).</p>
	5.	In addition to safety glasses, face shields shall be used any time work activities place the employees in a danger zone where the employee would be struck if something unexpectedly splashed, sprayed, or propelled in his or her direction. Examples include chipping, grinding, machining, riveting, or handling chemicals.

## Personal Protective Equipment

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
		Screens, goggles, or face shields shall protect other employees in the area (e.g., where grinding dust is falling/flying).
	6.	Goggles shall also be worn in areas where dusty operations are conducted, where windy conditions result in greater potential for flying particles, or where the potential exists for a chemical splash, spray, or mist to get in an employee's eyes. Goggles shall be required when overhead work has the potential to cause foreign bodies to enter the eye (e.g., when operating powered equipment used to cut or shape metal objects). Other goggle use shall be determined during hazard analysis and included on the JHA.
	7.	If exposed to a contact hazard with live electrical parts wear only non-metal frame eye protection devices.

### 5.3 Head Protection

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
CS/C All Employees	1.	Protective headgear (hard hats) conforming to the specifications of ANSI Z89.1 shall be provided and used by employees when working in areas where there is a potential danger of head injury due to the hazards of falling or flying objects, overhead protrusions/sharp objects or electrical shock or burns. <ul style="list-style-type: none"> <li>• Examples of situations where hard hats are required:</li> <li>• Wherever there is a danger of head injury from falling objects, electric shock, or burns from contact with exposed, energized parts</li> <li>• In posted "hard hat" areas</li> <li>• In designated construction areas</li> </ul>
CS/C	2.	Head injury hazards shall be documented in the hazard analysis for the work performed and require employees to use hardhats. Engineering controls shall be considered in addition to requiring hardhats.
All Employees	3.	Protective headgear shall not be altered in any way, and must be worn as designed.

**NOTE:** *Protective accessories such as cool pads, winter liners, hair nets, hoods, head wraps (e.g., "do-rag"), and skull caps may be worn over the head as long as the accessory is non-conductive, does not reduce the depth of the air gap existing between the hard hat suspension and shell, and the hard hat can be maintained snugly on top of the head in proper alignment. Baseball caps with buttons on top must not be worn under hard hats.*

## Personal Protective Equipment

Actionee	Step	Action
	4.	Inspect head protection before use. Inspect shells for signs of dents, cracks, penetration and any damage due to impact, rough treatment, or wear; closely inspect inner suspension liners for cracks or tears, frayed or cut straps, loss of pliability, or other signs of wear, and verify the hard hat is within the manufactures recommended service life.
	5.	If the cap has been struck by a forcible blow of any magnitude, both the hard hat shell and suspension should be replaced immediately, even if no damage is visible.

### 5.4 Foot Protection

Actionee	Step	Action
M/CS/S	1.	Provide safety-rated footwear with leather or equally protective construction conforming to the specifications of 29 CFR 1910.132 (a) and ASTM F2413-05 (formerly ANSI Z41.1*) when working in areas where there is a potential danger of foot injury due to the hazards of falling or rolling objects, sharp objects piercing the sole, or foot exposure to an electrical hazard.  <b>NOTE 1:</b> <i>It is recommended that safety toe shoes or boots be worn during the routine handling of hard-edged/solid objects, near or above waist level, that weigh more than 15 pounds and have the potential for falling onto the feet.</i>  <b>NOTE 2:</b> <i>Where required to be worn, the cost of ASTM F2413-05 footwear will be borne by the employer (within established cost limits). MSA program criteria for safety shoes/boots are located in <a href="#">Appendix B</a>.</i>
Employee	2.	Substantial footwear composed of leather or equally firm material and sturdy construction, that fully encloses the foot and has a semi-rigid non-slip sole with defined heel or gripping sole pattern, shall be worn in those work areas where the need is determined.  <b>NOTE 1:</b> <i>Substantial footwear requirements exist in such Operating and Heavy Industrial Work Areas as industrial and maintenance areas, operating floors, unpaved areas around facilities (including parking lots), and administrative/office-type environments co-located within shop/maintenance/ operating areas.</i>  <b>NOTE 2:</b> <i>Footwear should have ankle support if climbing ladders or if walking on uneven walking/working surface activity is involved, and have non-slip soles and traction pattern for exposure to snow and ice conditions.</i>

## Personal Protective Equipment

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
		<p><b>NOTE 3:</b> <i>The cost for purchase of substantial footwear will be borne by the employee.</i></p> <p><b>NOTE 4:</b> <i>Substantial footwear excludes high heels, open toes/heels, canvas/cloth, moccasins, sandals, tennis shoes, flip-flops, and synthetic composition of lesser protective quality than leather. Document any exception in work planning documents such as the hazard analysis.</i></p>
	3.	<p>Wear approved footwear for facilities, buildings, or locations that are used exclusively for administrative activities (e.g., office environment), where access is provided by paved walkways, and parking lots, that is appropriate for the job and work tasks to be performed.</p> <p><b>NOTE:</b> <i>Soft material such as canvas is permitted. Backless and open-toe shoes with a hard sole, as well as platform heels are also permitted. Foam and similar soft-soled shoes such as flip-flops, thongs, or similar beach-type footwear are prohibited.</i></p>
	4.	<p>Where there is a potential for slippery conditions (i.e., ice or snow), employees should wear traction devices (i.e., ice cleats or chains) to prevent slipping. Traction devices are made available for use by all MSA employees.</p>

### 5.5 Hand Protection

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
M/CS/S All Employees	1.	<p>Provide hand protection where there is a potential for hand injury due to exposure to such hazards as:</p> <ul style="list-style-type: none"> <li>• Skin absorption of harmful substances,</li> <li>• Cuts, lacerations, abrasions, and punctures,</li> <li>• Chemical burns,</li> <li>• Harmful temperature extremes.</li> </ul>
	2.	<p>Base selection of the type of hand protection on published product performance characteristics, degree of dexterity required to perform the work/task, and the appropriate application for protection against the hazard(s) identified.</p>
	3.	<p>Ensure cut and/or puncture resistant gloves are available and used by employees whenever abrasion, laceration, or puncture hazards are associated with the task.</p>

## Personal Protective Equipment

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
		<b>NOTE:</b> Refer to <a href="#">Appendix A</a> , <i>Pre-Approved Gloves</i> ; these gloves may be purchased on P-Card without safety approval.
	4.	Ensure chemical protective gloves are available and used by employees when the product presents hazards to the upper extremities.
		<b>NOTE:</b> Supplier product information can be used to provide chemical breakthrough, degradation, and permeation characteristics. Testing data shall be based on ASTM F739.
	5.	Consider temperature extremes for hot and cold environments along with the appropriate sizing when selecting <i>hand protection</i> .
	6.	Wearing rings and watches is strongly discouraged. Jewelry can catch and cause injuries when climbing, handling materials, or working with machinery.

### 5.6 Miscellaneous/Other PPE

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
M/CS/S	1.	Work documents or instructions shall prescribe special protective clothing requirements.
	2.	Chemical Protective Clothing shall be selected for the specific hazard. This selection shall be documented on the Hazard Analysis for the activity.
	3.	When employees are assigned work that places them near moving traffic, engineering controls (e.g., guards, barriers, or the re-routing of traffic) shall be used to protect employees. Where engineering controls cannot safely and effectively be used, employees shall wear, as a minimum, a fluorescent orange or other high-visibility safety vest. If such activities are conducted at night, the vests shall be reflective.
	4.	A hazard analysis shall be prepared for welding, cutting, and grinding activities. When prescribing PPE for these activities the following should be considered: flame retardant clothing (leather preferred), shaded lens, welding hood or goggles and hearing protection. Helmets or hand shields shall be used during all welding or arc cutting operations. Helpers or attendants shall be provided with proper eye protection. All operators and attendants of resistance welding or resistance brazing equipment shall use transparent face shields or goggles, depending on the particular job, to protect their faces or eyes, as required.

# Personal Protective Equipment

## 6.0 FORMS

None

## 7.0 RECORD IDENTIFICATION

All records are generated, received, processed, and maintained by MSC in accordance with MSC-PRO-10588, *Records Management Processes*.

**Records Capture Table**

Name of Document	Submittal Responsibility	Retention Responsibility
Required training records on PPE use	Training	Training Document Control
Construction Work Package	M/CS/S	Project Document Control

## 8.0 REFERENCES

### 8.1 Source Requirements

- 10 CFR 851, *Worker Safety and Health Program*
- 29 CFR 1910, *Occupational Safety and Health Standards*
- 29 CFR 1926, *Safety and Health Regulations for Construction*

### 8.2 Working References

- ANSI Z41.1-1999, *Personal Protection - Protective Footwear (superseded by ASTM F2413-05)*
- ANSI Z87.1-2003, *Practice for Occupational and Educational Eye and Face Protection*
- ANSI Z89.1-2009, *Safety Requirements for Industrial Head Protection*
- ASTM F739, *Test Method for Resistance of Protective Clothing Materials to Permeation by Liquids or Gases under Conditions of Continuous Contact*
- ASTM F2413-2005, *Standard Specification for Performance Requirements for Foot Protection*
- MSC-5173, *Radiation Control Manual DOE-0359, Hanford Site Electrical Safety Program*
- DOE-0352, *Hanford Site Respiratory Protection Program*
- DOE-0346, *Hanford Site Fall Protection Program*
  
- MSC-RD-43284, *Fall Protection*
- MSC-RD-11812, *Occupational Noise Exposure and Hearing Conservation*
- MSC-RD-29096, *Tags, Signs, and Barriers*
- MSC-PRO-10588, *Records Management Processes*

## Personal Protective Equipment

### Appendix A Pre-Approved Gloves

OEM	Picture	Application	Material	Cut Resistance	Comments
<b>Perfect Fit Gloves, PF570</b>  <a href="http://www.perfectfitglove.com/products/product_detail.asp?id=22&amp;catID=2&amp;pseriesid=11">http://www.perfectfitglove.com/products/product_detail.asp?id=22&amp;catID=2&amp;pseriesid=11</a>		Grey, light weight glove with grey rubberized inner cup	Dyneema/SS	ANSI 4	Good universal light weight gloves with excellent ratings, good grip and dexterity, all crafts noted good overall glove performance.
<b>MCR Grip Sharp</b>  <a href="http://www.mcrcsafety.com/gloves/high-performance-strings/grip-sharp.html">http://www.mcrcsafety.com/gloves/high-performance-strings/grip-sharp.html</a>		Summer work glove, yellow fabric with leather palm	Kevlar/Leather	ANSI 3	Allows for increased air flow and cooling effect, robust surface in palm. Also sold under "Junk Yard Dog" brand.
<b>Best Gloves T-Flex 8115</b>  <a href="http://www.bestglove.com/asp/products/productinfo.aspx?nameofglove=T-Flex&amp;querystyle=8115&amp;catid=Cut-Resistant%20Gloves">http://www.bestglove.com/asp/products/productinfo.aspx?nameofglove=T-Flex&amp;querystyle=8115&amp;catid=Cut-Resistant%20Gloves</a>		Inner liners	Dyneema-Spectra fibers	ANSI 3	Gloves have an extremely low profile that allows for use as an inner inside an asbestos glovebag, or as an adder barrier inside leathers/canvas.
<b>MCR UltraTech 9676</b>  <a href="http://www.mcrcsafety.com/gloves/high-performance-strings/ultra-tech-dyneema.html">http://www.mcrcsafety.com/gloves/high-performance-strings/ultra-tech-dyneema.html</a>		Salt & pepper color with black polyurethane inner cup	Dyneema	EU 3	Similar to Perfect Fit Gloves (PF570), but allows slightly more dexterity.

## Personal Protective Equipment

### APPENDIX B

#### Criteria for Purchasing Safety Footwear (Safety Shoes/Boots)

##### Safety Footwear (Safety Shoes/Boots) Program

It is a Mission Support Alliance (MSA) safety requirement that safety footwear be provided to and worn by employees whose work activities expose them to the risk of foot injury during the course of their duties. Employees who are routinely assigned to jobs/tasks in environments in which a hazard analysis has identified the presence of hazards requiring the use of foot protection shall wear safety shoes or boots composed of leather and a defined heel at all times, meeting one or more of the following Foot Protection Code requirements of the American Society of Testing Material (ASTM) International Standard F2413-05, *Standard Specification for Performance Requirements for Foot Protection*. Safety footwear can be obtained using the electronic Bill of Material (eBOM). The organization requesting the safety footwear needs to check the global eligibility report found in eBOM under reports. Once eligibility has been determined an eBOM is completed by the requesting organization and forwarded to the authorized material coordinator p-card holder for processing. The material coordinator will forward the appropriate paperwork to the requestor/end user. The end user will take the paperwork to the vendor. The manager approving the eBOM is responsible to determine that the end user requires the safety footwear being requested for performance of task assignment, and that the request is in compliance with MSA policy. The approving manager also verifies that the end user is eligible to receive the safety footwear.

The ASTM F2413-05 standard covers minimum requirements for the design, performance, testing and classification of protective footwear. Footwear certified as meeting ASTM F2413-05 must first meet the requirements of Section 5.1, "Impact Resistant Footwear", and Section 5.2, "Compression Resistant Footwear". Then the requirements of additional sections such as metatarsal protection, conductive protection, electric shock protection, static dissipative protection, and protection against punctures can be met.

Protective footwear can meet all the requirements of the ASTM standard or only specific elements of it, as long as it first meets the requirements for impact and compression resistance. All footwear manufactured to the ASTM specification must be marked with the specific portion of the standard with which it complies. One shoe of each pair must be clearly and legibly marked (stitched in, stamped on, pressure sensitive label, etc.) on either the surface of the tongue, gusset, shaft, or quarter lining.

**EXAMPLE:** The following are examples of ASTM code inscriptions that may be found on a piece of protective footwear:

ASTM F2413-05

F I/75/C/75/Mt75

PR

CS

## Personal Protective Equipment

**Line #1: ASTM F2413-05.** This line identifies the ASTM standard. It indicates that the protective footwear meets the performance requirements of ASTM F2413 issued in 2005.

**Line #2: F I/75 C/75 Mt/75.** This line identifies the applicable gender (M or F; here it is F) for which the footwear is intended. It also identifies the existence of impact resistance (I), the impact resistance rating (75 foot-pounds) and compression resistance (C) (of 75 or 50 which correlate to 2500 pounds and 1750 pounds of compression respectively). This line can also include a metatarsal protection designation (Mt) and rating (75 foot-pounds).

**Lines #3 & 4: PR & CS.** These lines are used to identify footwear made to offer protection from other specific types of hazards referenced in the standard. They are used to designate conductive (Cd) properties, electrical insulation properties (EH), footwear designed to reduce the accumulation of excess static electricity (SD), puncture resistance (PR), chain saw cut resistance (CS) and dielectric insulation (DI), if applicable.

Employees under MSA employment are eligible for a new pair of ASTM certified safety shoes/boots initially, and every twelve (12) months thereafter. Electrical Utility Linemen for MSA are eligible for special pole climbing boots initially, and every thirty six (36) months thereafter. This 12 and 36-month protective footwear replacement frequency may be applied only where the shoe or boot shows sufficient signs of wear-and-tear to necessitate replacement. Generally, the maximum monetary allowance for ASTM certified safety shoes/boots is \$150 within the 12 month period.

### **EXCEPTION 1**

*Replacement or repair costs associated with ASTM certified safety shoes/boots, not to exceed \$150, will be covered by MSA (with manager approval) at any time for footwear that has been damaged during the course of job performance.*

### **EXCEPTION 2**

*The maximum monetary allowance for electrical utility pole climbing boots is \$450 within a thirty six (36) month period.*

### **EXCEPTION 3**

*When legitimate and special medical needs are identified (e.g. orthotics or orthopedic safety shoes), consideration for purchase at a higher cost can be authorized only by signatory approval from the immediate manager and Safety and Health Manager, accompanied by a verified written prescription (current within 24 months) from a licensed medical physician. The prescription slip furnished by the physician must specify the type and description of therapeutic boot/shoe, insert, or modification required to treat the medical/physical condition.*

Charges exceeding the allotted amounts will be at the employee's expense. Safety footwear that is lost or damaged due to employee negligence will be repaired/replaced at the employee's expense.

Repairs needed as a result of routine wear-and-tear are the responsibility of the employee.

## Personal Protective Equipment

Neither safety-toe athletic type shoes (e.g., canvas) nor general non safety-toe work shoes (e.g., substantial footwear) will be furnished by MSA as a means for providing foot protection.

### Ten Footwear Buying Tips:

- **Safety first.** Know the specific hazards of your work environment. Safety foot guards (steel or composite), metatarsal guards, puncture-resistant soles, and special construction materials can help protect against falling objects, sharp metal edges, chemicals or electrical hazards.
- **Buy what you need.** Go to a store that carries footwear specific to your job. Ask an experienced fitter to measure your feet and fit you with appropriate shoes or boots. An experienced fitter knows the characteristics of the footwear the store carries, and can match the footwear's design and materials to your special requirements.
- **Check your soles.** Make sure the footwear soles are appropriate to your working conditions. Soles can be designed to resist slips, and protect your feet from heat, puncture, and electrical shock.
- **Wick away the moisture.** Buy leather uppers lined with moisture-wicking lining to keep your feet dry, and help prevent blisters and corns.
- **Stability is important.** Wear shoes or boots with flat soles and a wide base. They will provide greater stability when working on uneven surfaces.
- **Completely cover your feet.** Protective footwear must completely cover the foot with puncture resistant material. High top lace boots should lace 1/2" to 1" of the full length of the lace row to keep your heel securely in the boot. Gusset tongues sewn part way to the top of the boot help keep out foreign materials.
- **Make sure you can wiggle your toes.** The toe box needs to be deep enough so you can move all your toes inside without feeling pressure. Try boots on at the end of the day or shift when your feet are largest. Wear your usual work socks. Usually one foot is larger than the other so buy to fit the larger foot. (**NOTE:** *If you have diabetes or loss of feeling in your feet, you may need special fitting assistance.*)
- **Get the proper support.** Strong heel counters provide stability for your ankle and should fit snugly. A wedge bottom sole or puncture-resistant midsole improves stability for ankle and arch support.
- **Comfort is critical.** Footwear should feel comfortable when you first try it on. Don't expect to need a "break-in" period before footwear feels comfortable. Try protective footwear out while you're in the store. Walk on a hard surface and not a carpeted showroom floor. Shock absorbent removable insoles provide the best available foot bed. They can be removed to be cleaned, replaced as needed or substituted with a custom prescription insert.

**Always buy safety footwear labeled ASTM F2413-05 (formerly ANSI Z41.1).**

# Personal Protective Equipment

## Appendix C

### Criteria for Purchasing Prescription Safety Eyewear (Safety Glasses)

#### Prescription Safety Eyewear (Safety Glasses) Program

It is a MSA safety requirement that appropriate eye protection be provided to and worn by employees whose work activities expose them to eye hazards, or where eye protection use is otherwise designated. The minimum acceptable form of eye protection is safety glasses that meet the requirements specified in the American National Standards Institute (ANSI) standard Z87.1, *Practice for Occupational and Educational Eye and Face Protection*.

Ordinary prescription eyewear does not provide adequate protection from injury to the eyes from impact hazards, and does not meet ANSI Z87.1 eye protection specifications. Therefore, it is the policy of MSA to provide protective prescription eyewear with permanently attached side shields to qualified active MSA employees who need corrective lenses for vision, and whose job routinely requires the use of safety eyewear for protection.

Prescription safety glasses can be obtained using the electronic Bill of Material (eBOM). The organization requesting the prescription safety glasses needs to check the global eligibility report found in eBOM under reports. Once eligibility has been determined an eBom is completed by the requesting organization and forwarded to the authorized material coordinator p-card holder for processing. The material coordinator will forward the appropriate paperwork to the requestor/end user. The end user will take the paperwork to one of the designated optical service center network providers. (for additional procurement information, refer to the E-Store Webpage). The manager approving the eBOM is responsible to determine that the request is in compliance with MSA policy. The approving Manager must also verify that the end user is eligible to receive the prescription eyewear.

Generally, employees are eligible for only one pair of prescription safety glasses every twenty four (24) months (on an as-needed basis), while under MSA employment.

**NOTE 1:** *The terminology “on an as-needed basis” implies that the eyewear shows sufficient signs of normal wear-and-tear, or the result of an optical examination evidences a vision change necessitating a revised prescription.*

#### **EXCEPTION 1**

*Additional replacement or repair costs during a 24-month period will be covered by MSA (with manager approval) for prescription safety glasses that have been damaged as a result of a task-related incident occurring during the course of job performance.*

#### **EXCEPTION 2**

*Additional replacement costs during a 24-month period will be covered by MSA (with manager*

## Personal Protective Equipment

*approval) when the result of an optical examination reveals a change in vision necessitating a change in corrective lens.*

### **EXCEPTION 3**

*In addition to indoor or clear lens safety glasses, tinted lens safety glasses may be procured during the 24-month period and will be covered by MSA (with manager approval) when it has been determined the employee performs work outdoors on a frequent basis.*

The cost for minor repairs and maintenance (e.g., replacement of screws and nosepieces, adjustments, etc.) is the responsibility of the employee. Safety glasses that are lost or damaged due to theft, employee misuse, or negligence will be repaired/replaced at the employee's expense.

Transition lenses may be authorized, but only for employees who do not operate equipment between indoor and outdoor locations, or who are not otherwise involved in activities requiring critical acuity (fast reaction to visual stimuli).

**NOTE2:** *The rate at which it takes for a tint change to occur in transition lenses is not instantaneous (e.g., it may take a minute for the fading process to occur), and may present a hazard to workers moving from outdoor light to areas of lower illumination (e.g., indoors).*

Tinted lens safety glasses are authorized only as follows: No. 1 or 2 rose for indoor use (where additional glare protection is needed); No. 2 gray for outdoor use (where filtering of bright light (e.g., sunlight) is needed).

**NOTE3:** *No. 2 gray lenses are basically "sunglasses", and are not intended for indoor usage. A UV coating may be requested when ordering prescription safety eyewear with glass lenses.*

To ensure worker protection, an employee may be issued non-prescription ("plano") eyewear for use over top of their regular street-wear prescription glasses until prescription safety glasses are ordered and received.

Full-face respirators present a unique situation for employees who need prescription glasses. The use of special glasses and mounts inside the face piece of the respirator may be necessary to provide/maintain an adequate seal. When an employee's prescription eyewear will not fit into a full-face respirator with the appropriate mounts, the ordering of custom prescription optical inserts that are compatible with the respirator will be ordered from General Stores or via an eBOM. When an employee must wear optical inserts as part of the face piece, the face piece and lenses shall be fitted by qualified individuals to provide good vision, comfort, and a gas-tight seal. MSA will cover the cost of corrective lenses for respirators, upon approval.

### Tips for Proper Care of Prescription Safety Glasses:

1. Rinse lenses with water before wiping or cleaning, as fine dirt can scratch the surface.  
(NOTE: Lenses may be scratch-resistant, but are not scratch-proof!)
2. Ammonia-based cleaners (e.g., Windex) can damage lens coatings.
3. Do not use paper products as lens wipes; they are usually abrasive.

## Personal Protective Equipment

4. Avoid handling the glasses when not in use to maintain them in proper adjustment.
5. Store the eyeglasses in a protective case when not in use to prevent accidental damage.