Safety, Health and Environmental Standard

Title: **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Standard No.: F2

Effective Date: 11/03/2021

Releasability: There are no releasability restrictions on this publication.

The provisions and requirements of this standard are mandatory for use by all base operating contractor personnel engaged in work tasks necessary to fulfill the AEDC mission. Please contact your safety, industrial health and/or environmental representative for clarification or questions regarding this standard.

Environmental, Safety & Health Standard

PERSONAL PROTECTIVE EQUIPMENT

1.0 INTRODUCTION/SCOPE/APPLICABILITY

1.1 Introduction – This standard is safety and health guidance for personal protective equipment (PPE) use, purchase, care, inspection, maintenance and replacement at AEDC.

1.2 Scope – This standard covers routine Personal Protective Equipment (PPE) selection, use, and care. It does not cover specialized PPE such as electrical safety equipment or special purpose clothing for clean rooms, which have more stringent PPE guidelines in other standards. If two different AEDC Safety, Health and Environmental (SHE) Standards conflict, the more stringent standard shall be followed.

1.3 Applicability – This standard applies to all base operating contractors at Arnold Air Force Base, TN.

2.0 BASIC HAZARDS AND HUMAN FACTORS

2.1 Hazards are conditions that if left unchecked have the potential to cause injury to people, damage to property and/or mission degradation.

2.1.1 Hazards should be engineered out, guarded against or isolated whenever possible before considering the use of PPE. PPE devices alone should not be solely relied upon to provide protection against hazards, but should be used in conjunction with engineering controls, guards, and safe work practices.

2.1.2 The employer and supervisors must vigilantly assess the work environment to determine if hazards are present, or are likely to be present, which necessitates the use of PPE. If such hazards are present, or likely to be present, the supervisor must ensure that the appropriate PPE has been identified and is available prior to placing workers in contact with those hazards.

2.1.3 When a potential hazard is identified, PPE must be matched to the hazard. This is accomplished through workplace hazard analysis and Job Safety Analysis (JSA) or equivalent. AEDC SHE Standard A10 and 29 CFR 1910.132(d) explain the process.

2.2 The benefits of mandatory PPE to protect workers from hazards can easily be undermined by human factors. Awareness of these potential human conditions and their impact on worker behavior is essential to successful mishap prevention. Unhealthy emotions, job or domestic pressures, distractions, limited job knowledge, hurrying or feeling rushed can contribute to unsafe attitudes. Physical factors such as fatigue, poor physical strength or mobility, or effects of medication, alcohol or illegal drugs can lead to behaviors that result in a serious mishap.

3.0 DEFINITIONS

Affected employee – An employee whose job requires him/her to work in an area where he/she may be exposed to a hazard even if not directly assigned to the work area, task or process creating the hazard.

Base Operating Contractor – A multi-year awarded contractor directly accountable to the Air Force for the AEDC mission.

Construction Area – Includes but is not limited to, work sites of new building/system erection, building/system demolition, building/system area and room renovation, road work, and excavation/trenching areas throughout AEDC. The construction area may be limited to a small area within an existing facility such as room renovation or system repair.

Custodial Organization - The organization exercising control over the work area or jobsite; normally the Master Work Permit Issuing Official's organization.

Industrial Area – Includes but is not limited to all shops, plant facilities, indoor/outdoor test cells and test support areas, maintenance and fabrication shops, and warehousing facilities throughout AEDC.

Outside Contractor/Subcontractor – An organization employed by a contractor or the Air Force to do construction, maintenance, repair or other work at AEDC. There is no employment relationship, control or supervision of the subcontractor's employees by AEDC contractors. Also referred to as the construction contractor.

Overhead Hazard – Involve mobile, pendent or cab crane operations; scaffolding and construction work; lifting materials, equipment and tools over the top of employees; and/or any work where employees are working above (overhead) other employees.

Visitor – Non-AEDC individual in an area who is not performing work and who is continually escorted.

4.0 REQUIREMENTS AND RESPONSIBILITIES

4.1. General Requirements:

4.1.1 Appropriate personal protective equipment (PPE) shall be worn by workers and visitors in all areas identified as PPE required.

4.1.2 As a minimum, short sleeve shirt, long pants, hard hat, protective eyewear, and protective footwear are required in all industrial and construction areas unless otherwise noted in this standard. (See Paragraph 4.1.8.) **NOTE:** Long pants are pants that fit over the top of the footwear.

4.1.3 Personnel assigned to tasks or locations that could pose caught-on or entanglement hazards shall remove, restrain, or secure all loose clothing, personal items, and long hair or beards to prevent possible personal injury. This includes items worn around the neck such as necklaces, scarves, and neckties. Additionally, items such as watches, bracelets, rings and other jewelry posing a hazard shall be removed. In all situations, where badge lanyards are worn, the badge lanyards shall be designed to "break-free" when a hazardous force is applied.

4.1.4 Additional work environment or task specific PPE requirements will be determined by the custodial organization in conjunction with their Base Operating Contractor SHE using established standards, hazard analysis, and Job Safety Analysis (JSA) or equivalent. Safety Data Sheets (SDS) typically provide chemical specific PPE guidance as well.

4.1.5 The organization responsible for the area or operation shall provide the personal protective equipment to workers and visitors.

4.1.6 Skin protective treatments such as insect repellent, sunscreen, and/or poisonous plant barriers are considered required PPE when deemed appropriate by job safety analysis/ (JSA) or equivalent and supplied by the employer. Workers who have a verifiable medical condition rendering them unable to use such skin treatments are exempt; alternate means of protection must be determined on a case-by-case base.

4.1.7 Procurement of PPE not normally stocked at AEDC must be approved for the intended use by the Contractor's SHE group.
NOTE: Logistics Support can provide AEDC stock numbers for currently stocked PPE.

4.1.8 Standardized signs stating the PPE requirements shall be posted at the entrances to PPE required areas.

4.1.9 Public Affairs (PA)-escorted tour groups are not required to wear hard hats, safety glasses or hearing protection in AEDC areas where PA has previously coordinated that group's visit and has ensured that industrial work or testing is not in progress at the time of the tour. If testing or other dangerous activities, such as overhead crane operations, are in progress the tour leader will eliminate that area from the tour. Additionally, PA will ensure that everyone on the tour wears shoes that cover the toes.

4.2 Eye and Face Protection:

4.2.1 Eye and face protection will be appropriate for the work environment and the hazard(s) involved. Appropriate eye and face protection includes but is not limited to goggles to shield eyes from loose debris, face shield over the safety glasses/goggles when operating a grinding. (See Annex A.)

4.2.2 Protective eyewear shall be worn at all times by personnel entering industrial/construction areas or engaged in activities that pose eye injury hazards. Clear or amber lens safety glasses may be worn when inside or outside of buildings. Dark tinted safety glasses shall only be worn when working outside during daylight hours. Exceptions must be reviewed and approved by the organization's management and safety office.

4.2.3 The custodial organization shall provide protective eyewear on a loan basis at the entrance to eye hazard areas.

4.2.4 Protective eyewear must meet or exceed American National Safety Institute (ANSI) Z87 standards and must be designed for the type of application for which it is being used. (See Annex A.) Eye and face protection.

4.2.5 Must have the manufacturer's identification and the original "Z87" indication clearly marked on the equipment.

4.2.6 Protective eyewear must include side protection.

4.2.7 Affected employees who have lost the sight of one eye, or have had cataract surgery, or are legally blind in one eye must wear eye protection at all times.

4.2.8 Inspection and Care of Eye and Face Protection:

4.2.8.1 Clean and inspect eye and face protection daily to ensure it is safe and effective. Additionally, manufacturer's recommendations for cleaning, care, maintenance and storage of eye and face protection will be followed.

4.2.8.2 Replace scratched, cracked, or pitted, eye and face protection or when broken parts are present.

4.3 Protective Clothing:

4.3.1 Appropriate protective clothing, must be worn by workers and visitors in areas as identified by workplace hazard analysis.

4.3.2 The custodial organization will ensure that personal protective clothing is of a safe design and construction for the work to be performed.

4.3.3 Special use protective clothing may only be issued to those persons exposed to the hazards.

4.3.4 Inspection and Care of Protective Clothing:

4.3.4.1 Protective clothing shall be discarded when cut, torn and/or becomes non-serviceable. Protective clothing used when handling or working around poisonous plants will be discarded after such use.

4.3.4.2 Disposable and non-disposable protective clothing which has been contaminated to the degree that laundering is not practical shall be handled as follows:

4.3.4.2.1 Protective clothing contaminated or saturated with sodium potassium alloy (NaK), borane fuels, hydrocarbon fuels, flammable liquids, solvents, toxic substances, or corrosives (acid or caustic) shall be disposed of in accordance with SHE Standard E18 Managing Wastes Containing Chemical or Petroleum Products.

4.3.4.2.2 Protective clothing contaminated with a radioactive material shall be placed in a plastic bag, sealed, and tagged, and Base Operating Contractor SHE contacted immediately for proper and special decontamination or disposal procedures.

4.3.4.2.3 Protective clothing contaminated with blood borne pathogens must be placed in a plastic Bio-Hazard bag, sealed and tagged for proper disposal in accordance with OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030). .

4.3.4.2.4 Personal protective clothing contaminated with asbestos shall be disposed of according to CFR 29 1910.1001.

4.3.4.2.5 Personal protective clothing contaminated with materials containing lead shall be disposed of according to 29 CFR 1925.1025(g).

4.4 Hand Protection:

4.4.1 Gloves shall be used for hand protection against hazards when other controls are not possible.

4.4.2 Gloves shall not be worn while working around moving or rotating machinery.

4.4.3 Employees with dermatitis should use only new gloves.

4.4.4 Glove Selection:

Use of appropriate gloves for the task being performed shall be identified on the JSA. (See Annex B.)
NOTE: The SHE group may be contacted for advice on glove selection when further guidance is needed.

4.4.4.1 Leather or cut-resistant gloves shall be used for heavy material handling and where sharp edges, pointed objects, or splinters of metal/wood, glass, or heavy abrasion hazards are present.

4.4.4.2 Leather gloves shall be used for protection against heat or flames.

4.4.4.3 Rubber or plastic coated cloth gloves shall be used to handle wet materials.

4.4.4.4 Chemical-resistant gloves shall be used for protection against chemicals. Chemical-resistant gloves must be the appropriate type and design for the task and chemical being handled.

4.4.5 Inspection and Care of Gloves:

4.4.5.1 Gloves will be inspected and/or disposed of in the same manner as protective clothing. (See Section 4.3.5.)

4.4.5.2 Rubber, plastic or coated gloves shall be discarded when peeling, cracking, bubbling, or discoloration around the fingers is found.

4.4.5.3 Personal gloves that become contaminated during work will be disposed of in the same manner as company-owned gloves.

4.4.6 Barrier Creams:

4.4.6.1 Barrier creams (sometimes called skin protective compounds) should be used only if hazards cannot be controlled and when gloves cannot be used due to poor grip or feel, etc. Barrier creams provide less effective protection than gloves. Barrier creams are available for: poison ivy/oak, sun exposure, abrasion and toxic dusts, chemicals that dissolve in water and chemicals that dissolve in oil.

4.4.6.2 Barrier creams do not bond to dirty skin; therefore, hands and arms must be washed thoroughly before applying.

4.4.6.3 Barrier creams should be washed off with soap and water before eating or smoking and at the end of the day, and should be reapplied as necessary.

4.5 Head Protection

4.5.1 Hard hats are required in all construction areas and where overhead hazard exists.

4.5.1.1 Approval of a "No Hardhat Area" must obtained by organization's safety office and management. If working in "No Hardhat Area" creates overhead hazards, then hardhat must be worn.

4.5.2 Hard hats must conform to the requirements of ANSI Z89.1 requirements for Industrial Head Protection.

4.5.3 Procurement for head protection will be made through the base supply system. Requisitions for head protection not normally stocked through base supply system must be approved by Contractor SHE group for the employee.

4.5.4 Hard hats worn with welding hoods must be compatible with the hood without alteration to either the hood or the hard hat.

4.5.5 Hard hats shall be marked and worn according to manufacturer/employer's instructions. No modifications to hard hats shall be made. This includes no drilling, stickers, paints, markers, etc.

Exception: A name sticker is authorized on the front and rear of hard hat. Lettering cannot exceed ½ inch tall. Placement must be at least ½ inch, but no more than 1 inch, above the line where the brim and the body of the hard hat meet.

4.5.6 Hard hats may be worn backwards if marked by the manufacturer with the "reverse donning" logo and properly configured for reverse donning per manufacturer instructions.

4.5.8 Inspection and Care of Head Protection:

4.5.8.1 Hard hats must be cleaned according to manufacturer's recommendations.

4.5.8.2 In compliance with manufacturer's recommendations, hard hats shall be cleaned regularly by the user with warm water and a mild soap solution then rinsed with warm water and dried. Hard hats helmets must never be cleaned with organic solvents.

4.5.8.3 Hard hats and their components should be replaced and/or removed from service according to manufacturer's recommendations.

4.5.8.4 If either the shell or suspension unit of a hard hat shows evidence of cracking, tearing, fraying or any other sign of deterioration, it must be replaced.

4.5.8.5 If a hard hat or is subjected to damage by a falling object, mishap or accident, it should be removed from service, inspected and/or replaced. Replace any hard hat that has withstood impact or penetration.

4.5.8.6 In compliance with manufacturer's recommendations, hard hats should be replaced after five years from the manufactured date. Expired, or otherwise replaced, hard hats should be disposed of using normal trash receptacles.

4.6 Foot Protection

4.6.1 Safety-rated work shoes or boots are required in all industrial and construction areas. When an employee or visitor is present without protective footwear, all operations that could cause a foot injury to that person shall cease.

4.6.1.1 Shoes or boots must cover the wearer's foot, heel, and toes, provide protection to the foot from injury if struck against an object, and provide good traction.

4.6.1.2 Shoes or boots shall be of a sturdy design intended for use in an industrial or construction environment by the manufacturer.

4.6.1.3 Footwear that exposes the foot or toes to injury, such as open-toe, slingbacks, sandals, flip-flops or high heels, is prohibited in industrial, construction, and all other foot hazard areas at all times.

4.6.2 Safety-rated protective footwear is required when working in areas where there is a danger of foot injuries due to falling or rolling objects, or from objects piercing the sole, or any area where feet are exposed to electrical hazards.

4.6.2.1 Protective footwear shall meet ASTM F2413-05 Class 75 Impact and Compression (I/C 75) and Electrical Hazard (EH) standards unless hazards dictate other protection. (See Annex C.)

4.7 Respiratory Protection

4.7.1 Permissible Practice

4.7.1.1 A respirator shall be provided to each employee when such equipment is necessary to protect the health of such employee.

4.7.1.2 The employer shall provide the respirators which are applicable and suitable for the purpose intended.

4.7.1.3 The employer shall be responsible for the establishment and maintenance of a respiratory protection program, which shall include the requirements outlined in paragraph (c) of 29 CFR 1910.134.

4.7.2 **Respiratory Protection Program**

4.7.2.1 Further information on who is required to wear a respirator, respirator selection criteria, fit-test procedures, types of respirators, general requirements and other information regarding respirator use in the workplace will be found in AEDC SHE Standard F4 - Respiratory Protection.

NOTE: References include 29 CFR1910.134 and AFI 48-137

4.8 Responsibilities

4.8.1 Management Shall:

4.8.1.1 Ensure the workplace is assessed to identify hazards that could cause injury to employees and visitors.

4.8.1.2 Determine the appropriate PPE requirements in each area.

4.8.1.3 Maintain an adequate supply of employer furnished PPE.

4.8.1.4 Coordinate PPE requirements with their SHE group.

4.8.1.5 Develop and enforce policies and procedures on PPE availability.

4.8.1.6 Enforce proper PPE use.

4.8.1.7 Conduct inspections of PPE usage and document results.

4.8.2 Supervisors Shall:

4.8.2.1 Evaluate work areas and tasks to determine if conditions require PPE beyond the minimum requirements.

4.8.2.2 Ensure all workplace hazards are identified on a continuing basis and all employees are advised of PPE requirements related to the work area and tasks performed.

4.8.2.3 Enforce policies on personal protection of employees and/or visitors.

4.8.2.4 Monitor operations to ensure employees use the appropriate personal protection for the assigned tasks.

4.8.2.5 Ensure PPE of the proper type, size and fit.

4.8.2.6 Approve or disapprove employee prescription safety glasses requests in accordance with employer's policy.

4.8.2.7 Approve or disapprove employee protective footwear requests in accordance with employer's policy.

4.8.2.8 Ensure personnel receive initial and refresher PPE training.

4.8.2.9 Ensure visitors are briefed on work area hazards prior to being exposed to the hazard and the required PPE.

4.8.3 Employees Shall:

4.8.3.1 Comply with all policies, procedures, and signage on the use, inspection, care, and repair of PPE.

4.8.3.2 Report to work with appropriate PPE and wear it correctly when working in PPE-required areas.

4.8.3.3 Make no unauthorized modifications to any PPE.

4.8.3.4 Ensure PPE is kept clean, serviceable and sanitary.

4.8.3.5 Remove unserviceable PPE from service immediately. Notify supervisor of damaged or unserviceable PPE.

4.8.3.6 Complete initial and refresher PPE training as directed.

4.8.3.7 Comply with all policies and procedures on the purchase of PPE.

4.8.4 Safety, Health, and Environmental Shall:

4.8.4.1 Evaluate work areas to determine if physical conditions or work processes exist which could cause injuries; make recommendations for appropriate PPE selection.

4.8.4.2 Coordinate the prescription safety glasses and safety shoe programs (if company provides).

5.0 TRAINING

SHE shall provide each employee with initial PPE training.

5.1 All industrial personnel are required to receive initial and refresher training on the PPE required for assigned duties. This training must comply with OSHA 1910.132(f) and include the following:

5.1.1 Who must use PPE

5.1.2 What type of PPE is necessary

5.1.3 When and where PPE is necessary

5.1.4 How to properly wear and adjust PPE

5.1.5 Proper care, maintenance, useful life, and disposal of PPE

5.1.6 Limitations of PPE

5.2 The employer shall ensure PPE training is provided and documented.

5.3 Area-specific training shall be provided by supervision with local documentation.

5.4 The employer will ensure each affected employee demonstrates an understanding of the training and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

5.5 Retraining/refresher shall be provided as needed. Circumstances where retraining is required include, but are not limited to:

5.5.1 Changes in the workplace that render previous training obsolete

5.5.2 Changes in the type(s) of PPE to be used that render previous training obsolete

5.5.3 Employee behavior that exhibits a lack of PPE knowledge or skill.

5.6 The employer shall verify that each affected employee has received and understood the required training through a written certification that contains the name of each employee trained, the date(s) of training, and that identifies the subject of the certification.

6.0 INSPECTIONS/AUDITS

The Contractor SHE group shall conduct random inspections and walk-throughs to ensure compliance with this standard.

7.0 REFERENCES

AEDC Safety, Health & Environmental Standards
- A6, User Subcontractor Safety
- A10, Job Safety Analysis
- B3, Control of Hazardous Areas using Safety Signs, Tags, and Barricades
- B4, High Voltage Electrical Work
- B6, Low Voltage Electrical Safety Related Safe Work Practices
- D12, Lasers
- E16, Polychlorinated Biphenyls (PCBs)
- E18, Managing Wastes Containing Chemical or Petroleum Products
- F4, Respiratory Protection
- F6, Fall Protection

Air Force Instructions (AFI)

AFI 48-137, Respiratory Protection Program

American National Standards Institute (ANSI) Standards

ANSI Z87.1-2006, Occupational and Educational Personal Eye and Face Protection Devices
ANSI Z89.1-2009, Industrial Head Protection

ASTM International (ASTM) Standards

ASTM F2413-05, Standard Specification for Performance Requirements for Foot Protection

National Fire Protection Association (NFPA)

NFPA 1999, Standard of Protective Clothing for Emergency Medical Operations, 2008 Edition

Occupational Safety and Health Administration (OSHA) Code of Federal Regulations (CFR)

29 CFR 1910 Subpart I, Personal Protective Equipment
1910.132, General Requirements
1910.133, Eye and Face Protection
1910.134, Respiratory Protection
1910.135, Head Protection
1910.136, Occupational Foot Protection
1910.138, Hand Protection
1910.1001, Asbestos
1910.1025, Lead

29 CFR 1926 Subpart E - Personal Protective and Life Saving Equipment
1926.95, Criteria for Personal Protective Equipment
1926.96, Occupational Foot Protection
1926.100, Head Protection
1926.102, Eye and Face Protection

8.0 ANNEXES

A Minimum Requirements for Eye and Face Protection
B Glove Usage Matrix
C Selecting the Proper Safety Shoe

9.0 SUPPLEMENT

NFAC

Annex A
Minimum Requirements for Eye and Face Protection

Task	Protection
Acetylene Cutting	Welding goggles with shaded lenses or helmet (Use safety glasses with side shields while goggles are not protecting the eyes or helmet is in the raised position)
Chain Saw Operations	Safety glasses with side protection and mesh face shield or clear/polycarbonate face shield
Chemical Operations	Face shields or chemical splash goggles, or for severe exposures, face shields and chemical splash goggles.
Construction Areas	Safety glasses with side protection
Dusty Operations	Dust goggles
Electrical Maintenance/Repair	See AEDC SHE Std B4, *High Voltage Electrical Work,* and AEDC SHE Std B6, *Low Voltage Electrical Safety Related Safe Work Practices*
Grinding/Chipping	Impact-resistant type eye protection goggles/safety glasses with face shields
Industrial Areas	Safety glasses with side protection
Inside a Eye-Hazard Area	Safety glasses with side protection (Outdoor/dark tinted safety glasses are not to be worn when inside buildings)
Laser Operations	Laser spectacles and goggles; see AEDC SHE Std D12, *Lasers*
Machining	Safety glasses with side protection or goggles
Molten Metals	Safety glasses with side protection and face shield
Soldering Operations	Safety glasses with side protection
Shearing Operations	Safety glasses with side protection
Welding (All Types) (Includes Welding Helpers)	Welding helmet (Use safety glasses with side protection or goggles when helmet is in the raised position.)

1. Only side protection which meets or exceeds American National Safety Institute (ANSI) Z87.1.2003 standards will be used in conjunction with prescription safety glasses.
2. Contact lenses are not considered eye protection and in some cases, such as when personnel are working around chemicals, may make the job more hazardous. Therefore, if contact lenses are worn, appropriate eye protection must also be worn. Contact lenses are not to be worn when using a full-face respirator.

Annex B
Glove Usage Matrix

The following are recommended guidelines for the use of selected gloves. These guidelines are not meant to apply to every situation that will arise. Proper use of gloves helps prevent at-risk activities from becoming injuries.

	Pigskin	Cowhide	Leather Palm	Palm Coated	Mechanic Gripper	Anti-Vibration	Sheepskin TIG Welder	Welder	Cut Resistant	Nitrile*	Viton®*
Carpentry	■	■	■	■	■	■			■		
Chemical Handling*										Ck SDS*	Ck SDS*
Fuel Handling										Ck SDS*	Ck SDS*
Glass Cutting & Forming									■		
Groundskeeping (Weeding, etc.)	■	■	■		■	■			■		
Handling Sharp, Jagged Objects									■		
Hot Machinery; Engine Parts	■	■	■		■						
Ironwork	■	■	■	■	■	■					
Janitorial Work										■	
Machinist Work	■	■	■	■	■				■	Ck SDS*	Ck SDS*
Masonry Work	■	■	■	■	■	■					
Mobile Equipment Operation					■						
Painting	Ck SDS*	Ck SDS*	Ck SDS*	Ck SDS*	Ck SDS*	■				Ck SDS*	Ck SDS*
Pipefitting	■	■	■	■	■						
Scaffold Erection/Dismantling	■	■	■	■	■						
Sheetmetal Work	■	■	■	■	■				■		
Using Hand Tools	■	■	■	■	■	■					
Using Impact Tools; Grinders			■			■					
Using Knife/Unprotected Blade									■		
Welding, Cutting, Burning							■	■			
Wiring	■	■	■	■	■						

**Consult glove compatibility charts and SDS to ensure the glove material and thickness will protect from the specific chemical or for the specific task being performed.*

This matrix is to be used only as a guide when selecting appropriate hand protection.
Consult with your Base Operating Contractor Safety, Health and Environmental for more inclusive information.

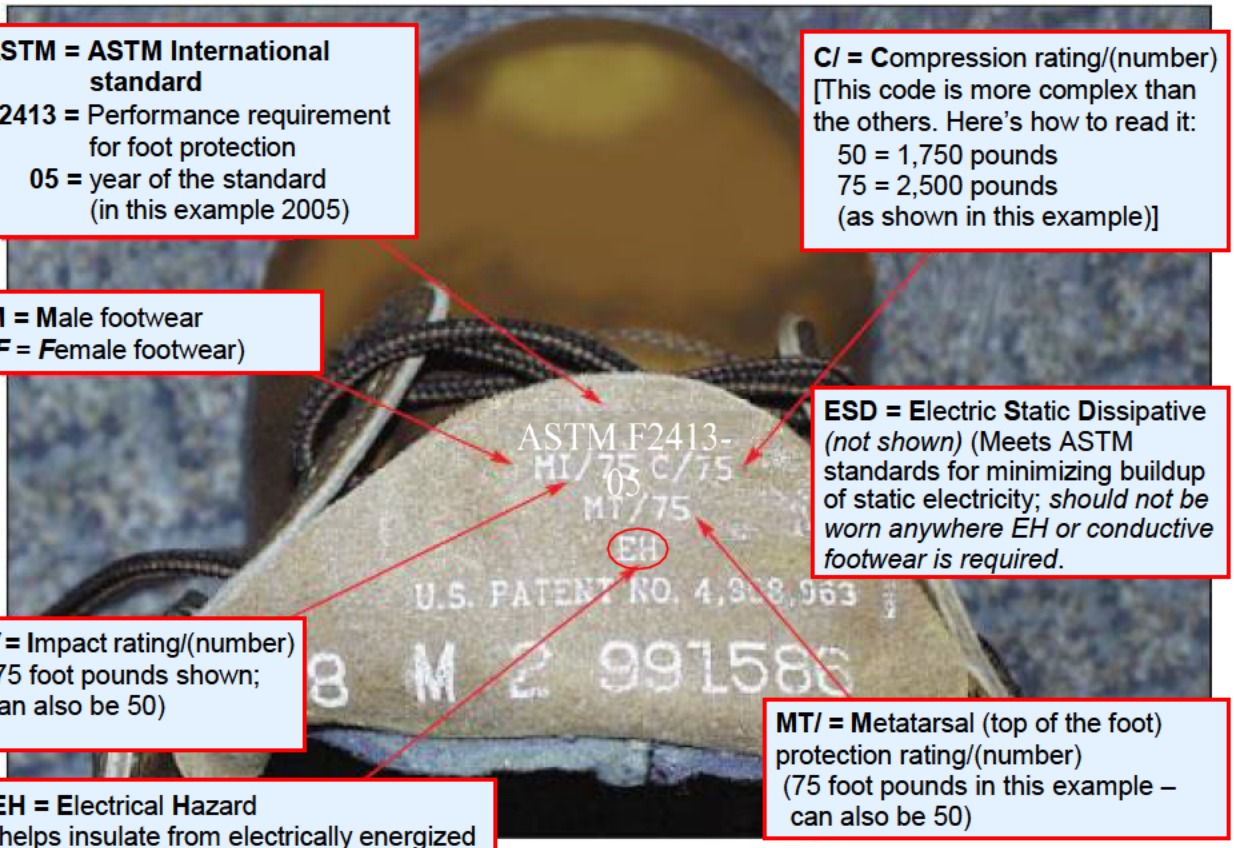
Annex C
Selecting the Proper Safety Shoe

Safety shoes must meet the requirements of the ASTM International Standard Specification for Performance Requirements for Foot Protection (ASTM F2413). All ASTM-approved footwear has a protective toe and offers impact and compression protection. But the type and amount of protection is not always the same. Different footwear protects in different ways, and safety shoes carry ratings to identify these differences.

*For example, **EH**-rated footwear provides protection from **E**lectrical **H**azards. Select shoes with this feature unless your job specifically requires electric static dissipative footwear. Your supervisor will help you determine which is appropriate.*

How do I choose the right footwear?

Check the product's labeling to make sure the footwear will protect from the hazards you face. Checking the labeling inside the shoe rather than on the box will help you ensure that shoes haven't accidentally been placed in the wrong box. Here's how to read the label:



ASTM = ASTM International standard
F2413 = Performance requirement for foot protection
05 = year of the standard (in this example 2005)

C/ = Compression rating/(number)
[This code is more complex than the others. Here's how to read it:
50 = 1,750 pounds
75 = 2,500 pounds
(as shown in this example)]

M = Male footwear
(***F** = **F**emale footwear)*

ESD = Electric **S**tatic **D**issipative *(not shown)* (Meets ASTM standards for minimizing buildup of static electricity; *should not be worn anywhere EH or conductive footwear is required.*

I/ = Impact rating/(number) (75 foot pounds shown; can also be 50)

MT/ = Metatarsal (top of the foot) protection rating/(number) (75 foot pounds in this example – can also be 50)

EH = Electrical **H**azard (helps insulate from electrically energized parts or equipment.) Soles are non-conductive and will provide secondary protection against open circuits of 600 volts or less <u>*under dry conditions*</u>.

Additional features *defined by the manufacturer*:
WP = Waterproof
I = Insulated (Don't confuse with *Impact rating*)
These features are not ASTM-rated and vary by company. In addition, some manufacturers offer heat, oil, and/or puncture-resistant products. *Ask before you buy.*

NOTE: As of March 2005, ASTM F2413 superseded the American National Standards Institute (ANSI) Z41 standard for foot protection. Manufacturers and distributors implemented a "running change" to their inventory from the ANSI Z41 labeled footwear. Because there is no change in the protocol, the ASTM F2413 standard does not require that the change from ANSI to ASTM labeled footwear occur in a specific time period.

A321-0801-XSP F2 Personal Protective Equipment Supplement

This supplement has been approved for the NFAC Site.

Review: This supplement will be reviewed and updated using the same cycle as the AEDC Safety Standard F2 "Personal Protective Equipment".

References: AEDC Safety Standard F2 – Personal Protective Equipment at the AEDC NFAC Site.

Scope:
This supplement is safety and health guidance for personal protective equipment (PPE) use, purchase, care, inspection, maintenance and replacement at NFAC.

This supplement covers routine Personal Protective Equipment (PPE) selection, use, and care. It does not cover specialized PPE such as electrical safety equipment or special purpose clothing for clean rooms, which have more stringent PPE guidelines in other standards. If two different NFAC Safety, Health and Environmental (SHE) Policies conflict, the most stringent supplement shall be followed.

Hazards should be engineered out, guarded against or isolated whenever possible before considering the use of PPE. PPE devices alone should not be solely relied upon to provide protection against hazards, but should be used in conjunction with engineering controls, guards, and safe work practices.

This supplement applies to all NFAC personnel, customers and vendors.

NFAC Worksite Application:

PPE requirements are based on the hazards either established in the SOPs, Work Order and/or Safe Plan of Action (SPA). Areas that require the use of hard hats shall be marked (areas that have the possibility of overhead, Falling objects, or bump hazards shall be designated as a hard hat required area).

During crane operations all members of the lift team are required to wear hard hats, safety glasses, and safety shoes. Lift area will be designated with barricades, anyone entering will be required to have the designated PPE.

When there is a possibility of falling debris from overhead work the area will be designated by barricades informing the staff of overhead work. Anyone having to enter that area will be required to wear a hard hat and safety glasses.

PPE requirements and types are determined by the Safety Engineer, Management, Safety Committee and individual request.

PPE is defined as a safety item and must be approved by the Safety Engineer within the ATOM purchasing process.

PPE must meet OSHA or ANSI standards and marked appropriately.

I. NFAC Site Management shall:
   1. Ensure the workplace is assessed to identify hazards that could cause injury to employees and visitors.
   2. Determine with NFAC Safety Engineer the appropriate PPE requirements for each area.
   3. Maintain adequate and appropriate type of PPE to the workforce.
   4. Develop and enforce PPE usage via the SOPs and Work Orders.
   5. Ensure all personnel are trained in the proper selection, wear and care of the PPE they are required to use.

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II. NFAC Supervisors and Test Directors shall:

1. Evaluate work areas and task to determine if conditions require PPE beyond the minimum.
2. Ensure all hazards are identified on a continuing base and all employees are advised of PPE related to the work activities.
3. Remove unserviceable PPE from service immediately.

III. NFAC Safety Engineer shall:

1. Evaluate work areas to determine if physical conditions or work processes exist which could cause injuries; make recommendations for appropriate PPE selection.
2. Coordinate with the Operating Contract for prescription safety glasses and safety shoes.

IV. NFAC Staff

1. Comply with all policies, procedures, and signage on the use, inspection, care, and repair of PPE.
2. Report to work with appropriate PPE and wear it correctly when working in PPE-required areas.
3. Make no unauthorized modifications to any PPE.
4. Properly clean and maintain all PPE provided.
5. Notify supervisor of damaged or unserviceable PPE.
6. Comply with all policies and procedures on the purchase of PPE.