

MAPP

CONSTRUCTION

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PERSONAL PROTECTIVE EQUIPMENT (PPE)	
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<u>Rev Date</u>	<u>Rev #</u>	<u>Description</u>	<u>Revised By</u>
04/25/2014	1	Reformat, add hi-visibility vest/shirt requirement.	A. Holland

I. PURPOSE AND SCOPE

A. The purpose of this health, safety and environment policy is to establish the minimum requirements for assessing workplace hazards and establishing PPE requirements for those hazards.

B. This policy applies to all persons entering into or engaged in work in areas covered by the MAPP HSE Manual.

II. RESPONSIBILITY

A. HSE policy implementation responsibilities are stated in HSE40-001, HSE Roles and Responsibilities. Additional management, employee, and subcontractor responsibilities are stated in individual procedures that address responsibilities specific to the HSE topic.

III. DEFINITIONS

A. PPE – Personal Protective Equipment - Personal protective equipment is any equipment or clothing intended to be worn or held by a person at work, which affords protection against one or more risk to health or safety.

IV. GENERAL PPE RULES

A. The purpose of personal protective equipment is to reduce employee exposure to hazards when engineering and administrative controls are not feasible or effective to sufficiently remove these risks to acceptable levels.

B. PPE is needed when there are hazards present in a work task.

C. PPE has the serious limitation that it does not eliminate the hazard at the source and may result in employees being exposed to the hazard if the equipment fails.

D. PPE shall be provided, used, and maintained in a reliable and sanitary condition.

E. Where employees provide their own PPE, site management shall be notified and ensure its adequacy and meets all MAPP requirements.

F. Examples of PPE commonly provided by employees would be those of a personal nature which could be used away from the worksite, such as non-specialty safety glasses, safety shoes, and cold weather outer wear.

G. Damaged or defective PPE shall not be used and should be removed from the project immediately upon identification.

H. The American National Standards Institute (ANSI) establishes design and performance criteria for most PPE utilized by employees. All PPE worn by employees shall meet any applicable ANSI standards.

V. STANDARD MAPP PPE REQUIREMENTS

A. The following PPE requirements are applicable to all persons in construction areas on MAPP sites throughout the entire duration of any work; including workers, clients, visitors, drivers, and vendors.

B. Head Protection

1. Approved hard hats include both plastic and fiberglass hats that meet ANSI Z89.1 standards for Type 1, or Type 2, and Class A or Class B shall be worn at all times while in construction areas. This includes by welders when using welding hoods.

2. Metal hard hats (Class C) or bump caps are not approved head protection.

3. Hard hats should not be painted, defaced, or reshaped in any way.

4. No holes or penetrations shall be made in the shell of a hat.

5. Personnel shall not remove the suspension straps or cut/alter them in any way

6. All hard hats should be worn forward facing unless designed by the manufacturer to be worn alternatively.

7. Electrical subcontract workers exposed to currents in excess of 2,000 volts shall be limited to Class B hard hats only.

8. Employees are required to inspect head protection prior to use to ensure that the equipment is in safe condition. Equipment that is defective or damaged shall not be used and immediately replaced. Inspect for:

- a) Dents,
- b) Cracks,
- c) Suspension connector cracks,
- d) Torn, loose, or worn suspension straps, and
- e) Cleanliness/sanitation. Head protection should be clean and not contaminated with oil, grease, chemicals, etc.

C. Hi-Visibility vests or shirt shall be worn while in construction areas by all persons.

1. The high-visibility article shall be worn as an outer garment;
2. It must be worn to provide three hundred sixty degrees of visibility around the employee.
3. Any worker that is performing duties in close proximity to moving vehicles or near roadways must wear high-visibility clothing that meets or exceeds ANSI 107-2010 specifications.

D. Hearing Protection

1. When feasible engineering and administrative controls fail to reduce sound levels, and sound levels exist above the OSHA permissible exposure limits [85 dBA on a time weighted average]; approved hearing protection equipment must be worn by employees.
2. Hearing protection shall be worn when noise exposure exceeds 85 dBA such as high noise producing tasks to include operating tools such as jackhammers, impact wrenches, etc. , or when working near tools or equipment that produce high noise.
3. Hearing protection can be in the form of ear plugs (with the appropriate Noise Reduction Rating NRR), ear muffs, or the use of both.
4. It must be established that each protector selected will provide an effective noise reduction below the OSHA PEL.
5. Noise Reduction Rating (NRR) is printed on the box or package of all approved hearing protectors. In general, earplugs can reduce noise reaching the ear by 25 to 30 decibels. Earmuffs can reduce noise 20 to 25 decibels.
6. Wearing double hearing protection (ear plugs and ear muffs simultaneously) can give 3 to 5 decibels more protection than wearing plugs alone.
7. See Figure 1 below for a list of common work tasks that require hearing protection.
8. Employees must inspect their hearing protectors prior to use.
 - a) Any hearing protector found to be defective shall be repaired or replaced immediately.
 - b) Any hearing protector found to be soiled or unsanitary shall be cleaned or replaced prior to use. It should be noted, inserting soiled or contaminated earplugs into the outer ear canal can result in ear irritations/infections.

E. Foot Protection

1. Sturdy leather work shoes or boots with defined heels shall be worn by all workers.
2. Soft shoes such as tennis shoe type shoes are not acceptable for the job site and their use is prohibited.
3. Safety hard-toe footwear (ANSI Z41.1, or equivalent) is strongly recommended for all personnel.
4. Special-purpose (crush resistant, chemical resistant, puncture resistant, and dielectric) footwear shall be used to provide protection from such hazards.
5. Personnel who perform tasks, which expose them to potential foot and/or leg injury hazards, e. g., work involving jackhammers, ground tampers, etc., shall wear additional foot and leg protection, such as metatarsal and shin guards.
6. Personnel shall be required to inspect foot protection prior to use to ensure that equipment is in good/safe condition and is free of snags, rips, tears, and holes.

- a) Defective or damaged foot protection shall be promptly replaced.

F. Eye & Face Protection

1. Safety glasses with rigid side shields (ANSI Z87.1, or equivalent) shall be considered the minimum protection and worn at all times when in construction areas. This includes under welding hoods.
2. Prescription eyewear worn on the jobsite must also be of approved ANSI Z87.1 lenses and side shields, or the individual shall wear equivalent designed eye protection over their prescription lenses.
3. Goggles compliant with ANSI Z87.1, of the correct type for the work task, should not be worn over safety glasses, unless designed for, because the goggle-to-face seal will be diminished.
4. A face shield which complies with ANSI Z-87.1 shall be worn to provide face protection to the employees from flying particles, splashes, or mist.
5. It must be noted that a face shield provides only protection to the face and eyes from direct impact objects, and additional eye protection must be worn in conjunction with a face shield; such as safety glasses or safety goggles.
6. A welding hood with a filtered lens shall be used to provide protection from injurious light radiations produced during electric arc welding.
7. Approved safety glasses with side shields and hard hats shall be worn in conjunction with the welding hood to ensure protection from popping hot slag when the hood is raised and overhead work exposures.
8. The use of darker tinted safety glasses indoors is prohibited.
9. Employees are required to inspect eye and face protection prior to use to ensure the equipment is in safe condition.
 - a) Eye and face protection which is defective or damaged shall not be used and immediately replaced.

G. Hand Protection

1. Personnel will be required to have available at all times, and don appropriate work gloves when performing a work task unless the gloves create a greater hazard for the employee.
2. Gloves, appropriate type for the hazard present, shall worn when hands are exposed to absorption of harmful substances, cuts and lacerations, abrasions, punctures, chemical burns, thermal burns, or harmful temperature extremes.
3. There is no one glove that can provide protection against all potential hand hazards. It is important to select the most appropriate glove for a specific application and to determine how long it can be worn and whether it can be reused.
4. Specific glove types should be identified in the pre work assessment and the daily task analysis.
5. Employees are required to inspect hand protection prior to use to ensure the equipment is in safe condition.
 - a) Hand protection, which is defective, worn, damaged or heavily contaminated shall not be used, and immediately replaced.

H. All persons exposed or potentially exposed to fall hazards shall comply with the MAPP Fall Protection Policy (**HSE39-001**). This policy states that anytime employees are working from an unprotected elevation of six feet or more, fall protection should be used. Working as stated above means while traveling, stationary, or at any time exposed to a fall from a surface not protected by approved handrails, guardrails or some other approved fall prevention system.

I. Other specialized PPE shall be worn when task specific hazards require such.

VI. WORK ATTIRE

A. Pants should fit properly and not have extreme bell bottoms, large cuffs, or excessively frayed bottoms.

- B.** Tank tops or sleeveless shirts are not allowed, four inch (4") sleeved shirts are required. Long sleeved shirts are required when performing task that requires more protection to the arm area such as grinding, burning, handling chemicals etc.
- C.** Neckties, gauntlet type gloves, and baggy, loose, or ragged clothing must not be worn around or when working with rotating or moving equipment.
- D.** The wearing of jewelry such as rings, watchbands, necklaces, earrings, or long scalp hair can cause or contribute to accidents, or interfere with prescribed PPE. Therefore, the wearer shall take the proper precautions. Loose, dangling jewelry will not be allowed. Site Management may require long hair to be tucked away or underneath the hard hat.
- E.** Any work clothing, which becomes heavily soiled, has visible accumulation of hydrocarbons or other flammable, combustible materials, or particulate matter must be changed.
- F.** Employees are required to inspect work attire prior to the start of a work task to ensure the attire is in safe condition.
 - 1. Work Attire which is defective, in unsafe condition, or damaged shall not be worn and immediately replaced.

VII. TRAINING

- A.** Employee Training on assigned PPE is required as a part of initial hiring orientation, when employee shows lack of understanding of PPE use, when PPE changes, and whenever new PPE is assigned to employees. Employees must be trained on
 - 1. When to use the equipment
 - 2. How to use the equipment,
 - 3. How to properly put on and wear,
 - 4. Limitations of the equipment, and
 - 5. Proper care, maintenance, useful life, and disposal of the equipment
- B.** The employee must demonstrate understanding of this training prior to being allowed to use the equipment. All training will be documented according to the MAPP safety meeting/training policy.

VIII. ASSESSMENTS

- A.** PPE task assessments are performed on routine job tasks to ensure that correct PPE is used for these tasks by all workers. Any non-routine task assessments are performed during pre-work analysis or task safety analysis.

IX. REFERENCE

- A.** 29 CFR 1926.95, Criteria for Personal Protective Equipment
- B.** 29 CFR 1910.132, Personal Protective Equipment General Requirements
- C.** ANSI Z-89.1, Personal Protective Helmets for Industrial Workers
- D.** ANSI Z-107, Standard for High Visibility Safety Apparel
- E.** ANSI Z-41, Protective Footwear
- F.** ANSI Z-87.1, American National Standard Practice for Occupational and Educational Eye and Face Protection
- G.** HSE39-001, MAPP Fall Protection Policy

Figure 1

Common Jobs and Equipment Requiring Hearing Protection

Evaluation of construction work tasks and equipment under general use has determined that hearing protection is normally required when employees are involved in the following tasks when employees are involved in the following equipment:

Task	Average Noise Level (dBA)	Task	Average Noise Level (dBA)
Pneumatic Chipping Hammers, Guns	102.9	Operating Bulldozer	100.2
Jackhammer	98.8	Front End Loader	94
Concrete Saws & Corer	100.4	Laying Metal Decking	99.6
Powder Actuated Tools	103	Demolition Activities	99.3
Electric & Pneumatic Grinding	99.7	Operating Scraper	101
Welding/Burning	94-96	Operating Manlift	96.7
Hand Power Saw	88.9	Pile Driving	108.7
Table/Stationary Saws	100.2	Concrete Mixer & Pumper	90
Chain Saws	109	Operating Forklift	93.4
Pneumatic Breaker & Chipper	105-109	Compressed Air Blower	103.8
Electric Drill	100.1	Impact Wrench	90.6
Crane (Derrick)	98.6	Crane (Mobile)	87
Hydraulic Hammer	105.1	Operating Excavator	94.8

This list is not all-inclusive and should only be used as a guide. If uncertain or information unavailable, actual decibel readings should be obtained by the performing contractor for work tasks. Operation of multiple noise sources in the same area, or reverberant noise (such as in a confined space), will result in higher noise levels.