



ADMINISTRATIVE DIRECTIVE

Title: **Personal Protective Equipment (PPE)**
Issuing Department: Town Manager's Safety Office
Effective Date: June 1, 2014
Approved: Gilbert Davidson, Town Manager
Type of Action: New

1.0 PURPOSE

This procedure has been established to provide employees with a uniform directive for the identification and use of Personal Protective Equipment (PPE). It will also provide direction for evaluating work areas for the purpose of identifying hazards that may cause injuries to workers. It is written in compliance with the Occupational Safety and Health Act Part 29 CFR 1910.132, 133, 135, 136 and 138.

2.0 DEPARTMENTS AFFECTED

All Town of Marana departments and employees.

3.0 REFERENCES

- 3.1 Occupational Safety and Health Administration (OSHA) Standard, 29 CFR 1910, Subpart I
- 3.2 A.R.S. § 23-401 et seq: Arizona Occupational Safety and Health Act
- 3.3 Town of Marana Administrative Directive: Uniforms
- 3.4 Town of Marana Personnel Policies and Procedures, Chapter 7, Safety and Health

4.0 DEFINITIONS

- 4.1 Job hazard assessment or analysis (JHA): A job hazard analysis is a technique that focuses on job tasks as a way to identify hazards before they occur. It focuses on the relationship between the worker, the task, the tools, and the work environment.
- 4.2 Personal protective equipment (PPE): Equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as gloves, foot and eye protection, protective hearing devices (earplugs, muffs), hard hats, respirators and full body suits.

5.0 POLICIES AND PROCEDURES

5.1 Education and Training. All departments/divisions will provide training to each employee who is required by this procedure to use PPE.

5.1.1 Employees shall be trained to understand at least the following:

5.1.1.1 When PPE is necessary

5.1.1.2 What PPE is necessary

5.1.1.3 How to properly don, doff, adjust and wear PPE

5.1.1.4 The limitations of the PPE

5.1.1.5 The proper care, maintenance, useful life and disposal of PPE

5.1.2 Supervisors are responsible for validating that an employee has demonstrated an understanding of the training specified above and the ability to use PPE properly before being allowed to perform work requiring the use of PPE.

5.1.3 When the supervisor has reason to believe that any affected employee who has already been trained does not have the understanding and skill required, the supervisor shall retrain the employee. Circumstances where retraining is required include, but are not limited to, situations where:

5.1.3.1 Changes in the workplace render previous training obsolete

5.1.3.2 Changes in the types of PPE to be used render previous training obsolete

5.1.3.3 An affected employee's knowledge or use of the assigned PPE is inadequate

5.1.4 Departments/divisions will verify that each affected employee has received and understands the required training through written documentation that contains the name of each employee trained, the date(s) of training, and the subject of training.

5.2 Eye and Face Protection.

5.2.1 Employees shall use appropriate eye and/or face protection when exposed to hazards from flying particles, molten metal, liquid chemicals, acidic or caustic liquids, chemical gases or vapors, or potentially damaging light radiation.

5.2.2 Each affected employee shall use eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (e.g. clip-on or slide-on shields) shall meet these requirements.

5.2.3 Each affected employee who wears prescription glasses while engaged in operations that involve eye hazards shall wear eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription glasses or the protective lenses.

5.2.4 Employees who wear prescription eye glasses and who may perform work on exposed, energized electrical systems shall wear only prescription eye glasses made from non-conductive material.

- 5.2.5 Employees who wear prescription glasses that are also required by JHA to wear respiratory protection may request a prescription lens kit for their respirator, from the department.
- 5.2.6 Eye and face PPE shall be distinctly marked to facilitate identification of the manufacturer.
- 5.2.7 Each affected employee shall use equipment with filter lenses that have a shade number appropriate for the work being performed to provide protection from injurious light radiation. (See Appendix B).
- 5.3 Head Protection. Each affected employee shall wear protective helmets when working in areas where there is a potential for injury to the head from falling objects. Protective helmets designed to reduce electrical shock hazard shall be worn by each such affected employee when near exposed electrical conductors that could contact the head.
- 5.4 Foot Protection. Each affected employee shall wear protective footwear when working in areas where there is a danger of foot injuries due to falling and rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards. Town employees should refer to Town of Marana Administrative Directive: Uniforms for further information regarding protective footwear.
- 5.5 Hand Protection. Where an employee's hands are exposed to hazards, such as those from skin absorption of harmful substances, chemical burns, thermal burns, or harmful temperature extremes, appropriate hand protection must be used. Hand protection shall be chosen based on the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.
- 5.6 Respiratory Protection. Where employees are required to perform tasks that could be hazardous to the respiratory system, proper respiratory protection must be worn.
- 5.7 Hearing Protection.
 - 5.7.1 Where employees are exposed to ambient noise, employees may wear hearing protection in the form of ear plugs or ear muffs.
 - 5.7.2 Where employees are exposed to noise from machinery or work process that approaches or exceeds the OSHA decibel threshold of 90db, employees shall be required to wear hearing protection while performing work in the area or while working or training on the process. The Town will post notice in work areas or notice on equipment stating "Hearing Protection Required in this Area."
 - 5.7.3 Where employees are exposed to noise exceeding the OSHA Permissible Exposure Limit (PEL) of 85 dB for the Time-weighted Average (TWA) over the work shift, employees shall be required to wear hearing protection at all times while working or training on the process. Employees required to wear hearing protection due to noise levels verified by noise monitoring conducted by an Industrial Hygienist approaching or over the OSHA PEL, shall be enrolled in the Town of Marana Hearing Conservation Program.

5.7.4 The Town shall train all affected employees on the requirement to wear hearing protection for specific tasks associated with the work process or in specific areas of work and shall inform the employee of the limitation of hearing protection.

6.0 RESPONSIBILITIES

- 6.1 The Safety Coordinator has overall responsibility for the Town's safety programs. The Safety Coordinator shall consult with the Town Manager regarding appropriate changes and amendments to this administrative directive.
- 6.2 Department Heads, managers and supervisors are responsible for ensuring that the requirements of this directive are fully implemented in their work areas.
- 6.3 Employees are responsible for attending all mandatory training classes, and understanding the policies and procedures outlined in this directive, as well as all Town health and safety procedures.
- 6.4 The Safety Coordinator and the Safety Committee are authorized to halt any operation of the Town where there is danger of serious personal injury.

7.0 ATTACHMENTS

- 7.1 Town of Marana – Job Hazard Assessment
- 7.2 Job Hazard Analysis – Personal Protective Equipment Assessment, Attachment A
- 7.3 Personnel & Administration, Uniform Administrative Directive, Attachment B
 - 7.3.1 <http://www.marana.com/DocumentCenter/Home/View/4318>

Job Hazard Assessment Job Title



Created Date: #/##/####
Revision Date: #/##/####

General Duties

Paste Job Description from Job Announcement

Training Matrix		
Required Core	Job Specific	Optional/Awareness
Hazard Communication	Blood Borne Pathogens	Back & Lifting Safety
Emergency Evacuation Plan	Cranes/ Lifts/ Rigging	Hot/ Cold Weather
Accident Reporting	Lockout/Tag out	Machine Guarding Safety
Hazard Recognition/Reporting	Hand & Power Tool Safety	Personal Protective Equipment
Portable Fire Extinguisher		Respirator Safety
Fleet Driver*		Slips, Trips & Falls
Forklift**		1 st Aid, CPR, AED

Required Core Training should be completed prior to initial employee job assignment, and shall be scheduled within 10 working days of assignment.

Note: Hazard Communication (OSHA Annual Refresher) and Blood borne Pathogens are required annual training.

Initial Job Specific training is conducted by the Department Safety Representative (unless marked with an asterisk) and should be completed prior to the employee performing an assigned task requiring specialized training and is required annually thereafter. Annual training for Job Specific disciplines is available from Central Safety Services Division of Human Resources.

*Fleet Driver – Required within 120 calendar days of employment – Repeat training every 3 years

**Forklift – Certification required before forklift operation - Repeat training every 3 years

Personal Protective Equipment (PPE)

Required

- Steel-Toed Boots
- Safety Glasses
- Hearing Attenuating Device
- Uniform Long Pants and Shirt

Optional

- Leather, Latex or Mechanic's Gloves
- Coveralls
- N95 Respirator
- Safety Vest
- Hard Hat
- Safety Sunglasses
- Safety Goggles/Shield
- Sunscreen
- Insect Repellant

Eyes**Hazards:**

Brake dust and debris particles

Sparks

Chemicals

Body fluids

Required Control:

Employees shall wear protective eyewear in the form of safety glasses while on the shop floor.

Employees shall wear safety glasses and a face shield during grinding activities.

Optional/Additional Protection:

None

Head**Hazards:**

Overhead equipment

Required Control:

Employees should wear a hard hat where overhead or traffic hazards are present.

Optional/Additional Protection:

None

Extremities**Hazards:**

Cuts/Abrasions

Chemicals

Pinch and crushing points on hand tools

Burns

Required Control:

Employees shall wear long pants to prevent cuts and abrasions or burns from chemicals.

Employees should wear coveralls when entering the refuse compartment of ESD vehicles.

Optional/Additional Protection:

Employees may wear mechanic or leather gloves while working within hot engines

Employee shall wear safety vest when exposed to traffic hazards.

Feet**Hazards:**

Traffic

Falling/rolling equipment or debris

Required Control:

Employees shall wear steel-toed boots with a compliant boot style with puncture/slip resistant soles at all times.

Optional/Additional Protection:

None

Lungs

Hazards:

Nuisance dust/dirt

Chemicals (Liquid)

Drug residue (Police vehicles)

Required Control:

None

Optional/Additional Protection:

Employees shall have the option for voluntary use of an N95 Respirator to reduce exposure to ambient dust and odors

Noise

Hazards:

Air hammer/grinder

Gas/Diesel engines

Required Control:

The use of a hearing-attenuating device such as ear plugs and/or ear muffs is mandatory where required by posting of notice

Optional/Additional Protection:

Employees shall have the option of utilizing a hearing attenuation device to reduce ambient noise

Musculoskeletal Injuries Due to Repetitive Motion and/or Lifting

Hazards:

Twisting motion of lower back

Stress of shoulder, knee, and/or elbow muscles/joints/tendons

Required Control:

Follow all guidelines and use proper lifting technique as trained

Optional/Additional Protection:

None

Heat Exposure

Hazards:

High sun exposure

High ambient temperature

Mandatory Control:

None

Optional/Additional Protection:

Employees should hydrate frequently with water

Employees should wear sunscreen, a wide brimmed hat (hardhat), a cloth to cover the neck, and protective eye wear that is tinted for additional UV protection (outdoor use only)

Insects and Animals

Hazards:

Insects

Mandatory Control: None

Optional/Additional Protection:

Employees may apply personal use insect repellent and use aerosol insecticides in emergency applications

Appendix A

Job Hazard Analysis Personal Protective Equipment Assessment

Department:		Date:			
Job Classification:		Evaluator:			
Area:	Department Safety Representative or Supervisor				
	Signature				
Eye Protection					
Hazards: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Impact/Flying Objects Heat Chemicals </td> <td style="width: 50%; vertical-align: top;"> Dusts Light/Radiation (Welding, Cutting, etc.) Other _____ </td> </tr> </table>				Impact/Flying Objects Heat Chemicals	Dusts Light/Radiation (Welding, Cutting, etc.) Other _____
Impact/Flying Objects Heat Chemicals	Dusts Light/Radiation (Welding, Cutting, etc.) Other _____				
Current PPE:					
Recommendations:					
Head					
Hazards: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Overhead Hazards Bump Hazard </td> <td style="width: 50%; vertical-align: top;"> Electrical Other _____ </td> </tr> </table>				Overhead Hazards Bump Hazard	Electrical Other _____
Overhead Hazards Bump Hazard	Electrical Other _____				
Current PPE:					
Recommendations:					
Hand and Arm					
Hazards: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Cut/Abrasion Heat/Cold Electrical Biological </td> <td style="width: 50%; vertical-align: top;"> Chemicals Liquid/Solid Corrosives Acid/Base Organic Solvent Other _____ </td> </tr> </table>				Cut/Abrasion Heat/Cold Electrical Biological	Chemicals Liquid/Solid Corrosives Acid/Base Organic Solvent Other _____
Cut/Abrasion Heat/Cold Electrical Biological	Chemicals Liquid/Solid Corrosives Acid/Base Organic Solvent Other _____				
Current PPE:					
Recommendations:					
Foot					

Hazards:		Impact Compression Water Heat Cold	Puncture Metatarsal (Top of Foot) Electrical/Grounding Chemical Other_____
Current PPE:			
Recommendations:			

Lungs

Hazards:		Particulate (Dust, Silica, etc.) Organic Vapor Pesticide	Gas (Carbon Monoxide, etc) IDLH (Oxygen Deficient, etc) Acid Gas Other_____
Current PPE:			
Recommendations:			

Noise

Hazards:		Continuous (>85db) Impact	Other_____
Current PPE:			
Recommendations:			

Other

Hazards:		Wet Conditions Chemical Exposure	Disposable Outerwear Heat/Cold Other_____
Current PPE:			
Recommendations:			

Appendix B

Recommended Welding Lens

Application	Base Metal Thickness (inches)	Recommended Shade Number
Arc Welding with 1/16", 3/32", 5/32" electrodes	1/8 to 1/4	10
3/16", 7/32", 1/4" electrodes	1/4 to 1	12
5/16", 3/8" electrodes	Over 1 inch	14
TIG* welding with non-ferrous 1/16", 3/32", 1/8", 5/32" electrodes	Up to 1/4 inch	11
TIG * welding with ferrous 1/16", 3/32", 1/8", 5/32" electrodes	Up to 1/4 inch	12
Soldering	All	2
Brazing	Up to 1/4	3 or 4
Light Cutting	Up to 1 inch	3 or 4
Medium Cutting	1 to 6 inches	4 or 5
Heaving Cutting	Over 6 inches	5 or 6
Gas Welding (light)	Up to 1/8 inch	4 or 5
Gas Welding (medium)	1/8 to 1/2 inch	5 or 6
Gas Welding (heavy)	Over 1/2 inch	6 or 8

- for MIG welding decrease shade by one

Appendix B (continued)

FILTER SHADES FOR WELDING AND CUTTING				
Operations	Electrode diameter, in.	Arc current, A	Minimum protective shade number	Recommended shade number
Shielded-metal-arc welding	< 3/32	< 60	7	-
	3/32-5/32	60-160	8	10
	5/32-1/4	160-250	10	12
	> 1/4	250-550	11	14
Gas-metal-arc and flux-cored-arc welding		< 60	7	-
		60-160	10	11
		160-250	10	12
		250-500	10	14
Gas-tungsten-arc welding		< 50	8	10
		50-150	8	12
		150-500	10	14
Air-carbon-arc welding	Light	< 500	10	12
	Heavy	500-1000	11	14
Plasma-arc welding		< 20	6	6-8
		20-100	8	10
		100-400	10	12
		400-800	11	14
Plasma-arc cutting	Light	< 300	8	9
	Medium	300-400	9	12
	Heavy	400-800	10	14
Torch brazing		-	3	3-4
Torch Soldering		-	2	2
Carbon arc welding		-	14	14

REVISION HISTORY

<i>REV</i>	<i>DESCRIPTION OF CHANGE</i>	<i>DATE</i>
OR	Original Release	6/1/14

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