

Environmental, Health & Safety

PERSONAL PROTECTIVE EQUIPMENT



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PURPOSE

The purpose of the Personal Protective Equipment section is to set forth the procedures for the use, care, and maintenance of personal protective equipment required to be used by employees for the prevention of injuries.

SCOPE

This program applies to all L.D. Docsa Associates, Inc. (LDD) employees. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers LDD employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

RESPONSIBILITIES

Safety Manager

- Assists in the selection of appropriate PPE. If a task exposes an
 employee to hazards which cannot be eliminated through
 engineering or administrative controls, the Safety Manager assists
 the supervisor and project manager to identify and select PPE
 suitable for the specific task performed, conditions present, and
 frequency and duration of exposure. Employees need to give
 feedback to the supervisor about the fit, comfort, and suitability of
 the PPE being selected. Employees are provided reasons for selection
 of PPE.
- Assists supervisor and site managers in assuring all PPE obtained meets regulatory and this procedure's requirements.
- Performs Worksite Hazard Assessments The hazard assessment must indicate a determination if hazards are present or are likely to be present, which necessitate the use of PPE. Sources of hazards include, but are not limited to: hazards from impact/motion,

high/low temperatures, chemicals, materials, radiation, falling objects, sharp objects, rolling or pinching objects, electrical hazards, and workplace layout. Certifies in writing the tasks evaluated, hazards found and PPE required to protect employees against hazards and ensures exposed employees are made aware of hazards and required PPE before they are assigned to the hazardous task. Certificate shall include certifier's name, signature, dates and identification of assessment documents.

Supervisors

- Assists in the selection of appropriate PPE. If a task exposes an
 employee to hazards which cannot be eliminated through
 engineering or administrative controls, the Safety Manager assists
 the supervisor and project manager to identify and select PPE
 suitable for the specific task performed, conditions present, and
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Employees

- Complying with the correct use and care of PPE.
- Reporting changes in exposure to hazardous conditions that might require a follow-up assessment of the task for PPE.
- Reporting and replacing defective or damaged PPE, which shall not be used.
- Wearing of required PPE is a condition of employment.

PROCEDURE

General

Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact. Defective PPE equipment must be discarded or removed from service.

Employee owned equipment is NOT permitted, except for safety toe footwear and prescription safety glasses. LDD is still responsible for the assurance of its adequacy, maintenance and sanitation of those two items.

All PPE issued shall be at no cost to the employee. All employees will know and follow the procedures outlined in this Program.

Eye Protection

Employees must use appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids or chemical gases or vapours. Eye and Face PPE must comply

with ANSI Standard Z87.1-2003 (Z87+), Occupational and Educational Personal Eye and Face Protective Devices.

Safety Glasses

Safety glasses, with side shields, that meet ANSI Z-87.1-2003 standards with "high Impact lenses" are required to be worn by all employees, subcontractors, and visitors while on LDD property, at all times, as described below:

- At field locations, in shops and warehouses, except in approved, designated, striped safety zones.
- In all yard work zones or by everyone when in the vicinity of loading or unloading equipment, performing mechanic or maintenance work, test stand operations, operating equipment such as forklifts, welding, or any type of work which has the potential to inflict an eye injury.
- In any office, restroom, or any other building while performing any type of work where a potential eye injury may be present.
- Visitors will be provided with visitor glasses. In the absence of approved prescription safety glasses, "Over the glass" type safety glasses or goggles, must be worn over the nonsafety glasses until approved prescription safety glasses are obtained.
- Workers assisting welders must wear absorbent safety glasses that protect the wearer from ultra-violet (UV) and/or infrared rays (IR).
- Dark shaded lens (sunglasses) darker than a # 1 shade is prohibited to be worn indoors unless welding or assisting a welder.
- A doctor must support "exceptions for medical reasons" in writing to exempt safety eyewear requirements.
- Safety glasses are not required:
 - Inside offices.
 - Parking lots when traveling from vehicles to and from office buildings by way of main doors that do not pass through shops.

Goggles

- Chemical splash proof goggles shall be worn when handling or mixing liquid chemicals, solvents, paints, etc., and/or as recommended on the Material Safety Data Sheet of the material being handled.
- Dust proof goggles shall be worn when blowing equipment down
 with air or while performing other jobs where safety glasses are not
 adequate to prevent airborne particles from entering the openings
 around the lenses and side shields.

Face Shields

Full face shields shall be worn over safety glasses when operating
hand held or stationery grinders with abrasive or wire wheels, while
chipping paint or concrete or, performing jobs where there is the
potential for flying objects striking the face and safety glasses or
goggles would not provide adequate protection.

Head Protection

Employees must wear protective helmets when working in areas where there is a potential for injury to the head from employee initiated impact or impact from falling or other moving objects. Helmets must comply with ANSI Standard Z89.1-1997 Class E, *American National Standard for Industrial Head Protection* for Type II head protection or be equally effective.

- Employees must wear protective helmets when working in areas where there is a potential for injury to the head from falling objects.
- Hardhats are to be worn at all field, shop and warehouse locations, or where deemed necessary as per each location's PPE Hazard Assessment.
- Hardhats will not be altered in any way.
- Do not paint or apply unauthorized stickers, name plates, etc.
- Do not drill, cut, bend, or apply heat.
- Do not alter the suspension system. H

- Hardhats will be inspected by the employee regularly for cracks, chips, scratches, signs of heat exposure (sun cracks), etc.
- Defective hardhats will be replaced immediately.
- Hardhats shall not be placed in rear windows of vehicles where they will be exposed to the sun or become projectiles during an accident.
- A supply of hardhats must be made available to visitors.
- LDD shall provide hardhats.
- Employees will be trained in the use, care and maintenance of head protection equipment.

Hearing Protection

Hearing protection is required to be worn by all employees, subcontractors, and visitors while in posted "High Noise" areas.

Warning signs will be posted in areas known or suspected to have noise levels exceeding 85 dBA either constantly or intermittently.

When signs are not posted, employees shall wear hearing protection when noise caused by machinery, tools, etc., prevents normal conversations to be heard clearly.

Rule of thumb: If you have to yell to be heard, hearing protection is required

Types

- Molded Inserts (ear plugs)
- Canal Caps (head band type)
- Muff, either headband or hard hat mounted Earmuffs and earplugs shall be provided to the employee in sizes and configurations that will be comfortable to the employee.

Care and Maintenance

- Inspect hearing protection prior to each use.
- Hearing protection must be kept clean to prevent ear infections.

- Most earplugs used today are disposable and must be discarded when they become dirty, greasy, or cracked.
- Earmuffs that have deteriorated foam inserts, cracked seals or are defective must be replaced.

Fit

- Due to individual differences, not everyone can wear the same type of hearing protection. A variety of styles may have to be tried before one is found to be comfortable and provide adequate protection.
- Employees shall be instructed how to obtain the proper fit.

Hand Protection

Gloves

- Gloves are required to be worn when performing work, which may expose the hands to extreme temperatures, cuts and abrasions, or exposure to chemicals.
- Welding: Welding gloves made of leather or other heat resistant materials shall be worn when performing arc welding or oxy/gas cutting.
- Chemical: Impervious (chemical resistant) gloves shall be worn when handling chemicals that specify gloves as personal protection equipment when handling.
- Refer to the specific chemical's Material Safety Data Sheet for the correct glove type.
- Persons assigned to working with chemicals, i.e., solvent vats, shall be issued their own individual gloves for hygiene purposes.
- Leather: Leather gloves should be worn when working with sharp materials or when handling rigging equipment.

- Cloth: Cloth gloves should be worn when handling objects or materials, which could cause blisters, splinters, cuts, etc.
- Heat Resistant: Heat resistant gloves shall be worn when handling hot bearings, races, or other materials or objects that have been heated beyond ambient temperatures.
- Insulated: Insulated gloves shall be worn to prevent frostbite in extreme cold climates.
- Glove Inspections
 - Gloves shall be inspected before each use for holes, tears, and worn areas.
 - Chemical gloves shall be periodically air tested for pinholes by twisting the cuff tightly, apply low air pressure to expand the glove, and then submersing in water to check for bubbles.
 - Defective gloves shall be discarded immediately. Exception: machinists are exempted from wearing gloves while working with rotating machinery.

Foot Protection

Safety footwear shall be worn by all employees with regularly assigned duties at field locations, in shops and warehouses.

- Office workers and visitors who enter these areas on an infrequent basis will not be required to wear foot protection provided they stay clear of the work being performed.
- If required to be in the close proximity of the work, the work will be stopped while visiting the area or safety footwear will be worn.
- Shops, Field Locations, Warehouses and Parts Departments: Leather or equivalent boots, either lace up or pull up, shall be worn.
- The boot must provide ankle protection and have soles designed to protect from punctures with defined heels for climbing ladders.

- Metatarsal guards will be worn when duties present a hazard of equipment or material crushing the foot.
- All safety footwear must meet ANSI Z41-1999 standards.
- Client locations may require safety footwear to be worn by everyone; check with the local supervisor for client requirements before visiting field locations.

Fall Protection

Personal fall protection is required when performing certain elevated jobs in excess of six feet. Consult the LDD Fall Protection Program.

Electrical Protection

Consult the LDD Electrical Safety Program.

Worksite Hazard Assessment

A written hazard assessment shall be performed by a certified person, complete with signature. During the hazard assessment a determination if hazards are present or are likely to be present, this necessitates the use of PPE. The following sample hazard sources will be identified:

- High or low temperatures; Chemical exposures (use MSDS for guidance)
- Flying particles, molten metal or other eye, face, or skin hazards
- Falling objects or potential for dropping objects; employee falling from a height of 6' or more
- Sharp objects; Rolling or pinching that could crush the hands or feet;
- Flectrical hazards

Where these hazards could cause injury to employees, personal protective equipment must be selected to substantially eliminate the injury potential. Employees will be notified for the selection and reason.

The results of this assessment shall be communicated to each affected employee and kept at the local office.

Selected/identified PPE shall be fitted to each affected employee. Fitting, including proper donning, doffing, clean and maintenance of PPE is addressed in the Training section. Exemptions for use of PPE must be supported by the PPE hazard assessment.

Monitoring

Supervisors and site managers monitor worksite tasks for changes in, or the introduction of new hazards. If new hazards are discovered, they advise the Safety Manager who then conducts a hazard assessment for appropriate PPE. The Safety Manager monitors the effectiveness of the PPE Procedure and makes recommendations to management to improve the procedure.

TRAINING

Employees who require or may need to wear PPE shall be properly trained and PPE must be fitted to each affected employee. Training shall include:

- When PPE is necessary.
- What PPE is necessary.
- How to properly don, doff, adjust and wear PPE.
- The limitations of PPE.
- Useful life and disposal of PPE.
- How to clean and maintain PPE in a sanitary and reliable condition.
- Reporting and replacing defective or damaged PPE, which shall NOT be used.

Retraining

Retraining is required when:

• The workplace changes, making the previous training obsolete.

The type of PPE changes.

When the employee demonstrates lack of use, improper use, or insufficient skill or understanding in PPE selection, necessity, use and limitations.

Documentation

Training shall be documented and records kept at the local office. The training certification shall include:

- Name of employee(s) trained;
- The dates of training; and
- The certification subject.

FORM EXAMPLES

PPE MATRIX

Jobsite:		
Location		
Superintdent		
KEY	: (D) = Depends on situation	(M) = Mandatory

* SUBJECT TO CHANGE BASED ON INDIVIDUAL JOBSITE HAZARD ASSESSMENT

(-) = Not Mandatory unless hazards become present

Protective Sleeves

Welding Jacket

Rubber Gloves



CATEGORY	EQUIPMENT	HAZARD	INSPECTION	MAINTENANCE	eld Tech	Suideelesno	dou	niume	ffke	Unter Conditions
Head Prote		TIALAND	INST ECTION	MATTERATICE	Ü	Ť	is.		å	5
	Hard Hat (Class G or E Only)	Striking Head or Falling Objects	Each use	Dispose	-	-	D	-	-	-
Eye and Fac	e Protection:									
	Safety Glasses w/ Shields	Objects Striking Eyes	Each use	Dispose	D	D	М	-	-	М
	Impact Vented Goggles	Small Particles in Eves	Each use	Dispose	-	-	D	-	-	D
	Chemical Splash Goggles	Chemicals or Oil in Eves	Each use	Dispose	D	D	D	-	-	-
Hearing Pro	tection:									
	Disposable Earplugs	Damage to Hearing (85 db)	Each use	Dispose	D	D	D	-	-	-
	Ear Muffs (w/Disposables)	Damage to Hearing (105 db)	Each use	Dispose	D	D	D	-	-	-
Personal Pr	otective Clothing:									
	Cold Weather Clothing	Cold Temperature	Each use	Clean & Repair	D	D	D	D	-	D
	Rainwear	Wet Body	Each use	Dispose	-	-	D	-	-	_

Foot Protection:									
Slip Resistant Footwaear	Injury to Body	Each use	Replace	М	М	М	-	-	-
Anti-Slip Cleats During Winter	Injury to Body	Each use	Dispose	М	М	М	-	-	М
Hand Protection:									
Anti-cut Gloves	Cuts	Each use	Dispose	М	D	М	-	-	-
Vinyl Disposable Gloves	Biohazardous Materials	Each use	Dispose	-	М	-	-	-	-
Heavy Duty Gloves	Injuries to Hands	Each use	Dispose	-	-	М	-	-	-
Cold Weather Gloves	Environ mental Exposure	Each use	Dispose	-	-	-	-	-	М

Each use

Each use

Each use

Dispose

Dispose

Clean & Repair

Biohazard ous

Hot Water Burns

Materials

D - D -

PPE ASSESSMENT CERTIFICATION Jobsite: Location: Work Environment: Date of Assessment: Completed by: FEET/LEGS Work activities, such as building maintenance, construction, demolition, food processing, foundry work, working outdoors, logging, plumbing, trenching, use of highly flammable materials, welding, etc.; describe: Work-related exposure to explosive atmospheres, explosives, exposed electrical wiring or components, heavy equipment, slippery surfaces, impact from objects, pinch points, crushing, slippery/wet surface, sharps injury, blood, chemical splash or penetration, extreme heat/cold, fall, etc.; describe; Can bazard be eliminated without the use of PPF? Yes No If no, use (Safety shoes or boots, leggings or chaps, foot-leg guards, etc.); describe: BODY/SKIN Work activities, such as battery charging, dip tank operations, fiberglass installation, sawing, etc.; describe: Work-related exposure to chemical splashes, extreme heat/cold, sharp or rough edges, etc.; describe: Can hazard be eliminated without the use of PPE? Yes No If no, use (Vest, Jacket, Coveralls, Body Suit, Apron, Raingear, Leathers, etc.); describe: BODY/WHOLE Work activities, such as building maintenance, construction, computer work, utility work, etc.; describe: Work-related exposure to heights, impact from flying or moving objects, sharps injury, blood, electrical discharge, hot metal, sparks, chemicals, water, slip/fall, etc.; describe: Can hazard be eliminated without the use of PPE? Yes Νo If no, use (Vest, Jacket, Coveralls, Body Suit, Apron, Raingear, Leathers, etc.); describe: LUNGS/RESPIRATORY Work activities, such as cleaning, mixing, painting, fiberglass, compressed air or gas operations, confined space, etc.; de scribe:

Work activities, such as generator, ventilation fans, motors, pneumatic equipment, conveyors, grinding, maching, saws, etc.; describe:

Work-related exposure to loud noises, loud work environment, noisy machines/tools, etc.; describe:

Work-related exposure to dust or particulate, toxic gas/vapor, chemical irritants, welding fume, asbestos, pesticides,

Can hazard be eliminated without the use of PPE?

Yes No

If no, use (Earmuffs, plugs, leather welding hood, etc.); describe:

If no, use (Safety shoes or boots, leggings or chaps, foot-leg guards, etc.); describe:

OTHER

Are there any other work related activities that are being reviewed?

If yes, describe activity, exposure item and PPE requirements:

oxygen deficiency, paint spray, etc.; describe:

Can hazard be eliminated without the use of PPE?

EARS/HEARING

Yes

No