Human Capital RISK & REWARD!



The Risk Management Learning Center

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Personal Protective Equipment

What is (PPE)personal protective equipment?

Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to serious workplace injuries and illnesses. These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. Personal protective equipment may include items such as gloves, safety glasses and shoes, earplugs or muffs, hard hats, respirators, or coveralls, vests and full body suits.

What can be done to ensure proper use of personal protective equipment?

All personal protective equipment should be of safe design and construction, and should be maintained in a clean and reliable fashion. It should fit well and be comfortable to wear, encouraging worker use. If the personal protective equipment does not fit properly, it can make the difference between being safely covered or dangerously exposed. When engineering, work practice, and administrative controls are not feasible or do not provide sufficient protection, employers must provide personal protective equipment to their workers and ensure its proper use.

Employers are also required to train each worker required to use personal protective equipment to know:

- When it is necessary
- What kind is necessary
- How to properly put it on, adjust, wear and take it off
- The limitations of the equipment
- Proper care, maintenance, useful life, and disposal of the equipment

If PPE is to be used, a PPE program should be implemented. This program should address the hazards present; the selection, maintenance, and use of PPE; the training of employees; and monitoring of the program to ensure its ongoing effectiveness.

Personal protective equipment is addressed in OSHA standards for <u>Construction</u>, <u>General Industry</u>, <u>Shipyard Employment</u>, <u>Marine Terminals</u>, and <u>Longshoring</u>. OSHA requires that many categories of personal protective equipment meet or be equivalent to standards developed by the American National Standards Institute (ANSI).

Click "Ctrl" and blue text to access additional information

Highlights

"NEW" Nail Gun Safety. OSHA, (2013).

Eye and Face Protection. OSHA eTool. Provides a comprehensive hazard assessment, information about selecting protective devices for the workplace, as well as OSHA requirements.

Respiratory Protection. OSHA eTool. Provides information on the development of respirator cartridge change schedules. Addresses respirator selection and other requirements of the standard.

Related Safety and Health Topics

Eye and Face Protection

Fall Protection

Respiratory Protection

Click "Ctrl" and blue text to access additional information







Safety Pays!

Source: https://www.osha.gov/SLTC/personalprotectiveequipment/index.html

"Reducing Workers' Compensation premiums one claim at a time"

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OSHA FactSheet

Personal Protective Equipment

Personal protective equipment, or PPE, is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. Besides face shields, safety glasses, hard hats, and safety shoes, protective equipment includes a variety of devices and garments such as goggles, coveralls, gloves, vests, earplugs, and respirators.

Employer Responsibilities

OSHA's primary personal protective equipment standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and equivalent regulations in states with OSHAapproved state plans, but you can find protective equipment requirements elsewhere in the General Industry Standards. For example, 29 CFR 1910.156, OSHA's Fire Brigades Standard, has requirements for firefighting gear. In addition, 29 CFR 1926.95-106 covers the construction industry. OSHA's general personal protective equipment requirements mandate that employers conduct a hazard assessment of their workplaces to determine what hazards are present that require the use of protective equipment, provide workers with appropriate protective equipment, and require them to use and maintain it in sanitary and reliable condition.

Using personal protective equipment is often essential, but it is generally the last line of defense after engineering controls, work practices, and administrative controls. Engineering controls involve physically changing a machine or work environment. Administrative controls involve changing how or when workers do their jobs, such as scheduling work and rotating workers to reduce exposures. Work practices involve training workers how to perform tasks in ways that reduce their exposure to workplace hazards.

As an employer, you must assess your workplace to determine if hazards are present that require the use of personal protective equipment. If such hazards are present, you must select protective equipment and require workers to use it, communicate your protective equipment selection decisions to your workers, and select personal protective equipment that properly fits your workers. You must also train workers who are required to wear personal protective equipment on how to do the following:

- Use protective equipment properly,
- Be aware of when personal protective equipment is necessary,
- Know what kind of protective equipment is necessary,
- Understand the limitations of personal protective equipment in protecting workers from injury,
- Put on, adjust, wear, and take off personal protective equipment, and
- Maintain protective equipment properly.

Protection from Head Injuries

Hard hats can protect your workers from head impact, penetration injuries, and electrical injuries such as those caused by falling or flying objects, fixed objects, or contact with electrical conductors. Also, OSHA regulations require employers to ensure that workers cover and protect long hair to prevent it from getting caught in machine parts such as belts and chains.

Protection from Foot and Leg Injuries

In addition to foot guards and safety shoes, leggings (e.g., leather, aluminized rayon, or otherappropriate material) can help prevent injuries by protecting workers from hazards such as falling or rolling objects, sharp objects, wet and slippery surfaces, molten metals, hot surfaces, and electrical hazards.

Protection from Eye and Face Injuries

Besides spectacles and goggles, personal protective equipment such as special helmets or shields, spectacles with side shields, and faceshields can protect workers from the hazards of flying fragments, large chips, hot sparks, optical radiation, splashes from molten metals, as well as objects, particles, sand, dirt, mists, dusts, and glare.

Protection from Hearing Loss

Wearing earplugs or earmuffs can help prevent damage to hearing. Exposure to high noise levels can cause irreversible hearing loss or impairment as well as physical and psychological stress. Earplugs made from foam, waxed cotton, or fiberglass wool are self-forming and usually fit well. A professional should fit your workers individually for molded or preformed earplugs. Clean earplugs regularly, and replace those you cannot clean.

Protection from Hand Injuries

Workers exposed to harmful substances through skin absorption, severe cuts or lacerations, severe abrasions, chemical burns, thermal burns, and harmful temperature extremes will benefit from hand protection.

Protection from Body Injury

In some cases workers must shield most or all of their bodies against hazards in the work-place, such as exposure to heat and radiation as well as hot metals, scalding liquids, body fluids, hazardous materials or waste, and other hazards. In addition to fire-retardant wool and fireretardant cotton, materials used in whole-body personal protective equipment include rubber, leather, synthetics, and plastic.

When to Wear Respiratory Protection

When engineering controls are not feasible, workers must use appropriate respirators to protect against adverse health effects caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. Respirators generally cover the nose and mouth or the entire face or head and help prevent illness and injury. A proper fit is essential, however, for respirators to be effective. Required respirators must be NIOSH-approved and medical evaluation and training must be provided before use.

Additional Information

For additional information concerning protective equipment view the publication, Assessing the Need for Personal Protective Equipment: A Guide for Small Business Employers (OSHA 3151) available on OSHA's web site at www. osha. gov. For more information about personal protective equipment in the construction industry, visit www.osha-slc.gov/SLTC/constructionppe/ index.html.

Contacting OSHA

To report an emergency, file a complaint or seek OSHA advice, assistance or products, call (800) 321-OSHA or contact your nearest OSHA regional or area office.

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For more complete information:



U.S. Department of Labor www.osha.gov (800) 321-OSHA

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Personal Protective Equipment

For General Industries



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Safety-Related Personal Protective Equipment General Industry

Introduction

Hazards exist in every workplace in many different forms: sharp edges, falling objects, flying sparks, chemicals, noise and a myriad of other potentially dangerous situations.

Controlling a hazard at its source is the best way to protect employees. When engineering, work practice and administrative controls can't protect employees, employers must provide personal protective equipment (PPE) to their employees and ensure its use. PPE is equipment worn to minimize exposure to a variety of hazards.

This guide will help both employers and employees do the following:

- Understand the types of PPE.
- Know the basics of conducting a "hazard assessment" of the workplace.
- Select appropriate PPE for a variety of circumstances.
- Understand what kind of training is needed in the proper use and care of PPE.

The information in this guide is general in nature and does not address all workplace hazards or PPE requirements. The information, methods and procedures are based on the MIOSHA requirements for PPE as set forth in Part 33. Personal Protective Equipment and Part 380. Noise Exposure.

The Requirements for $\mbox{\sc PPE}-\mbox{\sc A}$ Checklist

To ensure the greatest possible protection for employees in the workplace, the cooperative efforts of both employers and employees will help in establishing and maintaining a safe and healthy work environment.

In gen	eral, employers are responsible for:
	Performing a "hazard assessment" of the workplace to identify and control hazards.
	Certifying, in writing, completion of a hazard assessment.
	Identifying and providing appropriate PPE for employees.
	Training and retraining employees in the use and care of the PPE.
	Maintaining PPE, including replacing worn or damaged PPE. Periodically reviewing, updating and evaluating the effectiveness of the PPE program.
In gen	eral, employees should:
	Properly wear PPE,
	Attend training sessions on PPE,
	Care for, clean and maintain PPE, and Inform a supervisor/manager of the need to repair or replace PPE.

Hazard Assessment And Equipment Selection (3308)

1. **Conduct a workplace survey**. Conduct a walk-through survey to identify sources of hazards to feet, head, eyes and face of workers. Reassess whenever a new hazard is introduced into the workplace.

Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the *highest level* of each of the hazards should be provided.

Sources

During the walk-through survey, observe:

- a. Sources of *impact/motion*; i.e., machinery or processes where any movement of tools, machine elements or particles could exist or movement of personnel that could result in collision with stationary objects;
- b. Sources of *high temperatures* that could result in burns, eye injury or ignition of protective equipment, etc.;
- c. Types of *chemical exposures*;
- d. Sources of *hazardous atmospheres*;
- e. Sources of *hazardous radiation*, i.e., welding, brazing, cutting, furnaces, heat treating, high intensity lights, etc.;
- f. Sources of *falling objects* or potential for dropping objects;
- g. Sources of *sharp objects* which might pierce the feet or cut hands;
- h. Sources of *rolling or pinching objects* which could crush the feet;
- i. Layout of the workplace and location of co-workers; and
- j. Any *electrical hazards*.
- 2. **Organize and analyze data**. When the walk-through is complete, the employer should organize and analyze the data so that it may be efficiently used in determining the proper types of PPE required at the worksite. The employer should become aware of the different types of PPE available and the levels of protection offered.
- 3. **Select Personal Protective Equipment**. Select PPE which ensures a level of protection greater than the minimum required to protect employees from the hazards. PPE that fits well and is comfortable to wear will encourage employee use.
- 4. **Fit the device**. If PPE does not fit properly, it can make the difference between being safely covered or dangerously exposed. It may not provide the level of protection desired and may discourage employee use.
- **5. Reassess hazards**. When new equipment and/or processes introduce hazards that might require revised PPE strategies.

PERSONAL PROTECTIVE EQUIPMENT HAZARD ASSESSMENT

Company Name:	ABC mfg	. Co.	Date of Ass	sessment: 2-29-2000
Company Name:	110 S. Mai	a St.	Lansing, h	I
Workplace Evaluated:	Production	Dept.	A	
Name of Person Comp	oleting Assessment:	Jim Jam	es Safety -	Diretor
Job Classification WORKSTATION	HAZARD SOURCE/TYPE	BODY PART AFFECTED	PPE REQUIRED YES/NO	TYPE of PPE REQUIRED
Assembler	Alving Particles	Eve	Ves	Safety 9 lasses
Dept.wide	Flying Particles Impact		`	w side
				Shields
	Parts/	Hand	Yes	gloves
	Equipment			(no revoluting
	Possible			Shafts 5
	Laceration			

Training Employees In The Proper Use Of PPE (3309)

Employers are required to train each employee who must use PPE. Employees must be trained to know at least the following:

- When PPE is necessary;
- What PPE is necessary;
- How to properly put on, take off, adjust and wear the PPE;
- The limitations of the PPE;
- Proper care, maintenance, useful life and disposal of PPE;
- Additional requirements when sharing PPE.

Employers should make sure that each employee **demonstrates** an understanding of the PPE training as well as the ability to properly wear and use PPE **before** they are allowed to perform work requiring the use of PPE. If an employer believes that a previously trained employee is not demonstrating the proper understanding and skill level in the use of PPE, that employee should receive **retraining**. Other situations that require additional or retraining of employees include changes in the workplace or in the type of required PPE that make prior training obsolete.

The employer must **document** the training of each employee required to wear or use PPE by preparing a certification containing the name of each employee trained, the date of training and a clear identification of the subject of the certification.

Note: See Appendix B1-B4 for sample assessment forms See Appendix A for sample certification letter

Sharing PPE (3313)

An employer may choose to provide one pair of protective eyewear for each position rather than individual eyewear for each employee. If this is done, the employer must make sure that employees disinfect shared protective eyewear after each use. Protective eyewear with corrective lenses may only be used by the employee for whom the corrective prescription was issued and may not be shared.

Eye And Face Protection (3312)

Employees can be exposed to a large number of hazards that pose danger to their eyes and face. MIOSHA required employers to ensure that employees have appropriate eye or face protection if they are exposed to front and/or side impact hazards from:

- Flying objects and particles;
- Molten metal;
- Liquid chemicals;
- Acids or caustic liquids;
- Chemical gases or vapors;
- Potentially infected material;
- Glare;
- Injurious radiation;
- Electrical flash.

Selection

Selecting the most suitable eye and face protection for employees should take into consideration the following elements:

- Ability to **protect** against specific workplace hazards;
- Should **fit** properly and be reasonably comfortable to wear;
- Should provide unrestricted vision and movement;
- Should be durable and cleanable;
- Should **allow** unrestricted functioning of any other required PPE.

The eye and face protection selected for employee use must clearly identify the manufacturer. Any new eye and face protective devices must comply with ANSI Z87.1-1989 or be at least as effective as this standard requires.

Welding Operations (3312(8))

The intense light associated with welding operations can cause serious and sometimes permanent eye damage if operators do not wear proper eye protection. The intensity of light or radiant energy produced by welding, cutting or brazing operations varies according to a number of factors including the task producing the light, the electrode size and arc current. Table 2 in Part 33. Personal Protective Equipment shows the minimum protective shades for a variety of welding, cutting and brazing operations in general industry.

Lenses (3353)

Lenses intended for use in eye protectors are of 4 basic types.

- Clear lenses which are impact-resisting and provide protection against flying objects. The use of tinted lenses for cosmetic purposes is not acceptable. Clear lenses must transmit not less than 89% of visible radiation. To wear a tinted lens that transmits less than 89%, a medical statement should be provided.
- **Absorptive lenses** of shades 1.7 through 3.0 which are impact-resisting and provide protection against flying objects and glare or which are impact-resisting and provide protection against flying objects, and narrowband spectral transmittance of injurious radiation. Shaded lenses greater than 3.0 should be worn when employees are exposed to injurious radiation as defined in the employer's hazard assessment and Table 2 of Part 33. Personal Protective Equipment.
- **Protective-corrective lenses** which are impact-resisting and either clear or absorptive, as specified for persons requiring visual correction.
- **Filter lenses** that are impact resisting and provide protection against flying objects and narrow-band spectral transmittance of injurious radiation.

Note: See Appendix C for PPE Training Certification

Note: See Appendix D for Sample Test used to demonstrate understanding

Head Protection (3370)

A head injury can impair an employee for life or can be fatal. Protecting employees from potential head injuries by wearing a safety helmet or hardhat is one of the easiest ways to protect an employee's head from injury.

Employers must ensure that their employees wear head protection if they are exposed to any of the following:

- Falling or flying objects;
- Other harmful contacts or exposures;
- Risk of injury from electrical shock;
- Chemicals;
- Temperature extremes;
- Hair entanglement.

Types of Hard Hats:

- Class A hard hats provide impact and penetration resistance along with limited voltage protection (up to 2,200 volts).
- Class B hard hats provide the highest level of protection against electrical hazards, with high-voltage shock and burn protection (up to 20,000 volts). They also provide protection from impact and penetration hazards by flying/falling objects.
- Class D protective hats provide limited voltage protection (fire fighters service helmets with full brim.)

In Michigan a **Class C** helmet or any metallic head device shall not be furnished by an employer or used by an employee for head protection, except where chemicals would deteriorate other types of protective or safety hats or caps.

Hair Enclosures (3378)

Where there is a danger of hair entanglement in moving machinery or equipment, or where there is exposure to means of ignition, a hat, cap or net shall be used. Hair enclosures shall be reasonably comfortable, completely enclose all loose hair, and be adjustable to accommodate all head sizes. Materials shall be fast dyed and non-irritating to the skin.

Cleaning and Inspection of Head Protection

- **Inspect** daily shell, suspension headgear, accessories for holes, cracks, tears, anything that compromises the protective value of the hat
- Consult manufacturer for proper cleaning procedures
- **Store** away from direct sunlight
- **Never** drill holes, paint, or apply labels, may **reduce** integrity of protection.
- **Remove and replace** if visible perforations, cracking or deformity of brim or shell. Loss of surface gloss, chalking or flaking.
- Remove if it sustains an impact, even if damage is not noticeable.

Foot and Leg Protection (3383)

Employees who face possible foot or leg injuries from falling or rolling objects or from crushing or penetrating materials should wear protective footwear. Also, employees whose work involves exposure to hot substances, corrosive, or poisonous materials must have protective gear to cover exposed body parts, including legs and feet. If an employee's feet may be exposed to electrical hazards, non-conductive footwear should be worn. On the other hand, workplace exposure to static electricity may necessitate the use of conductive footwear.

Examples of situations in which an employee should wear foot and/or leg protection include:

- When heavy objects such as barrels or tools might roll onto or fall on the employee's feet;
- Working with sharp objects such as nails or spikes that could pierce the soles or uppers of ordinary shoes;
- Exposure to molten metal that might splash on feet or legs (see Parts 42-Forging, 44-Foundries, and 45-Die Casting for specific requirements);
- Working on or around hot, wet or slippery surfaces; and
- Working when electrical hazards are present.

Foot and leg protection choices include the following:

- Safety shoes have impact-resistant toes and heat-resistant soles that protect the feet against hot work surfaces common in roofing, paving and hot metal industries. The metal insoles of some safety shoes protect against puncture sounds. Safety shoes may also be designed to be electrically conductive to prevent buildup of static electricity or non conductive to protect workers from workplace electrical hazards.
- **Leggings** protect the lower legs and feet from heat hazards such as molten metal or welding sparks.
- Metatarsal guards protect the instep from impact and compression.
- **Toe guards** fit over the toes of regular shoes to protect the toes from impact and compression hazards.

Hand And Arm Protection (3392)

Where potential injury to hands and arms cannot be eliminated through engineering and work practice controls, employers must ensure that employees wear appropriate protection. Potential hazards include:

- Skin absorption of harmful substances (look for 'skin' warning on MSDS);
- Chemical or thermal burns;
- Electrical dangers; and
- Bruises, abrasions, cuts, punctures.

Types of Protective Gloves

There are many types of gloves available today to protect against a wide variety of hazards. Following are examples of some factors that may influence the selection of protective gloves for a workplace:

- Types of chemicals handled;
- Nature of contact (total immersion, splash, etc.);
- Duration of contact;
- Area requiring protection (hand only, forearm, arm);
- Grip requirements (dry, wet, oily);
- Thermal protection;
- Size and comfort:
- Abrasion/resistance requirements.

Gloves made from a wide variety of materials are designed for many types of workplace hazards. In general, gloves fall into four groups:

- Gloves made of leather, canvas, or metal mesh;
- Fabric and coated fabric gloves;
- Chemical--and liquid--resistant gloves;
- Insulating rubber gloves (see 3385).

Care of Protective Gloves

- Inspect before each use (tears, punctures, anything making gloves ineffective, discoloration, stiffness);
- Discard if protective ability is impaired.

Safety Belts, Harnesses, Lifelines, And Lanyards (3390)

Unless protected by a perimeter guardrail or working on a portable ladder, the employee must be safe guarded by a safety harness secured to a lifeline or structure capable of sustaining the imposed load. However, there are conditions where the use of a harness and lanyard would be required along with a guardrail, such as in aerial lift or scaffold.

- If subjected to in-service loading, remove from service and don't use again;
- Safety belt and lanyard 4,000 pounds of tensile load;
- Lifeline secured above the employee's workplace to an anchorage or structural member withstand dead weight of 5,400 pounds;
- A lifeline at least ¾-inch manila rope or equivalent with not less than 5,400 footpounds breaking strength;
- A lanyard at least ½ inch nylon rope or equivalent;
- Free fall less than 6 feet or no contact with lower surface;
- Store equipment in clean, dry area and away from excessive heat and freezing.

Note: See Appendix E for PPE Assignment, Training and Fit List Form See Appendix F for PPE Policy

Certification of Safety-Related Personal Protective Equipment Hazard Assessment

*Or type of work for employees not assigned to a fixed location
ent certifies that the hazard assessment has been s required by MIOSHA General Industry Safety

Appendix A-2

Personal Protective Equipment Types

Face and Eye Protection	Welding Helmets	Head Protection
Spectacles w/no side shield	Burning Goggles	Helmets by Type:
Half side shield		Type 1: Full brim 1.25" side
Full side shield	Welding Helmets w/	Type 2: No brim, forward peak
Detachable side shield	Stationary window	
Non-removable lens	Lift front window	Helmets by Class:
Lift front	Hand held	
Headband temple		Class A – General service
		w/limited voltage protection
Cover goggles w/		
No ventilation	(See MIOSHA, General Industry	Class B – Utility service w/high
Indirect ventilation	Safety Standard, Part 33, Personal	voltage protection
Direct ventilation	Protective Equipment, Table 2)	Class C. Cassislassis
Cut accades w/		Class C – Special service
Cut goggles w/ Direct ventilation		No voltage protection
Indirect ventilation		Class D – Fire fighters full brim
muncet ventuation		w/ear flaps and chin strap
Face Shield		
(G. MOGNA G. AV.)		Hair enclosures
(See MIOSHA, General Industry		
Safety Standard Part 33, Personal		
Protective Equipment, Table 1)		
Foot and Leg	Electrical Protection*	Fall Protection
1 oot and Leg		
Safety shoes/boots w/	Insulating Blankets	Safety Belts*
Safety shoes/boots w/ Impact resistant toe	Insulating Blankets Matting	-
Safety shoes/boots w/ Impact resistant toe Metal insoles	Insulating Blankets Matting Covers	Safety Belts* Safety harnesses
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards	Insulating Blankets Matting Covers Line Hose	Safety harnesses
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant	Insulating Blankets Matting Covers Line Hose Gloves	-
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection	Insulating Blankets Matting Covers Line Hose Gloves Sleeves	Safety harnesses Lifelines
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces	Insulating Blankets Matting Covers Line Hose Gloves	Safety harnesses
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection	Insulating Blankets Matting Covers Line Hose Gloves Sleeves	Safety harnesses Lifelines
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick	Safety harnesses Lifelines Lanyards
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection Leggings	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick *Must be capable of withstanding	Safety harnesses Lifelines
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick *Must be capable of withstanding imposed voltage	Safety harnesses Lifelines Lanyards *No safety belts for fall protection
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection Leggings Molten metal and welding Arm and Hand Protection	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick *Must be capable of withstanding imposed voltage Body Protection	Safety harnesses Lifelines Lanyards *No safety belts for fall protection
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection Leggings Molten metal and welding Arm and Hand Protection Types:	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick *Must be capable of withstanding imposed voltage Body Protection Types:	Safety harnesses Lifelines Lanyards *No safety belts for fall protection
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection Leggings Molten metal and welding Arm and Hand Protection Types: Gloves	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick *Must be capable of withstanding imposed voltage Body Protection Types: Vests	Safety harnesses Lifelines Lanyards *No safety belts for fall protection
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection Leggings Molten metal and welding Arm and Hand Protection Types:	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick *Must be capable of withstanding imposed voltage Body Protection Types: Vests Jackets	Safety harnesses Lifelines Lanyards *No safety belts for fall protection
Safety shoes/boots w/ Impact resistant toe Metal insoles Metatarsal guards Chemical Resistant Electrical protection Wet slippery surfaces Cold weather protection Leggings Molten metal and welding Arm and Hand Protection Types: Gloves Hand Pads	Insulating Blankets Matting Covers Line Hose Gloves Sleeves Hot Stick *Must be capable of withstanding imposed voltage Body Protection Types: Vests	Safety harnesses Lifelines Lanyards *No safety belts for fall protection

PERSONAL PROTECTIVE EQUIPMENT HAZARD ASSESSMENT

Company Name:		Date of Assessment:				
Company Address: _						
Workplace Evaluate	ed:					
Name of Person Con	npleting Assessment:	·				
Job Classification WORKSTATION	HAZARD SOURCE/TYPE	BODY PART AFFECTED	PPE REQUIRED YES/NO	TYPE of PPE REQUIRED		

Personal Protective Equipment Hazard Assessment Certification

Area or Job being Assessed:

Assessed By:

Position/Title of Assessors:

Refer to: Table 1 and 2 of the General Industry Safety Standard part 33 on Personal Protective Equipment and all applicable Occupational Health Standards, for additional hazards and applications. For more information, contact General Industry Safety and Health Division at: (517)322-1831(State of MI # only).

Chemical Splash	Dust & Dirt Molten & Metal Electrical Glare	HAND HAZARDS (Part 33 Rules 3392 & 3387) Skin Absorption Punctures Severe cut or laceration hazard Chemical or Thermal burns Other:
Electrical	33 Rule 3370) Flying Objects Hair Entanglement Chemicals	FOOT HAZARDS (Part 33 Rule 3383) Flying Objects Logging Area Powered Lawn and/or equipment Other:
Torch Cutting	Velding Casting High Temp. Exposures	BODY HAZARDS (Part 33 Rule 3394) Wet Process area Chemical Buffing Sand Blasting Polishing Hot Liquids (water, grease, acids, etc.) Other:
HEARING HAZAR (Refer to Occupational Heal Forging Lo Tree Trimming Loud process and/or equipment Air & Electrical impact tools Other:	th Rules) paging	BREATHING HAZARDS (Refer to Occupational Health Rules) Spray Finishing Vapors Fumes Dust Welding Foundries Permit Required Confined Spaces Other:

Sample PPE Assessment and Certification Worksheet

(Note) This worksheet, or any other worksheet used to assess the worksite for PPE is not mandatory. However, certification that a PPE assessment has been completed is required by the PPE standard.)

Assessment conducted by:	Date:				
Task:	Department:				
Instructions					
 Conduct a Job Safety Analysis of the above task. List below the hazards found in the JSA. If engineering or management practices cannot eliminate the hazard Note: If you are not sure about appropriate PPE, consult your OR- 	rds or are not feasible, determine the appropriate PPE for each hazardOSHA consultant or insurer for assistance.				
Summary of Task Hazards and PPE Required					
Impact by:materialsequipmentobjectsco-workerother PPE required: (head, eye, foot, etc.) Contact with:Stationary objectmoving objectsharp object PPE required: (foot, head, etc.) Fall:from elevationto surfaceslippingtrippingother	other (describe)				
PPE required: (fall, restraint systems)	object stationary object rolling vehicle collapsing materials/cave-in				
other (describe) PPE Required: (hand, foot, etc.) Overexposure:	radiation. List dBA Temp F. gasses fibers biohazards other (describe) as dust mists vapors smoke gases radiation fibers				
Skin contact with: hot liquid molten metal sparks acids PPE required: (hand, foot, face, eye, clothing, etc.)	bases caustics poison other (describe)				
4. Reference the associated MSDS for each hazardous chemical us	sed and list the recommended PPE for that chemical.				
Contification	MSDS PPE:				
Certification					

Date

Signature

Sample PPE Walk Through Survey and Certification

Department:	Task:	Date:
	ards using the following criteria: (1) <i>Type of i</i> likely; and (3) Severity – death, serious injury	
1. Sources of motion -	- machinery, processes, tools, materials, people	e, etc.
Required PPE:		
2. Sources of high ten	aperatures – that could cause burns, ignition, i	njury to eyes, etc.
Required PPE:		
3. Sources of chemica	l exposure – splash, vapor, spray, immersion,	etc.
Required PPE:		
4. Sources of harmful	atmospheres – dust, fumes, gasses, mists, vap	pors, fibers, etc.
Required PPE:		
5. Sources of light rad	liation – welding, brazing, cutting, furnaces, h	neat treating, high intensity lights, etc.
Required PPE:		
6. Sources of falling o	<i>bjects</i> – materials, equipment, tools, etc.	
Required PPE:		
7. Sources of sharp ob	<i>njects</i> – which could pierce the skin – feet, han	ds, face, etc.
Required PPE:		
8. Sources of rolling of	or pinching that could crush – hands, feet.	
Required PPE:		
9. Layout of workplac	e and location of co-workers – adequate space	e for task.
Required PPE:		
10. Sources of contact	with electricity – wires, grounding.	
Required PPE:		

Date

Signature

Appendix C

PPE TRAINING CERTIFICATION

						,	Trained	in PPE		
Name	Date	Employee Number	Trainer	Eye & Face	Head	Foot & Leg	Hand & Arm	Body	Electrical	Fall
	_									
						-				

Sample Personal Protective Equipment (PPE) Test

(Supervisors should give this test after training the employee on the proper use and care of PPE. The supervisor should review the test and discuss any areas requiring additional training. When the supervisor is confident that the employee has an adequate knowledge and ability to properly use PPE associated with the job, the supervisor should certify training.)

1. List the type(s) of PPE required for your task.						
2. What are the hazards you are being protected ag	ainst for each type of PPE used in your job?					
3. Describe procedures for the use and care of the I	PPE you are using.					
4. What should you look for to determine if the PP	E you are using is in good working order?					
5. What actions do you take when your PPE becomes defective?						
Certi	fication					
I have personally trained and of PPE. I certify that he/she has adequate knowledge and ability to p	answered all questions pertaining to the proper use and care proper use and care for the PPE associated with his/her job.					
Supervisor's Signature	Date					
I have been adequately trained on the use and care of PPE to be used by me. My supervisor has answered all questions to my satisfaction and I understand he/she will be available for follow-up training if needed.						
Employee's Signature	Date					

PERSONAL PROTECTIVE EQUIPMENT ASSIGNMENT, TRAINING AND FIT-TEST FORM

All affected employees receive PPE training that includes when PPE is necessary; what PPE is necessary and why; how to wear PPE properly; PPE limitations and capabilities; and PPE care and maintenance. Each affected employee is fitted properly with the assigned PPE.

The following individual has been assigned PPE, has been fit-tested, and has received training.

Employee:	Training Date:
Name of Trainer:	
The following is a list of PPE assign identification numbers:	ted to this employee including the manufacturer, model and any
	gned the above named equipment, have had the opportunity to be aining. I also acknowledge that I understand the training that was
(Employee's Signature)	

PERSONAL PROTECTIVE EQUIPMENT POLICY FOR

(Name of Company)

PURPOSE

The purpose of this program is to protect the employees of (Insert name of Company) from the occupational hazards within the workplace by providing the proper personal protective equipment (PPE). It is the goal of the company to use engineering controls as the primary method for protecting employees. However, when additional protection is necessary, appropriate PPE will be worn. The scope of this program includes PPE for eye; face, head, foot, and hand protection. If respirators and/or hearing protection is necessary, their use will be covered by the Company's Respiratory Protection Program and the Hearing Conservation Program, respectively.

RESPONSIBILITY

The person responsible for coordinating this program is , (insert name or job title of responsible person). This person will ensure that hazard assessments are conducted, appropriate PPE is assigned, and affected employees receive training. The responsible person will also be in charge of maintaining the documentation for this program.

Department supervisors should advise the responsible person of changes in PPE requirements (e.g., new procedures/processes requiring different PPE; omission of a job/task). Additionally, supervisors should consult with the responsible person before purchasing any new PPE.

HAZARD ASSESSMENTS

Each job/task performed will be assessed to determine foot, head, eye, face, and hand hazards present and the proper PPE that should be worn. The assessments will include observation of the following sources of hazards:

- 1. **Impact**: Flying chips, objects, dirt, particles, collision, and motion hazards.
- 2. **Penetration**: Falling/dropping objects, sharp objects that cut or pierce.
- 3. **Compression**: Rollover or pinching.
- 4. **Chemical:** Splashing, burns, fumes.
- 5. **Temperature Extremes**: Sparks, splashes from molten materials, burns from high/low temperatures.
- 6. *Harmful Dust*: Dirt, particles, asbestos, lead.
- 7. **Light Radiation**: Welding, cutting brazing, lasers, furnaces, lights.

The attached Hazard Assessment Form will be completed for each job/task and will serve as certification that a hazard assessment has been performed.

The person conducting the hazard assessment will also survey jobs that are non-routine or periodic. In some cases these assessments may not be completed until the jobs are scheduled.

Hazard assessments will be updated/evaluated whenever conditions or procedures change.