Personal Protective Equipment (PPE)

Model Safety Plan from Liberty Mutual Insurance

This document will provide you with guidance in developing, establishing, or improving your own safety and health program. This material is intended only as a basis for you to develop your own safety program by giving you some procedures covering topics most employers must handle. You are free to modify or delete items to fit your needs.

This material is not all-inclusive and may not address special safety issues unique to your industry. This plan may not fulfill written or minimum performance standards of your state or federal regulations. Be certain that you evaluate any additional needs, related regulations, and your commitment to work-place safety. Solicit input from members of your workforce and management team in the development of this program. Remember, any written plan is only as good as your commitment to it.

Foreword

Developing a proactive safety and health program is one of the best ways to help you control your costs from workplace incidents of employee injuries and property damage. We are committed to assisting you by providing supporting materials and consultation designed to reduce your workplace exposures and develop controls. Working together, we can identify risk control strategies to benefit your business, your work force, and your bottom line. We can recommend solutions that will assist you in making a difference in workplace safety and health concerns.

Why Do You Need A Personal Protective Equipment (PPE) Safety Plan?

Here are some reasons to develop an effective safety and health program:

- Satisfy State and/or Federal regulations
- Communicate procedures for recording and reporting accidents and incidents
- Reduce your risk of liability
- Plan for the unexpected
- Reduce the costs and financial impact of lost-time injuries
- Establish base line expectations and safe work procedures/practices
- Give employees ownership in your program
- Provide a managerial reference guide
- Document management's commitment, responsibility, authority, and accountability for safe work performance
- Identify and reinforce safe work habits

Using this Material

This Model Safety Plan was developed as a set of best practices to help you enhance your current PPE program, or if you have no current plan, to provide you a base line from which to begin. You can implement these policies and procedures now or adjust existing programs to your company's needs. However, the most essential element is you and your commitment to making it happen.

You may adopt this plan as unchanged or edit as needed for your individual situation. It is designed to provide you with a better understanding of the primary elements necessary to build the foundation for a successful safety and health program.

This topic has been developed to provide employers with guidance on many of OSHA's expectations. However, we do not intend that these plans necessarily assure compliance with the related OSHA standard. Contact your local or regional OSHA office of the federal or state specific plan having jurisdiction.

Table of Contents

PPE: Purpose and Scope of Plan

Our company will provide personal protective equipment (PPE). When equipment is issued, it must be maintained in a sanitary and reliable condition to protect employees from workplace hazards. All personal equipment must be of safe design and construction for the work to be performed.

Defective or damaged personal protective equipment shall not be used. Each department supervisor should inspect PPE at regular intervals, or according to manufacturer's operating guidelines, to ensure that their assigned workers are cleaning and maintaining their equipment.

It is also important to ensure that contaminated PPE, which cannot be decontaminated, is disposed of in a manner that protects employees from exposures to hazards.

All Personal Protective Equipment

Devices must meet these minimum requirements:

- Provide adequate protection against the particular hazards for which they are designed
- Be reasonably comfortable when worn under the designated conditions
- Fit snugly without interfering with the movements or vision of the wearer
- Be durable
- Be capable of being disinfected
- Be easy to clean
- Be kept clean and in good repair
- Be capable of being stored in a sanitary condition when not in use
- Be distinctly marked to identify the manufacturer and, if applicable, the assigned employee for the PPE

As a general rule, everyone working in production or outside, when operations demand it, shall wear safety shoes and safety glasses. Visitors, outside contractors, and office personnel must wear safety glasses when in the production areas, the same as employees, if an area is designated as requiring protective eyewear.

Protective Footwear

Safety shoes should be sturdy and have an impact-resistant toe. In some shoes, metal insoles protect against puncture wounds. Metatarsal guards will be required in some types of jobs and exposures.

To protect feet and legs from falling or rolling objects, sharp objects, molten metal, hot surfaces, and wet slippery surfaces, workers will use appropriate foot guards, safety shoes, or boots and leggings.

Sandals and other types of open-toed shoes are not permitted in areas where biohazards or chemicals are present, due to the potential exposure to infectious agents or toxic materials, as well as physical injuries associated with the work.

Safety footwear is classified according to its ability to meet minimum requirements for both compression and impact tests. These requirements and testing procedures may be found in American National Standards Institute standards.

Safety Shoes/Boots

Safety shoes and boots must comply with ASTM International standards, F 2412, Test Methods for Foot Protection, and F 2413, Specification for Performance Requirements for Protective Footwear. When buying shoes boots from a suggested retail store, inform the sales person of these requirements. We will work through our procurement unit to help obtain the best product for protecting our workforce. Employees should contact _____ (facility or corporate safety coordinator or competent professional) to determine individual PPE footwear needs.

Protective Eyewear

Safety glasses, whether company issued or prescription, must comply with ANSI/ISEA Z87.1-2015. This standard applies to all eye and face protection. When buying prescription glasses, inform the supplier of these requirements. Clip-on side shields will only be allowed under the following circumstances and in the designated areas. List them here:

_____

_____

Side shields must be worn when working with any machine or related hazard. Bystanders will also be affected and must wear protective eyewear with side shields when at risk.

Persons whose vision requires the use of prescription lenses must wear either protective devices fitted with prescription lenses or protective devices designed to be worn over regular prescription eyewear. These persons are required to wear face shields, goggles or spectacles of one of the following types:

- Spectacles with protective lenses providing optical correction
- Goggles or face shields worn over corrective spectacles without disturbing the adjustment of the spectacles
- Goggles that incorporate corrective lenses mounted behind the protective lens
- Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment

Our plan will consider protective eyewear that incorporates corrective lenses in the event of contact lens failure or loss so that the worker will still be able to use the same protective eyewear effectively. Employees should contact _____ (facility or corporate safety coordinator or competent professional) to determine individual corrective PPE eyewear needs.

Our _____ (facility or corporate safety coordinator or competent professional), skilled in the procedure, will conduct goggle and safety spectacle fitting. Only qualified optical personnel will be authorized to fit prescription safety spectacles.

Always keep protective eyewear lenses clean. Continuous vision through dirty lenses can cause eyestrain; which is often a stated reason for not wearing protective eyewear. Daily inspection and cleaning of eye protection with soap and hot water or cleaning solution and tissue, is important. Goggles should be kept in a case when not in use.

Additional Requirements for Eye and Face Protection

Eye and face protection should be consistently used so that it protects the wearer from splash entry and still provides adequate ventilation.

- Tinted and shaded lenses are not filter lenses unless they are marked or identified as such. These must be approved and certified before use on the job, by the facility or corporate safety coordinator and supervisor.
- Protection from light radiation is directly related to filter lens density. Select the darkest shade that allows optimum task performance.
- Suitable eye protection must be provided where there is a potential for injury to the eyes or face from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially injurious light radiation or a combination of these.
- Caution should be exercised if using metal-frame protective devices in electrical hazard areas.
- Atmospheric conditions and the restricted ventilation of the protector can cause lenses to fog. Frequent cleansing may be necessary.
- Welding helmets or face shields should be used only over primary eye protection (spectacles or goggles). For severe exposure (i.e., grinding) use faces shield *and* safety glasses.
- 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 hazard *must* be provided. Protective devices do not provide unlimited protection.

Respiratory Protection

Anyone working in an area that requires a respirator shall be fit tested and trained for the required respirator. In addition, respirator wearers must have a current pulmonary function test indicating that he/she can wear a respirator. Other requirements outlined in OSHA and ANSI standards may affect the proper fit of the respirator.

For workers with facial hair, the effectiveness of a respirator is reduced; special equipment is available. Be certain that a positive seal exists before being exposed to the workplace hazard. Each worker must undergo a qualitative or quantitative fit test by _____ (safety coordinator or competent professional) and be certified to be released to the workplace with the PPE in use. Training and demonstrable use of the respirator is vital in this certification process.

Head Protection

All components, shells, suspensions, headbands, sweatbands, and any accessories should be visually inspected daily for signs of dents, cracks, penetration, or any other damage that might reduce the degree of safety originally provided.

If unusual conditions occur (such as higher or lower extreme temperatures than described in the standards), or if there are signs of abuse, alteration or mutilation of the helmet or any component, the margin of safety may be reduced. If damage is suspected, helmets should be replaced or representative samples tested in accordance with procedures contained in ANSI Z89.1-2014.

Helmets should not be stored or carried on the rear-window shelf of an automobile, since sunlight and extreme heat may adversely affect the degree of protection. Some manufacturers are equipping hard hats with UV damage indicators that inform a user when the helmet should be replaced based on extended exposure to sunlight.

Hearing Protection

Exposure to high noise levels can cause hearing loss or impairments as well as physical and psychological stress. We will contract with an auditory health professional that will individually fit persons who require specially designed or molded earplugs. When properly inserted, foam earplugs work as well as most molded earplugs. We prohibit the use of plain cotton inserts as this type of device provides no protection against hazardous noise.

Disposable earplugs are to be used one time and then thrown away. The non-disposable type should be cleaned after each use for proper protection.

Earmuffs need to make a perfect seal around the ear to be effective. Temples on glasses, long sideburns, long hair, and facial movements, such as chewing, can reduce the effectiveness of hearing protection devices.

Hand Protection

A number of factors need to be considered when choosing a glove for a particular application. In the initial selection process consider the following important points:

- Be aware of the toxic properties of the chemical or chemicals. In particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects should be known.
- Understand the work activities being undertaken. These must be studied and account taken of the degree of dexterity required, the duration, frequency and degree of chemical exposure and the physical stresses that will be applied.
- Suitable gloves shall be worn when hazards from chemicals, cuts, lacerations, abrasions, punctures, burns, biological agents, and harmful temperature extremes are present. Glove selection shall be based on performance characteristics of the gloves, conditions, duration of use and hazards present. One type of glove will not work in all situations.
- Read instructions and warnings on chemical container labels and Safety Data Sheets (SDS) before working with any chemical. Recommended glove types are often listed in the SDS section for personal protective equipment.
- The performance characteristics of the gloves should be assessed using standard test procedures. Characteristics to be considered include chemical, puncture, tear and abrasion resistance.
- During the hazard assessment, the work activities of the employees should be studied to determine the degree of dexterity required, the duration, frequency and degree of exposure to hazards and the physical stresses that will be applied.
- Request documentation from the manufacturer that the gloves meet the appropriate test standard(s) for the hazard(s) anticipated before making your final purchase. Work with our procurement department at _____ (location, phone number or email address) to help locate the correct choice for your needs.

Torso Protection

Many hazards can threaten the torso: heat, splashes from hot metals and liquids, impacts, cuts, acids, and radiation. A variety of protective clothing is available: vests, jackets, aprons, coveralls, and full body suits.

Primary hazards at our facilities include (list them below):

_____

_____

_____

Roles and Responsibilities

Supervisors

Supervisors have the primary responsibility for implementing the PPE Program in their work area. This involves:

- Providing appropriate PPE and making it available to employees
- Ensuring employees are trained on the proper use, care and cleaning of PPE
- Maintaining records on PPE assignments and training
- Supervising staff to ensure that the PPE program elements are followed and that employees properly use and care for PPE
- Seeking assistance from the Safety and Health Department to evaluate hazards
- Notifying the Safety and Health Department when new hazards are introduced or when processes are added or changed
- Ensuring that defective or damaged equipment is immediately replaced

Employees

The workforce has responsibilities for following the requirements of the PPE Program:

- Wearing PPE properly and as required
- Attending required training sessions
- Caring for, cleaning and maintaining PPE as required
- Informing the supervisor of the need to repair or replace specific PPE

Hazard Assessments

Per OSHA 29 CFR 1910.132, the supervisor and safety manager will formally assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of PPE.

If such hazards are present, or likely to be present, the safety manager shall:

- Select, and have each affected employee use the type of PPE that will protect them from the hazards identified in the hazard assessment
- Communicate selection decisions to each affected employee
- Select PPE that properly fits each affected employee.
- _____ (supervisor or safety manager) shall verify in writing that the required workplace hazard assessment has been performed. The documentation will identify the workplace evaluated, the hazard assessment date(s) and the name of the person certifying that the evaluation has been performed.

A PPE Hazard Assessment form is included in the Resources section. If no hazards exist to warrant the use of PPE, the assessment is still required to show that no risk exists. A copy must be filed with our facility or corporate safety coordinator and be revised when new hazards or processes are introduced that pose a threat to worker safety and health.

Training

The safety manager or coordinator shall provide training to each employee who is required to use PPE. Each employee shall be trained to know the following, at a minimum:

- When and what type of PPE is necessary
- How to properly don, doff, adjust and wear PPE
- Limitations of the PPE
- Proper care, maintenance, useful life and disposal of the PPE

Each affected employee shall demonstrate an understanding of the training specified in this section and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

When the company has reason to believe that any affected employee who has already been trained does not have the understanding of the skill as listed in this section, the company shall re-train such employee.

Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete
- Changes in the types of PPE to be used render previous training obsolete
- Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill

The compliance manager 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. A sample PPE Training Records form is included on page 12.

Safety Data Sheets (SDS)

Always refer to the SDS when working with chemicals to make certain that PPE is required. SDS are maintained in the safety coordinator's office and/or _____

Cleaning and Maintenance

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE should be inspected, cleaned and maintained at regular intervals so that the PPE provides the requisite protection. Personal protective equipment shall not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible. It is also important to ensure that contaminated PPE that cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

Sample Hazard Assessment for Personal Protective Equipment

(Use this form as a guide, and to customize to your organization's needs.)

COMPANY:	DEPARTMENT:	JOB TITLE:	DATE:
PERSONAL PROTECTIVE EQUIPMENT IN USE:			

TASK DESCRIPTION	BODY PARTS				HAZARD CATEGORY								
	Eye/Face	Head	Foot/Leg	Arm/Hand	Impact	Pierce	Compress	Chemical	Heat	Dust	Light	Electric	Biological
Personal Protective Equipment Recommended for this Job:													

Assessment performed by: _____ Date: _____

This form is a tool that may be used to collect data to determine if there are workplace hazards present that would require the use of personal protective equipment (PPE) on a given job. List each job task and then check off the body parts that could be affected by the hazards of this task and all of the hazard categories that apply. Once the data is collected, the hazards of the job must be assessed and appropriate PPE selected.

The following information from Appendix B of OSHA Personal Protective Equipment standard (CFR 1910.132) should be considered:

1. Controlling hazards

PPE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices.

2. Assessment and selection

It is necessary to consider certain general guidelines for assessing the foot, head, eye and face, and hand hazard situations that exist in an occupational or educational operation or process, and to match the protective devices to the particular hazard. It should be the responsibility of the safety officer to exercise common sense and appropriate expertise to accomplish these tasks.

3. Assessment guidelines.

In order to assess the need for PPE, the following steps should be taken:

a. Survey

Conduct a walk-through survey of the areas in question. The purpose of the survey is to identify sources of hazards to workers and co-workers. Consideration should be given to the basic hazard categories:

(a) Impact
(b) Penetration
(c) Compression (roll-over)
(d) Chemical
(e) Heat
(f) Harmful dust
(g) Light (optical) radiation
(h) Biological

b. Sources

During the walk-through survey, the safety officer should observe:

(a) sources of 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 harmful dust;
(e) sources of light 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 the hands;
(h) sources of rolling or pinching objects which could crush the feet;
(i) layout of workplace and location of co-workers; and
(j) electrical hazards. In addition, injury/accident data should be reviewed to help identify problem areas;
(k) biological hazards: blood or other potentially infectious material.

c. Organize data

Following the walk-through survey, it is necessary to organize the data and information for use in the assessment of hazards. The objective is to prepare for an analysis of the hazards in the environment to enable proper selection of protective equipment.

d. Analyze data

Having gathered and organized data on a workplace, an estimate of the potential for injuries should be made. Each of the basic hazards (paragraph 3.a.) should be reviewed and a determination made as to the type, level of risk, and seriousness of potential injury from each of the hazards found in the area. The possibility of exposure to several hazards simultaneously should be considered.

Sample PPE Action Plan

(Use this form as a guide, and to customize to your organization's needs.)

This plan can assist in identifying the steps of a PPE plan.

Goal

Comply with best safety practices. Assess hazards, certify PPE used in the workplace and provide complete risk protection for our workplace.

Primary Exposures

Injuries from impact, penetration, compression, chemical, heat, harmful dust, noise, light, etc.

Action Steps	By Whom	By When	Completed
Inventory processes, tasks or equipment that may expose workers to hazards of impact, penetration, compression, chemical, heat, harmful dust, noise, light, etc.			
Review SDS for hazard information. ▪ Hazard levels - physical and health hazards ▪ Exposure monitoring requirements (if any) ▪ Specific exposure concentrations (compared to OSHA PEL / ACGIH TLV) ▪ Exposure monitoring already accomplished ▪ Recommended engineering controls ▪ Recommended PPE			
Select and list the PPE that will protect affected employees; ensure it is in proper working condition.			
Communicate with affected employees the decision and circumstances requiring when selected PPE is to be used.			
Ensure that PPE properly fits affected employees.			
Train affected workers in at least the following: ▪ When PPE is necessary ▪ What PPE is necessary ▪ How to properly put on/take off, adjust and wear PPE ▪ How to maintain, care for and properly dispose of PPE ▪ Provide retraining when workplace changes render previous training or PPE selection obsolete; or adequate level of knowledge is not demonstrated			
Provide written hazard assessment certification identifying the workplace being evaluated and the persons certifying that the evaluation has been performed.			
Provide written training record certification containing the name of each employee trained, date trained and subject of the certification.			

Sample Hazard Assessment Certification

This form is optional.

Division: _____ Department: _____ Date: _____

SOURCE	DESCRIPTION	ASSESSMENT OF HAZARD	PROTECTION MEANS
IMPACT			
PENETRATION			
COMPRESSION (ROLL OVER)			
CHEMICAL			
HEAT			
HARMFUL DUST OR PARTICULATE			
LIGHT (OPTICAL) RADIATION			

Sample PPE Training Records

(Use this form as a guide, and to customize to your organization's needs.)

Employee Name: _____

Department: _____

Job Title: _____ Job Function: _____

Location: _____

Instructions: Check and date appropriate boxes for which training has been conducted and employee has demonstrated knowledge

Type		Date of Training
Eye Protection		
Foot Protection		
Hand Protection		
Head Protection		
Fall Protection		
Respiratory Protection		
Hearing Protection		
Other required by job (Specify type and date)		

I have received and understand what type of personal protective equipment is necessary as a part of my job. I understand when I am required to use PPE, and how to properly put on, take off, adjust and wear the personal protective equipment. I know and practice with the limitations of the personal protective equipment, and I will demonstrate proper care, maintenance and disposal of the personal protective equipment as this plan and procedures inform me to do so.

Employee Signature: _____ Date: _____

Person/Supervisor Certifying Training: _____ Date: _____

Company Safety Coordinator: _____ Date: _____

Occupational Health Professional: _____ Date: _____

Web Resources

Contact lens and PPE use:

http://www.acoem.org/guidelines.aspx?id=570

CDC / NIOSH Guide for Evaluating the Performance of Chemical Protective Clothing:

https://www.cdc.gov/niosh/docs/90-109/

CDC / NIOSH PPE Selection:

http://www.cdc.gov/niosh/topics/emres/ppe.html

OSHA PPE Information:

http://www.osha.gov/SLTC/personalprotectiveequipment

Eye and Face Protection:

http://www.osha.gov/SLTC/eyefaceprotection/index.html