PERSONAL PROTECTIVE EQUIPMENT SAFETY PROGRAM


BASIS: This safety program establishes the requirements to ensure protective equipment is provided, where required, to control job hazards and that procedures are implemented and communicated to all affected employees.

GENERAL: The company will ensure that appropriate protective equipment is provided, as required.
1. **Purpose.** Personal Protective Equipment (PPE) shall be used in areas where there is potential exposure to hazards which cannot be adequately controlled by elimination, substitution, engineering methods or administrative controls. PPE is to be considered the last line of defense against exposure to chemical hazards, radiation hazards, biological agents, temperature extremes, noise, electrical energy, mechanical forces, irritants, or projectiles which can produce injury or illness. This defines the required elements for implementing a Personal Protective Equipment (PPE) program.

1.1 Exclusions: PPE requirements for hearing conservation, fall protection, respiratory protection and eyewashes and safety shower programs are covered in separate, specific standards; PPE for electrical work is not fully covered within this document, but can be referenced within the Electrical Safety program. Back Belts and Wrist Braces used in mitigation of ergonomic disorders as part of an ergonomics evaluation are not considered PPE.

2. **Scope.** Applies to any area where specific control measures or Personal Protective Equipment is required or used by company employees. Job hazard analysis will be performed in areas where job or task activities may require an evaluation of hazard potential and a determination of protective controls prior to the implementation of Personal Protective Equipment Requirements.

3. **Responsibilities.**

3.1 Management:

3.1.1 Ensure that all jobs and tasks have been evaluated and hazards appropriately addressed. Where possible, hazards will be controlled before the use of PPE is implemented. Controls include:

3.1.1.1 Elimination of a product or process that generates the hazard,

3.1.1.2 Substitution of a non-hazardous or less-hazardous material or chemical,

3.1.1.3 Engineering methods such as ventilation or guarding, and

3.1.1.4 Administrative controls such as procedures or task rotation

3.1.2 Select the appropriate PPE to reduce or eliminate hazards, based on the types of tasks and activities performed at the company.

3.1.3 Write PPE use procedures for tasks or activities that require PPE, or include PPE requirements in existing work and task procedures.

3.1.4 Maintain PPE, or provide employees with the proper training and tools to maintain PPE used at the company.

3.1.5 Post signs, as required, to inform employees where PPE is required (e.g. aisles, machine shop areas, production areas or at entrances to buildings if entire facility requires use).
3.1.6 Provide appropriate protective equipment to visitors or other personnel, as needed or required.

3.1.7 At least annually, assess the needs for continued (or additional) PPE use and requirements. These assessments should be documented as proof that PPE is or is not required for certain tasks or activities. Documentation in the procedure is adequate to fulfill this need, however any specific testing or monitoring results will need to be documented and maintained separately.

3.2 Employees:

3.2.1 Follow established procedures

3.2.2 Maintain PPE, as required by this program

3.2.3 Assist in providing assessment and documentation of PPE requirements

3.2.4 Report concerns, issues or violations of this program to Supervisors or management.

3.3 Safety Officer (as needed or required):

3.3.1 Assist in hazard evaluation

3.3.2 Assist in the selection of PPE based on the hazards presented

3.3.3 Assist in the writing of PPE procedures, or in the inclusion of PPE requirements into existing procedures

3.3.4 Assist in the assessment and documentation of PPE needs for the company

4. Procedure.

4.1 Hazard Evaluation and Determination:

4.1.1 Ensure hazard assessments, proper selection of controls and equipment, and certifications of hazard assessments have been completed and documented. This hazard assessment must be documented on the Certification of Hazard Assessment Form, or an equivalent document.

4.1.1.1 PPE requirements must be documented. Although specific areas may have general PPE requirements (such as safety glasses or hard hats), it is recommended that you evaluate specific job tasks for hazards that may require additional or more stringent PPE use, and maintain the documentation associated with the assessment.

4.1.1.2 Hazard assessments shall be performed in all areas to identify hazards that require the use of PPE and specify the appropriate type and style of PPE for the job.
4.1.3 A hazard assessment must be completed before any non-routine task (task not evaluated as part of the current hazard assessments) is started and before changes are made to operating procedures and when incidents result from inadequate controls or PPE.

4.2 PPE Selection:

4.2.1 Obtain the appropriate PPE. Selected PPE may include: Eye and Face Protection; Hand and Arm Protection; Foot Protection; Head Protection; and Torso and Body Protection.

4.2.1.1 The type of PPE must protect against the hazards identified.

4.2.1.2 Selection decisions must be communicated to each affected employee.

4.2.1.3 Selected PPE must fit each affected employee.

4.3 Written Procedures:

4.3.1 PPE or control measures must be incorporated into the written standard operating procedures for the task or process. Where appropriate, include precautions to be taken when working around moving machinery (i.e. items such as long hair, neckties, jewelry, and loose or flowing clothing shall be appropriately restrained, confined, or removed to avoid entanglement).

4.4 Signs:

4.4.1 Signs will be posted, as needed or required to warn employees and other personnel when protective equipment is required.

4.4.2 Signs may read “Safety Glasses Required”; “DANGER – Eye/Face Hazard area – Do Not Enter Without Protective Equipment”; or “DANGER – Hard Hat Required Area” or similar language may be used.

4.5 Training:

4.5.1 Ensure employees have documented training in the requirements including: when needed, use, fit, care, maintenance, useful life, disposal, and limitations of PPE.

4.5.1.1 Employees must demonstrate their understanding of the training and ability to properly use PPE before performing work. This can be done at the time of training (quizzes, classroom discussion, etc.) or through demonstration of work practices in the workplace.

4.5.1.2 Retraining will be performed when changes to the workplace necessitate different equipment or when changes to the type/design of the PPE are made which require a new skill or knowledge for its successful use. Retraining will also be done when an employee exhibits a lack of understanding or skill to use the equipment properly. Retraining may also be required if an incident occurs involving PPE.
4.6 Documentation practices are maintained for the following items:

4.6.1 Training records must be maintained so that records exist to indicate:

4.6.1.1 What tasks or activities require training
4.6.1.2 Who has had training

4.6.2 Certificate of Hazard Assessment:

4.6.2.1 A Certificate of Hazard Assessment shall be completed as verification that a hazard assessment was performed for the facility. The "certification document" may be completed by job task or operation, for buildings, or for organizations. Supervisors or area management must verify that the required documentation is completed. If you do not use the provided form for this purpose, your documentation must specifically be identified as a "Certification of Hazard Assessment", and contain all the required elements (person certifying, date, location evaluated)

4.6.2.1.1 This certification shall be maintained in a designated location.

4.6.2.1.2 This certification shall be updated for changes to operating procedures, when the method of performing the job changes and/or when incident investigations determine those PPE modifications are necessary.

4.6.2.1.3 Other documentation is acceptable as certification (e.g., confined space permits or job health and safety programs written specifically for the task/operation that specifies the necessary PPE) provided they contain the required elements.

4.7 Access to and Maintenance of PPE:

4.7.1 Ensure adequate supplies, storage, and employee access to PPE when required for a specific work area or operation.

4.7.2 PPE must be maintained in a sanitary and reliable condition. Ensure that damaged or defective PPE is taken out of service and not used, and that contaminated clothing and PPE are disposed of or cleaned properly.

4.8 Change Management:

4.8.1 Notify management or safety representatives of changes or modifications to procedures which may require a reassessment of PPE use.
4.9 Annual Assessment:

4.9.1 Review and assess PPE needs and effectiveness, using the provided form or an equivalent assessment tool.

5. Safety Information.

5.1 PPE Selection Process:

5.1.1 Review sample, manufacturer information and pricing information. MSDS’s and/or chemical permeation data may also be required during committee review.

5.1.2 Determine if other appropriate information needs to be reviewed.

5.1.3 Determine if a pilot study is needed. This will be done to obtain user feedback on the item to determine potential concerns.

5.1.4 Review item after pilot study for final determination to use or not.

5.1.5 Submit manufacturer and pricing information to purchasing agent, or management, if use is approved.

5.1.6 For chemical protective clothing, manufacturer information is maintained by the company. For suits, gloves, apron, eyewear/goggles -- generic chemical permeation data (what the item is resistant to or not resistant to for general groupings of chemicals) will be maintained).

5.2 Types of PPE and Their Use(s):

5.2.1 Eye Protection:

5.2.1.1 General Application:

5.2.1.1.1 Only safety glasses and face protection meeting ANSI Z87.1 requirements shall be worn.

5.2.1.1.2 An optometrist or ophthalmologist may be required to conduct eye examinations and may issue prescription (or specialized fit prescription) safety glasses as appropriate to the needs of the employee. When side shields are required to be worn with prescription glasses, the employee is responsible for notifying the eye-care professional to ensure that the side shields are provided for specific frames.

5.2.1.1.3 While waiting for new prescription glasses, employees shall be provided "cover-all" safety eyewear that fits over prescription eyewear or be placed on a job which does not require eye protection.
5.2.1.4 Visitor-type safety glasses are for "visitors" or temporary use and should NOT be used for every-day eye protection.

5.2.1.2 Specialized Application

5.2.1.2.1 Tinted safety-glasses or lenses may be supplied for special circumstances (e.g. tinting for certain precision jobs in glare areas and outdoor work).

5.2.1.2.2 In special applications, such as welding or laser operations, helpers shall be protected to the same level as the operator.

5.2.1.2.3 Temporary personnel (those who enter an eye-protection area infrequently or for short periods of time) shall be supplied with non-prescription type safety glasses if they do not require prescription lenses or be supplied with cover-all eyewear to be worn over prescription glasses if necessary.

5.2.1.2.4 Individuals, who work on or near exposed electrically energized circuit parts, at 50 volts and above, shall wear non-conductive eyewear. Non-conductive eyewear is also necessary for individuals exposed to electrical burn hazards (e.g.: working on systems less than 50 volts, but with high current levels such as electroplating systems, large capacity batteries, etc.). Metal frame glasses are not permitted for these activities.

5.2.1.2.5 Where contact lenses are permitted, they shall be worn with required PPE appropriate to the exposure (e.g.: respiratory protection, welding helmets, etc.). As warranted, specific assessments of the work environment may be conducted by safety service providers to resolve concerns or questions. Safety non-prescription glasses shall be available to all wearers of contact lenses.

5.2.1.2.6 Employees shall wear appropriate eye or face protection (e.g.: goggles, face shields) when splash or other eye injury hazards exist. Hazards requiring such protection include, but are not limited to:

5.2.1.2.6.1 flying particles

5.2.1.2.6.2 molten metals

5.2.1.2.6.3 liquid chemicals

5.2.1.2.6.4 acids or caustic fumes or liquids
5.2.1.2.5 chemical gases or vapors

5.2.1.2.6 light radiation sources (e.g.: lasers, welding operations, ultraviolet light)

5.2.1.2.7 Eye and Face protection shall be cleaned and maintained in accordance with manufacturer's instructions.

5.2.2 Gloves and Hand Protection:

5.2.2.1 General:

5.2.2.1.1 Gloves, gauntlets, and protective sleeves are designed to protect the hands and arms of individuals who may be exposed to skin contact and/or absorption of chemical or biological agents, cuts or lacerations, abrasions, punctures, chemical burns, thermal burns, or harmful temperature extremes. Materials used in the manufacture of clothing must be resistant to the chemicals or materials being handled.

5.2.2.1.2 Safety or Industrial Hygiene representatives may arrange for chemical resistance tests when appropriate, provide for consultation on the types of protection available, and assist in determining appropriate protection.

5.2.2.1.3 Barrier creams shall not be used as protection against chemical contact, unless specifically approved by a medical professional.

5.2.2.1.4 Laundering of gloves used for chemical or biological protection is prohibited.

5.2.2.1.5 Jewelry should be removed before wearing gloves and washing hands.

5.2.2.1.6 Gloves shall be removed properly so as not to expose an unprotected hand or part of the arm.

5.2.2.1.7 After removing gloves, hands should be thoroughly washed with soap and water.

5.2.2.1.8 When sharing gloves, such as when using a glove box, disposable gloves should be used as a liner.

5.2.2.1.9 Cuff the ends of gloves when feasible.
5.2.2.1.10 Disposable style gloves used for splash protection shall be disposed of at the end of each working day, at a minimum. Chemical contact, signs of physical wear, or loss of glove integrity shall require more frequent disposal.

5.2.2.1.11 Gloves should be properly stored, away from sunlight, direct artificial light, and electrical equipment.

5.2.2.1.12 Lay the gloves flat and avoid temperature and humidity extremes during glove storage.

5.2.2 Latex Gloves:

5.2.2.2.1 Due to the increasing concerns with latex gloves and associated skin reactions, latex gloves may be selected based on latex content, protein content (usually <50ug/g) or other requirements based on employee needs. Gloves may be required to be powdered or powder-free, depending upon the needs of the business activities.

5.2.3 Foot Protection:

5.2.3.1 Where safety shoes and additional foot protection is required (over and above that provided by “normal footwear”) only foot protection meeting ANSI Z41 requirements shall be worn.

5.2.3.2 Waterproof, static dissipative (SD), electrostatic dissipative (ESD), electric hazard (EH), metatarsal protection, and rubber footwear where required will be available for purchase through designated company sources.

5.2.3.3 Where dissipation is required, such as in areas where quantities of flammable materials are handled, shoes should be SD rated. Non-conductive insoles may void the static dissipation properties. Safety shoe providers will verify SD properties.

5.2.3.4 Electricians should select EH rated shoes and/or use insulating mats when working on or near energized equipment.

5.2.3.5 Metatarsal Guards: Protectors for the metatarsal (top of foot) area are designed to provide additional protection against injury when handling heavy objects subject to falling or rolling.

5.2.3.6 Rubber footwear may be mandated by the nature of some operations.

5.2.3.6.1 Rubber shoe covers and boots, including boots with built-in steel toes.

5.2.3.6.2 Conductive rubbers must be used with SD rated shoes to maintain the static dissipating property.
5.2.3.6.3  Rubber overshoe footwear may be required.

5.2.3.7  Foot protection shall be cleaned and maintained in accordance with manufacturer's instructions.

5.2.3.8  Safety shoe conductivity meters need to be annually calibrated. Calibration is needed because the meters are powered by batteries which can display false values when the battery strength is low.

5.2.4  Head Protection (shall comply with ANSI Z89.1):

5.2.4.1  General:

5.2.4.1.1  Hard Hats are designed to provide protection against impact and penetration from falling objects. They also may provide protection against electrical shock and burns caused when coming in contact with energized parts. There are two types and three classes of hard hats. They type and class used or required at the facility or site will be documented based on the hazards.

5.2.4.1.2  Head protection shall be cleaned and maintained in accordance with manufacturer's instructions.

5.2.4.2  Other Types of Head Protection:

5.2.4.2.1  Bump Caps -- Provide protection from impact against stationary objects but do NOT protect against impact or penetration from falling objects or electrical shock hazards.

5.2.4.2.2  Welding Helmets -- Provide protection against ultraviolet, infrared, and visible radiation sources during welding operations.

5.2.4.2.3  Fire Fighting Helmets -- Provide protection from extreme heat encountered during a fire or similar conditions.

5.2.4.2.4  Hair Nets/Hats -- Protect employees from entanglement hazards (e.g. equipment with moving parts, etc.) This can be done with the use of hair restraining devices, such as hair nets, hats, etc.
5.2.5  Protective Clothing:

5.2.5.1  General:

5.2.5.1.1  Clothing such as suits, aprons, coveralls, coats, and pants are available to protect the torso and body of individuals who may be exposed to skin absorption of chemical or biological agents, cuts or lacerations, abrasions, punctures, chemical burns, thermal burns, or harmful temperature extremes. Materials used in the manufacture of such clothing must be matched in resistance to the chemicals or materials being handled.

5.2.5.1.2  Safety/Industrial Hygiene will arrange for chemical resistance tests when appropriate, provide for consultation on the types of protection available, and assist in determining appropriate protection.

5.2.5.1.3  See other documentation within this procedure for company policy on laundering of contaminated clothing.

5.2.5.2  Company provided clothing:

5.2.5.1.1  Laundering of company-issued work clothing shall be provided by the company to avoid the need for employees to launder clothing at home whenever there is a potential for chemical contamination such as asbestos, lead, cadmium, arsenic, sensitizers, etc.

6.  Training and Information.

6.1  Employees must be trained in the limitations, proper use, cleaning, storage and disposal practices for any PPE used in the workplace

7.  Definitions.

- **Personal Protective Equipment (PPE)** - Devices worn to protect employees from potential hazards encountered in the workplace.

- **Hazard Assessment** - An evaluation of the workplace to determine if hazards are present (or are likely to be present) which necessitate the use of PPE.

- **Certification of Hazard Assessment** - Certification that the Hazard Assessment has been conducted. This certificate must contain:
  - Identification of the workplace evaluated
  - Name of person(s) certifying that the evaluation has been performed
  - Date of assessment
8. **Summary.** Personal Protective Equipment (PPE) shall be used in areas where there is potential exposure to hazards which cannot be adequately controlled by elimination, substitution, engineering methods or administrative controls. PPE is to be considered the last line of defense against exposure to chemical hazards, radiation hazards, biological agents, temperature extremes, noise, electrical energy, mechanical forces, irritants, or projectiles which can produce injury or illness. This standard defines the required elements for implementing a Personal Protective Equipment (PPE) program.

8.1 **Exclusions:** PPE requirements for hearing conservation, fall protection, and respiratory protection programs are covered in separate, specific standards; PPE for electrical work is not covered within this procedure, but can be referenced within the Electrical Safety Standard. Back Belts and Wrist Braces used in mitigation of ergonomic disorders as part of an ergonomics evaluation are not considered PPE.

8.2 **Basic Responsibilities:**

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8.3.1 Employees must be trained in the proper use, cleaning, storage and disposal practices for any PPE used in the workplace.