

# Personal Protective Equipment

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### 1.0 SCOPE

This procedure applies to all Sikorsky locations. All sites shall follow all local applicable laws in addition to the requirements set forth in this procedure, which will be included in their local Environment, Safety & Health (ESH) management system. This procedure applies to employees and contingent non-employee contractors.

**Owning Function:** Environment, Safety and Health (ESH)

**Stakeholder Function(s):** All Sikorsky Functions

### 2.0 OVERVIEW

This document specifies the requirements for Personal Protection Equipment (PPE) and emergency eyewash and showers at all Sikorsky Aircraft operating units and locations. This is to ensure the protection of employees from occupational hazards to the body by providing a consistent approach to the management of PPE program elements.

For international sites, the more protective provisions of either the local performance standard or this procedure shall apply. If there is direct conflict between the local requirements and this procedure local standards shall apply.

### 3.0 IMPLEMENTATION REQUIREMENTS

Specific requirement on PPE will be established by an ESH professional after a review of the work conditions. Specific requirements can be more stringent than the general guidance if the ESH professional deems it necessary.

Specific requirements will be noted on a PPE Placard which will cover a designated work area. Employees will observe those requirements and are subject to disciplinary action should they be noted to be not in compliance with the required PPE to be used; or if they are using the PPE in a manner for which it was not designed or

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suited, not in accordance with regulation or policy, or not in accordance with the manufacturer's use instructions.

Other forms of PPE such as Respiratory, Hearing, Electrical, and Fall Protection, or that are required by Emergency Response activities are not covered in this document.

### **3.1 Eye Protection**

#### **3.1.1 General Requirements**

All employees, contractors, and visitors are required to wear safety glasses in all shop areas except limited areas identified as safety glasses not required (such as main aiseways identified, some tool cribs, etc.). Eye protection is required and documented on the posted PPE placards. Aisles and offices area do not normally require eye protection unless work is being performed in those areas that pose a reasonable risk injury from flying objects, obstructions, liquids, or radiation and in those instances warnings and a PPE placard will be posted at the work locations.

#### **3.1.2 As a general guide:**

- When a face shield is used for face protection, safety glasses with side shields shall be worn underneath, as a minimum standard. Safety goggles or full-face shields are required, where there is a potential for splashing or spraying of corrosive chemicals or where airborne abrasive dusts may be present.
- Special face shields with a reflective coating or wire mesh are required when individuals are exposed to sources of intense radiant heat such as furnaces. An ESH professional must approve the style of the face shield used.
- Welding helmets or goggles are required for all welding, burning, brazing, flame cutting and other hot work applications containing a similar hazard. The filter lens shade shall be appropriate for the type of operation. Part 5.3 outlines appropriate shade numbers for protection against injurious light radiation and welding helmets.
- Safety glasses with side shields are required on the flight field. Helmets worn with visors in place are an acceptable alternative. Goggles are required when there is the potential for splash or spray during servicing of the hydraulic and fuel systems or conducting fueling and defueling operations.
- Whenever a cartridge activated device (CAD) is installed or removed from an aircraft or assembly, a face shield and safety glasses are required to be worn.
- Laser goggles are required where there is a potential for exposure more than safe levels as defined in the American National Standard for Safe Use of Lasers (ANSI, Z136.1), and whenever a class 4 laser, which is not fully enclosed when activated, is operated. In addition, individuals required to wear laser eye wear are categorized "High Risk," and shall be enrolled in the laser medical monitoring program prior to any exposure. Laser goggles must be designed for the precise wavelength of the laser to which the individuals may be exposed. Ordinary chemical or safety goggles, welding protectors, or safety glasses are transparent to laser light and do not offer protection. Eye protection for employees performing work on open Class 3 and 4 Lasers shall be referred to the site Laser Safety Officer for proper

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eye wear selection. Each purchase order for laser eye wear must be approved by local Laser Safety Officer.

- Additional combinations for eye & face protection may be required based on the hazards present. Part 5.4 entitled Eye & Face Protection Chart provides supplemental information on selecting eye and face protection.
- Employees who wear prescription lenses shall wear eye protection that incorporates the prescription into the design, or that can be worn properly over the prescription lenses.
- Employees should be advised that the wearing of contact lenses in locations such as dusty, hot, or dry environments could cause eye irritation or that chemical vapors and gases may be absorbed by contact lenses. These areas should be identified, and this information relayed to employees by way of ESH Training or Supervisors Toolbox meetings.
- Protective equipment for eye and face shall comply with the most recently published version of ASSE (American Society of Safety Engineers) Z87.1 or equivalent. Eye protection fulfilling these requirements should be marked with this ASSE number and the manufacturer on the side pieces (temples) accordingly. Prescription safety glasses must have this marking as well as the manufacturer's identification embossed on the upper left and right lens of the glasses.
- Dark shaded and photosensitive lenses (VLT < 80%) are not permitted to be worn indoors because of the restricted vision. Employees who require such lenses due to a medical condition may report this to the Medical Department. If appropriate, a Medical Placement Report indicating the need for such lenses will be issued to the Supervisor.

### 3.1.3 Availability of Eye Protection to Employees

- Safety glasses, Safety goggles, and certain styles of non-prescription PPE which fit over prescription safety glasses are available to all employees without cost.
- Employees who choose to purchase safety glasses on their own shall ensure that their prescription safety glasses meet the requirements of this policy. Acceptable frames are marked with "Z87", and the lenses bear the trademark of the manufacturer.

## 3.2 Emergency Eyewash and Shower Stations

### 3.2.1 General

- Emergency eyewash and shower stations are required as first aid where there is a danger of employees being accidentally splashed with corrosive liquids.
- Emergency eyewashes and showers are not a substitute for engineering controls such as splash guards, goggles, gloves, and protective clothing.

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- Operations involving open surface tanks of corrosive liquids require the installation of both emergency eyewashes and showers. Other operations may only require emergency eyewashes or only showers.
- Where required, emergency eyewashes and showers shall be always readily accessible for use. They shall be located as close as feasible to the operation, but in no case may they be located to require more than 10 seconds to reach and shall be within a travel distance no greater than 100 feet from the hazard.
- Each emergency eyewash and/or shower location shall be identified with a highly visible sign. The area where they are located shall be well-lighted and highly visible.
- All emergency eyewash and shower units and installations shall meet the requirements of American National Standards Institute (ANSI), Z358.1; Emergency Eyewash and Shower Equipment.

### **3.2.2 Responsibilities**

#### **3.2.2.1 ESH Department**

Individually review, at the time of layout approval or as requested, each operation for hazards to determine if eyewash stations and/or showers are required.

#### **3.2.2.2 All Employees**

- Properly wear all PPE required and identified for job, including PPE as indicated on the PPE Certifications.
- Attend all required PPE training.

#### **3.2.2.3 User Department**

- Always maintain eyewashes and showers in sanitary conditions. Eyewash bowls and nozzles should be kept clean of foreign objects or debris.
- Nozzle covers shall be present.
- Plastic sheeting or other materials shall not be used to cover eyewash nozzles or bowls.
- Shall keep the area around emergency eyewashes and/or showers always clear. Storage of materials or parts, including temporary storage shall not be permitted.
- Activation chains, for emergency showers, shall be always kept readily accessible. Looping the chain over the shower head or hanging anything from the shower head, which could interfere with the shower's operation, is prohibited.
- Shall test weekly plumbed emergency eyewash and shower stations to confirm proper operation. Damaged or improperly operating units are to be immediately reported to the Facilities Department.
- Shall visually check and clean, monthly, personal portable and self-contained eyewashes for expiration dates and seals being intact.

#### **3.2.2.4 User Department Supervision**

Shall instruct all their employees in the required and proper use of emergency eyewashes and/or showers as part of their routine on-the-job training.

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**3.2.2.5 Employees Using Eyewashes**

- In the event of contact with corrosive liquids to the eyes or face, flush eyes/face for 15 minutes.
- Hold eyelids open during flushing, if affected.
- Seek medical attention only after flushing eyes/face thoroughly.

**3.2.2.6 Employees Using Showers**

- In the event of contact with corrosive liquids, get into the shower immediately.
- Rapidly remove all contaminated clothing and rinse yourself continuously for 15 minutes.
- Seek medical attention only after rinsing thoroughly.

**3.2.2.7 Co-workers of Employees Using Eyewashes or Showers**

- If a co-worker is splashed in the face or eyes with corrosive liquids, assist them to the emergency eyewash station and start flushing.
- If a co-worker requires the use of an emergency shower, take care to avoid touching any part of the employee or their clothing unless wearing the proper PPE as you assist them to the shower.
- Call for medical assistance or ask another employee to do so.
- Stay with affected employee until medical assistance is rendered.

**3.3 Foot Protection**

**3.3.1 General**

- Open toe or open heel shoes are not permitted in shop areas. Footwear used in the shop must have a sole of substantial substance reasonably likely to protect against routine shop hazards. Soles should be made from such materials as stiff rubber or leather; and must not have an open heel or toe. Heels must have a minimum surface area of 17.91 mm 0.705 in (roughly the size of a dime) and heel height, including the sole, cannot exceed 2.5 inches. Fabric or moccasin like footwear is not acceptable. Any deviation from this standard for medical reasons needs to be approved by the Medical Department and the ESH professional.
- All employees and contractors are required to wear safety shoes in areas where a foot hazard is present. Typically, foot protection is required where there are hazards such as falling or rolling objects, objects that can pierce the soles of footwear, electrical shock, chemicals, molten metal, radiant heat, slip hazards, and explosive or hazardous locations (e.g., construction, electrical, plumbing, building maintenance, trenching, utility work, material handling, etc.). In addition, specialized foot protection shall be worn when recommended by medical personnel to protect against specific medical conditions.
- All safety shoes must meet American Society for Testing & Materials (ASTM) F2412 and F2413 standards and requirements, be suitable for the work area tasks, and be maintained in a serviceable condition.
- Chemical resistant foot protection which conforms to the ASTM standard is required in areas where feet may encounter corrosives, chemicals, oils, or other materials which may permeate either street shoes or other types of protective footwear.

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- Additional shoe related hazards including, but not limited to, anti-slip hazards, electrostatic dissipation, and suitability for electrical trades must also be evaluated and incorporated into the area PPE Placard. All footwear must be maintained in good repair or replaced when unable to perform as intended.
- Employees working around open electrical hazards must have footwear conforming to the additional requirements for "Electrical Hazard (EH) rating." This ASTM number must be present on the safety shoes.
- Safety shoes are not ordinarily required in offices, which are separated from factory work areas by solid partitions unless work is being done which creates a reasonable probability of injury as determined by an ESH professional.
- Employees who occasionally work in, around, or adjacent to processes where safety shoes are required (such as supervisors, ME's, expeditors, etc.) must also wear safety shoes or temporary toe guards which fit over standard work shoes and boots.
- Refer to Part 5.5 for a list of those operations that typically require protective footwear. This list should be used as guidance since site specific work may have unique protective footwear requirements.

#### **3.3.2 Availability of Foot Protection to Employees**

- Sikorsky Aircraft provides access to a safety shoe supplier. Certain job codes will be provided safety shoes by the company.
- Other employees, contractors, and visitors are required to provide their own safety shoes if required for use in the area they will be working. Employees must get advanced approval for reimbursement from their ESH Manager prior to purchasing specialized foot protection.

### **3.4 Head Protection**

#### **3.4.1 General**

- Protective helmets are required where there is a hazard of falling objects, impact/penetration, or electric shock. Head protection is required when an employee is working near exposed electrical conductors, which could contact the head.
- Head Protection is separated into the following three classes:
  - Class A helmets offer protection from low voltage conductors (tested to 2,200 volts) and impact and penetration resistance.
  - Class B helmets offer protection from high-voltage conductors (tested to 20,000 volts) and impact and penetration resistance.
  - Class C helmets only provide impact and penetration resistance and should never be used around electrical hazards.

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- Protective equipment used for the head shall comply with the most recently published ISEA (Industrial Safety Equipment Association) Z89.1 standard or equivalent. The ISEA number along with Class A, B, or C must be present on the underside of the helmet.

#### **3.4.2 Availability of Head Protection to Employees**

- Sikorsky Aircraft provides head protection PPE for all employees as required by the hazard assessment.
- Contractors and visitors are required to provide their own head protection if required for use in the area they will be working.

### **3.5 Hands, Torso, Arms, and Leg Protection**

#### **3.5.1 General**

- Employees shall wear appropriate hand and torso protection when exposed to hazards such as, but not limited to, skin absorption of harmful substances, cuts or lacerations, abrasions, punctures, chemical burns, or harmful temperature extremes.
- To prevent the hazard of glove seizure and subsequent entrapment, glove use is prohibited during tasks where proximity to moving or rotating parts, machinery, or equipment is present.

#### **3.5.2 Availability of Hand, Torso, Arm, and Leg Protection to Employees**

- Sikorsky Aircraft provides PPE for all employees as required by the hazard assessment.
- Selection of protective equipment used on hands and torso shall be based on an evaluation of the performance characteristics of the type of personal protection clothing relative to the task, material, conditions present, and duration of use (refer to Part 5.6).
- Contractors and visitors are required to provide their own PPE if required for use in the area they will be working.

### **3.6 PPE Hazard Assessment (HA)**

#### **3.6.1 General**

- All processes and/or operations performed at a site shall be assessed by knowledgeable personnel as deemed qualified by the responsible Environment, Safety & Health Specialist. Processes and/or operation types can vary at each site depending on the type of work performed at the respective site or in the field.
- At a minimum these assessments will evaluate the necessity for Eye, Face, Head, Hands, Foot & Torso protection against occupational risks.
- The assessment shall analyze each task to determine whether a hazard exists, and if so, shall identify for each task the correct PPE required. Each assessment shall be also documented.

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### **3.7 PPE Selection**

#### **3.7.1 General**

- A site may use various resources (e.g., ESH, Supervision, Safety Committee members or consultants) to perform the PPE hazard assessments. If non-ESH professionals are used, they shall be trained on the process by the site ESH professional. However, the site ESH professional shall approve all PPE selections prior to purchase.
- The site shall ensure that all PPE used is of safe design and construction, and adequately fits the affected employee. PPE shall be kept in a sanitary and reliable condition, and damaged or defective equipment shall not be used.
- The PPE Selections listed in the PPE hazard assessments shall be specific enough to ensure that the proper equipment required for the job is obtained. This is particularly important where the performance of the equipment may be affected by the specific chemical, physical agent, or degree of hazard.
- All PPE equipment purchased shall comply with all regulatory and professional specifications pertaining to that PPE.
- There are some sites or processes which may have additional PPE specifications which relate to product quality. Those criteria must also be met when choosing and approving certain PPE; however, health and safety criteria shall not be compromised when evaluating process quality requirements.

### **3.8 Minimum PPE Specifications**

The ESH Professional must consult this procedure and the appropriate referenced standards, or someone capable of assessing the appropriate referenced standards to ensure that all required specifications are addressed prior to authorizing purchase of a particular PPE item.

### **3.9 Certification**

Completed PPE hazard assessments shall be reviewed by the local ESH professional to ensure the PPE specified is suitable for the process and/or operation reviewed.

### **3.10 Communication of PPE Requirements and Availability**

Each site shall have a written method for communicating its PPE requirements and the availability of all required equipment to affected employees. These communication vehicles must also be readily available in the workplace. They must be revised as necessary to reflect the current PPE requirements.

### **3.11 Training**

- Sites shall perform on the job training and/or formal training to affected employees. Training shall ensure affected employees can demonstrate an understanding of required PPE. Training must be provided before work commences which requires the use of PPE beyond the basic requirement of safety glasses with side shields. In addition to on the job training, the training shall include at a minimum:



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When PPE is necessary, how to inspect, don/doff/adjust/wear PPE, Limitations of PPE, Proper care, maintenance, useful life, and disposal.

- When supervision or the ESH professional observe inadequacies that reveal the lack of understanding or skill necessary to use PPE, retraining is required.
- Retraining shall be required if changes to the process or operation render previous training obsolete or when changes in the type of PPE used renders previous training obsolete.
- The site shall document the completion of the training.

### **3.12 Responsibilities**

#### **3.12.1 Center/Site Manager and Area Supervision**

- Support the identification and assessment of job tasks where employees require PPE.
- Ensure employees receive training on the use of PPE necessary for their jobs. Training must be done promptly when employee changes jobs or processes.
- Consistently enforce the proper use of PPE by employees.
- Ensure employees in their responsible area attend ESH required training.

#### **3.12.2 ESH Professional**

- Serve as PPE administrator at the Center/Site level.
- Ensure that PPE Hazard Assessments (Form SA1327 or equivalent) are completed for any jobs located in their responsible area(s).
- Forward copies of all PPE Hazard Assessments to local ESH and ensure assessments are readily available.
- Provide PPE training to employees in their responsible are (as) at frequency defined in overall ESH training plan.

#### **3.12.3 All Employees**

- Properly wear the PPE identified for use in their job as indicated on the PPE Certifications.

#### **3.12.4 Local ESH**

- Designate a PPE Manager to oversee and evaluate the personal protective equipment program.
- Provide and update PPE training curriculums as necessary.

## **4.0 SUPPLEMENTAL INFORMATION (non-mandatory)**

### **4.1 Definitions/Acronyms**

**Affected Employee:** An employee exposed to the hazards of a process and/or operation which has been determined, based on Hazard Assessment (HA) criteria, to require the use of specific PPE.

**American National Standards Institute (ANSI):** The federation of industrial, trade, technical, labor and Specialist organizations; government agencies and consumer groups which coordinate(s) the development and publication of standards in multiple subject areas.

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**American Society for Testing & Materials (ASTM):** Engineers, scientists, and skilled technicians or representatives of business, firms, government agencies, educational institutions and laboratories who establish voluntary consensus standards for material, products, systems, and services.

**Corrosive Liquids:** (For the purposes of this document only) Those liquids that are immediately injurious to the eyes and skin on contact. At Sikorsky Aircraft these include, but are not limited to, processing chemicals such as acids, alkalis, paint strippers and some strong cleaners. Oils, lubricants, and most paints and solvents are not considered corrosive because their adverse effect on the skin or eyes generally requires prolonged or repeated contact.

**Degradation:** A harmful change in one or more physical properties of a protective material caused by contact with a chemical.

**Emergency Eyewash Unit Performance:** May be either plumbed or self-contained and shall be capable of delivering to the eyes not less than 1.5 liters per minute (0.4 gallon per minute) for 15 minutes. For new units, water provided for Emergency eye wash shall be of a tempered temperature for the time of use.

**Emergency Shower Unit Performance:** May be either plumbed or self-contained and shall be capable of delivering a minimum of 75.7 liters per minute (20 gallons per minute) of water for 15 minutes, if self-contained, and a minimum of 113.6 liters per minute (30 gallons per minute) of water for 15 minutes, for plumbed units. For new units, water provided for Emergency Showers shall be of a tempered temperature for the time of use.

**Engineering Control:** A process change, substitution, isolation, ventilation, or source modification to remove or reduce the hazard within the process and/or operation or on the machine.

**Permeation:** The molecular movement of a chemical through a protective clothing barrier that has no visible holes.

**Personal Protective Equipment (PPE):** For purposes of this procedure are protective articles worn by an individual employee to afford protection against occupational hazards of the job to the head, eyes, face, hands, feet, or torso. Some of those hazards are listed in PPE Hazard Assessment Form SA1327.

**Personal Protective Equipment Hazard Assessment (HA):** An assessment similar to a Job Hazard Assessment (JHA), but which evaluates only the hazards to an individual's head, eyes, face, hands, feet, or torso.

**Personal Protective Equipment Assessment/Job Safety Analysis (JSA):** The process of identifying risks through the evaluation of site processes, practices and operations that specifies what PPE is required as part of the job.

**Safety Glasses:** Eye wear that meets ANSI Z87.1 for Occupational and Educational Eye and Face Protection. Contact lenses do not provide eye protection and may only be worn in conjunction with appropriate protection as defined by this document.

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**Safety Shoes:** These shoes meet the ASTM F2412 and F2413 requirements for impact and compression resistant toecaps. Some additional characteristics of these shoes may include metatarsal protection, conductivity, electrical hazards, puncture resistance, and static dissipative.

**Shop Areas:** All non-office areas, which include, but are not limited to, areas used for: test, development, laboratory work, machining, fabrication, processing, assembly, flight operations, inspection, overhaul and repair, hangar operations, flight lines, warehousing and distribution (including truck docks and cribs) and areas which contain the features of office areas located in a facility which are not isolated from these areas and which can have present similar hazards due to their own activity or from the adjoining areas. Any and all areas of Sikorsky Aircraft location which have similar risks to those areas listed are also to be considered "Shop Areas."

**Toe Guards:** These removable protective covers are made of steel, aluminum, or plastic and fit over the toes of regular shoes.

**Visible Light Transmission (VLT):** The amount of light that passes through the eyewear lens to reach the eye. A lens rated at 100% would pass all the light, one rated at 15% would allow only 15% of the light to pass through the lens (it would block 85%).

## **5.0 RELATED RESOURCES**

### **5.1 Requirements**

Performing [Roles & Descriptions \(PR&D\) List](#)

Below requirements are to reference the most current version of that reference; unless exempted by law, regulation, or provisions of the referenced standard.

ASTM 2412 -Test Methods for Foot Protection

ASTM 2413 - Specification for Performance Requirements for Protective Footwear

ANSI, Z87.1 - American National Standard for Occupational and Educational Eye and Face Protection

ANSI, Z136.1 - American National Standard for Safe Use of Lasers

ANSI, Z358.1 - Emergency Eyewash and Shower Equipment

ISEA Z89.1 - Industrial Head Protection

OSHA, 29 CFR 1910 - Occupational Safety and Health Standards

OSHA, 29 CFR 1910.133 - Eye and Face Protection

OSHA, 29 CFR 1910.136 - Foot Protection

### **5.2 Forms**

SA1327: Personal Protective Equipment Hazard Assessment Form

### **5.3 Filter Lenses for Protection Against Radiant Energy**

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Operations	Electrode Size 1/32 inch	Arc Current (A)	Minimum Protective Shade*
Shielded Metal Arc Welding	Less than 3	Less than 60	7
	3-5	60-160	8
	5-8	160-250	10
	More than 8	250-550	11
Gas Metal Arc Welding and flux cored arc welding		Less than 60	7
		60-160	10
		160-250	10
		250-500	10
Gas Tungsten Arc Welding		less than 50	8
		50-150	8
		150-500	10
Air carbon	Light	less than 500	10
Arc cutting	Heavy	500-1000	11
Plasma arc welding		less than 20	6
		20-100	8
		100-400	10
		400-800	11

\* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade, which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a highest yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

\*\* These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the workplace.

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**Filter Lenses for Protection Against Radiant Energy (continued)**

Operations	Electrode Size 1/32 inch	Arc Current (A)	Minimum Protective Shade*
Plasma arc cutting			
	Light**	Less than 300	8
	Medium**	300-400	9
	Heavy**	400-800	10
Torch brazing			3
Torch soldering			2
Carbon arc welding			14
Operations	Plate thickness - inches	Plate thickness - mm	Minimum Protective Shade*
Gas Welding			
Light	Under 1/8	Under 3.2	4
Medium	1/8 to 1/2	3.2 to 12.7	5
Heavy	Over 1/2	Over 12.7	6
Oxygen cutting			
Light	Under 1	Under 25	3
Medium	1 to 6	25 to 150	4
Heavy	Over 6	Over 150	5

\* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a highest yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

\*\* These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the workplace.

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5.4 Eye and Face Protection Chart

SOURCE	ASSESSMENT OF HAZARD	PROTECTION
IMPACT - chipping, grinding, machining, masonry work, woodworking, sawing, drilling, chiseling, powered fastening, riveting, and sanding	Flying fragments, objects, large chips, particles sand, dirt, etc.	Spectacles with side protection, goggles, face shields. See notes, (1), (3), (5), (6), (10). For severe exposure, use face shield.
HEAT - Furnace operations, pouring, casting, hot dipping, and welding.	Hot sparks	Face shields, goggles, spectacles with side protection. For severe exposure use face shield. See notes (1), (2), (3)
	Splash from molten metals	Face shield worn over goggles. See notes (1), (2), (3).
	High temperature exposure	Screen face shield, reflective face shield. See notes (1), (2), (3).
CHEMICALS - acid and chemical handling, degreasing, plating	Splash	Goggles, eyecup and over type's. For severe exposure, use face shield. See notes (3), (11).
	Irritating mists	Special purpose goggles
DUST - woodworking, buffing, general dusty conditions	Nuisance dust	Goggles, eyecup and over types. See note (8).

Notes to Eye and Face Protection Selection Chart:

- 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. Protective devices do not provide unlimited protection.
- Operations involving heat may also involve light radiation. As required by the standard, protection from both hazards must be provided.
- Face shields should only be worn over primary eye protection (spectacles or goggles).
- As required by the standard, filter lenses must meet the requirements for shade designations in 1910.122(a) (4) (or other standards as applicable to the country). Tinted and shaded lenses are not filter lenses unless they are marked or identified as such.

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- As required by the standard, 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.
- Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment. It should be recognized that dusty and/or chemical environments might represent an additional hazard to the contact lens wearers.
- Caution should be exercised in the use of 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 only be used over primary eye protection (spectacle or goggles).
- Ventilation should be adequate, but well protected from splash entry. Eye and face protection should be designed and used so that it provides both adequate ventilation and protects the wearer from splash entry.
- Protection from light radiation is directly related to filter lens density. Select the darkest shade that allows the task performance.

#### **5.5 Protective Footwear Requirements**

Based on the potential for foot injury, the jobs identified below typically require protective footwear. Special considerations shall be given to these jobs during the PPE hazard assessments.

Jobs that normally require foot protection (not all inclusive):

- Carpentry Work Operations
- Construction Work Operations
- Drum Handling & Environmental Maintenance Operations
- Electrician Work Operations (EH rating required)
- Machine Repair Operations
- Pipefitting & Plumbing Operations
- Plant Protection Operations
- Powerhouse/Boiler Room Operations
- Tool & Die Room Operations
- Shipping/Receiving/Stocking Operations
- Welding Maintenance Operations
- Warehouse Operations
- Assembling Operations
- Machining Operations
- Mechanical Power Press Operations
- Structural Metal Working Operations

## 5.6 Guidelines for Selecting Gloves

### **NO GLOVES AROUND ROTATING EQUIPMENT**

Select the most appropriate gloves for a particular application by considering the following:

- Determine how long they can be worn or if they can be used:
  - Performance characteristics of gloves relative to the specific hazard must be assessed. Request documentation from the manufacturer and verify when necessary, it meets ASTM Standard Test Methods. Do not rely solely on the SDS to choose the specific glove type.
- Review the factors related to gloves for chemical hazards:
  - Toxic properties of chemical(s) must be determined (Ex: Does the chemical have the ability to be absorbed through the skin?).
  - For mixtures and formulated products, a glove should be selected on the basis of the chemical component with the shortest breakthrough time.
  - Employees must be able to remove gloves to prevent skin contamination.
- Work activities of employees should be studied to determine:
  - Will the employee be handling *abrasive or sharp* parts?
  - Will the glove need to provide *punctures resistance*?
  - If the glove is reused on the job, does it have adequate tear & *tensile strength*?
  - Will the employee be handling *extremely hot or cold* parts?
  - Does the glove hold up against sparks or other *flammability* situations?
- The degree of dexterity should be reviewed:
  - Will wearing the glove pose more of a hazard than not?
- Consider the duration, frequency, and degree of exposure of the hazard



## 6.0 REVISION HISTORY

Revision	Page	Summary of Changes
3	All	Transitioned to new Template, Complete rewrite, including merged content of this policy with cancelled PL:01-02-059 (Personal Protective Equipment) and PL:01-02-022 (Emergency Eyewash Shower Stations).
4, Admin Change		Updated Process Owner name
5	2 5 6 8	Edits to 3.1.1 to reduce eye protection in areas with no probable risk 3.2.2.7 Removed redundant information 3.6.1 removed redundant information 3.9 removed redundant information