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## **SHOES AND BOOTS (Mandatory)**

Closed toe, hard sole shoes / boots are required, and safety shoes are recommended for use by all construction workers. All safety shoes shall meet nationally recognized standards. When working with 'wet concrete, workers must wear rubber boots, Shoes and boots must be kept in good repair, and those with worn heels or thin or worn soles should not be permitted. In addition, the wearing of sneakers, sandals, or shoes that have been slit or have holes cut in them, will not be permitted. **Safety toe tennis shoes are not allowed on S.C. Swiderski, LLC projects.**

## **EYE AND FACE PROTECTION (Mandatory)**

Approved eye and face protection must be worn while on site, ANSI approved safety glasses with full side shields must be worn in all circumstances. The wearing of contact lenses is prohibited in a chemical facility or when handling chemicals, Full-face shields must also be used when doing such work as grinding or chipping.

Welders must wear a welder's hood with lenses, which have the correct color density for the type of welding involved. Welders' helpers must wear the same, or at the minimum, must wear burning goggles with the correct color density lenses. See Exhibit A & B, Safety glass must be worn behind the welders' shaded lenses.

## **GLOVES**

Where needed, construction workers should wear work gloves in good condition which are suited to the type of work involved. However, employees who are required to operate or work around drill presses, power saws, and similar rotating machinery should not wear gloves. Use of special type gloves such as neoprene or rubber to handle chemicals shall be issued to those workers who have a need for them, Welders shall wear gloves during welding operations.

## **RESPIRATORS**

Company issued respiratory protective devices, appropriate for the hazard, must be used where airborne contaminants, such as fibers, dust, smoke, vapors, mist, etc., exist. Respiratory protective devices must be used in accordance with the provisions of the Corporate Safety Policy.

## **SAFETY BELTS/HARNESSES AND LANYARDS**

Safety harnesses with lanyards, must be worn by all employees who are working at elevated levels which are not protected by standards handrails, or safety nets or when working from suspended scaffolds.

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Employees are required to wear and use safety harnesses to protect them from falling when they are exposed to falls from heights of six (6) feet or more if they are working over machinery), moving equipment or objects posing an implement hazard, or in the case of entering a confined space, with an attended lifeline.

all of which may catch in power driven equipment.

## **HEARING PROTECTION**

When employees are subject to sound levels exceeding those in Exhibit C, hearing protection will be provided and used to reduce the sound levels. Training in the proper use and care of hearing protection equipment will be provided. Monitoring and training shall be by competent persons.

**All first aid items needed to replenish the available stock in your kits is available by placing a [Safety & PPE Requisition Form](#), available on the [SCS Safety Portal](#).**

## **EXHIBIT “B”**

### **APPLICATIONS CHART**

<b>Operations</b>	<b>Hazards</b>	<b>Protectors *</b>
Acetylene - Burning	Sparks, Harmful rays	5, 6, or 7
Acetylene – Cutting	molten metal	5, 6, or 7
Acetylene-Welding	flying particles	5, 6, or 7
Chemical handling	Splash, acid burns	3 (for severe exposure add 8)
Chipping	Flying particles	1, 2 (for severe exposure add 8)
Electric (arc)	Sparks intense rays	8 with tinted lenses
Welding	Molten metal	(in combination with 1)
Furnace Operations	Glare, heat molten	5, 6, 7 (for severe metal exposure, add 8)
Grinding - Light	Flying particles	1, 2 (for severe exposure add 8)
Grinding-Heavy	Flying particles	2 (for severe exposure add 8)
Laboratory	Chemical splash	3 (for severe glass breakage exposure add 8)
Molten Metals	Heat, glare, sparks, splash	5, 6 (8 in combination with 1 in tinted lenses)
Spot Welding	Flying particles sparks	1, 2 (tinted lenses advisable; for severe exposure, add 8)

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## **EXHIBIT “C”**

### **PERMISSIBLE NOISE EXPOSURE**

Grinder	98
Hammer Drill	102
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Jackhammer	115
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Roller	108
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Sawzall	94
Vibra-plate	107
Wacker (compactor)	108
Water Pump	95

## Respiratory Protection

### Purpose

To establish uniform guidelines for complying with the requirements of the Occupational Safety and Health Administration (OSHA) for Respiratory Protection, Title 29, 1926.103, this provides procedures for the proper selection, use and care of respiratory protective equipment.

### References

Respiratory Protection  
 Title 29 Code of Federal Regulations, Part 1910.134; 1926.103  
 Access to Employee Exposure and Medical Records  
 Title 29 Code of Federal Regulations, Part 1910.20  
 NIOSH/MSHA Approvals for Regulators  
 Title 30, Part II of the Code of Federal Regulations  
 American National Standards Institute (ANSI)  
 American National Standards Practices for Respiratory Protection, Z88.2-1980

### DEFINITIONS

**Abrasive-blasting respirator** – A respirator designed to protect the wearer against inhalation of abrasive material and against impact and abrasion from rebounding

**Contaminant** – A harmful, irritating, or nuisance materials that is foreign to the normal atmosphere.

**Emergency respirator use** – Wearing a respirator when a hazardous atmosphere suddenly occurs that requires immediate use of a respirator either for escape from the hazardous atmosphere or for entry into the hazardous atmosphere to carry out maintenance or some other tasks.

**Exhalation valve** – A device that allows exhaled air to leave a respirator and prevents outside air from entering through the valve.

**Eye piece** – A gas-tight, transparent window(s) in a full facepiece, helmet, hood, or suit, through which the wearer may see.

**Facepiece** – That portion of a respirator that cover the wearer's nose and mouth in a quarter-mask (above the chin) or half-mask (under the chine) facepiece or that covers the nose, mouth, and eyes in a full facepiece. It is designed to make a gas-tight or particle-tight fit with the face and includes the headbands, exhalation valve(s), and connections for an air-purifying device or respirable gas source, or both.

**Face shield** – A device worn in front of the eyes and a portion of, or all of, the face, whose predominant function is protection of the eyes and face.

**Filter** – A media component used in respirators to remove solid or liquid particles form the inspired air.

**Goggles** – A device, which contour-shaped eyecups with glass or plastic lenses, worn over the eyes and held in place by a headband or other suitable means for the protection of the yes and eye sockets.

**Hazardous atmosphere** – Any atmosphere, either immediately or not immediately dangerous to life and health, which is oxygen deficient, or which contains a toxic or disease-producing contaminant exceeding the legally established Permissible Exposure Limit (EPL) or, where applicable, the Threshold Limit Valve (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH).

**Head harness** – That part of a facepiece assembly which secures the facepiece to the wearer.

**Helmet** – That portion of a respirator which shields the eyes, face, neck, and other parts of the head.

**Hood** – That portion of a respirator which completely covers the head, neck, and

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portions of the shoulders.

**Immediately Dangerous to Life or Health (IDLH)** – Any atmosphere that poses and immediate hazard to life and produces immediate irreversible debilitating effects on health.

**Resistance** – Opposition to the flow of air, as through a canister, cartridge, particulate filter, orifice, valve, or hose.

**Respirable** – Suitable for breathing.

**Respiratory-inlet covering** – That portion of a respirator which connects the wearer's respiratory tract to an air-purifying device or respirable gas source, or both. It may be a face piece, helmet, hood, suite, or mouthpiece/nose clamp.

**Routine respirator use** – Wearing a respirator as a normal procedure when carrying out a regular and frequently repeated task.

**Sanitation** – The removal of dirt and the inhibiting of the action of agents that cause infection or disease.

**Service life** – The period of time that a respirator provides adequate protection to the wearer – for example, the period of time that an air-purifying device is effective for removing a harmful substance from inspired air.

**Sorbent** – A material which is contained in a cartridge or canister, and which removes toxic gases and vapors from inspired air.

**Supplied-air suit** – A suit that is impermeable to most particulate and gaseous contaminants and that is provided with an adequate supply of respirable air.

**Time-Weighted Average (TWA)** – The average concentration of a contaminant in air during a specific time period.

**Valve (air or oxygen)** – A device which controls the pressure, direction, or rate of flow of air or oxygen.

**Vapor** – The gaseous stage of a substance that is solid or liquid at ordinary temperature and pressure.

**Welding helmet** – A device designed to provide protection for the eyes and face against intense radiant energy and molten metal splatter encountered in the welding and cutting of metals.

**Window indicator** – A device on a cartridge or canister that visually denotes the service life of the cartridge or canister.

## GENERAL REQUIREMENTS

Every consideration will be given to the use of effective engineering controls to eliminate or reduce exposure to respiratory hazards to the point where respirators are not required; however, when feasible engineering controls are not effective in

physiologic effects on the body, actual concentrations of the toxic substances, the Permissible Exposure Limits (PEL), and the warning properties.

**Nature of the Hazardous Operation.** For proper respirator selecting, it is necessary to know the details of the operations, which require employees to use respiratory devices. These include operation or process characteristics, work area characteristics, materials used or produced during the process, the employee's duties and actions, and any abnormal situation characteristics which may necessitate alternate respirator selection.

**Location of the Hazardous Area.** This is important in the selection process so that a backup system may be planned if necessary. Respirable air locations must be known prior to entry into a hazardous area so escape or emergency operations may be planned.

**Time Respiratory Protection is Required.** The length of time a respirator will have to be worn by an employee is a factor that must be evaluated. This is most pronounced when using SCBA equipment, where, by definition, the air supply is finite. However, time is also a factor during routine use of air-purifying respirators when the employee's breathing and comfort become affected by a clogged filter cartridge which needs changing.

**Employee's Health.** Effective usage of a respirator is dependent on an individual's ability to wear a respirator, as determined by a physician. Most respiratory devices increase physical stress on the body, especially the heart and lungs. Care should be taken to ensure that a medical determination has been made that an individual is capable of wearing a respirator for the duration of the work assignment.

**Work Activity.** The type of work activities to be performed while wearing a respirator is vitally important in the respirator selection. The proper respirator will be one, which is least disruptive to the task being conducted yet providing the desired protection.

**Respirator Characteristics, Capabilities and Limitations.** The Tables in Exhibits "A" and "B" have been reproduced from ANSI Z88.2-1980. They provide a description of various respirator characteristics, capabilities, and limitations.

**Protection Factors.** The protection afforded by respirators is dependent upon the type of respirator used, seal of the facepiece to the face, leakage around valves, and leakage through or around cartridges or canisters. Depending on these criteria, the degree of protection may be ascertained, and a relative safety factor assigned. Protection factors are only applicable if all elements of an effective respirator program are in place and being enforced.

## COMFORT

Once the type of respirator has been selected that is applicable and suitable for the purpose intended, the selection process should give consideration to the fit and comfort of the respirator.



wearer, shall not be permitted.

- If scars, hollow temples, excessively protruding cheekbones, deep creases in facial skin, the absence of teeth or dentures, or unusual facial configurations prevent a seal of a respirator facepiece to a wearer's face, the person shall not be permitted to wear the respirator.
- If missing teeth or dentures prevent a seal of respirator mouthpiece in a person's mouth, the person shall not be allowed to wear a respirator equipped with a mouthpiece.
- If a person has a nose of a shape or size that prevents the closing of the nose by the nose clamp or a mouthpiece/nose-clamp type of escape respirator, the person shall not be permitted to wear this type of respirator.

Where practical, and where the above considerations are deemed acceptable, respirators should be assigned to individual employees for their exclusive use and labeled for identification in such a way as not to affect the performance of the respirator.

### **MEDICAL SURVEILLANCE REQUIREMENTS**

Prior to the use of respiratory protection devices, a medical examination shall be required for all personnel in the following categories:

- Employees who are or may be exposed to OSHA regulated airborne contaminants at or above the established Action Level (AL) or 30 or more days per year.
- Employees who are or may be exposed to OSHA regulated airborne contaminants at or above the established Permissible Exposure Limit (PEL) for 10 or more days per year.
- Employees who are or may be required to use a Self-Contained Breathing Apparatus (SCBA), e.g., as a member of a confined space entry team, as a member of a first aid/rescue team, or during hazardous material response operations.
- Employees who use negative pressure, air purifying respirators in work areas that contain asbestos.

A licensed physician shall determine what physiological and psychological conditions are pertinent for the wearing of different types of respirators. The respirator program administrator or his designee, using guidelines established by the physician, shall determine whether or not a person may be assigned to a task requiring the use of a respirator.

When applicable, medical surveillance, including bioassay, shall be carried out periodically to determine if respirator wearers are receiving adequate respiratory protection. The licensed physician shall determine the requirements of the surveillance program.

Employees included in the medical surveillance program shall, as a minimum, be provided with annual surveillance examinations. If the examining physician determines that any of the examinations should be provided more frequently than specified, S.C. Swiderski, LLC will provide such examinations to affected employees at the frequencies specified by the physician.

## TRAINING

Respirators will not be issued to individuals (including company officials, subcontractors, or visitors) who have not received the appropriate respirator training and a medical clearance. Training is available via Paylocity.

### **Training Program**

The extent and frequency of employee training depends primarily on the nature and extent of the hazard. As a minimum, all employees and supervisory personnel will be trained in basic respirator practices. It must be remembered that respirators are effective only when they are acceptable to the employee and worn properly by him/her. Because proper use depends especially upon the wearer's motivation, it is important that the need for the respirator be explained fully.

The basic respirator training program must include:

- A discussion of the nature of airborne contaminants against which the employee must be protected, and why engineering controls have not been effective in controlling exposure to the point where respirators are not required.
- A discussion of why the respirator which has been selected for this job is the proper device for this particular purpose.
- An explanation of the differences between air-purifying and supplied air respirators and how their use is controlled by the amount of exposure.
- Instruction on the respirator's limitations, emphasizing such things as oxygen deficiency, toxic contaminants which are immediately dangerous to life or health, particulates, such as asbestos, which are not immediately dangerous to life or health, and the need to change filter cartridges when indicated to do so by testing, or when breathing resistance increases to an uncomfortable level.
- Instructions in how to inspect the respirator and ensure that it is in proper working condition.
- Instructions on how to put on the respirator, how it should be positioned on the face, how to set strap tension, and how to wear the respirator comfortably.
- Instructions on the method of fit testing used and the proper way to conduct positive and negative pressure tests each time the respirator is put on. During this instruction, the wearer must be made to understand that the respirator cannot be used when conditions prevent a satisfactory facepiece-to-face seal. If this condition cannot be corrected, the employee cannot be allowed into the area requiring the use of a respirator.
- Instructions in the proper care and maintenance of the respirator.
- A discussion on the value of medical surveillance and air-sample monitoring.
- Field training to recognize and cope with any type of emergency while using a respirator.

## FITTING

After the employee has been shown how to assess a respirator, he/she should be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine a proper fit.

smoke, usually either stannic chloride or titanous tetrachloride, from a smoke tube towards the respirator being worn. If the wearer cannot detect the irritant smoke, a satisfactory fit is assumed to be achieved.

The respirator wearer will react involuntarily, usually by coughing or sneezing, to a leakage around or through the respirator. Since this type of test provokes an involuntary response from the employee, it is the preferred testing method when available. In this type of qualitative test, the person administering the test should be interested in any response to the smoke and not necessarily to the degree of the response.

When an air-purifying respirator is being tested in this method, it has to be equipped with a high efficiency filter cartridge.

**NOTE:** The test substances are irritants to the eyes, skin and mucus membranes. Therefore, the respirator wearer should keep his/her eyes closed during testing.

**Odorous Vapor Test:** The odorous vapor test relies on the respirator wearer's ability to detect an odorous material, usually isoamyl acetate (banana oil) inside the respirator. The test is performed by passing an isoamyl acetate saturated material around the outside of the respirator. If the wearer is unable to smell the chemical, then a satisfactory fit is assumed to be achieved.

When an air-purifying respirator is tested by this method, it should be equipped with an organic-vapor cartridge that removes the test vapor from the air.

**NOTE:** This test is solely dependent upon the employee's honest response, since there is no involuntary reaction.

**Ammonia Irritant Test:** The ammonia irritant test relies upon the wearer's ability to detect an irritant organic chemical substance, usually an ammonia inhalant. The test is performed by placing an enclosure over the respirator wearer's head and shoulders and administering the inhalant vapor from an ampule. If the wearer does not react to the chemical, then a satisfactory fit is assumed to be achieved.

**NOTE:** This test is not dependent on the wearer's honest indication of taste. There is an involuntary response, and therefore is preferred as a method of testing.

## FIELD TESTS

There are two tests that are used in the field to check the seal of the respirator. These

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are known as the positive and negative pressure sealing tests. Each of these two tests must be performed every time a respirator is put on and prior to entering a contaminated area.

**NOTE:** Although both the positive and negative pressure tests are considered

assigned to one individual or after each use if they are assigned to more than one person. The following procedures are recommended for cleaning and disinfecting respirators:

- If required, remove and discard any filters or cartridges.
- Wash facepiece and breathing tube in detergent and warm water (120°) or a cleaner/disinfectant solution. Use a soft brush to facilitate removal of dirt. Cleaner/disinfectant solutions are available from respirator manufacturers or it can be made by using a solution of water and household chemicals, such as two tablespoons of chlorine bleach to one gallon of water, or one teaspoon of tincture of iodine to one gallon of water. A two minute immersion of the respirator into either solution is sufficient for disinfection.
- Rinse completely in clean, warm water.
- Air dry in clean air.
- Clean out other parts as recommended by the manufacturer.
- Inspect the valves, head straps and other parts and replace with new parts if defective.
- Place facepiece in a plastic bag or container for storage in an assigned area.
- Insert new filters or cartridges prior to use, making sure the seals are tight.

#### Storing the Respirator

When they are not being used, respirators should be individually sealed in plastic bags and stored at convenient locations in order to protect them against dust, sunlight, extreme temperatures, excessive moisture, or damaging chemicals. They should be stored in such a way, that the facepiece and exhalation valve are not being distorted.

#### Inspecting the Respirator

All respirators should be inspected before and after use and at least monthly by a competent person to ensure that they are in satisfactory working condition. A general inspection check list should include:

- Tightness of connections.
- Conditions of face piece, straps, connecting tubes, and cartridges.
- Condition of exhalation and inhalation valves. If the sides of the exhalation valve gap even slightly, it must be replaced with a new valve.
- Pliability and flexibility of rubber parts. Deteriorated rubber parts must be replaced. Unused rubber parts should be worked, stretched and manipulated with a massaging action.
- Condition of lenses should be checked. Lenses must be tight and scratched or damaged lenses replaced.

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- On self-contained breathing apparatus, the charge of the compressed air cylinders should be checked and fully charged.

#### **PROGRAM EVALUATION**

## **RECORDS**

### Respirator Training Records

Upon completion of the basic respirator training program, the employee will be required to read and sign a Respirator Training Record (See Exhibit "D") attesting to the fact that they have received the basic training program and feel confident in their ability to use the respirator properly.

The signed and dated Respirator Training Record will then become a part of the employees' medical records and will be retained for the same period of time as those records.

### Recordkeeping of Test Results

A summary of the test results for each employee on whom a qualitative fit test was conducted, will be documented on the Respirator Fit Test Record (See Exhibit "E"). This record will then become a part of the employee's medical record and will be retained for the same time period as the medical records.

### Care and Maintenance Records

A written record should be maintained of the Care and Maintenance Program. Information contained on this record should include inspection reports, replacement parts used, dates of repair, cleaning and type of disinfectant used and the names of persons doing the work. The respirator should be identified by manufacturer, model and approval number. Records should be retained for a period of five years.

### Medical Records

All records pertaining to the employee's medical examination and evaluation must be retained for a period in excess of thirty (30) years.

### Additional Information

Additional information about Respiratory Protection can be obtained from the Safety Manager.

warning properties (that is: odor, taste, or irritation at a concentration in air or above the permissible exposure limit.) Vapor- and gas-removing respirators are not approved for contaminants that lack adequate warning properties.

Not for use in atmospheres immediately dangerous to life or health unless the device is a powered-type respirator with escape provisions.

1. **Full Facepiece Respirator.** Provides protection against eye irritation in addition to respiratory protection.
2. **Quarter Mast and Half Mask Facepiece Respirator.** A fabric covering (face let) available from some manufactures should not be used.
3. **Mouthpiece Respirator.** Shall be used **only** for escape applications. Mouth breathing prevents detection of contaminant by odor. Nose clamp must be securely in place to prevent nasal breathing.

A small lightweight device that can be donned quickly.

#### PARTICULATE-REMOVE RESPIRATORS

**Limitations:** Protection against nonvolatile particles only. No protection against gases and vapors.

Not for use in atmospheres immediately dangerous to life or health unless the device is a powered-type respirator with escape provisions.

1. **Full Facepiece Respirator.** Provides protection against eye irritation in addition to respiratory protection.
2. **Quarter Mast and Half Mask Facepiece Respirator.** A fabric covering (facelet) available from some manufactures should not be used unless approved for use with respirator.
3. **Mouthpiece Respirator.** Shall be used **only** for escape applications. Mouth breathing prevents detection of contaminant by odor. Nose clamp must be securely in place to prevent nasal breathing.

A small lightweight device that can be donned quickly.

#### COMBINATION PARTICULATE- & VAPOR- & GAS-REMOVING RESPIRATORS

The advantages and disadvantages of the component sections of the combination respirator as described above apply.

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