## Respiratory Protection

1. **Purpose**

The purpose of this program is to protect worker health by providing guidelines for the proper use of respiratory protection in hazardous work environments. All training, medical evaluations, and respirators will be provided at no cost to the workers.

1. **Responsibility**

* The Director of the Safety Department is responsible for administering and maintaining the respiratory protection program.
* Supervisory personnel shall monitor and ensure that all employees abide by the respiratory protection program. Specifically, local supervisory personnel will ensure that the:
  + Correct respirators are being used.
  + Respirator users have been properly trained.
  + Respirators are being worn properly.
  + Respirators are in good working condition. That the respirator has not been modified by the worker that will prevent a seal from occurring and that the worker is clean shaven.
  + Respirators are repaired when necessary.
  + Workers do not remove their respirator while in work area. They must leave it to wash, change filters, or if the respirator quits working properly.
  + Respirators are regularly cleaned and disinfected.

1. **IDLH Atmospheres**

Under no conditions are any employees to enter an area or vessel where the atmosphere is IDLH (immediately dangerous to life and health.)

1. **Respirator Selection**

Respiratory equipment will be provided to all employees that may be exposed to harmful vapors and oxygen deficient atmospheres. Respirators shall be used when engineering control measures are not feasible and during emergency situations. Respirators will be selected based on the hazards present. Respirators must be one of the following types approved by the National Institute of Occupational Safety and Health (NIOSH):

* Dust respirators - used to protect from nuisance and toxic dusts. Not to be used for vapors, mists or fumes unless specified by the manufacturer or supplier.
* Chemical cartridge respirators - used to protect from mists or vapors, such as paint spray. Not to be used for dusts or fumes unless specified by the manufacturer or supplier.
* Blower masks - not to be used in environments considered immediately dangerous to life or in confined spaces.
* Canister gas masks - used for specific gases based on canister type. Not to be used for dusts, mists or vapors unless specifically approved by the manufacturer or supplier.
* Supplied air breathing airline apparatus - used in almost all hazardous situations. Not to be used in environments considered immediately dangerous to life. An escape bottle must also be included when used in a confined space.
* Self-contained Breathing Apparatus (SCBA) - For use in high concentrations of toxic gases, in oxygen-deficient atmospheres or in any environment considered immediately hazardous to life.

1. **Medical Evaluation**

Employees who are either required to wear respirators, or who choose to wear a half face piece APR voluntarily, must pass a medical exam provided before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

A licensed physician will provide the medical evaluations. Medical evaluation procedures are as follows:

* The medical evaluation will be conducted using the questionnaire provided in Appendix C of the OSHA Respiratory Protection Standard 1910.134. The Program Administrator will provide a copy of this questionnaire to all employees requiring medical evaluations (See HSE Department for a copy of Appendix C of the OSHA Respiratory Protection Standard. Appendix C is the OSHA Respirator Medical Evaluation Questionnaire). A Spanish version is available.
* To the extent feasible, assistance will be provided to employees who are unable to read the questionnaire. When this is not possible, the employee will be sent directly to the physician for medical evaluation.
* All affected employees will be given a copy of the medical questionnaire to complete, along with a stamped and addressed envelope for mailing the questionnaire to the physician. Employees will be permitted to complete the questionnaire on company time.
* Follow-up medical exams will be granted to employees as required by the Standard, and/or as deemed necessary by the evaluating physician.
* All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
* Positive pressure air purifying respirators will be provided to employees as required by medical necessity.

After an employee has received clearance to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:

* The employee reports signs and/or symptoms related to their ability to use the respirator, such as shortness of breath, dizziness, chest pains or wheezing.
* The evaluating physician or supervisor informs the Program Administrator that the employee needs to be reevaluated.
* Information found during the implementation of this program, including observations made during the fit testing and program evaluation, indicates a need for reevaluation.
* A change occurs in workplace conditions that may result in an increased physiological burden on the employee.
* The medical records will be kept in a locked cabinet and made available as permitted under 49 CFR 1910.1020 or under the Health Information and Privacy Requirements under Law.

1. **Respirator Fit**

* Qualitative fitting test shall be used to determine the ability of each individual respirator wearer to obtain a satisfactory fit with a respirator. The qualitative fit testing method is outlined in 29 CFR 1910.134 Appendix A. This protocol shall be strictly adhered to when performing qualitative fit testing.
* A fit test must be performed on all respirators that incorporate a face seal, regardless of whether they are positive or negative pressure respirators.
* The results of respirator-fitting tests shall be used to select specific types, makes, and models of respirators for use by individual respirator wearers.
* A respirator-fit test shall be carried out for each respirator wearer at least annually.
* The respirator-fit test shall be documented using a standardized form.

Fit testing shall not be performed until the respirator wearer has passed a respirator user medical evaluation.

1. **Assuring and Maintaining Face Seal Integrity**

Each respirator wearer is required to perform a user seal check prior to entering a harmful atmosphere. Either the positive and negative pressure checks listed below or the respirator manufacturers recommended user seal check method shall be used.

* Positive Pressure Check
* Close off the exhalation valve and exhale gently into the face piece.
* The face fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage of air at the seal.
* For most respirators, this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.
* Negative Pressure Check
  + Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the face piece collapses slightly, and hold the breath for ten seconds.
* The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove.
* If the face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

Respirator wearers shall not be permitted to use any equipment that interferes with the integrity of the seal.

* Head covers which pass between the sealing surface of a respirator face piece and the wearer's face shall not be used.
* The wearing of a spectacle, a goggle, a face shield, a welding helmet, or other eye or face protective device which interferes with the seal of a respirator to the wearer shall not be allowed.
* If an employee routinely wears respiratory protection and they require corrective lenses, visual correction will be supplied, at no cost to the employee, that is compatible with the respirator.
* Wearing contact lenses with a respirator is not recommended.

Scars, hollow temples, excessively protruding cheekbones, deep creases in facial skin, the absence of teeth or dentures, unusual facial configurations, or other problems prevent the seal of a respirator face piece to a wearer's face, the person shall not be permitted to wear the respirator. Respirator wearers that use respirators incorporating a tight-fitting face piece shall not be permitted to have facial hair in contact with the sealing surface.

1. **Maintenance, Inspection and Cleaning**

* Respirators must be regularly cleaned, disinfected and properly stored after each use.
* Respirator maintenance shall be performed as specified by the manufacturer.
* Connections on the air lines which supply breathing air to respiratory equipment must be inspected frequently and maintained to ensure their integrity.
* Replacement or repairs shall be done only by qualified personnel with parts designed for the respirators. No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturers recommendations.
* Respirators shall be inspected before and after each use.
* If any damage or defect is discovered, the respirator shall be removed from service immediately. The damaged or defective respirator shall be tagged out of service, and repaired or disposed of. Respirators that are disposed of should be rendered completely inoperable before they are discarded.
* Respirators issued for the exclusive use of an employee shall be cleaned and sanitized after each use.

1. **Storage**

Respirators shall be stored in a manner that will protect against dust, sunlight, excessive heat, extreme cold, excessive moisture, damaging chemicals, and physical damage.

1. **Program Evaluation**

At least annually the Safety Department will document an evaluation of the effectiveness of the respirator program. This shall be done by asking employees about fit, selection, use, and maintenance.

1. **Training**

Employees will be instructed in the use of respiratory protection before its actual use and annually thereafter. The training program will address fit, use, limitations, emergency situations, wearing, fit checks, maintenance & storage, medical signs & symptoms of effective use and general requirements of the OSHA standard. Periodic refresher training should be held as appropriate.