

GUIDING DEALERSHIPS ON THE ROAD TO SAFETY

# RESPIRATORY PROTECTION

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#### APPENDIX A

OSHA "RESPIRATORY PROTECTION" STANDARD (29 CFR 1910.134), INCLUDING APPENDICES

NOTE: THIS SECTION REVIEWED AND EDITED BY HRP ASSOCIATES, INC. 1998

#### **RESPONSIBILITIES & PROCEDURES**

### The DEEP Safety Supervisor will:

- 1. Implement, update, and maintain the written Respiratory Protection Program.
- 2. Ensure compliance with all aspects of the facility Respiratory Protection Program and the OSHA Standard.
- 3. Identify and evaluate known and potential workplace respiratory hazards.
- 4. Select, evaluate, and maintain respiratory protection.
- 5. Coordinate and maintain medical evaluation program.
- 6. Conduct or arrange for annual fit testing.
- 7. Provide information and training to applicable employees.
- 8. Ensure employees are properly utilizing respiratory protection.
- 9. Audit facility periodically to determine employee proficiency in the Respiratory Protection Program.
- 10. Conduct "random" inspections of work area conditions, degree of employee exposure and stress, and respiratory protection procedures.
- 11. Maintain recordkeeping.

### Employees will:

- 1. Comply with all aspects of the Respiratory Protection Program.
- 2. Utilize proper respiratory protection during operations, as necessary.
- 3. Inspect respiratory protection prior to and after use and replace, as necessary.
- 4. Clean, maintain and store respiratory protection properly.

#### An Outside Professional will:

- 1. Conduct a medical evaluation of employees.
- 2. Perform fit testing.
- 3. Retain medical evaluation records.

## **Respiratory Protection Program**

The Respiratory Protection Program has been developed to provide a working procedural document for the use of respiratory protection in the workplace.

All employees required to wear or who choose to wear respiratory protection will participate in the Respiratory Protection Program.

Upon request, employees, the employee designated representative, and the Assistant Secretary (OSHA) will be provided with a copy of the Respiratory Protection Program for review

## **Respirator Selection**

Respiratory protection will be selected according to American National Standard Practices for Respiratory Protection (ANSI Z88.2-1992).

All respirators and cartridges will be certified for use by the National Institute for Occupational Safety and Health (NIOSH), and will be used in compliance with the conditions of certification.

All compressed air will be high purity meeting the specifications for Grade D Breathing Air (ANSI/ Compressed Gas Association Commodity Specification G- 7.1 - 1989).

All compressed air cylinders will be appropriately constructed, tested, and maintained as prescribed in the shipping container specification regulations of the Department of Transportation (49 CFR 173, 178). In addition, all breathing gas containers will be marked in accordance with NIOSH respirator certification standard 42 CFR 84.

All air compressors will be capable of delivering a continuous supply of Grade D Breathing Air and equipped with necessary safety and standby devices. Compressors will be constructed and situated in a location to avoid entry of contaminated air into the system and meet requirements of Grade D Breathing Air. Compressors will have a compressor failure and overheating alarm. Oil lubricated compressors will have an additional high temperature and carbon monoxide alarm. In addition, the compressors must also meet the requirements of 29 CFR 1910.134 (i)(5 - 9).

All airline couplings will be incompatible with outlets for other gas systems.

The DEEP Safety Supervisor will select respirators according to the type and concentration of respiratory hazards identified. Exposure limits, respiratory protection factors, chemical warning properties, type of work and eye and skin protection will also be considered during respiratory selection process.

The DEEP Safety Supervisor must provide mandatory written information on the proper use of respirators (dust masks) that may be used by employees when not required as part of the standard.

## **Respirator Use**

Respirators will be used in accordance with manufacturer's recommendations, general industry practice and facility established standard operating procedures.

Employees will not be permitted to perform operations requiring respiratory protection until they are medically evaluated, fit tested and properly trained to use respiratory protection.

Employees will be qualitatively or quantitatively fit tested prior to utilizing respiratory protection. Employees will be allowed to choose from a sufficient number of models and sizes of respirators to ensure adequate fit and comfort. Fit testing will be conducted with banana oil, irritant smoke, or saccharin spray to ensure the proper respirator fit. Fit testing will be conducted for each type and style of respiratory protection utilized. Fit testing will be performed on an annual basis (asbestos workers every 6 months).

Non-disposable respirators and airline systems will be inspected prior to and following each use. Non-routine respirators will be inspected on a monthly basis, and will be checked for proper function before each use.

Employees who wear glasses and are required to use full face-piece respirators will be provided with prescription "insert-type" spectacles.

The DEEP Safety Supervisor will implement a respirator change out schedule to record replacement of cartridges or respirators before the end of their service life.

Use of Disposable Respirators:

- 1. Obtain approved respirator from DEEP Safety Supervisor.
- 2. Verify appropriate respirator for operation.
- 3. Inspect respirator for physical deformities, missing components, and defects.
- 4. Put on the respirator.
- 5. Ensure good fit and face-to-face piece seal.
- 6. Conduct positive and negative pressure check, if feasible.
- 7. Conduct and complete work.
- 8. Remove respirator and dispose.

Disposable respirators will be discarded after each use.

Use of Non-Disposable Air-Purifying Respirator:

- 1. Obtain approved manufacturer, model and size respirator and cartridges from the DEEP Safety Supervisor, if you have not been previously issued your own respirator.
- 2. Verify appropriate respirator and cartridges for operation.
- 3. Inspect respirator for:
  - a. Face piece pliability, deformation and signs of deterioration.
  - b. Valves (inhalation and exhalation) tears, deformation, lack of and signs of deterioration.
  - c. Headbands pliability, deformation, excess stretching and signs of deterioration.
  - d. Cartridge holders deformation of holder and deformation, lack of and signs of deterioration of the O-ring.
  - e. Cartridges physical damage and age.
  - f. Connecting tube (if feasible) pliability, deformation and signs of deterioration
  - 4. Put on the respirator.
- 5. Ensure good fit and face-to-face piece seal.
- 6. Conduct positive and negative pressure check.
- 7. Conduct and complete work.
- 8. Remove respirator and inspect.
- 9. Properly clean and store respirator in a respirator bag.

Cartridges used for protection against chemicals (gas and vapors) will be changed in accordance with the end of service life indicator (ESLI) certified by NIOSH on the cartridge, or the change schedule implemented. Mechanical filters may be changed when breathing becomes restricted.

Use of Air-Line Respirators with Compressed Air Bottles or Compressors.

- 1. Obtain approved manufacturer, model and size respirator, supplied air source and other necessary airline equipment from DEEP Safety Supervisor, if not already setup at a particular operation or station.
- 2. Verify appropriate respirator for operation.
- 3. Inspect respirator for:
  - a. Face piece pliability, deformation and signs of deterioration.
  - b. Valves (inhalation and exhalation) tears, deformation, lack of and signs of deterioration.

- c. Headbands pliability, deformation, excess stretching and signs of deterioration.
- 4. Inspect Compressor and associated equipment for:
  - a. Hoses pliability, deformation, cracks and signs of deterioration.
  - b. Connections tightness and signs of deterioration.
  - c. Regulator proper functioning.
  - d. Compressor alarms and warning devices.

or

- 5. Inspect Compressed Air Cylinders and associated equipment for:
  - a. Hoses pliability, deformation, cracks and signs of deterioration.
  - b. Connections tightness and signs of deterioration.
  - c. Regulator proper functioning.
  - d. Cylinders marked contents as "Breathing Air".
- 6. Set up air-line system. Ensure hoses are properly connected and compressor is located in an area of "fresh and uncontaminated" air.
- 7. Don respirator (disconnected from air source).
- 8. Ensure good fit and face-to-face piece seal.
- 9. Conduct positive and negative pressure check, if feasible.
- 10. Turn on Compressed Air Cylinder or Compressor System.
- 11. Connect respirator to air source.
- 12. Conduct and complete work.
- 13. Remove respirator.
- 14. Turn off Compressed Air Cylinder or Compressor System.
- 15. Inspect respirator.
- 16. Properly clean and store respirator in a respirator bag.

### **Respirator Use Limitations**

Employees will not be permitted to perform operations requiring respirator protection until they are properly trained, fit tested, and medically cleared to use respiratory protection.

These respirators (and the Program) are not designed for work in dangerous atmospheres or other conditions where failure of respiratory protection will result in impaired escape or immediate health effects. This includes:

- 1. Immediately Dangerous to Life and Health Atmospheres (IDLH);
- 2. Oxygen Deficient Atmospheres;
- 3. Highly Toxic Atmospheres; and
- 4. Unknown Atmospheres.

Only respiratory protection adequate to protect against the respiratory hazard will be used.

Respiratory protection will only be used when a good face-to-face piece seal can be obtained. Employees with beards, sideburns, skull caps, dentures or other conditions that interfere with a good seal will not be permitted to perform operations requiring respiratory protection or must use a full face air-line respirator. Employees will be fit tested in the same condition (i.e. dentures in place) as they would conduct the work.

Corrective spectacles or goggles must be worn in a manner that will not interfere with the fit of the respirator.

Air-line respirator hoses will not exceed 300 ft.

Respirators provided by the dealership are for use in assigned tasks only and are not to be taken home for personal use.

Gum or tobacco chewing is prohibited while wearing a respirator.

The respirator wearer shall leave the work area if any of the following circumstances occur:

- 1. Failure of the respirator to provide protection or malfunction of the respirator.
- 2. Detection of air contaminant leakage into the respirator.
- 3. Increase in resistance to breathing.
- 4. Any sensation of dizziness, nausea, weakness, breathing difficulty, coughing, sneezing, vomiting, fever or chills.

#### Emergency Spills or Releases:

Employees who perform Emergency Action Procedures in the event of a spill or release will be required to wear a full or half face respirator, or a respirator of equal or greater assigned protection factor. However, it should be noted that the dealership will only clean up a spill if it is small enough to be absorbed, neutralized,

or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel, and if the spill or release does not pose an adverse immediate exposure hazard to employees or the environment. For all other spills/releases, a professional environmental clean-up firm will be contacted and dealership employees will evacuate the area and notify the Emergency Coordinator (per the Emergency Action Plan).

### **Medical Evaluation**

Medical evaluation will be provided to all employees participating in the Respiratory Protection Program prior to performing any operations requiring respiratory protection and on an annual basis, thereafter.

Medical evaluation will be performed by a physician or other licensed health care professional (PLHCP), using a medical questionnaire or initial medical examination obtaining the same information as the questionnaire.

There will be a follow up medical examination for any employee who gives a positive response to questions 1-8, Section 2, or any employee whose initial medical examination demonstrates a need for follow-up. The follow up exam will include any C) tests or procedures the health care professional deems necessary for a final determination. the health care professional will report to the DEEP Safety Supervisor, in writing, the results of the medical evaluation and exam, if any, including the employees' capability to perform designated work and use personal protective equipment (i.e. respirators), any specific work limitations, and the need, if any, for follow-up medical evaluations. Medical evaluation results will be maintained by the health care professional.

Employee "health fitness" reports from the health care professional will be maintained in the dealership employee file.

Medical evaluation shall be conducted confidentially during the employee's normal working hours or at a time and place convenient to the employee. The health care professional shall make sure that the employee understands the content of the questionnaire.

The dealership shall supply the health care professional with all details regarding the employee's use of a respirator, such as duration, frequency, work conditions (including other personal protective equipment) and type of respirator, as well as a copy of the respiratory protection program and the standard.

Additional medical evaluations shall be provided if indicated by employee symptoms, changes in workplace conditions, fit testing, or as recommended by the health care professional.

## Cleaning, Maintenance and Storage

Non-disposable respiratory protection will be cleaned prior to and after each use. Cleaning procedures:

- 1. Fill one (1) tub with warm water and one (1) tub with warm water and a mild respirator cleaning detergent.
- 2. Remove cartridges from respirator.
- 3. Wash respirator in warm water/detergent tub.
- 4. Rinse respirator in warm water tub.
- 5. Allow to dry at room temperature.
- 6. Clean with respirator wipe (disinfectant).
- 7. Reassemble face piece, replacing filters, cartridges, and canisters when necessary.
- 8. Test respirator to ensure that all components work properly.
- 9. Properly store in a respirator bag.

Respirators will be inspected during cleaning for pliability, deformation, tears, missing components, stretching, tightness and signs of deterioration.

Respirators will be effectively maintained to their original condition. Damaged respirators or respirator components will be maintained and repaired by the DEEP Safety Supervisor. Repair operations beyond the scope of the DEEP Safety Supervisor will be returned to the manufacturer or discarded and replaced.

Respirators will be stored in convenient, clean and sanitary locations to protect from dust, sunlight, heat, cold, excess moisture and damaging chemicals, and to prevent deformation of the face piece and valve.

# **Employee Information and Training**

All participating employees, and their supervisor, will be provided with information and training on respiratory protection at the time of initial employment and at least annually thereafter. More frequent training will be provided as needed, due to changes in the workplace, type of respirator or inadequate employee knowledge or inappropriate usage.

### Training will include:

- 1. Requirements of the OSHA "Respiratory Protection" Standard;
- 2. Types and limitations of respirators;
- 3. Selection, use and maintenance of respirators;
- 4. Fitting instructions and demonstrations; and

# **Respiratory Protection**

5. Purpose and explanation of medical evaluation.

New employees will be enrolled in the next scheduled formal training class, but under no circumstances will perform tasks requiring respirator use without proper medical evaluation and training.

### **RECORDKEEPING**

Medical evaluation, fit testing and training records will be retained for the duration of the employee employment plus thirty (30) years.