

# Respiratory Protection

## 1.1 PURPOSE

1.1.1 The purpose of this policy is to protect TERRY R PITT CONSTRUCTION employees from respiratory hazards, according to the requirements of 29 CFR 1910.134. Respirators are to be used only where engineering control of respiratory hazards is not feasible, while engineering controls are being installed, or during emergencies.

## 1.2 RESPONSIBILITIES

### 1.2.1 TERRY R PITT CONSTRUCTION

1.2.1.1 Ensure that employees are medically authorized to wear respiratory equipment.

1.2.1.2 Provide respiratory protection at no cost to the employee.

1.2.1.3 Require affected contractors to abide by the provisions of the company's policy in all areas where it exceeds those employee safety provisions of the contractor's program.

1.2.1.4 Routinely evaluate the work environment to assess effectiveness of respiratory equipment and provide required respiratory protection to safely perform the task.

1.2.1.5 Provide medical treatment to employees overexposed to hazardous substances.

### 1.2.2 Supervisors

1.2.2.1 Consult with management whenever there is a question regarding the proper respiratory protection to be used in a work environment.

1.2.2.2 Ensure employees remain up to date with required training.

1.2.2.3 Evaluate worksite to determine if respiratory protection is required and if so, the type.

1.2.2.4 Remain aware to changes in working conditions so that the level of PPE in use is consistent with that which is required under current conditions.

1.2.2.5 Enforce prescribed disciplinary measures for policy violations.

1.2.2.6 Suggest and initiate engineering and work practice controls to lessen the degree of potential exposure to employees under his/her supervision.

1.2.2.7 Ensure respirators are maintained according to company policy and that employees comply with proper use criteria, according to manufacturer recommendations.

### 1.2.3 Employees

1.2.3.1 Follow all verbal and written instructions with regard to safe work practices and compliance to the company's written program requirements.

1.2.3.2 Maintain awareness to areas at jobsite where respiratory equipment is required.

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- 1.2.3.3 Use, clean, and regularly inspect respiratory equipment in accordance with program and manufacturer instructions.
- 1.2.3.4 Check respirator fit each time before a respirator is put to use (positive and negative pressure checks).
- 1.2.3.5 Properly store respiratory equipment after use.
- 1.2.3.6 Know and understand emergency actions while on the jobsite, in accordance with company/customer requirements, inclusive of individual responsibilities, assembly areas emergency respirator stations, egress routes, alarms, etc.
- 1.2.3.7 Immediately notify supervisors when a respirator has malfunctioned or does not offer the proper degree of protection from exposure.
- 1.2.3.8 Understand the signs, symptoms, and consequences of exposure the hazard.
- 1.2.3.9 Exercise the buddy system in all phases of work involving TERRY R PITT CONSTRUCTION personnel and any employee of the customer or other contractors who work in close proximity to where operations will be ongoing.

## 1.2.4 Safety department/Program administrator

- 1.2.4.1 Be knowledgeable of the complexity of the program, be properly trained, and able to evaluate the *Respiratory Protection Program* routinely to monitor its effectiveness as well as employee compliance.
- 1.2.4.2 Responsible for ensuring that employee training is conducted and updated in accordance with state, federal, and customer requirements.
- 1.2.4.3 Maintain training, exposure, monitoring, and related records and will make such records available for employee review upon their request (except for exposure monitoring data which needs to be communicated immediately upon assimilation).
- 1.2.4.4 Respond to customer questionnaires and inquiries regarding the program.
- 1.2.4.5 Support management efforts to implement the program in the workplace.

## 1.3 GENERAL PROVISIONS

- 1.3.1 Employees are required to use provided respiratory protection in accordance with training and instruction received and as the manufacturer recommends with regard to use and limitations.
- 1.3.2 TERRY R PITT CONSTRUCTION will provide adequate respiratory protection to all of its affected employees who will likely work in areas where the potential of exposure to respiratory hazards exists or where respiratory protection is recommended for use in the respective work environment. Existing respirator use conditions will be evaluated with degree of protection upgraded or employees removed from the contaminated area as appropriate.

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- 1.3.3 TERRY R PITT CONSTRUCTION recognizes that most respiratory exposure hazards are readily detectable using appropriate direct reading test instrumentation. Some respiratory hazards that originate from tasks conducted by TERRY R PITT CONSTRUCTION will require assessments be done prior to employee arrival to the jobsite and appropriate respiratory protection be provided.
- 1.3.4 TERRY R PITT CONSTRUCTION will require respiratory protection be provided that is applicable and suitable for purpose intended, be worn when engineering controls are not feasible, or during emergency situations with high exposure and any of the below exists.
- 1.3.4.1 Presence of any gas is detected above the OSHA permissible exposure limit (PEL) for that gas or substance.
- 1.3.4.2 Existence of vapors, mists, and/or fumes in the work environment is evident.
- 1.3.4.3 When exposure to metal dust and fragments exists as a result of machinery.
- 1.3.4.4 Activities of other contractors that expose employees to respiratory hazards.
- 1.3.5 TERRY R PITT CONSTRUCTION will protect employees from airborne contaminants in concentrations above the permissible exposure limit (PEL). This will be accomplished as far as is feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators will be used. A respirator will be provided to each affected employee when such equipment is necessary to protect the health of such employee. TERRY R PITT CONSTRUCTION will provide respirators that are applicable and suitable for the purpose intended.
- 1.3.6 TERRY R PITT CONSTRUCTION will require subcontractors to provide respiratory protection for their own employees that will be exposed to respiratory hazards coincidental to performing work with the company. TERRY R PITT CONSTRUCTION will notify the contractor when such need for respiratory protection exists.

## 1.4 FIT TEST

- 1.4.1 TERRY R PITT CONSTRUCTION is required to ensure employees pass qualitative fit test (QLFT) or quantitative fit test (QNFT) before initial use, if a different respirator is used, and annually. SARs are required to be fit tested as well. Employees who will wear a tight-fitting face piece respirator will be fit tested using the appropriate QLFT or QNFT procedures.
- 1.4.2 TERRY R PITT CONSTRUCTION will repeat qualitative fit testing if:
- 1.4.2.1 Employee experiences a change in weight of 20 or more pounds.
- 1.4.2.2 Employee has sustained significant facial scarring in the area of the sealing edge.
- 1.4.2.3 Employee has had dental work performed that brought on significant changes to the facial structure of the employee (ex. multiple extractions, prosthetic devices, dentures).

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1.4.2.4 Employee has had reconstructive facial surgery.

1.4.2.5 Employee has been prescribed eyeglasses to wear since the last test.

1.4.3 TERRY R PITT CONSTRUCTION will not permit respirators with tight-fitting face pieces to be worn by employees who have facial hair that comes between the sealing surface of the face piece and the face or respirators that interfere with valve function, or any condition that interferes with the face-to-face piece seal or valve function.

## 1.5 MEDICAL EVALUATION

1.5.1 TERRY R PITT CONSTRUCTION will rely upon administering physician determinations regarding:

1.5.1.1 Whether the employee has physical or health conditions (acute or chronic), which would render the employee unable to wear a respirator.

1.5.1.2 How the facility complied with the requirements of ANSI Z88.2, Appendix A4, *Physiological and Psychological Limitations for Respirator Wearers*. This determines if the employee may enter into a panic-stricken state once subjected to the limitations inherent to respirator user (ex. claustrophobia, asthma attacks, etc.)

1.5.1.3 The submittal of written medical certification confirming the employee's ability to wear respiratory equipment under working conditions.

1.5.1.4 The medical evaluation will be performed by a physician or other appropriately licensed healthcare provider before affected employees will be allowed to be fit tested or wear a respirator.

1.5.2 TERRY R PITT CONSTRUCTION will use services of a predetermined medical/treatment facility to provide initial medical evaluation certification for respirator use by employees, prior to fit test, confidentially, during normal working hours, at no cost to the employee, and assist the company with making determinations regarding the potential or continued use of respirators by employees. Employees will be given a chance to discuss results with medical staff.

1.5.3 TERRY R PITT CONSTRUCTION will require an annual review of employee's medical status if the employee is required to wear a respirator in a controlled hazardous environment routinely as a part of normal job functions, the employee has had a previous exposure to a contaminant and was subsequently cleared by a medical professional to resume normal duties which are subject to exposure to contaminants coincidental to work activities, or if the employee has had an unprotected exposure to a contaminant and annual testing is part of a follow up program.

## 1.6 SPECIAL PROVISIONS AND RESTRICTIONS FOR USE

1.6.1 Employees will be restricted from wearing a respirator if:

1.6.1.1 The employee has facial hair growth that gets between the skin and the sealing edge of the respirator face piece.

- 1.6.1.2 The employee is wearing clothing to the extent that it interferes with the satisfactory fit of the respirator. When such is the case, and the apparel cannot be altered in such a way that it no longer prohibits successful face piece sealing or the clothes cannot be removed, then the employee will not be allowed to wear a respirator.
- 1.6.1.3 The employee exhibits difficulty in breathing during fit testing. If such is the case, the individual will be referred to the company's treating physician to determine the cause and determine if continued respirator use by the employee is feasible.
- 1.6.2 TERRY R PITT CONSTRUCTION will not allow employees to wear contact lenses in any environment where an airborne concentration of contaminant above the OSHA permissible exposure limit (PEL) is present.

## 1.7 RESPIRATOR SELECTION

- 1.7.1 TERRY R PITT CONSTRUCTION will evaluate all work conditions to which its employees may become exposed, in efforts to provide within reason, a work environment that is free of airborne respiratory hazards. When TERRY R PITT CONSTRUCTION cannot fully eliminate a workplace respiratory hazard, then it will provide to employees, at no cost, respiratory protective equipment appropriate for the type of hazard exposed along with workplace and user factors that affect respiratory performance and reliability.
- 1.7.2 Respirators will comply in all respects with ANSI requirements. Respirators will be NIOSH certified for the atmosphere in which they will be used and respirators will be used in compliance with the conditions of its certification.
- 1.7.3 TERRY R PITT CONSTRUCTION will assign supervisors the responsibility to monitor and evaluate use and effectiveness of respirators and cartridges in the work environment.
- 1.7.4 A dust mask for nuisance dusts and airborne particles is acceptable for use in areas where the potential for exposure to low level mists and nuisance dusts hazards exist.
- 1.7.5 Employees are responsible for selecting the respirator that offers the best fit and comfort. Employees may select from a group of respirators in an effort to find a good fit.
- 1.7.6 When employees select a respirator for use in the work environment, they will use only that respirator on which they have been tested and certified. They will be responsible for the maintenance and upkeep of the respirator facemask until such a time as the expiration date for continued effectiveness of the mask has expired or the mask has experienced a reduction in the protection factor (ex. detected by taste, smell and/or signs and symptoms, etc.).

## 1.8 TYPES OF RESPIRATORS

- 1.8.1 Supplied-air respirators (SAR) - Supply air, never oxygen, to a face piece via a supply line from a stationary source. SARs are available in positive pressure (pressure demand-give air only when you inhale, or continuous flow) and negative pressure (draws air into the face piece as a result of your own breathing).

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- 1.8.2 Air-purifying respirator (APR) - Does not supply breathable air, but only filters impurities by drawing them through a cartridge during normal breathing. These types of respirators cannot be used in atmospheres where there is a lack of oxygen sufficient enough to sustain normal breathing or where the concentration of gases or vapors exceeds nuisance level of detection.
- 1.8.3 Self-contained breathing apparatus (SCBA) - Supplies air to the user from a cylinder usually located on the individual's back. Air supply is limited and the time the supply lasts is contingent upon a number of factors. These units may be used for emergency use and pre-job surveys.

## 1.9 RESPIRATOR CARTRIDGE CHANGE SCHEDULE

- 1.9.1 Some respirator cartridges are equipped with End of Service Life Indicator (ESLI) that provides a visible indicator that shows when the cartridge is saturated and therefore must be replaced.
- 1.9.2 In the absence of an ESLI on the respirator cartridge, TERRY R PITT CONSTRUCTION will provide a respirator cartridge change schedule.
- 1.9.3 Cartridges are to be changed immediately whenever:
  - 1.9.3.1 They are not intended for protection against the contaminant to which the employee is being exposed or potentially exposed to.
  - 1.9.3.2 They do not adequately fit the face piece to which they are being attached.
  - 1.9.3.3 When employees experience a breakthrough under existing conditions and contaminants are getting through the mask.
  - 1.9.3.4 No NIOSH or OSHA certification label appears on the cartridges.
- 1.9.4 Cartridges are to be changed during routine usage whenever:
  - 1.9.4.1 They are visibly contaminated with foreign material or dust.
  - 1.9.4.2 The user cannot breathe as freely through the cartridges.
  - 1.9.4.3 The user feels as though he *tastes* the contaminants through the cartridges.
  - 1.9.4.4 Cartridge used more than 32 hours in one week period under normal conditions.
  - 1.9.4.5 Whenever the user requests a new one.
- 1.9.5 TERRY R PITT CONSTRUCTION will provide appropriate surveillance, ensure employees leave the area to change cartridges, or leave area if they detect a leak or resistance.

## 1.10 CLEANING, MAINTENANCE, AND STORAGE

- 1.10.1 Employees are required to maintain respirators in good repair and proper working condition. Any respirator that does not function properly or is worn beyond replacement parts should be turned in to the supervisor for issuance of another one.

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- 1.10.2 Employees will promptly remove damaged or defective respirators and discard them or have them repaired. Repair or adjustment to a respirator will be made using only the respirator manufacturer's NIOSH approved parts. Repairs will only be made according to the manufacturer's specifications.
- 1.10.3 TERRY R PITT CONSTRUCTION will designate an area for respirator storage. Respirators will be placed in an airtight container and stored in such a manner that they are not damaged, contaminated, and exposed to moisture, heat, oils machines, grease, dust, extreme temperatures, damaging chemicals, or direct sunlight.
- 1.10.4 Respirators must be stored in such a way that the face piece and other respirator parts are not distorted. Respirators will not be stored in areas, such as toolboxes or in lockers, without being placed in a secondary container to prevent face piece distortion.
- 1.10.5 Respirators will be cleaned, sanitized/disinfected, and kept in good working order:
  - 1.10.5.1 As often as necessary to be maintained in a sanitary condition for respirators that have been issued for the exclusive use of an employee.
  - 1.10.5.2 After each use for respirators intended for emergency use.
  - 1.10.5.3 After each use for respirators intended for fit testing and training use.
- 1.10.6 Respirators should be made sanitary and cleaned in warm water using a mild liquid detergent.
- 1.10.7 Respirators should be dried with a clean soft cloth and placed in the re-sealable bag for storage.
- 1.10.8 Respirators are to be stored in a re-sealable plastic bag in the designated storage area in the shop.
- 1.10.9 Respirators that cannot be cleaned must be turned in to the safety department for replacement and disposal. The employee will be issued a replacement.

## 1.11 RESPIRATOR INSPECTION

- 1.11.1 Respirators are to be inspected prior to each use. Emergency use respirators must be inspected at least monthly and as recommended by the manufacturer.
- 1.11.2 A respirator should be visually inspected by the employee who will wear it for cracks, rips, hard or brittle areas, and damaged port filters.
- 1.11.3 Respirator inspection items should include:
  - 1.11.3.1 Tightness of connections
  - 1.11.3.2 Condition of face piece, straps, and all other parts and filter and cartridge elements.
  - 1.11.3.3 Condition of the exhalation and inhalation valves.

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1.11.3.4 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, according to manufacturer's specifications.

1.11.3.5 If using a full-face respirator, the condition of lenses should be checked. Lenses must be tight in the face piece. Scratched or damaged lenses must be replaced.

1.11.4 Respirators that are routinely used will be inspected before and after each use by the employees who use them or at least on a daily basis when use is infrequent.

1.11.5 Random inspections will be conducted by the safety department to ensure that respirators are properly selected, fitted, used, cleaned, maintained, and stored.

## 1.12 EMERGENCY USE

1.12.1 Each respirator has limited ability to protect health. During emergency entry there is neither time nor opportunity to evaluate the degree of exposure. SCBAs are approved for use in IDLH atmospheres. After the type and degree of breathing hazards are evaluated, other respiratory equipment may be recommended.

1.12.2 TERRY R PITT CONSTRUCTION employees will not knowingly work in IDLH atmospheres without proper respiratory protection or without following appropriate procedures. When affected employees are exposed to atmospheres that have been determined to be immediately dangerous to life and health (IDLH), employees must, at a minimum, follow these procedures: For all IDLH atmospheres, TERRY R PITT CONSTRUCTION will ensure that one employee, or when needed more than one employee, is located outside the IDLH atmosphere. Visual, voice, or signal line communication must be maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere. The employee(s) located outside the IDLH atmosphere must be trained and equipped to provide effective emergency rescue. TERRY R PITT CONSTRUCTION or designee will be notified before the employee(s) located outside the IDLH atmosphere enter(s) the IDLH atmosphere to provide emergency rescue. The designee authorized to do so by TERRY R PITT CONSTRUCTION, once notified, will provide necessary assistance appropriate to the situation. Employee(s) located outside the IDLH atmospheres must be equipped with pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA, and either appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry, or an equivalent means for rescue where retrieval equipment is not required.

1.12.3 Respirators provided only for escape from IDLH atmospheres will be NIOSH certified for escape from the atmosphere in which they will be used.

1.12.4 All oxygen deficient atmospheres will be considered IDLH.

1.12.5 Employees will be restricted from using *canister-type* respirators due to the limited amount of vapors and gases they filter out.



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- 1.12.6 Ensure that emergency use respirators are inspected at least monthly and in accordance with manufacturer’s recommendations and certify the respirator by documenting inspection dates, the inspector’s identification, findings, and remedial actions.
- 1.12.7 Check for proper function before and after each use.
- 1.12.8 Emergency escape only respirators will be inspected before bringing onto the worksite for use.
- 1.12.9 Unless the respirator manufacturer specifies otherwise, emergency respirators will be stored in compartments that are clearly marked as containing emergency respirators, which will be kept accessible to the work area.
- 1.12.10 The storage compartment for each emergency respirator will be labeled or tagged with the most current inspection information.

## 1.13 RECORDKEEPING

- 1.13.1 TERRY R PITT CONSTRUCTION will establish, retain, and make available written information regarding medical evaluations, fit testing, and the respirator program in accordance with 1910.1020.
- 1.13.2 TERRY R PITT CONSTRUCTION will retain training records for duration of employment plus five years. Records will include fit testing as well as classroom instruction.
- 1.13.3 TERRY R PITT CONSTRUCTION will retain employee exposure and medical records for a period of not less than 30 years after the initial date.
- 1.13.4 TERRY R PITT CONSTRUCTION will maintain exposure analysis results and related test documentation for a period of not less than five years.
- 1.13.5 TERRY R PITT CONSTRUCTION will maintain records at the corporate office. The safety department will be responsible for record maintenance.

## 1.14 TRAINING

- 1.14.1 Employees who will work under conditions where respirators may be required will receive training at least annually, prior to assignment to a position or job where respiratory protection is required, or whenever a new type of respirator is placed in used or the employee demonstrates a lack of knowledge/training regarding the proper use of the respirator.
- 1.14.2 The training will be comprehensive, understandable, and reoccur annually or more often if necessary. Retraining will be administered annually, and when the following situations occur: Changes in the workplace or the type of respirator render previous training obsolete, inadequacies in the employee’s knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill, or when any other situation arises in which retraining appears necessary to ensure safe respirator use.
- 1.14.3 Training topics will include, but not be limited to:
  - 1.14.3.1 Why respirator use is necessary

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- 1.14.3.2 Nature of the respiratory hazard and consequences of not fitting, using, and maintaining the respirator properly
  - 1.14.3.3 Reason(s) for selecting a particular type of respirator
  - 1.14.3.4 Capabilities and limitations of the selected respirator
  - 1.14.3.5 How to inspect, put on, and remove and check the seals of the respirator
  - 1.14.3.6 Respirator maintenance and storage requirements
  - 1.14.3.7 How to use the respirator effectively in emergency situations, including when the respirator malfunctions
  - 1.14.3.8 How to recognize medical signs and symptoms that may limit or prevent the effective use of the respirator
- 1.14.4 Employees will receive training at no cost to the employee during new hire orientation as part of new employee field orientation prior to the actual start of performing work activities for the company or within the first 90 days of employment or prior to assignment to a position or job, where respirator use is required, whichever occurs first.
- 1.14.5 Employees will receive training for specific job-related hazards of a non-routine nature through safety meetings and by postings in work areas where respiratory protection is required.
- 1.14.6 All training will be documented and maintained by the TERRY R PITT CONSTRUCTION safety department.

*Terry R.*

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