



Appendix K. RESPIRATORY PROTECTION SAFETY POLICY

Purpose

This procedure addresses the requirements for Respiratory Protection in the control of occupational exposures limited to air purifying respirators. VSC Fire & Security, Inc. (hereinafter "VSC") does not routinely perform tasks which involve repeated or long-term exposure to hazardous atmospheres that require an employee to wear Respiratory Protection. However, when hazard analysis conducted at a specific jobsite indicates the need to wear Respiratory Protection, VSC will provide the affected employees with required Respiratory Protection to suit the task and identified hazard.

Regulatory Scope

This procedure addresses regulatory requirements outlined in 29 CFR 1926.103 and 29 CFR 1910.134. This policy applies to VSC employees working at any location where the employee is exposed to conditions known to contain airborne hazards. VSC will coordinate with the jobsite owner and/or general contractor to apply accepted engineering control measures to prevent atmospheric contamination. Where that is not feasible, VSC will provide respiratory protection to its employees who will work in the presence of the identified hazard.

Provisions and Use of Equipment

VSC's Risk & Safety Department (Risk-Safety) established the Respiratory Protection Safety Policy (Policy) and will implement, review and maintain it.

- When the use of a respirator is required to protect the employee's health from occupational disease caused by inhaling the identified airborne hazards, VSC will provide the equipment.
- The employee will use the provided respiratory protection in accordance with the instruction and training outlined in this Policy.
- Risk-Safety is responsible for implementing and maintaining the Policy and to ensure that the necessary medical screening, training, fit testing and equipment is provided to the employee.
- VSC employees will not enter a permit required confined space with a hazardous atmosphere requiring the use of a respirator for protection.

Procedures for Immediately Dangerous to Life or Health (IDLH) Atmospheres

VSC FIRE & SECURITY PROHIBITS EMPLOYEES FROM ENTERING ANY ATMOSPHERE THAT IS IMMEDIATELY DANGEROUS TO LIFE AND HEALTH (IDLH)! IDLH means an atmosphere containing concentrations of airborne chemicals that pose an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from the exposure environment, and, in extreme cases, death.

General Rules

As required by OSHA, VSC designates the Risk-Safety person with the most comprehensive training and experience on this subject as the Administrator of this Policy.

Responsibilities

The Administrator, in collaboration with Field Management, will:

- Provide appropriate training to affected employees and their field supervisor and/or manager(s).
- Select respirators based on the respiratory hazards evaluated in the workplace and other relevant workplace and use factors.
- Ensure respirator fit testing is provided.
- Ensure respirators are properly stored, inspected, and maintained.
- Review sanitation & storage procedures.
- Review compliance and ensure the monthly inspection of all respirators.
- Designate a physician or other licensed health care professional (PLHCP) to execute the medical aspects of this Policy when required.

Risk-Safety and Field Management will:

- Implement the requirements of this Policy.
- Provide respirators as outlined in this Policy.
- Enforce all provisions of this Policy.
- Note: Ultimate responsibility and authority for this Policy rests with the Administrator.

Host Facility or Operational Site-specific Atmospheric Hazards

When VSC employees are required to enter a not immediate, dangerous to life and health (IDLH) hazardous atmosphere to perform tasks or to access a designated respiratory protection required area, VSC field management must obtain information from the customer/client using VSC's Respirator Evaluation form and notify Risk-Safety.

Voluntary Use of Respirators

Voluntary use of a respirator is permitted only when it has been determined that there is no airborne hazard that would require the use of a respirator.

Employees may choose to voluntarily wear a **filtering face piece respirator** ("dust mask" see fig. 1) when a hazard assessment has been completed and it has been determined that there is no airborne hazard that would require the use of a respirator.



(Figure 1) filtering face piece respirator

If employees voluntarily wear an **air-purifying respirator** (see fig. 2) in atmospheres where the exposure is below the exposure limits, you must contact Risk-Safety. Unlike filtering, face piece respirators (dust mask), the use of **air-purifying respirators** requires VSC to comply with the written program, recordkeeping policies, medical evaluations and fit testing requirements stated in OSHA 1910.34.



(Figure 2) air-purifying respirator

As stated in 29 CFR 1910.134, VSC will provide to employees who voluntarily elect to use a respirator a copy of Appendix D to Sec. 1910.134. Appendix D requires the employee to comply with the following requirements:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH (National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services) certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors or very small solid particles of fumes or smoke.
4. Keep track of the respirator so that you do not mistakenly use someone else's respirator.

Training

Risk-Safety will ensure that all affected employees are properly trained by a qualified instructor in the use of respirators and will maintain a record of the training to include employee name, training topic, date of training, certifications (where applicable) and date of future training to maintain certification.

Prior to using a respirator, the employee will complete the following classroom and hands-on training:

Classroom Instruction:

- Overview of VSC's Policy and applicable OSHA standards.
- Respirator selection and color coding system.
- Respirator operation and use.
- Why the respirator is necessary.
- How improper fit, usage, or lack of maintenance can compromise the protective effect of the respirator.
- Limitations and capabilities of the respirator.
- How to use the respirator effectively in emergencies, including respirator malfunction(s).
- How to inspect, put on, use, and remove the respirator.
- How to check the seals of the respirator.
- Procedures for maintaining and storing the respirator.
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- Change-out schedule and procedure for air purifying respirators.

Hands-on Respirator Training

Each affected employee will demonstrate the ability to use the respirator properly before the employee is authorized to perform work that requires the use of respiratory protection. A qualified trainer will conduct hands-on training and will observe the trainees ability to perform the following actions:

- Inspection
- Cleaning & Sanitizing
- Storage
- Donning & Doffing (putting on & removing the respirator)
- Fit Check
- Response in Emergency Situation

Retraining

If Risk-Safety or Field Management has reason to believe, a trained employee does not have the understanding and skill required to use the selected respiratory protection, the employee will be retrained. Reasons for retraining include, but are not limited to the following:

- Changes in the workplace.
- Change in the type of respirator assigned, rendering previous training obsolete.
- Situations that arise in which retraining appears necessary to ensure safe respirator use.

Physical and Medical Qualifications

VSC will require a medical evaluation to determine the employee's ability to use a respirator before the employee is fit tested or required to wear a respirator. The designated PLHCP will obtain the information requested in the OSHA Respirator Medical Evaluation Questionnaire (Mandatory) found in 29 CFR 1910.134(e)(2)(ii) Sections 1 and 2, Part A of Appendix C.

Approved Medical Facility

Each VSC district office will identify the PLHCP that can perform the medical evaluation for its employees, and will post the provider name, location, and contact information.

VSC will ensure that all employees required to use a respirator receive an initial medical examination. Additional examination and evaluation will be conducted as deemed necessary by the PLHCP when:

- During the initial medical examination, an employee gives a positive response to any question 1 – 8, Appendix C to Sec.

1910.134 Part A. Section 2. (Mandatory).

- An employee, during the initial medical examination demonstrates the need for a follow-up medical examination.
- An employee reports medical signs or symptoms that will affect his/her ability to use a respirator.
- Observations made during fit testing or program evaluation indicates the need for reevaluation.
- There is a change in workplace conditions that may result in a substantial increase in the physiological burden placed on the employee.

Supplemental Information for the Physician

VSC will ensure that the following information is provided to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use a respirator:

- The type and weight of the respirator to be used by the employee.
- The duration and frequency of respirator use, including use for rescue and escape.
- The expected physical work effort.
- Additional protective clothing and equipment to be worn.
- Temperature and humidity extremes that may be encountered.

Risk-Safety will obtain a written recommendation from the PLHCP regarding the employee's ability to use the respirator.

Recordkeeping

Risk-Safety will retain all medical evaluations performed on employees for at least the duration of employment, plus thirty years. All medical records will be treated as confidential records. Medical evaluations, diagnostic tests, and exposure testing results are available to all employees or their designated legal representative. This information will be provided in a timely manner and at no cost to the employee.

Respirator Fit Testing

VSC will ensure that all employees required to use any respirator with a negative or positive pressure tight-fitting face piece is fit tested with the same make, model, style, and size of respirator that will be used. Fit testing will be conducted annually, and at any time the brand, size, or style of the respirator has changed, or when there are physical changes to the employee that may affect the sealing capabilities of the respirator (i.e. weight gain or loss, facial injury, dental changes, etc.).

Recordkeeping

Risk-Safety will maintain a record of the qualitative and quantitative fit tests administered to employees including:

- The name or identification of the employee tested.
- Type of fit test performed.
- Specific make, model, style and size of respirator tested.
- Date of test.
- The pass/fail results for qualitative fit tests, or the fit factor and strip chart recording or other recording of the test results for quantitative fit tests.

Fit Testing Procedure:

Note: Do not conduct the fit test if any hair growth is between the skin and face piece sealing surface!

The employee will:

- Select an appropriate respirator that is the same make, model, style, and size of the respirator to be used.
- Be shown how to correctly don the respirator, including the correct position on the face, how to set the strap tension, and determine if it fits properly.
- Understand that he/she should select the respirator that provides the most acceptable fit.
- Be instructed to hold each chosen face piece up to their face and eliminate those that do not fit properly.
- Make note of all face pieces that are acceptable.
- Choose a face piece that is an acceptable fit.
- Wear the face piece for five minutes to assess its comfort.
 - Assessment of comfort will address:
 - Position of the mask on the nose
 - Room for eye protection
 - Room to talk
 - Position of mask to face and cheeks
- Don the facemask several times and adjust the straps each time so that the employee understands how to adjust the straps to ensure the correct fit.
- Determine the adequacy of respirator fit by answering the following questions:

- Is chin placement proper?
- Is the strap tension adequate (not too tight or loose)?
- Does the respirator fit across the nose bridge?
- Is the respirator of proper size to span the distance from the nose to the chin?
- Does the respirator have a tendency to slip?
- Conduct a self-observation in a mirror to evaluate fit and respirator position!
- Conduct a Positive or Negative pressure seal check AFTER adjusting the mask side to side, or up and down, for proper fit.
 - To conduct a Positive Pressure check:
 - Close off the exhalation valve and exhale gently into the face piece.
 - When slight pressure builds inside the face piece and there is no evidence of outward leakage of air at the seal, a satisfactory fit test is completed.
 - To conduct a Negative Pressure check:
 - Use the palm of your hand or replace the filter seal to close off the inlet opening of the canister or cartridge(s).
 - Inhale gently so that the face piece collapses slightly.
 - Hold your breath for ten seconds.
 - When the face piece remains slightly collapsed and there is no inward leakage of air, a satisfactory fit test is completed.
- Select a new face piece if the seal check test fails. Continue to follow the seal check test steps until a face piece passes the test!
- Be referred to a physician if the employee exhibits difficulty in breathing, to determine if the employee is able to wear a respirator.
- Select a new respirator and be re-tested if the fit of the respirator is unacceptable.
- Complete an exercise fit test.
 - Obtain a written description of the exercises to be performed.
 - Wear the respirator to be tested for at least five minutes before starting the test.
 - Wear all safety equipment required for the task being performed during this portion of the test.
- Perform the following exercises in the test environment specifically as follows:
 - (Note: Conduct each phase of the test for one minute except the grimace test, which lasts 15 seconds)
 - (Note: Do not adjust the respirator at any time during the fit test)
 - Stand in the normal position and breathe normally without talking.
 - Stand in the normal position taking slow deep breaths, making sure not to hyperventilate.
 - Stand in the normal position and slowly turn your head from side to side, inhaling when the head is turned to the most extreme side position.
 - Stand in the normal position and slowly move your head up and down, inhaling when the head is in the up position.
 - Slowly talk aloud in a voice loud enough to be heard clearly by the person conducting the test.
 - Read from a prepared text, recite a poem from memory, or count backwards from 100.
 - Grimace by smiling or frowning.
 - Bend at the waist as if to touch your toes. (Note: Jog in place if wearing the respirator does not permit bending)
 - Communicate the comfort of the respirator to the trainer.
 - If the respirator is uncomfortable, choose another model.
 - Conduct fit testing of the new respirator in the same manner as described above.

Qualitative Fit Test (QLFT)

Risk-Safety will ensure that the appropriate QLFT is performed according to OSHA accepted protocol. QLFT is only used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less, as opposed to half-mask or other devices where only a protection factor of 10 is needed.

The four OSHA accepted protocols for qualitative fit testing are:

- Isoamyl Acetate – the respirator must be equipped with cartridges designed to remove organic vapors.
- Saccharin – the respirator must be equipped with a particulate filter of any class.
- Bitrex™ - the respirator must be equipped with a particulate filter of any class.
- Irritant Smoke – the respirator must be equipped with level 100 particulate filters.

Selection of Respirators

Risk-Safety will select the proper type of respiratory protective equipment based on the following:

- NIOSH approved respirators only.
- Identifying the substance or substances against which protection is necessary (material, dust, mist, fume, or vapor).

- Determining the concentration levels.
- Knowing the hazards posed by each of the substances and its significant properties in the atmosphere.
- Determining the conditions of exposure.
- Knowing the limitations of the equipment selected.

Note: If any of the above conditions cannot be determined accurately, the company will assume the worst possible conditions prevail.

Respirator Use

Risk-Safety requires that respirators will be used by qualified individuals and per the manufacturer's recommendations. The effectiveness of the respirator will be reevaluated if there is a change in:

- Work area conditions; or
- Degree of employee exposure; or
- Stress that may affect respirator effectiveness.

Face Piece Seal Protection

VSC does 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 that interferes with valve function.
- Any condition that interferes with the face-to-face piece seal or valve function.
- If an employee wears corrective glasses or goggles, or other PPE, the company will ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face.

Respirator Maintenance and Care

Respirator Inspection

Employees will take responsibility for the care and maintenance of their assigned respirator. If any deficiencies are found the respirator will be removed from service use and returned to VSC management for repair or replacement. VSC management will be responsible to ensure:

- All respirators are inspected after each use and at least monthly.
- All respirators are checked for proper function before and after each use.
- Respirators that are maintained for use in emergencies will be inspected at least monthly and in accordance with the manufacturer's recommendations.

Respirator Storage

Risk-Safety will ensure that:

- All respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals.
- All respirators are packed or stored to prevent deformation of the face piece and exhalation valve.

Repair of Respirators

Risk-Safety will ensure that all respirators that failed an inspection, or are otherwise found to be defective, will be promptly removed from service for discard, repair, or adjustment according to the manufacturer's recommendations.

Cleaning and Disinfecting

Each employee who uses a respirator will be responsible for cleaning and disinfecting the respirator by using the manufacturer's procedures, or if they do not exist, will follow these procedures:

Procedures for Cleaning Respirators:

- Remove filters, cartridges, or canisters.
- Disassemble face pieces. (Remove speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer.)
- Discard or repair defective parts.
- Wash components in warm (43 degrees C/110 degrees F maximum) water with mild detergent or with a cleaner recommended by the manufacturer.
- If there is dirt, use a stiff bristle (non-wire) brush to remove dirt.
- Rinse components thoroughly in clean (43 degrees C/110 degrees F maximum) warm running water and drain.
- Hand-dry components with a clean lint-free cloth or air-dry.
- Reassemble the face piece, replacing filters, cartridges, and canisters if necessary.
- Test the respirator to ensure all components work properly.

Respirator Filter & Canister Replacement

Risk-Safety will ensure that each filter and canister is equipped with an end-of-life indicator (ESLI) certified by NIOSH for a specific contaminant or the appropriate change schedule. The company will maintain a stock of spare filters and cartridges in order to allow immediate change when necessary.

Filters and cartridges are to remain in their original sealed packages until needed for immediate use and are to be changed based on the most limiting factor below:

- Prior to the date of expiration.
- According to the manufacturer's recommendations for a specific use and environment.
- After each use.
- When requested by the employee.
- When contaminate odor is detected.
- When restriction to airflow has occurred as evidenced by increased effort by user to breathe normally.
- When discoloring of the filter media is evident.

Respiratory Protection Schedule by Job and Working Condition

Risk-Safety will maintain a "Respiratory Protection Schedule" by job and working conditions. The schedule will be reviewed and updated at least annually, and whenever any changes occur:

- In the work environment; or
- To machinery or equipment or processes; or if
- Different respirator models are introduced or existing models are removed.

Continuing Effectiveness of Respirators

If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, VSC will replace or repair the respirator before allowing the employee to return to the work area.

Employees are to leave the respirator use area for the following reasons:

- To wash their faces and respirator face pieces, as necessary to prevent eye or skin irritation associated with respirator use.
- If they detect vapor or gas breakthrough.
- Changes in breathing resistance, or leakage of the face piece.
- To replace the respirator or the filter, cartridge, or canister elements.

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