Model Respiratory Protection Program

This model policy is provided with the understanding that, to the best of our knowledge, it complies with all necessary federal OSHA requirements and includes all necessary federal OSHA language. It also includes applicable sections from NFPA 1550 Standard for Emergency Responder Health and Safety, 2024 edition, and best practices from the current edition of the IAAI Health & Safety Committee's Fire Investigator Health and Safety Best Practices. The end user accepts all risk of any non-compliance arising from modifications. PPC, Inc. shall not be liable for any damages should the end user make changes that adversely affect OSHA or other regulatory compliance. Additionally, in OSHA state-plan states, end users are advised to verify that no additional state regulations or language are required.

The language in most definitions and the listed sections of this model respiratory protection program is taken directly from the applicable federal OSHA standards and their associated appendices. This model policy follows the federal OSHA model policy. However, some elements have been rearranged for clarity in our industry. End users are cautioned to check 29 CFR 1910.134 and all appendices before making any changes. Noted language not associated with the OSHA standards may be deleted, altered, or added at the user's discretion.

Read through and understand the entire document before making any changes.

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[Insert your organization's logo and header information here, and delete the previous page. Alternatively, you can copy the text below and insert it into your policy template.]

This policy document, issued under the authority of **[insert authority, i.e., fire marshal, fire chief, etc.],** is effective as of **[insert effective date].**

Purpose and Policy Statements
Scientific studies have shown that post-fire scenes contain gases and particulates that can harm the health of persons working in these environments. Even with mitigation controls in place, these hazards can persist for extended periods. Additionally, an employee's physical workload can vary from light to heavy at any post-fire scene; they may work in various weather conditions and wear additional personal protective equipment, all of which can impact their health. Therefore, employees must use respiratory protection when working in warm or hot zones at post-fire scenes unless a waiver has been issued.

Pursuant to the OSHA regulations contained in Title 29 of the Code of Federal Regulations, §1910.134 and its appendices, of the federal Occupational Safety and Health Standards, and the applicable industry best practices, this respiratory protection program applies to all employees who enter the warm and hot zones of all post-fire scenes. **[State plan states may need to add to or modify this reference in favor of their state regulations.]**

We will provide each employee with a respirator because we have determined that such equipment is necessary to protect their health. These respirators shall be applicable and suitable for protecting employees from the health hazards associated with the post-fire environment. We will provide respirators, training, and medical evaluations at no cost to the employee.

This policy incorporates by reference and complies with the applicable sections of 29 CFR 1910.134 and its mandatory appendices. **[OSHA state plan states – enter any additional applicable reference language here].**

This program shall be administered by a qualified manager, through appropriate training or experience commensurate with its complexity, to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness**. [This is specific OSHA language – do not delete].**

This program is administered by [insert the title of the position responsible], who shall be responsible for managing the entire respiratory protection program.

Definitions

An air-purifying respirator is a type of respirator equipped with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Canister or cartridge - a container with a filter, sorbent, or catalyst, or a combination of these items, which removes specific contaminants from the air passed through the container.

Cold zone - The area at a post-fire scene that is free from contamination and is used as a planning and staging area, as well as the rehab area and rally point(s).

Emergency situation - any occurrence, such as but not limited to, equipment failure, rupture of containers, or failure of control equipment, that may or does result in an uncontrolled significant release of an airborne contaminant.

A filter or air-purifying element is a component in a respirator that removes solid or liquid aerosols from the air.

Fit test - the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

High-efficiency particulate air (HEPA) filter - a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are N100, R100, and P100.

Hot zone - This typically describes a potential IDLH environment and, in the post-fire environment, includes the burned area/structure, adjacent debris area, and collapse zone.

Immediately dangerous to life or health (IDLH) - an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

A negative-pressure respirator (tight-fitting) is a respirator in which the air pressure inside the facepiece is negative during inhalation relative to the ambient air pressure outside the respirator.

Physician or other licensed healthcare professional (PLHCP) - an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows them

to independently provide or be delegated the responsibility to provide some or all of the healthcare services required by paragraph (e) of this section.

A powered air-purifying respirator (PAPR) uses a blower to force ambient air through air-purifying elements into the inlet covering.

Qualitative fit test (QLFT) - a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative fit test (QNFT) - an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Self-contained breathing apparatus (SCBA) - an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Service life - the period that a respirator, filter sorbent, or other respiratory equipment provides adequate protection to the wearer.

A tight-fitting facepiece is a respiratory inlet covering that forms a complete seal with the face.

User seal check - an action conducted by the respirator user to determine if the respirator is properly seated to the face. This is also called a fit check.

Warm zone - The area immediately outside of the Hot Zone (scene and collapse area), which is a transition area between the Hot and Cold Zones. This is where tools and personnel will be decontaminated, initial first aid will be provided to scene participants, and equipment will be resupplied. This zone includes the sootprint and requires adequate and appropriate PPE, including respiratory protection.

Responsibilities

A. Program Administrator shall:
    1. Be responsible for the overall administration of this program.
    2. Arrange for or conduct all training required by this program.
    3. Arrange for or conduct all fit testing required by this program.
    4. Administer the medical surveillance required by this program.
    5. Maintain an adequate supply of all items required by this program.
    6. Retain a written copy of the current respirator program and the applicable OSHA standards and make them available to employees.
    7. For all employees exposed to identified hazards for the duration of employment, retain the written certifications of a hazard assessment and employee training.

8. Comply with all other duties as identified elsewhere in this document.

B. Supervisors shall:
   1) Be aware of the tasks requiring the use of respiratory protection pursuant to this program.
   2) Ensure that their employees understand and comply with all aspects of this program.
   3) Ensure that all their employees, including new hires, have received appropriate training, fit testing, and medical evaluations before attending any scene where respirator use pursuant to this program may be required.
   4) Conduct regular scheduled and unscheduled inspections of their employees' respiratory protection equipment to ensure proper storage, cleaning, and fit.
   5) Monitor and enforce respirator use and program compliance by their employees.
   6) Coordinate with the program administrator regarding any program issues or concerns.

C. Employees shall:
   1) Comply with all applicable sections of this program.
   2) Wear the issued respirator when and where required by this program and in the manner in which they were trained.
   3) Care for and maintain their issued respirator as trained and as required by this program.
   4) Inform their supervisor if their issued respirator no longer fits or otherwise needs replacement.
   5) Inform their supervisor or the program administrator in the supervisor's absence of any concerns regarding this program.
   6) Inform their supervisor or program administrator in the supervisor's absence of any medical signs or symptoms related to their ability to use a respirator.
   7) If they believe they are at a scene that does not require respiratory protection, they should contact their supervisor to request a waiver of the applicable provisions of this program. If a waiver is granted, it shall be noted in the employee's written report.

Respirator Selection

Because it has been determined that working at a post-fire scene poses significant respiratory health hazards to our employees, we will provide a respirator that adequately protects your health and ensures compliance with all other OSHA statutory and regulatory requirements in routine and reasonably foreseeable emergency situations.

Pursuant to the guidelines established by the International Association of Arson Investigators Health & Safety Committee as published in the current edition of Fire

Investigator Health and Safety Best Practices, which have been reviewed by staff at NIOSH's National Personal Protection Technology Laboratory, the only respirators that shall be issued to and used by employees working at post-fire scenes are:

A. A half-facepiece air purifying respirator (APR) or powered air purifying respirator (PAPR) with an assembly that has a P100 cartridge and a filter that protects from oily vapors, acid gases, and formaldehyde, or
B. A full facepiece air purifying respirator (APR) or powered air purifying respirator (PAPR) with an assembly that has a P100 cartridge and a filter that protects from oily vapors, acid gases, and formaldehyde, or
C. SCBA.
D. Employees may not use any APR, PAPR, or any other respiratory device not issued to them.
E. Only NIOSH-certified respirators will be used, and they shall be used in compliance with their certification conditions. The above specifications are NIOSH compliant pursuant to 1910.134(d)(3)(iii) for gases and vapors and 1910.134(d)(3)(iv) for particulates.
F. All filters, cartridges, and canisters used shall be labeled and color-coded with the NIOSH approval label, which shall not be removed and shall remain legible.
    1) P100 filters are marked in magenta.
    2) All cartridges that include formaldehyde protection are marked in olive.
    3) These are the only filters and cartridges that shall be used.

Medical Evaluations

Because using a respirator may place a physiological burden on employees that can vary with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee, a medical evaluation to determine the employee's ability to use a respirator shall be conducted before the employee is fit tested or required to use the respirator in the workplace.

A. We will use a physician or other licensed health-care professional (PLHCP) to perform medical evaluations using a medical questionnaire (see 29 CFR 1910.134 Appendix C) or an initial medical examination that obtains the same information as the medical questionnaire.
B. All medical procedures shall be in conformance with Subsection 1910.134(e) and Appendix C.
C. The program administrator shall provide the physician or PLHCP with a copy of this program.
D. The physician or PLHCP shall provide a written recommendation regarding the employee's ability to use the respirator and comply with the provisions of §1910.134(e)(6)(i).

E. All affected employees must pass this medical evaluation before wearing a respirator. No employee may wear a respirator for any reason until it has been medically determined that they can do so.
    1) Follow-up exams shall be conducted as deemed necessary or as required by the standards.
    2) The employee shall have the opportunity to speak with the physician or PLHCP about their medical evaluation if they so request.
    3) An employee who refuses a medical evaluation may not enter the hot or warm zone of any scene and may be subject to termination.
F. If the respirator is a negative pressure respirator and the PLHCP finds a medical condition that may place the employee's health at increased risk if the respirator is used, we will provide a PAPR if the PLHCP's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then the employer is no longer required to provide a PAPR.
G. We will provide additional medical evaluations that comply with the requirements of this section if:
    1) An employee reports medical signs or symptoms that are related to their ability to use a respirator.
    2) A PLHCP, supervisor, or the respirator program administrator informs the employer that an employee needs to be reevaluated.
    3) Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation or
    4) A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may substantially increase an employee's physiological burden.

Fit Testing Procedures

A. All fit testing shall be performed in accordance with the procedures in Appendix A of §1910.134.
B. Before an employee may be required to use any respirator with a negative or positive pressure tight-fitting facepiece, the employee must be fit tested with each respirator issued to them using an OSHA-accepted QLFT or QNFT protocol. QLFT may only be used to fit test negative-pressure air-purifying respirators that must achieve a fit factor of 100 or less.
C. The program administrator shall ensure that employees using a tight-fitting facepiece respirator pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT) as prescribed in §1910.134(f).

D. Each employee using a tight-fitting facepiece respirator shall be fit tested before initial use, whenever a different respirator facepiece (size, style, model, or make) is issued for use, and at least annually thereafter.
E. We will conduct an additional fit test whenever the employee reports or the employer, PLHCP, supervisor, or program administrator makes visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or a noticeable change in body weight.
F. If, after passing a QLFT or QNFT, the employee subsequently notifies the employer, program administrator, supervisor, or PLHCP that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator facepiece and to be retested.

Procedures for Respirator Use

These procedures outline the proper use of respirators in routine and reasonably foreseeable emergency situations.

A. All employees who enter the warm and hot zones of every post-fire scene shall comply with the following subsections of this respiratory protection program.
    i. Only under extenuating circumstances and for a very limited period, such as identifying an area of fire origin to be protected during overhaul, shall investigators enter a post-fire scene that has not been fully extinguished for at least two hours. If this is necessary, the only acceptable respiratory protection is SCBA.
    ii. Investigators entering a post-fire scene that has been fully extinguished for at least two hours shall wear their issued APR or PAPR.
B. Employees may not have facial hair that comes between the sealing surface of the facepiece and the face, interferes with valve function, or is in any condition that interferes with the face-to-facepiece seal or valve function.
C. Employees may not wear headphones, jewelry, or other articles that may interfere with the facepiece-to-face seal.
D. Employees may not wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal.
E. If an employee wears corrective glasses, goggles, or other personal protective equipment, the respirator must be worn in a manner that does not interfere with the seal of the facepiece to the user's face.
F. Employees shall perform a seal check/fit check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and negative pressure checks listed in Appendix B-1 of Subsection 1910.134 or the respirator manufacturer's recommended user seal check method shall be used.

G. All employees shall don/put on their respirators, along with all other PPE, while in the cold zone and preferably upwind of the post-fire scene. The employee must wear the respirator at all times while in the warm and hot zones. It shall only be doffed/removed in the cold zone or at the appropriate time during the decontamination process.
H. Under no circumstances shall an employee enter an area that has been determined to be or is suspected of being IDLH.
I. Under no circumstances shall an employee enter a permit-required confined space.
J. If an employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece, they shall immediately move to the cold zone and not reenter the warm or hot zone until the respirator has been repaired or replaced.
K. Any employee identifying a situation in which they believe the circumstances do not warrant the use of respiratory protection shall contact their supervisor for a waiver of this policy. If approved, this approval and the issuing person's name shall be noted in the employee's written report.

Respirator Maintenance

A. Cleaning and Disinfecting
    1) Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to maintain a sanitary condition.
    2) Pursuant to §1910.134 Appendix B, respirators must be cleaned in a manner that prevents damage to the respirator and does not cause harm to the user. The procedures below shall be followed to clean all respirators after every use unless the manufacturer's instructions are more stringent, in which case those shall be followed.
    3) Remove filters, cartridges, or canisters. Disassemble facepieces by removing the speaking diaphragms, demand and pressure-demand valve assemblies, hoses, and any other components recommended by the manufacturer.
    4) Discard and replace or repair any defective parts.
    5) Wash components in warm (110°F maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate dirt removal.
    6) Rinse components thoroughly in clean, warm (not exceeding 110°F), preferably running, water. Drain.
    7) When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
        a) Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 110°F or,
        b) 2. An aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium or potassium iodide/100 cc of 45% alcohol) to one liter of water at 110°F or

c) 3. Other commercially available cleansers of equivalent disinfectant quality, when used as directed and recommended or approved by the respirator manufacturer.

8) Rinse components thoroughly in clean, warm (but not exceeding 110°F) water, preferably running. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
9) Components shall be hand-dried with a clean, lint-free cloth or air-dried.
10) Reassemble the facepiece, replacing filters, cartridges, and canisters where necessary.
11) Test the respirator to ensure that all components work correctly.

B. Storage
   1) All respirators shall be stored in an airtight container when not in use.
   2) All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. They shall also be packed or stored to prevent deformation of the facepiece and exhalation valve.

C. Inspection
   1) All respirators shall be inspected before each use and during cleaning.
   2) The following checklist will be used when inspecting respirators:
      - Facepiece:
        - cracks, tears, or holes
        - facemask distortion
        - cracked or loose lenses/face shield
      - Valves:
        - Residue or dirt
        - Cracks or tears in valve material
      - Head straps:
        - breaks or tears
        - broken buckles
      - Filters/Cartridges:
        - approval designation
        - gaskets
        - cracks or dents in housing
        - proper cartridge for the hazard
   3) All inspections shall include:
      a) A check of respirator function, tightness of connections, and the condition of the various parts, including, but not limited to, the facepiece, head straps, valves, connecting tubes, cartridges, canisters, or filters.

b) A check of elastomeric parts for pliability and signs of deterioration.

D. Repairs
   1) Any respirator that fails an inspection or is otherwise found to be defective shall be removed from service and discarded, repaired, or adjusted in accordance with the following procedures:
      a) Repairs or adjustments to respirators shall be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator.
      b) Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed.

E. Discarding
   1) Respirator filter/cartridge assemblies shall be replaced according to the manufacturer's guidelines or whenever breathing becomes the slightest bit restricted or an odor breakthrough occurs, whichever comes first.
   2) Facepieces shall be discarded whenever they fail to maintain an airtight seal or are damaged in any way that makes them unserviceable.

Employee Training: Hazard Exposure

A. All new employees shall receive training regarding the gas and particulate health hazards of the post-fire environment and related information before they are allowed to be in the warm and hot zones of any post-fire scene.
B. All employees shall receive training at least annually on the gas and particulate health hazards of the post-fire environment and related information.
C. This training shall be comprehensive and understandable and include a review of this policy and all associated procedures. Each employee shall have adequate time to review this policy document and ask questions to ensure their complete understanding of the policy.

Employee Training: Proper Use, Donning, and Doffing

A. All new employees shall receive training regarding the proper use, donning, and doffing of their issued respirator and related information before they are allowed to be in the warm or hot zone of any post-fire scene.
B. All employees shall receive annual training regarding the proper use, donning, and doffing of their issued respirator and related information.
C. Retraining shall occur whenever:
   1) Changes in the workplace or the type of respirator render previous training obsolete.
   2) Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill, or
   3) Any other situation arises in which retraining appears necessary to ensure safe respirator use.

D. This training shall be comprehensive and understandable and include a review of this policy and all associated procedures. Each employee shall have adequate time to review this policy document and ask questions to ensure their complete understanding of the policy.
E. This training shall include, but not be limited to:
    1) Why the respirator is necessary, and how improper fit, usage, or maintenance can compromise its protective effect.
    2) The limitations and capabilities of the respirator.
    3) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
    4) How to inspect, put on, remove, use, and check the seals of the respirator.
    5) The procedures for the maintenance and storage of the respirator.
    6) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators, and
    7) Any other information regarding this program.
F. The program administrator is responsible for managing the respiratory protection training program.

Program Evaluation

A. The program administrator shall update this program as necessary to reflect changes in workplace conditions that affect employee respirator use and shall review it at least annually.
B. The program administrator shall conduct workplace evaluations as necessary to ensure that the provisions of the current written program are being effectively implemented and that they continue to be effective.
C. The program administrator shall regularly consult employees who are required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be evaluated include, but are not limited to:
    1) Respirator fit (including the ability to use the respirator without interfering with effective workplace performance).
    2) Appropriate respirator selection for the hazards to which the employee is exposed.
    3) Proper respirator use under the workplace conditions the employee encounters.
    4) Proper respirator maintenance.

Recordkeeping

A. Medical evaluation
    1) Records of medical evaluations required by this section must be retained and made available in accordance with 29 CFR 1910.1020.

B. Fit Testing
   1) The employer shall establish a record of the qualitative and quantitative fit tests administered to an employee, including:
      a) The name or identification of the employee tested.
      b) Type of fit test performed.
      c) The specific make, model, style, and size of the respirator tested.
      d) Date of the test; and
      e) The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.
   2) Fit test records shall be retained for respirator users until the next fit test is administered.

C. [OSHA does not specify a record retention period other than what is above. Employers should follow their record retention requirements and insert any necessary language here.]