SAMPLE

FIRE DEPARTMENT

RESPIRATORY

PROTECTION

PROGRAM

NOTICE:

The purpose of this document is to aid in the development of a written program for respiratory protection for fire departments using SCBA. To be in compliance with 1910.134 an employer may use this or any other format that will satisfy all the requirements of the standard. This program is designed to be adapted to the needs of each fire department and does not substitute for a full reading of the standard.

Rev. 3 (7/17/23)

Building a Fire Department Respiratory Protection Program

The following provides a sample path for a fire department to build a respiratory protection program when one is not in place. There are several ways to properly implement a program, this is merely a guide.

- Step 1: Select a program administrator. This person will oversee the program and learn it inside and out. He/she will be the "go to" resource for the program.
- Step 2: Identify a health care provider that can perform respirator medical evaluations. Appendix A of the sample FD respiratory protection program has instructions to provide a prospective health care provider. EMTs and Paramedics may be able to review the initial respirator questionnaire with written permission from their EMS System Medical Director.
- Step 3: Identify a source for a respirator fit-test machine. In some cases, occupational health care providers may already have a machine. These machines are usually expensive and cost in excess of \$10,000. Since fit tests are usually only necessary once per year, several departments can pool funds to share a fit test machine. Your local chief's association or MABAS division may also be able to assist with locating a machine.
- Step 4: Ensure SCBA are inspected monthly and in accordance with manufacturer's recommendations. In most cases, the manufacturer will require an annual "flow test." Contact the manufacturer of your SCBA to get a list of authorized organizations that are qualified to perform the flow test. Also, ensure your air bottles have been hydrotested and are not expired. Most bottles have a five-year hydrotest interval and most composite bottles have a fifteen-year life. Document the inspections.
- Step 5: Select designated members that will wear SCBA. You do not have to put the entire roster through this process. You do need at least four members since OSHA requires "two-in, two-out" for interior structural firefighting.
- Step 6: Put designated members through a medical evaluation. They must complete the questionnaire located in the appendix of the program or have a medical examination (health care provider decides). Upon completion, the health care provider will give the department a written determination if the member can wear an SCBA or not. A sample written determination is in the appendix of the program.
- Step 7: Fit test the designated members. Most fit test machines have self-guided instructions. A fit factor 500 or more is considered passing. It is recommended to keep the records for three years.
- Step 8: Train the designated members on SCBA use, requirements for interior structural firefighting, cleaning, storing, inspecting, repairs and other training topics as outlined in the program. Document the training.
- Step 9: The program requires that designated members can demonstrate knowledge of several topics. This is included in the training section of the program, page 5. Document that designated members can demonstrate proficiency.
- Step 10: Now that you have a program up and running, the department needs to maintain the program and ensure all elements of the program are being properly implemented. Congratulations!

Guidance on Medical Re-evaluations (non-mandatory)

Although annual medical evaluations are not required by the respiratory protection standard, 1910.134, they are not prohibited and could be considered a best practice to ensure designated members that wear SCBA are evaluated on a periodic basis. 1910.134 does provide specific information on when a designated member needs to be medically re-evaluated. At a minimum, the fire department shall provide additional medical evaluations if:

- A designated member report medical signs or symptoms that are related to the ability to use a respirator;
- A medical provider, supervisor, or the respirator program administrator informs the department a designated member needs to be evaluated;
- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or
- A change occurs in workplace conditions that may result in a substantial increase in the physiological burden placed on the designated employee.

If a fire department elects to follow the minimum requirements for re-evaluation, it is probable that a designated member could "slip through the cracks" and need a medical re-evaluation but not receive one. This may not be identified until the member suffers an injury while wearing SCBA. Three methods may be utilized to meet or exceed compliance with 1910.134. These may not be the only methods that meet or exceed compliance. It is recommended the fire department consults with their selected healthcare provider to determine the appropriate method to meet or exceed compliance.

Method 1 (exceeds standards): Designated members receive an annual comprehensive medical examination that incorporates the medical evaluation requirements as provided in the respiratory protection sample program. NFPA standard 1582 – Standard on Comprehensive Occupational Medical Program for Fire Departments could serve as a reference for designing the components of the medical examination.

Method 2 (exceeds standards): Designated members are medically evaluated per the respiratory protection sample program on an annual basis. The selected healthcare provider determines if the designated member completes the respirator questionnaire or has a medical examination that obtains the same information as the questionnaire.

Method 3 (meets standards): Designated members are observed annually performing activities while "on air" wearing SCBA. This would be completed "in-house." A fire department would obtain vital signs from each designated member before and after wearing an SCBA. The designated member would perform physical activities of similar duration, intensity and work effort to interior structural fire fighting operations. The physical performance and vital signs of the member would be accepted or rejected based on criteria provided by the healthcare provider. If rejected, the member would be referred to the healthcare provider for a medical evaluation as described in method 2.

NOTE: The fire brigades standard, 1910.156, requires employers to "assure that employees who are expected to do interior structural fire fighting are physically capable of performing duties which may be assigned to them during emergencies." Appendix A of 1910 Subpart L – Fire Protection states that physically capable can be "determined by physical performance tests or by a physical examination." Implementing physical performance tests or medical examinations for 1910.134 compliance may also satisfy the 1910.156 requirement.

BLANK FIRE DEPARTMENT POLICY AND PROCEDURES MANUAL

SOP X-X

SUBJECT: Respiratory Protection Program

EFFECTIVE DATE: XX-XX-XXXX

REVISED: XX-XX-XXXX

REVIEW FREQUENCY: annually SIGNED: Fire Chief

PURPOSE

OSHA standard 1910.134 Respiratory Protection requires that a Respiratory Protection Program shall be established, implemented, and maintained whenever respirators are required to be used in an occupational setting. OSHA standard 1910.156 Fire Brigades adds additional requirements for fire departments that use self-contained breathing apparatus (SCBA). This SOP has been established by the fire department to meet OSHA requirements and ensure the health and safety of members that wear respiratory protection.

SCOPE AND APPLICATION

This SOP applies to all members that may be required to wear respiratory protection.

RESPONSIBILITIES

Fire Department Leadership:

- Establish, implement, maintain, and evaluate the program.
- Provide respirators that are clean, sanitary, and in good working order.
- Ensure SCBA are inspected at least monthly and in accordance with the manufacturer's recommendations.
- Provide initial training (proper use and care) prior to respirator use and annually thereafter at a minimum.
- Provide initial medical evaluations and determine the need for revaluation.
- Provide annual fit testing.
- Provide respirators, training, and medical evaluations at no cost to the member.
- Select/appoint a suitably trained program administrator.
- Provide a copy of this program to the physician or other licensed health care professional selected to perform medical evaluations.

Program Administrator:

- Administer and oversee the program.
- Conduct required evaluations of program effectiveness.
- Coordinate annual medical evaluations, fit testing, and training.
- Note: the program administrator may designate other employees to assist with or carry out specific functions.

Designated Members:

- Wear assigned respirator when and where required and in the method trained.
- Care for and maintain respirators as instructed and store them in a clean and sanitary location.
- Inform supervisor if the respirator no longer fits well.
- Inform supervisor of medical signs or symptoms that could affect the ability to use a respirator.
- Inform supervisor of any respiratory hazards that are not adequately addressed in the workplace and of any other concerns regarding the program.
- Use in accordance with fire department SOP and manufacturer's recommendations.
- Complete initial medical evaluation and any reevaluation as necessary.
- Complete annual fit testing.
- Always operate in a safe manner.

SELECTION OF RESPIRATORS

The fire department has selected a NIOSH certified, full facepiece, positive pressure self-contained breathing apparatus (SCBA) designed for use in interior structural firefighting and other IDLH environments.

The fire department shall designate members expected to perform interior structural fire fighting or perform in other IDLH environments. IDLH environments shall be considered but are not limited to the following until air monitoring or other evidence proves otherwise:

- All interior structural fires.
- All oxygen deficient atmospheres (oxygen content below 19.5% by volume).
- "Hot zones" during hazardous materials incidents.
- Confined space entries.
- Areas that are suspected of being IDLH.
- Areas that may rapidly become IDLH.

MEDICAL EVALUATIONS

Each designated member must undergo a medical evaluation to determine their ability to use a respirator. This must occur prior to being fit tested or using a respirator.

Medical Provider:

The department shall select a licensed health care professional who is legally permitted within their scope of practice to provide a medical evaluation (via questionnaire or examination as determined by the provider) as required by this program. EMTs and Paramedics may be able to review the initial respirator questionnaire with written permission from their EMS System Medical Director.

Medical Provider Name Address & Phone number

Ouestionnaire:

Designated members shall complete the OSHA Respirator Medical Evaluation Questionnaire provided by the department. Upon completion the questionnaire shall be provided directly to the medical provider. The questionnaire is provided in the appendix of this SOP.

Follow-up Medical Examination:

A follow-up medical examination will be provided for a designated member who gives a positive response to any question among questions 1-8, Section 2, Part A of the questionnaire. The medical provider shall use any procedures deemed necessary to make a final determination.

Written Determination to Fire Department:

The medical provider will provide a written determination to the fire department regarding the designated member's ability to use the respirator. The designated member will also receive a copy of the written determination. The medical provider will **not** provide the fire department with protected health information. A sample written determination form is in the appendix.

Need for Re-evaluation (keep this section or replace with equivalent method or one of the three methods in the medical re-evaluation guidance document):

At a minimum, the department shall provide additional medical evaluations if:

- A designated member report medical signs or symptoms that are related to the ability to use a respirator;
- A medical provider, supervisor, or the respirator program administrator informs the department a designated member needs to be evaluated;
- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or
- A change occurs in workplace conditions that may result in a substantial increase in the physiological burden placed on the designated employee.

FIT TESTING

Designated members must be fit tested with SCBA that is currently in service. The program administrator or his/her designee(s) will oversee the fit testing of designated members. The program administrator or his/her designee(s) must be trained on the proper method of administering the fit test in accordance with OSHA 1910.134 Respiratory Protection and any applicable manufacturer's procedures. **Fit testing must occur annually**, whenever a report is received of changes in the designated member's physical condition that could affect respirator fit, or the designated member states the fit of the respirator is unacceptable.

Fit tests will be administered using an OSHA-accepted qualitative or quantitative test in the negative pressure mode. The protocol used will be stated on the fit test record for each designated member. If a quantitative test is utilized, a fit factor of 500 or more will be considered passing for SCBA facepieces.

SCBA USE

Designated members will use SCBA under conditions specified by this program, and in

accordance with model-specific training they receive. The SCBA shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer. Designated members shall conduct user seal checks each time that they wear their respirator. **Designated members are not permitted to wear SCBA if they have any condition such as facial scars, beards or other facial hair, or missing dentures, that prevents them from achieving a good seal.** Employees are not permitted to wear headphones, jewelry, glasses, or other articles that may interfere with the facepiece-to-face seal.

INTERIOR STRUCTURAL FIREFIGHTING REQUIREMENTS

- At least two members enter and remain in visual or voice contact with each other at all times and at least two SCBA equipped members are located outside the IDLH atmosphere.
- One of the two members outside may be assigned to an additional role as long as they can perform assistance or rescue activities without jeopardizing safety.
- Exterior members must be trained and equipped to provide effective emergency rescue and must notify if they are attempting an emergency rescue.
- Upon receipt of a notification of emergency rescue, the notified member must provide appropriate assistance.
- Communications must be maintained between interior members and exterior members.
- SCBAs shall have a low air alarm that sounds when rated service time reaching 20-25%.

CLEANING AND STORING

The fire department shall provide members with a respirator that is sanitary, and in good working order. Fire department personnel shall ensure that respirators are cleaned and disinfected using the procedures recommended by the respirator manufacturer.

- Respirators issued for the exclusive use of a firefighter shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition.
- Respirators issued to more than one firefighter shall be cleaned and disinfected before being worn by different individuals.
- Respirators used in fit testing and training shall be cleaned and disinfected after each use.
- Respirator face pieces assigned to personnel (personal facepieces) shall be cleaned and disinfected as required by the user of the facepiece.
- The face piece shall be placed in a clean, dry container and stored in a manner which prevents deformation of the face seal, other damage, or contamination.

Enter cleaning and disinfecting procedure supplied by the manufacturer here.

INSPECTING

- All SCBA shall be inspected at least monthly **and** in accordance with manufacturer's recommendations. Check: most manufacturers require an annual flow test.
- SCBAs shall be checked for proper function before and after each use.

- SCBA inspections shall be documented (name, date, SCBA number, actions) and include:
 - Function check, connection check, condition of facepiece, head straps, valves, tubes, cylinders, signs of deterioration for rubber/plastic parts.
 - o All cylinders shall be maintained in a fully charged state (minimum 90% of rated pressure level).
 - o Regulator and warning devices shall function properly.

REPAIRS

SCBA shall be removed from service (restrict access) until repaired. Repairs shall be made only be members trained to perform repairs and shall only use NIOSH-approved parts from the manufacturer. Reducing valves, regulators and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

BREATHING AIR

Breathing air in the SCBA cylinder shall meet the requirements of the Compressed Gas Association G-7.1-1989, Commodity Specification for Air, with a minimum air quality of Grade D.

Breathing air compressors shall:

- Prevent entry of contaminated air into the supply system.
- Minimize moisture content.
- Have suitable air-purifying sorbent beds that are maintained in accordance with manufacturer's instructions.
- Prevent breathing air from exceeding 10ppm of carbon monoxide.

Breathing air cylinders shall:

• Be tested (commonly known as hydrostatic testing) and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 180).

TRAINING

The fire department is required to provide training to those who use SCBA. The training must be comprehensive, understandable, occur annually, and more often if necessary. Documentation of this training shall occur. The fire department shall ensure each designated member can demonstrate knowledge of at least the following:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- What the limitations and capabilities of the respirator are;
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to inspect, put on and remove, use, and check the seals of the respirator;
- What the procedures are for maintenance and storage of the respirator;

- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators;
- The general requirements of this program.

The training shall be conducted in a manner that is understandable to the designated member. Retraining shall be administered annually, or when the following situations occur:

- Changes in the workplace or the type of respirator render previous training obsolete;
- Inadequacies in the designated member's knowledge or uses of the respirator indicate that they have not retained the requisite understanding or skill;
- Any other situations arise in which retraining appears necessary to ensure safe respirator use.

PROGRAM EVALUATION

Each year the program administrator shall initiate a review of the procedures contained in this program and recommend changes as necessary. All designated members who wear, service or supervise employees wearing SCBA shall periodically be asked to provide information on:

- Adequacy of the respirator(s) being used.
- Accidents, incidents in which the respirator failed to provide adequate protection.
- Adequacy of training and maintenance on respirator use.

RECORDKEEPING

The fire department is required to keep the following records:

- Medical evaluation records
- Fit testing records for the last three years.
- Training records

APPENDIX A

Instructions for medical provider (respirator medical evaluation)

Give this and the next page to the medical provider and ensure they provide services in accordance with this document and OSHA 1910.134 Respiratory Protection.

Eligibility to provide medical evaluations: IL OSHA requires a physician or other licensed health care professional to provide medical evaluations on designated members that are required to wear respirators. A physician or other licensed health care professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of OSHA 1910.134.

Copy of Respiratory Protection Program: Ensure you obtain a copy of the fire department's respiratory protection program. They are required to provide this to you.

Department specific information: Ensure you obtain the specific type of respirator/SCBA that the department uses.

Use environment: SCBA will be used during firefighting or other emergency operations. It will be used as needed in emergency response. The expected physical work effort will be strenuous. It will be used while wearing bunker gear and other personal protective equipment. It will be used in cold and hot temperature extremes.

Written Determinations: The medical provider will provide a written determination to the fire department regarding the designated member's ability to use the respirator. The designated member will also receive a copy of the written determination. The medical provider will not provide the fire department with protected health information.

Job Title

TO BE COMPLETED BY THE EXAMINER/REVIEWER:

арриes):
[] Full-faced powered cartridge-type (PAPR)
[] Single use, filter mask (four attachment points)
[] Half-faced cartridge-type, negative pressure
[] Self-contained breathing apparatus (SCBA)
[] Full-faced cartridge-type respirator, negative pressure
[] Hood/helmet powered cartridge-type (PAPR)
[] Half-faced powered cartridge-type (PAPR)
[] Half-faced/Full-faced/Hood/Helmet (NOT positive pressure)
Restrictions / Limitations (if any) when wearing a respirator:
[] This employee has been found to be physically NOT able to use a respirator
[] There is insufficient information to make a determination at this time
[] The mandatory questionnaire has been reviewed, and the employee has been found to be physically able to use a respirator.
[] The mandatory questionnaire has been reviewed but there is insufficient information to make a determination at this time.
This respirator clearance expires no expiration [] 1 [] 2 [] 3 [] years from the date below. (<i>If not marked, clearance expires in 1 year</i>)
Reviewer's Name (Print)
Reviewer's Signature Date:

This employee has been found to be physically able to use the following (check each [] that

The respiratory protection standard requires an initial medical evaluation to determine the employee's ability to use a respirator before the employee is fit tested or required to use the respirator in the workplace. At a minimum the employer must provide additional evaluations if an employee shows signs or symptoms that are related to their ability to wear a respirator. There is not a specific annual requirement for medical evaluations in the standard. However, the physician or other licensed healthcare provider

(PLHCP) may prescribe annual tests to ensure employees' continued ability to wear a respirator. Source: OSHA letters of interpretation; 1910.134 - Respiratory protection medical evaluations: additional evaluations; use of employee's physician; testing; medical removal; and confidentiality. [10/21/2004]

OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee:

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date:
2. Your name:
3. Your age (to nearest year):
4. Sex (circle one): Male/Female
5. Your height: ft in.
6. Your weight: lbs.
7. Your job title:
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code):
9. The best time to phone you at this number:
10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No
11. Check the type of respirator you will use (you can check more than one category): a N, R, or P disposable respirator (filter-mask, non-cartridge type only). b X Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
12. Have you worn a respirator (circle one): Yes/No
If "yes," what type(s):

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

- 1. Do you *currently* smoke tobacco, or have you smoked tobacco in the last month: Yes / No
- 2. Have you ever had any of the following conditions?
- a. Seizures: Yes / No
- b. Diabetes (sugar disease): Yes / No
- c. Allergic reactions that interfere with your breathing: Yes / No
- d. Claustrophobia (fear of closed-in places): Yes / No
- e. Trouble smelling odors: Yes / No
- 3. Have you ever had any of the following pulmonary or lung problems?
- a. Asbestosis: Yes / No
- b. Asthma: Yes / No
- c. Chronic bronchitis: Yes / No
- d. Emphysema: Yes / No
- e. Pneumonia: Yes / No
- f. Tuberculosis: Yes / No.
- g. Silicosis: Yes / No
- h. Pneumothorax (collapsed lung): Yes / No
- i. Lung cancer: Yes / No
- j. Broken ribs: Yes / No
- k. Any chest injuries or surgeries: Yes / No
- I. Any other lung problem that you've been told about: Yes / No
- 4. Do you *currently* have any of the following symptoms of pulmonary or lung illness?
- a. Shortness of breath: Yes / No
- b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes / No
- c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes / No
- d. Have to stop for breath when walking at your own pace on level ground: Yes / No
- e. Shortness of breath when washing or dressing yourself: Yes / No
- f. Shortness of breath that interferes with your job: Yes / No
- g. Coughing that produces phlegm (thick sputum): Yes / No
- h. Coughing that wakes you early in the morning: Yes / No

- i. Coughing that occurs mostly when you are lying down: Yes / No
- j. Coughing up blood in the last month: Yes / No
- k. Wheezing: Yes / No
- I. Wheezing that interferes with your job: Yes / No
- m. Chest pain when you breathe deeply: Yes / No
- n. Any other symptoms that you think may be related to lung problems: Yes / No
- 5. Have you ever had any of the following cardiovascular or heart problems?
- a. Heart attack: Yes / No
- b. Stroke: Yes / No
- c. Angina: Yes / No
- d. Heart failure: Yes / No
- e. Swelling in your legs or feet (not caused by walking): Yes / No
- f. Heart arrhythmia (heart beating irregularly): Yes / No
- g. High blood pressure: Yes / No
- h. Any other heart problem that you've been told about: Yes / No
- 6. Have you ever had any of the following cardiovascular or heart symptoms?
- a. Frequent pain or tightness in your chest: Yes / No
- b. Pain or tightness in your chest during physical activity: Yes / No
- c. Pain or tightness in your chest that interferes with your job: Yes / No
- d. In the past two years, have you noticed your heart skipping or missing a beat: Yes / No
- e. Heartburn or indigestion that is not related to eating: Yes / No
- f. Any other symptoms that you think may be related to heart or circulation problems: Yes / No
- 7. Do you *currently* take medication for any of the following problems?
- a. Breathing or lung problems: Yes / No
- b. Heart trouble: Yes / No
- c. Blood pressure: Yes / No
- d. Seizures: Yes / No
- 8. If you've used a respirator, have you *ever had* any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)
- a. Eye irritation: Yes / No

- b. Skin allergies or rashes: Yes / No
- c. Anxiety: Yes / No
- d. General weakness or fatigue: Yes / No
- e. Any other problem that interferes with your use of a respirator: Yes / No
- 9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes / No

Questions 10 to 15 below must be answered by every member who has been selected to use a self-contained breathing apparatus (SCBA).

- 10. Have you ever lost vision in either eye (temporarily or permanently): Yes / No
- 11. Do you *currently* have any of the following vision problems?
- a. Wear contact lenses: Yes / No
- b. Wear glasses: Yes / No
- c. Color blind: Yes / No
- d. Any other eye or vision problem: Yes / No
- 12. Have you ever had an injury to your ears, including a broken ear drum: Yes / No
- 13. Do you *currently* have any of the following hearing problems?
- a. Difficulty hearing: Yes / No
- b. Wear a hearing aid: Yes / No
- c. Any other hearing or ear problem: Yes / No
- 14. Have you ever had a back injury: Yes / No
- 15. Do you *currently* have any of the following musculoskeletal problems?
- a. Weakness in any of your arms, hands, legs, or feet: Yes / No
- b. Back pain: Yes / No
- c. Difficulty fully moving your arms and legs: Yes / No
- d. Pain or stiffness when you lean forward or backward at the waist: Yes / No
- e. Difficulty fully moving your head up or down: Yes / No
- f. Difficulty fully moving your head side to side: Yes / No
- g. Difficulty bending at your knees: Yes / No
- h. Difficulty squatting to the ground: Yes / No

- i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes / No
- j. Any other muscle or skeletal problem that interferes with using a respirator: Yes / No