

Lehi City Fire Department Respiratory Protection Program

Purpose

This program is intended to protect Lehi Fire Department firefighters from hazardous atmosphere through a comprehensive program of recognition; evaluation; engineering, administrative and work practice controls; and personal protective equipment, including respirators. Hazard elimination and engineering and work practice controls shall be employed to control team member exposure to within allowable exposure limits as much as possible.

Self Contained Breathing Apparatus (SCBA) and other personal protective equipment shall be provided to firefighters under this program. Lehi Fire Department is committed to full compliance with applicable federal and state regulations pertaining to team member respiratory protection.

This Respiratory Protection Program and is designed to protect team members by establishing accepted practices for SCBA use, providing guidelines for training and explaining proper storage, use and care of respirators. This program also serves to help Lehi Fire Department and its firefighters comply with Occupational Safety and Health Administration (OSHA) respiratory protection requirements as found in 29 CFR 1910.134.

This program applies to all Lehi Fire Department firefighters who wear a SCBA to perform assigned duties. Including but not limited to the following activities:

- Firefighting
- Hazardous materials response

- Confined space rescue

Responsibilities

Lehi Fire Department

Lehi Fire Department is responsible for providing SCBA's to firefighters when they are necessary for hazardous atmosphere entries. Lehi Fire Department will provide SCBA's that are properly maintained. Any expense associated with training, medical evaluations and respiratory protection equipment will be borne by Lehi Fire Department.

Captains

Captains are responsible for being knowledgeable about the program requirements for their own protection, captains must also ensure that the program is understood and followed by the firefighters under their charge. Duties of the Captains include:

- Ensuring that firefighters under their supervision (including new hires) receive appropriate training, fit testing, and annual medical evaluation.
- Ensuring the availability of appropriate SCBA's and accessories.
- Being aware of tasks requiring the use of respiratory protection.
- Enforcing the proper use of respiratory protection when necessary.
- Ensuring that SCBA's and masks are properly cleaned, maintained, and stored according to this program.
- Ensuring that respirators fit well and do not cause discomfort.
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding this program.

Firefighter

Each firefighter is responsible for wearing his or her SCBA when and where required and in the manner in which they are trained. Firefighter must also:

- Use the respiratory protection in accordance with the manufacturer's instructions and the training received.
- Care for and maintain their SCBA and mask as instructed, guard them against damage, and store them in a clean, sanitary location.
- Immediately report any defects in the respiratory protection equipment and whenever there is a SCBA malfunction, immediately evacuate to a safe area and report malfunction.
- Promptly report to the Captain any symptoms of illness that may be related to SCBA usage or exposure to hazardous atmospheres.
- Report any health concerns related to SCBA use or changes in health status to the Captain
- Inform their Captain or the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding this program.

Respirators Maintained for Emergency Use

For respirators maintained for emergency use, the employer shall:

- Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator; and
- Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included

in inspection reports stored as paper or electronic files. This information shall be maintained until replaced following a subsequent certification.

Program Administrator

The Program Administrator is responsible for administering the respiratory protection program. Duties of the program administrator include:

- Keeping up with knowledge about respiratory protection and maintaining an awareness of current regulatory requirements and good practices.
- Identifying work areas, process or tasks that require workers to wear respirators. • Evaluating hazards.
- Selecting respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their specifications.
- Arranging for and/or conducting training.
- Ensuring proper storage and maintenance of respiratory protection equipment. • Conducting quantitative fit testing with the Port-a-count.
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Evaluating the program.
- Updating written program, as needed.

Medical Provider

- Spirometry testing
- Physical exam
- Collaborate with the program administrator regarding test results if qualification will be delayed

Respiratory Protection

Hazard Assessment and Respirator Selection

The Program Administrator will select respirators to be used on site, based on the hazards to which workers are exposed and in accordance with the OSHA Respiratory Protection Standard. The Program Administrator will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. A log of identified hazards will be maintained by the Program Administrator. The hazard evaluations shall include:

- Identification and development of a list of hazardous substances used in the workplace by work process.
- Review of work processes to determine where potential exposures to hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing the process records, and talking with firefighters and captains.
- Exposure monitoring to quantify potential hazardous exposures.

The proper type of respirator for the specific hazard involved will be selected in accordance with the manufacturer's instructions

Updating the Hazard Assessment

The Program Administrator must revise and update the hazard assessment as needed (i.e., any time work process changes may potentially affect exposure). If a team member feels that respiratory protection is needed during a particular activity, he/she is to contact his/her supervisor or the Program Administrator. The Program Administrator will evaluate the potential hazard, and arrange for outside assessment if necessary. The Program Administrator will then

communicate the results of that assessment to the team members. If it is determined that respiratory protection is necessary, all other elements of the respiratory protection program will be in effect for those tasks, and the respiratory program will be updated accordingly.

NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH).

Medical Evaluation

Team members who are required to wear respirators must pass a medical exam provided by Lehi Fire Department before being permitted to wear a respirator on the job. Team members are not permitted to wear respirators until a health care provider has determined that they are medically able to do so. Any team member refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

Medical evaluation requirements by respirator

- Air-line Respirator
- Baseline physical (includes Run-Hop or alternate comparable test) then every 2 years.
- Baseline Spirometry
- Medical questionnaire
- Baseline labs (i.e. blood and urine analysis).
- Ability to don an SCBA unit, and move through anatomical positions that would be required while performing tasks related to SCBA use.
- Additional tests if indicated by questionnaire responses and or at the discretion of the provider

Frequency of exams

- Medical Questionnaire
- Annually for all types

- Physicals (to include Spirometry, run-hop or alternate comparable test, donning SCBA and demonstrating ability to perform tasks, and lab tests per clinic protocol)

- o SCBA: every 2 years or sooner if indicated by PLHCP

- The medical evaluation will be conducted using the questionnaire provided in Appendix C of the OSHA Respiratory Protection Standard 1910.134. The Program Administrator will provide a copy of this questionnaire to all firefighters requiring medical evaluations.

- To the extent feasible, the company will provide assistance to firefighters who are unable to read the questionnaire. When this is not possible, the firefighter will be sent directly to the physician for medical evaluation.

All affected firefighters will be given a copy of the medical questionnaire to complete, along with a stamped and addressed envelope, if necessary, for mailing the questionnaire to the company physician. Firefighters will be permitted to complete the questionnaire on company time.

- Follow-up medical exams will be granted to firefighter as required by the Standard, and/or as deemed necessary by the evaluating physician.

- All firefighters will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.

The Program Administrator shall provide the evaluating physician with a copy of this Program, a copy of the OSHA Respiratory Protection Standard, the list of hazardous substances by work area, and the following information about each team member requiring evaluation:

- his or her work area or job title;
- proposed respirator type and weight;
- length of time required to wear respirator;
- expected physical work load (light, moderate or heavy);
- potential temperature and humidity extremes; and

- any additional protective clothing required.

Positive pressure air purifying respirators will be provided to team members as required by medical necessity.

- After a firefighter has received clearance to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:
 - The firefighter reports signs and/or symptoms related to their ability to use the respirator, such as shortness of breath, dizziness, chest pains or wheezing.
 - The evaluating physician or supervisor informs the Program Administrator that the team member needs to be reevaluated.
 - Information found during the implementation of this program, including observations made during the fit testing and program evaluation, indicates a need for reevaluation.
 - A change occurs in workplace conditions that may result in an increased physiological burden on the team member.
- All examinations and questionnaires are to remain confidential between the firefighter and the physician. The Program Administrator will only retain the physician's written recommendations regarding each team member's ability to wear a respirator.

Fit Testing

Firefighters who are required to or who voluntarily wear respirators will be fit tested:

- Prior to being allowed to wear any respirator with a tight-fitting face piece;
- Annually; or

- When there are changes in the firefighter's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).

Firefighters will be fit tested with the make, model, and size of respirator that they will actually wear. Team members will be provided with several models and sizes of respirators so that they may find an optimal fit. Fit testing of powered air purifying respirators will be conducted in the negative pressure mode.

The Program Administrator will conduct fit tests in accordance with Appendix A of the OSHA Respiratory Protection Standard 1910.134.

Fit test records will include the following information in accordance with Appendix M of the OSHA Respiratory Protection Standard 1910.134:

The employer shall establish a record of the qualitative and quantitative fit tests administered to an employee 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; and the pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.

Fit test records shall be retained for respirator users until the next fit test is administered. A written copy of the current respirator program shall be retained by the employer. Written materials required to be retained under this paragraph shall be made available upon request to affected employees and to the Assistant Secretary or designee for examination and copying.

General Use Procedures

Firefighters will use their respirators under conditions specified in this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.

All firefighters shall conduct seal checks each time they wear their respirators. Team members shall use either the positive or negative pressure check (depending on which test works best for them) as specified in the OSHA Respiratory Protection Standard.

- **Positive Pressure Test:** This test is performed by closing off the exhalation valve with your hand. Breathe air into the mask. The face fit is satisfactory if some pressure can be built up inside the mask without any air leaking out between the mask and the face of the wearer.

- **Negative Pressure Test:** This test is performed by closing of the inlet openings of the cartridge with the palm of you hand. Some masks may require that the filter holder be removed to seal off the intake valve. Inhale gently so that a vacuum occurs within the face piece. Hold your breath for ten (10) seconds. If the vacuum remains, and no inward leakage is detected, the respirator is fit properly.

Firefighters are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures that would prevent a proper seal. Firefighters are not permitted to wear headphones, jewelry, or other items that may interfere with the seal between the face and the face piece.

Before and after each use of a respirator, a firefighters or captain must make an inspection of tightness or connections and the condition of the face piece, headbands, and valves. Questionable items must be addressed immediately by the captain and/or Program Administrator.

Breathing Air Quality

For supplied-air and SCBA respirators, only Grade D breathing air shall be used. Breathing air cylinders will be filled at the station.

Cleaning

Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station. All respirators are to be cleaned and disinfected after each use.

The following procedure is to be used when cleaning and disinfecting reusable respirators:

Wash the face piece and all associated parts (except cartridges and elastic headbands) in an approved cleaner-disinfectant solution in warm water (about 120 degrees Fahrenheit). Do not use organic solvents. Use a hand brush to remove dirt.

- Rinse completely in clean, warm water.
- Disinfect all facial contact areas by spraying the respirator with an approved disinfectant.
- Air dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place respirator in a clean, dry bag.

The Program Administrator will ensure an adequate supply of appropriate cleaning and disinfection materials at the cleaning station. If supplies are low, firefighter should notify their captain, who will inform the Program Administrator.

Maintenance

Respirators are to be properly maintained at all times in order to ensure

that they function properly and protect firefighter adequately.

Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer. Repairs to regulators or alarms of atmosphere-supplying respirators will be conducted by the manufacturer.

- All respirators shall be inspected routinely before and after each use.
- The Respirator Inspection Checklist (See Attachment G – 1 and G - 2) will be used when inspecting respirators.
- A record shall be kept of inspection dates and findings for respirators maintained for emergency use.

Storage

After inspection, cleaning, and necessary repairs, respirators shall be stored appropriately to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.

- Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each team member will clean and inspect their own mask in accordance with the provisions of this program, and will store their mask in a bag. Each team member will have his/her name on the bag and that bag will only be used to store that team member's mask.
- Respirators shall be packed or stored so that the face piece and exhalation valve will rest in a near normal position.
- Respirators maintained at stations and work areas for emergency use shall be stored in compartments built specifically for that purpose, be quickly accessible at all times, and be clearly marked.

Respirator Malfunctions and Defects

For any malfunction of a respirator, such as breakthrough, face piece leakage, or improperly working valve, the respirator wearer should inform his/her captain that the respirator no longer functions as intended, and go to the designated safe area to maintain the respirator. The captain must ensure that the team member either receives the needed parts to repair the respirator or is provided with a new respirator.

All firefighters wearing respirators will work with a buddy. The Program Administrator shall develop and inform firefighters of the procedures to be used when a buddy is required to assist a firefighter who experiences a malfunction.

Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, a firefighter discovers a defect in a respirator, he/she is to bring the defect to the attention of his/her captain. Captains will follow the damaged equipment policy and tag the damaged/defective equipment and notify the equipment officer. The equipment officer will decide whether to:

- Temporarily take the respirator out of service until it can be repaired;
- Perform a simple fix on the spot, such as replacing a head strap; or
- Dispose of the respirator due to an irreparable problem or defect.

When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service, and the firefighter will be given a replacement of a similar make, model, and size.

Training

The Program Administrator will provide training to respirator users and their captains on the contents of the Lehi Fire Departments Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection Standard. All affected firefighters and their captains will be trained prior to using a respirator in the workplace. Captains will also be trained prior to supervising firefighters that must wear respirators. There will also be annual training on the care and use of SCBA's and Lehi Fire Department Respiratory Protection Program.

The training course will cover the following topics:

- The Lehi Fire Department Respiratory Protection Program;
- The OSHA Respiratory Protection Standard (29 CFR 1910.134);
- Respiratory hazards encountered by firefighters and their health affects;
- Proper selection and use of respirators;
- Limitations of respirators;
- Respirator donning and user seal (fit) checks;
- Fit testing
- Emergency use procedures;
- Maintenance and storage; and

- Medical signs and symptoms limiting the effective use of respirators.

Firefighters will be retrained annually and as needed. Team members must demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test.

The Program Administrator will document respirator training and the documentation will include the type, model, and size of respirator for which each team member has been trained and fit tested.

Training records shall be maintained for at least 5 years. Team members shall be re-trained under the following circumstances:

- Changes in their job assignment(s)
- Deficiencies found during the annual program audit
- Deviation from established procedures
- Inadequate team member knowledge of the respiratory protection program

Documentation and Recordkeeping

A written copy of this program and the OSHA Respiratory Protection Standard shall be kept in the Program Administrator's office and made available to all firefighters who wish to review it.

Copies of training and fit test records shall be maintained by the Program Administrator. These records will be updated as new firefighters are trained, as existing firefighters receive refresher training, and as new fit tests are conducted.

Medical Records Management

Respiratory Medical Surveillance records will be maintained in the firefighter's medical record. At the time of termination, firefighter's records pertaining to the Respiratory Medical Surveillance Program will be kept in their medical records for length of employment plus thirty

(30) years according to OSHA 29 CFR 1910.1020

Access to records shall be provided upon written request of the firefighter, former firefighter or representatives designated by the firefighter (29 CFR 1910.1020(a) through (e) and (g) through (i)).

Documentation

Firefighter consultations and medical provider referrals will be maintained in the firefighter's medical record.

The external provider is to return the Lehi Fire Department Medical Determination form and firefighter questionnaire to Lehi Fire Department. These documents will remain a part of the Lehi Fire Department medical record.

Program Audit

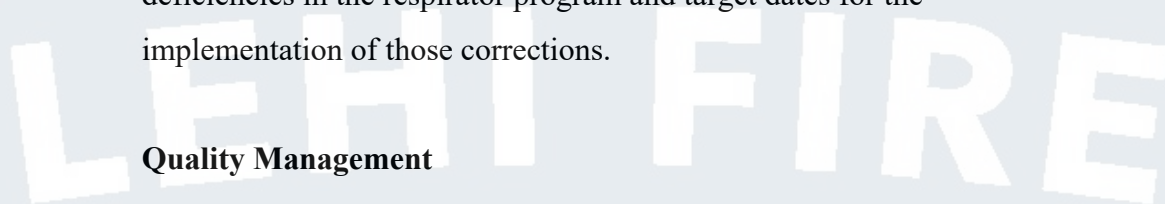
The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with firefighters who use respirators and their captains, site inspections, air monitoring and a review of records. Items to be considered will include:

- comfort;
- ability to breathe without objectionable effort;
- adequate visibility under all conditions
- provisions for wearing prescription glasses;
- ability to perform all tasks without undue interference; and
- confidence in the face piece fit.

Identified problems will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to Lehi Fire Department management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

Quality Management

The Quality Management activities for this program are to be reviewed at least annually.

A large, semi-transparent watermark of the Lehi Fire Department logo is centered on the page. The logo is a Maltese cross with a red border. At the top of the cross, the words "LEHI FIRE" are written in large, white, bold, sans-serif capital letters. In the center of the cross is a circular emblem containing a yellow ladder on the left, a red fire station with a tower in the middle, and a blue Star of Life on the right. Above the central emblem is a white banner with the text "EST 1901" in black. Below the central emblem is another white banner with the text "UTAH" in black. The background of the logo is a light blue and white gradient.