
Respiratory Protection Program

I. PURPOSE

- A. It is the intention of the CMPD Crime Lab to implement and maintain a Respiratory Protection Program (RPP) that protects employees from airborne hazards in the workplace. CLB employees must make every reasonable effort to employ engineering controls to eliminate airborne hazards. However, if it is not possible to reduce or eliminate a hazard, or while the hazard is being eliminated, correctly chosen respirators are utilized to help reduce potential exposures to hazardous materials.

II. RESPIRATOR SELECTION

- A. Respirators shall be selected based on the respiratory hazard(s) and workplace and user factors that affect respirator performance and reliability. When selecting the appropriate respirator, the following considerations must be given to the selection process:
1. What are the contaminants (known or suspected)?
 2. What are their concentrations (known or suspected)?
 3. Are they gaseous or particulate?
 4. Do they have adequate warning properties?
 5. Are the concentrations immediately dangerous to life or health (IDLH)?
 6. Does the air contain at least 19.5% oxygen?
 7. Is eye protection required?
 8. Under what conditions/circumstances are they being used (controlled or uncontrolled)?
 9. Are the contaminants slow or fast acting?
 10. What is the toxicity of the contaminants (low to high)?
- B. A review of the **Biology** Section employee's job operations and potential exposure scenarios was performed. As a result, one type of respirator was selected. A P95 Particulate Nuisance Level Organic Vapor Relief respirator is the only respirator that is currently approved for use by these employees and should be used under the following circumstances:
1. When spraying Luminol without the protection of a Chemical or Biohazard Hood.
 2. When working with items in a manner that may cause airborne biological contamination without the protection of a Chemical or Biohazard Hood.
- C. If there is ever any question as to the level of protection provided by the assigned respirators, or a need for a different respirator is required, please contact the Section Supervisor and the Safety and Chemical Hygiene Officer for assistance in the proper selection.

III. MEDICAL EVALUATION OF RESPIRATOR USERS

- A. A medical evaluation must be performed to determine the employee's ability to use a respirator prior to fit testing or use of respiratory protective equipment. The evaluation may be performed using either a medical questionnaire or an initial medical examination that obtains the same information as the questionnaire. The questionnaire is located in Appendix IX.

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- B. The City of Charlotte physician evaluates the results of either the questionnaire or exam in making a decision as to whether an employee can safely wear a respirator. They may also determine if the employee requires further evaluation, or is ineligible to wear respiratory protection. All information regarding the type of respirator and usage will be provided to the physician prior to the medical evaluation.
- C. Other circumstances that may warrant periodic medical evaluations include:
 - 1. Experiencing signs or symptoms that relate to the ability to use a respirator.
 - 2. The section supervisor or respirator program administrator identifies the need for re-evaluation.
 - 3. Information obtained during program evaluation or difficulties in fit testing.
 - 4. Changes in workplace conditions that may result in changed physiological burdens placed on the employee.
- D. Medical questionnaires shall be administered in a confidential manner and in such a way that the employee understands the content. Employees shall have the opportunity to discuss the questionnaire and examination results with the physician.
- E. The City of Charlotte physician shall provide a written recommendation regarding the employee's ability to use a respirator. The recommendation shall provide information on any limitations on respirator use related to the medical condition of the employee, the need for any follow-up medical evaluations, and a statement that the employee has been provided a copy of the physician's written recommendation.

IV. RESPIRATOR FIT TESTING

- A. Employees who wear respirators shall be evaluated to ensure that the respirator fits well enough to reduce the potential exposure to below the relevant permissible exposure limit. Employees shall be fit tested prior to initial use of the respirator, whenever a different brand or size of respirator is used, and annually thereafter. Fit testing shall be conducted using an OSHA accepted qualitative fit test protocol, and may only be performed by appropriately trained personnel.
- B. An additional fit test shall be performed if the employee's physical facial condition changes that may affect the respirator fit. Such changes include, but are not limited to:
 - 1. Facial scarring,
 - 2. Dental changes,
 - 3. Cosmetic surgery, or
 - 4. An obvious change in body weight.
- C. Fit testing will be documented and records will be retained for five years by the S&CHO.
- D. General qualitative fit test instructions are provided in Appendix X.

V. TRAINING

- A. Training shall be provided prior to requiring employees to wear a respirator. Medical evaluations shall be completed before training occurs. Employees shall receive training that is comprehensive, understandable, and recur annually unless additional sessions are required due to a change in equipment or job function. Inadequacies in the employee's knowledge or use of the respirator indicating the requisite understanding or skill has not been retained will also require additional training sessions.

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- B. The training must, at a minimum, address the topics outlined in the OSHA standard.
 - 1. Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
 - 2. What the limitations and capabilities of the respirator are.
 - 3. How to use the respirator effectively in emergency situations, including situations where the respirator malfunctions.
 - 4. How to inspect, put on and remove, use, and check the seals of the respirator.
 - 5. What the procedures are for maintenance and storage of the respirator.
 - 6. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
 - 7. The general requirements of the OSHA regulation on respirators.

VI. USE OF RESPIRATORS

- A. Employees shall not wear respirators if physical conditions or additional protective equipment prevent a proper seal or interfere with the function of the respirator. Respirators shall be immediately repaired or discarded and replaced when they are no longer in proper original working condition.
- B. Employees donning a respirator shall perform positive and negative pressure user seal checks prior to entering the area requiring respiratory protection use.
- C. Employees shall leave the area requiring respirator use if:
 - 1. They detect vapor breakthrough, changes in breathing resistance, or leakage of the respirator.
 - 2. They need to replace the respirator.

VII. MAINTENANCE AND CARE OF RESPIRATORS

- A. Respirators will be issued for the exclusive use of an employee. Each employee is responsible for the cleanliness, storage and inspection of their respirator.
- B. Respirators shall be stored in essentially dust-proof containers away from chemicals, sunlight, and heat, extreme cold and excessive moisture. Respirators must be stored in a normal position to prevent distortion or impairment of function. Respirators shall be inspected prior to each use. Inspections shall include, but are not limited to:
 - 1. A check of respirator function, tightness of connections, and the condition of the various parts.
 - 2. A check of elastic straps for pliability and signs of deterioration.
- C. Respirators that fail to pass inspection shall be discarded or adjusted as necessary.