



# Garner Police Department Written Directive

**Chapter:** 300 - Personnel

**Directive:** 330.04 - Respiratory Protection Program

**Authorized by:** Chief Brandon Zuidema

**Effective Date:** April 1, 2018

**CALEA Standards:** Not Applicable

**Last Revision:** October 1, 2014

## 330.4.1 - Purpose

The purpose of this directive is to establish policy and procedure for the provision, use, and maintenance of respiratory protection equipment by employees of the Department in the regular performance of their duties.

## 330.4.2 - Policy

It is the policy of the Department to outline how we identify and evaluate hazards warranting respiratory protection and respiratory equipment needs and how we provide training in the proper use, selection, and care of respiratory equipment. This program complies with 29 CFR 1910.134 and related North Carolina Codes.

## 330.4.3 - Overview of Respiratory Protection Program

- A. The Chief of Police will designate a Respiratory Protection Program Manager (RPPM) who will have the responsibility for coordinating the Respiratory Protection Program and shall review work areas to identify hazards that may warrant the use of respiratory equipment. The purpose of the work area review is to identify the nature of potential hazards, employees that may be exposed, and control measures to protect employees.
- B. As hazards are identified, efforts shall be focused on identifying and developing engineered control measures to reduce exposure so that respiratory equipment will not be necessary. Where this is not possible, and in emergency situations, respiratory equipment may be required.
- C. Equipment selection and purchase shall be conducted by the Department in consultation with the Respiratory Protection Program Manager. Selection is based on the specific nature and magnitude of the hazard.
- D. Employees will be assigned required respiratory equipment by the Respiratory Protection Program Manager or an authorized trainer.
- E. Employees are responsible for the proper care and maintenance of their assigned respiratory protection equipment, to include appropriate storage and inspection of the equipment.

## 330.4.4 - Respiratory Protection Program Coordination [29 CFR 1910.134(d)(1)(iii)]

- A. The Respiratory Protection Program Manager shall coordinate selection, issuance, and tracking of respiratory equipment; he/she shall:
  - 1. Develop respiratory protection guidelines for the Department;
  - 2. Know how to properly select, use, and care for respiratory equipment;

3. Insure that employees know how to properly select, use, and care for respiratory equipment needed for their work;
  4. Procure necessary respiratory equipment;
  5. Coordinate attendance at employee training sessions; and
  6. Maintain files of inspection results, training, fit test results, and other pertinent information.
- B. The Respiratory Protection Program Manager shall coordinate identification and evaluation of respiratory hazards.
1. Currently, the only substances which employees will be knowingly exposed to while wearing a respirator are CS (orthochlorbenzalmalononitrile) and OC (oleoresin capsicum). These substances are commonly used by law enforcement personnel in the performance of their duties.
  2. The need for a Hazard Identification Survey is prompted whenever a new operation will be conducted, the work environment indicates the need for better protection, or concerned employees request it.
  3. The SRT Commander will maintain a list of CS and OC inventory and the applicable Material Safety Data Sheets (MSDS).

**330.4.5 - Respiratory Equipment Selection [29 CFR 1910.134(c)(1)(i); (d)(1)(i); (ii); (iv)]**

- A. Selection of a respirator shall be based on the specific hazard to which an individual is exposed as it is imperative that the proper respiratory equipment be used for the task.
- B. Respiratory protection equipment shall be chosen and assigned for a specific project upon the assurance that:
1. The respirator and cartridge is appropriate for the contaminant, including consideration of the warning properties of the contaminant and eye / skin effects;
  2. The concentration of the contaminant can be safely handled by the respirator (the protection factor of the respirator is greater than the concentration present); and
  3. All the contaminants present are identified so that the proper respirator can be selected.
- C. All respirators and their components must be approved by the National Institute for Occupational Safety and Health (NIOSH).
- D. The Respiratory Protection Program Manager shall select a sufficient number of respirator models and sizes that the respirator is acceptable to, and correctly fits, each employee.

**330.4.6 - Medical Evaluation and Training [29 CFR 1910.134(c)(1)(ii)]; (vi); (vii); (viii)]**

- A. The use of any type of respirator may impose some physiological stress on the user. Consequently, state and federal regulations require that, prior to using a respirator, all potential users are required to enter a medical monitoring program.
1. The medical monitoring program includes a pre-placement exam to establish the employee's baseline health status and to determine whether or not the employee is capable of wearing a respirator. Only those individuals who are medically able to wear respiratory protective equipment will be issued a respirator.

2. Medical tests to be considered by a physician include: pulmonary function tests, chest x-rays and any other tests deemed appropriate by the examining physician. Medical factors to be considered by a physician may include: anemia, asthma, chronic bronchitis, emphysema, epileptic seizures, heart disease, hemophilia, hernia, lack of use of fingers or hands, poor eyesight, poor hearing, and other factors which might inhibit the ability of any employee to wear respiratory equipment.
- B. All employees using respiratory equipment shall successfully complete the training identified in this section.
1. Employee training shall be conducted on an annual basis. This training shall include, but not be limited to, the following:
    - a. Instruction on the proper use of and limitations for the use of the respiratory equipment utilizing the NIOSH employee training program as a guide;
    - b. The actual putting on, wearing, and removal of the respirator and fit testing;
    - c. Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators; and
    - d. Identifying the respiratory hazards to which employees are potentially exposed during routine and emergency situations. This will include, but not be limited to, exposure to CS and OC chemical agents.
  2. All employees shall be trained in cardiopulmonary resuscitation (CPR).

#### **330.4.7 - Fit Testing [29 CFR 1910.134(c)(1)(iii)]**

- A. Quantitative fit testing shall be performed for each employee for each respirator the employee may wear. Prior to the issuance of a respirator, all employees will be provided with instructions for the required medical questionnaire (GPD form 330.4-E) and will be required to complete a respirator medical evaluation (GPD form 330.4-F).
- B. Fit testing shall be performed by the Respiratory Protection Program Manager or an authorized trainer and shall follow OSHA accepted protocols that are found in Appendix A of 29 CFR 1910.134 (*Respiratory Protection*). Testing shall occur before a respirator is assigned and shall be documented on a *Respiratory Protection Program Tracking Form* (GPD form 330.4-A). OSHA mandated fit-testing procedures are outlined in Appendix "A" of this directive.
- C. Employees that wear eyeglasses or contact lenses shall be provided with eyeglass inserts designed to fit within a full face mask when required. The department shall be responsible for providing both respirators and eyeglass inserts. Employees requiring the eyeglass inserts are responsible for obtaining and providing the Department with their eyeglass prescription.
- D. Employees who have facial hair that comes between the sealing surface of the facemask and the face or that interferes with valve function or who have any condition that interferes with the face-to-face mask seal or valve function shall not be permitted to wear a respirator.

#### **330.4.8 – Supervisor Responsibilities [29 CFR 1910.134(d)(1)(iii)]**

- A. It is the responsibility of all supervisors to survey and review all operations to determine if hazardous situations develop which would require the use of respirators. The Respiratory Protection Program Manager shall review evaluations that are made in areas where workers use respirators. Evaluations

will determine if respirators are still needed, if the respirators are adequate, and if greater protection is needed.

- B. Once a potential hazard is recognized, its impact to employees is determined. Engineering and administrative controls will be reviewed as the priority means of exposure reduction.
- C. In any case where the employer cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere to be “Immediately Dangerous to Life or Health” (IDLH).

#### **330.4.9 – Employee Responsibilities [29 CFR 1910.134(c)(1)(v)]**

##### A. General guidelines - employees shall:

1. Know how to properly care for and use respiratory equipment necessary for their work;
2. Inspect and maintain equipment they use;
3. Successfully complete respiratory protection, fit testing, and other required training when necessary; and
4. Inform the Respiratory Protection Program Manager of physical changes potentially influencing the respirator fit.

##### B. Maintenance

1. Employees shall check the fit of their respirator before each use according to the following procedures as set out in Appendix B-1 of 29 CFR 1910.134:
  - a. Negative Pressure Test - The user closes the inlet of the cartridge or filters by covering them with the hands so air is not allowed to pass. The user inhales gently so the face piece collapses slightly, while breath is held for about 10 seconds. If the face piece remains slightly collapsed and no inward leakage is detected, the respirator probably has a good fit. This test should only be used for snug fitting respirators. It also has potential drawbacks such as hand pressure affecting the face piece seal and causing false results.
  - b. Positive Pressure Test - The user closes or covers the exhalation valve and gently exhales into the face piece. The respirator fit is considered acceptable if slight positive pressure can be built up inside the face piece without any evidence of outward leakage on the outside.
2. Cleaning and Disinfection
  - a. Respirators shall be cleaned and disinfected as per OSHA Standard 1910.134 Appendix B-2. Respirators that are assigned to only one officer need to be cleaned only as often as necessary to maintain a sanitary condition.
  - b. Respiratory equipment shall be thoroughly rinsed in clean warm water (120° F maximum) to remove all traces of detergent, cleaner and sanitizer, and disinfectant. Respiratory equipment shall be allowed to air dry on a clean surface or be hung from a horizontal wire.

##### C. Storage

1. When not in use, respiratory equipment shall be sealed in a plastic bag and stored with nothing lying on top of it. Respirators must be completely dry before being stored. The face piece and exhalation valve must be in a non-distorted position.

2. Respirators shall be stored in a location protected against dust, sunlight, extreme heat and cold, excessive moisture, or damaging chemicals.

D. Inspection

1. Users shall inspect their respirators for defects and elasticity before and after each use and during cleaning.
2. Employees will complete an *Air Purifying Respirator Inspection Checklist* (GPD form 330.4-C) and submit it yearly to the Respiratory Protection Program Manager.
3. Supervisors should inspect respirators as part of the monthly vehicle inspection for each of their subordinates.
4. Repair or replacement of component parts will be done by the Respiratory Protection Program Manager, an authorized trainer, or the manufacturer. Substitution of parts from a different brand or type of respirator will invalidate the approval of the respirator and is prohibited.

**330.4.10 - Recordkeeping**

- A. Results of emergency use equipment inspections shall be documented and kept on file by the supervisor conducting the inspection.
- B. Equipment selection decisions shall be documented and maintained by the Respiratory Protection Program Manager.
- C. Fit testing results shall be kept on file for a minimum of thirty (30) years. Originals shall be maintained by the Respiratory Protection Program Manager with a backup stored electronically.
- D. Reports of emergency incidents requiring respiratory equipment shall be prepared by the Respiratory Protection Program Manager and shall document the circumstances leading to the emergency and measures that can be taken to prevent future occurrences.
- E. Reports involving unexpected employee exposures shall be kept on file for a minimum of thirty (30) years. Likewise, any surveillance reports documenting work area air quality or exposures shall be kept on file by the Respiratory Protection Program Manager for a minimum of thirty (30) years.

**330.4.11 - Program Evaluation [29 CFR 1910.134(c)(1)(ix)]**

- A. The respiratory protection program shall be reviewed annually to ensure compliance with federal and state regulations and to ensure that all employees are provided the necessary equipment for respiratory protection.
- B. Corrections, additions, or deletions which will improve the program shall be made. If changes are realized or needed at any other time, they can be adopted then as well as during the review.

**APPENDIX “A” – Fit Test Procedures**

The following procedures have been adapted from 29 CFR 1910.134 Appendix A and shall be used when conducting quantitative fit tests:

- A. Prior to being assigned a gas mask, employees shall be asked to select the best fitting respirator from the sizes available. Once assigned a gas mask, employees will use their assigned gas mask for subsequent fit testing unless physical changes necessitate a new mask.
- B. The selected respirator shall be put on and worn for at least five (5) minutes before the test starts. The respirator straps shall be pulled snug, but not so tight as to create discomfort.
- C. The test conductor shall review the test procedures.
- D. The subject shall perform a positive or negative pressure self-fit test as described and demonstrated by the test conductor. If one of the tests fails, the subject shall check and readjust straps and fitting and redo the test. If either test again fails, a new respirator shall be selected and the test sequence shall be repeated.
- E. The subject shall perform the following exercises for one minute each:
  1. Breathe normally.
  2. Breathe deeply; breaths should be deep and regular.
  3. Turn the head all the way from one side to the other; movement should be complete. Inhale and exhale on each side but do not bump the respirator against the shoulders.
  4. Nod the head up and down. Inhale and exhale when looking toward the ceiling and while looking at the floor, but do not bump the respirator against the chest.
  5. Talk slowly and loudly enough for the test conductor while reciting the following paragraph known as the *Rainbow Passage* (GPD form 330.4-D). Reciting this passage will result in a wide range of facial movements, challenging the face to mask seal:

*"When the sunlight strikes the raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a person looks for something beyond reach, their friends say they are looking for the pot of gold at the end of the rainbow."*
  6. Grimace; the employee shall grimace by smiling or frowning (this exercise is only required for fifteen (15) seconds).
  7. Bending Over; the test subject shall bend at the waist as if he/she were to touch his/her toes, return to a standing position, and repeat. This will be done at a steady pace throughout the exercise.
  8. Breathe normally.
- F. Respirators successfully tested by the protocol may be used in conjunction with an approved filter or canister in contaminant atmospheres up to their rated capacity.
- G. The test shall not be conducted if there is any hair growth between the skin and face piece sealing surface.

- H. If hair growth or apparel interferes with a satisfactory fit, then they should be altered or removed so as to eliminate interference and allow a satisfactory fit.
- I. If a test subject experiences difficulty in breathing during the fit test, the individual shall be referred to a physician trained in respiratory diseases or pulmonary medicine to determine if the test subject can wear a respirator while performing work duties.
- J. Quantitative fit testing should be repeated at least once a year.
- K. In addition, since the sealing of a respirator may be affected, quantitative fit testing shall be performed immediately when the test subject has:
  - 1. Weight change of 20 pounds or more;
  - 2. Significant facial scarring in the area of the face piece seal;
  - 3. Significant dental changes: i.e., multiple extractions without prosthesis, or acquiring dentures;
  - 4. Reconstructive or cosmetic surgery; or
  - 5. Any other condition that may interfere with face piece sealing.
- L. All test results shall be documented on a *Tracking Form for Annual Fit Testing* (GPD form 330.4-B) and a summary shall be maintained by the Respiratory Protection Program Manager for a period of three (3) years. The summary shall include:
  - 1. Name of the test subject;
  - 2. Date of testing;
  - 3. Name of the test conductor; and
  - 4. Respirators selected (indicate manufacturer, model, and size).